

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 61-7738

Exam Date: 8-27-2012

1. Current Owner: THEODORE W HOFFMAN
600 NE BROKEN CIRCLE DR
MOUNTAIN HOME ID 83647-5283
(208)587-6374
2. Accompanied by: Kate
Phone No: Same as above
Address: Same as above
Relationship to Permit Holder: Daughter of applicant

3. SOURCE WASTE WATER TRIBUTARY CANYON 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 SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

WASTE WATER L2 NW1/4NE1/4 Sec. 2, Twp 03S, Rge 06E, B.M., ELMORE County

Method of Determination: Visual inspection and GPS.**2. PLACE OF USE: IRRIGATION**

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03S	06E	2	3.2	11.0															14.2
			L 1	L 2															3.2

Total Acres: 14.2
3.2 6-6-12Method of Determination: Visual inspection and GIS

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/pipe id. as applicable.

SEE ATTACHED SHEET.YES Aerial Photo Attached (required for irrigation of 10+ acres).YES Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
A0018518	UK	5	JMM3212T	UK	1 inch

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: Performed theoretical calculation and sprinkler pressure test. No way to get actual flow measurement by other means.

E. FLOW CALCULATIONS

___X___ Additional Computation Sheets Attached

Measured Method:

Ten (10) sprinklers with 1/8 inch nozzles at an average pressure of 45 psi field examiners handbook chart states 1/8 inch nozzles at 45 psi = 3.13 gpm per nozzle.

$$10 \times 3.13 = 31 \text{ gpm or } .07 \text{ cfs}$$

Theoretical = 0.23 cfs

Sprinkler test = 0.07 cfs

Permit allowed 0.76 cfs

Rate per acre = 0.28 cfs

I recommend the diversion of 0.07 cfs which is the capacity of the system

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 14.2 \times 4 = 56.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.07 \times 246 \times 1.9835 = 34.2 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 34.2 \text{ af} \quad 12.8 \text{ af}$$

2. Volume Calculations for Other Uses:**G. NARRATIVE/REMARKS/COMMENTS**

Waste water diverted through ditch and piping to culvert, five HP pump diverts water to main lines of ten (10) sprinkler head irrigation system. It does not appear that 11.2 acres on hill to the west POD have not been irrigated for several years. Pipeline is installed to facilitate irrigation. Owner indicated that they have attempted to irrigate this land in the past. ~~It is included here because it appears it was irrigated at the time beneficial use was filed.~~ 12 acres north of the POD appear to be irrigated with Canyon Creek water and canal company water and therefore is not included herein.

Measurement device requirement was waived per order dated June 17, 2002 therefore all conditions of the permit have been met.

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	0.070 CFS	34.20 AF 12.8
<u>Totals:</u>		0.070 CFS	34.20 AF 12.8

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 Chad F. Hersley, Technical Hydrogeologist

