

WATER PERMIT NO. 7371-3

Name of Applicant: Russell Hurlbert

Address: 41312 174th St, Raymond SD 57258 Phone: 605 532-3536

Amount of Water Claimed: 1.78 cfs Total Acres: 90 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Clark

Type of Waste Disposal System:

Location: 7 miles west of Clark

PRIORITY Date Received: 6-7-12 Application/License Fee: \$ 950

Corrected Application Received: Period of Annual Use: May 1 – Sept 30

Remarks:

Diversion Point: SE ¼ SW ¼ Sec 2-116N-R59W

Land to be Irrigated: E ½ SW ¼, W ½ SE ¼ Sec 2-116N-R59W

Depth of Well: 183 feet

Well Driller: Manikowski Well Drilling

Remarks:

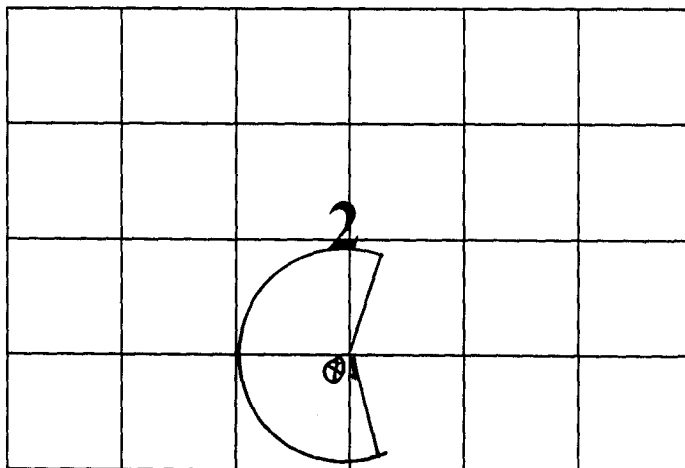
Type of Map: aerial

Prepared by: Marty L Bertsch, Clark Co FSA

Reviewed and the Number Assigned on: 6-11-12

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7371-3</u> (office use only)	Hydrologic Unit <u>10160006</u>
	Basin <u>James River</u>	<u>Public Opinion</u>
	Newspaper <u>Clark Co. Courier</u>	<u>1191st Ave. E</u>
	<u>605-532-3654</u>	<u>57225</u>

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JUN - 7 2012

PO Box 10
Watertown WATER RIGHTS PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name of Applicant Russell Hurlbert Phone 605-532-3536
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 41312 174TH STREET RAYMOND SD 57258
(Address) (City) (State) (Zip Code)
2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 90
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply well
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County CLARK
1 WELL IN SE 1/4 of SW 1/4 2-116-59
5. County or counties where water will be used CLARK
6. Annual period during which water is to be used May 1 - September 30
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NE 1/4 SW 1/4 2-116-59	40		
SE 1/4 SW 1/4 2-116-59	40		
SW 1/4 SE 1/4 2-116-59	5		
NW 1/4 SE 1/4 2-116-59	5		

8. Give a description of the project. (Attach sheet if more space is needed)

CENTER PIVOT APPLIES WATER FROM WELL WITH PUMP AND PIPE
applicant is requesting diversion rate greater than Statutory Limit

STATE OF SOUTH DAKOTA)

County of Clark) SS

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, Russell A. Hurlbert, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Russell A. HurlbertSubscribed and sworn to before me this 6th day of June 20 12

Exp. 9-12-12

Notary Public signature John L. Olson

**SOUTH DAKOTA
WATER PERMIT NO. 7371-3**

Date of first receipt of application June 7, 2012.

Date of return to applicant for corrections, amendments or changes June 7, 2012.

Date of receipt of corrected application June 11, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7371-3 to Russell Hurlbert, 41312 174th St, Raymond SD 57258 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7371-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Altamont Aquifer (183 feet deep) located in SE1/4 SW 1/4 Section 2 for irrigation of 90 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 2; all in T116N-R59W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.
3. The date from which applicant may claim right is June 7, 2012.
4. The date of approval of Permit No. 7371-3 is July 16, 2012.
5. One-fifth of the construction is to be completed on or before January 16, 2015.
6. All construction is to be completed on or before July 16, 2017.
7. Water is to be put to beneficial use on or before July 16, 2021.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7371-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7371-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 90 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

SEP 07 2012
date



(type or print in ink)

1. Well Information - Proposed Construction

- test hole log attached

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type PVC Diameter 12 Thickness _____
- c) Screen Type SS Diameter 12 Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well: _____
- On applicants property _____ On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System _____

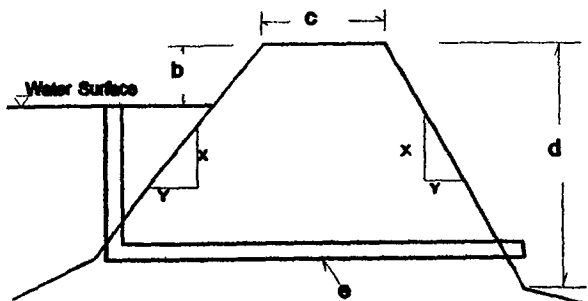
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres



United States Department of Agriculture
Farm Service Agency

PLSS: 2_116N_59W
Farm: 4207

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Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance
- Common Land Units
- // Non Cropland



