

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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. 34-140321. Owner MARK GATESPhone No. 208-588-2447Current address 700 EMERSON ST. PALO ALTO, CA. 943012. Examiner's name CASS JONESEXAM DATE 10/27/20163. Accompanied by JIM GREGORYEmail gregory_jim@yahoo.comAddress 5306 ZOLLINGER RD. MACKAY, ID 83251Relationship to permit holder TROUT UNLIMITED CONSULTANTPhone No. 208-588-24474. Source BIG LOST RIVERtributary to SINKS**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:

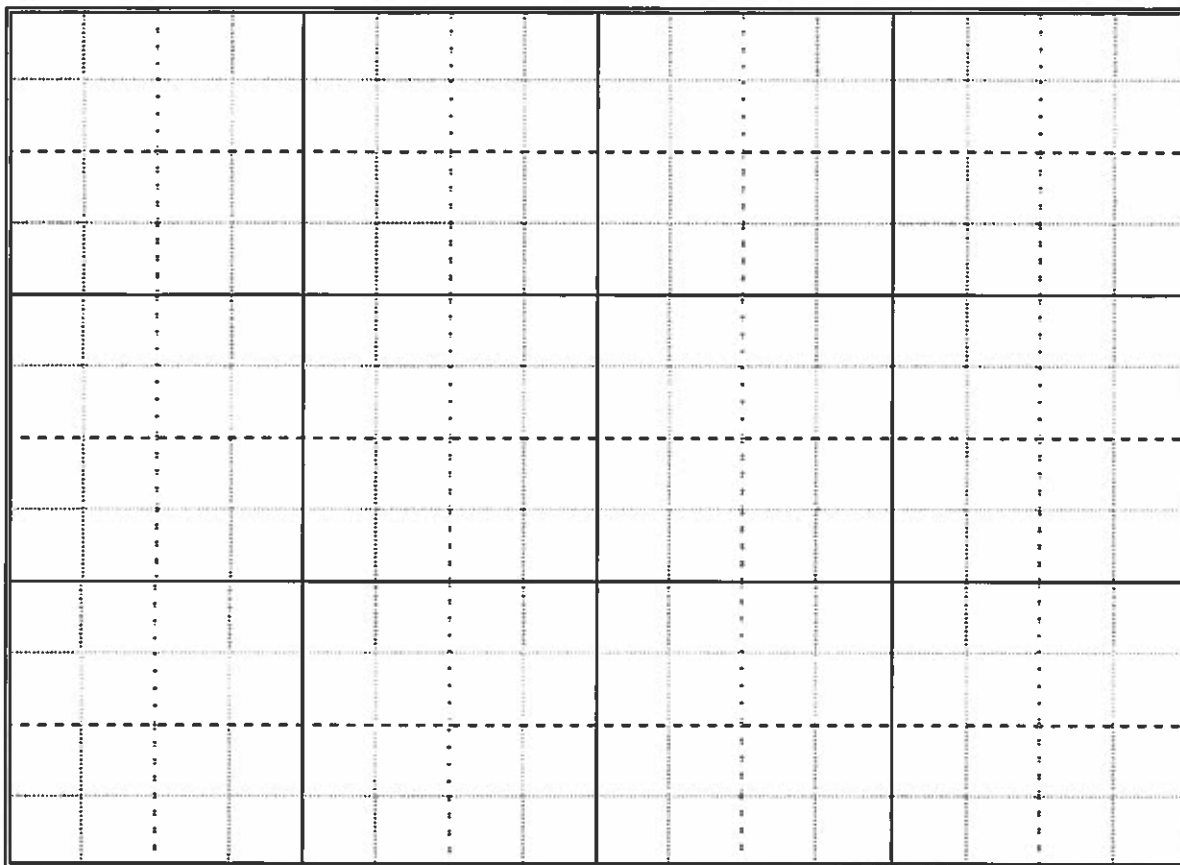
Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
			SW	NE	32	08N	23E	CUSTER	GPS

2. Place(s) of Use:

Method of determination AERIAL PHOTOGRAPHY & SITE VISIT

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08N	23E	32			X														

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
CURRENT METER	AA	PRICE				

2. Measurements: _____

USED A PRICE AA CURRENT METER TO DETERMINE FLOW.

