

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 95-11377Exam Date: 3/19/2015

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y N
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Thomas and Lisa Cunningham
Owner of Record Correct? X Y N
Address of Record Correct? Y N
If No: Address

3. Beneficial Use Fees have been paid: X Y N Receipt No: C0

4. SOURCE TRIBUTARY
Couer D Alene Lake Spokane River

Method of Determination: GIS and Taxlot DataChange in Source: Y X N**B. OVERLAP REVIEW**

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: There are several water rights that are in the same 40 acre tract as this permit. Water rights 95-15570, 95-35, 95-267, 95-295, 95-464, 95-7347, 95-82, and 95-15355 are for lots west of the place of use described in this permit. Water right 95-187 is an older irrigation right, that I cannot determine the place of use or point of diversion, but it is not significant, since this permit is a domestic use.

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

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: The water rights mentioned above all have points of diversion in this same 40 acre tract, but are all at different locations.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Lake Pump	2		SW	NW	16	51N	3W	B.M.	Kootenai
								B.M.	
								B.M.	

Method of Determination: GIS and Taxlot data.

Change in POD? X N Amendment Required? X N2. **PLACE OF USE:** Use: Irrigation

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	3W	16			D														
		Lot #			2														
Total Acres =																			

Method of Determination: GISChange in POU? X N Amendment Required? X N

 Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

 X Aerial Photo Attached (required for irrigation of 10+ acres).

 Photo of Diversion and System Attached

4. Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Lake Pump	Unknown				

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

D. FLOW MEASUREMENTS

1.Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: No measurement is required for an in-house exam, but a theoretical calculation was used to determine if the diversion rate is reasonable.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

A theoretical analysis shows that a diversion rate of 0.04 cfs is possible with a 1 Hp pump.

Estimate = 0.04 cfs

Permit allowed = 0.04 cfs

I recommend that this permit be licensed for 0.04 cfs as permitted. This seems to be a reasonable diversion rate for this type of system.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\quad X 3.5 \quad} = \underline{\quad}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \underline{\quad X 214 \quad X 1.9835 \quad} = \underline{\quad}$$

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

2. Volume Calculations for Other Uses:

This is a domestic use. According to processing memo #22, and Domestic use for in-house and yard irrigation can have up to 1.2 acre feet of annual water use. I am recommending 1.2 af for this permit.

G. PURPOSE OF USE

Irrigation ☒ X ☐ Y ☐ N # Stock _____ Domestic # of Homes 1

Other: < >

Change in Purpose of Use? ☐ Y ☐ N

Method of Determination: Taxlot data and conversations with owner.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

This permit is qualifies for an in-house exam. Late proof was filed on this permit, but the permit stated that the pump was installed and the home built before the permit was filed. This is a standard domestic use, and it is clear that the home was built between 2006 and 2009 from the aerial photos. With the aerial photography and the owner's statement on the permit saying the system was already in place, there should be no question, that this system is in place and the water right license should be issued.

I am going to leave the conditions 004, X01, and X15 on the license, but I am going to remove conditions 26A and R05. R05 is for a water district, but this district is inactive. I couldn't tell from the license if the yard irrigation was included or not, so I added condition 187.

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

I. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Domestic	04/01 to 10/31	0.04 CFS	1.2 AF
<u>Totals:</u>		0.04 CFS	1.2 AF

