

[illegible]

PLACE OF USE: AESTHETIC STORAGE

TwpRge Sec	NE				NW				SW				SE				Totals
01N 13E 14	<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: RECREATION

TwpRge Sec	NE				NW				SW				SE				Totals
01N 13E 14	<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: RECREATION STORAGE

TwpRge Sec	NE				NW				SW				SE				Totals
01N 13E 14	<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 RECREATION STORAGE

Method of Determination:

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- X Aerial Photo Attached (required for irrigation of 10+ acres).
- X Photo of Diversion and System Attached

4.

<u>Well or Diversion</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>
<u>ID No.*</u>					

Gravity flow from Three Mile Creek through a concrete ditch, to buried pipe that open discharges to a smaller ditch that flows to the first small pond.

D. FLOW MEASUREMENTS

1.

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

Portable 90 degree V-Notch Weir

2. Measurements:

On June 9, 2015 Corey Skinner and I utilized a portable weir at the end of the concrete ditch before it diverted into the big pond. A temporary dam was built using two weir plates and saturated earth to force the ditch flow through a 90 degree V notch weir. A head measurement of 3.25 inches (0.27 feet) was obtained. The Bureau of Reclamation Water Measurement Manual for a 90 degree V notch weir (Table A-9) indicates that 0.27 feet of head corresponds to a flow of 0.097, or roughly the permitted flow rate of 0.10 cfs. Note there was a small amount of additional water flowing around the temporary dam and weir plates. (see attached pics) **Recommend the IDWR standard flow rate of 0.02 for stockwater and the permitted flow rate of 0.10 cfs for aesthetic, recreation and diversion to storage.**

E. FLOW CALCULATIONS

_____ Additional Computation Sheets

Attached

N/A

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

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

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

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

2. Volume Calculations for Other Uses:

Total surface area for the four little ponds= 1.37 acres

Average depth of four little ponds= 3.5 feet

Volume of four little ponds = 1.37 acre X 3.5 ft. = 4.8 AF

Volume of large pond = 9.9 AF (see attached Memo)

Pond capacity = 9.9 AF + 4.8 AF = 14.7 AF**Estimated annual evaporative loss of the pond=5.3 AF**

Total storage capacity for all five ponds is 14.7 AF. This leaves 5.3 AF for evaporative loss. (20.0 AF- 14.7 AF= 5.3 AF) Precipitation deficit data from the University of Idaho ET website for Fairfield NWS estimates evaporative losses for Open Water Shallow Systems (Ponds & Streams) to be approximately 1.71 AF ponds have per acre. The total surface area for the five ponds is 4.37 acres. (1.71 AF X 4.37 acres=7.47 AF) Given that the pond has a potential evaporative loss of 7.47 AF, I recommend the full permitted volume of 20.0 AF for recreational, aesthetic and stockwater storage.

G. NARRATIVE/REMARKS/COMMENTS

Application for permit 37-8846 was filed on February 3, 1995 for 0.02 cfs of stockwater and 0.1 cfs and 20.0 AF for recreational, aesthetic and storage uses associated with a pond. Permit 37-8846 was approved on February 19, 1998 and proof was filed on May 13, 1998.

On the East Fork Threemile Creek water is diverted through a buried 10 inch PVC pipe to a concrete ditch which gravity flows to another buried PVC pipe that flows past the office and open discharges into a second concrete ditch. The concrete ditch continues to flow through two small decorative ponds, crosses the road and dumps into the large pond. The large pond contains a buried overflow to the ponds south of the road. A measurement equaling the permitted amount was obtained with a portable weir where the ditch enters the large pond. (see above measurement) **Recommend the IDWR standard flow rate of 0.02 for stockwater and the permitted flow rate of 0.10 cfs for aesthetic, recreation and diversion to storage.**

License 37-8846 was originally intended to increase the storage for the large pond. Upon review it was discovered that the permit (37-7459) intended to cover the smaller ponds included in this system had lapsed. However, as indicated by Allen Merritt's memo from April 26, 1996 (see file) if permit 37-7459 did not get resolved there would be enough volume under this right to cover all the ponds. The total storage capacity for all five ponds is 14.7 AF leaving potential evaporative losses of 5.3 AF. (see above calculations) Beneficial uses are stockwater for horses, the pond is stocked with fish for recreation, and aesthetic habitat improvement for water fowl and a nesting perch in the middle of the pond. **Recommend the full permitted volume of 20.0 AF for recreational, aesthetic and stockwater storage.**

Notes, an amendment was filed but determined not necessary after review. The amendment and fee were returned to the applicant and the file has been documented. In addition, the Watermaster of 37B has waived the measuring device requirement and condition R43 has been updated to include "Upon specific notification the right holder shall install and maintain a measuring device..".

