

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17294
Exam Date: 09/27/2022

1. Current Owner:
R & B PREMIER ENTERPRISE LLC 930 N BECK RD POST FALLS ID 83854
2. Accompanied by: Jenna Frank
Phone No: 208-773-8510
Address: Same as above
Relationship to permit Holder: Permit holders' representative.

3. **SOURCE:**
GROUND WATER

Method of Determination: ArcMap and DRG.

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
95-17177	Groundwater	Domestic, Irrigation	License

Comments: Licensed Right 95-17177 is owned by the same applicant and uses GW for domestic and irrigation uses at the same POU as this right associated with a RV & boat storage facility. Although there is overlap, there is not concern for overlap based on 95-17294 only being authorized to divert water to fight an active fire.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-17177	Groundwater	Domestic, Irrigation	License

Comments: Right 95-17177 uses two wells, a 6 inch well and the shared well for this Permit D0073545. Condition F06 was added during licensing review to annotate the shared well and common water system infrastructure between 95-17177 & 95-17294.

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

GROUND WATER L4 (NW¼ NW¼), Sec. 6, Twp 50N, Rge 05W, B.M. KOOTENAI County

Method of Determination: GPS; POD is a groundwater well located at and -117°01.372, 47°42.838 well D-Tag D0073545.

PLACE OF USE: 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	
50N	05W	6						X L4	X L5										

Method of Determination: Beneficial use field examination & AcrMap aerial imagery.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

 X 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.

 X

 X Aerial Photo Attached (required for irrigation of 10+ acres).

 X

 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
D0073545	Unknown	125	Unknown	Unknown	Unknown

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: A flow measurement was not performed; The only beneficial use authorized on the Permit is Fire Protection, which shall only be diverted to fight an active fire. Pump performance curves from United Crown Pump & Drilling, the pump installation company, were used to derive the diversion rate of 3.56 cfs recommended for licensing purposes.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method: Pump performance curve data received from the pump company who installed the water system.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A
2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 9/27/2022 with the applicant's representative, Jenna Frank, showed a groundwater well used for fire protection uses at Eagle Rock RV & Boat Storage. At the POD, well D0073545 is service connected to a water system & second 6" well that provides domestic & irrigation water use covered by licensed Right 95-17177. Although the system has shared infrastructure, the 125 HP pump/motor installed in D0073545 only comes online when pressure transducers for the fire suppression system signals water supply greater than the jockey pump from the small well will provide. The 12-inch cased well is located directly behind the pump station, which houses pump controls for the VFD pump motor and conveyance system components. A Master Meter flowmeter is installed on the water system but serves to capture volumetric data related to domestic and irrigation uses covered by 95-17177.

Based on the fire protection beneficial use, a flow measurement was not performed at time of field exam; I requested pump performance curve data from the pump installation company during licensing review. Chris Agueros, Sales Manager – United Crown Pump & Drilling, provided additional pump data and pump curve documentation by email on 11/22/2023. The water system is regulated by the small 6-inch well and pump holding pressure at approximately 60-70 psi; this serves as the jockey pump preventing pressure from decreasing to the point the fire suppression 125 hp pump activates at around 30 psi. Based on the pump performance curve provided by Mr. Agueros, I have derived the diversion rate using the following calculation:

- $180 \text{ (pump depth in well in feet)} + [30 \text{ psi (fire pump pressure regulated to activate)} \times 2.31 \text{ (factor)}] = 250 \text{ ft head.}$
- At 250 ft head the 125 hp pump performance curve intersects 1,600 gpm.
- $1,600 \text{ gpm} / 448.83 \text{ per cfs} = \mathbf{3.56 \text{ cfs}}$ considering department rounding standards.

I'm recommending the fire protection annual diversion rate & maximum diversion rate of 3.56 cfs for licensing purposes.

