

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-12245

Exam Date: 8/14/2013

1. Current Owner: RAYMOND K STOLTEY
535 HIGH MEADOWS LN
NEW MEADOWS ID 83654
(208)628-4116
2. Accompanied by: Carol Stoltey
Phone No: Same
Address: Same
Relationship to Permit Holder: Wife

3. SOURCE

LITTLE ELK CREEK

TRIBUTARY

ELK 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:

LITTLE ELK CREEK SW1/4SE1/4
IDAHO County

Sec. 23, Twp 22N, Rge 01E, B.M.

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: DOMESTIC STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
22N	01E	23	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
														X					

PLACE OF USE: DOMESTIC FROM STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
22N	01E	23	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
														X					

DIVERSION TO STORAGE same as DOMESTIC FROM STORAGE

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	4"

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. As required by Approval Condition No.4, convenient access and inspection to the faucet valve for a bucket measurement shall be provided. The right holder installed a faucet valve, but I was unable to reach the end of the 4" PVC overflow pipe to obtain a measurement due to brush and the rocky slope. Estimated discharge velocity of 4 ft/sec and water depth of 1" in overflow pipe. Flow area = 0.02 ft².
 $Q(\text{estimated}) = VA = 4 \text{ ft/sec} \times 0.02 \text{ ft}^2 = 0.08 \text{ cfs}$.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method: (Continuity Equation)

$$Q = VA = 5 \text{ ft/sec} \times 0.022 \text{ ft}^2 = 0.11 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.11 \text{ cfs} > 0.02 \text{ cfs } Q(\text{permit})$$

$$V = 5 \text{ ft/sec (Estimated)}$$

$$A = 0.022 \text{ ft}^2$$

Appears that the current water supply system is capable of attaining 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: Domestic Storage Pond

Storage Pond Surface Area – 0.12 ac.

Maximum Pond Depth – 8'

$$V(\text{Storage Pond}) = 0.12 \text{ ac.} \times 8' = 0.96 \text{ AFA} \sim 1.0 \text{ AFA}$$

Assume evapotranspiration losses of 1.0 AFA

$$V(\text{Storage Pond}) = 1.0 \text{ AFA} + 1.0 \text{ AFA} = 2.0 \text{ AFA}$$

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

Water is diverted from Little Elk Creek through 2" PVC pipe. A 4" PVC reducer fitting is attached to the 2" PVC pipe to divert water. A small screen was installed in the PVC fitting to prevent fish from entering the 2" PVC pipe supply line. The water supply pipe size increases to 4" PVC pipe approximately 200' downstream from the point of diversion. Water flow through the 4" PVC supply line is controlled by a 4" valve. When water is not being discharged to the right holder's domestic storage pond, an additional 4" valve diverts the flow through a 2" PVC overflow pipe. The 2" PVC overflow pipe increases to 4" PVC pipe prior to discharging water back to Little Elk Creek.

STORAGE POND:

A domestic storage pond, with a surface area of approximately 0.12 acres, provides water for domestic external use for irrigation of lawn and landscaping adjacent to the right holder's home. Water from Little Elk Creek is diverted to the storage pond from November 1 to June 30. The right holder is not allowed to divert water to the storage pond from July 1 to October 31.

IRRIGATION SYSTEM:

Water from the storage pond is discharged through a valve-controlled section of 4" PVC pipe to a 4" PVC pipe discharge manifold. Water from the 4" PVC pipe manifold is discharged through a 2" PVC supply line. Flow in the 2" PVC supply line is controlled by a 2" hand-operated gate valve. The right holder has installed 'tee' assemblies along the 2" PVC supply line to divert water to various locations for irrigation of lawn and landscaping. The right holder irrigates with hoses and various types of sprinklers.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 78-12245.

Place of Use: There are no place of use overlaps for Water Right Permit No. 78-12245.