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>
STOCKWATER	01/01 to 12/31	0.020 CFS	
RECREATION	01/01 to 12/31	0.100 CFS	
AESTHETIC STORAGE	01/01 to 12/31		20.00 AF
AESTHETIC	01/01 to 12/31	0.100 CFS	
DIVERSION TO STORAGE	01/01 to 12/31	0.100 CFS	
STOCKWATER STORAGE	01/01 to 12/31		20.00 AF
RECREATION STORAGE	01/01 to 12/31		20.00 AF
<u>Totals:</u>		0.100 CFS	20.0 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

Reviewer

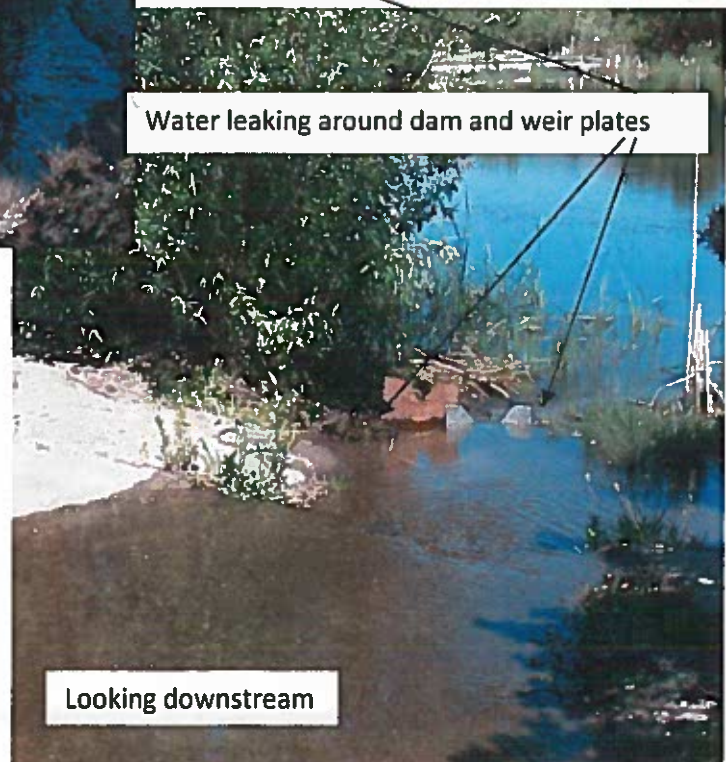
Date

Sara Roeder

11/30/15

Allen Merritt

12/21/2015





Diversion works

Stream flow



Embankment across channel

**View in
bottom of
channel
looking
down
stream
at diversion
works and
point of
diversion.**



**Concrete ditch from point of
diversion to place of use.**

Ponds

Big Pond 9.9 ac (Memo)

Sm. west 0.11 ac

Lg. west 1.2 ac

Sm east 0.02 ac

Lg east 0.04 ac
1.37 ac

9.9

+ 4.8

* 14.7 AF

avg depth x 3.5 ft.
4.8 AF

ET website Fairfield NWS -

Open water shallow systems (ponds/
Stream)

