

WATER PERMIT NO. 8842-3

Name of Applicant: Greg & Evette Rihanek

Address: 509 E 1st Street, Plankinton SD 57368

Phone: 605-999-1477

Amount of Water Claimed: 1.44⁵ cfs

Total Acres: 120

Source of Water Supply: Groundwater

Water to be used for: Irrigation

County: Aurora

Type of Waste Disposal System:

Location: Approx. 5 miles northeast of Plankinton SD

PRIORITY Date Received: 03-01-24

Application/License Fee: \$950.00

Corrected Application Received: 03-05-24

Period of Annual Use: April 1 – October 31

Remarks: Water from well to be directed into the dugout with irrigation system pumping water from the dugout

Diversion Point: NE 1/4 SE 1/4 Sec 4-T103N-R63W

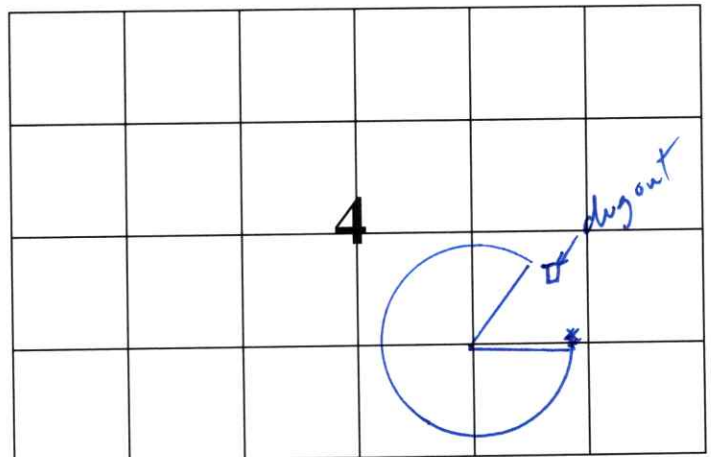
Land to be Irrigated: SE 1/4 Sec 4-T103N-R63W

Depth of Well:

Well Driller:

Remarks:

Type of Map: aerial



Reviewed and the Number Assigned on: 03-05-24

By: Rachel Rodriguez

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8842-3**

Date of first receipt of application March 1, 2024.

Date of return to applicant for corrections, amendments or changes March 4, 2024.

Date of receipt of corrected application March 6, 2024.

The Water Management Board approved Water Permit No. 8842-3 on July 10, 2024, for Greg and Evette Rihanek, 509 E 1st Street, Plankinton SD 57368, 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. 8842-3 appropriates 1.45 cubic feet of water per second from one well completed into the Dakota Aquifer (depth unknown) located in the NE 1/4 SE 1/4 Section 4 for irrigation of 120 acres located in the SE 1/4 Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. This site is located approximately 5 miles northeast of Plankinton 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 1, 2024.
4. One-fifth of the construction is to be completed on or before January 10, 2027.
5. All construction is to be completed on or before July 10, 2029.
6. Water is to be put to beneficial use on or before July 10, 2033.
7. 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. 8842-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must 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. Any future replacement well must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. A replacement well may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.
3. 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 25 2024
date



RECEIVED

MAR 01 2024

PAID

MAR 01 2024

Ck# 2089

Rec't#

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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8842-3</u> Hydrologic Unit <u>10160011</u>
	Basin <u>Lower James</u>
	Newspaper <u>Plankinton South Dakota Mail</u> <u>Huron Plainsman</u> (office use only)

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 Greg & Evette Rihaneck

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

Mailing Address 509 E 1st St. Plankinton SD 57368
(Address) (City) (State) (Zip Code)Phone 605-942-7134 Mobile 605-999-1477 Email gregrihaneck@hotmail.com2. Amount of water claimed 1.45 *CFS or 650 **GPM ***AF Total Acreage 120
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply groundwater, one well4. Location of point of diversion one well - NE 1/4 SE 1/4 Sec 4 T103N-R63W
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)County Aurora5. County or counties where water will be used Aurora6. Annual period during which water is to be used April 1 - October 317. 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
SE 1/4 Sec 4 T103N-R63W	120.0		

8. Give a description of the project. (Attach sheet if more space is needed)
water from well will be directed into dugout (approx 105' wide, 200' long, 15' deep) w/ irrigation system
pumping water out of dugout onto 120 acres in SE 1/4 Sec 4.
 I, Greg Rihaneck, 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.

