

WATER PERMIT NO. 8689-3

Name of Applicant: **Richard P Hybertson**

Address: **410 N 1st St, Beresford SD 57004** Phone: **605 957-5113**

Amount of Water Claimed: **1.78** Total Acres: **97 acres**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation** County: **Turner**

Type of Waste Disposal System:

Location: **1/2 mile southeast of Centerville**

PRIORITY Date Received: **12-12-22**

Application/License Fee: **\$950**

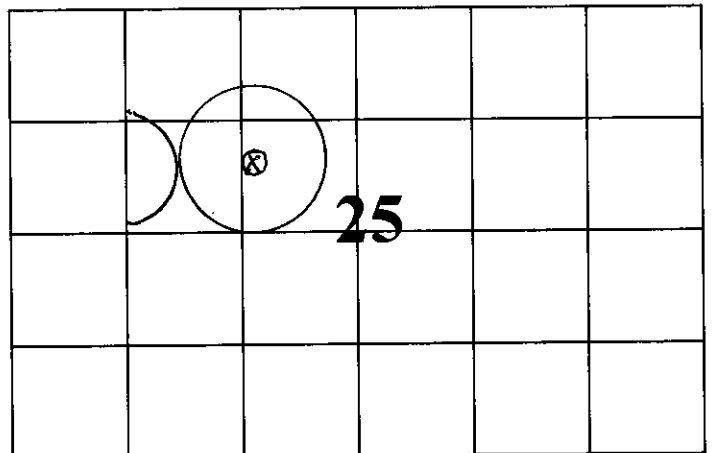
Corrected Application Received: **12-21-22**

Period of Annual Use: **April 1 – October 31**

Remarks: **Requesting diversion rate greater than statutory limit**

Diversion Point: **SE 1/4 NW 1/4 Sec 25-T96N-R52W**

Land to be Irrigated: **NW 1/4 Sec 25-T96N-R52W**



Depth of Well: **50**

Well Driller:

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **12-27-22**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8689-3**

Date of first receipt of application March 6, 2023.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8689-3 to Richard P. Hybertson, 410 N 1st Street, Beresford SD 57004 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. 8689-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South Aquifer (140 feet deep) located in the SE 1/4 NW 1/4 Section 25 for irrigation of 97 acres located in the NW 1/4 Section 25; all in T96N-R52W. This site is located approximately one-half mile southeast of Centerville SD.
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: April 1 – October 31.
3. The date from which applicant may claim right is March 6, 2023.
4. The date of approval of Permit No. 8689-3 is June 26, 2023.
5. One-fifth of the construction is to be completed on or before December 26, 2025.
6. All construction is to be completed on or before June 26, 2028.
7. Water is to be put to beneficial use on or before June 26, 2032.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

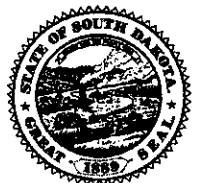
QUALIFICATIONS

1. The well approved under Water Permit No. 8689-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8689-3 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. 8689-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 97 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: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JUL 12 2023
date



FORM 2: Application for irrigation in South Dakota
(type or print)

PAID

DEC 12 2022

Ck# 11898

Rec't# _____

RECEIVED

DEC 12 2022

**OFFICE OF
WATER**

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8689-3</u> Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>
	Newspaper <u>Turner Co New Era 297-4419</u>
	<u>Daily Press & Dakotan</u> (office use only) <u>665-7811</u>

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 to Appear on Irrigation Permit Richard P. Hybertson

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 410 N 1st street Beresford SD 57084
(Address) (City) (State) (Zip Code)

Phone 605-763-2467 Mobile 605-957-5113 Email _____

2. Amount of water claimed 1.78*CFS or 800 **GPM ***AF Total Acreage 97 acres
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply ground

4. Location of point of diversion one well (SE 1/4 NW 1/4) 25-096-52
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
Centerville Township County Turner

5. County or counties where water will be used Turner

6. Annual period during which water is to be used April 1st - Oct 31

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
East half of 25-096-52	71.29		
West half of 25-096-52	25.64		
NW 1/4 Sec 25-T96N-R52W	97		

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

To irrigate East and West half of parcel
25-096-52 Centerville Township
Turner County South Dakota

I, Richard P. Hybertson Requesting div rate greater than statutory limit., the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many _____ Have test holes been drilled? ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:c) Well Depth (required) ~~50~~ Depth to Top of Water Bearing Material 10' Depth to Water from Surface 9'

d) Distance to nearest domestic well on applicant's property _____ 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 (e.g. 3 to 1 is a typical slope)

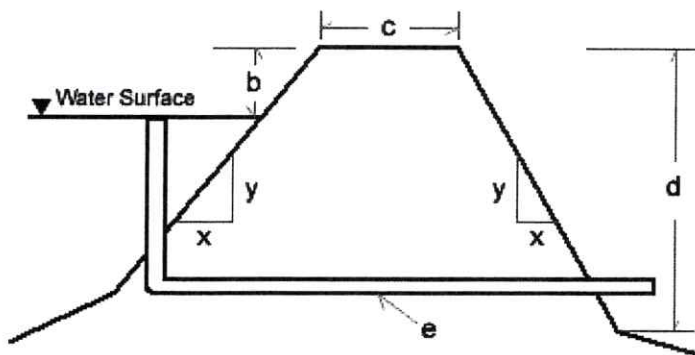
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Richard Hybertson Sec 25 TH # 1 East 215' Centerville

<i>Formation</i>	<i>From</i>	<i>To</i>
Top soil	1	2
Clay brown	2	18
Clay blue	18	82
Sand and gravel	82	91
Gravel and sand	91	121
Sand coarse	121	150
Gravel	150	161
Clay gray	161	163
Gravel	163	214
Shale	214	215

Richard Hybertson Sec 25 Centerville SD

Write a description for your map.

Legend

Richard Hybertson  215' test hole January 2023

Google Earth

3000 ft



Lindsay Manufacturing Co.



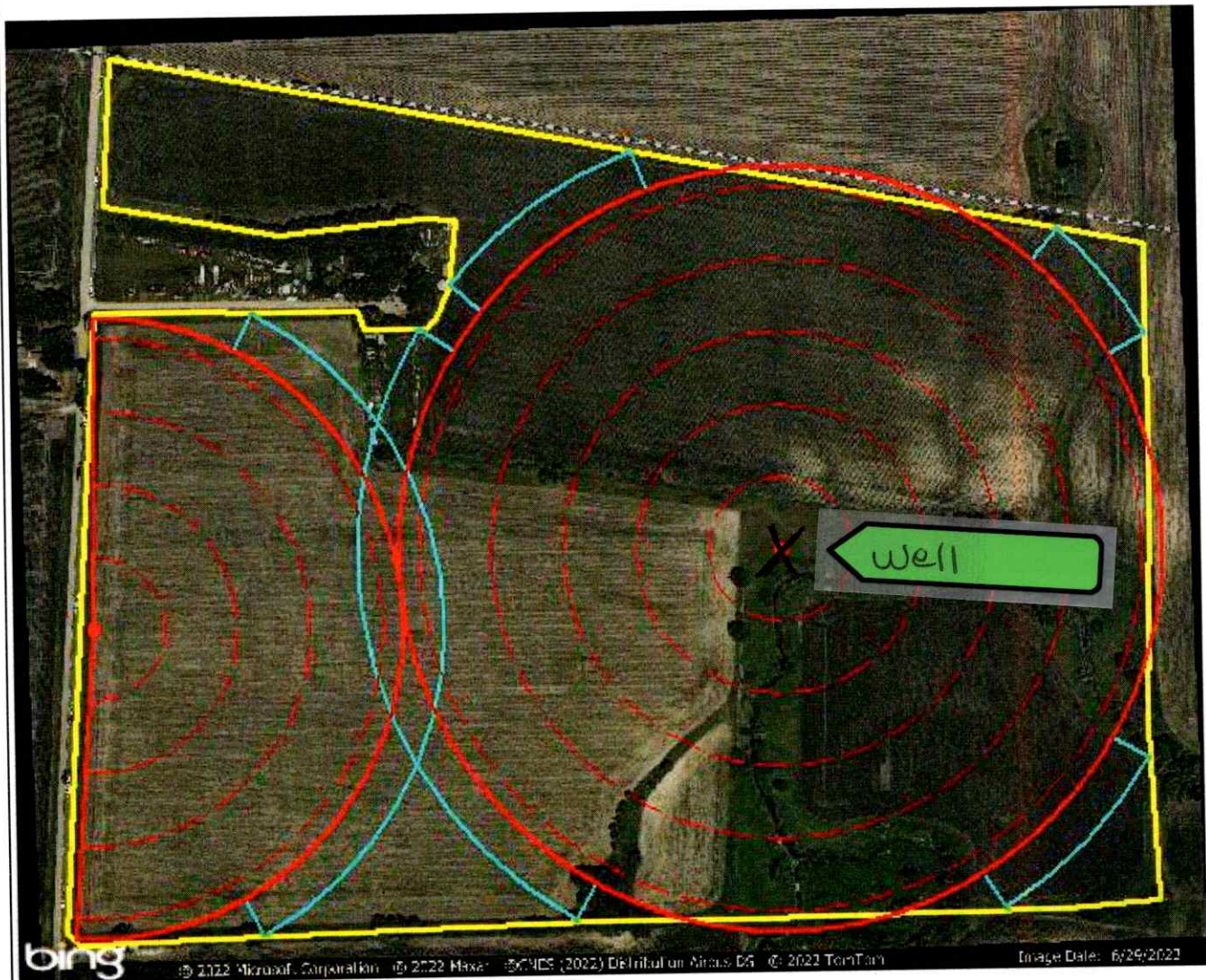
2707 North 108th Street
Omaha, NE 68164
800 - 829 - 5300 office

