

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 51-13132
Exam Date: 01/13/2025

1. Current Owner:
USDI BLM IDAHO STATE OFFICE 1387 S VINNELL WAY BOISE ID 83709-1657
2. Accompanied by: Matthew Pawlak
Phone No: (208) 230-7318
Address: N42.870080, W115.829191 Reniecke Rd, Bruneau, ID (off of Hot Creek Rd)
Relationship to permit Holder: Project Engineer/ Representative for the BLM

3. **SOURCE:**
GROUND WATER

Method of Determination: GARMIN GPS Map 76, GIS, and Owyhee County tax parcel data.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

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

Comments: There are no water 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
NONE	NA	NA	NA

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

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:** GPS COORDS: N42.86950° W115.82985°

GROUND WATER NE¼ SW¼, Sec. 26, Twp 06S, Rge 05E, B.M. OWYHEE County

Method of Determination: : GARMIN GPS Map 76 and GIS.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06S	05E	26									X			X					

Method of Determination: GIS and Owyhee County tax parcel data.

- 3.
- X 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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0082908	GRUNDFOS	3.0	UNKNOWN	GRUNDFOS	

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
TOTALIZER	IN LINE FLOWMETER	SIEMENS	SITRANS FM MAG 5000	UNKNOWN		

2. Measurements: Observed rate to fill the two 1,025gal pressure tanks after drain down and recorded peak rate observed.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: Photo of peak instantaneous rate observed at the flowmeter/totalizer supplying flow to potable and non-potable water for the facilities.

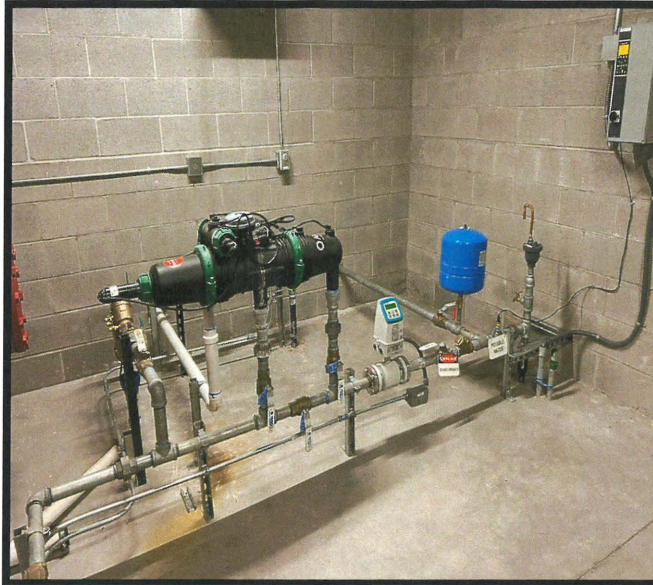


Photo1 (left)- 1 ½" water line from in through the floor of the pump room in the right of the image, passing through the suppressor and totalizer followed by the "T" coupler for the line to non-potable uses and continuing to the pressure tanks at the periphery of the image on the left (see Figure 2 for complete description). Photo 2 (right)- The totalizer for all uses taken at the peak observed rate when the system began to charge.

Comment: The water main leading to the non-potable and pressure tanks for the potable water is 1 ½ in dia., so direct measurement with a Panametric flowmeter was not possible. The pressure tanks were drained and the maximum rate observed was photographed for records. The representative confirmed that the system is designed to divert from about 16-22 GPM at a pressure of 65 psi maintained by the VFD in the pump house.

The crew quarters have 10 beds and 4 full bathrooms with showers. The fire station has 5 bathrooms and 4 showers. There are also 2 RV hookups at the north end of the guard station, a truck fill hydrant east of the fire station, 2 ice machines, 4 fridges with water hook ups, 2 kitchen sinks, 6 washer/dryer combos, 2 dishwashers, 3 deep utility sinks, and a small lawn area which is irrigated. The uses can be summarized as a total of plumbing 48 fixtures, a truck fill hydrant, and less than a half-acre of irrigation. Assuming full occupancy and standard bath fixtures (Public Building use table below) the observed rate seems reasonable. I recommend that the license is issued with a maximum rate of 22.8 GPM (0.05cfs).

Exhibit 14 PUBLIC BUILDING WATER REQUIREMENTS						
Kind of Building		Number of Fixtures				See Notes
		0-50	51-100	101-200	201-400	
Hotels/Clubs	Gpm/Fixture	0.65	0.55	0.45	0.35	A B
	Min. Gpm	25	35	60	100	
	Max. Gpm	33	55	90	140	
Hospitals	Gpm/Fixture	1	0.8	0.6	0.5	A B
	Min. Gpm	25	55	85	125	
	Max. Gpm	50	80	120	200	
Apartments/Hotels	Gpm/Fixture	0.5	0.35	0.3	0.28	A
	Min. Gpm	16	30	40	65	
	Max. Gpm	25	35	60	115	

Table 1- Water Requirements, source Filed Examiners Handbook Peer Reviewed Reference.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: NA
2. Volume Calculations for Other Uses:

Domestic:

Occupancy can be year-round; however, maximum occupancy only occurs during fire season and trucks are only filled on site if a fire call is local. It is also not uncommon to have the crew out for several weeks on a fire call out. At the time of the exam the crew quarters were not occupied as many were out on vacation time. The representative stated that no log exists for the facilities usage, or the fire calls and call outs. Assuming full occupancy of 12 BLM personnel (10 in crew quarters and 2 at the RV hook up) and use of facilities for bathrooms, meals, and laundry the most comparable dwelling to represent the internal domestic use would be a boardinghouse.

Table 3

NON-IRRIGATION WATER REQUIREMENTS	
Types of Establishments	Gallons/day
Airports (per passenger)	3-5
Apartments, multiple family (per resident)	60
Bathhouses (per bather)	10
Camps:	
Construction, semi-permanent (per worker)	50
Day with no meals served (per camper)	15
Luxury (per camper)	100-150
Resorts, day & night, limited plumbing (per camper)	50
Tourist, central bath & toilet facilities (per person)	35
Cottages with seasonal occupancy (per resident)	50
Courts, tourist with individual bath units (per person)	50
Clubs:	
Country (per resident member)	100
Country (per non-resident member)	25
Dwellings:	
Boardinghouses (per boarder)	50
Kitchen requirements (per boarder)	10
Multiple family apartments (per resident)	40
Roominghouses (per resident)	60
Single family (per resident)	50-75

Table 2- Water Requirements- source Filed Examiners Handbook Peer Reviewed Reference.