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

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.02	&/or	4.0
Beneficial Use Limit	0.02	&/or	N/A
System Measurement	0.11(theoretical)	&/or	2.0
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.02	&/or	N/A

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	0.020 CFS	
DOMESTIC STORAGE	01/01 to 12/31		2.00 AF
DOMESTIC FROM STORAGE	04/01 to 12/31		2.00 AF
<u>Totals:</u>		0.020 CFS	2.00 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

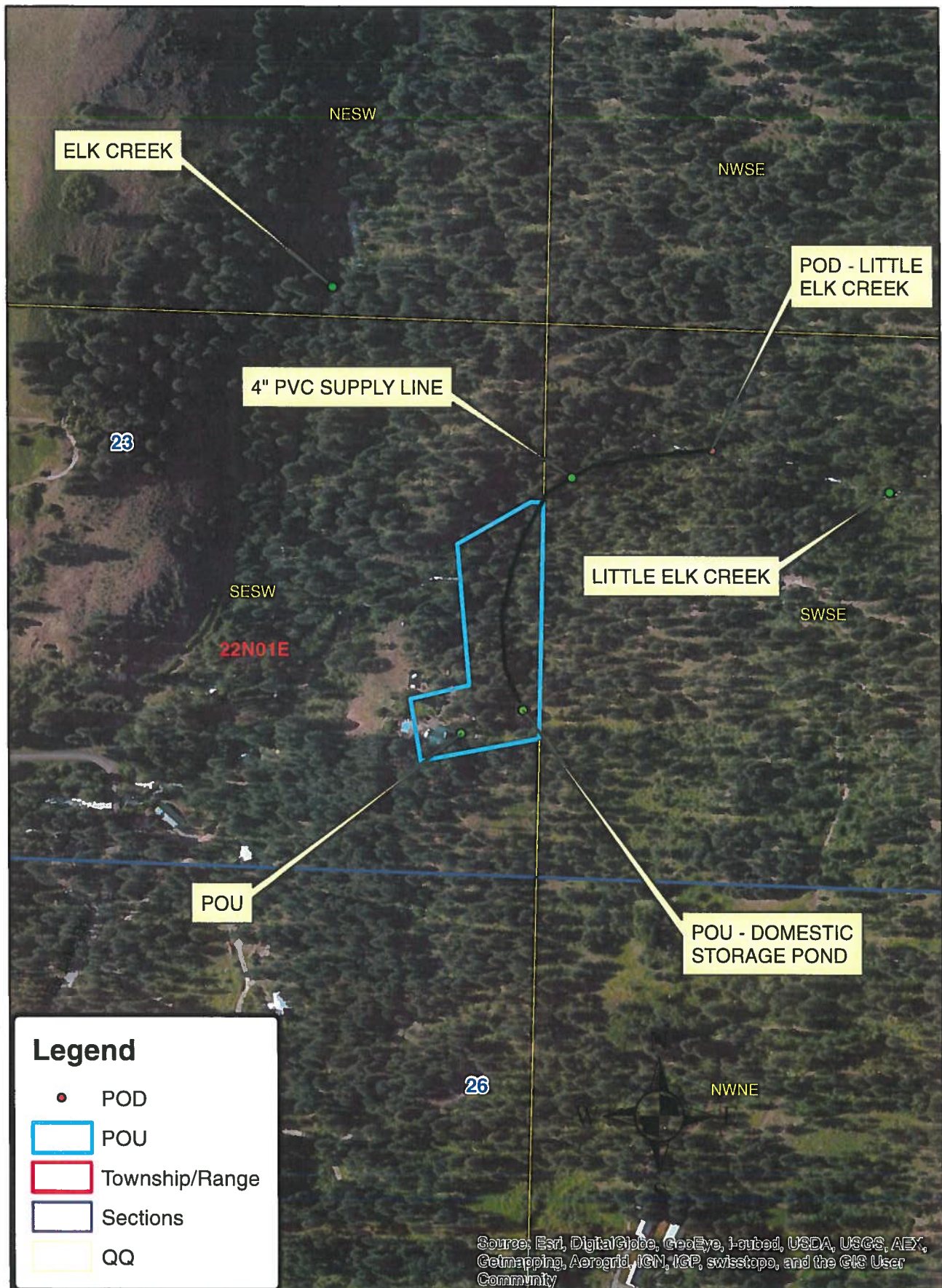
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 12/31/13