2021-08

 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)

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 X Have test holes been drilled? ☐ Yes ☐ No Drilled by _____

(if yes, please provide copies of logs)

b) If existing wells, how many 1 RJD Provide copy of log(s), if available. Drilled by _____

free flowing artesian well (approx 100 years old) see email attachment**

For either existing or proposed wells:

c) Well Depth (required) _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property on property Property owned by others yes - David Saville
(father-in-law)

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)

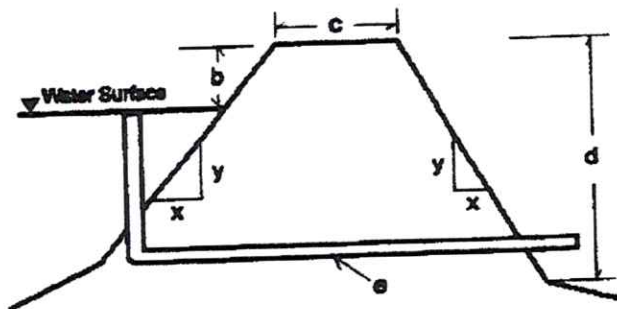
Upstream _____

Downstream _____

h) Area of Impoundment _____

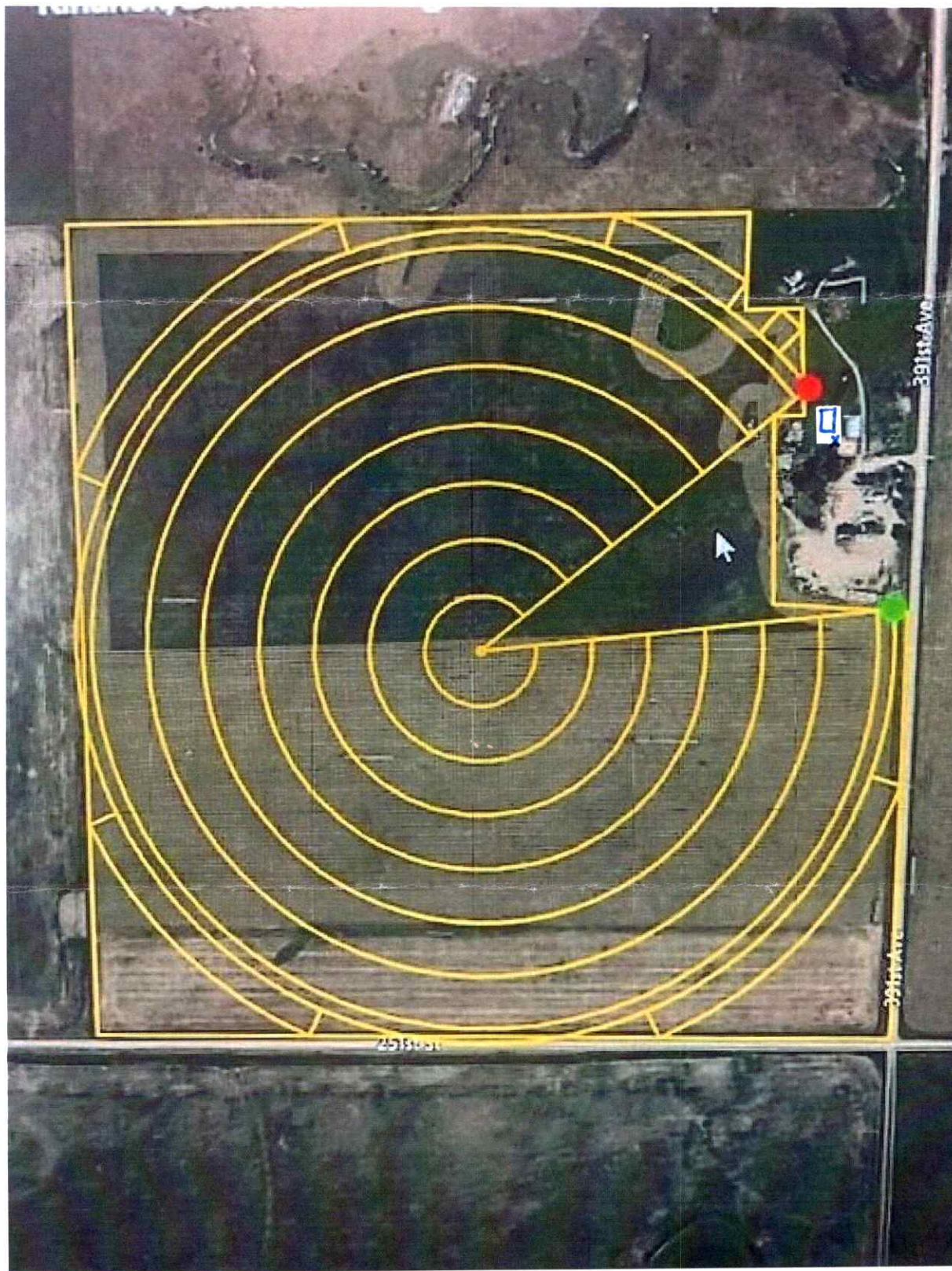
i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



