

MEMORANDUM

Date: March 14, 2024
To: Water Right 73-12269 file
From: Corey Skinner
Re: Licensing of permit 73-12269, Idaho Power Co. – Review of Certified Water Right Examiner Beneficial Use Report

In the review of the Beneficial Use Report for permit 73-12269, submitted by Certified Water Right Examiner Kevin Boggs, the Place of Use chart and narrative both stated that a total of 2.5 acres had been irrigated under the permit. The 'Irrigated Acreage at the lower hatchery facility' map accompanying the report showed only 2.0 acres of irrigation. Using 2023 aerial imagery (proof was submitted in November of 2023) it was determined that the 2.5 permitted acres had been irrigated.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

NOV 09 2023

DEPARTMENT OF
WATER RESOURCES

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 73-122691. Owner Idaho PowerPhone No. (208) 388-2602Current address C/O Kresta Davis-Butts, P.O. Box 70, Boise, ID 837022. Examiner's name Kevin BoggsEXAM DATE 9/28/20233. Accompanied by Noah Stewart-MaddoxEmail NStewart-Maddox@Idahopower.comAddress 1221 W Idaho Street, Boise, ID 83702Relationship to permit holder Idaho Power EmployeePhone No. (208) 388-58124. Source Pahsimeroi rivertributary to N/A**B. OVERLAP REVIEW**

1. Other water rights with the same place of use _____

2. Other water rights with the same source and point of diversion _____

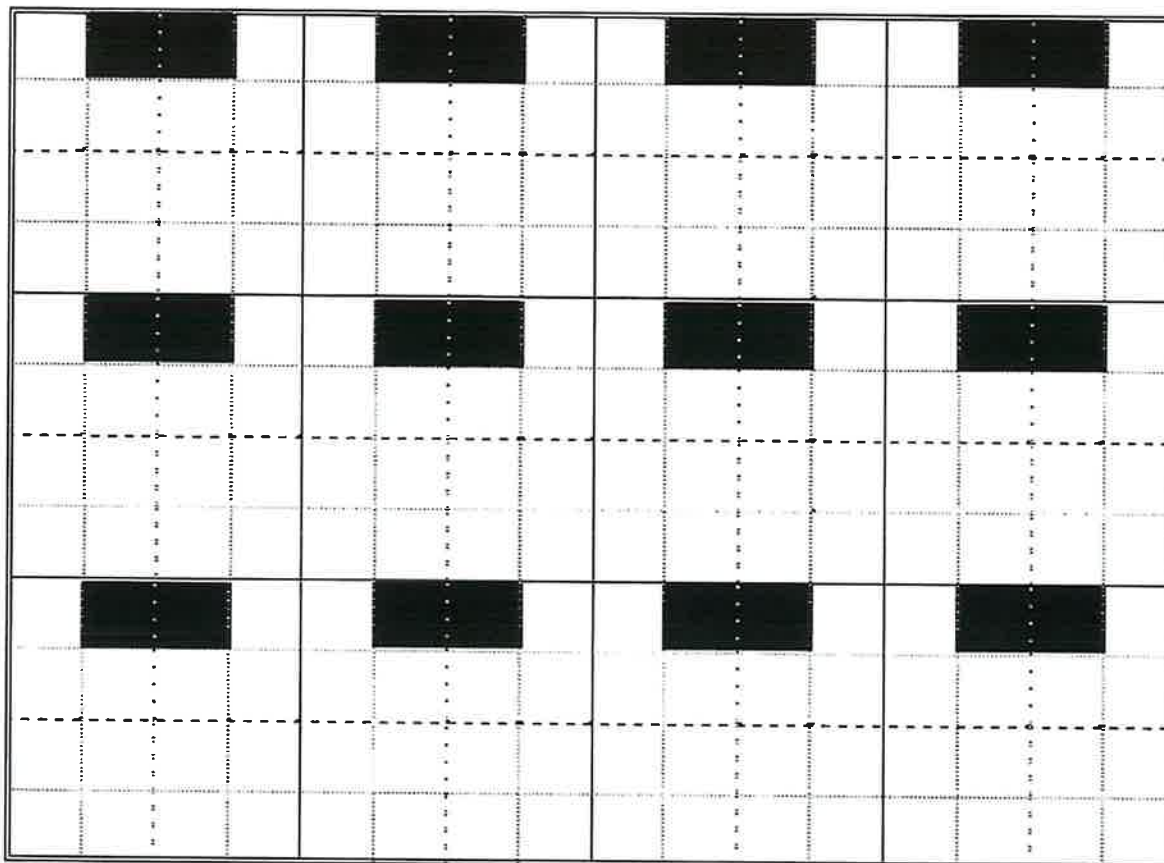
C. DIVERSION AND DELIVERY SYSTEM**1. Point(s) of Diversion:**