Farm: Field1

Grower: Richard Hybertson

12/7/2022

Systems:	Length	Spans	Total area including endgun
● Pivot 1	945.83 ft	5 spans + 44 ft o.h.	71.29 acres
● Pivot 2	766.92 ft	4 spans + 44 ft o.h.	25.64 acres



bing

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Image Date: 6/29/2022

96N 52W
Section: 23

96N 52W
Section: 24

96N 51W
Section: 19

96N 52W
Section: 26

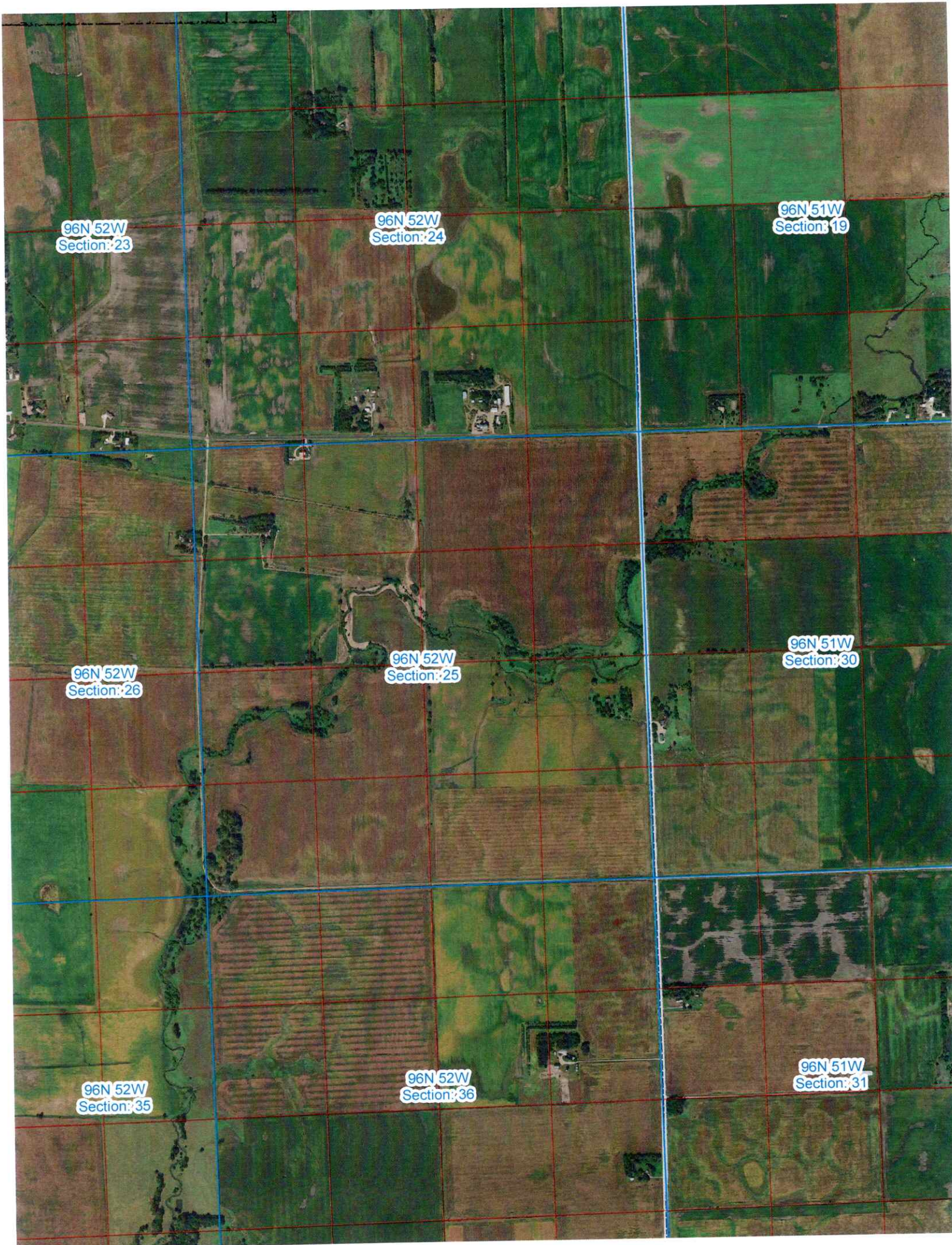
96N 52W
Section: 25

96N 51W
Section: 30

96N 52W
Section: 35

96N 52W
Section: 36

96N 51W
Section: 31



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date December 12, 2022

RECEIVED OF Richard Hybertson 410 N 1st Street Beresford SD 57004

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

Fee for Application for Permit No. <u>8689-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>750.00</u>
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>8689-3</u>	\$ <u>200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law)	
TOTAL	\$ <u>950.00</u>

By Eric Gronlund
Chief Engineer
vm

Gronlund, Eric

From: Gronlund, Eric
Sent: Monday, March 6, 2023 3:51 PM
To: Steen, Nakaila
Subject: UVM:S
Attachments: 8690-3 app.pdf; 8689-3 app.pdf; Hybertson.file.doc

Water Permit Application Nos. 8689-3 and 8690-3 indicated proposed well depths of 50 feet. Based on that it was surmised the water source would be the Parker Centerville aquifer. Kim was assigned the applications to review.

The report indicated one of the application was within the boundaries of the Parker Centerville and the other was not. Based on completion report for other irrigation in that section indicates the UVM:S present with the top of aquifer at about 100 feet below grade.

Based on this we called Mr. Hypertson – see attached file documentation. Since the applications were filed, they had test holes drilled and plan well depth to bottom of 140 feet. If that is the case, the wells will be constructed into the UVM:S aquifer. So Kim's work reviewing these application was for not.

Now there are these two UVM:S aquifer applications. However, Kim and I disagree on the Board's acceptance of the Buhler change in delineating the boundary. We politely agree to disagree and I am accepting of not assigning her UVM:S aquifer applications.

Therefore, I am reassigning these application to you. I believe the clock resets on Hybertson's amending the applications for the deeper source. That mean 60 Day is about May 3rd.

Sorry - Eric



Eric Gronlund, PE
Chief Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

File: 8689-3 & 8690-3

Water Rights Program - DANR File Documentation

NAME OF PERSON OR FILE: Water Permit Application Nos. 8689-3 & 8670-3, Richard Hybertson

ADDRESS: 410 N 1st Street, Beresford SD 57004 COUNTY: Turner

DATE: March 6, 2023 TELEPHONE: 605 957-5113

SUBJECT: Identification of Water Source for Application Nos. 8689-3 & 8690-3

Spoke with Richard Hybertson regarding his two water permit applications. He handed me off to his son Nick Hybertson as he is handling the irrigation applications.

Form 2A for both applications stated a proposed well depth of 50 feet. The proposed well in Section 27 – T96N-R52W is within the defined boundaries of the Parker Centerville aquifer. The proposed well in Section 25- T96N-R52W is not within the defined boundary of the Parker Centerville aquifer. Other water rights in Section 25 are in the deeper Upper Vermillion Missouri:South (UVM:S) aquifer.

I asked what they based the proposed well depth being 50 feet. Mr. Hybertson indicated that was based on discussion with a well driller. But since that time he has had test holes drilled and intends the wells to be approximately 140 feet deep. This means they will be developed into the UVM:S aquifer. He indicated Their well drilling put in the test holds

I explained that water rights are administered/managed by water source. Meaning the application needs to identify the intended water source. If we processed the application for the Parker Centerville aquifer and it is not present at the site and they instead complete a well into the UVM:S aquifer they will have to go through the entire process again to be authorized from the deeper aquifer.

Mr. Hybertson indicated this is his first time filing a water permit application. He requested Form 2A be amended to be for wells approximately 140 feet deep.