Clark County, SD

1:8,650

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

October 17, 2011

Marty L. Bertsch, CEP 6-6-12
Clark County Farm Service Agency

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location <u>SE 1/4 SW 1/4</u> Sec <u>2</u> Twp <u>116</u> Rg <u>59</u>		Well Owner: <u>Russell Hurbert</u>	
County <u>Clark</u>		Business Name: _____	
Address1: <u>41312 174th St</u>		Address2: <u>Raymond, SD 57258</u>	
City, State, Zip: _____		WELL LOG:	
Please mark well location with an "X"		FORMATION	
		TOP Soil	
		sand oxidized	
		medium sand	
		yellow clay	
		blue clay	
		yellow clay	
		oxidized sand & clay	
		blue clay	
		medium to coarse sand	
Well completion Date <u>5-15-12</u>		DEPTH	
Distance from nearest potential pollution source (Septic tank, abandoned well, feedlot, etc.) <u>1500 ft from septic system</u> (Identify source)		FROM TO	
PROPOSED USE: ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes ☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well		TOP Soil 0 1 sand oxidized 1 6 medium sand 6 9 yellow clay 9 17 blue clay 17 23 yellow clay 23 29 oxidized sand & clay 29 66 blue clay 66 128 medium to coarse sand 128 183	
METHOD OF DRILLING: <u>Forward Rotary</u>		STATIC WATER LEVEL <u>69' 3"</u> FEET <u>shale</u>	
CASING DATA: ☐ Steel ☒ Plastic ☐ Other		If flowing, closed in pressure _____ PSI	
PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER <u>50 LB/FT</u> <u>5</u> IN <u>2</u> FT <u>133</u> FT <u>8</u> IN		GPM flow _____ through _____ inch pipe	
GROUTING DATA:		Controlled by ☐ Valve ☐ Reducers ☐ Other	
Grout Type No. of Sacks Grout Weight From To <u>Portland Cement</u> <u>6</u> <u>96</u> Lbs <u>0</u> FT <u>120</u> FT		Reduced flow rate _____ GPM	
Describe grouting procedure <u>Injective line method</u> <u>Bottom to Top</u>		Can well be completely shut in? _____	
SCREEN: ☐ Perforated pipe ☒ Manufactured		WELL TEST DATA:	
Diameter <u>5</u> Inches Length <u>50</u> Feet		☒ Pumped Describe: <u>Submersible Pump</u>	
Material <u>PVC</u>		☐ Bailed	
Slot Size <u>1050</u> Set From <u>133</u> Feet to <u>183</u> Feet		☐ Other	
Other information <u>Red flint #50 sht sand pack</u>		Pumping Level Below Land Surface	
WAS A PACKER OR SEAL USED? ☐ Yes ☒ No		<u>71' 10"</u> Ft. After <u>2</u> Hrs. pumped <u>80</u> GPM	
If so, what material? _____		Ft. After _____ Hrs. pumped _____ GPM	
Describe packer(s) and location _____		If pump installed, pump rate: _____ GPM	
DISINFECTED: Was well disinfected upon completion?		REMARKS	
☒ Yes, How? <u>chlorine and water</u>		<u>Test well</u>	
☐ No, Why Not? _____		This well was drilled under license # <u>285</u>	
Lab sample sent to for water quality analysis _____		And this report is true and accurate.	
Please return White Copy to DNR Water Rights		Drilling firm: <u>Man. Kouski well Drilling, LLC</u>	
Signature of Well Owner or Equitable Property Holder: <u>Russell Hurbert</u>		Signature of License Representative: _____	
Date: _____		523 E. Capitol Ave., Pierre SD 57501	

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6-7, 20 12

RECEIVED OF Russell A Hurlbert, 41312 174th St, Raymond SD 57258

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>7371-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7371-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	950.00

71 by E. Hurlbert

No. **05462**

By Garland Erbeley
Chief Engineer
(KS)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

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WATER RIGHTS
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June 7, 2012

Russell Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Clark County. In order to complete the application the following is required.

- Enclosed is the aerial photo map submitted with the application. On the map please mark the well location with an "X". The application states the well is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 2-T116N-R59W.

Enclosed is a postage prepaid envelope for your use. If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosure

*well is very close to East side of SE $\frac{1}{4}$
and slightly South of center point. Thank You.*

Russ

881-1196



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7371-3, Russell Hurlbert**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 7371-3, Russell Hurlbert, 41312 174th Street, Raymond SD 57258.

The Chief Engineer is recommending APPROVAL of Application No. 7371-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7371-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7371-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 90 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
June 20, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7371-3
RUSSELL HURLBERT
JUNE 16, 2012

Water Permit Application No. 7371-3 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 2, T116N-R59W. The proposed well will be approximately 183 feet deep and completed into the Altamont aquifer. Water is to be used to irrigate 90 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$, and the W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 2, T116N-R59W.

AQUIFER: Altamont (A)

GEOLOGY AND AQUIFER CHARACTERISTICS:

Hamilton (1978) described six major glacial aquifers in Clark County (i.e. the Prairie Coteau 1, 2 and 3, and the Altamont 1, 2 and 3 aquifers). The "Medium to Coarse Sand" identified from 128-183 feet below grade on the test hole log submitted with this application corresponds with the "Altamont aquifer 2" as defined by Hamilton (1986). The Altamont aquifer 2 is a buried glacial outwash consisting of unconsolidated fine to very coarse sand and gravel and sandy silt. The aquifer underlies an estimated 630 square miles and contains an estimated 3.23 million acre-feet of water in storage in Clark County (Hamilton, 1986). Wells completed into the Altamont aquifer 2 yield up to 2,000 gallons per minute and the aquifer transmissivity was estimated from two aquifer tests to be 28,000 gallons per day per foot and 15,000 gallons per day per foot respectively (Hamilton, 1986). The Altamont aquifer 2 is hydraulically connected with the Altamont aquifer 1 near the center of Clark County, and the Altamont aquifer 2 and Altamont aquifer 3 are hydraulically connected near the western part of the county (Hamilton, 1986). In the past, the DENR-Water Rights Program has not differentiated between units and considered all of the deeper outwash deposits in Clark County the Altamont aquifer. When considering the Altamont a single aquifer, it underlies approximately 537,200 acres of Clark County and contains an estimated 3,326,400 acre-feet of recoverable water in storage in the county (Hedges and others, 1982). The Altamont is generally under confined conditions and in this area groundwater movement is toward the southwest (Hamilton, 1986).

The completion report for a test well at the site proposed by this application described 2.58 feet of drawdown at 80 gallons per minute. The transmissivity of the aquifer in this area based on the test well's specific capacity (i.e. 30.97 gpm/ft) is estimated to be approximately 61,940 gal/day/ft ("Transmissivity from Specific Capacity").

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, the proposed diversion can be developed without unlawful impairment of existing rights and the proposed use is a beneficial use and in the public interest. This report will address the water availability and existing rights issues pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate 180 acre-feet annually from the Altamont aquifer, although the actual water use if this application is approved will be less than 180 acre-feet/year. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

Recharge versus Discharge:**Recharge:**

Recharge to the Altamont aquifer is by infiltration of precipitation and lateral inflow. The average annual recharge from precipitation to the portion of the Altamont described as Altamont aquifer 2 alone is estimated to be 54,000 acre-feet (Hamilton, 1986).

Discharge:

Discharge from the Altamont aquifer from Clark County is by well withdrawals and by groundwater underflow out of the county. A considerable quantity of water "probably moves westward annually from the county where it discharges by evapotranspiration and streamflow in large areas of Spink County" (Hamilton, 1986).

There are a number of completion reports on file with the DENR-Water Rights Program for domestic wells completed into the Altamont aquifer in this area (Water Rights, 2012c). In addition, there are 47 water rights/permits in Clark County appropriating water from the aquifer. Currently, there is one pending application from the Altamont aquifer in Clark County (i.e. Water Permit Application No. 7345-3). Appropriative rights are for commercial use (including three large confinement operations and one other), industrial use (two water rights), municipal use (two for Garden City and one for Clark (Clark is now on rural water (Freideman))), and for irrigation use.

The principal use of the Altamont aquifer is for irrigation. A summary of irrigation from the Altamont aquifer from Clark County is shown in table 1.