$$\frac{513/25}{12} = 1.71 \text{ AF}$$

Big Pond surface area = 3.0 ac

Small Ponds " " = 1.37 ac
4.37

x 1.71

Evap loss 7.47 AF

Pond volume 14.7 AF

+ 5.3 AF

Permitted → 20.00 AF

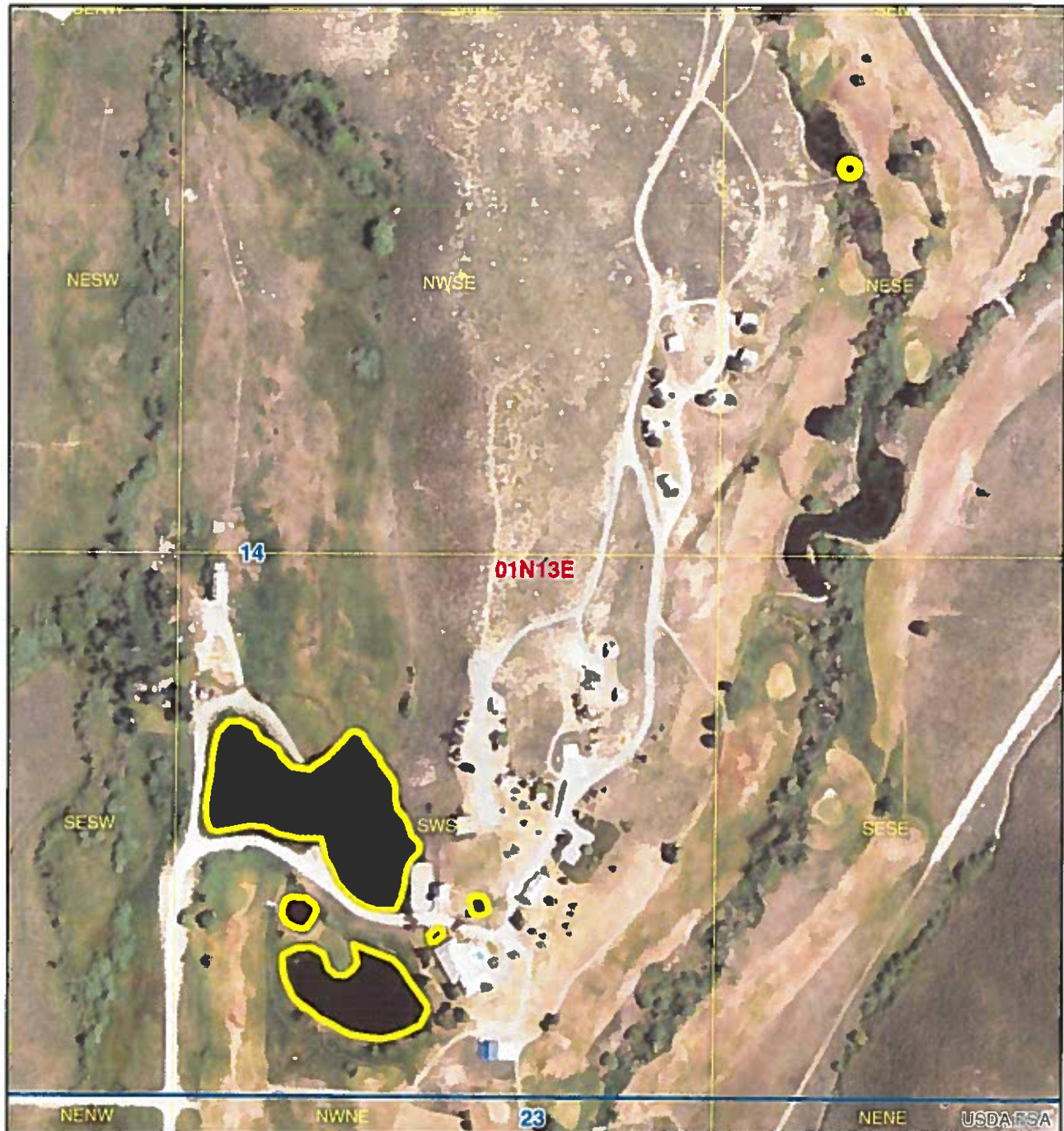


FIELD EXAM
37-8846

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

State of Idaho
Department of Water Resources
Attachment to Water Right License
37-8846

This map depicts the AESTHETIC, STOCKWATER, RECREATION AND STORAGE 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.



● Point of Diversion

□ Place of Use Boundary

0 0.04 0.08 0.16 Miles



Water Right Number 37-8846

- R05 Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37B.
- R43 Upon specific notification the right holder shall install and maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion(s).
- 020 The diversion and use of water described in this right may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.
- 219 Right 37-8846 authorizes total annual storage volume of 20.0 acre-feet, 14.7 acre-feet to be used for the initial filling or carryover storage of the ponds and 5.3 acre-feet for the replacement of losses caused by evaporation.
- 220 The 5 ponds established by the storage of water under this right shall not exceed a total capacity of 14.7 acre-feet or a total surface area of 4.37 acres.

Aesthetic and recreation use is for 5 ponds.