I explained this will delay our processing of the applications in that we now need to review based on the amended information which identifies the water source to be the UVM:S aquifer.

Nick Hybertson also has a permit application being processed. He confirmed that the well for this application will be the shallower Parker Centerville aquifer.

NAME: Eric Lund

Water Rights Program - File Documentation

NAME: Nick P Hybertson

ADDRESS: Centerville SD

DATE: 12-21-22

RE: Pending applications for Nicholas Hybertson and Richard Hybertson

COMMENTS:

I talked with Nick Hybertson regarding my letters to him and his dad. Nick indicated he would be the operator for the systems on his dad's applications and also the contact person.

Regarding the well locations, Nick told me where to mark the well locations and indicated he was fine with me marking them.

On the application for Richard for 72 acres, we determined that Section 27 is odd sized. From the arc-map I printed it appeared that some of the acreage was in Section 26. Nick indicated none of the land was in Section 26. After viewing the plat map, the 72 acres to be irrigated are located in the E 1/2 SE 1/4 Section 27 with the well to be located in the NE 1/4 SE 1/4 Section 27; all in T96N-R52W.



Karen Schlaak
Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

December 19, 2022

Richard P Hybertson
410 N 1st St
Beresford SD 57004

Dear Mr. Hybertson:

Thank you for submitting the two *Application for a Permit to Appropriate Water* for irrigation in Turner County. In order to complete the applications, the following is required.

- Enclosed are the aerial photo maps you submitted with your applications. On the maps, please mark the proposed well location with an "X".
- Regarding the application for irrigation of 72 acres, I have included a map with the Section, Township and Range designations for the location of your proposed irrigation (the blue lines designate the section lines). On this map, please outline the area to be irrigated and mark the proposed well location. It appears the area to be irrigated is in the NE 1/4 SE 1/4 Section 27 and partially in the NW 1/4 SW 1/4 Section 26. Do you agree?

Please return all the maps. If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8689-3, Richard P Hybertson**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8689-3, Richard P Hybertson, 410 N 1st Street, Beresford SD 57004.

The Chief Engineer is recommending APPROVAL of Application No. 8689-3 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 8689-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8689-3 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. 8689-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 97 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.

Eric Gronlund, Chief Engineer
June 5, 2023

Report to the Chief Engineer

On Water Permit Application Nos. 8689-3 and 8690-3

Richard P Hybertson

June 5, 2023

Water Permit Application No. 8689-3 proposes to divert water at a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 25 for the irrigation of 97 acres located in the NW $\frac{1}{4}$ of Section 25; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The site of interest is located in Turner County approximately one-half mile southeast of Centerville, SD.

Water Permit Application No. 8690-3 proposes to divert water at a maximum instantaneous diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 27 for the irrigation of 72 acres located in the E $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 27; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The site of interest is located in Turner County approximately one-half mile southwest of Centerville, SD.

AQUIFER: Upper Vermillion Missouri: South (UVM: S)

HYDROGEOLOGY:

The Upper Vermillion Missouri aquifer is a glacial outwash that is composed of fine sand to medium-pebble gravel (Lindgren and Hansen, 1990; Niehus, 1997). The aquifer generally lays in a bedrock valley that trends northwest to southeast with the direction of groundwater movement generally to the south/southeast (Lindgren and Hansen, 1990; Holmes and Filipovic, 2015). Most of the Upper Vermillion Missouri aquifer is overlain by till that can be up to 160 feet thick but in some localized areas, the aquifer can be encountered near the ground surface (Holmes and Filipovic, 2015). From 2013 to 2014, the SD DENR-Geological Survey completed a study to further understand the geologic and hydrologic conditions of the Upper Vermillion Missouri aquifer (Holmes and Filipovic, 2015). As a result, the aquifer is now divided into three management units (North, South, and West) that were adopted by the Water Management Board at the March 6, 2014, meeting (Water Rights, 2014). It is worth noting that of the south boundary of the Upper Vermillion Missouri aquifer Buhler (2014) states, "Although the southern boundary has not been delineated at this time, data shows that it extends south several miles from the original border as it merges with or transitions into the Lower Vermillion Missouri aquifer." Although described as not yet delineated, the mapping and areas presented in Buhler (2014) reflected a southern boundary for the Upper Vermillion Missouri aquifer extending several miles south from the original border and includes sufficient information to allow for the examination of water availability in the South management unit of the Upper Vermillion Missouri aquifer.

The proposed diversion points for Water Permit Application Nos. 8689-3 and 8690-3 are located within the South management unit of the Upper Vermillion Missouri aquifer (Water Rights, 2023c). The areal extent of the Upper Vermillion Missouri: South aquifer is approximately 78,820 acres in Clay, Lincoln, and Turner Counties (Figure 1) (Buhler, 2014). The Upper Vermillion Missouri: South aquifer is generally under confined conditions except near the Clay-Turner County line where the aquifer is in hydrologic connection with the overlying Parker-Centerville aquifer (Holmes and Filipovic, 2015; Lindgren and Hansen, 1990; Niehus, 1997).

Two test hole completion reports were submitted with Water Permit Application Nos. 8689-3 and 8690-3. A reiteration of the hydrogeology from each test hole completion report is displayed in Table 1. Based on the submitted test hole completion reports, the water well and test hole completion reports on file, and the lithologic logs on file for nearby observation wells, the Upper Vermillion Missouri: South aquifer is expected to be confined near the proposed diversion points (SDGS, 2023; Water Rights, 2023c).

Table 1. Test hole completion reports submitted with Water Permit Application Nos. 8689-3 and 8690-3 (Water Rights, 2023c)

Formation Log	From	To	Formation Log	From	To
Top soil	1	2	Top soil	0	1
Clay brown	2	18	Clay brown	1	9
Clay blue	18	82	Clay gray	9	11
Sand & gravel	82	91	Sand dirty some gravel	11	19
Gravel & sand	91	121	Clay gray sandy and gravel till	19	70
Sand coarse	121	150	Sand and fine gravel	70	82
Gravel	150	161	Clay gray	82	89
Clay gray	161	163	Gravel fine	89	109
Gravel	163	214	Clay gray	109	110
Shale	214	215	Gravel fine	110	136
Location: Section 25 - T96N-R52E			Gravel coarse	136	142
			Gravel & sand	142	170
			Clay	170	173
			Gravel sand & rocks	173	191
			Shale	191	193
			Location: Section 27 - T96N-R52E		

