

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-12224

Exam Date: 10/20/2011

1. Current Owner: LAIRD PROCTOR
PO BOX 279
GARDEN VALLEY ID 83622
(208)462-3143
2. Accompanied by: Laird Proctor
Phone No: (208) 462-3143, cell (208) 869-639
Address: same as above
Relationship to Permit Holder: self

3. SOURCE

SPRINGS

TRIBUTARY

SINKS

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:

SPRINGS	NE1/4SW1/4SW1/4	Sec. 32,	Twp 20N,	Rge 02E, B.M.	ADAMS County
SPRINGS	NW1/4SW1/4SW1/4	Sec. 32,	Twp 20N,	Rge 02E, B.M.	ADAMS County
SPRINGS	NW1/4SW1/4SW1/4	Sec. 32,	Twp 20N,	Rge 02E, B.M.	ADAMS County

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

2.

PLACE OF USE: STOCKWATER and WILDLIFE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
20N	02E	32												X					

PLACE OF USE: STOCKWATER STORAGE and WILDLIFE STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
20N	02E	32												X					

DIVERSION TO STORAGE same as WILDLIFE STORAGE

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

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

Three individual developed springs (buried rock) that discharge/seep into 3 separate ponds, with gravity flow overflow to the next pond or drainage ditch and sinking.

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

D. FLOW MEASUREMENTS

1. Measurements:

No physical measurement was collected during the time of the beneficial use field exam, due to no active flow from the springs. There was direct evidence of the ponds having been filled earlier in the season, and the drainage ditches between the ponds; also livestock foot-prints in the surrounding area and wildlife.

2 inch overflow pipe from pond #1:

$$Q = 5 \times 3.1416 \times (\text{diameter}/12)/2\text{-squared} = 0.11 \text{ cfs}$$

Table 1 Recommended Diversion Rate for Stockwater (cattle): 51 – 100 head = 0.03 cfs

RECOMMENDATION: Mr. Proctor stated that he collected samples from POD#1 with the average flow being 5gpm $\times 0.00223 = 0.01115$ cfs. Even if there had been an active flow from POD#2 and POD#3, there would have not been a means of measuring these unless it had been in the spring time with overflow discharging to the drainage ditch. It is not unrealistic to think that each spring would produce at least the same amount, due to the sizing of the ponds. I would recommend 0.03 cfs as permitted as the total additive diversion rate for the 3 individual springs.

E. VOLUME CALCULATIONS**Wildlife and Stock (same water, therefore not additive)**

$$\text{Vir} = (100 \text{ head} \times 12 \text{ gpd} \times 365 \text{ days})/325,850 = 1.34 \text{ af} = 1.3 \text{ af}$$

$$\text{Vdr} = 0.03 \text{ cfs} \times 365 \text{ days} \times 1.9835 = 21.7 \text{ af}$$

$$V = 1.3 \text{ af}$$

Wildlife Storage and Stockwater Storage (same water, therefore not additive)

$$\text{Pond \#1: } (30' \times 25' \times 2 \frac{1}{2}')/43560 = 0.025$$

$$\text{Pond \#2: } (20' \times 15' \times 2 \frac{1}{2}')/43560 = 0.017$$

$$\text{Pond \#3: } (50' \times 25' \times 2 \frac{1}{2}')/43560 = 0.071$$

$$\text{Total: } 0.113 = 0.1 \text{ af}$$

Precipitation Loss Calculation: None. When the total acres were calculated that make up the ponds, they are so minimal that there is no factor to be added (only 0.05 acres). See attachment.

RECOMMENDATION: Stockwater and Wildlife 1.3 af; Stockwater Storage and Wildlife Storage 0.1 af

Total Annual Volume: 1.4 af

F. NARRATIVE/REMARKS/COMMENTS

POD #1 is a developed spring (with buried rock) that discharges/seeps into a 30 ft X 25 ft X 2 1/2 ft pond with a 2 inch overflow to a 30 gallon trough. If there is a high production from the spring or high rainfall/snowmelt, the overflow from pond #1 will go down a ditch to pond #2. POD #2 is a developed spring (with buried rock) that discharges/seeps into a 20 ft X 15 ft X 2 1/2 ft pond with the overflow going down a drainage ditch to pond #3. POD #3 is a developed spring (with buried rock) that discharges/seeps into a 50 ft X 25 ft X 2 1/2 ft pond, with the overflow discharging to an existing drainage ditch and sinking. Stockwater is for 100 head cattle (property is leased out to a neighbor who moves his cattle around, providing fire production keeping the foliage down). Wildlife is for cougars, bear, deer, elk, turkeys, owls, cranes, ducks, and numerous birds.

