



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 9, 2012

Clayton A. & E. Catherine Wilson
P.O. Box 117
Jordan Valley, OR 97910

RE: Scheduling Field Exam for Water Right Permit No. 67-14278

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **during the week of August 20, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 0.02 cfs from an Unnamed Stream(Wilson Creek) for stock water for 40 head of cattle, 1.30 AF of stock water and fire protection storage, and fire protection.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 17, 2012, to conduct the exam during the week of August 20, 2012.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Rick Collingwood". The signature is written in a cursive, flowing style.

Rick Collingwood, P.E.
Water Resource Agent, Sr.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14278

Exam Date: 7/15/2013

1. Current Owner: E CATHERINE WILSON
11380 W MISSION POINTE DR
NAMPA ID 83651
(208) 546-0065
2. Accompanied by: Nancy Wilson
Phone No: (208) 249-9682
Address:
Relationship to Permit Holder: Daughter

3. **SOURCE**

UNNAMED STREAM

TRIBUTARY

GOODRICH CREEK

B. OVERLAP REVIEW

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

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

UNNAMED STREAM

NE1/4NE1/4

Sec. 30, Twp 16N, Rge 02W, B.M.

ADAMS County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
16N	02W	30	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
			X																

PLACE OF USE: FIRE PROTECTION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
16N	02W	30	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
			X																

PLACE OF USE: FIRE PROTECTION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
16N	02W	30	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
			X																

DIVERSION TO STORAGE same as FIRE PROTECTION

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

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>
N/A	N/A		N/A	N/A	N/A

*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>
N/A						

2. Measurements: No field measurement. Low flow in excavated ditch.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Manning's Equation – Open Channel)

$$Q = 1.49/nAR^{2/3}S^{1/2} = (1.49/0.035)(0.10 \text{ ft}^2)(0.03)^{2/3}(0.05)^{1/2}$$

$$Q = (42.6)(0.10)(0.095)(0.22) = 0.09 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.09 \text{ cfs} > 0.02 \text{ cfs } Q(\text{permit})$$

$$R = y/2 = 0.05/2 = 0.03$$

$$S = 5.0\% \text{ (Assumed)}$$

$$n = 0.035$$

$$A = 0.10 \text{ ft}^2$$

Even with the low flows of the Unnamed Stream and the excavated ditch, the calculated flows exceed the permit diversion rate of 0.02 cfs. Recommend the permit diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

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

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

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

2. Volume Calculations for Other Uses: (Stock Water & Fire Protection Storage Pond)

Pond Surface Area = 0.07 ac

Maximum Pond Depth = 10'

$V_d = 0.07 \text{ ac} \times 10' = 0.70 \text{ AF}$

$V_d = 0.70 \text{ AF} < 1.30 \text{ AF (permit)}$

$V = 0.70 \text{ AF}$

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

Water is diverted from an Unnamed Stream through a 10 – 12 foot section of CMP culvert pipe to a small, 2' x 0.5' deep excavated ditch. The diversion rate through the 10" CMP culvert pipe is controlled by a 10" slide gate attached to the downstream end of the 10" CMP culvert pipe.

STOCK WATER & FIRE PROTECTION STORAGE POND:

A small excavated ditch, which is approximately 700-feet in length, conveys water to a 0.07 acre stock water and fire protection storage pond. Normally, the right holder would have approximately 40 head of cattle on site. But due to the road and bridge being washed out, and which is currently being repaired, the right holder has not been able to transport their cattle to the site.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 67-14278.

Place of Use: There are no place of use overlaps for Water Right Permit No. 67-14278.

Note: The stock water beneficial use was removed since the stock water definition states 'A diversion of water from a source to a holding tank or trough. Water from the Unnamed Stream is diverted to a storage pond for stock water storage, not a holding tank or trough.