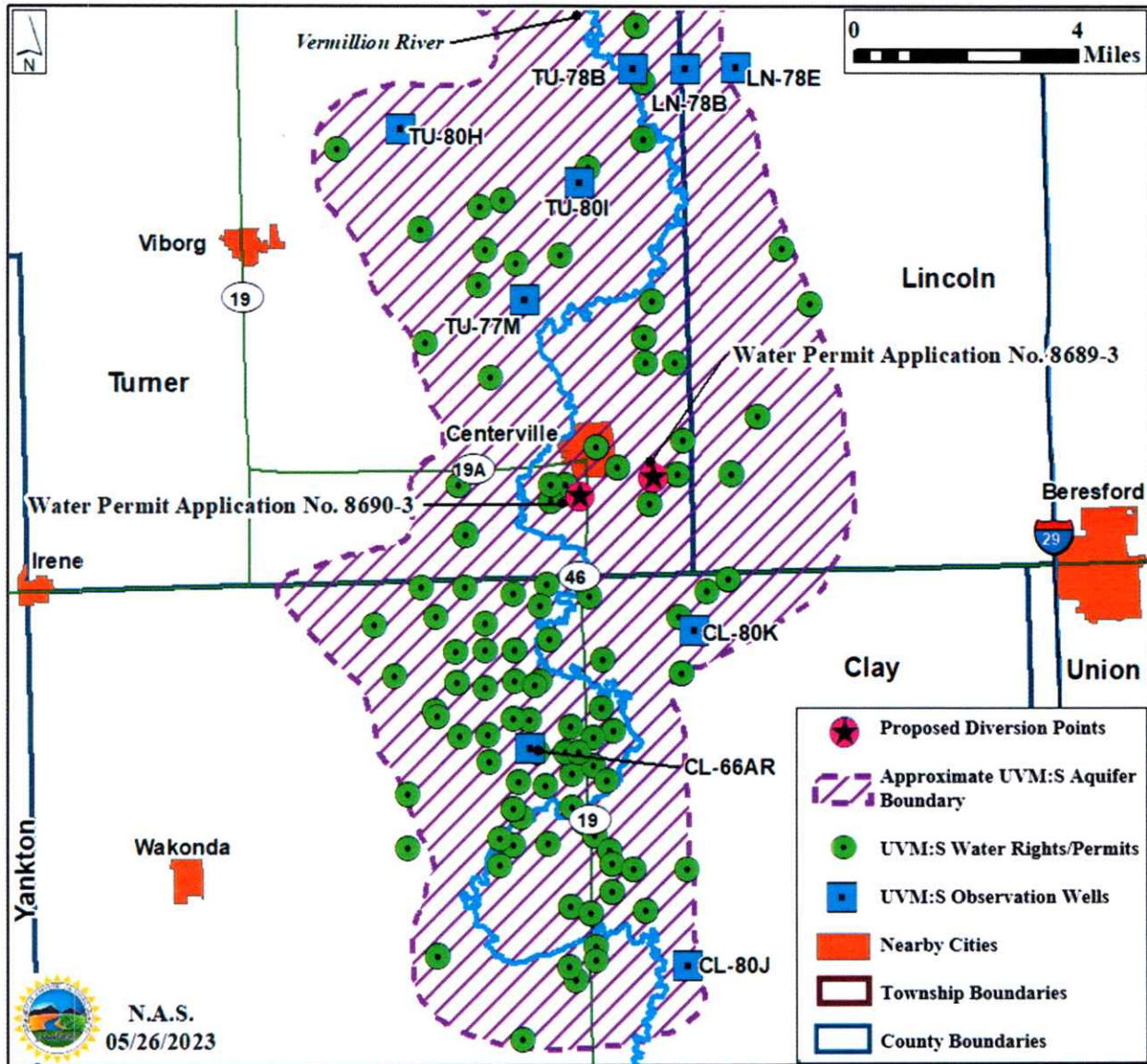


Figure 1. Map of the approximate Upper Vermillion Missouri: South aquifer delineated from Buhler (2014), the location of the proposed diversion points for Water Permit Application Nos. 8689-3 and 8690-3, and the Upper Vermillion Missouri: South aquifer water rights/permits and observation wells (Water Rights, 2023a and 2023b)

South Dakota Codified Law (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, “A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the diversion point can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by SDCL 46-2-9 and 46-2-11.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the Upper Vermillion Missouri: South aquifer.

WATER AVAILABILITY:

Water Permit Application Nos. 8689-3 and 8690-3 propose to appropriate water from the Upper Vermillion Missouri: South aquifer. The probability of unappropriated water being available from the 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. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Upper Vermillion Missouri: South aquifer is not older than or stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010), and the applicant’s proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Upper Vermillion Missouri: South aquifer must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Upper Vermillion Missouri aquifer occurs primarily through the infiltration of precipitation where the aquifer is at or near the ground surface. Additional recharge occurs where the Upper Vermillion Missouri aquifer is in direct contact with the Parker-Centerville aquifer (Holmes and Filipovic, 2015; Lindgren and Hansen, 1990; Niehus, 1997). There has been no quantification of the specific recharge rate to the Upper Vermillion Missouri: South aquifer. However, Hedges and others (1985) estimated a recharge rate of 0.25 inches per year using a regional flow net analysis for the entire Upper Vermillion Missouri as delineated at that time. The Upper Vermillion Missouri aquifer as delineated by Hedges and others (1982) had the North, South, and West management units as one singular aquifer. Applying the 0.25 inches per year recharge rate over the current areal extent of the Upper Vermillion Missouri: South aquifer leads to an estimated recharge rate of 1,642 acre-feet per year for the Upper Vermillion Missouri: South aquifer. This recharge rate is lower than what the observation well data shows and Buhler’s (2014) flow net analysis estimate.

2014 Flow Net Analysis

Buhler (2014) completed an analysis of the Upper Vermillion Missouri aquifer that indicates recharge exceeded withdrawals from the Upper Vermillion Missouri: South aquifer by an estimated 5,637 to 8,223 acre-feet per year at that time based on estimated groundwater outflow from the Upper Vermillion Missouri: South aquifer. Buhler’s (2014) analysis included all previously defined Upper Vermillion Missouri and Lower Vermillion Missouri aquifer water rights/permits that are now identified as withdrawing water from the South management unit of the Upper Vermillion Missouri aquifer. On the March 6, 2014, Water Management Board meeting, the Board approved twelve water permit applications: Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3, and 7919-3 (Water Rights,

2014 and 2023b). However, Water Permit Nos. 7623-3 and 7653-3 were cancelled in 2018 (Water Rights, 2023b). The remaining ten water permits authorize the irrigation of approximately 1,295.83 acres (Water Rights, 2023b). Buhler (2014) calculated an average annual application rate per permitted acre from the Upper Vermillion Missouri aquifer of six inches per permitted acre. Using Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the average annual withdrawal rate that is expected from these ten Upper Vermillion Missouri: South aquifer water permits is approximately 648 acre-feet per year.

The Water Management Board has approved 30 additional water permit applications for wells completed into the Upper Vermillion Missouri: South aquifer since the March 6, 2014, Board meeting and the use type for each permit is irrigation (Water Rights, 2023b). These 30 water permits authorize the irrigation of approximately 3,149.6 acres (Water Rights, 2023b). Using Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the average annual withdrawal rate that is expected from these Upper Vermillion Missouri: South aquifer water permits is approximately 1,575 acre-feet per year.

Discharge

Discharge from the Upper Vermillion Missouri aquifer is primarily through evapotranspiration where the aquifer is near the ground surface, subsurface outflow to other glacial aquifers, and through well withdrawals (Lindgren and Hansen, 1990; Water Rights, 2023c).

Currently, there are 96 water rights/permits authorized to appropriate water from the Upper Vermillion Missouri: South aquifer (Water Rights, 2023b). Since the review of recharge to the aquifer was done as the amount of natural discharge from the aquifer, that is to say recharge in excess of withdrawals, it is appropriate to only consider the new water rights/permits that have been approved since that analysis of natural discharge was completed.

Table 2 summarizes the 40 Upper Vermillion Missouri: South aquifer water rights/permits, and their estimated use based on Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer. The 40 water rights/permits include the 10 water permits approved at the March 6, 2014, Water Management Board meeting that are still currently active, and the 30 water rights/permits that have been approved since that date (Water Right, 2023b). The average annual withdrawal rate for the 40 Upper Vermillion Missouri: South aquifer water rights/permits (approved at or after the March 6, 2014, Water Management Board meeting) is approximately 2,223 acre-feet per year (Table 2).

There are domestic wells completed into the Upper Vermillion Missouri: South aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2023c). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the withdrawal rate from the Upper Vermillion Missouri: South aquifer. Additionally, with the development of rural water systems in areas where the Upper Vermillion Missouri: South aquifer is the uppermost aquifer available; it is likely some domestic users may have transitioned to rural water. Therefore, the quantity of water

withdrawn by domestic wells is estimated to be negligible to the withdrawal rate for the Upper Vermillion Missouri: South aquifer.

Table 2. The average annual withdrawal rate for the Upper Vermillion Missouri: South aquifer water rights/permits that were approved at or after the March 6, 2014, Water Management Board meeting (Water Rights, 2023b)

Permit No.	Name	Priority Date	Status	Use	Acres	Estimated Use (acre-feet/year)
6811A-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	115	57.5
6820A-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	43	21.5
7383-3	Metabank	07/20/2012	PE	IRR	25	12.5
7384-3	Nicholas & Courtney Blake	07/20/2012	PE	IRR	80	40
7441-3	Jason or Alicia Knutson	09/26/2012	PE	IRR	140	70
7442-3	Leah Johnson	09/26/2012	PE	IRR	40	20
7466-3	Bethel Hagen Trust	10/18/2012	PE	IRR	152	76
7467-3	Cleland Hagen Trust	10/18/2012	PE	IRR	152	76
7600-3	Michael D Stevens	12/28/2012	PE	IRR	180	90
7601-3	Michael D Stevens	12/28/2012	PE	IRR	132	66
7603-3	Michael D Stevens	12/28/2012	PE	IRR	120	60
7690-3	Tim or Dave Ostrem	12/20/2013	PE	IRR	160	80
7693-3	Metabank	02/06/2013	PE	IRR	27.7	13.85
7900-3	Leon Thompson	09/11/2013	PE	IRR	136	68
7919-3	Larry & Marlene Erickson	10/23/2013	PE	IRR	83.83	41.92
7945-3	Brad R or Linda R Trudeau	01/17/2014	PE	IRR	60	30
7947-3	Leon, Holly and Jordan Rozeboom	01/23/2014	PE	IRR	133.44	66.72
7948-3	Majestic Farms LLP	01/23/2014	PE	IRR	55.02	27.51
7949-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	100.9	50.45
7964-3	Paul, Mike & John Shubeck	02/12/2014	PE	IRR	128	64
7976-3	Vasgaard Properties	02/27/2014	LC	IRR	142	71
7990-3	Robert P Walsh	04/02/2014	PE	IRR	240	120
7993-3	Jesse & Tanya Vandestroet	04/10/2013	PE	IRR	53	26.5
7994-3	Metabank	04/10/2014	PE	IRR	72	36
7995-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	25	12.5
8007-3	Louis Latendresse	04/18/2014	PE	IRR	150	75
8070-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	96	48
8071-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	51	25.5
8072-3	Jesse & Tanya Vandestroet	01/07/2015	PE	IRR	40	20
8469-3	Double A Farms LLC	03/15/2021	PE	IRR	114	57
8470-3	Nicholas Blake	03/22/2021	PE	IRR	160	80
8492-3	Tim or Kari Ostrem	02/19/2021	PE	IRR	180	90
8542-3	Tyler Anderson	08/09/2021	PE	IRR	103	51.5
8588-3	T & D Farms	02/03/2022	PE	IRR	160	80
8598-3	Tim Wellenstein	02/24/2022	PE	IRR	126	63
8599-3	Farron Pratt and Michelle Pratt	02/24/2022	PE	IRR	17.5	8.75
8619-3	Tim or Kari Ostrem	03/09/2022	PE	IRR	300	150
8686-3	Smit Family Trust	12/20/2022	PE	IRR	160	80
8685-3	Joe Schumacher	11/28/2022	PE	IRR	120	60
8695-3	William H Hansen	12/28/2022	PE	IRR	72.03	36.02
PE: Water Permit, IRR: Irrigation				TOTAL:	4,445.4	2,223

