

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16539

Exam Date: 8/19/2015

1. Current Owner: BRADLEY D HAGADONE
2731 W HORNED OWL RD
COEUR D ALENE ID 83815
(208)667-3431

And/Or

DBH PROPERTIES LLLP
PO BOX 6200
COEUR D ALENE ID 83816

2. Accompanied by: Travis Curtis

Phone No: 208-659-3192

Relationship to Permit Holder: Head Grounds Keeper

3. SOURCE

COEUR D ALENE LAKE

TRIBUTARY

SPOKANE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-9048
2. Other water rights with the same point of diversion: 95-9048, 95-16536

C. DIVERSION AND DELIVERY SYSTEM1. LOCATION OF POINT(S) OF DIVERSION:

COEUR D ALENE LAKE SW1/4SE1/4 Sec. 22, Twp 50N, Rge 04W, B.M. KOOTENAI County

COEUR D ALENE LAKE SW1/4SE1/4 Sec. 22, Twp 50N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS and maps. POD location at 47° 39.620, 116° 48.910

2.

PLACE OF USE:

IRRIGATION FROM STORAGE

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N 04W 22											1.7	.4					2.1

Total Acres: 2.1

PLACE OF USE: DIVERSION TO STORAGE

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals

PLACE OF USE: IRRIGATION STORAGE

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
50N 04W 22												X					

Method of Determination: GPS and maps.

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.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
		7.5			
		7.5			

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method: UNABLE TO PERFORM FLOW MEASUREMENT. TRAVIS CURTIS SAID PUMPS WERE 7.5 HP AND IDWR ASSUMED PSI WAS AT 40. THEORETICAL PUMPING EQUATION ESTIMATES

- FOR DIVERSION TO STORAGE

$$(7.5 \text{ HP})(8.8)(0.8) / 320 + (40 \times 2.3087) = 0.13 \text{ CFS} \times \text{BY 2 FOR BOTH PUMPS} = 0.26 \text{ CFS}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: SEE ATTACHED POND ANALYSIS SHEET

G. NARRATIVE/REMARKS/COMMENTS

FIELD EXAM SHOWED APPLICANT HAD 2 POINTS OF DIVERSION TO DIVERT WATER FROM THE LAKE TO POND. WATER COULD NOT BE DIVERTED FROM LAKE FOR DIRECT IRRIGATION. IRRIGATION COMPONENT WILL BE REMOVED FROM LICENSE. APPLICANT HAD APPLIED FOR 2.1 ACRES OF IRRIGATION. APPLICANT WAS COVERED WITH ENOUGH ACRES OF IRRIGATION IN THE SESW, BUT LICENSE WILL BE GIVEN FOR THOSE ACRES, 0.7, WITH AN OVERLAP WITH WATER RIGHT 95-9048. THERE WAS AN ADDITIONAL 1.7 ACRES OF IRRIGATION OCCURRING IN THE SWSW THAT WAS NOT COVERED UNDER RIGHT 95-9048. OVERLAPPING CONDITION WILL COVER ALL IRRIGATION AND STORAGE OCCURRING. APPLICANT ADDED AN ADDITIONAL POD FROM ORIGINAL RIGHT AND WAS MAIN REASON FOR APPLICATION.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION FROM STORAGE	03/15 to 11/15		6.30 AF
DIVERSION TO STORAGE	03/15 to 11/15	0.260 CFS	
IRRIGATION STORAGE	03/15 to 11/15		8.00 AF
<u>Totals:</u>		0.260 CFS	8.00 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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name Adam Fendrick Date 2-22-2016