Field Examiner's Name Chad F. Hersley Date 8-30-2012

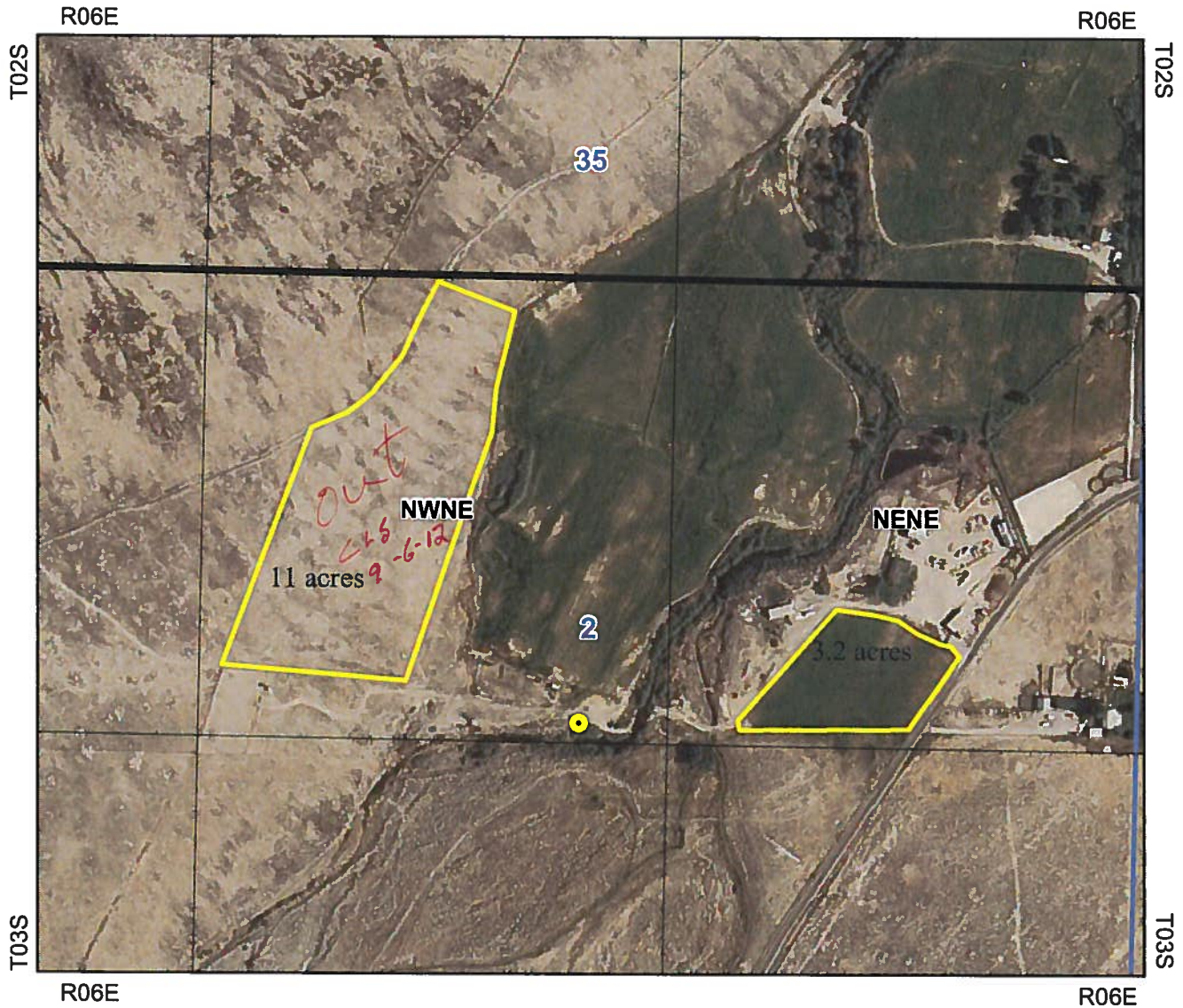
Reviewer Greg L. Smith Date 9-6-12

State of Idaho
Department of Water Resources

Attachment To Water Right License

61-7738

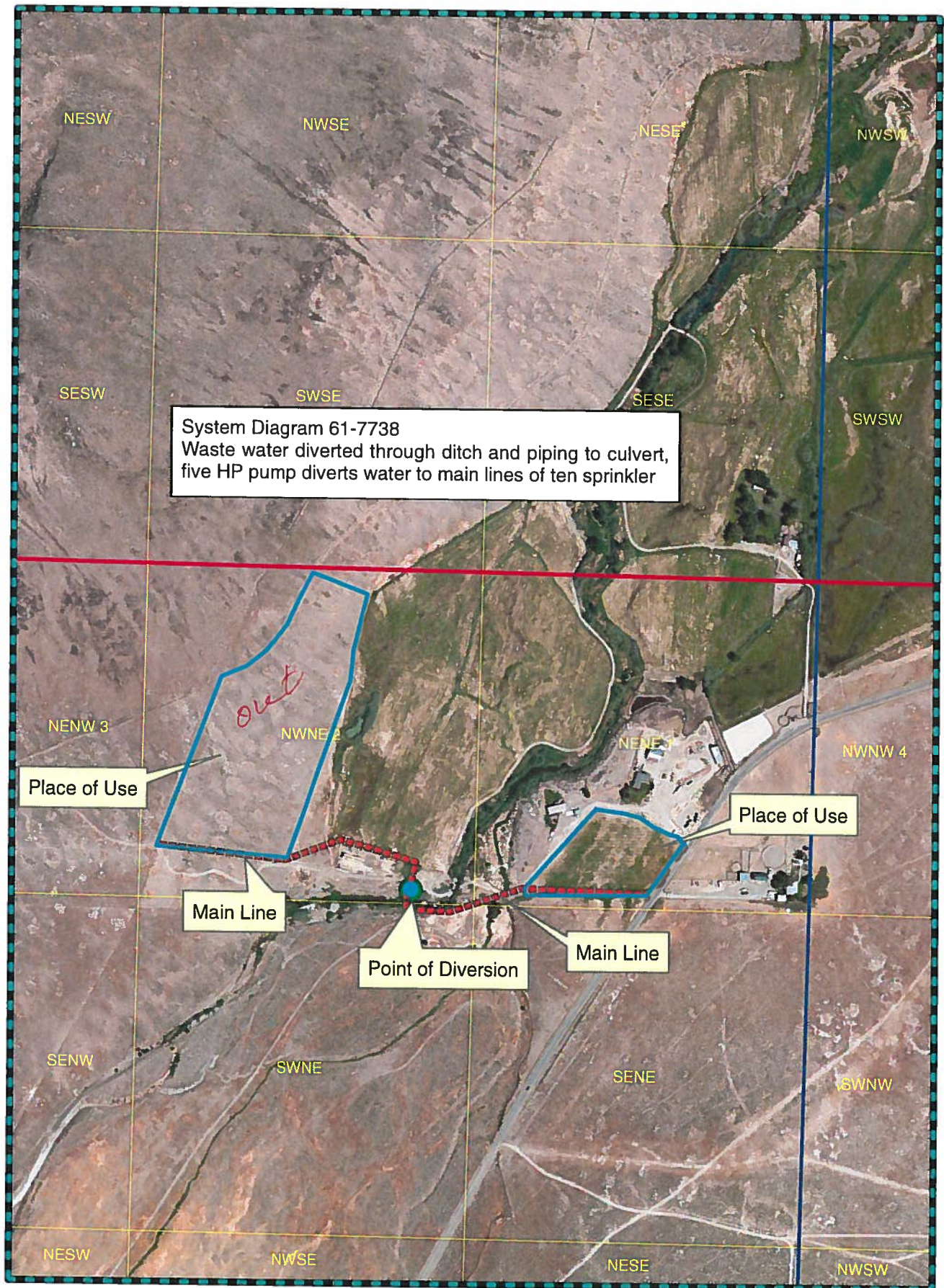
This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



0 0.05 0.1 0.2 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters





GROUNDWATER THEORETICAL ANALYSIS

FILE: 61-7738

DATE: 8/29/12

BY: Chad F. Hersley

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (HP) \times (EFF.))}{TDH}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

(8.8) X (5.0) X (0.70) 30.800

[(3.0) + (55.0 X 2.31)] 130.050

Q = 0.237