YEAR	NO. PMTS	APPRPRIATIONS (ac-ft/yr)	PUMPAGE (ac-ft/yr)
2010	36	17299.8	887.92
2009	36	17299.8	735.49
2008	36	17075.5	1660.16
2007	33	16299.5	2143.63
2006	31	14899.5	3336.34
2005	30	14547.5	2190.13
2004	30	14547.5	1766.3
2003	26	13402.3	2286.11
2002	25	13102.3	2695.04
2001	25	13102.3	1615.69
2000	26	13603.3	1995.52
1999	24	12691.3	1170.95
1998	23	12637.3	826.28
1997	25	12637.3	357
1996	25	12637.3	1320.61
1995	25	12429.3	260.8
1994	25	12429.3	579.68
1993	25	14283.3	42
1992	24	13963.3	585
1991	25	16516.3	1622.2
1990	24	18851.5	2023
1989	24	18852.3	3321.8
1988	24	18852.3	3123.6
1987	25	19401.6	2463
1986	27	19754.3	1436
1985	27	19823.5	1917
1984	27	19823.5	2470
1983	26	20210.3	2665.18
1982	24	19488.5	1226.1
1981	27	22651	2689.99
1980	25	21001	2329.09
1979	24	20527	1472.71
<i>Maximum</i>		<i>22651</i>	<i>3336.34</i>
<i>Minimum</i>		<i>12429.3</i>	<i>42</i>
<i>Average</i>		<i>16395.03</i>	<i>1725.4475</i>

Table 1. Irrigation use from the Altamont aquifer from Clark County (Water Rights, 2012b)

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that “the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer.”

The analysis of the DENR-Water Rights Program observation well data provides the best information reasonably available to evaluate withdrawals from an aquifer as compared with recharge to an aquifer. Observation well data showing a steady, continual decline of the aquifer’s water level or artesian pressure could indicate that withdrawals from an aquifer were

exceeding recharge. In addition, water level fluctuations in an aquifer dominated by the influences of well withdrawals, or a change in the gradient of the potentiometric surface could indicate that well pumping is a significant component in the system relative to recharge and/or natural withdrawals.

The DENR-Water Rights Program monitors a total of 31 observation wells completed into the Altamont aquifer with 22 of these wells located in Clark County (Water Rights, 2012a). Hydrographs for the two observation wells completed into the Altamont aquifer nearest to the well site proposed by this application are shown in figures 1 and 2.

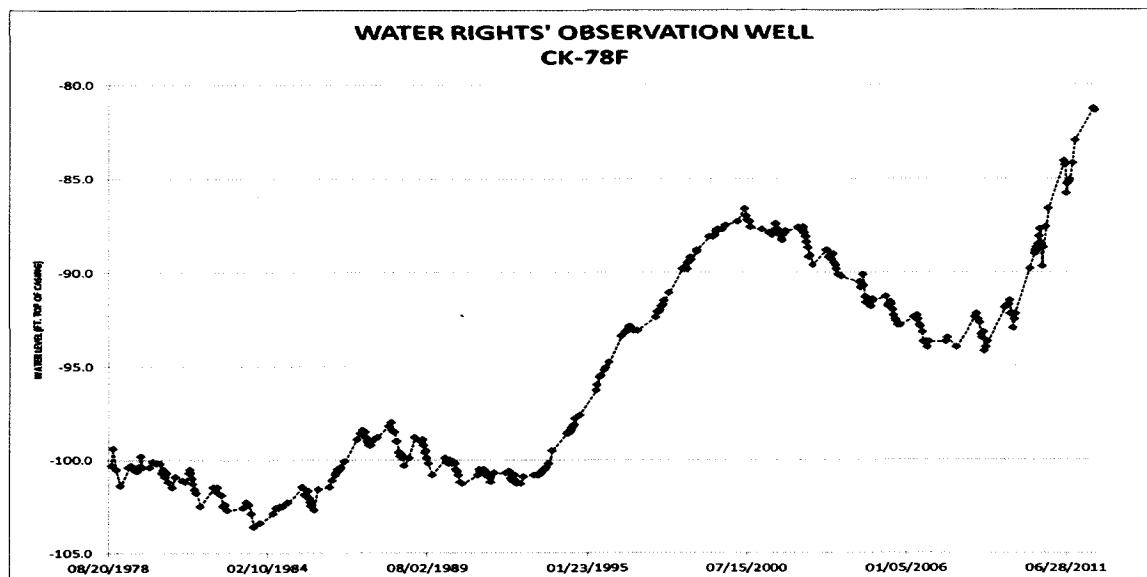


Figure 1. Hydrograph for an Altamont aquifer observation well located approximately one-half mile southeast of the well site proposed by Application No. 7371-3

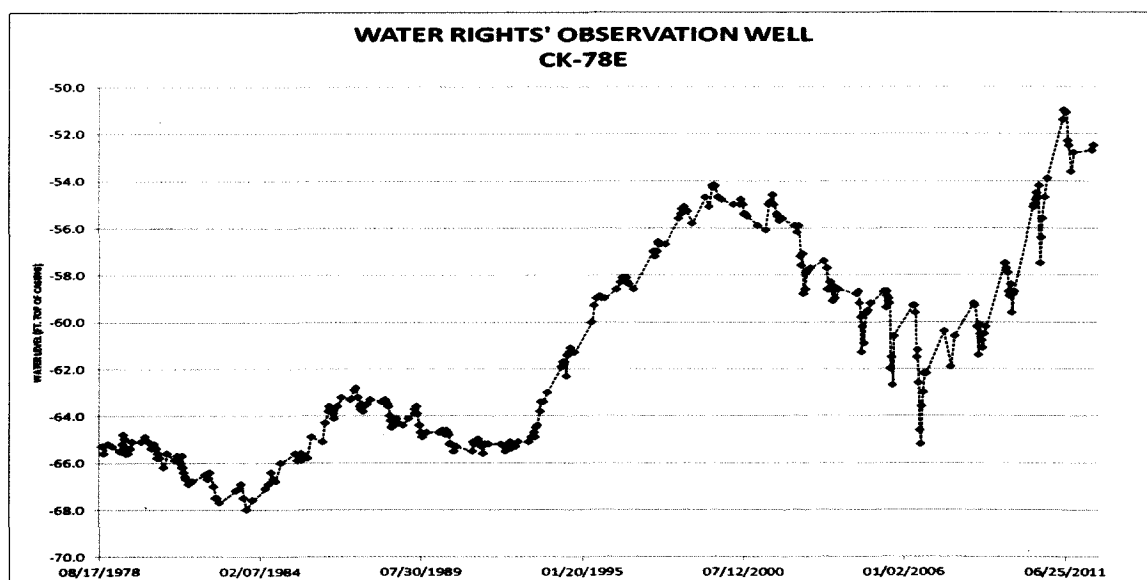


Figure 2. Hydrograph for an Altamont aquifer observation well located approximately two and three-fourths miles northwest of the well site proposed by Application No. 7371-3

The hydrographs show that although the potentiometric surface (head pressure) in the Altamont aquifer fluctuates with the climate, the amount of water in aquifer is greater now than it has been over the entire period of record. Most importantly, the observation well data shows that at the current level of development, climatic conditions greatly mask the temporal effects of well withdrawals. Therefore, the observation well data documents that recharge to and natural discharge from the Altamont aquifer significantly exceeds pumping. The hydrographs document that there is unappropriated water available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

Existing Water Rights within approximately four miles of the well site proposed by this application are shown in table 1 and figure 3.

