

PLACE OF USE: DOMESTIC

PLACE OF USE: HEATING

Twp	Rge	Sec	NE				NW				SW				SE				Totals
08N	42E	2	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
									X										

Method of Determination: Same as POD

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. 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.
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
699873	ACR motor	15	66MB120-15	Hitachi	G8909E

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

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

2. Measurements:

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method: Theoretical

$$Q = [(15 \text{ hp}) * 8.814 * 0.70] \div [(80 \text{ ft lift}) + (60 \text{ psi} * 2.308)] = 0.42 \text{ cfs}$$

Heating and cooling flow capacity from heat pumps is 86 GPM or 0.19 cfs

Q = 0.22 cfs limited by permit

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:

$$V_{\text{heating and cooling}} = 130 \times 0.22 \text{ cfs} \times 1.9835 = 56.70 \text{ afa}$$

Assuming pumping 10 hrs/day; six days per week, with 130 days per year operating at capacity

$$V_{\text{domestic}} = (50 \text{ gal}) \times (365 \text{ days}) \times 28 \text{ people} = 511000 \text{ gal} \div 325000 \text{ gal / af} = 1.56 \text{ or } 1.6 \text{ afa}$$

G. NARRATIVE/REMARKS/COMMENTS

Heatpumps

Heatpumps over warehouse - 3 x 16 GPM + 1 x 2 GPM

Heatpumps over office 3 x 6 GPM 2 x 8 GPM and 1 x 2 GPM

28 Employees - open all year

2 wells - one input into system for 1 domestic use at facility, the other is (injection well) for effluent from heating and cooling. Effluent well (injection well) had problems at time of exam, could not take effluent and was overflowing. This is a common problem, so system of ponds build to hold overflow from system ponds are fed through pipes from pitless adapter and creek/culverts.

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>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
COOLING	01/01 to 12/31	0.220 CFS	56.70 AF
DOMESTIC	01/01 to 12/31	0.040 CFS	1.60 AF
HEATING	01/01 to 12/31	0.220 CFS	56.70 AF
<u>Totals:</u>		0.220 CFS	58.30 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 Other

I. AUTHENTICATION

Field Examiner's Name Paul Meyer Date August 18, 1999

Reviewer Nate Arave Nate Arave Date March 7, 2007 3-7-07

Comment Report

21-7567

1. pmeyer 2/16/2007 Field Report Narrative

Comment: Heatpumps

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28 Employees - open all year

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heating and cooling. Effluent well (injection well) had problems at time of exam, could not take effluent and was overflowing. This is a common problem, so system of ponds build to hold overflow from system ponds are fed through pipes from pitless adapter and creek/culverts.

2. narave 2/20/2007 POD

Comment: Updated shape

3. narave 2/20/2007 POU

Comment: Updated Shape

4. narave 2/20/2007 POU

Comment: Updated Shape

5. narave 2/20/2007 POU

Comment: Updated Shape

6. narave 2/20/2007 POU

Comment: Updated PLS

7. narave 2/20/2007 POU

Comment: Updated PLS

8. narave 2/20/2007 POU

Comment: Updated PLS

9. narave 3/2/2007 Injection Well

Comment: I spoke with the heating a cooling specialist for the building (West) and was informed that the injection well was no longer leaking.

10. narave 3/2/2007 POU Overlap

Comment: The overlapping POU are 21 73F, 21 73B, 21 48, 21 49, 21 50, 21 73D, 21 73J, 21 75, 21 114D, 21 140, 21 73B, 21 73F, and 21 10944

11. CZIMMERM 11/26/1997 DIVERSION DESCRIPTION

Comment: 8" x 100' well with 10 hp submersible pump to a one-story 20,000 sq. ft. commercial building. Well water temperature is 59 d. F. Proposed three 10 ton, two 5 ton, three 4 ton, and two 1-1/2 ton heat pumps. See file for specs on units. Applied for injection well permit no. 21-W-9. CORPORATE OFFICERS The officers of Falls River Rural Electric Cooperative, Inc. are: Keneth Brown, President; Larry Williamson, Vice President; Sonja Cherry, Secretary/Treasurer; and, Dee M Reynolds, General Manager.

12. VAULT 10/28/1998 Proof of Beneficial Use Rcvd

Comment: Proof of Beneficial Use Rcvd

Type	WR #	Owner	Source	TRS	NENE	NWNE	SWNE	SENE	NENW	NNNW	SNWV	SENV	NESV	NWSW	SWSW	SESW	NESW	NWSE	SWSE	SESE	Total
Right	21 167	FARMERS OWN DITCH CO.	FALL RIVER	08N42E2																	0
Right	21 7300	EVALL LENZ	GROUND WATER	08N42E2	31	34			14.5												79.5
Right	21 73F	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 73B	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 48	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 49	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 50	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 73D	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 73J	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 75	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 14D	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 140	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Right	21 10545	A JUNE MARTINDALE-HILL	GROUND WATER	08N42E2			X														0
Right	21 10546	A JUNE MARTINDALE-HILL	UNNAMED STREAM	08N42E2				X													0
Right	21 10546	A JUNE MARTINDALE-HILL	GROUND WATER	08N42E2					X												0
Right	21 10761	J LENE H CHERRY, LAYLE J CHERRY	GROUND WATER	08N42E2						X											0
Right	21 10761	J LENE H CHERRY, LAYLE J CHERRY	GROUND WATER	08N42E2							X										0
Right	21 11234	NIECA C JESSEN, JOHN F JESSEN	GROUND WATER	08N42E2								X									0
Rec	21 48	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 49	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 73B	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 73D	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 73F	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 73J	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 75	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 10944	NORTH FREMONT CANAL SYSTEMS INC.	FALL RIVER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 7300C	EVELYN GARCIA	GROUND WATER	08N42E2	31	34	40	39	13	38	15	39	39	37	40	40	40	39	40	38	562
Rec	21 13019	RYAN ORME	GROUND WATER	08N42E2	31				10												41
Right	21 7567	FALL RIVER RURAL ELECTRIC CO-OPERATIVE	GROUND WATER	08N42E2						X											0
Right	21 7567	FALL RIVER RURAL ELECTRIC CO-OPERATIVE	GROUND WATER	08N42E2							X										0
Right	21 7567	FALL RIVER RURAL ELECTRIC CO-OPERATIVE	GROUND WATER	08N42E2								X									0