

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9483
Exam Date: 07/25/2018

1. Current Owner:
MOUNTAIN TOP HOME OWNERS ASSN INC 2760 W EVERWELL BAY LN COEUR D ALENE ID 83814
2. Accompanied by: Roy Newton
Phone No: 509-998-7138
Address: Same as above
Relationship to permit Holder: Manager of Assn

3. **SOURCE:**
COEUR D ALENE LAKE

Tributary
SPOKANE RIVER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

2. Other water rights with the same point-of-diversion: Yes

Water Right No.	Source	Purpose of Use	Basis
95-14195	Coeur d' Alene Lake	Domestic and Irrigation	License, Recommendation
95-15953	Coeur d' Alene Lake	Domestic and Irrigation	License, Recommendation

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

COEUR D ALENE LAKE SW¼ SW¼, Sec. 1, Twp 49N, Rge 04W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -116° 48.334, 47° 36.844

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	
49N	04W	1												X L7					

Method of Determination: Google Earth and Arcmap

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
		5 HP			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: N/A

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method: Unable to perform flow measurement so a theoretical pumping equation was used to estimate the flow from the lake to a storage tank. Theoretical pumping equation estimated the flow at 28.0 gpm or 0.06 cfs.

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 4 homes = 4 homes X 0.6 AF = 2.4 AF

G. NARRATIVE/REMARKS/COMMENTS

Field exam with applicant's owner, Roy Newton, showed a pump diverting water from Coeur d' Alene Lake. The pump was a 5hp from an unknown company because the well tag showed a Franklin pump though a previous exam said it was a Grundfos. The entire pipeline was buried so I was unable to perform any type of flow measurement. A theoretical pumping equation was used to estimate the flow rate to a storage tank up the hill 415 feet which was equal to 28.0 gpm or 0.06 cfs. A theoretical equation was used because a home on the system had just burnt down and there was very limited use from the tank. A previous exam of the same system (95-9057) came up with the same diversion rate as the theoretical equation but was done by measuring the time it took to fill the storage tank.

This system already had an existing water right (95-9057) and subsequent adjudication recommendations (95-14195 & 95-15953 due to ownership split). The system is a little confusing with multiple homes using water with two different pipelines and storage tanks. Part way up the hill the line splits and diverts water to 95-14195 with a 3,000 gallon storage tank near the split. The rest of line continues up the hill to another 3,000 gallon tank which uses are covered under 95-15953. The current permit is also for uses off of that tank near uses covered under 95-15953. Mr. Newton, has many LLCs and 95-15953 is also an LLC in which he manages in addition to this one. The system diversion rate is based upon the lift from the pump to the highest storage tank which feeds the uses of this right.

This right was permitted for domestic for 7 homes and the irrigation of 1.8 acres. At time of exam there were stub-ins for 4 lots with no irrigation occurring. Because the applicant stubbed in the lots we will give credit for domestic use. Because there was no irrigation occurring and the permit had an irrigation component, no irrigation can be given or covered under component of domestic use. The license will be issued for domestic use for 4 homes with no irrigation with an annual volume of 2.4 acre-feet.

Conditions 26A, 132, and R66 were removed at time of licensing. Conditions X04, F06, and X35 were added to the license. X04 was added to license to replace condition 132 in describing the number of homes on the system. Condition F06 was added to describe the multiple rights being diverted through the same POD. Condition X35 was added to limit the diversion rate of the system to 0.06 cfs and the annual volume between 95-9483, 95-14195, & 95-15953 to 11.1 acre-feet. There is no overlap concern for the place of use and the common diversion point has been addressed by conditioning.