PERMIT NO	NAME	PRIOR DATE	STATUS	USE	CFS	ACRES
4783-3	RUSS HURLBERT	06/15/1981	IL	IRR		
6188-3	LOUIS FRITZ	03/22/2000	IL	IRR		
6442-3	LOUIS FRITZ	09/18/2003	LC	IRR	3.56	268
6501-3	RUSS HURLBERT	06/15/1981	LC	IRR	1	112
6560-3	LOUIS FRITZ	12/30/2004	PE	IRR	2	160
6761-3	CHAD FRITZ	10/12/2006	PE	IRR	0.78	120
6774-3	R & R FARMS	11/20/2006	PE	IRR	3.89	272
6990-3	JAMES R ORRIS	02/29/2008	PE	IRR	3.56	280
6992-3	R & R FARMS	03/03/2008	PE	IRR	2	136
7097-3	JAMES ORRIS	02/05/2009	PE	IRR	0.22	150
6442-3	LOUIS FRITZ	09/18/2003	LC	IRR	3.56	268
6774-3	R & R FARMS	11/20/2006	PE	IRR	3.89	272
6990-3	JAMES R ORRIS	02/29/2008	PE	IRR	3.56	280
IL= Incorporated, LC= Water Right, PE= Water Permit, IRR= Irrigation						

Table 1. Water Rights/Permits located within approximately four miles of the well site proposed by Application No. 7371-3

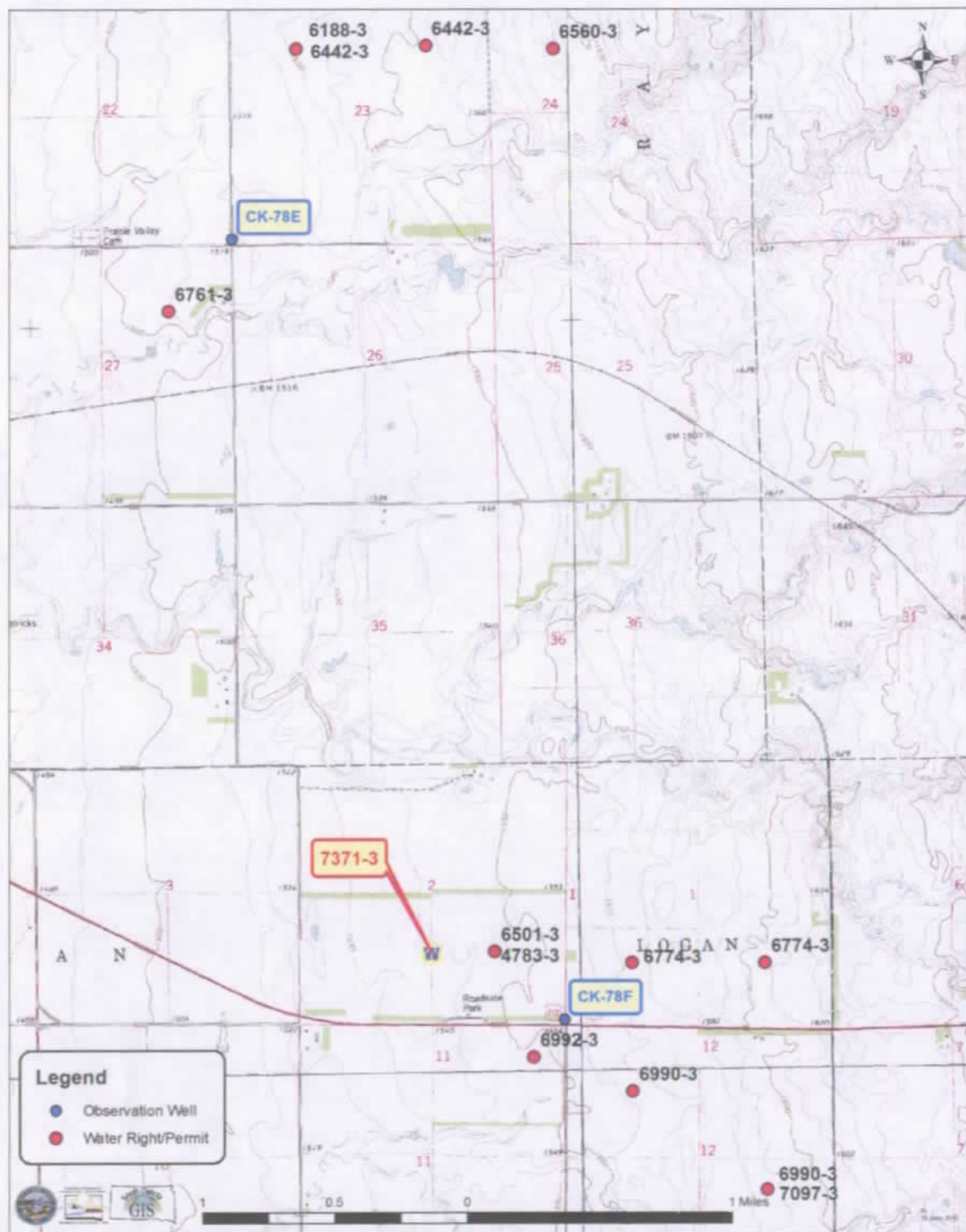


Figure 3. Water Rights/Permits located within approximately four miles of the well site proposed by Application No. 7371-3

In addition to appropriative rights, there are a number of completion reports on file with the DENR-Water Rights Program for domestic wells completed into the Altamont aquifer in this area (Water Rights, 2012c). It is possible that drawdown from this proposed project may be measurable in domestic wells and/or in the well that supplies Water Right No.6501-3.

In 1983, the SD Department of Water and Natural Resources Water Rights Division staff investigated a well interference complaint regarding irrigation pumping from the Altamont aquifer approximately 12 miles south of the well site proposed by Application No. 7371-3. The complaint alleged that two wells quit pumping when the irrigation well authorized by Water Right No. 4658-3 was pumped "more than 12 hours." Drawdown data was obtained from the irrigation well and it was determined that the water level could not be drawn down to a level that would impair the wells. The Water Rights Program is not aware of any other complaints regarding well interference in this area.

Although some drawdown does occur in the Altamont aquifer, SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure the Water Management Board has defined an "adversely impacted domestic well" in ARSD 74:02:04:20(7) as:

"a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs"

In reality, the assurance of reasonable domestic use provided by SDCL 46-6-6.1 and ARSD 74:02:04:20(7) ensures not only that interference will not be adverse to domestic well users but also in existing appropriative rights. Depending on the characteristics of the Altamont aquifer at the well site proposed by this application, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute and rule, well interference from this proposed application is not likely to be significant and there is a reasonable probability that any interference will not be adverse.

SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or "the equivalent thereof". The statute does provide that the Water Management Board may allow a greater diversion if the method of irrigation so requires. Water Permit Application No. 7351-3 proposes to divert at a rate of 1.68 cfs to irrigate 95 acres, or the equivalent to 1.24 cfs per 70 acres. The applicant states that he intends to operate two irrigation systems simultaneously rather than separately as he has in the past, and the higher diversion rate is necessary.

CONCLUSIONS:

1. This application proposes to appropriate up to 600 acre-feet annually for irrigation but the amount of water that actually will be used is expected to be considerably less.
2. There is a reasonable probability that unappropriated water is available from the Altamont aquifer to supply this proposed diversion.
3. There is a reasonable probability that the diversion requested by this application can be made without adversely effecting existing water rights.

4. A diversion rate in excess of the limit established by SDCL 56-5-6 is reasonable for this operation.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

Friedeman, Barbara. Environmental Scientist, SD DENR-Drinking Water Program. "Re: Garden City." E-mail to Ken Buhler . 29 May 2012

Hamilton, L.J., 1978, Major Aquifers in Clark County, South Dakota: South Dakota Geological Information Pamphlet 16, 9 p.

Hamilton, L.J., 1986, Geology and Water Resources of Clark County, South Dakota; Part II: Water Resources: South Dakota Geological Survey Bulletin 29, 62 p

Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185

"Transmissivity from Specific Capacity." Aquifer Test Forum sponsored by HydroSOLVE, Inc.
16 Jun2 012 < <http://www.aqtesolv.com/forum/transcap.asp>

Water Rights, 2012a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2012b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2012c, Well Completion Report Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

JUL - 6 2012

Affidavit of Publication
WATER RIGHTS PROGRAM

State of South Dakota

§

County of Clark

**NOTICE OF APPLICATION NO.
7371-3 to Appropriate Water**

Notice is given that Russell Hurlbert, 41312 174th St., Raymond, SD 57258, has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Altamont Aquifer (183 feet deep) located in SE 1/4 SW 1/4 Section 2 for irrigation of 90 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 2; all in T116N-R59W. Applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7371-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, this Chief Engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a

petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 16, 2012.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application.

Steven M. Pirner, Secretary,
Department of Environment
and Natural Resources.
Published twice at the total
approximate cost of \$44.84.
6-27-2t

William J. Krikac of said county, being first duly sworn, on oath says that he is the publisher of the *Clark County Courier*, a weekly newspaper printed and published in Clark in said County of Clark and has a full and personal knowledge of all the facts therein stated; that said newspaper is a legal newspaper and has a bona-fide circulation of at least two hundred copies weekly, and has been published within said County for fifty-two successive weeks next prior to the publication of the notice herein mentioned, and was and is printed wholly or in part in an office maintained at said place of publication; that the

RUSS HURLBERT

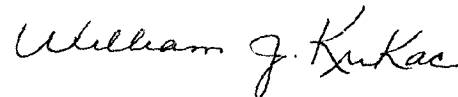
a printed copy of which taken from the paper in which same was published, is attached to this sheet, and is made a part of this Affidavit, was published in said newspaper at least once in each week for

TWO

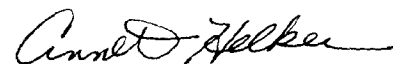
successive weeks, on the day of each week on which said newspaper was regularly published, to wit:

JUNE 27, 2012**JULY 3, 2012**

that the full amount of the fees for the publication of the annexed notice is

44.84


Subscribed and sworn to before me this

5TH DAY OF JULY, 2012


Notary Public
Clark County, South Dakota

My Commission expires: 06/04/2013

RECEIVED

JUL 17 2012

Form 8

WATER RIGHTS
PROGRAM

OK

DENR

NOTICE OF APPLICATION

NO. 7371-3 to
Appropriate Water

Notice is given that Russell Hurlbert, 41312 174th St, Raymond SD 57258 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Altamont Aquifer (183 feet deep) located in SE 1/4 SW 1/4 Section 2 for irrigation of 90 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 2; all in T116N-R59W. Applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

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Published twice at the total approximate cost of \$107.50.
(June 28, 2012 & July 5, 2012)

99.12

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

I, Monica K. Saathoff

certify that the attached printed Notice was
taken

from the Watertown Public Opinion

printed and published in Watertown

County of Codington and

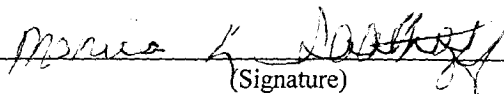
state of South Dakota. The notice was
published

in the newspaper on the following two dates:

June 28th, 2012

July 5th, 2012

Cost of Printing \$99.12


(Signature)

Bookkeeper

(Title)

July 5th, 2012

(Date Signed)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

June 20, 2012

Clark County Courier
119 1st Ave E
Clark SD 57225

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7371-3 to Appropriate Water to be published twice. Please publish the first notice on June 27, 2012 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Russell Hurlbert, 41312 174th St., Raymond SD 57258 (Ph # 60-532-3536).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 7371-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of June 20, 2012 enclosing Notice to Appropriate Water by Application No. 7371-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

June 20, 2012

Public Opinion
PO Box 10
Watertown SD 57078

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After second publication, please send bill and affidavit to the Water Rights Program.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 7355-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of June 20, 2012 enclosing Notice to Appropriate Water by Application No. 7371-3 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

June 20, 2012

Russell Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

Water Permit Application No. 7371-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Clark County Courier printed at Clark SD (Ph # 605-532-3654). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Instruction to Newspaper - Publish first Notice on June 27, 2012 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

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Notice is given that Russell Hurlbert, 41312 174th St, Raymond SD 57258 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Altamont Aquifer (183 feet deep) located in SE ¼ SW ¼ Section 2 for irrigation of 90 acres located in the E ½ SW ¼, W ½ SE ¼ Section 2; all in T116N-R59W. Applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

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Published twice at the total approximate cost of _____.

Water Rights Program - File Documentation

The 2012 Legislature made changes to the publication process for water permit applications. During the transition period, prior to July 1, 2012, applications are being public noticed for two consecutive weeks in both a weekly and daily paper. Where the daily paper is not in the county of the application, the Water Rights Program pays the cost of the daily paper publication.