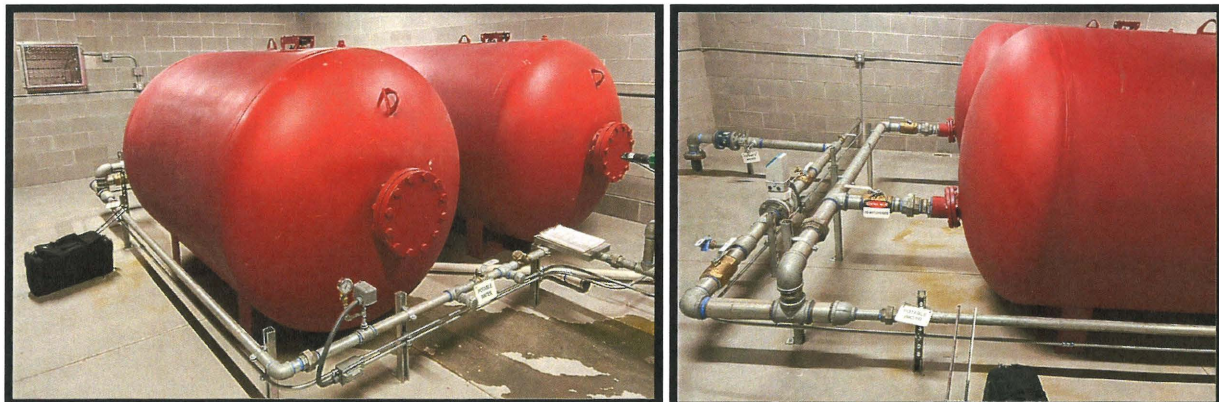


Photo 3 & 4- The 1,025 gallon pressure tanks for the potable water system. In the right image the potable totalizer can be identified downstream of the tanks.

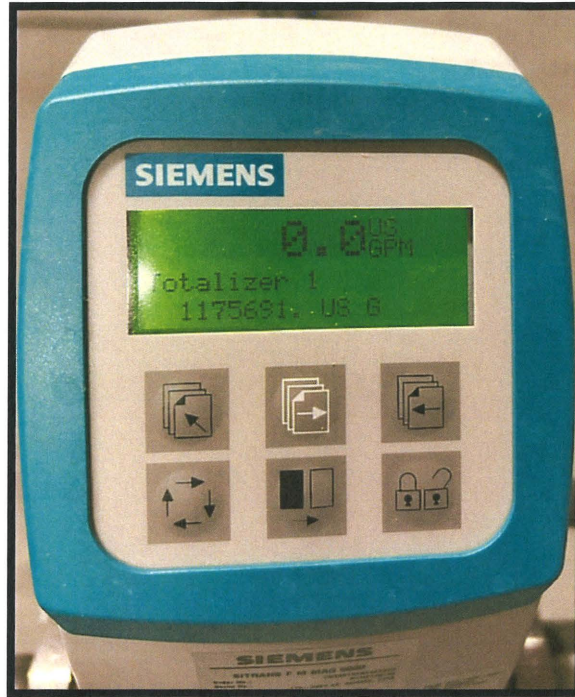


Photo 5- Totalizer for entire system-initial reading January 13, 2025. Taken prior to running system.



Photo 6- Potable totalizer reading taken at the start of the field examination was 0.0491 mil gallons=94,100 gallons=0.2 AF.

Comment: Internal use for 12 occupants at 50 GPD= 600 Gal/Day x 365 day/yr= 219K Gal (0.7 AF), irrigation of approximately 0.1-acre x 4 AFA= 0.4AF totaling 1.1 AF annually≈ 982 Gallons per day. The potable totalizer reading the day of the field examination was 0.0491 Mil gal= 0.2 AF (photo 6), which is significant less than the standard for year-round occupancy.

Finally, the representative explained that the totalizer has been running since 2020, the crew quarters, fire station, and irrigation weren't completed until 2023, and the proof of beneficial use was received by the Department April 30, 2024. The totalizer was photographed before testing during the field examination (see photo 5) since installation the system has measured 1,175,691 gallons (3.6AF). The representative stated that no more than 10,000 gallons were used for blowing out lines during construction. After review of the call out log are no specific figures to quantify how many trucks were filled when, or how many gallons per year were used. The BLM representative stated concerns that the completed facility only had one year during the development period and that year may not accurately represent the maximum usage during a busy fire season. I recommend the license is issued with a conservative annual volume of 3.6 AF.

G. NARRATIVE/REMARKS/COMMENTS

On April 30, 2024, the Department received the Statement of Completion for permit 51-13132. On section 3, the permit holder stated that use was developed for domestic use in 2 buildings for a 15 permanent staff with a 10 bed crew quarters, fire station, truck pad wash off, and a fire fill stand (storage tank). The permit was issued for domestic use with a 13,000-gal/day volume limit. The crew quarters and fire station facilities were not completed until 2022, making 2023 the only full year of use within the development period. The BLM representative stated according to the operation log the station responded to 32 fires in 2024 and 21 fires in 2023.

On January 13, 2025, a field examination was conducted with the BLM project engineer Matthew Pawlak as escort. At the time of the examination the facilities were confirmed to be built as specified on the blueprints. The crew quarters include a full kitchen, 4 full bathrooms, a laundry facility and several ice machines and refrigerators with water hook ups. The area irrigated is less than the half acre provisioned in a 42-111 domestic use. The firestation has 4 showers, 5 bathrooms, a small kitchen, ice machine, a laundry facility with deep sink, and a fire truck fill area on the east side of the building pumping with a dedicated 10,000-gal storage tank. Additionally, there are 2 RV hookups located at the north end of the POU. No staff were on site at the time of the field examination. Matt stated that in the off season most of them use their vacation leave. The totalizer reading was confirmed at the start of the field examination. The flowmeter on the line from the well head recorded a total of approximately 3.6 AF throughout the development period (section F). A call out log was requested to better understand the truck fill and facility usage. The pressure on the two 1,025-gal pressure tanks was bled off by the Matt, so that a peak rate could be observed. Approximately 22.8 GPM (0.05cfs) was confirmed (section E).

I recommend the license is issued with a maximum rate of 0.05cfs and an annual volume of 3.6 AF, as concluded in sections E and F. The license should carry conditions 071, X01, 01M, 933, 073, and 103. Condition 121 should be replaced with 103 at licensing per current guidance and conditions 046 and 26A should be removed before licensing per current guidance as the development is complete.

Have conditions of permit approval been met? X 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>
DOMESTIC	01/01 to 12/31	0.05 CFS	3.6 AF

Totals: 0.05 CFS 3.6 AF

2. Recommended Amendments

Change P.D. as reflected above Add P.D. as reflected above X None

Change P.U. as reflected above Add P.U. as reflected above X None

I. AUTHENTICATION

Bob Howe - Water Resource Agent, Sr.