The Fire Protection POU serves parcel RP50N05W063225 which houses multiple storage facility structure, an office building, and some open areas. The system incorporates multiple fire hydrants for fire suppression uses. I used ArcMap aerial imagery during licensing review to designate the POU. Due to the fire protection beneficial use, there is no diversion volume associated with licensing this water right.

I removed conditions 26A and 046 from the Permit during licensing review. I added condition F06 describing the two water rights owned by the applicant share a groundwater well POD. All other conditions on the Permit shall be carried forward to licensing. There are no overlapping water right concerns for licensing this permit. The POD & POU are within the Rathdrum Prairie Groundwater Management Area, but only condition 174 is applicable for licensing purposes.

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>
FIRE PROTECTION	01/01 to 12/31	3.56 CFS

Totals: 3.56 CFS

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

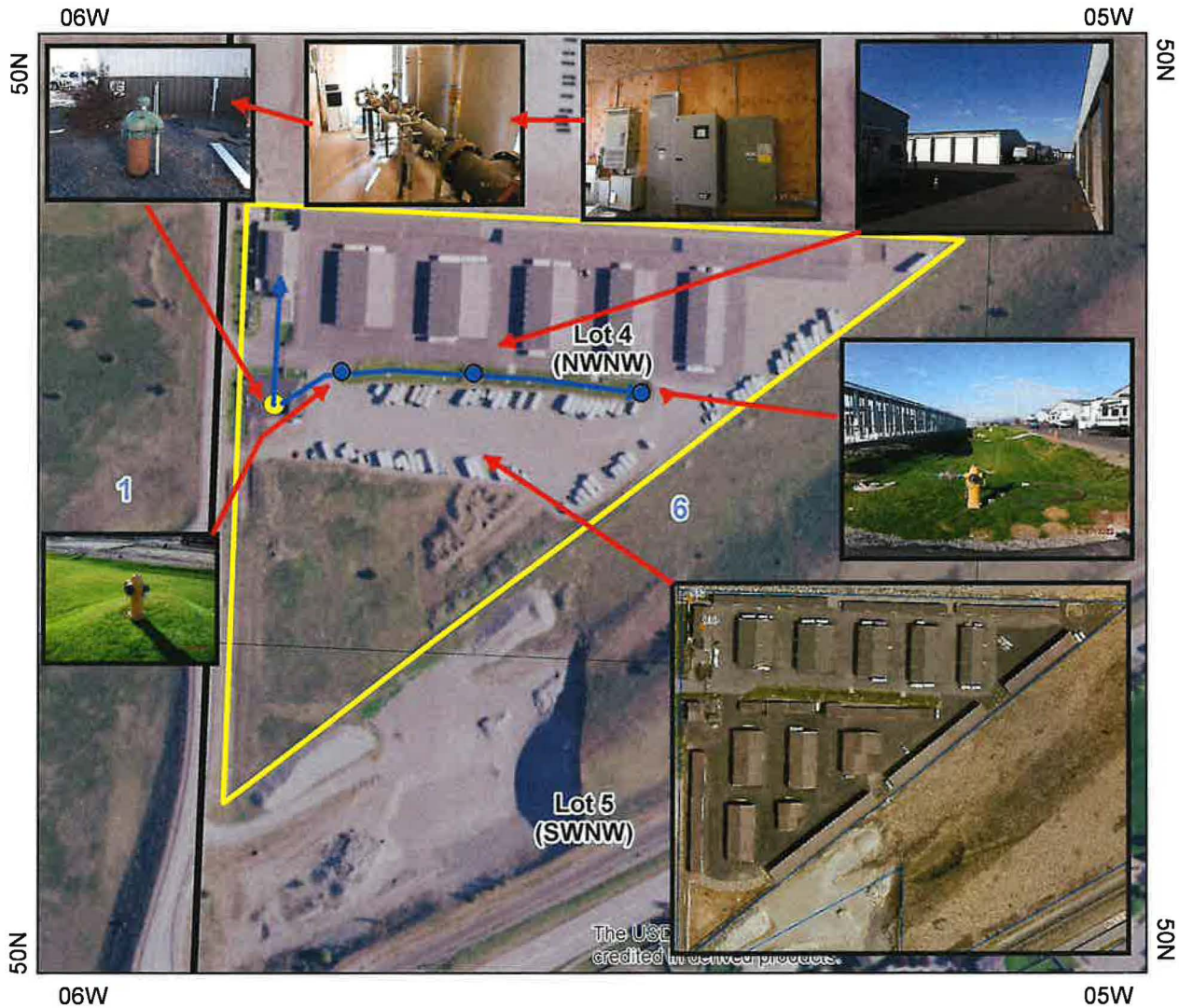
I. AUTHENTICATION Luke Bates -

Field Examiner's Name *LDB* Date 11/22/2023

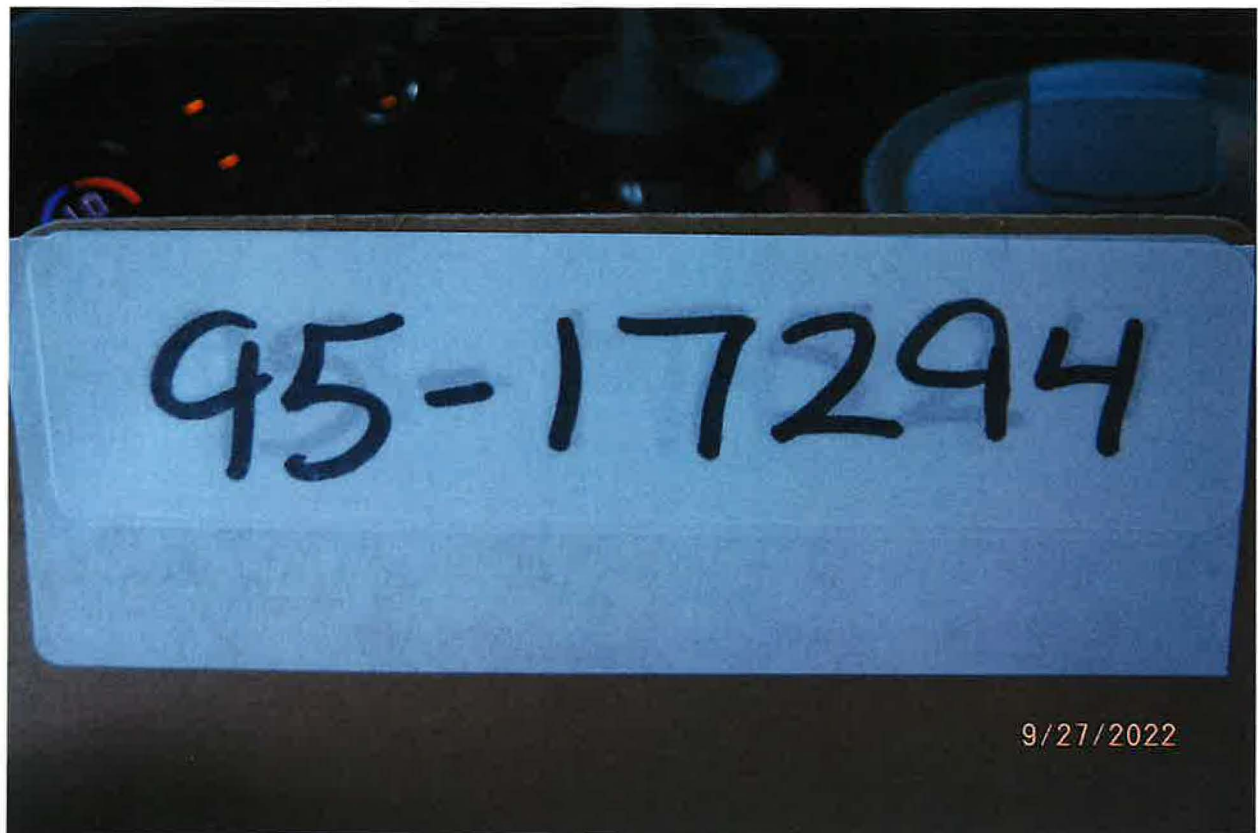
Reviewer *Uma Buell* Date 5/23/2024

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-17294

FIRE PROTECTION system diagram.