Hydrologic Budget Summary

Buhler's (2014) analysis of the Upper Vermillion Missouri aquifer indicates recharge exceeded withdrawals from the Upper Vermillion Missouri: South aquifer by an estimated 5,637 to 8,223 acre-feet per year at that time. That analysis included all previously defined Upper Vermillion Missouri and Lower Vermillion Missouri aquifer water rights/permits that are now identified as withdrawing water from the South management unit of the Upper Vermillion Missouri aquifer (Buhler, 2014).

The estimated average annual withdrawal rate for the Upper Vermillion Missouri: South aquifer water rights/permits, approved at or after the March 6, 2014, Water Management Board meeting is approximately 2,223 acre-feet per year. If Water Permit Application Nos. 8689-3 and 8690-3 is approved, assuming Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the estimated average annual withdrawal rate is approximately 84.5 acre-feet per year. Therefore, there is a reasonable probability that unappropriated water is available to supply the proposed appropriation.

OBSERVATION WELL DATA:

Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

Observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The DNR-Water Rights Program monitors nine observation wells completed into the Upper Vermillion Missouri: South aquifer (Water Rights, 2023a). The three closest observation wells to the proposed diversion points are CL-80K (approximately 2.5 to 3 miles southeast), TU-77M (approximately 3.5 to 4 miles northwest), and CL-66AR (approximately 4.5 to 5 miles southwest) (as shown in Figure 1) (Water Rights, 2023a). The hydrographs for these observation wells are displayed in Figures 2 to 4 (Water Rights, 2023a). The data points utilized to construct the hydrographs are measurements of the static water level in the observation wells from the top of the well casing. It is worth noting the hydrograph titles display DENR Water Rights Observation Well on the hydrographs when the titles should display DNR Water Rights Observation Well on the hydrographs.

The hydrographs for the observation wells display stable to increasing water levels over their respective periods of record. The hydrographs for these three observation wells were compared to the hydrographs for the other observations wells completed into the Upper Vermillion Missouri: South aquifer and each displayed a similar trend as shown on the hydrographs displayed in Figures 2 to 4 (Water Rights, 2023a). The hydrographs for the Upper Vermillion Missouri: South aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. Additionally, the water levels in the observation wells display that the amount of recharge to and natural discharge from the aquifer greatly exceeds pumping with the aquifer returning to pre-pumping conditions between irrigation

seasons. Aquifer recovery indicates that climatic conditions and therefore, the effects of recharge to and natural discharges from the aquifer govern the long-term fluctuations of water levels in the aquifer rather than the impacts of pumping from the Upper Vermillion Missouri: South aquifer. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

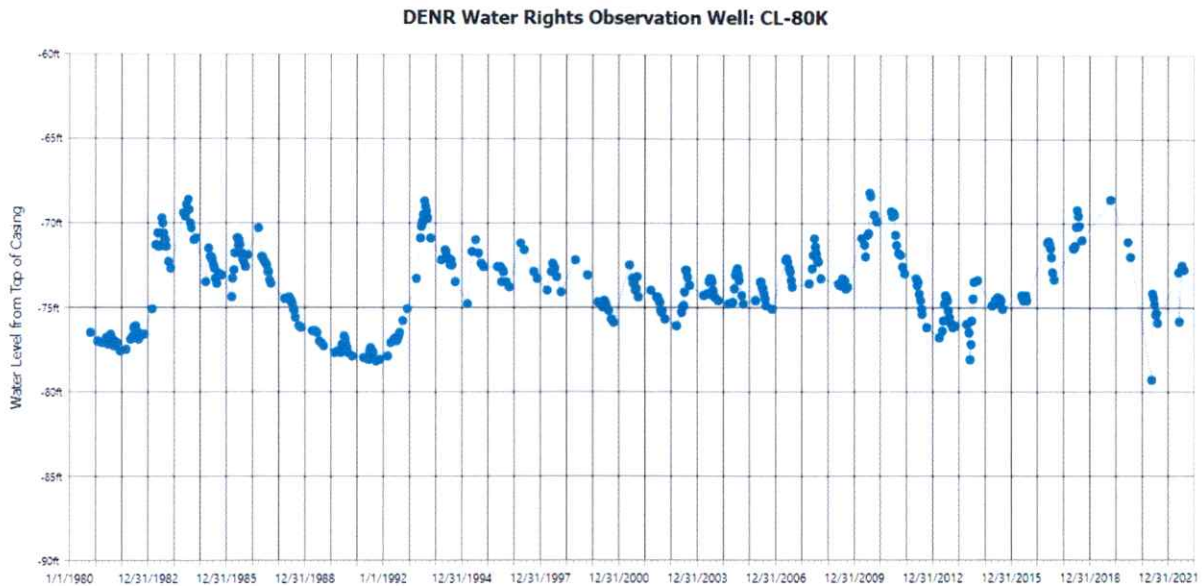


Figure 2. Hydrograph for observation well CL-80K (Water Rights, 2023a)

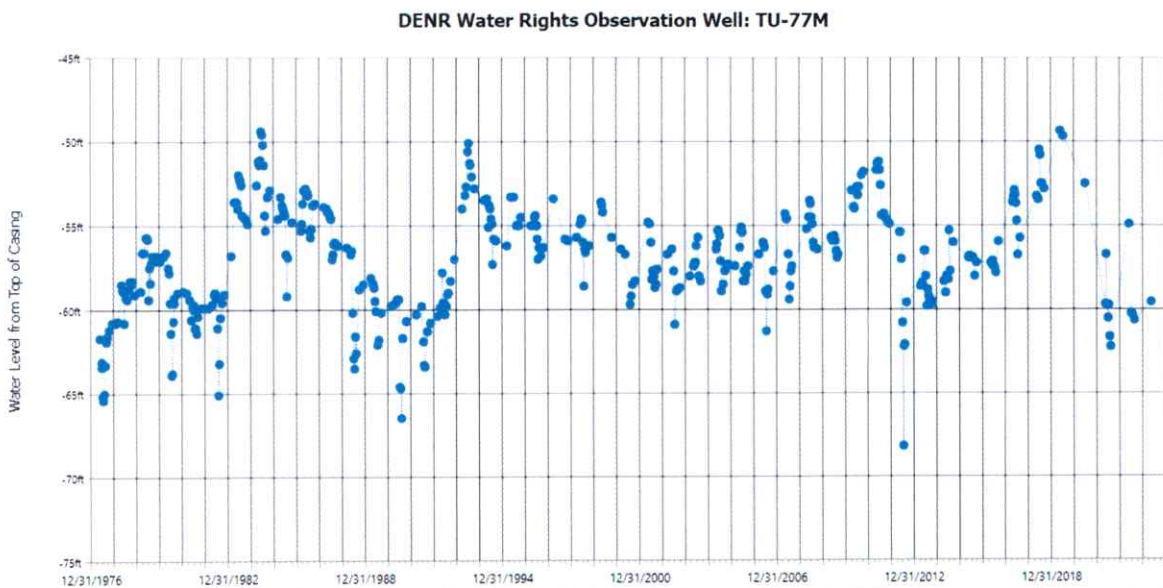


Figure 3. Hydrograph for observation well TU-77M (Water Rights, 2023a)