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	0.06 CFS	2.4 AF

Totals: 0.06 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

Adam Frederick - Water Resource Agent, Senior

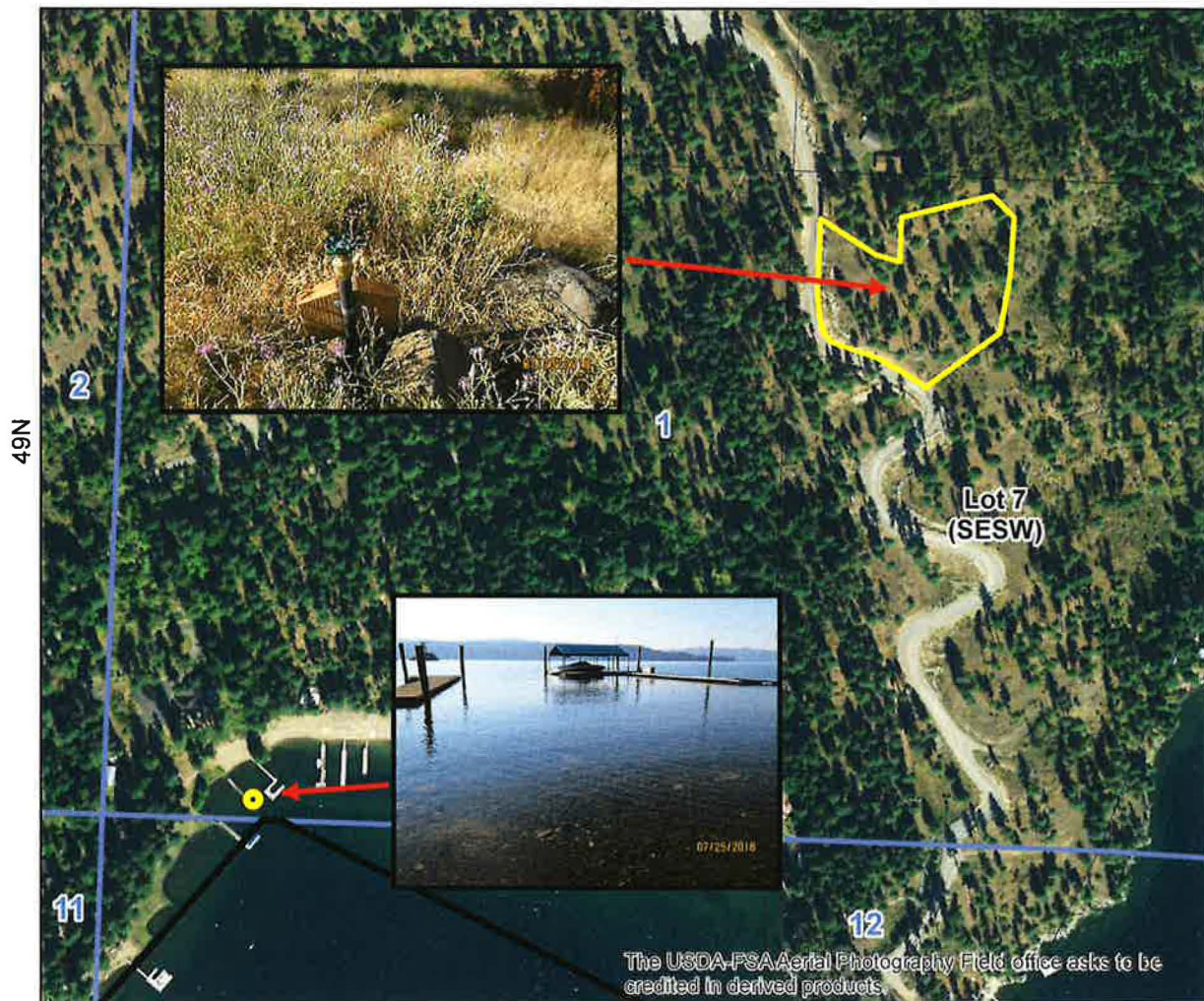
Field Examiner's Name Adam Frederick Date 9/27/2019