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



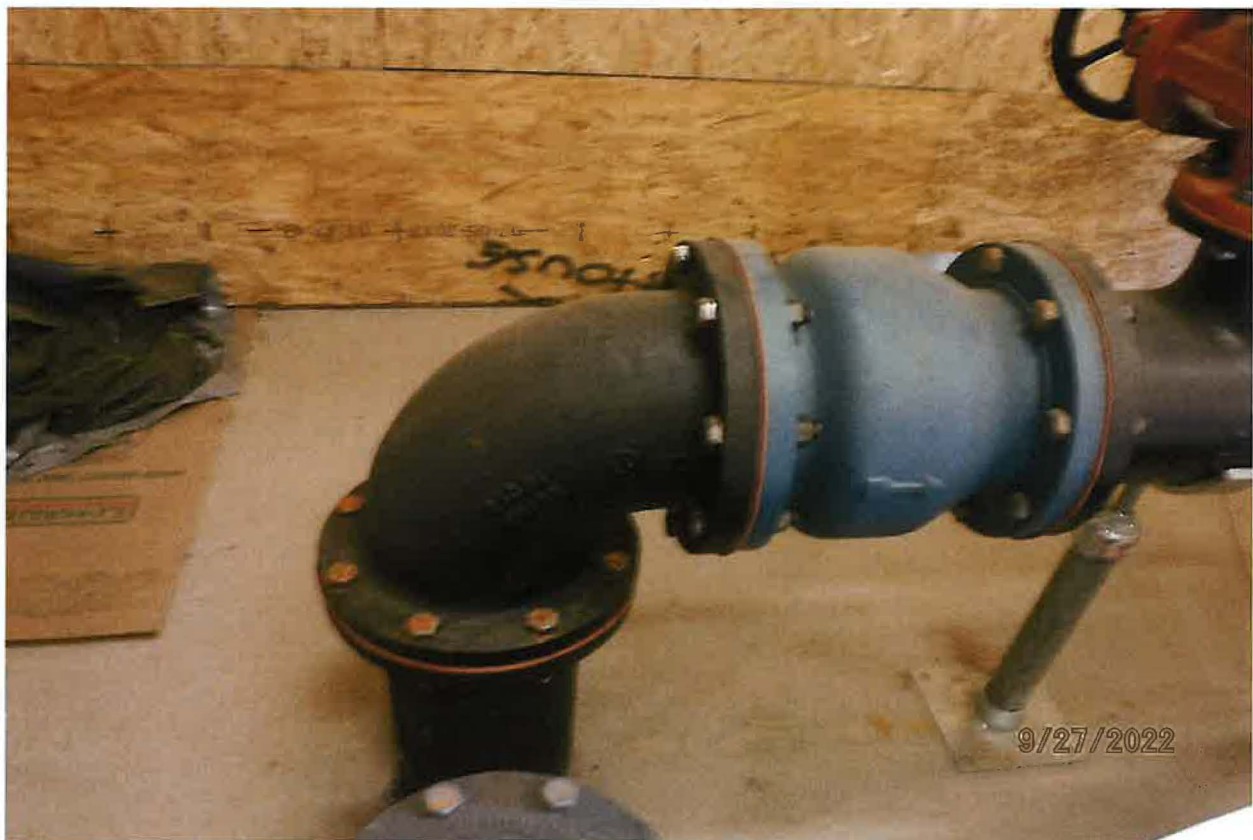
BENEFICIAL USE FIELD EXAM DATE 9/27/2022



