

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22951

Exam Date: 1/4/2012

1. Current Owner: GEORGE E COLWELL
3990 HWY 52
PAYETTE ID 83661
(208)278-3448

And/Or

CHERYL F COLWELL
3990 HWY 52
PAYETTE ID 83661
(208)278-3448

2. Accompanied by: George Colwell
Phone No: (208) 278-3448 and (541) 898-2863
Address: same as above
Relationship to Permit Holder: self

3. SOURCE

UNNAMED DRAIN

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Domestic 965-19671, 65-10974, 65-11054), Irrigation (3-4008A, 65-72, 3-2000B0) and *Stockwater 3-10192 owned by Colwell with season of use 3/1 – 11/15 for 0.05 cfs from the Snake River only overlapping at the 65-22951 POD/POU (small unnamed drain portion) in Section 29 SESE.*

2. Other water rights with the same point of diversion: None

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

UNNAMED DRAIN	L1 SE1/4NE1/4	Sec. 32, Twp 09N,	Rge 05W, B.M.	PAYETTE County
UNNAMED DRAIN	L2 NE1/4NE1/4	Sec. 32, Twp 09N,	Rge 05W, B.M.	PAYETTE County
UNNAMED DRAIN	L1 SE1/4SE1/4	Sec. 29, Twp 09N,	Rge 05W, B.M.	PAYETTE County

Method of Determination: Garmin GPS map 76S, and ArcMap 2009 and ArcMap 2011

2.

PLACE OF USE: STOCKWATER

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09N 05W 29																X L 1	
09N 05W 32	X			X									X				
09N 05W 33						X	X										

Method of Determination: Garmin GPS map 76S, and ArcMap 2009 and ArcMap 2011

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 DiversionID No.*Motor MakeHpMotor Serial No.Pump MakePump Serial No. or Discharge Size

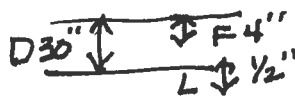
Unnamed Drain with (3) "check structures" (30 inch, 36 inch, and a 24 inch), to act as a point of diversion. A board can be placed within the check to alter the level of the water in the drain, but not enough to cause storage within the drain. The system is entirely gravity flow.

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

D. FLOW MEASUREMENTS

1. Measurements: Each "check structure" is the POD.

Check Structure POD #1:



$$D^2 \times \text{Factor} \times L = \text{GPM}$$

$$D = 30" \quad F = 4" \quad L = 1/2" \text{ or } (.5)$$

$$F/D = 4/30 = .133 \times 100 = 13\%$$

$$10\% \text{ factor} = .948$$

$$15\% \text{ factor} = .905$$

$$30^2 \times .905 \times .5 = 427.5 \times 0.00223 = \boxed{0.90 \text{ cfs}}$$

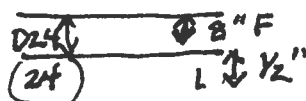
Check Structure POD #2:



$$F/D = .27 \times 100 = 27\% = .747 \text{ factor}$$

$$D^2 \times \text{factor} \times L = 484.1 \times 0.00223 = \boxed{1.07 \text{ cfs}}$$

Check Structure POD #3:



$$F/D = .33 \times 100 = 33\% = .688 \text{ factor}$$

$$D^2 \times \text{factor} \times L = 198.1 \times 0.00223 = \boxed{0.44 \text{ cfs}}$$

RECOMMEND: 0.12 cfs as permitted**E. VOLUME CALCULATIONS**

1. Volume Calculations for Stockwater: 500 head range cattle

$$V_{I.R.} = (500 \text{ head} \times 12 \text{ gpd} \times 365 \text{ days}) / 325850 = 6.7 \text{ af}$$

$$V_{D.R.} = 0.12 \text{ cfs} \times 365 \times 1.9835 = 86.9 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 6.7 \text{ af}$$

Application Process Memo #3 Recommends: 401 - 500 head = 6.7 af

RECOMMEND: 6.7 af

F. NARRATIVE/REMARKS/COMMENTS

There are 3 "check structures" (a 30 inch, a 36 inch, and a 24 inch) in the unnamed drain to moderately check up flow. This does not rise to the level to be considered pond storage. Although water will not be diverted out of the ditch nor stored in each ditch, addition of "check structures" allows the Point of Diversion to be the "check structures," and the Place of Use to be the ditches upstream from each "check structure." The flow in the ditch during the irrigation season is higher due to additional flow from Washoe Irrigation. At the time of the field examination, flow in the ditch is made up from seepage (since the ditches were originally dug for drawing off water from the fields), waste water, and some back flow from the Payette River (currently high water). The high water marks in the culverts cannot be used with accuracy, since those marks could be due to water use during irrigation season supplied by Washoe Irrigation. The POU is the unnamed drain. No water is diverted from the drain, since the 500 head cattle drink directly from the unnamed drain. At the time of the field exam, the one unnamed drain with the reach going into the Sec 32 SESENE was dry at the end of the reach, but there was evidence of water being there, and if the board had been placed in the one "check structure" the level of water could be moved back to that area. The 3 1/2 foot deep ponds in Sec 33 SWNW were not interconnected with the unnamed drain, but were isolated and filled by seepage; they are not a part of the 65-22951 system. Mr. Colwell would need to file an application for permit on these ponds.

