STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17666
Exam Date: 06/12/2020

1. Current Owner:
PRAIRIE SCHOONER LLC PO BOX 3270 COEUR D ALENE ID 83816-2508

2. Accompanied by: Ian Kuchinski
Phone No: 208-659-8173
Address: 4745 N 4th St, Coeur D Alene ID, 83814
Relationship to permit Holder: Applicant's 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
95-14394	GROUND WATER	DOMESTIC	DECREED
95-7006	GROUND WATER	DOMESTIC	LICENSE
95-7013	GROUND WATER	DOMESTIC	LICENSE

Comments: WR 95-14394 is for same applicant using ground water from same well for domestic use; this WR's (95-17666) number of units (RV sites) has been reduced by 20 sites out of 25 total RV sites, which equals the volume derived for WR 95-14394, in order to mitigate any overlap concern and negate stacking of WRs. WRs 95-7006 and 95-7013 both use ground water from PODs not associated with applicant's parcels, for domestic purposes that encompass large tracts of acreage not associated with this WR, and not a concern for overlap.

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

Water Right No.	Source	Purpose of Use	Basis
95-14394	GROUND WATER	DOMESTIC	DECREED

Comments: The POD associated with WR 95-14394 is the same well, No. 95-70-N-30, as this WR. Condition F06 is applied to license to describe same POD for both WRs.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER SE¼ SE¼, Sec. 27, Twp 52N, Rge 04W, B.M. KOOTENAI County

Method of Determination: GPS. POD located at -116°48.790, 47°49.221. Well No. 95-70-N-30.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
52N	04W	27															3.5	1.0	4.5

Total Acres: 4.5

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	
52N	04W	27															X	X	

Method of Determination: Field exam and Arcmap

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
X 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
95-70-N-30	**UNKOWN**	**10**			

D. FLOW MEASUREMENTS

1.

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

2. Measurements: Unable to perform flow measurement because system pumped directly into pressure tank.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at **0.17 cfs**, with pump estimated at depth of 287 feet, with operating pressure of 60 psi. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R}$ = (Acres Irrigated) x (Irrigation Requirement) = 4.5 acres x 3.0 afa = 13.5 af

$V_{D.R}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 0.17 cfs x 246 days x 1.9835 = 82.9

V = Smaller of $V_{I.R}$ and $V_{D.R}$ = **13.5 af**

2. Volume Calculations for Other Uses:

- WR 95-14394 decreed 2.8 af volume; Domestic Component for this WR 95-17666 applied to 20 RV sites with full hook ups with annual volume = 20 RV sites x 2.5 person DEQ multiplier x 50 gpd x 365 days = 912,500 gal per

year / 325,850 gal per af = 2.8 af.
- Domestic for 49 Mobile homes = 49 mobile homes x 0.6 af = 29.4 af
- Domestic for 5 RV sites = 5 RV sites x 2.5 person DEQ multiplier x 50 gpd x 365 days = 228,125 gal per year / 325,850 gal per af = 0.7 af
- WR 95-17666 Combined Annual Volume = 29.4 af (mobile homes) + 0.7 af (RV sites) = **30.1 af**
- Maximum Diversion Volume = 13.5 af (irrigation component) + 30.1 af (domestic component) = **43.6 af**
- Condition X35 applied to this WR = 2.8 af (95-14394) + 43.6 af (95-17666) = 46.4 af, used to limit combined annual volume for both water rights, mitigating stacking of WRs

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/12/2020 with applicant's representative, Ian Kuchinski, showed groundwater from a well providing domestic and irrigation use to a mobile home park with 49 mobile homes and 25 RV sites with full water/sewer hook-ups. I was unable to perform a flow measurement because water was diverted directly into a pressure tank with no proper place to perform measurement. Theoretical pumping equation was used to determine a flow rate of 0.17 cfs. The pump was estimated to be 287 feet down and the system running at 60 psi (equation attached). Applicant had permitted for 0.20 cfs, but is limited by pump performance at time of field exam. The license will be issued with a maximum diversion rate of **0.17 cfs**. The domestic component diversion rate is limited to 0.17 cfs, which is the pump performance limiter for license. The irrigation component diversion rate is equal to 0.03 cfs x 4.5 acres = 0.14 cfs, after applying rounding to conform with department administrator memorandum, application processing memo No.6, Significant Figures for Numeric Values.