E. NARRATIVE/REMARKS/COMMENTS

The diversion system is located south of the diversion dam, down the 6X canal approximately 30 feet. This diversion system runs from west to east and consists of a slide headgate that opens to a 24 inch corrugated metal pipe (CMP). Jim Gregory said that the pipe typically sits about half way in the water, other than during the spring runoff when it is completely submerged. The CMP then runs 30' underneath the surface to a small cement channel that is 2.65 feet wide and approximately 10 feet long, with a flat bottom and vertical sides. The cement channel then empties into a small ditch that carries the water back to the Big Lost River.

Using a Price AA current meter we were able to take three measurements across the cement channel the CMP discharges into. We then took the average velocity, and multiplied it by the depth and width of the cement channel to obtain a 4.53CFS rate of flow.

The point of diversion and the place of use are located in the SWNE, Section 32, T08N, R23E.

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?

After receiving a letter of recommendation from the watermaster, a measuring device does not need to be installed on this diversion. Measuring device condition will not be included on the license.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

(CHANGE IN VELOCITY) X (DEPTH) X (WIDTH) = CFS

$$(1.14\text{FPS}) \times (1.50\text{FT.}) \times (2.65\text{FT.}) = 4.53 \text{ CFS}$$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\text{NA}}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{\text{NA}}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \underline{\text{NA}}$$

2. Volume Calculations for Other Uses:

(DIVERSION RATE) X (ACRE FEET PER DAY) X (PERIOD OF USE) = AF

$$(3\text{CFS}) \times (1.9835\text{AF/DAY}) \times (365\text{DAYS}) = 2,171.9\text{AF}$$

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
FISH PROPAGATION	01/01	12/31	3.00CFS	2,171.9AFA
Totals:			3.00CFS	2,171.9AFA

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. AUTHENTICATION**

Field Examiner's Signature



Date 10/27/2016

Reviewer



Date 11/17/2016

SEAL



Legend

- Water Right POD
- ▨ Water Right POU
- ▨ Township/Range
- ▨ Sections
- QQ

0 0.005 0.01 0.02 Miles



Map Created By: Cass Jones
2015 ESRI Imagery
October 28, 2016

Jones, Cass

From: Lucas Yockey [watermaster34@atcnet.net]
Sent: Thursday, November 17, 2016 2:58 PM
To: Jones, Cass
Subject: RE: Measuring device on fish ladder

Hey Cass,

I would recommend that we do not need a measuring device for the fish ladder and that the requirement for it be removed from the license.

Thanks

Lucas Yockey

Water District #34, Watermaster

P.O. Box 86

Mackay, ID 83251

Office (208)588-3137

Cell (208) 589-3138

Fax (208)588-3130

From: Jones, Cass [<mailto:Cass.Jones@idwr.idaho.gov>]
Sent: Tuesday, November 01, 2016 2:33 PM
To: WATERMASTER34@ATCNET.NET
Subject: Measuring device on fish ladder

Hi Lucas,

My name is Cass Jones and I am a water resource agent at the Eastern Idaho Regional Office. I recently did a beneficial use exam for a fish ladder off the Big Lost River, by the 6x canal, installed by Trout Unlimited. The original permit for the fish ladder said that it needed a measuring device installed at the time of completion. When I did the site visit there was no device installed on the system. I wanted to get your thoughts on whether you see a need for a measuring device on his type of system, or if we can remove this condition on the license? It is a non consumptive use permit, with a diversion rate of 3CFS. The ladder is essentially taking water from the Big Lost, diverting it around the 6X diversion, and returning it to the Big Lost approximately 50 yards downstream. Thanks Lucas!



Above: The bottom of the 24" culvert that acts as the fish ladder around 6X diversion dam.

Below: The top of the 24" culvert with headgate in place.





Above: Close up of the headgate.

