

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 61-12334
Exam Date: 02/28/2024

1. Current Owner:

OASIS VOLUNTEER FIRE DEPT INC 10844 W HOBDEY LN OASIS ID 83647-5066

Owner of Record Correct? N

Address of Record Correct? N

If No Explain:

2. Does this qualify for an in-office field exam (IDAPA 37.03.02.035.01.r)? X Y N

a. Irrigation of 5 acres or less

b. Storage of up to 14.6 AF for stockwater purposes only

c. X Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less

d. Other < >

3. Beneficial Use Fees have been paid: X Y N Receipt No: W051764

4. **SOURCE:**
GROUND WATER

Tributary:
NA

Method of Determination: Elmore County Maps, GIS, and Tax Parcel Data

B. OVERLAP REVIEW1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
NONE	NA	NA	NA

Comments: There are no Rights overlapping the permitted place of use (POU).

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: There are no rights sharing the point of diversion (POD) with the permitted POD.

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County
Ground Water	2		NW	NE	3	02S	05E	B.M. ELMORE

Method of Determination: Elmore County Maps, GIS, and Tax Parcel Data

2. **PLACE OF USE:** COMMERCIAL, DOMESTIC, & FIRE PROTECTION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02S	05E	3		X L2															X

Method of Determination: Elmore County Maps, GIS, and Tax Parcel Data

Change in POU? Y X N Amendment Required? Y X N

- ☒ Delivery System Diagram Description Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.(information included with application was confirmed)
- ☒ 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 Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0078725	Unknown	5	Unknown	Unknown	50 GPM capacity

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NA	NA	NA	NA	NA	NA	NA

2. Measurement comments: The permit holder stated that the system uses a 5 Hp pump that is downhole with a CV drive control, which operates the station system and fills a 2500-Gal tank. A maximum head of about 300ft was estimated by the permit holder based on the well drillers log.

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

A theoretical calculation and Administrative Memo #17 were used to determine a reasonable rate of diversion. The permit holder stated on a phone call February 29, 2024, that the pump is down hole about 300ft and has a constant velocity controller. According to the permit holder, the system has an output of approximately 50 GPM (0.11cfs).

$$Q = (5\text{Hp})(8.8)(0.95 \text{ eff.})/(300 \text{ ft lift}) + (2.31)*(40 \text{ psi}) = 0.11\text{cfs}$$

Use for Domestic:

1 home (internal only) = 0.04cfs (as per Administrative Memo #22)

Fire Station-with 3 truck crews (3 people per crew)= 9 people

Facilities: 1 toilet (5 GPM), 1 shower (6GPM), Sink.(5 GPM)= 16 GPM, or approx. 0.04cfs (per Table 1 below).

Use for Commercial:

Fill 3 fire trucks (2500-Gal total capacity) for monthly + annual drills/training (12 x per yr.), fill 3 fire trucks (2500-Gal total capacity) for a maximum of 5 fires annually + refill 2500 Gallon storage tank after each fill, and using the 2 hoses for washing Trucks, equipment, and tools (using hoses, sponges, and buckets). Washing is conducted with a common 5/8-inch garden hose at a common rate of 17-18 GPM, or approximately 0.04cfs. I am recommending the full permitted rate of 0.04cfs for commercial use on the license.

Use for Fire Protection:

Applications include **using the hydrant connected directly to the pump for fire hoses and any other firefighting equipment (including pump trucks) for fire protection on the fire station property.** I am recommending the full permitted rate of 0.10cfs for fire protection on the license.