Applicant's intent for this WR is to increase annual volume for the mobile home park, from decreed WR 95-14394. Backfile review of WR 95-14394 showed domestic use for 52 mobile homes not to exceed 2,500 gallons per day. The resulting annual volume for WR 95-14394 equals 2,500 gpd x 365 days = 912,500 gal per year / 325,850 gal per af = 2.8 af. The annual volume from WR 95-14394 accounts for 20 RV sites with full hook ups for this WR 95-17666, with annual volume = 20 RV sites x 2.5 person DEQ multiplier x 50 gpd x 365 days = 912,500 gal per year / 325,850 gal per af = 2.8 af. This reduces the total number of mobile homes and RV sites that still need accounted for on this WR to equal 49 mobile homes + 5 RV sites.

During the field exam 49 mobile homes and 25 RV sites were identified. Annual volume applied to this WR is associated with 49 mobile homes and 5 RV sites. All mobile home sites were developed, and all RV sites were either hooked up or stubbed-in with water and sewer for each site. The mobile homes are located within Panhandle Village Subdivision. Arcmap was used during licensing review to more accurately trace out the domestic POU, which does not include a main office building located at the road front of the subdivision, which is not serviced by the water system. The annual volume for the domestic component of this license is calculated as follows:

- 49 Mobile homes = 49 mobile homes x 0.6 af = 29.4 af
- 5 RV sites = 5 RV sites x 2.5 person DEQ multiplier x 50 gpd x 365 days = 228,125 gal per year / 325,850 gal per af = 0.7 af
- WR 95-17666 Combined Annual Volume = 29.4 af (mobile homes) + 0.7 af (RV sites) = 30.1 af

30.1 af will be applied as the annual diversion volume on license for the domestic component.

Irrigation was observed during the field exam, and systematically traced out around each mobile home and RV site during licensing review using arcmap aerial imagery, equaling 4.5 acres. The irrigation was from frost free hydrants at each mobile home/RV site and above ground sprinklers. The annual diversion volume applied to license equals 4.5 acres x 3.0 afa = **13.5 af**. The POU for irrigation is the same as the domestic component POU, but limited to the 4.5 acres distributed across the POU due to irregular and small irrigation occurring between each mobile home. The combined Maximum diversion volume applied to license equals 13.5 af (irrigation component) + 30.1 af (domestic component) = **43.6 af**.

Condition 046 was removed from license. Condition 132 was adapted to describe the change from 60 mobile homes, to reflect updated values of 49 mobile homes and 25 RV sites; this is not a case of enlargement, as added RV sites above the 60 unit permitted for is accounted for using prior WR 95-14394 as described below. Condition R62 was replaced by R66 due to irrigated acreage being reduced to 4.5 acres during licensing review. Condition X59 and X60 were added to describe

the POD and POU for license being within the Panhandle Village Subdivision. Condition F06 was added to describe the same POD for WRs 95-14394 and 95-17666. Condition X35 was added to describe WRs 95-14394 and 95-17666, when combined, shall not exceed a total annual maximum diversion volume of 46.4 af and the irrigation of 4.5 acres.

Overlapping POUs include WR 95-14394, which is for same applicant using ground water from same well for domestic use; this WR's (95-17666) volume based on number of units (RV sites) has been reduced by 20 sites out of 25 total RV sites, which equals the volume derived for WR 95-14394, in order to mitigate any overlap concern and negate stacking of WRs. WRs 95-7006 and 95-7013 both use ground water from PODs not associated with applicant's parcels, for domestic purposes that encompass large tracts of acreage not associated with this WR, and not a concern for overlap. There are no other overlap concerns for this WR.