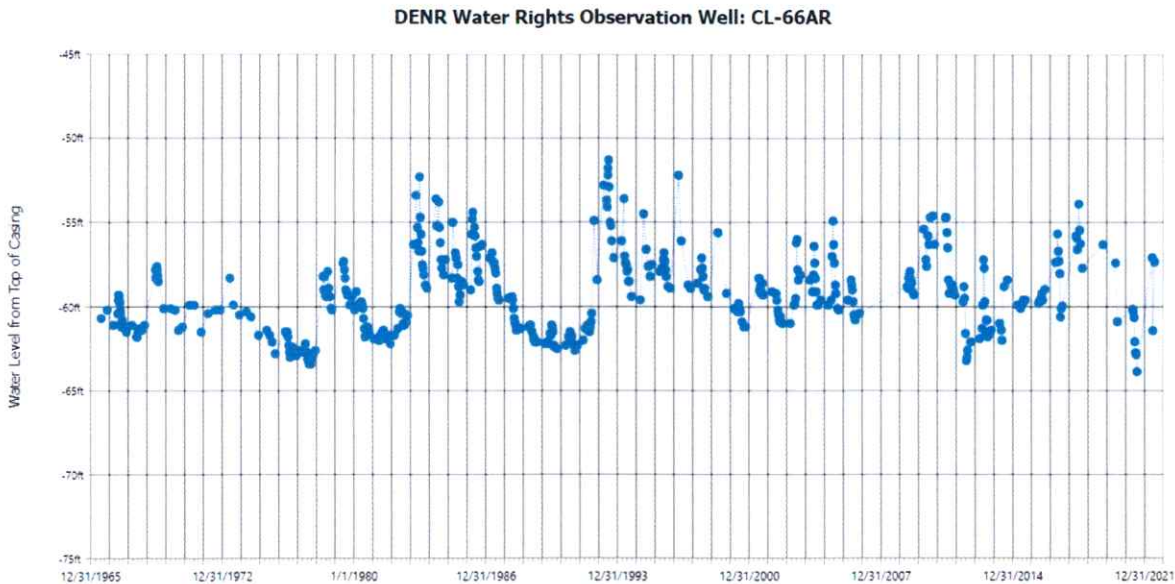


Figure 4. Hydrograph for observation well CL-66AR (Water Rights, 2023a)

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 96 water rights/permits authorized to appropriate water from the Upper Vermillion Missouri: South aquifer (Water Rights, 2023b). The closest water right/permit to the proposed diversion point for Water Permit Application No. 8689-3 is Water Right No. 6968-3, which is held by Roger Blake (Water Rights, 2023b). The diversion point for Water Right No. 6968-3 is located approximately 0.4 miles northwest of the proposed diversion point for this application (Table 3) (Figure 5) (Water Rights, 2023b). The closest water right/permit to the proposed diversion point for Water Permit Application No. 8690-3 is Water Right No. 3918-3, which is held by JBS Hansen Farms (Water Rights, 2023b). The diversion point for Water Right No. 3918-3 is located approximately 0.3 miles northwest of the proposed diversion point for this application (Table 3) (Figure 5) (Water Rights, 2023b). The location of the closest water right/permit is based on the well log location tied to the respective water right/permit. Well locations are based upon the location provided at the time of completion by the well driller.

There are domestic wells on file with the DANR-Water Rights Program that are completed into the Upper Vermillion Missouri: South aquifer, with the closest domestic well on file (not held by the applicant) approximately 2.3 miles northwest of the nearest proposed diversion point for these applications (Water Rights, 2023c). There could potentially be other domestic wells completed into the Upper Vermillion Missouri: South aquifer near the proposed diversion points that are not on file with the DANR-Water Rights Program. The location of the domestic wells is based on the location provided at the time of completion by the well driller.

Table 3. Upper Vermillion Missouri: South aquifer water rights/permits within approximately two miles of the proposed diversion points, as shown in Figure 5 (Water Rights, 2023b)

Permit No.	Name	Status	Use	Authorized Diversion Rate (cfs)	Acres if IRR
117-3A	Glyndon Knutson	LC	IRR	0.95	66
2269-3	Travis Wiese	LC	IRR	2.44	188
2950-3	Terry & Alberta Surprenant	LC	IRR	1.57	110
3328-3	Tom Austin	LC	IRR	1.33	121
3507-3	Jerald W Hansen	LC	IRR	0.99	69
3994-3	Glyndon Knutson	LC	IRR	4.94	332
3918-3	JBS Hansen Farms	LC	IRR	2.66	295.3
4204-3	City of Centerville	LC	MUN	0.22	
5352-3	Bill & Scott Hansen	LC	IRR	2.15	151
5425-3	Johnke Land Trust	LC	IRR	1.88	132
5898-3	City of Centerville	LC	MUN	0.89	
6754-3	JBS Hansen Farms	PE	IRR	n/a	35
6810-3	Jesse & Tanya Vandestroet	LC	IRR	1.56	65
6968-3	Roger Blake	LC	IRR	1.47	103
7128-3	John Shubeck	PE	IRR	1.78	207
7191-3	Roger Blake	LC	IRR	1.56	255
7900-3	John Thompson	PE	IRR	1.89	136
7690-3	Tim or Dave Ostrem	PE	IRR	1.78	160
7976-3	Vasgaard Properties	LC	IRR	1.78	142
8470-3	Nicholas Blake	PE	IRR	1.78	160
8588-3	T & D Farms	PE	IRR	1.78	160
LC: Licensed Water Right; PE: Water Permit, IRR: Irrigation; MUN: Municipal					

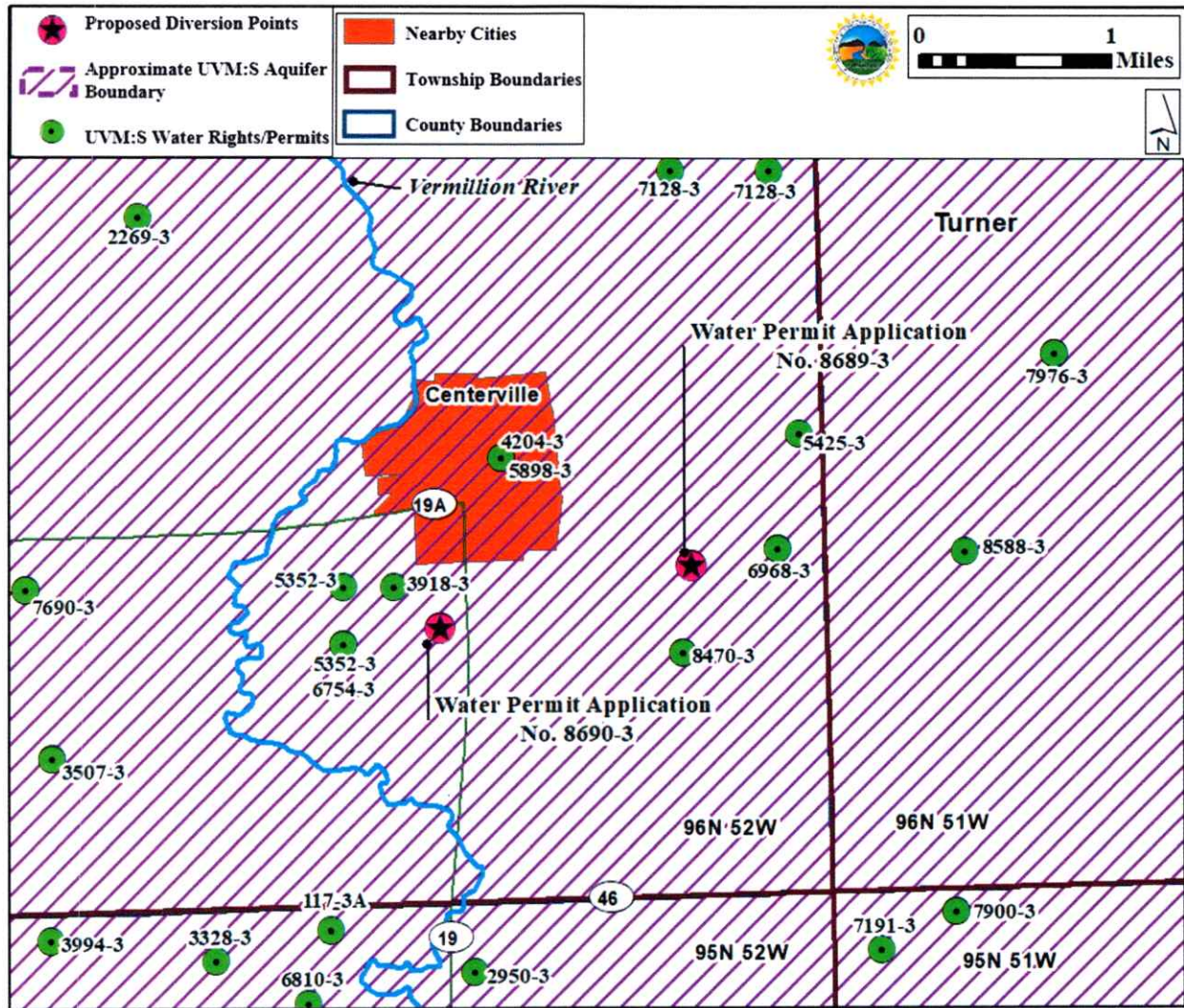


Figure 5. Location of the proposed diversion points for Water Permit Application Nos. 8689-3 and 8690-3 with the Upper Vermillion Missouri: South aquifer water rights/permits within approximately two miles (Water Rights, 2023b)