2. Recommended Amendments

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

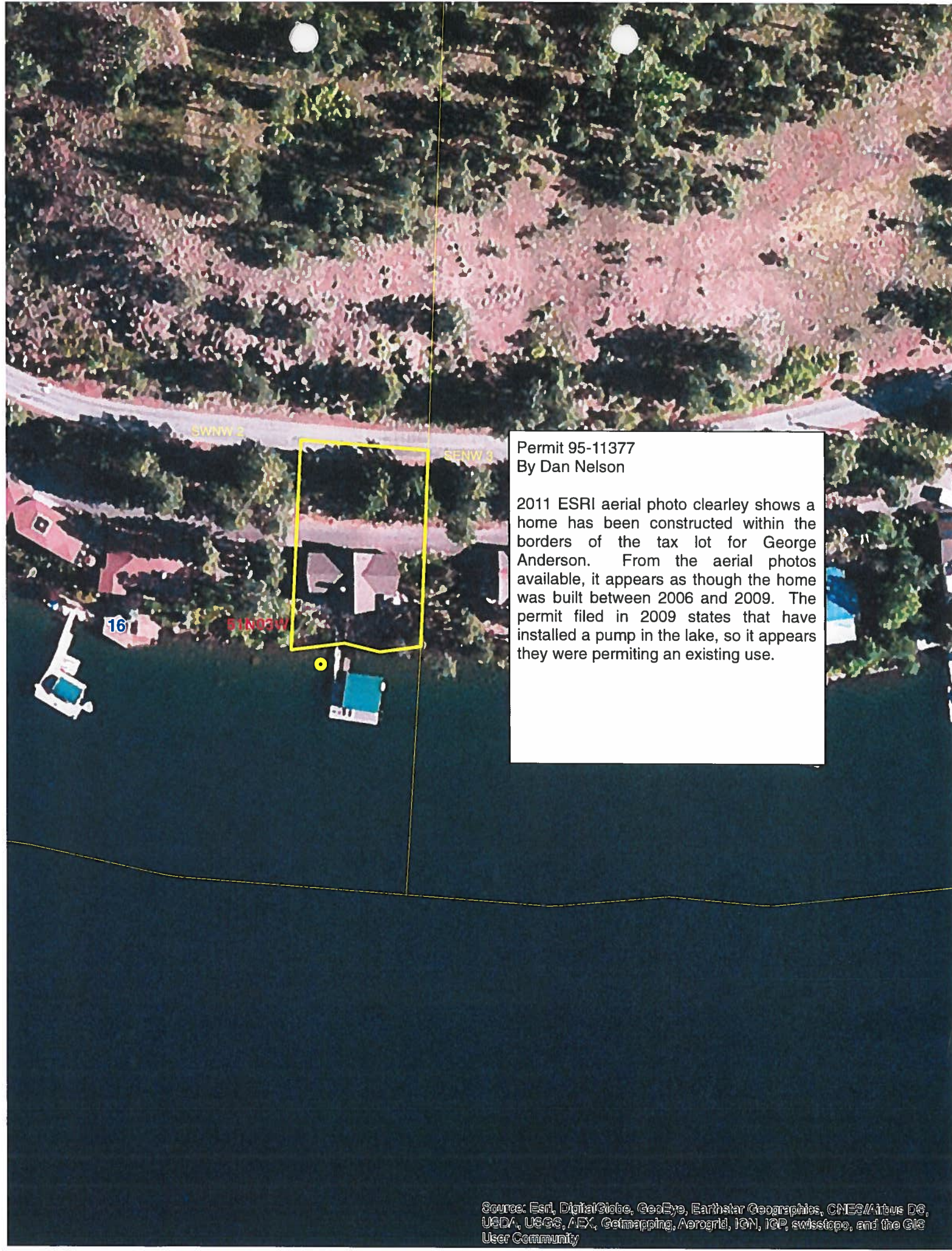
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ None

Other: < >

J. AUTHENTICATION Daniel A. Nelson

Field Examiner's Name Daniel A. Nelson Date 3-19-15

Reviewer _____ Date _____



Permit 95-11377
By Dan Nelson

2011 ESRI aerial photo clearly shows a home has been constructed within the borders of the tax lot for George Anderson. From the aerial photos available, it appears as though the home was built between 2006 and 2009. The permit filed in 2009 states that have installed a pump in the lake, so it appears they were permitting an existing use.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95
 Reviewer: Dan Nelson
 Date of Review: 3/19/2015

F/D No.:	1st Pump Estimation	2nd Pump Estimation	3rd Pump Estimation	
PUMP HORSEPOWER	0.5	1	1.5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	20	92	92	
DISCHARGE PRESSURE	50	20	20	
RATE OF FLOW (cfs)	0.02	0.04	0.07	0.04
	10	20	30	20.07

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

This is an in-house exam and no information on the pumping system. A standard home uses an average of 40 psi and the topo maps showed an approximate lift of 20 feet. Using this information, I inserted a couple of different size pumps to see if the diversion rate was reasonable for this particular lake. It appears as though a 1 Hp could supply the 0.04 cfs, so it is save to say that they have a pumping system that could actually divert the permitted amount.

[illegible]

MEMORANDUM

TO: File 95-11377

FROM: Daniel Nelson – Staff Hydrologist

DATE: March 19, 2015

SUBJECT: Review of late Proof of Beneficial Use submittal.

Late proof of beneficial use was filed on this permit, and I have been asked to review the beneficial use and make a recommendation on whether to reinstate the permit or void it for no development.

The application for permit makes states that the lake pump and home were already in place. It appears as though they were trying to catch the water right up with what had already been accomplished. Aerial photos show that home was constructed sometime between the 2006 NAIP photo and the 2009 NAIP photo.

The work had been done on this permit before the permit was filed on, so the permit was developed before proof of beneficial use was due. The priority date should be advanced to 10/24/2009 (see attached analysis sheet).