Karen Schlaak
Program Assistant

July 17, 2012

PAYMENT REQUEST FORM

PAYEE: Public Opinion
PO Box 10
Watertown SD 57201

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for 7371-3 (Hurlbert) Acct. #3094

AMOUNT: \$99.12

FUNDING SOURCE:

GENERAL: X

FEDERAL:

COMMENTS:

AUTHORIZATION: *Gail Jacobson* 7/17/12

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

Publisher, Mark Roby

Watertown PUBLIC OPINION

Public Opinion
120 3rd Avenue NW
PO Box 10
Watertown, SD 57201-0010
(605) 886-8901 (Press 5)
(605) 886-4280 FAX
www.thepublicopinion.com

DUE DATE 07/14/12

AMOUNT DUE

99.12

AMOUNT PD

INVOICE

Order Number - 350723

Account #
3094

Invoice Date
06/29/12

WATER RIGHTS PROGRAM
ERIC GRONLUND
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SD 57501-3181

RECEIVED
JUL 17 2012
WATER RIGHTS
PROGRAM

Credit Cards Accepted



Card #: _____

Expiration Date: _____

Signature _____

TERMS: NET 15

PLEASE RETURN TOP PORTION WITH YOUR PAYMENT

Order Number	Start Date	Stop Date	Pub	Class	Description	Times	Size	Ad Cost
350723	06/28/12	06/28/12	PO		RUSSELL HURLBERT NOTICE	1	1.0 X 9.00	5.00
350723	06/28/12	06/28/12	PO		RUSSELL HURLBERT NOTICE	1	1.0 X 9.00	94.12

Account Number	Account Name
3094	SD STATE OF

Please Remit To:

Public Opinion
PO Box 10
Watertown, SD 57201-0010

THERE WILL BE AN ADDITIONAL \$30 CHARGE FOR ALL RETURNED CHECKS



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

SEP 07 2012

Russell Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

Enclosed is Water Permit No. 7371-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit. Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

RECEIVED

AUG 19 2013

WATER RIGHTS
PROGRAMDate 8-1-13TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Russ Hulbert

(name)

41312 174th St.

(address)

Raymond, SD 57258

(city, state, zip)

(605) 881-1196

(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 7371-3 states that the water use system is to be constructed by7-16-17

(date)

, and water is to be put to beneficial use by 7-16-21

(date)

The water use system was completed on 7-15-13

(date)

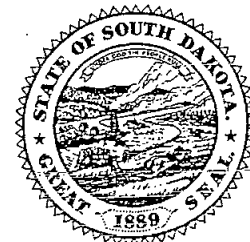
Applying the water to beneficial use was completed on 8-1-13

(date)

You may schedule an investigation so that the water license may be issued.

[Signature]

(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

August 19, 2013

7371-3

Russ Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location <u>SE 1/4 SW 1/4</u> Sec <u>2</u> Twp <u>116</u> Rg <u>59</u> County <u>Clark</u> Please mark well location with an "X" Well completion Date <u>1-11-13</u> Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) <u>1500</u> ft. from <u>septic system</u> (Identify source)	Well Owner: <u>Russell Hurlbert</u> Business Name: _____ Address1: <u>41312 174th St</u> Address2: _____ City, State, Zip: <u>Raymond, SD 57258</u> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">WELL LOG:</th> <th colspan="2" style="text-align: center;">DEPTH</th> </tr> <tr> <th style="text-align: left;">FORMATION</th> <th style="text-align: center;">FROM</th> <th style="text-align: center;">TO</th> </tr> </thead> <tbody> <tr><td><u>Top Soil</u></td><td style="text-align: center;"><u>0</u></td><td style="text-align: center;"><u>1</u></td></tr> <tr><td><u>Oxidized sand</u></td><td style="text-align: center;"><u>1</u></td><td style="text-align: center;"><u>6</u></td></tr> <tr><td><u>Medium Sand</u></td><td style="text-align: center;"><u>6</u></td><td style="text-align: center;"><u>9</u></td></tr> <tr><td><u>Yellow clay</u></td><td style="text-align: center;"><u>9</u></td><td style="text-align: center;"><u>17</u></td></tr> <tr><td><u>Blue clay</u></td><td style="text-align: center;"><u>17</u></td><td style="text-align: center;"><u>23</u></td></tr> <tr><td><u>Yellow clay</u></td><td style="text-align: center;"><u>23</u></td><td style="text-align: center;"><u>29</u></td></tr> <tr><td><u>Oxidized sand & Gravel</u></td><td style="text-align: center;"><u>29</u></td><td style="text-align: center;"><u>66</u></td></tr> <tr><td><u>Blue clay</u></td><td style="text-align: center;"><u>66</u></td><td style="text-align: center;"><u>128</u></td></tr> <tr><td><u>Medium to Coarse Sand</u></td><td style="text-align: center;"><u>128</u></td><td style="text-align: center;"><u>185</u></td></tr> </tbody> </table>	WELL LOG:	DEPTH		FORMATION	FROM	TO	<u>Top Soil</u>	<u>0</u>	<u>1</u>	<u>Oxidized sand</u>	<u>1</u>	<u>6</u>	<u>Medium Sand</u>	<u>6</u>	<u>9</u>	<u>Yellow clay</u>	<u>9</u>	<u>17</u>	<u>Blue clay</u>	<u>17</u>	<u>23</u>	<u>Yellow clay</u>	<u>23</u>	<u>29</u>	<u>Oxidized sand & Gravel</u>	<u>29</u>	<u>66</u>	<u>Blue clay</u>	<u>66</u>	<u>128</u>	<u>Medium to Coarse Sand</u>	<u>128</u>	<u>185</u>
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PROPOSED USE: ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes ☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well METHOD OF DRILLING: <u>Forward Rotary</u> CASING DATA: ☐ Steel ☐ Plastic ☐ Other If other describe _____ <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>PIPEWEIGHT</th> <th>DIAMETER</th> <th>FROM</th> <th>TO</th> <th>HOLE DIAMETER</th> </tr> </thead> <tbody> <tr> <td><u>21</u> LB/FT</td> <td><u>12</u> IN</td> <td><u>41</u> FT</td> <td><u>150</u> FT</td> <td><u>17 1/2</u> IN</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> GROUTING DATA: Grout Type <u>Bentonite</u> No. of Sacks <u>26</u> Grout Weight <u>9.4</u> Lb/gal From <u>0</u> Ft To <u>125</u> Ft <u>Grout</u> Lb/gal Ft Ft Describe grouting procedure <u>Prime line from 125'</u> <u>To surface</u>	PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER	<u>21</u> LB/FT	<u>12</u> IN	<u>41</u> FT	<u>150</u> FT	<u>17 1/2</u> IN											STATIC WATER LEVEL _____ FEET <u>static</u> If flowing: closed in pressure _____ PSI GPM flow <u>1</u> through _____ inch pipe Controlled by ☐ Valve ☐ Reducers ☐ Other _____ Reduced flow rate _____ GPM Can well be completely shut in? _____ WELL TEST DATA: ☒ Pumped Describe: <u>Submersible Pump</u> ☐ Bailed ☐ Other _____ Pumping Level Below Land Surface <u>115</u> Ft. After <u>4</u> Hrs. pumped <u>130</u> GPM _____ Ft. After _____ Hrs. pumped _____ GPM If pump installed, pump rate: <u>800</u> GPM													
PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER																														
<u>21</u> LB/FT	<u>12</u> IN	<u>41</u> FT	<u>150</u> FT	<u>17 1/2</u> IN																														
SCREEN: ☐ Perforated pipe ☒ Manufactured Diameter <u>12</u> Inches Length <u>35</u> Feet Material <u>stainless steel</u> Slot Size <u>60</u> Set From <u>150</u> Feet to <u>185</u> Feet Other information <u>Red dirt sand pack #60</u>	REMARKS RECEIVED APR 18 2013 WATER RIGHTS PROGRAM																																	
WAS A PACKER OR SEAL USED? ☐ Yes ☒ No If so, what material? _____ Describe packer(s) and location _____ DISINFECTION: Was well disinfected upon completion? ☒ Yes, How? <u>chlorine</u> ☐ No, Why Not? _____ Lab sample sent to for water quality analysis _____	This well was drilled under license # <u>285</u> And this report is true and accurate. Drilling firm: <u>Manikowski Well Drilling, Inc.</u> Signature of License Representative: <u>[Signature]</u> Signature of Well Owner or Equitable Property Holder: _____ Date: _____																																	