Have conditions of permit approval been met? __X__ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
IRRIGATION	03/15 to 11/15	0.14 CFS	13.5 AF
DOMESTIC	01/01 to 12/31	0.17 CFS	30.1 AF
	Totals:	0.17 CFS	43.6 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

Luke Bates - Water Resource Agent

Field Examiner's Name _____ Date 7/14/2020

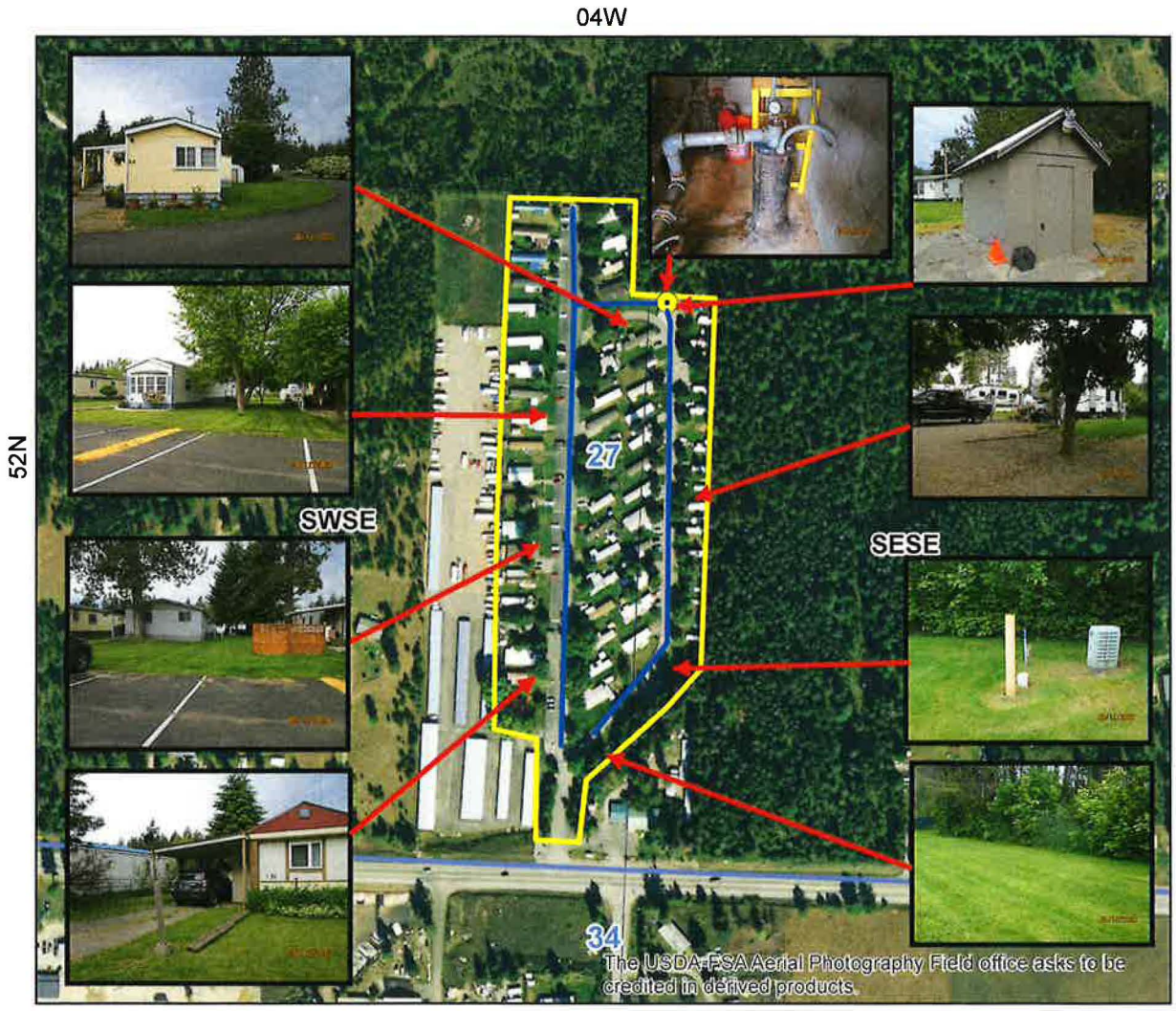
