

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

DRAFT BENEFICIAL USE FIELD REPORT (waiting on add'l information)

A. GENERAL INFORMATION

Permit No: 85-7656
Exam Date: 5/29/2012

1. Current Owner: US DEPT OF ENERGY
BONNEVILLE POWER
PO BOX 3621 TRF 3
PORTLAND OR 97208-3621
(503)230-5572
2. Accompanied by: Aaron Penney
Phone No: (208)790-1876, (208)621-3504, wk (208)843-7384 Ext 3504
Address: 18985 Hubbard Gulch, Juliaetta, ID 83535
Relationship to Permit Holder: Assistant Hatchery Manager, Nez Perce Tribal Hatchery
Email: aaronp@nezperce.org

This facility is a cooperative project between Bonneville Power Administration and the Nez Perce Tribe.

3. SOURCE

SPRINGS*

TRIBUTARY

SWEETWATER CREEK

- Local name for "springs" is Sweet Water Springs.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None. 85-2123 is for US America, fish propagation, but the 1963 field examination stated that it was for the hatchery building (for eggs).
2. Other water rights with the same point of diversion: None. 85-11663 is from the Sweetwater Creek formed from this spring; 85-2123 stated in the 1963 field examination that it is a 6 inch pipe from a concrete diversion that runs 300 feet to the hatchery building. The spring box for water right 85-7656 is over 1000 ft from the POU, plus the POD for 85-2123 was designated in the SESWSW.

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

SPRINGS SW1/4NW1/4SW1/4 Sec. 4, Twp 33N, Rge 04W, B.M. NEZ PERCE County

Method of Determination: Garmin GPS Map 76S, ArcMap esri and 2004 – 2013 Imagery.

2.

PLACE OF USE: DIVERSION TO STORAGE, FISH PROPAGATION STORAGE, and FISH PROPAGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
33N	04W	4																	

Method of Determination: Garmin GPS Map 76S, ArcMap esri and 2004 – 2013 Imagery.

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.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
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Flow-thru gravity system (10 inch PVC, discharging and flowing through a series of tanks, then discharges to 12 inch PVC that discharges the effluent back to the creek to the north.

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
None.						

2. Measurements:

At the time of the field examination, all tanks had been emptied, since fingerlings had been transported to satellite areas, and new batches had not yet begun. At the POD, the 12 inch intake that reduces to 10 inch PVC, is submerged and full within the spring box at the intake. For this reason, a **"full 10 inch pipe" was used for calibrating the rate of diversion, using pipe conversion calculations:**

$$Q = 5 \times 3.1416 \times [(diameter/12)/2]^2 \times \text{velocity} = 2.73 \text{ cfs maximum capacity}$$

RECOMMEND:

Diversion to Storage 2.73 cfs
Fish Propagation 2.73 cfs
Total Diversion Rate 2.73 cfs

E. FLOW CALCULATIONS

Measured Method:

None.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

2. Volume Calculations for Other Uses (Fish Propagation Storage):

2.73 cfs X 1.9835 X 365 days = 1976.5 af

(14) 6' X 6' X 2.5' tanks = $(504'/43,560) \times 2.5' = 0.03$ af

(4) 16' X 4' tanks = $(64'/43,560) \times 4' = 0.006$ af

(3) 20' X 4' tanks = $(60'/43,560) \times 4' = 0.006$ af

Total: 0.042 = 0.04 af

Total of 0.012 acre X 3.5ft average depth = 0.04 af

FIND OUT HOW MANY TIMES THE TANK TURNS OVER, and multiply it times 0.04 af to RECOMMEND volume for licensing (additional information was requested, see email). Then make changes below.

G. NARRATIVE/REMARKS/COMMENTS

At the spring box, there is a 12 inch PVC pipe inserted to catch part of the discharge from the spring. The PVC pipe reduces to 10 inch PVC and then follows the creek north to the POU where it discharges into the first set of the (14) 6 ft X 6 ft X 2 1/2 ft tanks (interconnected with 2 inch overflow), then continuing to (4) 16 ft X 4 ft tanks (interconnected with 3 inch overflow), then continuing through the (3) 20 ft X 4 ft tanks (interconnected with 4 inch overflow) then continuing through an above ground 12 inch PVC pipe traveling north, and then the effluent discharges back into the creek. Permission to access and use the spring is covered in an easement, allowing a portion of the spring to be piped to the POU/adjoining land, to maintain the fish hatchery. The pipe was installed in 1993. This entire system is a flow-thru gravity system, with no additives to the water. Beneficial use is for Diversion to Storage, Fish Propagation Storage, and Fish Propagation for this year-round facility for incubation and rearing of approximately 800,000 fall Chinook salmon; reared to fingerlings before they are transferred to satellite facilities in February and April. This program is to restore Chinook salmon to the Clearwater River Subbasin in Idaho. Adults will return to release waters and are then allowed to spawn naturally.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
DIVERSION TO STORAGE	01/01 to 12/31	2.730 CFS	
FISH PROPAGATION STORAGE	01/01 to 12/31		0.40 AF
FISH PROPAGATION	01/01 to 12/31	2.730 CFS	
<u>Totals:</u>		2.730 CFS	

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 ☐ Other

I. AUTHENTICATION

Field Examiner's Name _____ Date _____



effluent discharging back to the creek

12 inch PVC back to the creek (flow thru system)

supply building

(3) 20' X 4' tanks,
with 4 inch discharge.