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

G. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER	01/01 to 12/31	0.120 CFS	6.70 AF
<u>Totals:</u>		0.120 CFS	6.70 AF

2. Recommended Amendments

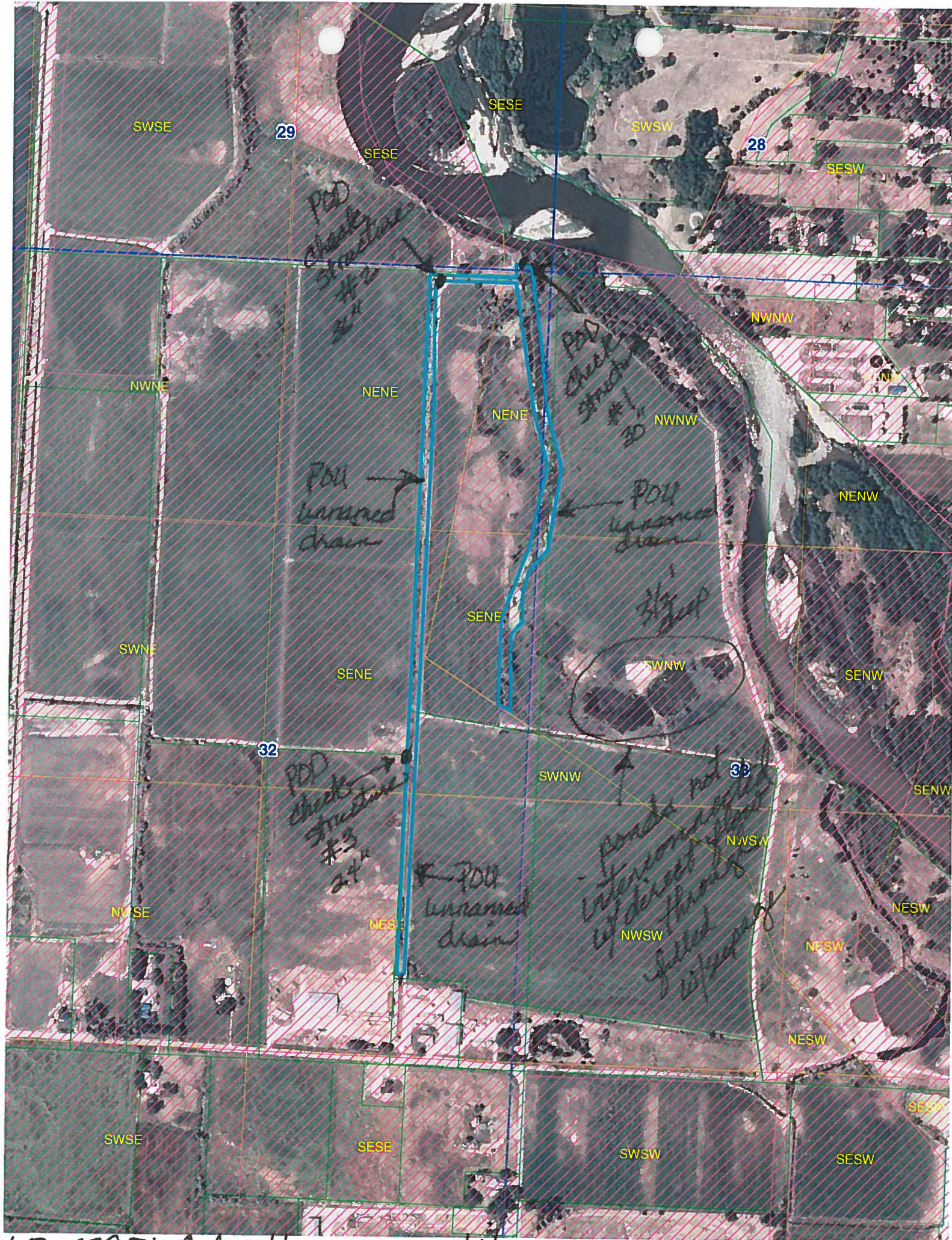
☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

H. AUTHENTICATION

Field Examiner's Name

Sandy Hernenway Date 2/28/2012





unram
drain
at end
of the
reach
SENE
(dry at
time of
field
exam
but
evidence
of water
use



#1
POD
30"
check
structure

65-22951 Colwell

S. Hemerway



#2
POD
36"
check
structure



#3
POD
24"
check
structure

65-22951 Colwell

S. Hemerway



500
head
cattle

65-22951 Colwell

1/4/2012

S. Hemenway



Ponds that Require an Application for Permit to be Filed