Reviewer _____ Date 7/15/2020

State of Idaho
Department of Water Resources

Attachment to Field Exam

95-17666

DOMESTIC and IRRIGATION system diagram



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

0 0.0425 0.085 0.17 Miles

N

THEORETICAL PUMPING EQUATION FOR WR# 95-17666

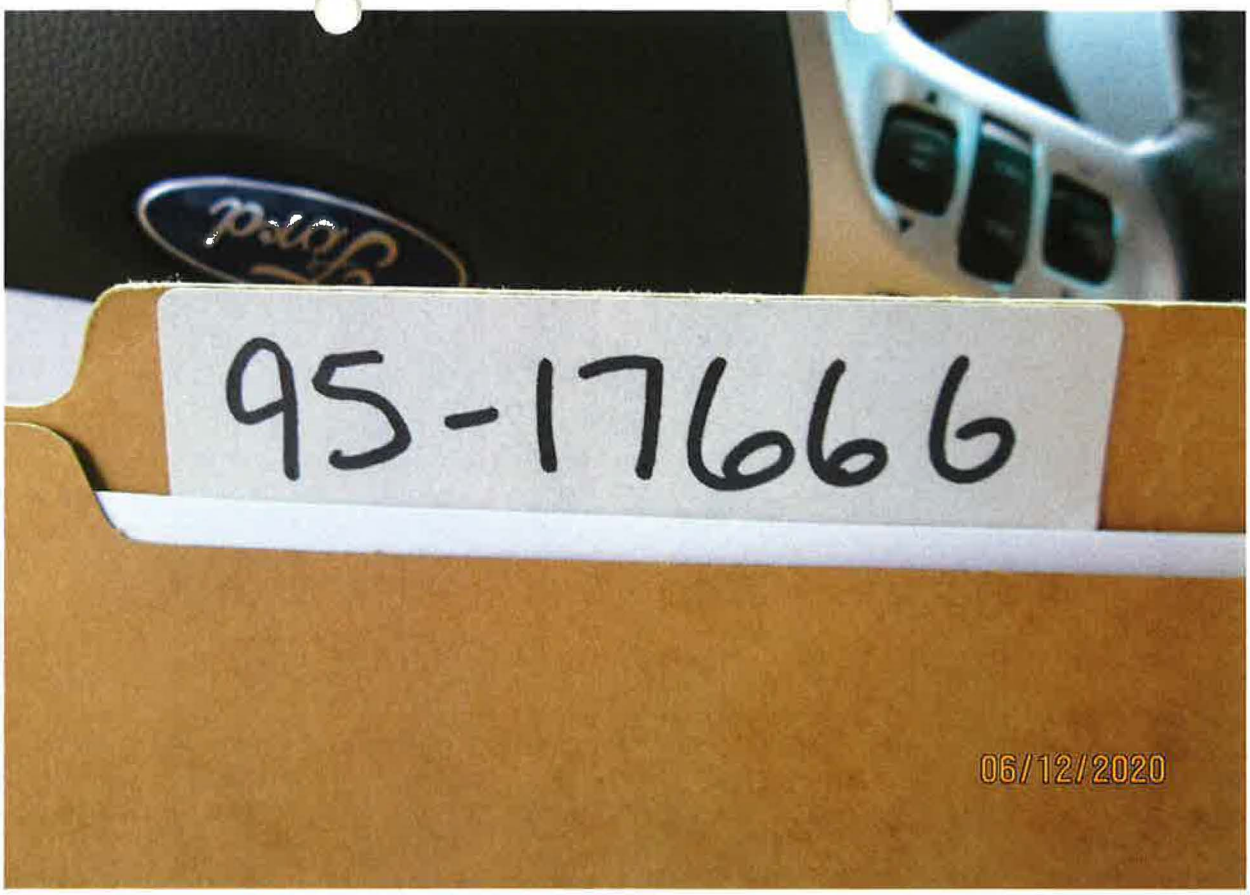
Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 287 ft, and running at 60 psi.