POD – GROUNDWATER WELL



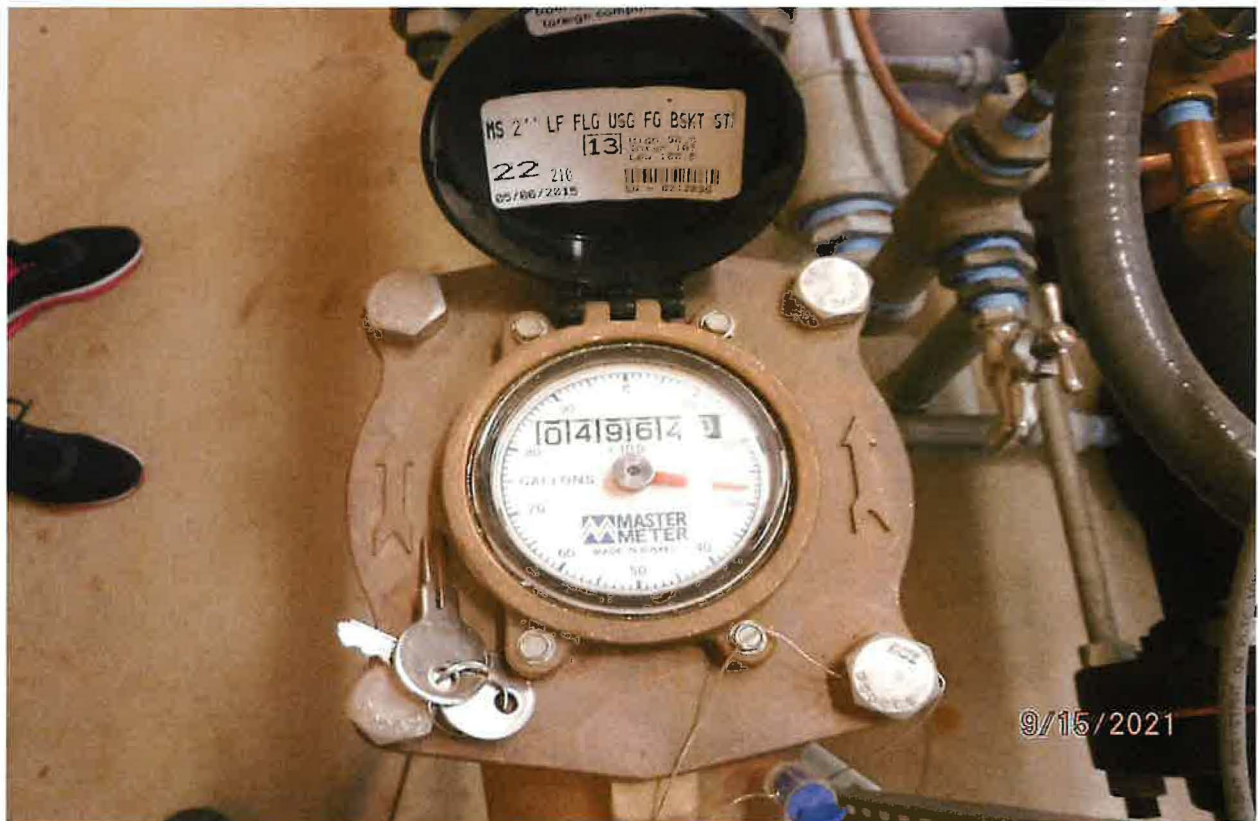
POD – WELL D-TAG D0073545



DIVERTING WORKS – WATER MAIN LINE FROM WELL TO WATER SYSTEM



DIVERTING WORKS



MASTER METER FLOWMETER INSTALLED – PROVIDES VOLUMETRIC DATA FOR WATER SYSTEM



WATER SYSTEM OPERATIONAL PRESSURE 60-70 PSI



WATER SYSTEM MAIN LINE – OUTFLOW TO FIRE PROTECTION SYSTEM