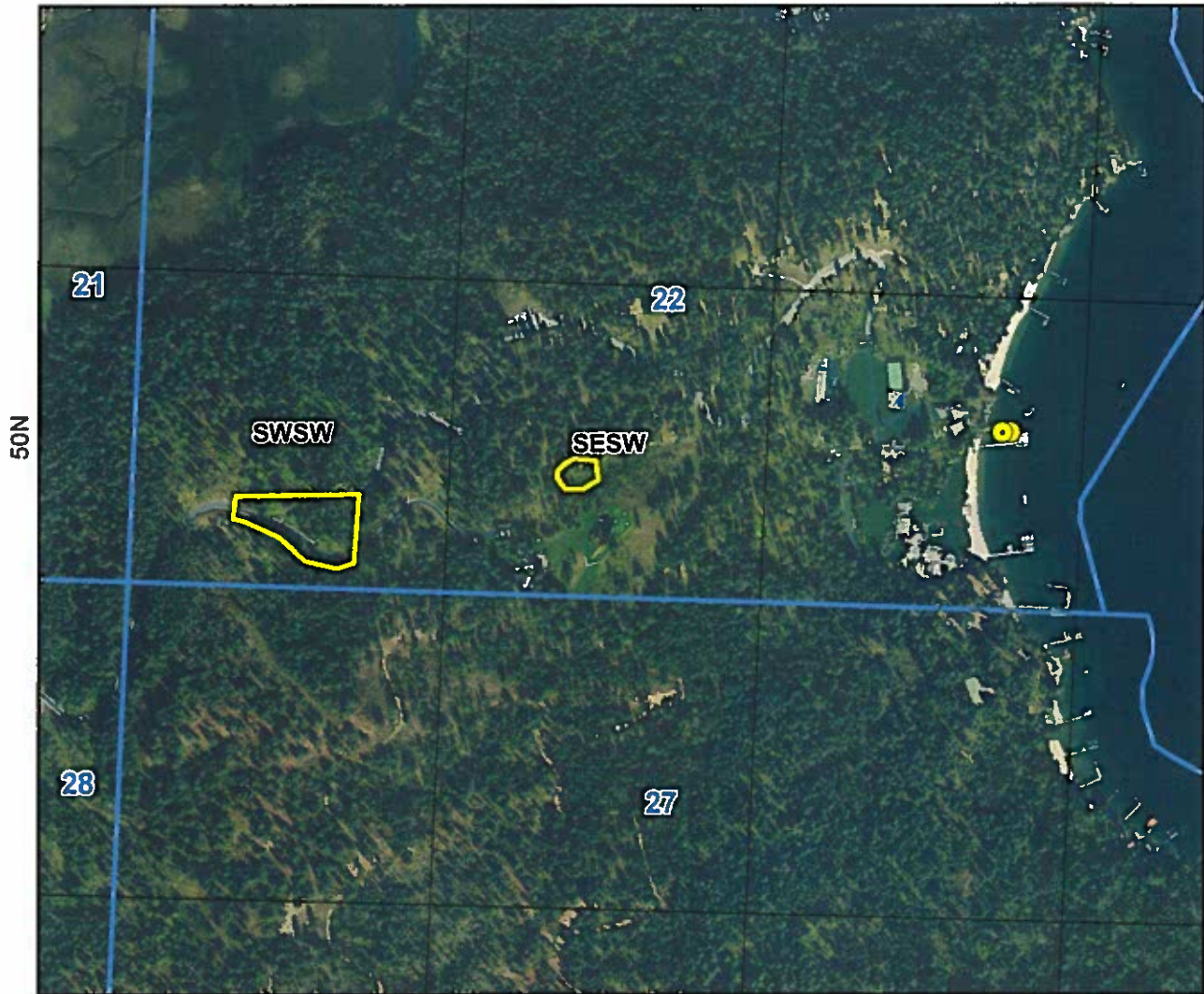
Reviewer Beith E. Frankham Date 2-25-2016

State of Idaho
Department of Water Resources
Water Right License

95-16539

Irrigation

04W



0 0.075 0.15 0.3 Miles

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



State of Idaho
Department of Water Resources
Water Right License
95-16539
Irrigation Storage