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
			NW	NE	36	16N	20E	LEMHI	Records review and site visit

2. Place(s) of Use: Method of determination Records review and site visit. See attached map.

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
16N	20E	25															2.4		2.4
16N	20E	36		0.1															0.1

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = _____

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (**required**)
☐ 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

*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
See attached narrative						

2. **Measurements:** Fuji Electric brand, strap-on ultrasonic flow meter used
in field during field exam.

E. NARRATIVE/REMARKS/COMMENTS

See attached narrative

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Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:
See attached narrative

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 2.5 \text{ acres} \times 3.5 \text{ acre-feet per acre} = 8.8 \text{ acre-feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.05 \text{ cfs} \times 183 \text{ days} \times 1.9835 = 18.1 \text{ acre-feet}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 8.8 \text{ acre-feet}$$

2. Volume Calculations for Other Uses:
See attached narrative**H. RECOMMENDATIONS**

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	4/1	10/31	0.05	8.8
Totals:			0.05 cfs	8.8 afa

2. Recommended Amendments

- ☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☐ None
☐ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☐ Other

I. AUTHENTICATIONField Examiner's Signature Kevin Page Date 10/22/2023

Reviewer _____ Date _____

SEAL



10/22/2023

Attachment A.

Beneficial Use Field Exam Narrative – Idaho Power Company Water Right No. 73-12269

Water Right 73-12269 Background Information

Water Right No. 73-12269 a permit to divert 0.05 cubic feet per second (cfs) from the Pahsimeroi river for irrigation and is associated with Idaho Power's Pahsimeroi Fish Hatchery, which is located in Lemhi County, Idaho, approximately 25 miles from the town of Challis on the Pahsimeroi River, a tributary of the Salmon River (Figure 1). The hatchery complex consists of fish production facilities, including a lower facility and an upper facility, owned by Idaho Power and operated by the Idaho Department of Fish and Game (IDFG). Both facilities are operated as mandated by the Federal Energy Regulatory Commission to mitigate impacts to anadromous fish associated with the construction and operation of Brownlee, Oxbow, and Hells Canyon dams on the Snake River. The lower facility, located in Township 16N, Range 20E, Section 25, functions as an adult trapping and spawning facility while the upper facility is a juvenile Chinook rearing facility. Water used at each facility is separate and does not comingle. Fish production goals for Idaho Power's Pahsimeroi complex are set forth in the 1980 Hells Canyon Settlement Agreement (HCSA). Regarding the Pahsimeroi complex, the HCSA states that Idaho Power is responsible for providing facilities capable of rearing one million summer Chinook smolts and providing spawning and incubation facilities capable of supplying sufficient eggs to produce 200,000 pounds of steelhead smolts annually.



Figure 1. Lower Pahsimeroi Fish Hatchery.

Water Right 73-12269 Place of Use

The place of use for water right No 73-12269 is Township 16N, Range 20E, Section 25, SW¼SE¼ and Township 16N, Range 20E, Section 36, NW¼NE¼.

Water Rights Associated with the Lower Hatchery Facility

There are three additional water rights associated with the lower hatchery facility.