Directions: North on Hwy 95, through New Meadows, turn east on Circle C Rd (near Zim's location), turn north on Campbell Rd and go 1.8 miles (keeping to the right at the splits in the road). At Rd #305 split, stay to the right and go about 0.1 mile, then take the first dirt road to the right and follow it down to Mr. Proctor's cabin.

Have conditions of permit approval been met? ☒ Yes ☐ No Condition 029 will not be included on the license, due to confirming that the tributary is not Martin Creek, but rather the overflow goes down a drainage ditch, then sinks.

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	0.030 CFS	1.30 AF
STOCKWATER STORAGE	01/01 to 12/31		0.10 AF
WILDLIFE	01/01 to 12/31	0.030 CFS	1.30 AF
WILDLIFE STORAGE	01/01 to 12/31		0.10 AF
DIVERSION TO STORAGE	01/01 to 12/31	0.030 CFS	
<u>Totals:</u>		0.030 CFS	1.40 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

Judy Hemenway Date *12/6/2011*

Precipitation Loss Calculation

Date: December 7, 2011
Prepared by: Sandy Hemenway
Water Right No: 78-12224

P = Precipitation
ET = Evapotranspiration
 P_d = Precipitation deficit
 $P_d = P - ET$

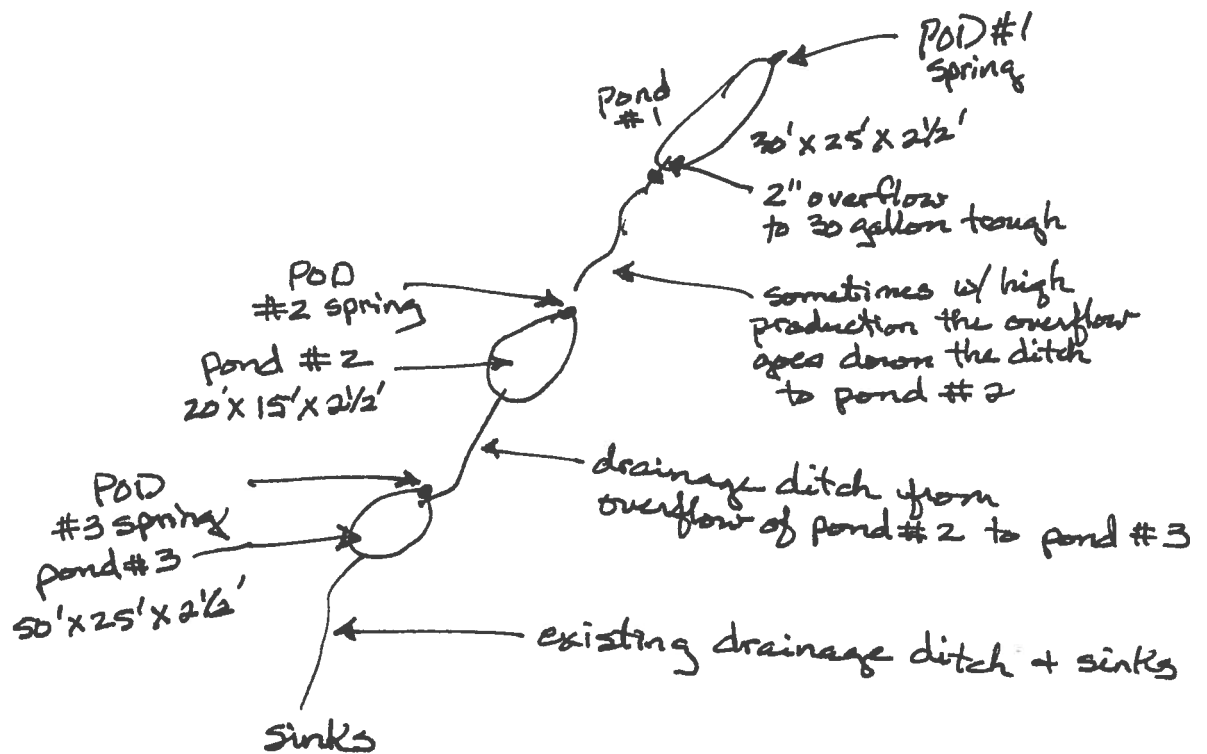
P_d

Found at: <http://www.kimberly.uidaho.edu/ETIdaho/>

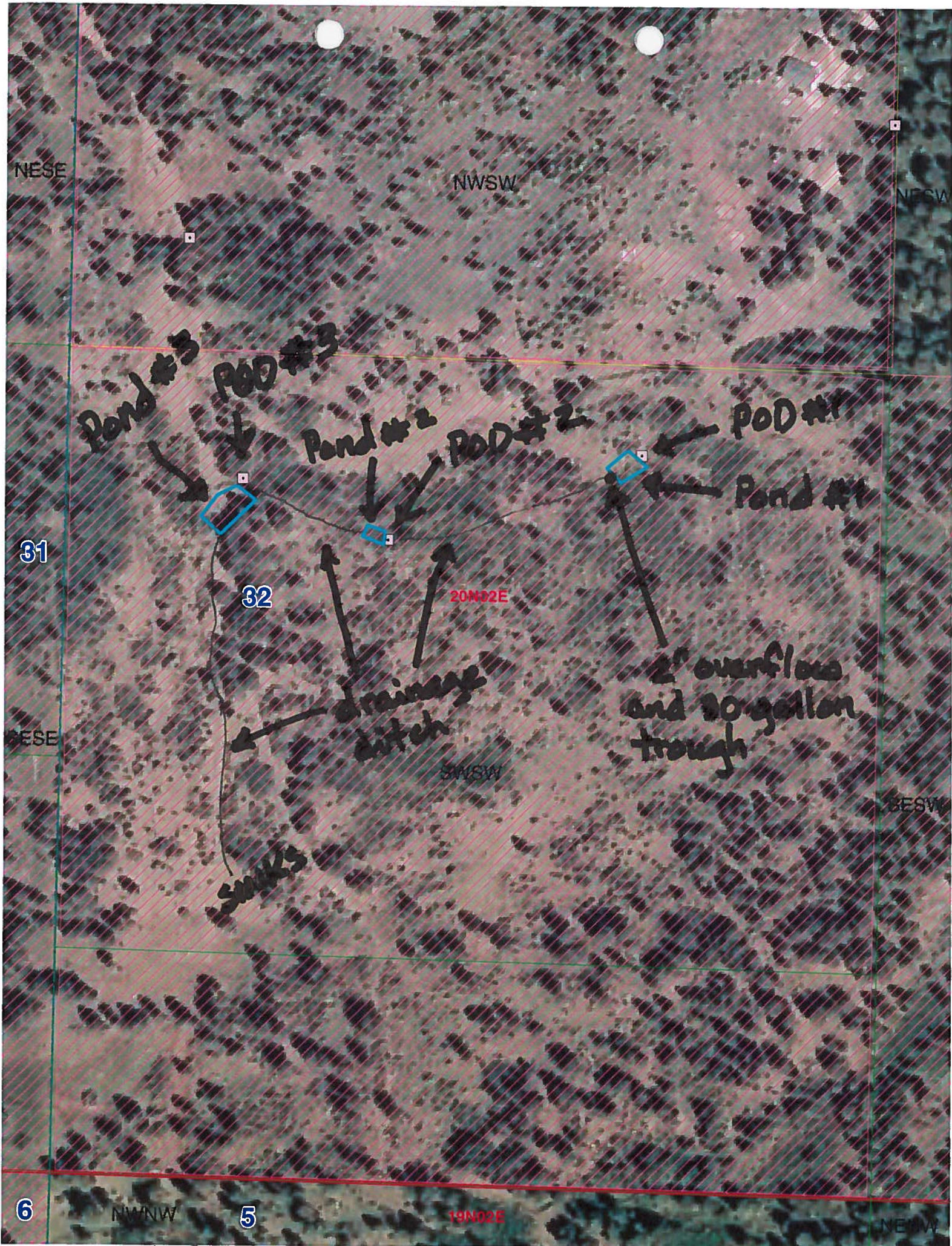
$$\begin{array}{ccccccc} P_d & \text{convert to} & & & & & \\ = & \text{AFA:} & (\text{mm/yr}) & / & (\text{convert to} & \times & \text{\# acres} \\ & & 184 & & 304.8 & & 0.05 \\ & & \text{(From ET Idaho)} & & & & \end{array} =$$

$$P_d = 0 \text{ AFA}$$

* Use the Precipitation Deficit for 'P' value



(Not to scale, but for descriptive reasons.)





POD
#1
Spring
(buried
rock to
collect
water)

Pond
#1
30' x 25'
x 2 1/2'
deep

10/20/2011



2"
overflow
that
flows +
pond #1
during
spring
time
with
higher
producti
snowm
and
rainfal

10/20/2011



Stockwater
trough

10/20/2011



Pond
w/ trough

10/20/2011



POU:
Pond#: 20' x 15' x 2 1/2'

POI #2 spring (buried rock & collecti water)



overflow to drainage ditch

POU:
Pond#: 50' x 25' 2 1/2'

POD: spring

drain ditch from pond#