

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 36-8800

Exam Date: 7/21/2014

1. Current Owner: DEAN HOWARD
920 PLAINVIEW DR
TWIN FALLS ID 83301
(208)734-7754

DOROTHY HOWARD
920 PLAINVIEW DR
TWIN FALLS ID 83301
(208)734-7754

2. Accompanied by: Gary Johnson, operator, by phone
Phone No: 208-731-2398
Address: NA
Relationship to Permit Holder: Operates the farm

3. SOURCE TRIBUTARY
WASTE WATER WILSON LAKE

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: 36-4049A and 36-4049B

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

WASTE WATER SE1/4NW1/4NE1/4 Sec. 32, Twp 09S, Rge 20E, B.M.
JEROME County

Method of Determination: Aerial imagery and site visit

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
09S	20E	29	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	12.7
																			12.7

Total Acres: 12.7

Method of Determination: Aerial Imagery and site visit

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</u> <u>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</u> <u>Size</u>
Pond Pump	U.S. Electrical	50			

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

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Flowmeter	Sonic	Fuji				

2. Measurements:

Performed a 5 minute flowmeter test on wheel line running on sugarbeets on permit ground.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

Average flow was 220 gpm or 0.49 cfs. Permit sought 0.26 cfs, so sufficient flow is available for permit. The other rights diverted from this POD, have a combined diversion rate of 1.35 cfs, and by running a theoretical calculation of flow from this pump:

$$Q = 8.8 \times \text{HP} \times \text{Efficiency} / \text{Lift} + (\text{PSI} \times 2.31) = 8.8 \times 50 \times 0.7 / 20 + (60 \times 2.31) = 1.95 \text{ cfs}$$

There is adequate capacity to supply the flow rate for the existing water rights and the permit.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{\text{I.R.}} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 12.7 \times 4.0 = 50.8 \text{ AF}$$

$$V_{\text{D.R.}} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.26 \times 245 \times 1.9835 = 126.35 \text{ AF}$$

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = 50.8 \text{ AF}$$

2. Volume Calculations for Other Uses: NA

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 36-8800 was completed on July 21, 2014. The permit is in the name of Dean and/or Dorothy Howard, who are apparently deceased, according to the current operator of the farm, Gary Johnson, whose family also operates the farm that is contiguous to this one. Tax lot data and the application for permit indicate that the ground is owned by the Bureau of Land Management and is irrigated under the Sikes Act. The north portion of the property is managed by the Idaho Department of Fish and Game for wildlife habitat, while the southern portion is farmed by the Johnson family in the same crop they have planted on their own ground.

The irrigation for the permit is plumbed in with the Johnson irrigation system. The water is diverted from the wastewater stream in a concrete checkbox into a pipeline which runs to the south for approximately 300 feet to a small pond where it is pressurized by a 50 HP pump. Buried main line pipe services wheel lines on about 75 acres of the Johnson farm in addition to the Howard permit. The portion of the permit for wildlife habitat is sprinkled by two ¼ mile hand lines.

On the day of this exam, one of the wheel lines was running on the cropped portion of the permitted ground. It was a 4" X ¼ mile line with 32 birds of various sizes and styles. Flow, as measured by a sonic flowmeter was 220 gpm or 0.49 cfs, which is more than adequate for the permitted flow rate. Recommend licensing at permitted rate of 0.26 cfs, with a volume of 50.8 AF, based on 12.7 acres at the standard field headgate requirement in that area of 4.0 AF/acre.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

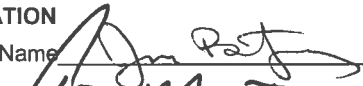
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.260 CFS	50.80 AF
<u>Totals:</u>		0.260 CFS	50.80 AF