The Upper Vermillion Missouri: South aquifer is generally under confined conditions except near the Clay-Turner County line where the aquifer is in hydrologic connection with the overlying Parker-Centerville aquifer (Holmes and Filipovic, 2015; Lindgren and Hansen, 1990; Niehus, 1997). The Upper Vermillion Missouri: South aquifer is expected to be confined near the proposed diversion points based on the submitted test hole completion reports, the water well and test hole completion reports on file, and the lithologic logs on file for nearby observation wells (SDGS, 2023; Water Rights, 2023c). Drawdown created by pumping a well generally does not extend far from the pumped well in an unconfined aquifer; however, in a confined aquifer, drawdown from pumping could extend a distance from the diversion point. The exact drawdown behavior of a well cannot be known without an aquifer performance test. However, observation wells completed into the Upper Vermillion Missouri: South aquifer near permitted/licensed diversion points can provide some insight on how the aquifer responds to pumping.

Observation well TU-77M (approximately 3.5 to 4 miles northwest of the proposed diversion points) has nine high-yield (assumed to be a well with an authorized diversion rate greater than 0.2 cfs) irrigation wells within approximately three miles of it (Water Rights, 2023a and 2023b). The lithologic log on file for TU-77M noted the well was drilled 185 feet below the ground surface, with a casing stick up height of 2.1 feet, and the top of aquifer approximately 106 feet below the ground surface (SDGS, 2023). The lowest recorded static water level on the hydrograph (shown in Figure 3) is approximately 68 feet from the top of the well casing, which indicates there was still approximately 40 feet of artesian head pressure in TU-77M even during drier periods when high-yield irrigation wells are expected to be pumping more water and when water levels are generally naturally lower in response to drier conditions (Water Rights, 2023a).

Within approximately one mile of the proposed diversion points, water well completion reports on file for appropriative water users have saturated aquifer thicknesses ranging from approximately 30 to 60 feet (Water Rights, 2023b and 2023c). This would generally allow for enough thickness for a pump to be placed 20 feet below the top of the aquifer, which is required for the well to be considered adequate under ARSD 74:02:04:20(6). Any drawdown as a result of the proposed diversion is not expected to unlawfully impair nearby adequate wells. In Clay, Lincoln, and Turner Counties, there are no complaints on file with the DANR-Water Rights Program regarding well interference for adequate wells completed into the Upper Vermillion Missouri: South aquifer (Water Rights, 2023d).

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board 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.”

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Upper Vermillion Missouri: South aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), the

saturated aquifer thickness near the proposed diversion points, the artesian head pressure in observation wells and appropriative user's wells completed into the aquifer near the proposed diversion points, and the lack of well interference complaints for adequate wells completed into the Upper Vermillion Missouri: South aquifer, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments on existing users with adequate wells.

SDCL 46-5-6:

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of 1.0 cfs per 70 acres, or "the equivalent thereof." The statute does provide that: "The Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires..."

If approved, Water Permit Application No. 8689-3 would authorize a maximum instantaneous diversion rate of 1.78cfs from one well for the irrigation of 97 acres, from April through October, or at a rate of 1.28 cfs per 70 acres. The applicant did not provide a reason for the exceedance, but it appears to be due to a combination of the center pivot size and type of soils being irrigated. The pivot is smaller than a normal, quarter-sized pivot; however, smaller pivots often use a proportionally greater diversion rate to operate properly than their size would indicate is needed. Furthermore, one of the two planned pivots is only making a partial rotation. A center pivot making a partial rotation uses water at the same rate as a center pivot making a full rotation while irrigating less acres. In addition, the sprinkler nozzle size on the pivot may be larger to effectively apply water to the soils in the area. These types of reasons fall within SDCL 46-5-6 which allows the Water Management Board to allow a greater diversion rate.

If approved, Water Permit Application No. 8690-3 would authorize a maximum instantaneous diversion rate of 1.78 from one well for the irrigation of 72 acres, from April through October, or at a rate of 1.73 cfs per 70 acres. The applicant did not provide a reason for the exceedance, but it appears to be due to a combination of the center pivot size and type of soils being irrigated. The pivot is smaller than a normal, quarter-sized pivot; however, smaller pivots often use a proportionally greater diversion rate to operate properly than their size would indicate is needed. Furthermore, one of the two planned pivots is only making a partial rotation. A center pivot making a partial rotation uses water at the same rate as a center pivot making a full rotation while irrigating less acres. In addition, the sprinkler nozzle size on the pivot may be larger to effectively apply water to the soils in the area. These types of reasons fall within SDCL 46-5-6 which allows the Water Management Board to allow a greater diversion rate.

CONCLUSIONS:

1. Water Permit Application No. 8689-3 proposes to divert water at a maximum instantaneous diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) for the irrigation of 97

acres. The site of interest is located in Turner County approximately one-half mile southeast of Centerville, SD.

2. Water Permit Application No. 8690-3 proposes to divert water at a maximum instantaneous diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) for the irrigation of 72 acres. The site of interest is located in Turner County approximately one-half mile southwest of Centerville, SD.
3. Based on Buhler's (2014) Flow Net Analysis and the observation well data, there is a reasonable probability that unappropriated water is available from the Upper Vermillion Missouri: South aquifer to supply the proposed appropriations.
4. There is a reasonable probability that the proposed diversions by Water Permit Application Nos. 8689-3 and 8690-3 will not unlawfully impair adequate wells for existing water right/permit holders and domestic users.
5. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres for both Water Permit Application Nos. 8689-3 and 8690-3. The applicant did not provide a reason for the exceedance, but it is likely due to the sprinkler nozzle size and/or the size and partial rotation orientation of a center pivot near the proposed diversion point locations. These types of reasons fall within SDCL 46-5-6 which allows the Water Management Board to allow a greater diversion rate.

Nakaila Steen

Nakaila Steen
Natural Resources Engineer II
SD DANR - Water Rights Program

Reviewed by:

Adam Mathiowetz
Adam Mathiowetz, PE
Natural Resources Engineer IV
SD DANR - Water Rights Program

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**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

June 5, 2023

Richard P Hybertson
410 N 1st Street
Beresford SD 57004

Dear Mr. Hybertson:

Water Permit Application Nos. 8689-3 and 8690-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Turner County New Era printed at Parker SD (Ph # 605 297- 4419) and the Daily Press & Dakotan printed at Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers 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 newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(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 the Notice on June 15, 2023. The applicant is responsible for payment.

NOTICE OF APPLICATION NOS. 8689-3 & 8690-3 to Appropriate Water

Notice is given that Richard P Hybertson, 410 N 1st St, Beresford SD 57004 has filed the following applications for a water permit. Application No. 8689-3 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South Aquifer (140 feet deep) located in the SE 1/4 NW 1/4 Section 25 for irrigation of 97 acres located in the NW 1/4 Section 25; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one-half mile southeast of Centerville SD.

Application No. 8690-3 proposes to appropriate 1.78 cfs from one well to be completed into the Upper Vermillion Missouri: South Aquifer (140 feet deep) located in the NE 1/4 SE 1/4 Section 27 for irrigation of 72 acres located in the E 1/2 SE 1/4 Section 27; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one-half mile southwest of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 8689-3 and 8690-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the applications, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing these applications or recommendations shall allege that the applications, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the applications within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the applications shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendations, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by June 26, 2023.

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Published once at the total approximate cost of _

From: Rodriguez, Rachel
Sent: Monday, June 5, 2023 10:10 AM
To: newera@ncppub.com
Subject: FW: 8689-3 and 8690-3 Richard Hybertson - Public Notice
Attachments: FORM8.FRM.doc; 8689-3 & 8690-3 public.short_final.docx

Attached is a notice to be published on June 15, 2023.