(4) 16' X 4' tanks,
with 3 inch discharge.

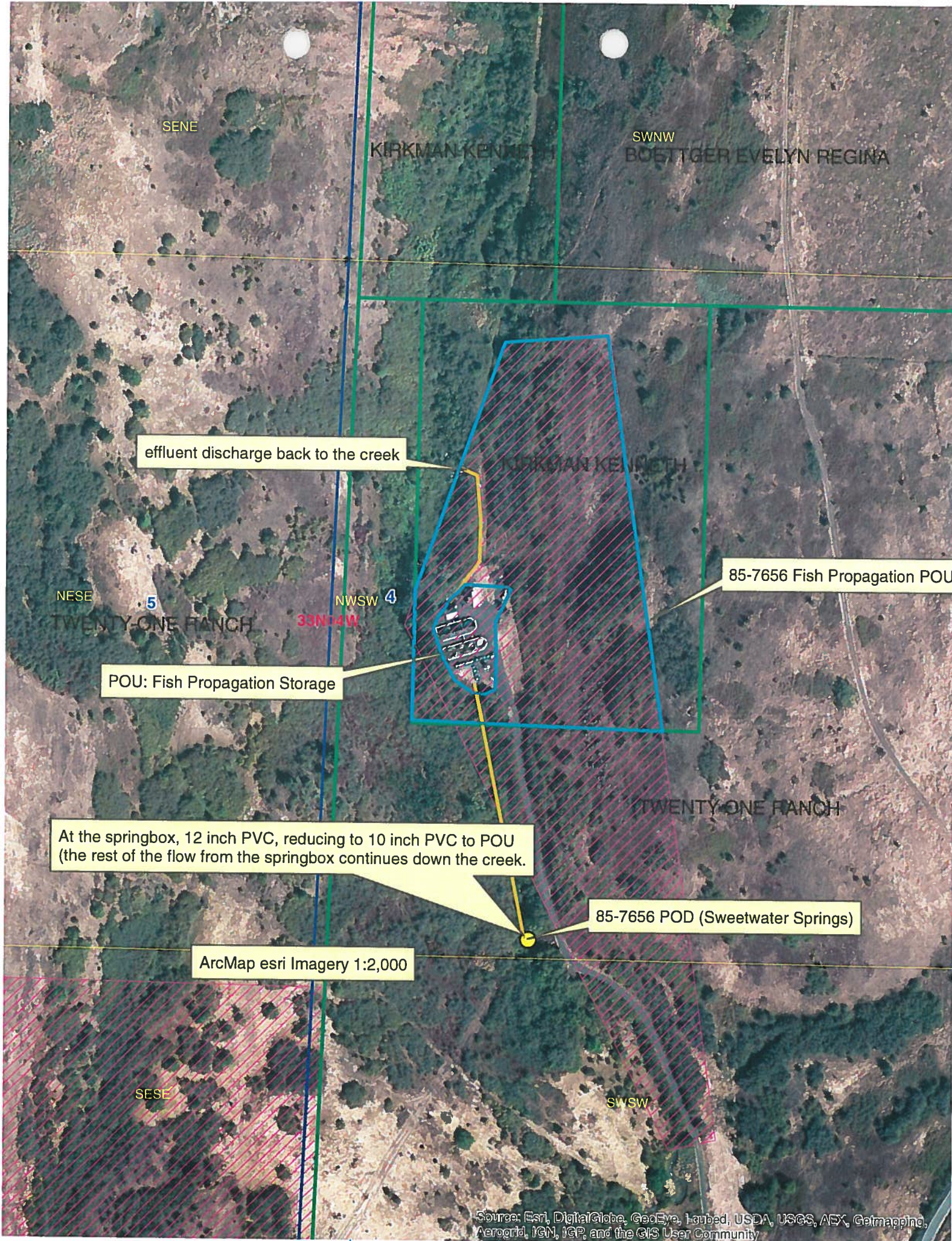
(14) 6' X 6' X 2 1/2 ' tanks,
with 2 inch discharge to tanks

12 inch discharge at the spring, reducing to 10 inch PVC,
then following the creek to where the first set of
the (14) 6' X 6' X 2 1/2 ' tanks are located (a flow-thru sytem,
through all the tanks on the entire system, then discharging
back to the creek) *installed in 1993* *SH.*

85-7656: ArcMap esri Imagery 1:743

33N04W
NWSW

4





POD:
spring
box

05/29/2012



reduced
10" PVC

12"
PVC
from
spring

05/29/2012



POD:
Spring
box

05/29/2012



reduces
to 10"
PVC to
the POD

12"
PVC
from
spring

05/29/2012



POU
entrance

05/29/2012



POU:
(14)
6'x6'x2 1/2'
tanks,
(4)
16'x4'
tanks,
and
(3)
20'x4'
tanks.