Field Examiner's Name

Date

2-21-2025

Reviewer

Date

03/03/25

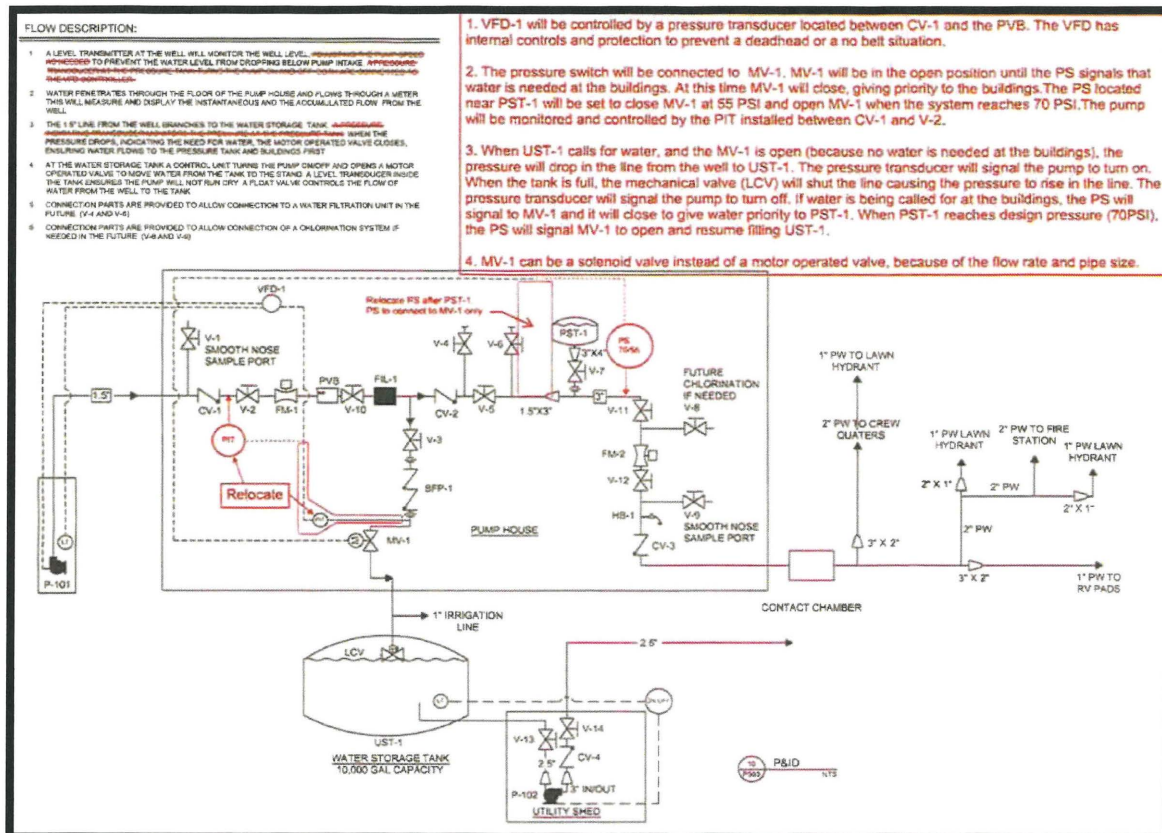


Figure 1 - System diagram- The system VFD is actually set at 65PSI (Photo below). A 1 1/2" line from the well splits to deliver water the two 1,025-gal pressure tanks for potable use, and to fill the 10,000 gallon buried tank via a 2" pipe. The tank supplies the truck fill station east of the fire station. The line to the buried tank passes through a "T" coupler supplying a 1" line for irrigation. A 3" line exits the pressure tanks and pump house then passes through a "T" coupler supplying a 2" potable water line for the crew quarters and 1" line to a lawn hydrant within the irrigated area east of the building. The 3" line continues to the north where it is reduced to a 2" potable water line for the fire station, 2 1" lines for exterior hydrants at the station, and a 1" line to the RV pads north of the station.

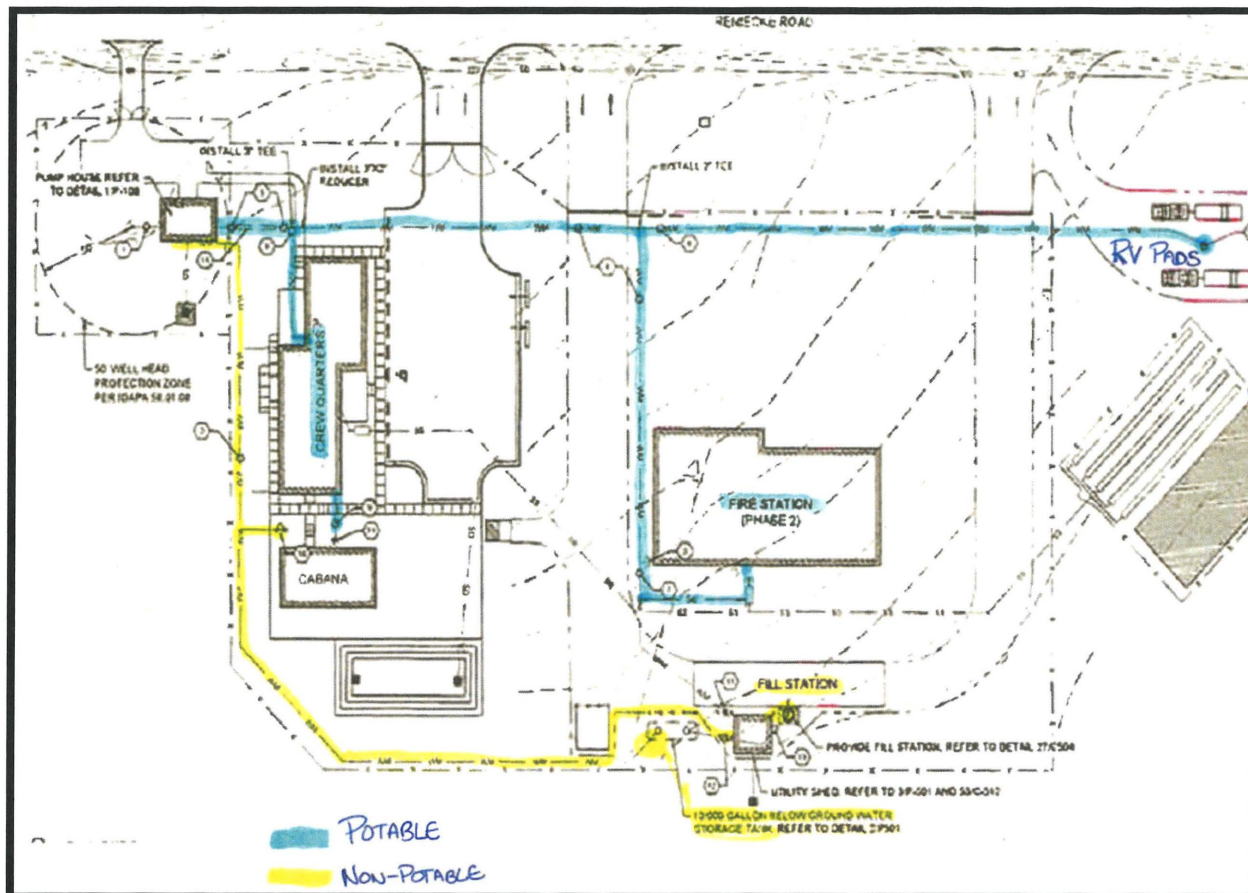


Figure 2- System Diagram-Overview of the potable (blue) and non-potable (yellow) delivery systems.

