

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-16060
Exam Date: 06/12/2024

1. Current Owner:
VICTORIA MELTON 10 BANTA DR SALMON ID 83467-4011

2. Accompanied by: Victoria Melton
Phone No: (208) 881-3247
Address: 10 Banta Dr, Salmon, ID 83467
Relationship to permit Holder: Permit Holder

3. **SOURCE:**
UNNAMED STREAM

Tributary
LEMHI RIVER

Method of Determination: GARMIN TREX20 GPS and GIS.

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
74-490	GROUNDWATER	DOMESTIC	DECREED 2002
74-14977	GROUNDWATER	DOMESTIC	DECREED 2000
74-14978	GROUNDWATER	DOMESTIC	DECREED 2000

Comments: Three domestic water rights overlap the permitted place of use (POU). However, they use has a groundwater source, none are held by the permit holder, and all overlap other parcels with structures more likely to be appurtenant to the rights.

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

Water Right No.	Source	Purpose of Use	Basis
NONE	NA	NA	NA

Comments: No other rights share the permitted point of diversion (POD).

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

UNNAMED STREAM L4 (NW¼ NW¼), Sec. 5, Twp 21N, Rge 22E, B.M. LEMHI County

STREAM DIVERSION GPS COORDINATES: N45° 11.005' W113° 53.333'

UNNAMED STREAM L4 (NW¼ NW¼), Sec. 5, Twp 21N, Rge 22E, B.M. LEMHI County

HEADGATE/WEIR RETURN TO STREAMFLOW GPS COORDINATES: N45° 11.026' W113° 53.345'

Method of Determination: GARMIN TREX20 GPS and GIS.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N	22E	5					0.2 L3	2.0 L4											2.2

Total Acres: 2.2

PLACE OF USE: AESTHETIC STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N	22E	5						X L4											

Method of Determination: Lemhi County tax parcel information, GIS, and Google Earth PRO.

3.

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

X 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
X 1:24,000 or greater.

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

X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make/ Model	Pump Serial No. or Discharge Size
Screened Intake at Stream	Century	1 ½	C48L2EC11C3	ACE / ESP150A	>0.06cfs @ 10ft lift

D. FLOW MEASUREMENTS

1.

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

2. Measurements: IDAPA Beneficial Use Examination Rules 37.03.02.35.01.r.i.states that a direct measurement of the diversion rate is not required for up to five acres of irrigation. There is no permitted rate associated with the storage use.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: A theoretical calculation, the manufacturer pump specifications, and Administrative Memo #17 were used to determine a reasonable rate of diversion. The total lift was determined by combining the lift from the bottom of the stream to the pump riser (approx. 2 ft) and negligible elevation change within the POU indicated by DRG topo map. The pressure is the maximum operating pressure listed on the manufacturer specification sheet (Figure 1) for the pump used in the system. The values used seem conservative for an open discharge system.

$$Q = (1 \frac{1}{2} \text{ Hp})(8.8)(0.70 \text{ efficiency})/(10 \text{ ft lift}) + (2.31)*(35 \text{ psi}) = 0.10\text{cfs}$$

Theoretical Calculation= 0.10cfs

Pump Specifications = 0.06cfs (minimum)

Permit allowed = 0.06cfs

Recommendation= 0.06cfs

Comments:

Approximately 2.2 acres of irrigation were measured via GIS aerial imagery. During the field examination areas of high ground water and some subirrigation seemed probable in at the east end of the property. The POD is a screened intake in the stream south (upstream) of the pond with the pump Creekside on a pallet. The permit holder stated that they do not actively irrigate the areas nearest the roadway to the east. The manufacturer specification sheet for the pump installed indicates that it is capable of delivering the full permitted rate. Administrative Memo allows up to 0.03cfs per acre for the irrigation of up to 5 acres. I recommend the license is issued for the full permitted rate of 0.06cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.2 \text{ acres} \times 3.5 \text{ AFA} = 7.7 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06\text{cfs} \times 246 \text{ days} \times 1.9835 = 29.3 \text{ AF}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 7.7 \text{ AF}$$

2. Volume Calculations for Other Uses:

Aesthetic Storage

Average Depth = 3 ft

Capacity = 0.23 AF, Lined Pond

$$0.0 \text{ AF (seepage loss)} + 0.2 \text{ AF (evaporative loss)} + 0.23 \text{ AF (capacity)} = 0.5 \text{ AF annually}$$

G. NARRATIVE/REMARKS/COMMENTS

Proof of Beneficial Use for permit 74-16060 was received by the Department on March 23, 2022. On section #3 the permit holder stated that the use was developed for a maximum rate of 0.06cfs for irrigation and the "aesthetic storage of 2 acres." The permit was issued for irrigation of 2.2 acres. At the time of the field examination the permit holder identified areas east of the driveway which benefit from subirrigation and do not get watered. The areas being irrigated were identified and the GIS measurement of those areas is approximately 2.2 acres.

The point of diversion is an unnamed stream tributary to the Lemhi River about 30ft upstream of the onstream pond just south of the Lemhi River confluence with the Salmon River. The unnamed stream source intermittently flows through the pond along a small ditch running to the northwest emptying into the Lemhi River. There are no other points of diversion downstream of the pond, or on the reach between the discharge from the pond and the Lemhi River confluence with the Salmon River. The permit holder stated during the field examination that the lined pond has an average depth of about 3ft. The GIS measured surface area of the pond is approximately 0.08-acre, and the pond total annual volume calculated with the Pond Calculation Spreadsheet is 0.5 AF. I recommend an annual volume of 0.5 AF for aesthetic storage use, per the Pond Calculation Spreadsheet in section F.2 of this report.