By Fixtures:

Shower.....	4 to 6 gpm
Bathtub.....	4 to 8 gpm
Toilet.....	4 to 5 gpm
Lavatory.....	1 to 4 gpm
Kitchen sink.....	2 to 5 gpm

Table 1- Instantaneous Rates for domestic from the Field Examiners Handbook References-"Rural and Domestic Water Uses"

Theoretical Calculation= 0.11cfs

Permit allowed = 0.14cfs

Recommendation= 0.11cfs

Comments:

The maximum combined rate is limited by the system and the individual use rates are limited by the permitted maximum diversion rates. The permit holder stated that the uses as a emergency evacuation command center has previously necessitated the use of the bathroom facilities while fighting fires and protecting the property from fire simultaneously. A theoretical calculation supports that approximately 0.11cfs is possible with the 5 HP pump. According to the system and use descriptions provided by the permit holder, the permitted rates for domestic and commercial uses seem reasonable. I am recommending a total combined diversion rate of 0.11cfs for the license and the full rate for the individual permitted uses.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

NA

3. **Volume calculations for Domestic:** 1 home (internal only)= 0.6 AF (as per Administrative Memo #22)
Facilities for a 9-person crew (3 trucks, 3 people each): 1 toilet(70 Gal/day), 1 shower(450 Gal/day), 1 sink(18 Gal/Day) x 365 Days=196,370 Gal, approx. 0.6AF(as per Table 2). This figure is based on a 9-person crew for year-round use. However, the facility is also used as a operational center for emergency evacuations of about 250 to 300 people in the surrounding area, when called upon.
4. **Volume Calculations for Commercial:** Fill 3 fire trucks (2500-Gal total capacity) for monthly and annual drills/training (12 x per yr.) + maximum of 5 fires annually (filling trucks) + refill 2500-gal storage tank each time (17 fills x 5000-gal)= **85,000 Gal**, washing Trucks, equipment, and tools using a hoses and sponges and buckets- time about 5 hrs. (18 GPM x 60 x 5)=5400-Gal x 17 washes yearly= **91,800 Gal, 85,000 Gal + 91,800 Gal= 176,800 Gal, or approx. 0.6 AF annually.**
5. **Volume for Fire Protection: NOT REPORTED-** Using the hydrant connected directly to the wellhead conveying water for 2 fire hoses, and the use of any other firefighting equipment (including the trucks/tank refill= 5,000 Gal) for fire protection on the fire station property.

Residence – Urban:

Drinking fountain, continuously flowing.....	50 to 100 gal. per day.
Each shower bath.....	25 to 60 gal.
To fill a bathtub.....	35 gal.
To flush toilet.....	3 to 7 gal.
To fill lavatory.....	1 to 2 gal.
Dish Washing Machine – per load.....	10 to 20 gal.
Automatic washer – per load.....	30 to 50 gal.

Table 2- Volume use per fixture for urban domestic use from the Field Examiners Handbook References-"Rural and Domestic Water Uses."

Comments:

Administrative Memo #22 allows up to 0.6 AF annually per domestic home. A volume calculation for use within the facility based on the rural and domestic reference from the Field Examiners handbook is approximately 0.6 AF annually. The annual commercial use volume of 0.6 AF was calculated using the usage details provided by the permit holder. I am recommending total annual volume of 1.2 AF for commercial and domestic use on the license, based on current guidance, usage details provided by the permit holder on the application, and provided on the February 29, 2024, phone interview with the permit holder.