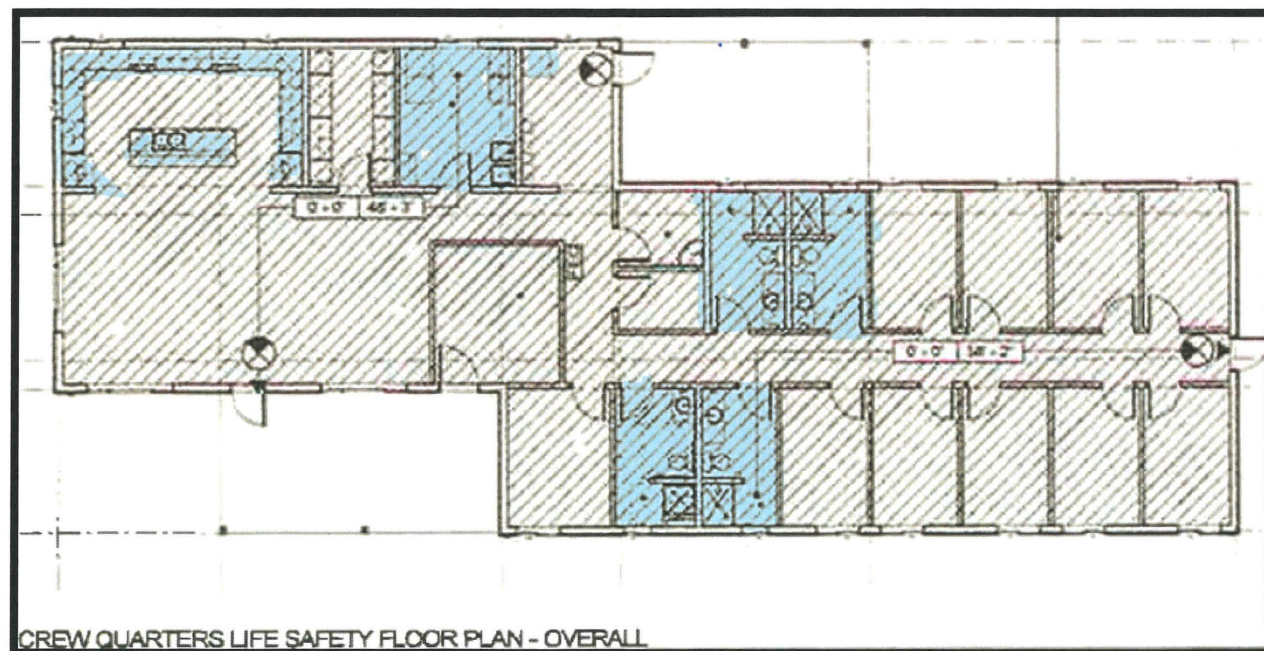


Figure 3- Crew Quarters- Kitchen, laundry room, ice machine, and 4 bathrooms are highlighted blue.

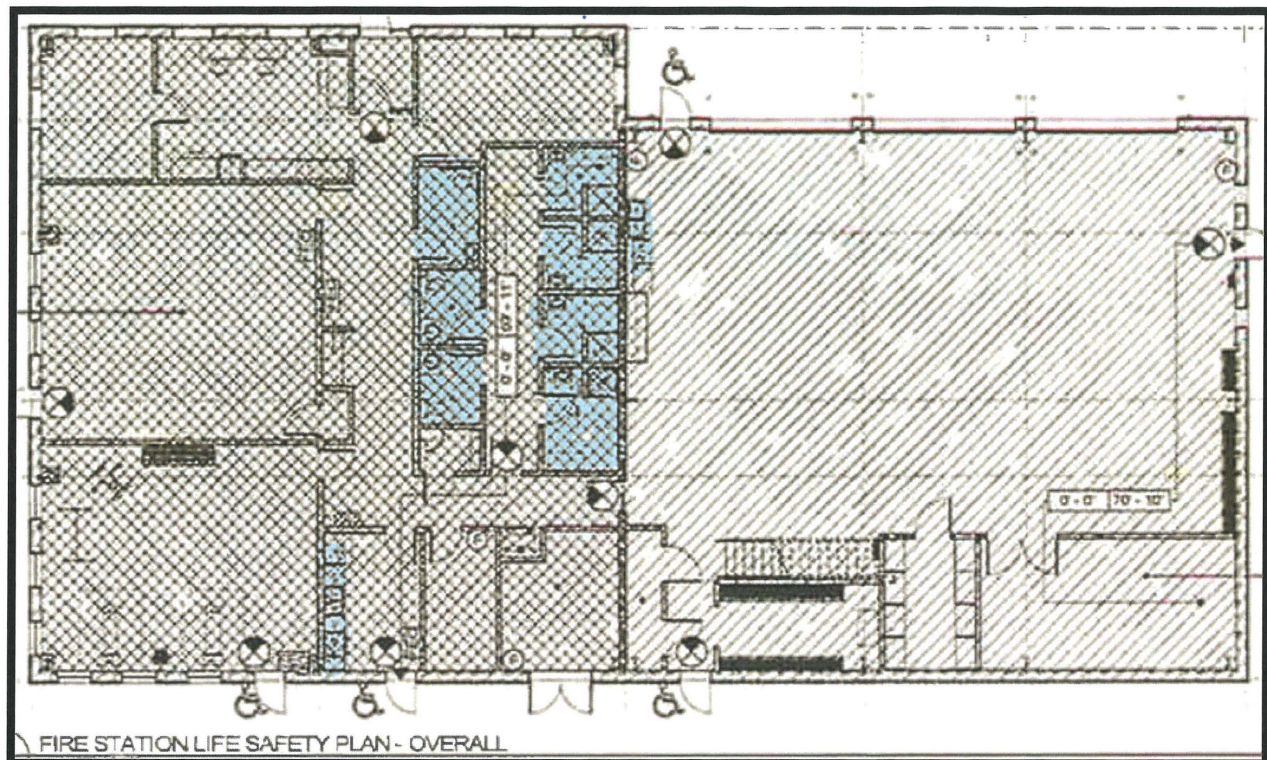


Figure 4- Fire station- Kitchen, laundry and sink in garage, 4 showers, and 3 baths are highlighted blue.