0 0.05 0.1 0.2 Miles

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



**WATER RIGHT 95-16539
POND ANALYSIS SHEET**

POND SIZE: 0.13 AC X 10 FEET DEEP = 1.3 AF

EVAPORATION: 353 GPD X 365 DAYS / 325,850 GAL/AF = 0.4 AF

SEEPAGE: NO SEEPAGE, LINED

IRRIGATION: 2.1 ACRES X 3.0 AF = 6.3 AF

0.26 CFS DIVERSION TO STORAGE

8.0 AF IRRIGATION STORAGE

A) POND SIZE 1.3 AF

B) EVAPORATION 0.4 AF

C) SEEPAGE 0.0 AF

D) IRRIGATION 6.3 AF

TOTAL 8.0 AF

6.3 AF IRRIGATION FROM STORAGE

THEORETICAL PUMPING EQUATION FOR WATER RIGHT 95-16539

APPLICANT HAS TWO 7.5 HP PUMPS

PUMP EQUATIONS WATER RIGHT No. 95-16539						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	$\frac{HP \cdot 8.8 \cdot \text{Eff}}{H}$	7.5	412.51 7	0.8	320	40
Q = 0.128 cfs 57.5 gpm						

PUMPING EQUATION FOR DIVERSION TO STORAGE. PUMPING LIFT IS BASED UPON THE DISTANCE FROM THE LAKE TO THE ELEVATION OF THE POND. ASSUMED SYSTEM RUNS AT 40 PSI. THIS FOR ONE PUMP SO APPLICANT HAS CAPABILITY TO PUMP 115 GPM OR 0.26 CFS.