G. PURPOSE OF USE

Irrigation ☐ Y ☐ X ☐ N # Stock ☐ NA Domestic # of Homes 1 Home

Change in Purpose of Use? ☐ Y ☐ X ☐ N

Method of Determination: Elmore County Maps, GIS, and Tax lot Data

G. NARRATIVE/REMARKS/COMMENTS

This permit for commercial use, domestic use, and fire protection qualifies for an in-office examination for license. The permit holder submitted the Proof of Beneficial Use, received by IDWR on February 16, 2024. In section #3 of the Proof of Beneficial Use that use was developed for 1 domestic home and filling of a 2500-Gal water tank. In the application for permit the commercial use was described as cleaning trucks and firefighting equipment. Aerial imagery was used to identify the domestic structure, water tank, truck, and equipment within the POU (see figures 1 and 2). I was unable to identify the extent of the three permitted uses based on the documentation received, so I called the permit holder requesting additional information including an itemized list of the system components (toilets, sinks, bath/shower, etc.) and further description of the commercial and fire protection uses. On February 29, 2024, the permit holder called and described the facilities for domestic use as 1 full bathroom for use by a 9-person crew. The commercial use was described as cleaning trucks and firefighting equipment after call outs, monthly training, and annual federal training, altogether a total of 17 times a year, followed by refilling the 2500-gal storage tank after each call out/training. The fire protection use is a hydrant connected to two fire hoses for use in concert with any other firefighting equipment (including filling the trucks and refilling the storage tank) for fire suppression on the property. The fire station is also used as an emergency evacuation command center, at those times all the beneficial uses need to be available at the same time.

The Rural and Domestic Water Use supplement for the field examiners handbook was used to calculate an annual volume of 0.6 AF for domestic use (see section F), and Administrative Memo #22 allows 0.6 AF annually for use in 1 home. Details provided by the permit holder regarding the commercial and fire protection uses were used to find reasonable rates (see Section E & F). I am recommending a rate of 0.04cfs and 0.6 AF annual volume for commercial use on the license, based on usage calculations (see Sections E & F). I am recommending a rate of 0.04cfs and 0.6 AF for domestic use on the license. I am recommending a rate of 0.10cfs for fire protection use on the license (see section E). The system is limited to a total combined rate of 0.11cfs, based on the maximum system output provided by the permit holder, the usage description, and a theoretical calculation (see section E). The rates of licensed uses are limited to the permitted maximum rates.

I am recommending the license be issued with conditions X03, WB5, and 077. Conditions 26A and 046 were removed at licensing, as per current guidance.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
COMMERCIAL	01/01 to 12/31	0.04 CFS	0.6 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	0.6 AF
FIRE PROTECTION	01/01 to 12/31	0.10 CFS	

Totals: 0.11 CFS

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 ☒ None

I. AUTHENTICATION Bob Howe -Water Resource Agent

Field Examiner's Name Bob Howe Date 4/4/24

Reviewer pk Date 4/8/24



Figure 1- GIS 2023, Imagery of the domestic POU (outlined in yellow), the Commercial and Fire Protection POU (outlined in light blue, and the POD (light blue point). The round silver structure on the southwest corner of the domestic building is the 2500-Gallon water tank.



Figure 2- Google Earth 2023, image of the POU with the firehouse labeled with the street address. The round silver structure on the southwest corner of the building is the 2500-Gallon water tank.

Beneficial Use Proof Evaluation

Permit Number: 61-12334 Reviewer: AVeibell Review Date: 2/16/2024

Acceptability

- 1) Is the contact on the request the current permit holder? Yes
- 2) Does the address of record need to be updated? Yes
- 3) Proof Submitted Date: 2/16/2024
- 4) Proof Due Date: 3/1/2024
- 5) Days added for weekend due date? 0
- 6) Days added for holiday due date? 0
- 7) Number of days late: -14
- 8) Proof received timely? Yes

Analysis

- 1) Are the water uses correct? Yes
- 2) Are one of the following items required?
 - a. Measuring Device -- No
 - b. Lockable Device --No
 - c. Fish Screen -- No
- 3) Are the required items installed? Yes
 - a. Measuring Device -- No
 - b. Lockable Device --No
 - c. Fish Screen -- No
- 4) Is there a request to waive the required items? No
- 5) Drilling Permit Number: 0078725
- 6) Is a drilling permit upgrade needed? No
- 7) Was a well drillers report filed? Yes
- 8) Is proof accepted? Yes

Fees

- 1) Is a licensing exam fee required? Yes
- 2) Was proof submitted with an exam report from a CWE? No
- 3) Filing fee due: \$50.00
- 4) Filing fee submitted: \$50.00
- 5) Remaining fee or (refund): \$0.00

Receipt IDs

W046850

Comments

Permit Holder address updated during evaluation. Proof deemed acceptable. Gave file to water right agent for in-house license review. Water right agent will enter the proof made date in AdHoc at the time of licensing.