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

CONDITION NO.2 (01P) – Upon notification by the Department, the right holder shall install a lockable device. The right holder has modified the 10" slide gate which allows the slide gate to be locked if required by the Department or the Watermaster.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	1.30
Beneficial Use Limit	0.02	&/or	N/A
System Measurement	0.09 (theoretical)	&/or	0.70
Proof Fee Amount	0.20	&/or	20.00
Recommended Amount	0.02	&/or	0.70

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER STORAGE	01/01 to 12/31		0.70 AF
FIRE PROTECTION STORAGE	01/01 to 12/31		0.70 AF
FIRE PROTECTION	01/01 to 12/31	0.020 CFS	
DIVERSION TO STORAGE	01/01 to 12/31	0.020 CFS	
<u>Totals:</u>		0.020 CFS	0.70 AF

2. Recommended Amendments

___ Change P.D. as reflected above ___ Add P.D. as reflected above X None

___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

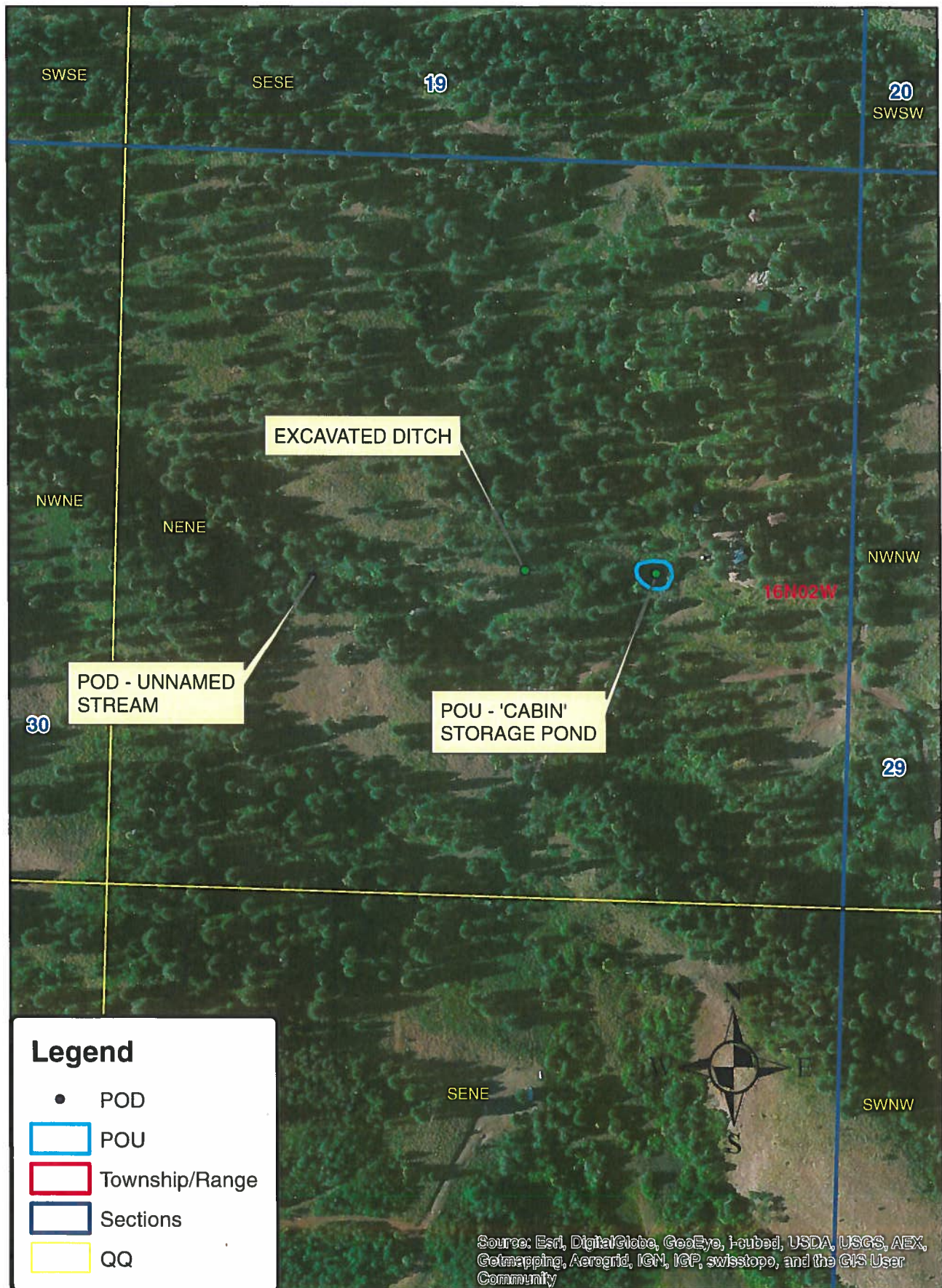
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 11/15/13

