

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 71-11015
Exam Date: 08/27/2024

1. Current Owner:
STATE OF IDAHO FISH & GAME COMMISSION
PO BOX 25 BOISE ID 83707-0025

2. Accompanied by: N/A
Phone No:
Address:
Relationship to permit Holder:

3. **SOURCE:**
GOLD CREEK

Tributary
SALMON RIVER

Method of Determination: On-site Inspection

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
N/A			

Comments: _____

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

Water Right No.	Source	Purpose of Use	Basis
71-10774	Gold Creek	Irrigation	Decree

Comments: _____

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

GOLD CREEK NW¼ SW¼, Sec. 17, Twp 09N, Rge 14E, B.M. CUSTER County

Method of Determination: On-site Inspection

PLACE OF USE: FISH PROPAGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09N	14E	17										X							

Method of Determination: On-site Inspection

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
POD ID 1077373					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Staff Gauge & Tape Measure						

2. Measurements: 1.5 ", 3" & 4" Diameter Orifice (0.08727 sf); 1.79' high water mark above center of the 4" orifice

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: Utilized orifice flow equation from an 8/24/2011 memorandum regarding methodology for flow measurements for fish bypass permits:

$$Q = C_d A_o (2gh)^{1/2}$$

Where C_d = coefficient of discharge for orifice (0.67 was determined to be an appropriate coefficient per memo)

A_o = Area of orifice opening in feet²

G = 32.2 ft per second²

h = measured head above center of orifice opening in feet

$$0.67 \times 0.08727 \text{ sf} \times [2(32.2 \text{ fps}^2)(1.79')]^{1/2} = 0.63 \text{ cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

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



Figure 1: Fish screen with bypass (located below T-handle above walkway in photo)



Figure 2: Measuring 3" orifice to High Water Mark on rotating slide plate (used 4" orifice for exam measurement)



Figure 3: Headgate



Figure 4: Bypass flow into Gold Creek

System Diagram

