

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22954

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:

65-72 Washoe Irrigation; 65-9275 Domestic (groundwater); 65-22809 C/C LLC (same address as Colwell) stockwater, groundwater source, 0.03 cfs, overlaps Sec 33 SESW; 65-5800B C/C LLC (same address as Colwell) stockwater, Payette River source, 0.77 cfs for 3500 head range cattle, overlaps Sec 33 NESW and SESW; 65-19594 C/C LLC (same address as Colwell) in-stream stockwater, Payette River source, 0.02 cfs, overlaps Sec 33 SENW and NESW.

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

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

UNNAMED DRAIN SE1/4NW1/4 Sec. 33, Twp 09N, Rge 05W, B.M. PAYETTE County

UNNAMED DRAIN L7 SE1/4SW1/4 Sec. 33, Twp 09N, Rge 05W, B.M. PAYETTE County

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

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	33								X	X		X	X					
										L3				L7					
										L6									

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

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 DischargeSize

(2) 24 inch check structures, 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 the "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 system is gravity flow.

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

D. FLOW MEASUREMENTS

1. Measurements:

24 inch check structure #1 (engulfed with high flow from the Payette River, therefore no physical measurement was taken)

24 inch check structure #2 (12 inch full) =

$$\begin{array}{l}
 \text{Diagram: } \begin{array}{c} \text{D } 24'' \\ \downarrow \\ \text{F } 12'' \\ \downarrow \\ \text{L } 1/2'' \end{array} \quad \begin{array}{l} F = 12'' \\ D = 24'' \\ F/D = 12/24 = .5 \times 100 = 50\% \\ 50\% \text{ factor} = .500 \end{array} \\
 Q_{\text{pm}} = (\text{factor}) \times D^2 \times L \\
 = .500 \times 24^2 \times .5 = 144 \\
 144 \times .00223 = 0.32 \text{ cfs} \\
 \text{2 check structures} = 0.16 \text{ cfs (capacity of system)}
 \end{array}$$

At the end of the reach of the unnamed ditch (SWSW, and SESW), both of them were found to be dry at the time of the field exam. There was evidence that water had been in the ditch, and if a board were placed in the "check structures," it would raise the level of the water to reach that location. Markings in the culvert at the end of the unnamed ditch, also indicated historical flow (which could be from Washoe Irrigation and/or flow from the "check structures.")

Recommend allowing this reach of the unnamed ditch due to historical evidence of water use, and the capability of getting the water to that location.

RECOMMEND: 0.12 cfs as permitted

E. VOLUME CALCULATIONS

1. Volume Calculations for Stockwater:

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

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

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

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

RECOMMEND: 6.7 af

F. NARRATIVE/REMARKS/COMMENTS

There are 2 "check structures" (both 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 the Washoe Irrigation. At the time of the field examination, the one check structure was completely surrounded and submerged by the high water from the Payette River. Other contributing factors to the flow in the ditch is seepage and waste water runoff. These same drains are used during the irrigation season to supply irrigation water by Washoe Irrigation. The POU is the unnamed drain and an interconnected flow thru ponded area (no storage is involved). No water is diverted from the drain, since the 500 head cattle drink directly from the unnamed drain. The ends of the unnamed drain in both the SWSW and SESW were dry at the time of the field exam, but there was evidence that water had been present in the ditch (a board could be placed in the "check structure" which would cause more water to make it to the ends, but at the time of the inspection, no boards were in place of the "check structure").

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 Hemmenway Date 2/27/2012





POD
#1
High
water
from
Poyette
River
24"
check
structure

01/04/2012



POD
#2
24"
check
structure

01/04/2012



End
of
unname
drain
SESW
(dry)

01/04/2012



End o
unname
drain
SWSW
(dry)

01/04/2012



500
head
cattle

65-22954 Colwell

1/4/2012

S. Hemerway