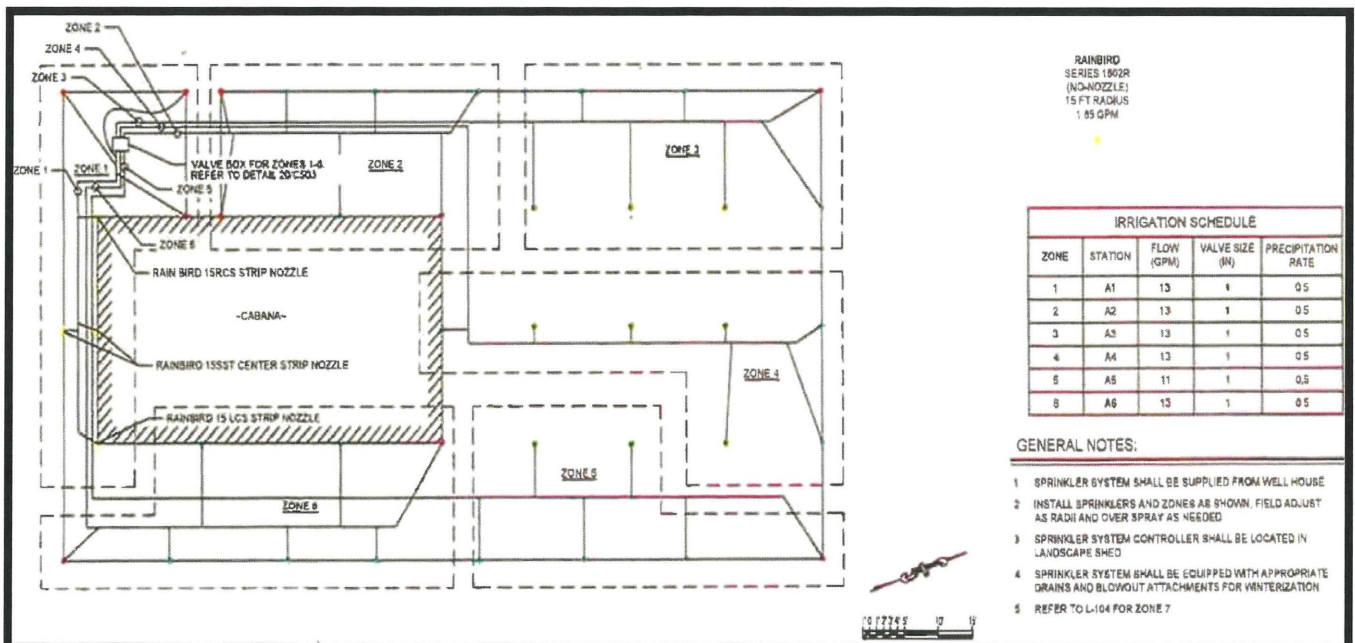


Figure 5- Irrigation System Diagram. The area is irrigated in 6 zones sequentially using Rain Bird Series 1502R (No Nozzle).

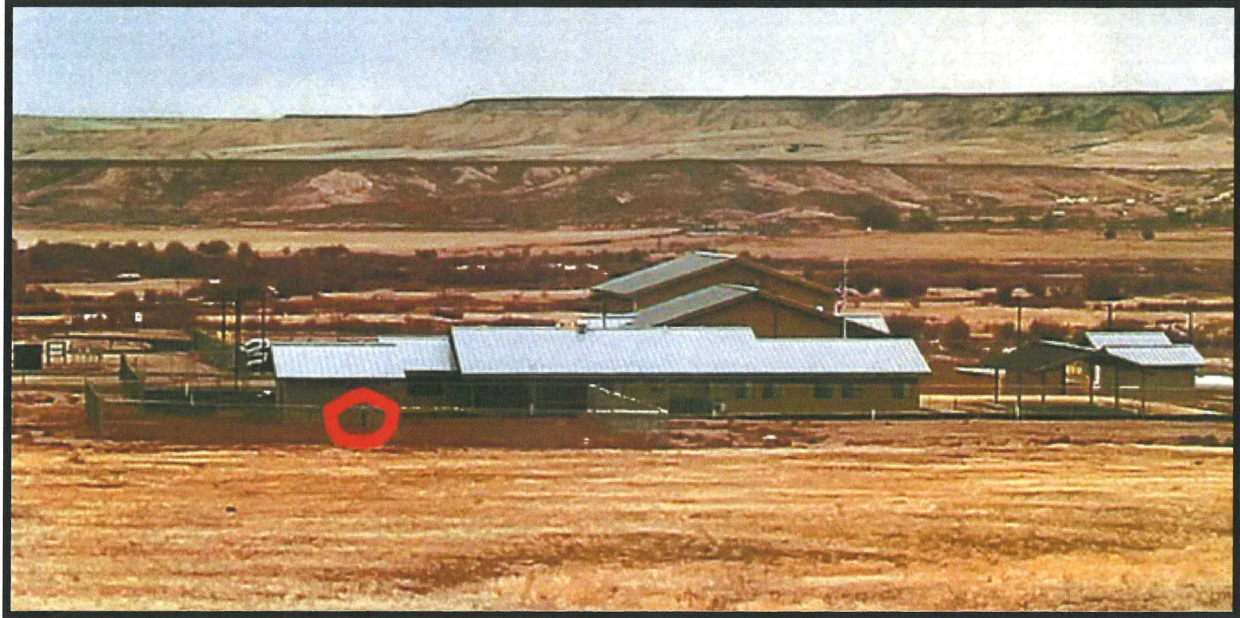


Photo 1- Facility photo taken from the south of the facility facing north (included in proof submitted). The well head is circled in red.



Photos 2 & 3- Well head facing north.



Photo 4- Irrigated common area facing NE control valve and drain box in the foreground. One of the frost free spigots is seen near the leading to the gazebo area.



Figure 6- Irrigated common area GIS measurement approx. 0.11-acre.

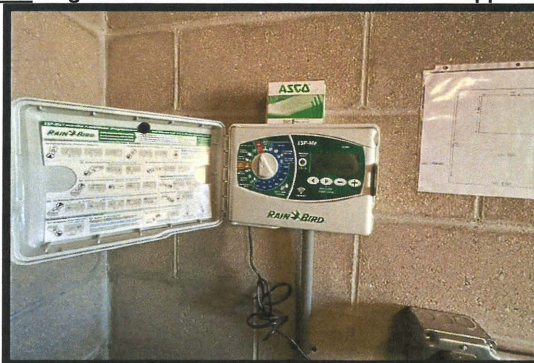


Photo 5- (left) Rain Bird ESP-Me Irrigation programmable controller. Located in outbuilding just north of the common area.