Below: 6X diversion dam in the background, with the stream outflow from the fish ladder in the foreground.



RECEIVED

MAR 11 2010

DEPARTMENT OF
WATER RESOURCES

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY
Amt. of Fee \$ 150
Receipt No. 0890212
Receipt By: SRJ
Date Received: 3-11-2010

The Idaho Department of Water Resources considers this form a statement by the permit holder(s) that development of a water right has been completed and that water has been applied to beneficial use to the extent described below. This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner. Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, please contact any Department office or visit the Department's website at: www.idwr.idaho.gov for an Assignment of Permit form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

- Permit No.: 34-14032 Telephone No.: 208-588-2447
- Name of Permit Holder(s): Mark Gates
- Mailing Address: 700 Emerson St. City: Palo Alto
State: CA Zip: 94301 Email: Gregory-Jim@yahoo.com
- Source of Water: Big Lost River If GROUND WATER (well), Date Drilled: mo. — / yr. —
Well Driller: — Drilling Permit Number: —
- Extent of use(s) completed (as authorized by the water right permit):
Domestic (No. of households): — Stockwater (No. and type of stock): —
Irrigation (No. of acres): — Other: Fish propagation - ladder to route fish back to Big Lost
- Total rate of diversion or storage volume for which proof is submitted: 3 cfs OR — acre-feet.
- Compliance with a measuring device requirement, lockable controlling device requirement, and/or other conditions of permit: Refer to the approval conditions on your permit and respond accordingly. The Department will not issue a license if permit conditions are not met.
Measuring Device: Is a measuring device required? Yes ☒ No ☐
If yes, has the measuring device been installed? Yes ☒ No ☐
Lockable Controlling Device: Is a lockable device required to control the diversion? Yes ☒ No ☐
If yes, has the lockable device been installed? Yes ☒ No ☐
Other Conditions of Permit: Do the approval conditions on your permit require you to submit additional information in connection with your proof of beneficial use? If yes, list the conditions below and attach documents with the required information.
No other proof required Completed? Yes ☐ No ☐
- Fee Enclosed: \$ 150 See fee schedule on back of the instructions for filing proof of beneficial use. Proofs filed without an appropriate fee, will be considered incomplete.
- Person to contact to accompany the Department representative during field examination of the water system.
Name: Jim Gregory Telephone Number: 208-588-2447
Mailing Address: 5306 Zollinger RD City: MacKay
State: ID Zip: 83251 Email: Gregory-Jim@yahoo.com

The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

Signature of permit holder: [Signature] Date: 3/8/10
(Include your title, if on behalf of company or organization)

Mail to: Idaho Department of Water Resources, PO Box 83720, Boise, ID 83720-0098

State of Idaho
Department of Water Resources
Permit to Appropriate Water

NO. 34-14032

Priority: November 03, 2008

Maximum Diversion Rate: 3.00 CFS

This is to certify, that MARK GATES
700 EMERSON
PALO ALTO CA 94301

has applied for a permit to appropriate water from:

Source: BIG LOST RIVER

Tributary: SINKS

and a permit is APPROVED for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
FISH PROPAGATION	01/01 to 12/31	3.00 CFS

LOCATION OF POINT(S) OF DIVERSION:

BIG LOST RIVER SW 1/4 NE 1/4 Sec. 32 Twp 08N Rge 23E, B.M. CUSTER County

PLACE OF USE: FISH PROPAGATION

Twp	Rge	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
08N	23E	32	X												

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **April 01, 2010**.
2. Subject to all prior water rights.
3. The right holder shall not divert water at a rate exceeding what is reasonably necessary for the beneficial use authorized by this right.
4. Fish propagation use is for fish protection through the installation of a fish ladder to provide passage for fish back to the Big Lost River.
5. Use of water under this right shall be non-consumptive.
6. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 34.
- * 7. Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works of a type acceptable to the Department as part of the diverting works.
8. This right does not grant any right-of-way or easement across the land of another.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 30 day of April, 2009.


for DAVID R. TUTHILL, JR., Director