Richard P Hybertson, 410 N 1st St, Beresford SD 57004, (605 957-5113) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



From: Rodriguez, Rachel
Sent: Monday, June 5, 2023 10:08 AM
To: Michael Pietz
Subject: 8689-3 and 8690-3 Richard Hybertson - Public Notice
Attachments: FORM8.FRM.doc; 8689-3 & 8690-3 public.short_final.docx

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Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF TURNER

I, Jessica Kleinsasser, of the City of Parker, County of Turner, State of South Dakota being first duly sworn on oath, deposes and says: The New Era is a weekly legal newspaper of general circulation, printed and published in the City of Parker, in said County of Turner, by The New Era, New Century Press, publishers, and has been such legal newspaper during the times here in after mentioned: that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice here unto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers: that the undersigned, the affiant, is the Office Assistant of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed:

N0615-1- NTC of Apps 8689-3

once printed copy of hereto attached, is printed and published in the said newspaper for one successive week, one each week and on the same day of the week, on the following dates, to wit:

On Thursday, the 15th day of June 2023

That \$57.09 being the full amount of the fees for publication of the attached notices insure solely for the benefits of the publishers of the said newspaper, that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

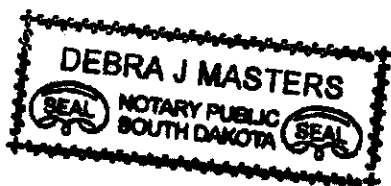
Jessica Kleinsasser

Subscribed and sworn to before me this 23rd

Day of June, 2023

Debra J. Masters
Notary Public, Turner County, South Dakota

My Commission Expires: 8.6.27



Publication Fee \$57.09
Notary Fees \$
Total \$57.09

**NOTICE OF APPLICATION NOS.
8689-3 & 8690-3 to Appropriate
Water**

Notice is given that Richard P. Hybertson, 410 N 1st St, Beresford S.D. 57004 has filed the following applications for a water permit. Application No. 8689-3 proposes to appropriate 1.78 cubic feet of

water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South Aquifer (140 feet deep) located in the SE 1/4 NW 1/4 Section 25 for irrigation of 97 acres located in the NW 1/4 Section 25; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one-half mile southeast of Centerville S.D.

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Any person interested in opposing these applications or recommendations shall allege that the applications, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-8 for approval or denial of the application, or other matter concerning the applications within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the applications shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendations, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by June 26, 2023.

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Published once at the total approximate cost of \$57.09 and may be viewed free of charge at www.sdpublicnotices.com.

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

JUN 20 2023

OFFICE OF
WATER

RICHARD HYBERTSON
410 N 1ST ST
BERESFORD SD 57004

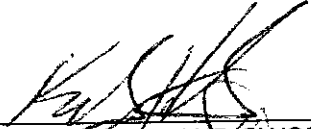
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION NOS

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 15th DAY OF June, 2023
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$46.56 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 06/15/2023

FILED ON: 06/15/2023


SUBSCRIBED AND SWORN TO BEFORE ME THIS 15th DAY OF June, 2023

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 01/15/26

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Published once at the total approximate cost of \$46.56 and can be viewed free of charge at www.sdpublicnotices.com.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUL 12 2023

Richard P. Hybertson
410 N 1st Street
Beresford SD 57004

Dear Mr. Hybertson:

Enclosed are Water Permit Nos. 8689-3 and 8690-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses 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,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8689-3

Name of Applicant: Richard P Hybertson

Date of Posting: 6/12/2023

Date of Removal: 7/12/2023



Ron Duvall, Water Rights Permitting Administrator

7/14/23

Date

Subscribed and sworn to before me, a notary public, this 14 day of July, 2023.



Notary Public - South Dakota
My commission expires:

Rachel Rodriguez
My Commission Expires
May 16, 2029

(SEAL)





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

January 19, 2024

NOTICE

TO: RICHARD P HYBERTSON, 410 N 1ST ST, BERESFORD, SD 57004

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

SUBJECT: Reporting Requirement for 2023 Irrigation Questionnaire(s)

Our records indicate your 2023 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8689-3, 8690-3. The request for the Questionnaire was dated October 20, 2023. The Water Management Board has directed owners of water permits who have not submitted the 2023 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) 8689-3, 8690-3 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, 2024 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) 8689-3, 8690-3 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, 2024** 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 Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: ITYDCF**

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 8, 2024

8689-3

8690-3

Richard Hybertson
410 N 1st St
Beresford SD 57004

Dear Mr. Hybertson:

I am writing to acknowledge the receipt of your 2023 irrigation questionnaire(s).

You may disregard the January 19, 2024, "Notice" concerning the reporting requirements for Water Permit No(s). 8689-3 & 8690-3. The information was received prior to the March 6, 2024, Water Management Board meeting and these permit numbers have been removed from the agenda.

If you have any questions, please contact me.

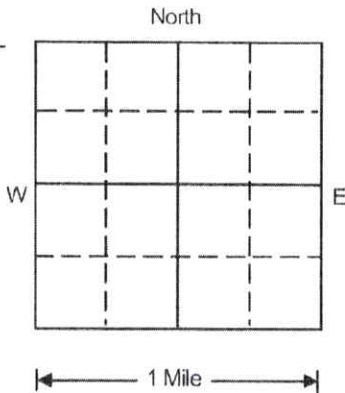
Sincerely,

Amanda Dewell
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

8689-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

2024

Location <u>SE 1/4 NW 1/4 Sec 25 Twp 96N Rg 52W</u> County <u>Turner</u> GPS Coordinates Lat: <u>43°06'28.35"N</u> Lon: <u>96°56'15.17"W</u>  Please mark well location with an "X" on section grid Well Completion Date <u>5/16/2024</u> Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) <u>500</u> ft. from <u>Septic</u> (identify source)	Well Owner: <u>Nick Hybertson</u> Business Name: _____ Address: <u>410 N 1St</u> City, State, Zip: <u>Beresford, SD 57004</u> WELL LOG: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">FORMATION</th> <th colspan="2">DEPTH</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>Topsoil</td> <td>0.0</td> <td>2.0</td> </tr> <tr> <td>Brown Clay</td> <td>2.0</td> <td>82.0</td> </tr> <tr> <td>Sand & Gravel</td> <td>82.0</td> <td>165.0</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> STATIC WATER LEVEL <u>52.0</u> FEET If flowing: closed in pressure _____ PSI GPM flow _____ through _____ Inch pipe Controlled by ☐ Valve ☐ Reducers ☐ Other _____ Reduced flow rate _____ GPM Can well be completely shut in? _____ WELL TEST DATA: ☐ Pumped Describe: _____ ☐ Bailed ☒ Air ☐ Other _____ Pumping Level Below Land Surface _____ Ft. After _____ Hrs. pumped _____ GPM _____ Ft. After _____ Hrs. pumped _____ GPM If pump installed, pump rate: _____ GPM	FORMATION	DEPTH		FROM	TO	Topsoil	0.0	2.0	Brown Clay	2.0	82.0	Sand & Gravel	82.0	165.0																					
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PROPOSED USE: ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Monitoring Well ☒ Irrigation ☐ Industrial ☐ Institutional ☐ Test Hole ☐ Dewatering Well ☐ Geothermal ☐ Other _____ METHOD OF DRILLING: <u>Mud 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>LB/FT</td> <td>12 IN</td> <td>0 FT</td> <td>125 FT</td> <td>17.5 IN</td> </tr> <tr> <td>LB/FT</td> <td>IN</td> <td>FT</td> <td>FT</td> <td>IN</td> </tr> <tr> <td>LB/FT</td> <td>IN</td> <td>FT</td> <td>FT</td> <td>IN</td> </tr> </tbody> </table> GROUTING DATA: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Grout Type</th> <th>No. of Sacks</th> <th>Grout Weight</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>Bentonite</td> <td>51</td> <td>Lb/gal</td> <td>0.0 Ft</td> <td>105.0 Ft</td> </tr> <tr> <td colspan="2"></td> <td>Lb/gal</td> <td>Ft</td> <td>Ft</td> </tr> </tbody> </table> Describe grouting procedure <u>Tremie</u> SCREEN: ☒ Perforated pipe ☐ Manufactured Diameter <u>12</u> Inches Length <u>40.0</u> Feet Material <u>PVC</u> Slot Size <u>.60</u> Set From <u>105.0</u> Feet to <u>145.0</u> Feet Other information _____	PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER	LB/FT	12 IN	0 FT	125 FT	17.5 IN	LB/FT	IN	FT	FT	IN	LB/FT	IN	FT	FT	IN	Grout Type	No. of Sacks	Grout Weight	From	To	Bentonite	51	Lb/gal	0.0 Ft	105.0 Ft			Lb/gal	Ft	Ft	REMARKS <u>Airlifted Really Well</u> RECEIVED FEB 26 2025 OFFICE OF WATER This well was drilled under license # <u>773</u> And this report is true and accurate. Drilling firm: <u>Quality Well Service LLC</u> Signature of License Representative: _____ Signature of Well Owner or Equitable Property Holder: _____ Date: <u>2-7-24</u>
PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER																																
LB/FT	12 IN	0 FT	125 FT	17.5 IN																																
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		Lb/gal	Ft	Ft																																
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? _____ ☐ No, Why Not? _____ Lab sample sent to for water quality analysis _____	Please return White Copy to DANR Water Rights 523 E. Capitol Ave., Pierre SD 57501																																			