SE ¼ Sec 4 T103N-R63W

120 acres



3:22



Measure distance

Drag the map and tap "Add point."



0.102 mi



Add point

Bottom Right dot indicates the location of the artesian well. Blue outline is the purposed location for dugout. Approx measurements: 150' wide, 200' long, 15' deep. (NE ¼ SE ¼ Sec 4, T103N, R63W)

Township: 103N 63W
Section: 04
QQ Sect: NENW

Township: 103N 63W
Section: 04
QQ Sect: NWNE

Township: 103N 63W
Section: 04
QQ Sect: NENE

Township: 103N 63W
Section: 03
QQ Sect: NWNW

Township: 103N 63W
Section: 04
QQ Sect: SENW

Township: 103N 63W
Section: 04
QQ Sect: SWNE

Township: 103N 63W
Section: 04
QQ Sect: SENE

Township: 103N 63W
Section: 03
QQ Sect: SWNW

Township: 103N 63W
Section: 04
QQ Sect: NESW

Township: 103N 63W
Section: 04
QQ Sect: NWSE

Township: 103N 63W
Section: 04
QQ Sect: NESE

Township: 103N 63W
Section: 03
QQ Sect: NWSW

Township: 103N 63W
Section: 04
QQ Sect: SESW

Township: 103N 63W
Section: 04
QQ Sect: SWSE

Township: 103N 63W
Section: 04
QQ Sect: SESE

Township: 103N 63W
Section: 03
QQ Sect: SWSW

Township: 103N 63W
Section: 09
QQ Sect: NENW

Township: 103N 63W
Section: 09
QQ Sect: NWNE

103N 63W
Section: 09

Township: 103N 63W
Section: 09
QQ Sect: NENE

Township: 103N 63W
Section: 10
QQ Sect: NWNW

103N 63W
Section: 10

10160011 Lower James

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date March 1, 2024

RECEIVED OF Greg/Evette Rihanek dba/Rihanek Farms 509 E 1st Street Plankinton SD 57368

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

Fee for Application for Permit No. <u>8842-3</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>8842-3</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 me