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 25, 2019

NOTICE

TO: RUSS HURLBERT, 41312 174TH ST, RAYMOND, SD 57258

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2018 Irrigation Questionnaire(s)

Our records indicate your 2018 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 6501-3 & 7371-3. The request for the Questionnaire was dated October 30, 2018. The Water Management Board has directed that owners of water permits who have not submitted the 2018 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 6501-3 & 7371-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 6, 2019 at 10:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 6501-3 & 7371-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 6, 2019** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

7371-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

February 7, 2019

6501-3
7371-3

Russ Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

I am writing to acknowledge receipt of your 2018 irrigation questionnaires.

You may disregard the January 25, 2019, "Notice" concerning reporting requirements for Water Right No. 6501-3 and Water Permit No. 7371-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us



DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 20, 2023

NOTICE

TO: RUSS HURLBERT, 41312 174TH ST, RAYMOND, SD 57258

FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2022 Irrigation Questionnaire(s)

Our records indicate your 2022 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 6501-3 & 7371-3. The request for the Questionnaire was dated October 21, 2022. The Water Management Board has directed owners of water permits who have not submitted the 2022 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 6501-3 & 7371-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 8, 2023 at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 6501-3 & 7371-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 8, 2023** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: MZGZFS**

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

February 23, 2023

6501-3
7371-3

Russ Hurlbert
41312 174th St
Raymond SD 57258

Dear Mr. Hurlbert:

I am writing to acknowledge receipt of your 2022 irrigation questionnaires.

You may disregard the January 20, 2023, "Notice" concerning reporting requirements for Water Right or Permit Nos. 6501-3 & 7371-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

7371-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JUL 06 2023

Russell Hurlbert
41312 174th St
Raymond SD 57258

6501-3
7371-3

Dear Mr. Hurlbert:

Enclosed is Water License No. 7371-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

NOTE: The applicable portions of Water Right No. 6501-3 have been incorporated into Water Right No. 7371-3.

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7371-3**

(1) Russell Hurlbert; 41312 174th St, Raymond SD 57258, made Application No. 7371-3, June 7, 2012, for a water permit to divert 1.78 cubic feet of water per second (cfs) from groundwater, one well (Altamont Aquifer), Clark County, South Dakota for the irrigation of 90 acres. Permit No. 7371-3, with a priority date of June 7, 2012, was approved July 16, 2012, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before July 16, 2017, and for the application to beneficial use of water on or before July 16, 2021.

The applicable portions of Water Right No. 6501-3 are being incorporated into this license for Water Right No. 7371-3

An investigation conducted for licensing purposes found the diversion point developed outside of the permitted area. Pursuant to SDCL 46-5-13.1 and ARSD 74:02:01:14.01, the Chief Engineer made a finding that the change in the diversion point location did not increase the potential for adverse effects to existing diversions.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 2.78 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well #1: 1,420 ft N & 2,660 ft W of the SE corner of Section 2, T116N, R59W (NE ¼ SW ¼)
(Latitude 44.88160 Longitude -97.88191)
- Well #2: 1,510 ft N & 1,450 ft W of the SE corner of Section 2, T116N, R59W (NW ¼ SE ¼)
(Latitude 44.88159 Longitude -97.88189)

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 2, T116N, R59W			
NW ¼ SE ¼	39.0 acres	NE ¼ SW ¼	33.0 acres
SW ¼ SE ¼	33.0 acres	SE ¼ SW ¼	27.0 acres
SE ¼ SE ¼	26.0 acres		
NE ¼ SE ¼	33.5 acres	TOTAL:	191.5 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Russell Hurlbert, the holder and/or owner of Water Right No. 7371-3 is issued a license to appropriate water, the right to use 2.78 cubic feet of water per second from groundwater, two wells (Altamont Aquifer) with priority dates of June 15, 1981 for 0.85 cfs established by 4785-3, April 16, 2004 for 0.15 cfs established by 6501-3, and June 7, 2012 for 1.78 cfs established by 7371-3 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7371-3 and subject to the following qualifications:

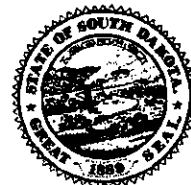
continued

Qualifications

1. The wells approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7371-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *(The well was drilled by Manikowski Well Drilling Inc. in 2013. A copy of the well completion report is on file with the Water Rights Program.)*
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate is the method of irrigation, time constraints, or type of soils so requires, Right No. 7371-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 90 acres with an annual volume not to exceed 2 acre feet of water per acre per year. *(With the incorporation of Water Right No. 6501-3, Right No. 7371-3 now authorizes a total of 2.78 cfs for the irrigation of 191.5 acres)*
4. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.


Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JUL 06 2023
date



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7371-3

I have this day, June 12, 2023, made a thorough examination of the water use system constructed by Russell Hurlbert, 41312 174th St, Raymond SD 57258 of Permit No. 7371-3, bearing the priority of June 7, 2012 authorizing the diversion of 1.78 cu. ft. per second of the waters of the Altamont Aquifer for irrigation purposes, in Clark County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Manikowski Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 185 feet
- 4) Well log is available Y

Comments: Well #1 (Well #2 details found in Permit 4783-3)

Casing:

- 1) Diameter 12 inches
- 2) Length 150 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless steel
- 2) Length 35 feet
- 3) Static water level unknown feet

Pump:

- 1) Make Submersible
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 800 GPM (for 90 acres)

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating Unknown hp

B. Works used to transport water to place of use:

- 1) Type Aluminum 2) Size 8 inches 3) Length 20 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
 2) Overall length 1300 feet
 3) Number of towers 7
 4) End gun Y
 5) Capacity 800 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: WELL LOCATION
From the SE corner of Section 2 T116N R59W – Well #1: 1420 ft N & 2660 ft W Lat 44.88144 Long -
97.88663 (NE ¼ SW ¼) WELL #2: 1510 ft N & 1450 ft W lat 44.88159 Long -97.88189 (NW ¼ SE ¼)

2. The works are capable of diverting and conveying to the place of use 2.78 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

legal description/acreage

All land in Sec 2 T116N R59W

NE ¼ SW ¼ - 33.0 acres

SE ¼ SW ¼ - 27.0 acres

NW ¼ SE ¼ - 39.0 acres

SW ¼ SE ¼ - 33.0 acres

NE ¼ SE ¼ - 33.5 acres

SE ¼ SE ¼ - 26.0 acres

comprising a total of 191.5 acres of land and the license should be issued for 2.78 cfs

3. All structures, wells and lands on map Y

F. Comments or other permit(s) associated with the project:

The irrigated acreage was estimated with the aid of FSA imagery and ArcMAPS software.