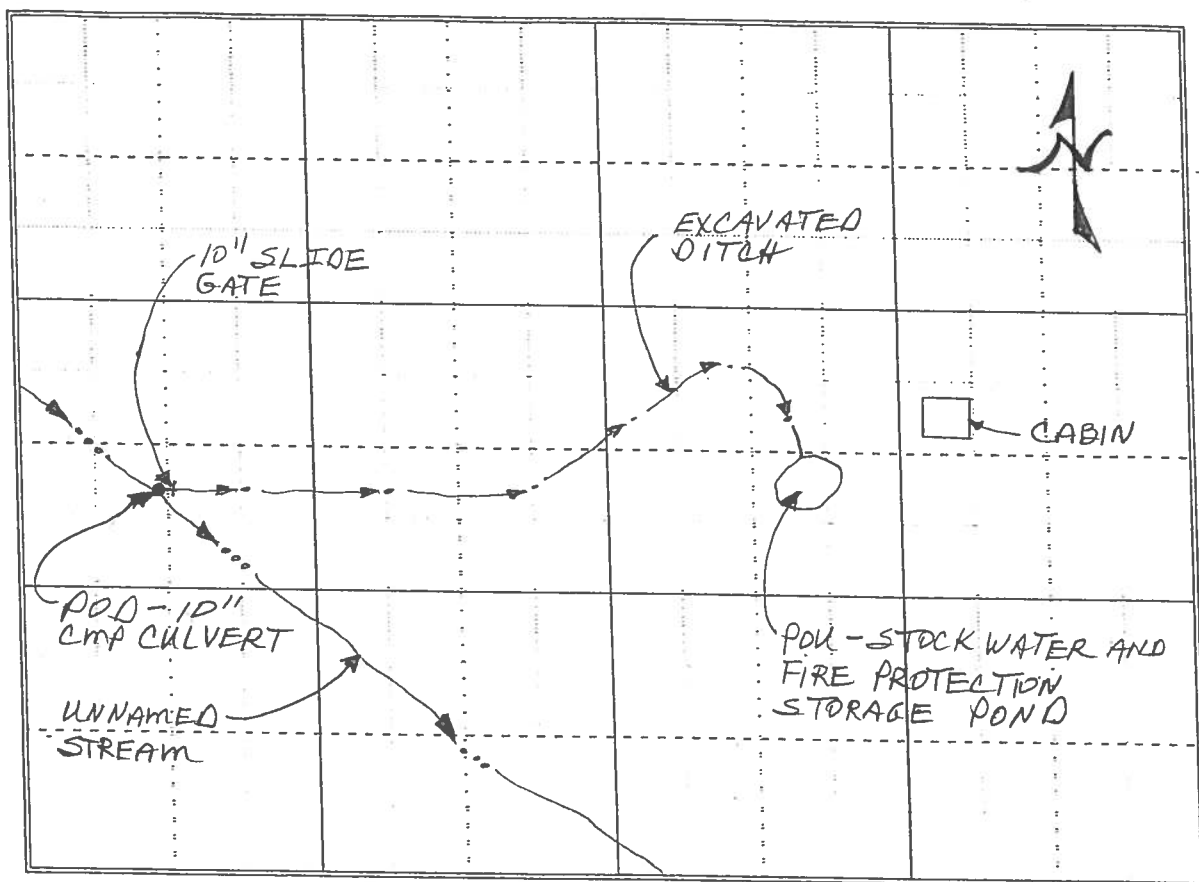
Reviewer _____ Date _____

67-14278

ESRI AERIAL PHOTO - 2012



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" = NTS

- ☐ 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

FIELD EXAM PHOTOS

Water Right Permit: 67-14278

Field Exam Date: 7-15-13

PLS: NE1/4, NE1/4 Section 27, T.16N, R.02W.

Field Examiner: RC



Point of Diversion: View westerly of a 10" slide gate at the head of an excavated ditch. Approximately 10 – 12 feet of buried 10" CMP culvert pipe diverts water from the Unnamed Stream to the excavated ditch and 10" slide gate.



Point of Diversion: View southeasterly of the 10" CMP culvert pipe diverting water from the Unnamed Stream.



View westerly and upstream of the excavated ditch which conveys water to a pond known as the 'Cabin Pond'.



Place of Use: View of the point of discharge for the excavated ditch into the stock water and fire protection storage pond.



Place of Use: View from the easterly bank of the stock water and fire protection storage pond. The point of discharge from the excavated ditch is located at the far side of the storage pond.