POD's



95-16539



Irrigation SWSU

Pond



08/19/2015



08/19/2015

Irrigation in SESU



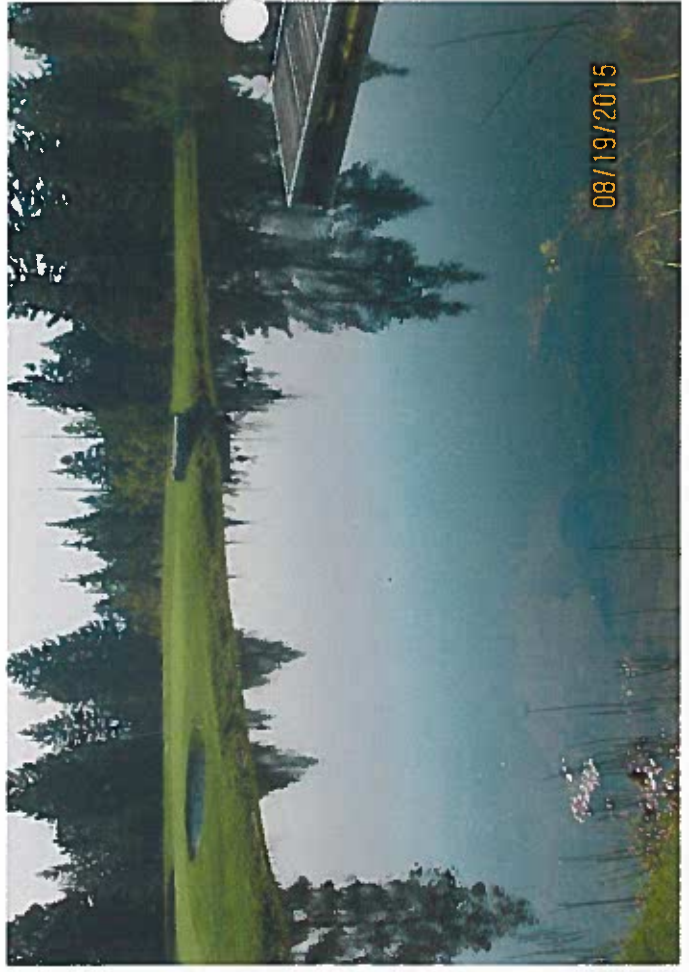
08/19/2015



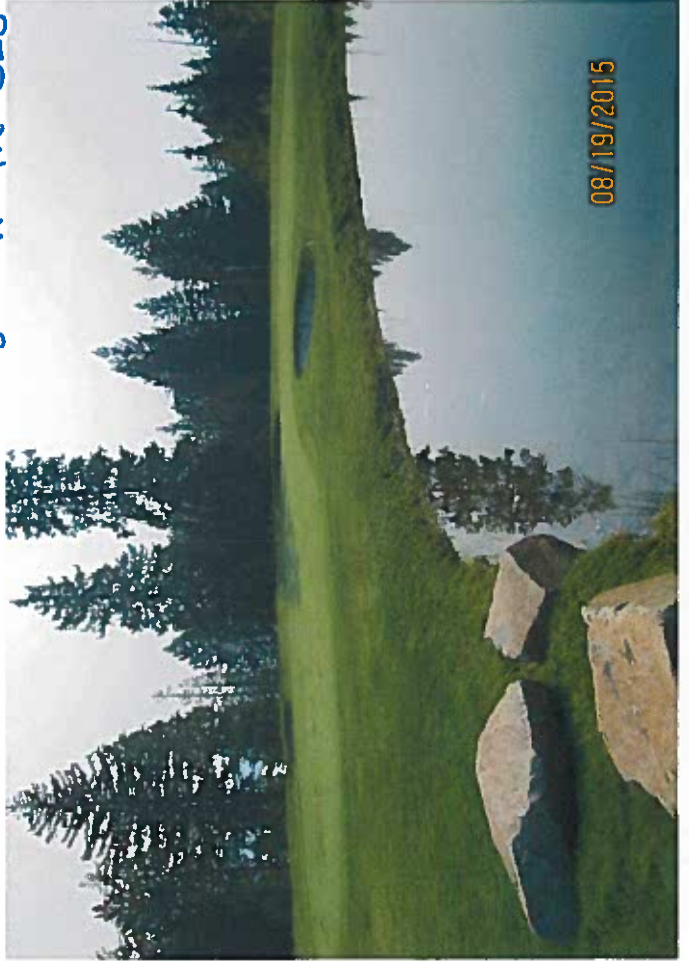
08/19/2015

95-11.539

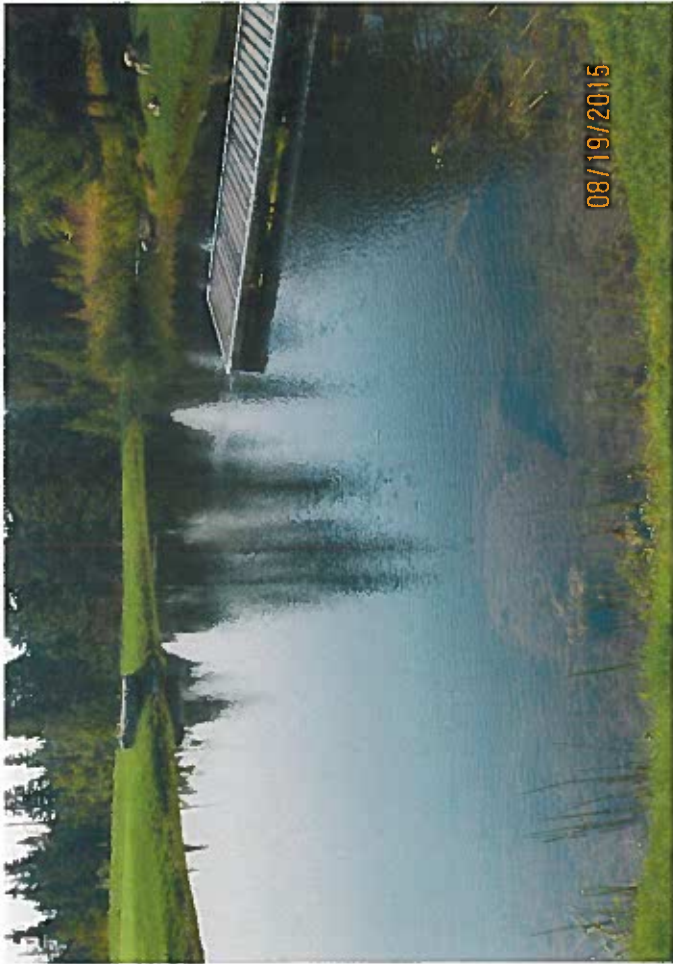
Irrigation in SUSW



Irrigation in SESU



95-16539



95-16539

Pond and irrigation in SESU