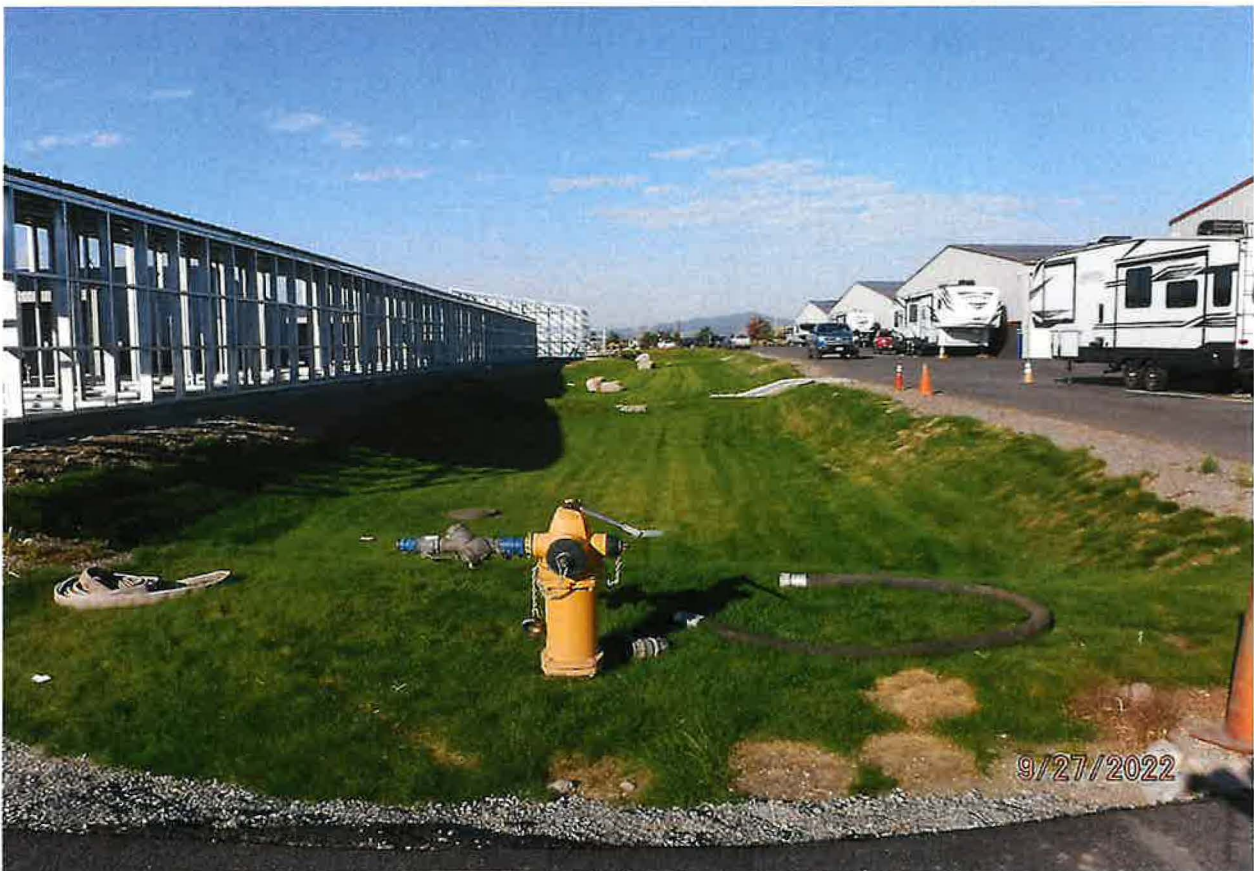
WATER SYSTEM COMPONENT CONTROL PANEL(S)



VARIABLE FREQUENCY DRIVE PUMP MOTOR INSTALLED IN SYSTEM



FIRE PROTECTION POU – MAIN SERVICE LINE WITH FIRE HYDRANT RISERS AT INTERVAL



FIRE PROTECTION POU – END OF RUN FIRE HYDRANT ON EASTERN SIDE OF STORAGE UNIT LOCATION