- **73-7055** – a decreed right for Idaho Power to divert 40 cfs from the Pahsimeroi river for fish rearing from December 1 through February 29.
- **73-7006** – a license for Idaho Power to divert 40 cfs from the Pahsimeroi river for fish rearing from March 1 through November 30.
- **73-4041** – a decreed right for Idaho Power to divert 0.21 cfs from a spring source for fish propagation from January 1 through December 31.
- **73-12268** – a permit for Idaho Power to divert 30.0 cfs from the Pahsimeroi river for fish propagation from January 1 through December 31.
- **73-10124** – a decreed right for Idaho Power to diver 0.04 cfs of groundwater for domestic use from January 1 through December 31.

Lower Hatchery Overall Water Delivery System and Water Usage

Water is diverted from the Pahsimeroi river and flows through the lower hatchery facility (Figure 2). The lower hatchery facility diversion (Figure 3) consists of an intake canal that has a concrete, broad-crested weir for flow measurement (Figure 4). After flowing through the concrete structure and weir, water flows through an unlined canal before reaching fish screens and a water overflow/bypass structure (Figure 5). Idaho Power uses a pump at this location to pressurize a sprinkler irrigation system to irrigate 0.08 acre at the lower hatchery facility (Figure 6). The pump Idaho Power uses at this location for irrigation is a 1.5 horsepower Red Lion brand pump (Serial No. 97101501; Figure 7). Water diverted from the Pahsimeroi river passes through fish screens, continuing to flow down an unlined canal (Figure 8), into the control gates of the three concrete ponds/structures for fish trapping, holding, and rearing (Figure 9). There is a bypass line that is underground that discharges water at the control gates back to the Pahsimeroi river (Figure 10). Idaho Power uses a pump at this location to pressurize a sprinkler irrigation system to irrigate 2.42 acres at the lower hatchery facility. The pump Idaho Power uses at this location for irrigation is a 5 horsepower Leeson brand pump (Model C184K34DK12A; Figure 11). Per the permit conditions for right 73-12269, Idaho Power installed a straight length of pipe accessible for measuring the diversion in connection with this right (Figure 12) to irrigate 2.5 acres at the lower hatchery facility (Figure 13).