Reviewer _____ Date _____

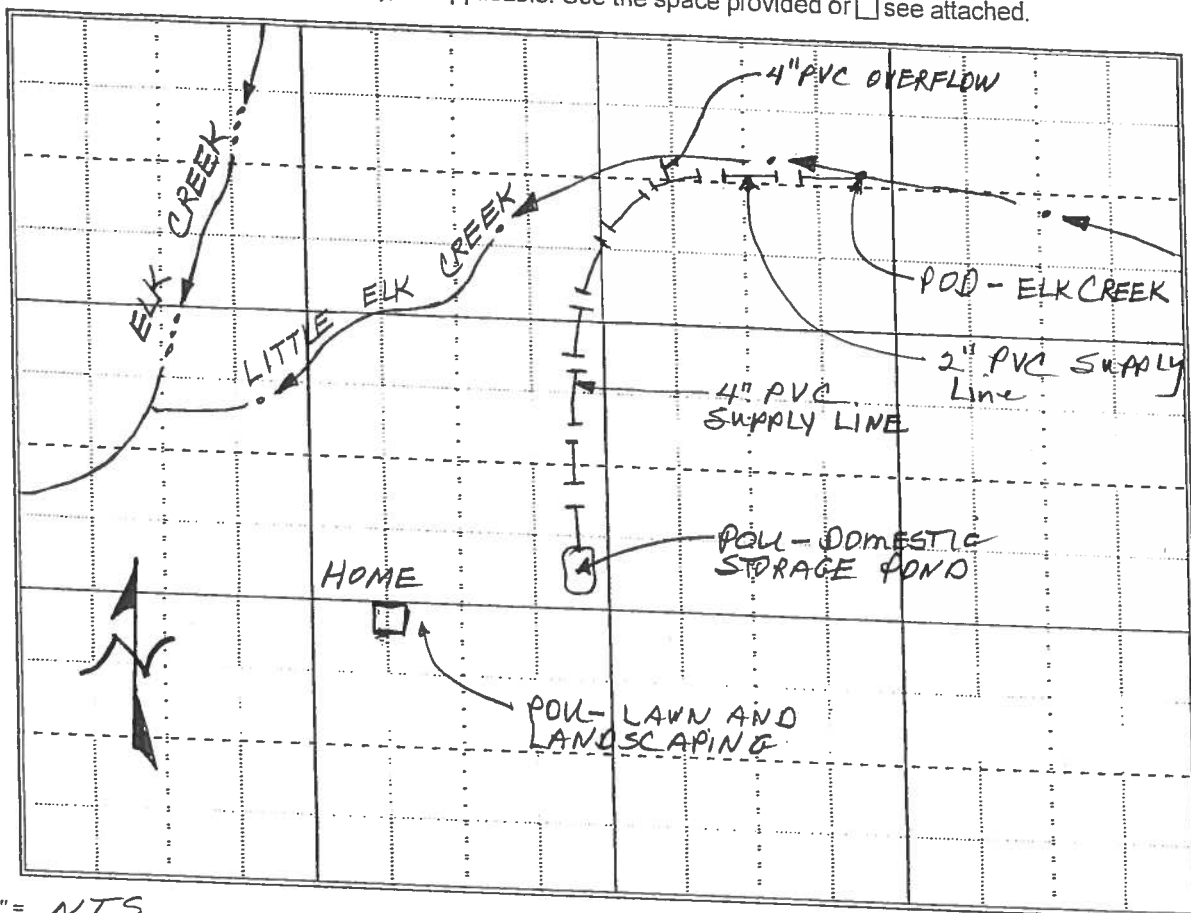
78-12245

ESRI AERIAL PHOTO - 2012



0 110 220 440 660 880 Feet

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: 78-12245

Field Exam Date: 8-14-13

PLS: SE1/4, SW1/4 Section 23, T.22N, R.01E

Field Examiner: RC



Point of Diversion: View of 2" PVC supply line with a 2" PVC reducer to capture water from Little Elk Creek.



View upstream of Little Elk Creek of the 2" PVC supply line. Miscellaneous PVC pipe sections are scattered along the bank of Little Elk Creek.



View of the 4" PVC supply line and a 2" PVC overflow pipe. The 2" PVC overflow pipe expands to 4" PVC prior to discharging to Little Elk Creek. The two valves on the 4" PVC supply line regulate the flow to the storage pond and the overflow pipe to Little Elk Creek.



Place of Use: View of the domestic storage pond. The 4" PVC supply line is shown entering the pond. Water is discharged from the storage pond through 4" PVC pipe to 4" PVC discharge manifold located at the toe of the dam.



View of the 4" PVC discharge manifold located at the toe of the dam. The blue handled valve controls flow from the storage pond. The gold gate valve controls the flows to the irrigation system around the home.



Place of Use: View of the typical irrigation for the lawn and landscaping around the home. Valves at supply line 'tees' directs flow to lawn and landscaped areas for irrigation.