Photo 6- (right) Rain Bird pop up low flow sprinkler head commonly used throughout the irrigated common area.



Photo 7- (facing south) The crew quarters building north of the pump house with the common area visible to the east (left).

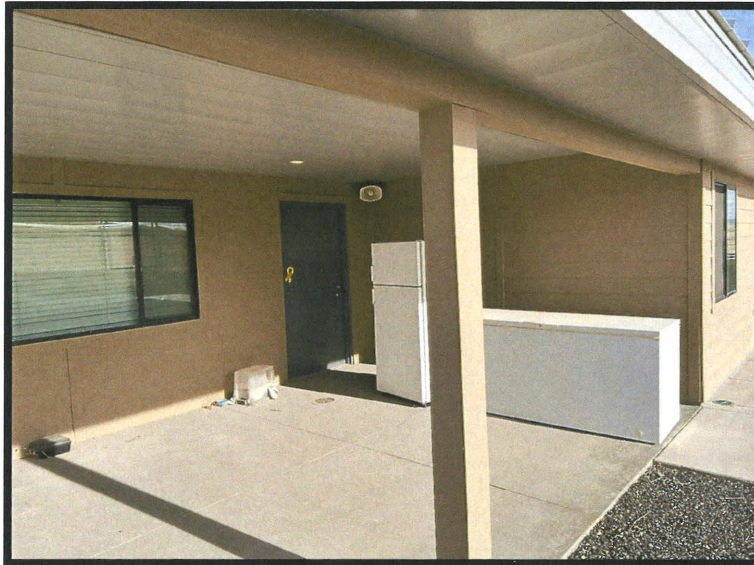


Photo 7- (above left) South side of the crew quarters building the water main shut off in front of the door to the utility room.

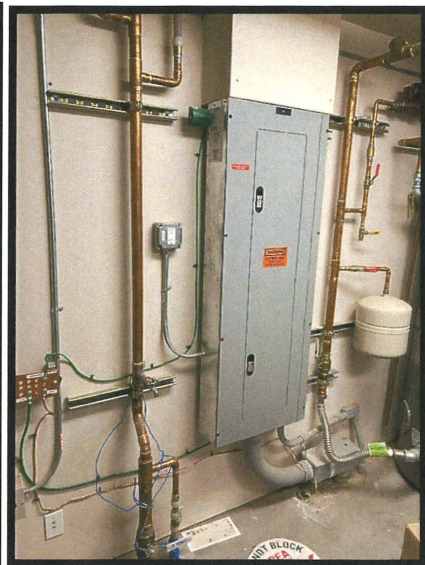


Photo 8- (above right) 2" copper water main entering the utility room through the floor in the lower left of the image. Plumbing is distributed throughout the slab on grade building via the attic.

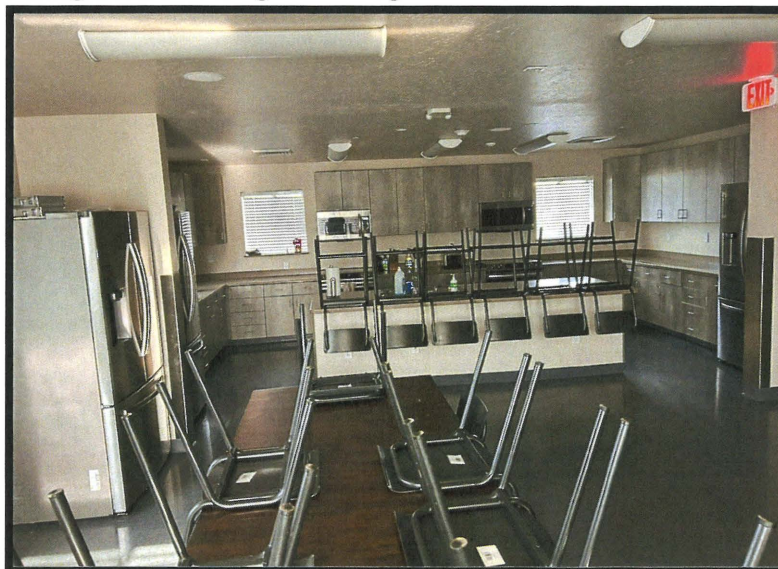


Photo 9- Crew quarters kitchen includes 2 ranges with ovens, 3 refrigerators with water service, and a sink in the island.

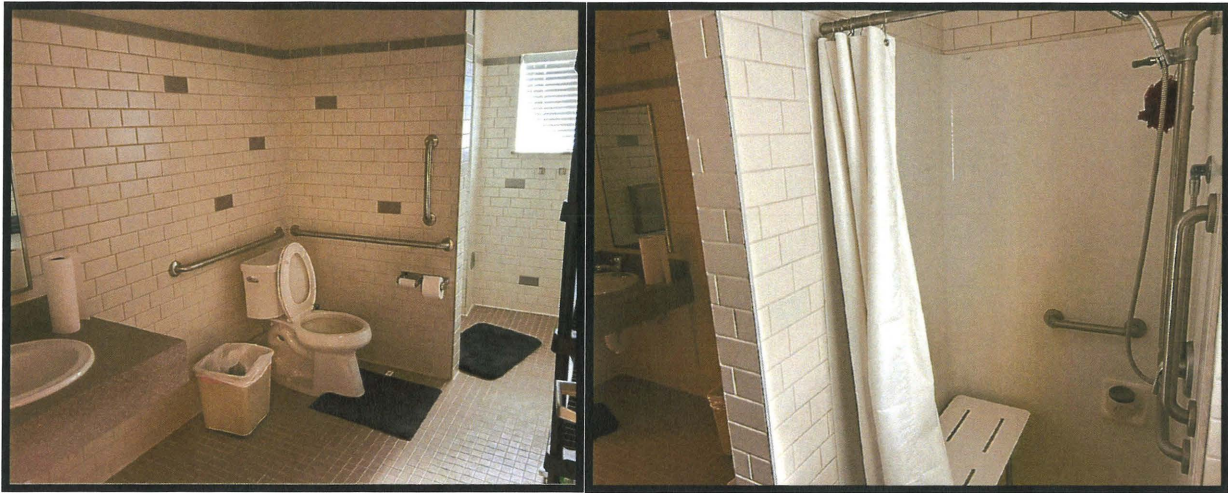


Photo 10 & 11- (above) One of the 4 full bathrooms (sink, toilet, and shower) in the crew quarters building.