05/29/2012



2"
discharge
to the
14 tanks

05/29/2012



3"
discharge
to the
4 tanks
+

4"
discharge
to the
3 last
tanks

05/29/2012

85-7656

S. Hemerway



flow thru system from tanks that discharge to the 12" PVC pipe that discharges all effluent back to the creek



12" PVC to creek

Hemenway, Sandy

From: Hemenway, Sandy
Sent: Friday, March 14, 2014 11:11 AM
To: aaronp@nezperce.org
Cc: Hemenway, Sandy
Subject: 85-7656 US Dept of Energy, Bonneville Power (fish propagation)
Attachments: DOC005.pdf

Importance: High

Hi Aaron,

I have attached pictures of the point of diversion and place of use for this Fish Propagation water right (85-7656), to identify which water right I have questions on. The diversion rate requested is greater than 1.0 cfs, so for this reason, additional questions are required. Please submit or answer the following questions:

- ✓ (1) Can you submit a copy of the construction plans which include sizes (gallons) and numbers of each of the tanks?
- (2) Since no flow was running through the tanks at the time of the field examination, do you have an estimate of volume used for this facility during a normal season?
- (3) Please submit a copy of the maintenance schedule, if there is one.
- (4) Please submit a copy of the Number, Size of the fish, Type of fish, and Dates fish are stocked to the tanks for a routine year.
- (5) Can you describe any techniques that are used to improve the fish growth and reproduction i.e. nutrients added to the water.
- (6) How long does it take to fill all the tanks?
- (7) How many exchanges/turnovers take place within 24 hours?

Please submit the above information within 2 weeks, so I can complete the licensing process. To expedite the process, please scan and send information back as an email attachment, otherwise you can mail it to the address below.

Thanks so much,

Sandy Hemenway
Sr. Water Resource Agent
IDWR State Office, Boise
PO Box 83720
Boise, ID 83720-0098
(208)287-4920
Sandy.hemenway@idwr.idaho.gov

Hemenway, Sandy

From: Hemenway, Sandy
Sent: Thursday, March 20, 2014 5:05 PM
To: aaronp@nezperce.org
Cc: Hemenway, Sandy
Subject: 85-7656 Fish Propagation (additional question)
Attachments: DOC009.pdf

Aaron,

In reviewing the overlapping water rights for the place of use, I am finding another water right (85-2123 owner is US America for fish propagation) for the same place of use, but the point of diversion is in the SESWSW.

My question is this:

Is there any other pipe or source besides the 10 inch PVC line from the spring box, that supplies water to the (14) 6' X 6' X 2 ½', (4) 16' X 4', and (3) 20' X 4' fish propagation tanks? If so, what size is the pipe, and where does it hook into the system?

Could you please let me know that you have been receiving my emails, and that either you or someone else will be supplying me with the answers I have been asking? If the questions are being passed on, could you please let me know who that contact person will be?

Thanks,

Sandy Hemenway
Sr. Water Resource Agent
IDWR State Office, Boise
(208)287-4920
Sandy.hemenway@idwr.idaho.gov

Hemenway, Sandy

From: Aaron Penney [aaronp@nezperce.org]
Sent: Monday, March 24, 2014 5:06 PM
To: Hemenway, Sandy
Subject: RE: 85-7656 Fish Propagation (additional question)

In reviewing the overlapping water rights for the place of use, I am finding another water right (85-2123 owner is US America for fish propagation) for the same place of use, but the point of diversion is in the SESWSW.

Did not see this on the map. Are they referring to the Mann Lake Headgate Diversion Dam?

My question is this:

Is there any other pipe or source besides the 10 inch PVC line from the spring box, that supplies water to the (14) 6' X 6' X 2 ½', (4) 16' X 4', and (3) 20' X 4' fish propagation tanks? If so, what size is the pipe, and where does it hook into the system?

There is not. The 10" Yellowmine pipe is the only source from the spring box to the fish propagation facility.

From: Hemenway, Sandy [<mailto:Sandy.Hemenway@idwr.idaho.gov>]
Sent: Thursday, March 20, 2014 4:05 PM
To: aaronp@nezperce.org
Cc: Hemenway, Sandy
Subject: 85-7656 Fish Propagation (additional question)

Aaron,

In reviewing the overlapping water rights for the place of use, I am finding another water right (85-2123 owner is US America for fish propagation) for the same place of use, but the point of diversion is in the SESWSW.

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Could you please let me know that you have been receiving my emails, and that either you or someone else will be supplying me with the answers I have been asking? If the questions are being passed on, could you please let me know who that contact person will be?

Thanks,

Sandy Hemenway