Reviewer Douglas Jones P.E. Date 10/2/19

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-9483

DOMESTIC

04W



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

0 0.045 0.09 0.18 Miles



System Diagram

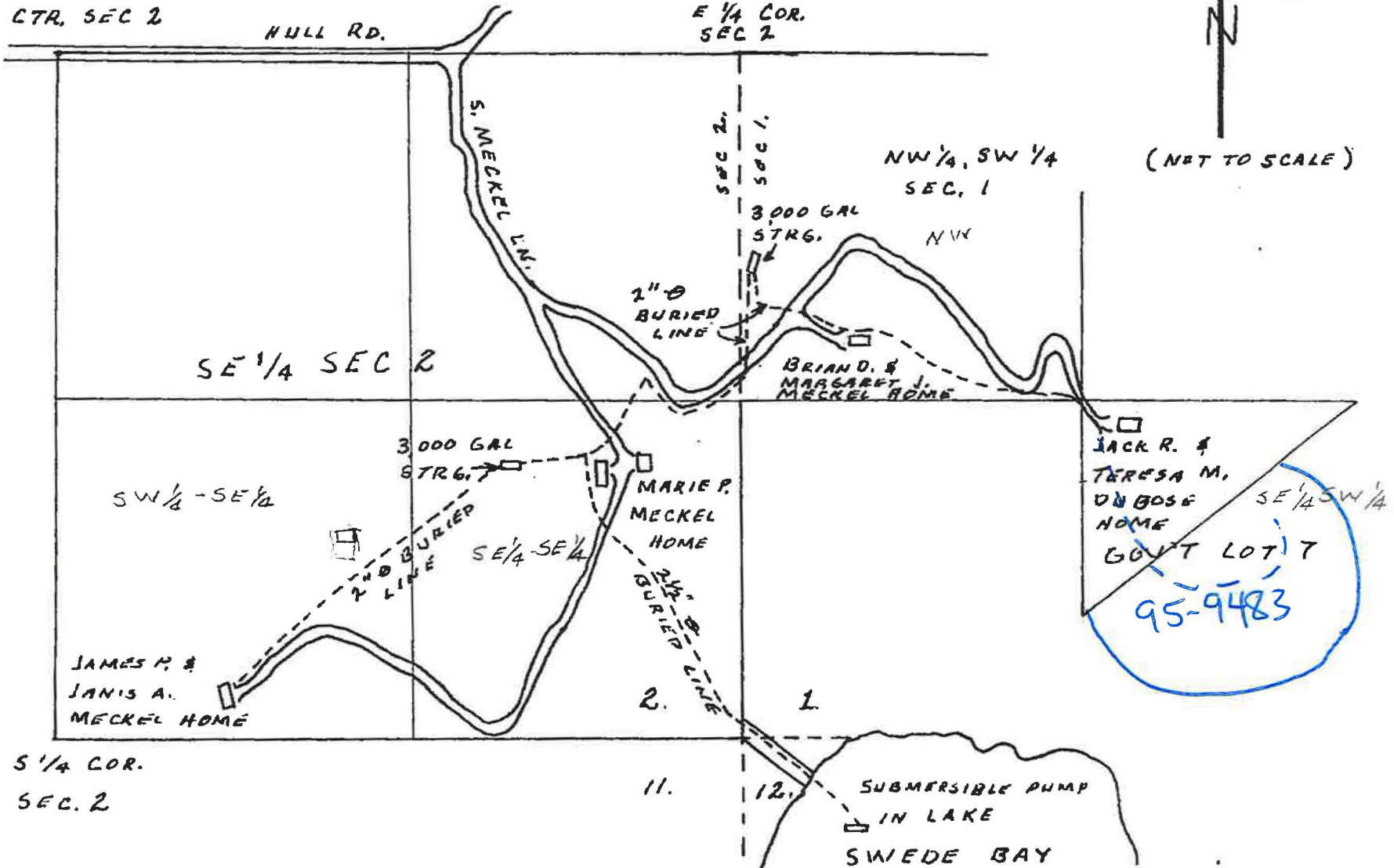
WATER SYSTEM FOR MECKEL FARM

THE SE $\frac{1}{4}$ SEC 2, & A PART OF THE NW $\frac{1}{4}$ SW $\frac{1}{4}$
SEC. 1, & A PART OF GOV'T 7, SEC. 1 ALL IN
T. 49 N., R. 4 W., B.M. KOOTENAI CO., IDAHO

SCANNED
MAY 20 2010



(NOT TO SCALE)



THEORETICAL PUMPING EQUATION FOR WATER RIGHT 95-9483

At time of exam I was unable to perform any measurement because system was all buried and water tank was full and sealed. The elevation change from pump to storage tank is equal to 415 feet with an estimated system psi of 65 (estimate based upon pump installer working with applicant).

PUMP EQUATIONS WATER RIGHT No. 95-9483						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	5	565.3401	0.8	415	65
Q =		0.062 cfs	28.0 gpm			



General location of water intake to lake.



5hp pump from lake to storage tank 415 feet up hillside.



3,000 gallon storage tank with gravity fed system to homes.



Stub in 1.



Stub in 2.



Stub in 3.



Stub in 4.