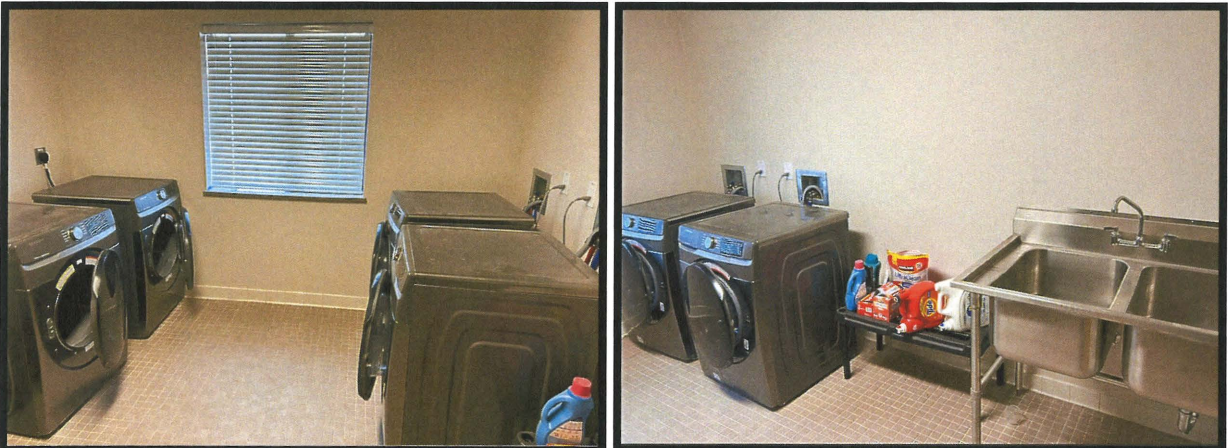


Photo 12 & 13- (above) Laundry room in the crew quarters building. Facilities include 2 washers, a deep sink, and 2 dryers.



Photo 14 & 15- (above) Locker room in the crew quarters building includes a mop sink, refrigerator with water hook up, and ice machine.



Photo 16- (above) Facing north, the fire station near the center of image with the truck fill pump building on the east side.



Photo 17a- Truck fill station with the hose hookup riser on the left of the pump house and the green top of the 10,000 Gal storage tank on the right with the white vent next to it.



Photo 17b- Hatch and vent for 10,000-Gal storage tank.



Photo 18- (above left) Kitchen in the fire station with sink, dishwasher, and refrigerator with water hook up.



Photo 19- (above right) Laundry in fire station with washing machine and deep sink.



Photo 20- (above left) One of 4 showers in the fire station. **Photo 21-** (above right) One of 3 bathrooms in the fire station.

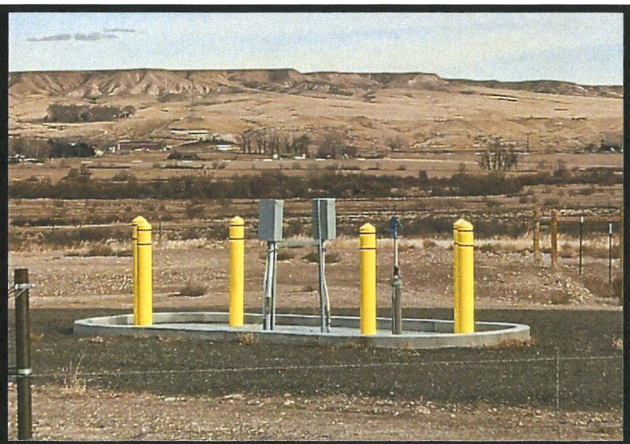
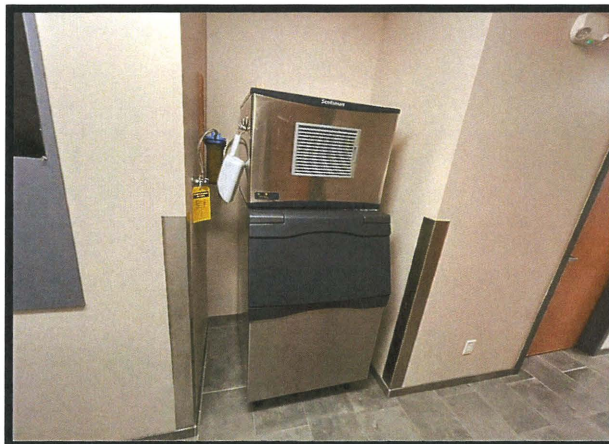
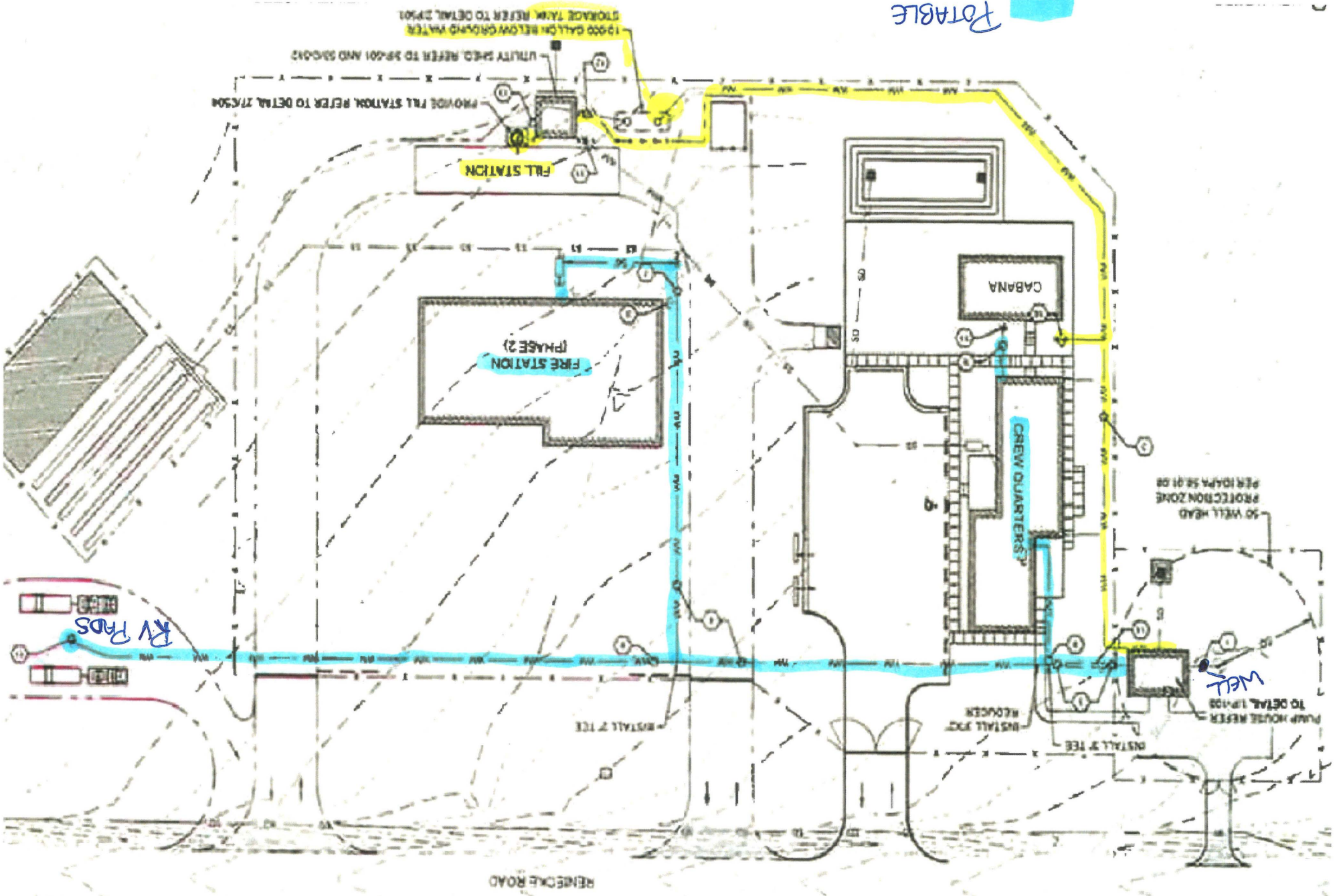