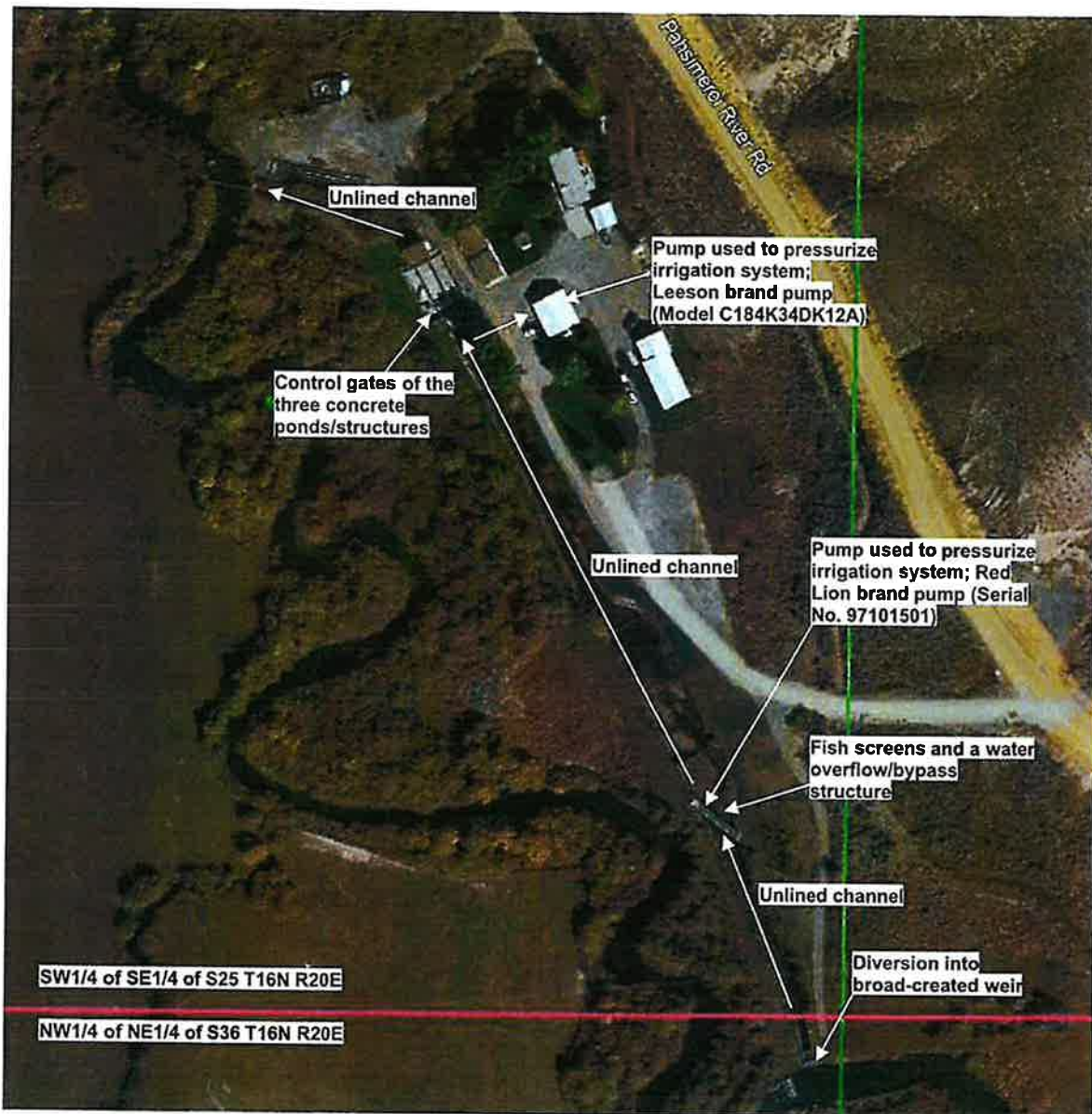


Figure 2. Diagram showing water flow from the Pahsimeroi river through the facility, including the two pumps used to pressurize irrigation systems at the lower hatchery facility.

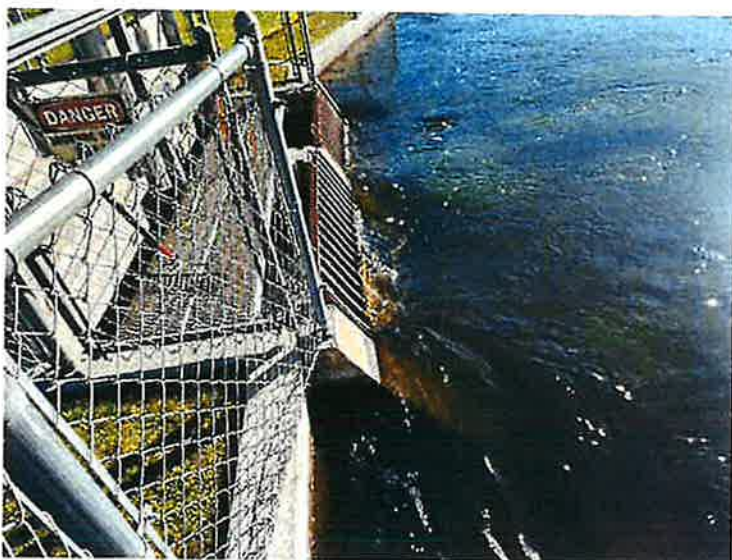


Figure 3. Diversion from the Pahsimeroi river at the lower hatchery facility.