The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity.

Not sure how to handle the merger of License 6501-3 acres with Permit 7371-3 acres which are shown as combined in the accompanying map.

The mailing address and the telephone number in the permit materials are current

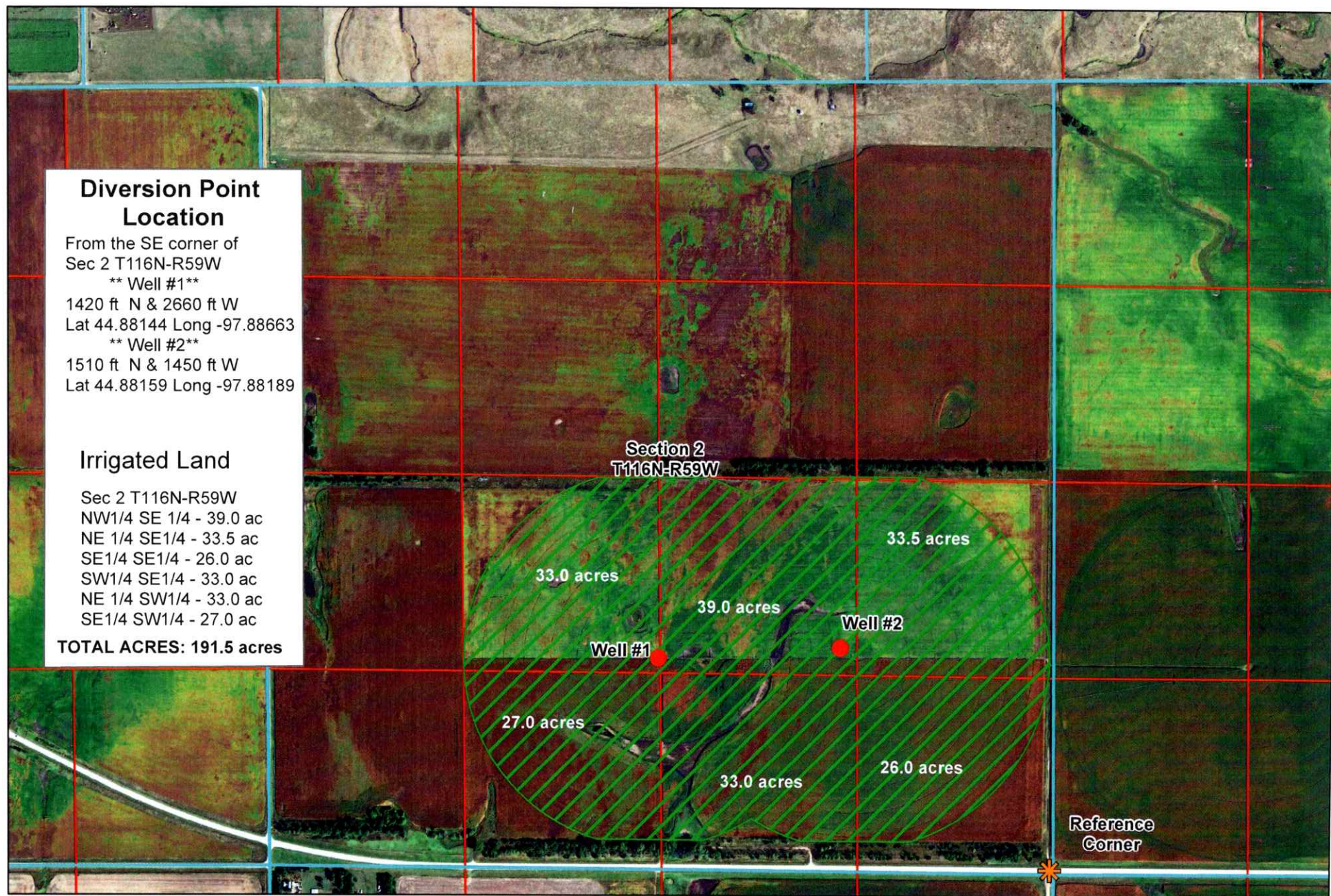
I talked to Russel Hurlbert on the phone during the field inspection visit.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: **June 19, 2023**

6/27/23 – Amanda Dewell called and spoke to Russell on the phone. Russell confirmed that the two systems were able to operate simultaneously. Well #1's irrigator making a full circle with an output of 800 gpm and Well #2's irrigator only putting out 500 gpm and is not making a full circle. Russell also expressed a desire to have the two systems incorporated into one license for the simple fact that it would make submission of the irrigation questionnaires much easier.



0 650 1,300 2,600 3,900 5,200 Feet

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Russell Hurlbert

ADDRESS: 41312 174th St, Raymond SD 57258

DATE: June 28, 2023

COUNTY: Clark

GENERAL DESCRIPTION OF AUTHORIZED PROJECT:

The permit holder is authorized to divert at a rate of 1.78 cfs from an existing 183 foot deep well into the Altamont Aquifer in the SE1/4 SW1/4 of Section 2 T116N-R59W for irrigation of 90 acres in the E1/2 SW1/4, W1/2 SE1/4 of Section 2 T116N-R59W. During licensing Water Right No. 6501-3 will be incorporated into 7371-3. Combined the Water License 7371-3 will authorize 2.78 cfs to irrigation 191.5 acres in the E1/2 SW1/4 and SE1/4 Section 2 T116N-R59W.

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The permit holder constructed 185 foot deep well into the Altamont Aquifer in the NE1/4 SW1/4 of Section 2 T116N-R59W

- **If irrigation, no new land is irrigated**

The permit holder developed a combined 191.5 acres in the SE1/4, NE1/4 SW1/4, SE1/4 SW1/4 of Section 2 T116N-R59W between the existing Water Right No. 6501-3 and Water Permit No. 7371-3

- **Review of Existing Diversions**

There are six existing water permits/rights authorized to divert from the Altamont Aquifer located within 1.5 miles of where the this well was developed. Five of these are held by other water permit holders with existing permits/rights when this latest permit was issued, it was determined that there was reasonable probability any well interference due to pumping of this well would not adversely or unlawfully impair existing rights. The same would be expected for the well constructed in the new location.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Mark D. Rath, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Eric Gronlund, Chief Engineer
Water Rights Program