A 1 ½ Hp pump is used to divert water from the pond via a screened intake and is distributed for irrigation using a 1 ½" PVC pipe manifold with 4 hose bibs (photos 1, 3 & 4) for irrigation using 5/8" garden hose to a variety of sprinkler types. The permit holder stated that she runs 3 sprinklers at a time for irrigation.

A theoretical calculation and the pump spec sheet (attached) indicate that the system is capable of the full permitted rate of 0.06cfs. The irrigation of 2.2 acres at 0.03cfs/acre (Administrative Memo #17) is a maximum rate of 0.07cfs. I recommend the license is issued with a maximum rate of 0.06cfs, per the limitations of the permit.

I recommend that the license is issued with conditions R05, R02, 196, 197, 198, 220, and R67. Condition 26A should be removed and condition 01H should be replaced with R02, per current guidance. The waiver request to remove the requirement for an upstream measuring device as described in condition 18C was submitted by the permit holder was approved by the Water District 74 Watermaster. A concrete weir and headgate are installed downstream of the pond and the Watermaster stated that they have no need for a measuring device upstream of the pond to properly administer the right. The only other examples of 18C within the basin were decreed, added to resolve a protest, or for a larger volume with rights diverting water downstream of the pond. I recommend that condition 18C should be replaced with a text condition allowing for the installation of a measuring device at the request of the department if it is deemed necessary at some time in the future. Condition 029 should be removed for the license, as a fish screen was observed installed on the irrigation intake, per IDFG specifications.

Have conditions of permit approval been met? X 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>
IRRIGATION	03/15 to 11/15	0.06 CFS	
AESTHETIC STORAGE	01/01 to 12/31		0.5 AF

Totals: 0.06 CFS

2. Recommended Amendments

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

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

I. AUTHENTICATION

Bob Howe - Water Resource Agent, Sr.

Field Examiner's Name Bob Howe Date 2/13/2025

Reviewer [Signature] Date 03/03/2025

PUMP CAPACITIES									
Pump Model	HP	Discharge Pressure PSI	Capacity in GPM for Discharge Pressure and Total Suction Lift Indicated				Maximum Total Shut Off Hd.		Approx. Wt. Lbs.
			10 Ft.	15 Ft.	20 Ft.	25 Ft.	Feet	PSI	
ESP-75A	.75	15	42	38	36	26	103	45	49
		20	37	34	32	25			
		25	32	29	27	24			
		30	27	23	20	12			
		35	18	10	—	—			
ESP-100A	1.0	15	48	45	37	27	106	46	49
		20	45	42	36	26			
		25	40	37	34	25			
		30	33	30	26	20			
		35	25	20	—	—			
ESP-150A	1.5	15	51	48	41	29	106	46	52
		20	48	45	40	28			
		25	43	42	37	27			
		30	37	35	31	26			
		35	26	22	—	—			
ESP-200A	2.0	15	62	53	44	33	107	46	63
		20	61	52	43	32			
		25	60	51	41	31			
		30	52	48	39	30			
		35	43	36	27	—			

NOTE: Performance will be reduced slightly by the foot valve; but the use of a foot valve is recommended.

Figure 1- Ace Hardware pump specifications (source-manufacturer online pump manual). The maximum lift from the stream throughout the property is about 10 ft. The pump is capable of 26 to 51 GPM (0.06 to 0.11cfs).

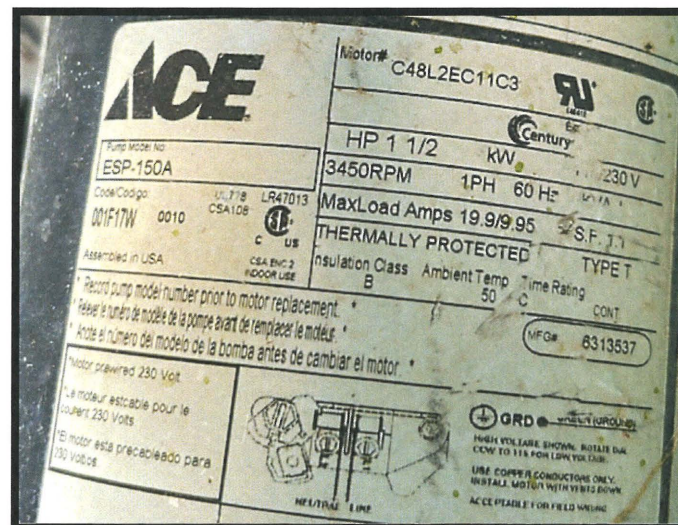


Photo 1- Pump specifications tag.



Photo 2- Pump with 1 1/2" PVC manifold distributing to 4 hose bibs.



Photo 3- 1/4" Fish screen on poly intake line.



Photo 5- At the SW corner of the parcel facing north.



Photo 6- South end of parcel facing north. Domestic well head circled in blue on the right behind the home.



Photo 7- South of the pond facing north.



Photo 8-North of the pond facing south.



Photo 9- NE corner of property facing south. Tripod sprinkler running in the left of image.



Photo 10- NE corner of parcel near the road facing south.



IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

May 2, 2024

VICTORIA MELTON
10 BANTA DR
SALMON, ID 83467-4011

RE: Scheduling Field Exam for Water Right Permit No. 74-16060

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **on the week of June 10 to June 14, 2024**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **0.06 CFS from an Unnamed Stream, tributary to the Lemhi River for Irrigation and Aesthetic Storage use**. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination. Please note that all conditions of the permit must be met before licensing can occur (see attached Permit Proof Report).**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Ownership Change form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 287-4847 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,

Bob Howe



IDAHO DEPARTMENT OF
WATER RESOURCES

Bob Howe | Water Resource Agent
322 E Front St, PO Box 83720, Boise, ID 83720
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Enclosures: Relinquishment of Permit form
Change of Ownership form
Water Permit Report and Map