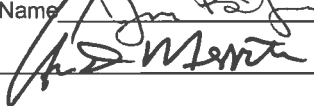
2. Recommended Amendments

☐ 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

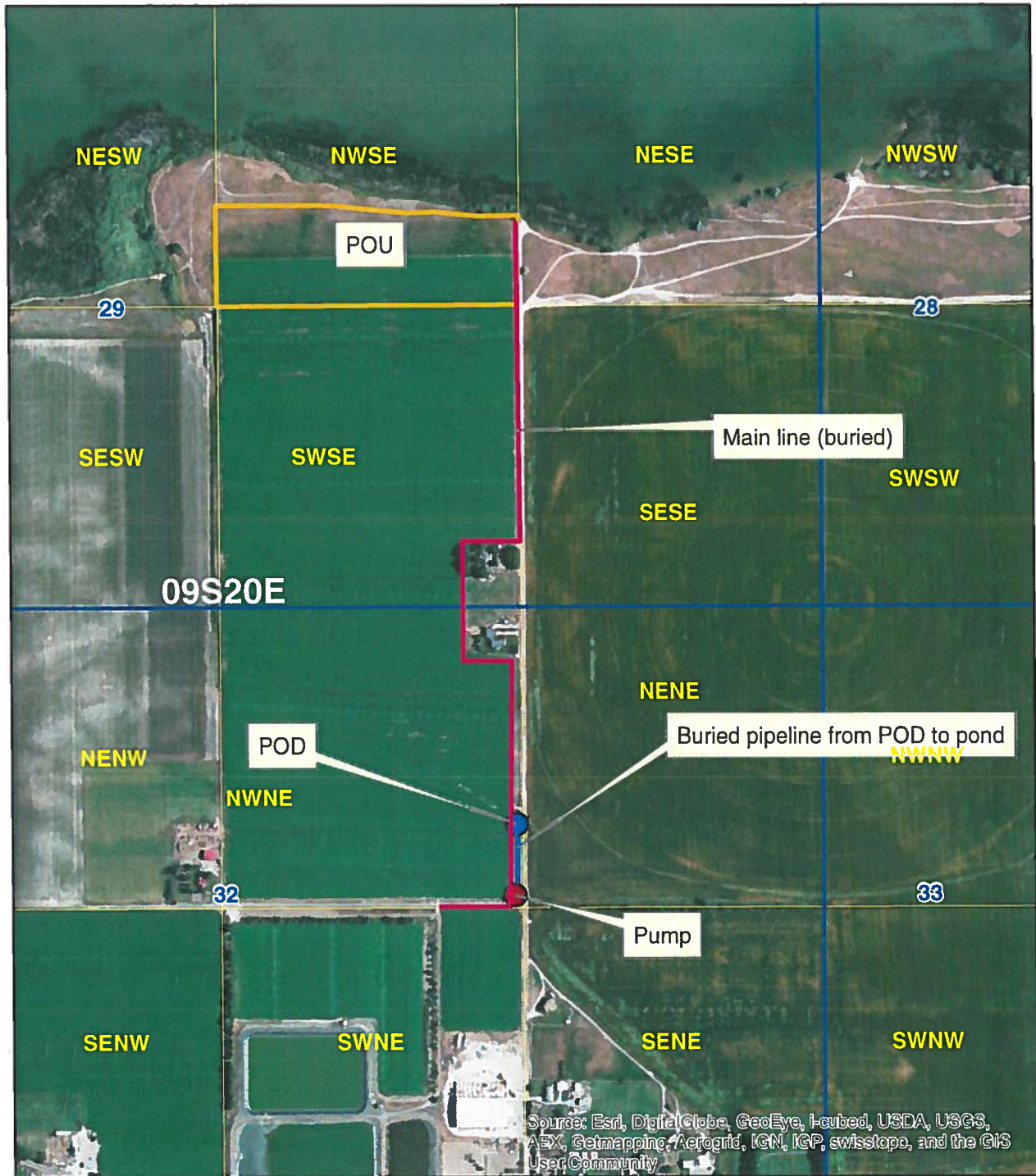
I. AUTHENTICATION

Field Examiner's Name  Date 7/21/2014

Reviewer  Date 7/31/14

Idaho Department of Water Resources

System Diagram



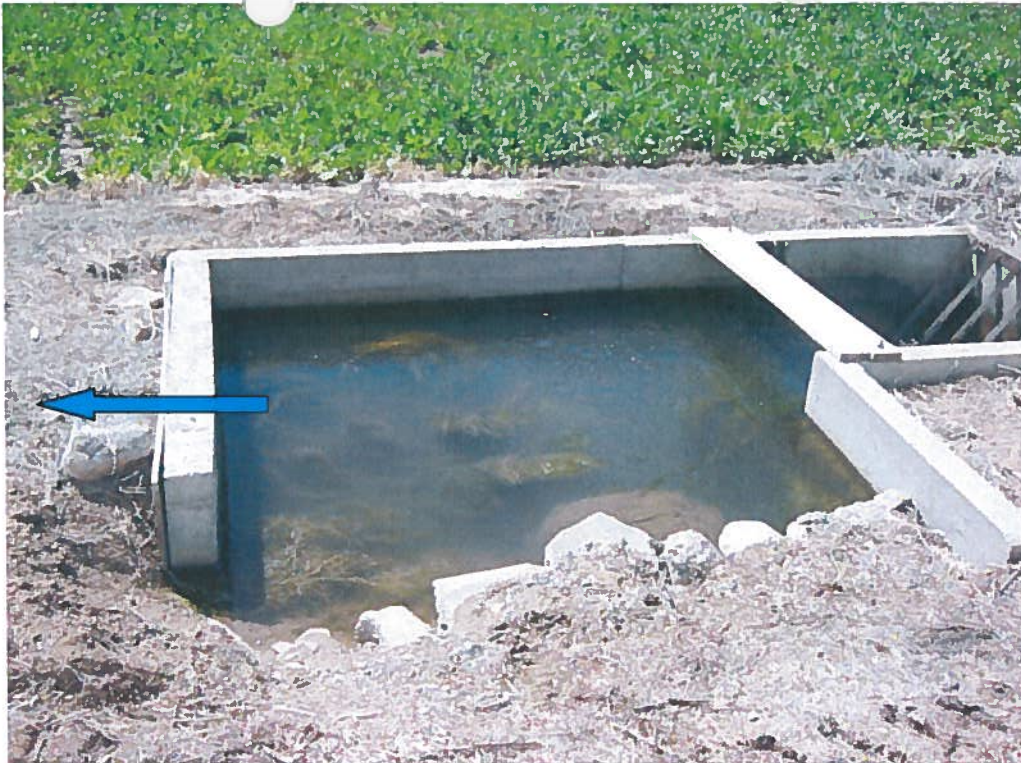
Howard 36-8800

Legend

- Township/Range
- Sections
- QQ

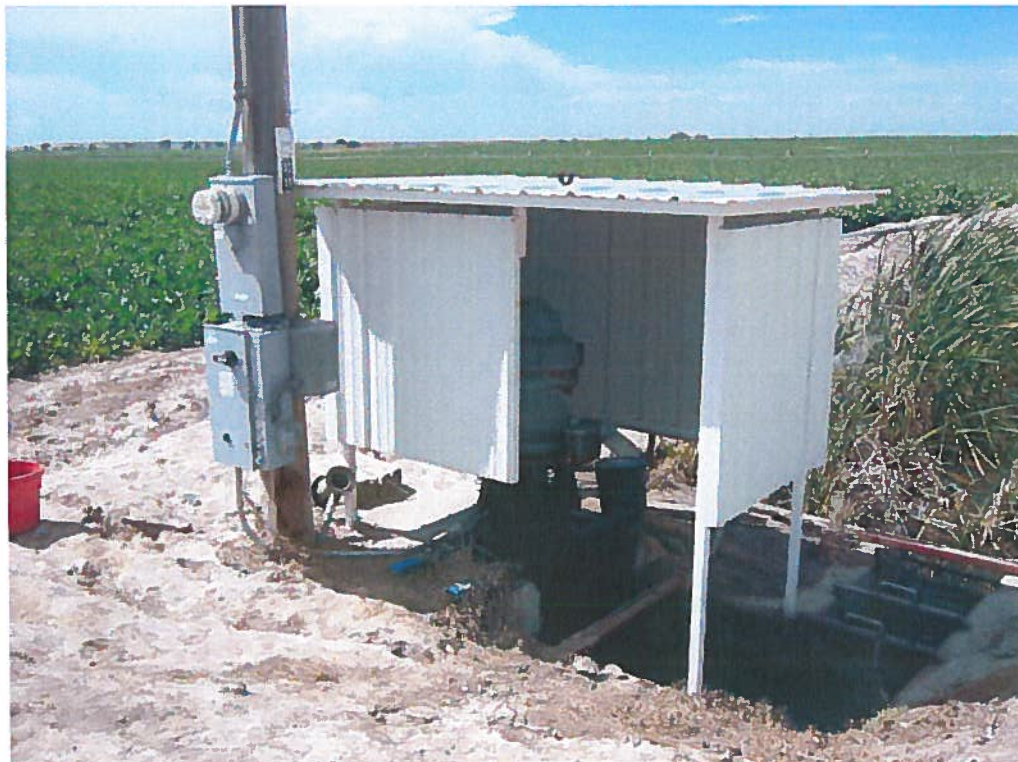
0 0.05 0.1 0.2 Miles





POD- Arrow indicates flow direction of water in pipeline toward pump.

Pump pressurizes water into a sprinkler system.





Wheel line on agricultural portion of POU

Hand line on wildlife portion of POU





View of POU looking west- sugar beets on agricultural portion, grass and weeds on wildlife portion.

View of POU looking east. Wildlife portion has been sparsely irrigated.



LD02

No. 02

LOG NAME:HOWARD

START :07-21 15:11

END :07-21 15:16

INTERVAL:00:01:00

7/21/2014 15:11

+6.081E+0 ft/s

+2.211E+2 gal/m

+TOTAL 0000000 gal

NORMAL

7/21/2014 15:12

+6.012E+0 ft/s

+2.186E+2 gal/m

+TOTAL 0000216 gal

NORMAL

7/21/2014 15:13

+6.078E+0 ft/s

+2.210E+2 gal/m

+TOTAL 0000436 gal

NORMAL

7/21/2014 15:14

+6.049E+0 ft/s

+2.199E+2 gal/m

+TOTAL 0000657 gal

NORMAL

7/21/2014 15:15

+6.059E+0 ft/s

+2.203E+2 gal/m

+TOTAL 0000878 gal

NORMAL

7/21/2014 15:16

+6.146E+0 ft/s

+2.234E+2 gal/m

+TOTAL 0001098 gal

NORMAL