PUMP EQUATIONS

WATER RIGHT No. 95-17666

		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	10	425.7755	0.8	287	60

Q = **0.166 cfs** **74.3 gpm**

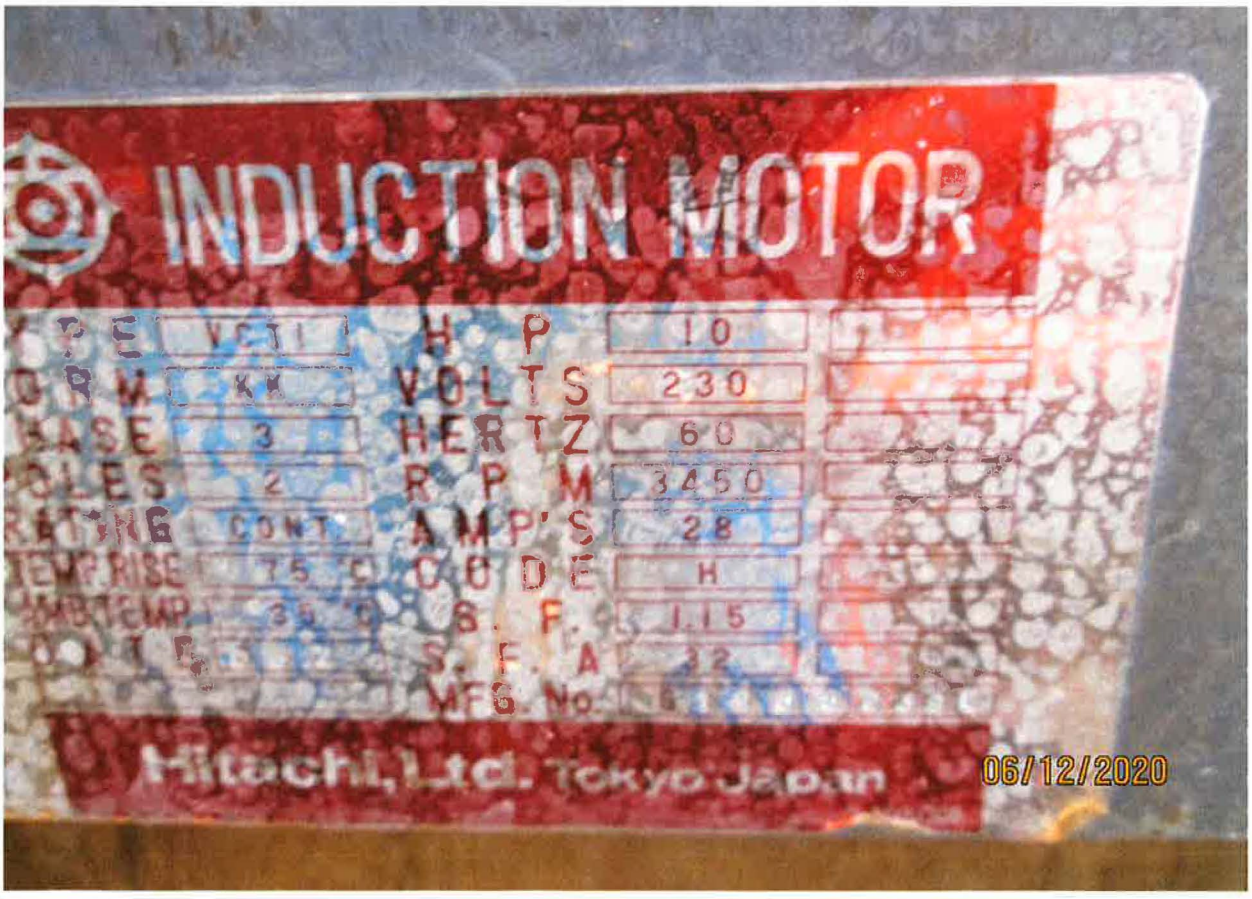


POD – PUMP HOUSE

WELL 95-70-N-30

INTERIOR PUMP HOUSE – WATER SYSTEM

60 PSI OPERATING PRESSURE



10 HP PUMP

DOMESTIC AND IRRIGATION POU

DOMESTIC AND IRRIGATION POU

DOMESTIC AND IRRIGATION POU

FROST FREE HYDRANT AT ENTRY WAY COMMON AREA

IRRIGATION POU COMMON AREA

DOMESTIC AND IRRIGATION POU – RV HOOK UP SITES (25 EA)

WATER METER IN PUMP HOUSE