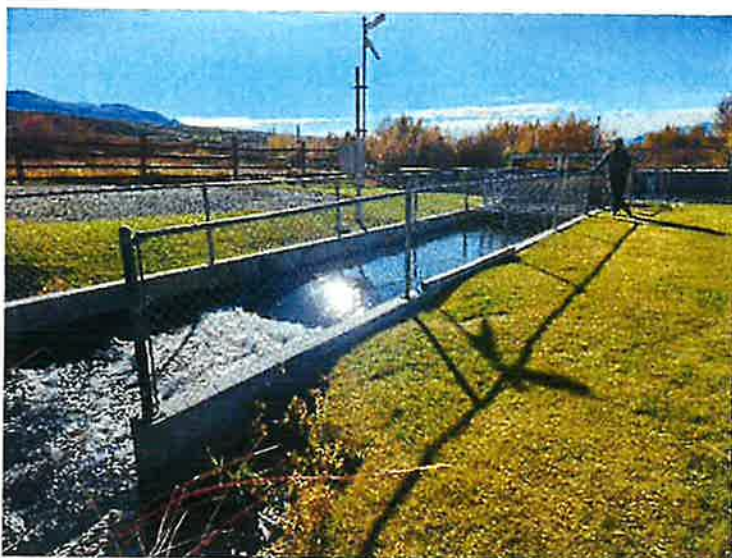


Figure 4. Broad-crested weir and telemetry downstream of the intake at the lower hatchery facility.



Figure 5. Fish screens and overflow structure down gradient from the broad-crested weir at the lower hatchery facility.



Figure 6. Pump used to pressurize a sprinkler irrigation system to irrigate 0.08 acre at the lower hatchery facility.



Figure 7. Pump used to pressurize sprinklers to irrigate 0.08 acre at the lower hatchery facility.



Figure 8. Water flowing downgradient of the fish screens prior to reaching holding ponds at the lower hatchery facility.



Figure 9. Water flowing from the unlined canal downgradient of the fish screens into the control gates of the holding ponds/structures at the lower hatchery facility. There is a bypass line in the foreground of the photo that conveys overflow water back to the Pahsimeroi river.



Figure 10. Water flowing from control gates bypass back to the Pahsimeroi river.



Figure 11. Pump used to pressurize a sprinkler irrigation system to irrigate 2.42 acres at the lower hatchery facility.



Figure 12. Straight length of pipe installed per 73-12269 permit condition number 5.



Figure 13. A portion of the 2.42 acres irrigated at the lower hatchery facility.

Flow Measurements

While not required, given the irrigated land is less than 5 acres (Figure 14), water diverted for irrigation was measured using a Fuji Electric Co. brand Portaflow strap-on ultrasonic flow meter (Type S10A2-00Y; Serial No. N4A1897T). This field measurement was 0.117 cfs, which is greater than the permitted 0.05 cfs under permit 73-12269. Idaho Power will make necessary adjustments to their sprinkler irrigation system to limit their irrigation use to no more than 0.05 cfs on no more than 2.5 acres.



Figure 14. Irrigated acreage at the lower hatchery facility.

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DEPARTMENT OF
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Jacobs

TRANSMITTAL

To: Idaho Department of Water Resources
322 East Front Street
Suite 600
Boise, ID 83702

From: Kevin Boggs
Jacobs
999 W. Main St. Suite 1200
Boise, ID 83702
208-340-1753

Attn: Justin Shearer

Date: 11/09/2023

Re: Idaho Power Company 73-12269 Pahsimeroi Statement of Completion and Beneficial Use Field Report

We Are Sending You:

Method of shipment:

X Attached

Under separate cover via

Shop Drawings

Documents

Tracings

Prints

Specifications

Catalogs

Copy of letter

Other:

Quantity	Description
1	Idaho Power Company Water Right 73-12269 Statement of Completion
2	Idaho Power Company Water Right 73-12269 Beneficial Use Field Exam Report

If the material received is not as listed, please notify me at 208-340-1753.

Copy To: Noah Stewart-Maddox, Idaho Power Company