Photo 22- (above left) Ice machine in the hall in the fire station. **Photo 21-** (above right) The RV hook up island located north of the fire station fenced enclosure. Includes frost free spigot for water hook up, sewage drain, and power for 2 trailers.

POTABLE
Non-Potable



FW: Bruneau - Well Beneficial Use

From Pawlak, Matthew M <mpawlak@blm.gov>

Date Wed 2/19/2025 10:10 AM

To Howe, Bob <Bob.Howe@idwr.idaho.gov>

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

See below:

They responded to 32 Fires in 2024 and 21 Fires in 2023.

Have a Blessed Day!

Matthew Pawlak PE

Supervisory Civil Engineer (Detail)

Boise District - Idaho BLM

(208) 384-3215 office

(208) 230-7318 cell

mpawlak@blm.gov

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[Bureau of Land Management - Idaho](#) | [Boise ID](#) | [Facebook](#)

From: Betts, Daniel A <dbetts@blm.gov>

Sent: Tuesday, January 21, 2025 1:33 PM

To: Pawlak, Matthew M <mpawlak@blm.gov>; Cromwell, Christopher W <ccromwell@blm.gov>

Cc: Dubkowski, Daylon J <ddubkowski@blm.gov>; Hersley, Nathan F <nhersley@blm.gov>; Niblett, Chad M <cniblett@blm.gov>

Subject: Re: Bruneau - Well Beneficial Use

Hey Matthew, I got some numbers for you on fire response out of the Bruneau Fire Station. It looks like they responded to 32 Fires in 2024 and 21 Fires in 2023. Please let me know if you need anything else.

Regards,
Dan

From: Pawlak, Matthew M <mpawlak@blm.gov>

Sent: Thursday, January 16, 2025 2:18 PM

To: Betts, Daniel A <dbetts@blm.gov>; Cromwell, Christopher W <ccromwell@blm.gov>

Cc: Dubkowski, Daylon J <ddubkowski@blm.gov>; Hersley, Nathan F <nhersley@blm.gov>; Niblett, Chad M <cniblett@blm.gov>

Subject: RE: Bruneau - Well Beneficial Use

Dan:

Thanks, Tuesday is fine. Thanks. When you do get the numbers, can you keep them separated by year if possible.

Have a Blessed Day!

Matthew Pawlak PE
Supervisory Civil Engineer (Detail)
Boise District - Idaho BLM
(208) 384-3215 office
(208) 230-7318 cell
mpawlak@blm.gov
[Idaho | Bureau of Land Management \(blm.gov\)](#)
[Bureau of Land Management - Idaho | Boise ID | Facebook](#)

From: Betts, Daniel A <dbetts@blm.gov>
Sent: Thursday, January 16, 2025 2:15 PM
To: Cromwell, Christopher W <ccromwell@blm.gov>; Pawlak, Matthew M <mpawlak@blm.gov>
Cc: Dubkowski, Daylon J <ddubkowski@blm.gov>; Hersley, Nathan F <nhersley@blm.gov>; Niblett, Chad M <cniblett@blm.gov>
Subject: Re: Bruneau - Well Beneficial Use

Hi Matt. Nate will be heading down to Bruneau next Tuesday and they have a list of fires they responded to for the last two years down there. He will get me the numbers then if that works for you? Otherwise, I could give you a rough WAG now if Tuesday is too late?

Thanks,
Dan

From: Cromwell, Christopher W <ccromwell@blm.gov>
Sent: Thursday, January 16, 2025 1:42 PM
To: Pawlak, Matthew M <mpawlak@blm.gov>
Cc: Dubkowski, Daylon J <ddubkowski@blm.gov>; Hersley, Nathan F <nhersley@blm.gov>; Niblett, Chad M <cniblett@blm.gov>; Betts, Daniel A <dbetts@blm.gov>
Subject: Re: Bruneau - Well Beneficial Use

Hello Matt,

Yes we can get you the approximate amount of fire calls the station has had since it's occupancy.

I have cc'd Dan, Chad and Nate and between the 3 of them we should be able to get you what you need.

Thanks

Crommy

--

Chris Cromwell
Fire Management Officer
Bureau of Land Management - Boise District
3948 Development Ave

Boise, ID 83705
Office - (208) 384-3401
Cell - (208) 871-1824

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From: Pawlak, Matthew M <mpawlak@blm.gov>
Sent: Thursday, January 16, 2025 12:50 PM
To: Cromwell, Christopher W <ccromwell@blm.gov>
Cc: Dubkowski, Daylon J <ddubkowski@blm.gov>
Subject: Bruneau - Well Beneficial Use

Chris:

I have been working with IDWR to document the well beneficial uses for Bruneau Fire Station, a process required to establish and finish the water rights process.

Because we have a flow meter and a total gallons used, they were trying to identify the different domestic uses.

They asked me if I could give them a total # of fire calls per year, since the fire station opened, in 2023. Is this possible and if so whom shall I talk to.

Have a Blessed Day!

Matthew Pawlak PE
Supervisory Civil Engineer (Detail)
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[Bureau of Land Management - Idaho | Boise ID | Facebook](#)