LIFT FROM:

Measurement ☐
Owner ☐
Area estimate ☒
Well Logs ☐

Booster Y ☐ N ☒

PSI FROM:

Measurement ☐
Owner ☐
Estimate ☒
Owner Gage ☐

NOTES ON PUMP:

Motor Make, Serial or ID
JMM3212T
Pump Make, Serial or ID, rating
UK

REMARKS: _____

FILE NUMBER 61-7738



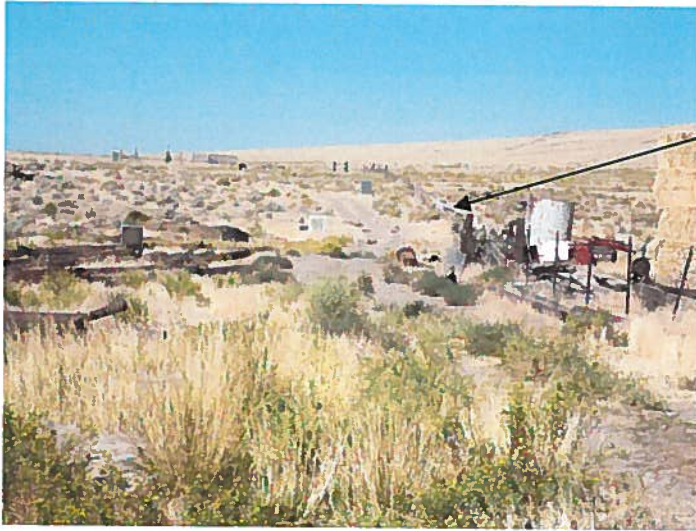
Pump house (POD)



Sump (culvert) collecting waste water from irrigation



Pump and motor, 1 inch discharge on top of pump



View looking west from POD.

Mainline running up hill from
POD



Close up of mainline noted above



View from west end of mainline
looking east toward POD



Looking northeast, sage brush and
dry grass in foreground are on
11.2 acres covered under water
right 61-7738