Dewell, Amanda

From: Greg Rihanek <Gregrihanek@hotmail.com>
Sent: Tuesday, April 30, 2024 8:29 PM
To: Dewell, Amanda
Subject: Re: [EXT] Permit Application

Yes, you have my permission. thanks, Greg.
Sent from my iPhone

On Apr 30, 2024, at 9:51 AM, Dewell, Amanda <Amanda.Dewell@state.sd.us> wrote:

Good morning Greg –

We've received a few calls from concerned neighbors that have found an error on the application. The application clearly indicated that water will be supplied by an existing well, however there is "1" in the space for new well rather than existing well, where it should have been placed. (see image below). I'd like your permission to adjust that and update the file.
<image002.png>

Amanda Dewell

DANR - Water Rights Program
Permitting Administrator
Main Phone: 605 773-3352
Website: danr.sd.gov
<image001.png>

Water Rights Program - File Documentation

NAME: Greg Rihanek

ADDRESS: 509 E 1st Street, Plankinton SD 57368

DATE: March 6, 2024

RE: Artesian well depth

COMMENTS:

I called Mr. Rihanek regarding the well depth for his water permit application. He said he spoke to relatives, and they all said they did not know. He said he had no idea what the depth was and that if he gave a number, it would be just a guess. Therefore, I told him I would document our conversation and add it to his water permit application file.

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
605 773-3352

rachel.rodriquez@state.sd.us

Rodriguez, Rachel

From: Evette Rihanek <rihanek@goldenwest.net>
Sent: Tuesday, March 5, 2024 12:19 PM
To: Rodriguez, Rachel
Cc: 'Greg Rihanek'
Subject: RE: [EXT] Water Permit Application for Irrigation
Attachments: Rihanek, Greg - DANR form for irrigation - 3.5.24.pdf

Hi Rachel – Attached is the form with those highlighted questions answered. If you need something else, please let us know.

Greg is available for questions if needed too – 605.999.1477.

Thanks!

Evette Rihanek
605.999.6830

From: Greg Rihanek <Gregrihanek@hotmail.com>
Sent: Monday, March 4, 2024 7:54 PM
To: Evette Rihanek <rihanek@goldenwest.net>
Subject: Fwd: Water Permit Application for Irrigation

Sent from my iPhone

Begin forwarded message:

From: "Rodriguez, Rachel" <Rachel.Rodriguez@state.sd.us>
Date: March 4, 2024 at 11:52:37 AM CST
To: Gregrihanek@hotmail.com
Subject: Water Permit Application for Irrigation

Good afternoon,

I am in receipt of your water permit application for irrigation. Everything looks good. However, we need the following questions answered to complete your application. Please see the attached document, I have highlighted in yellow the questions we need answered, if you do not know, it is okay to say unknown. You can email me the document which will be quicker or if your prefer, return via mail.

Once I receive your response, I will begin processing your application.

Thank you,

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

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 4, 2024 11:52 AM
To: gregrihanek@hotmail.com
Subject: Water Permit Application for Irrigation
Attachments: Rihanek.pdf

Good afternoon,

I am in receipt of your water permit application for irrigation. Everything looks good. However, we need the following questions answered to complete your application. Please see the attached document, I have highlighted in yellow the questions we need answered, if you do not know, it is okay to say unknown. You can email me the document which will be quicker or if your prefer, return via mail.

Once I receive your response, I will begin processing your application.

Thank you,

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



Rodriguez, Rachel

From: Dewell, Amanda
Sent: Thursday, January 25, 2024 11:11 AM
To: Rodriguez, Rachel
Subject: Fw: [EXT] groundwater source

Greg Rihanek will be submitting an irrigation application soon-ish. This email thread will need to go in the file. I will also keep an eye out.

Amanda Dewell
DANR - Water Rights Program
Main Phone: 605 773-3352
Website: danr.sd.gov



From: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Sent: Friday, January 19, 2024 1:58 PM
To: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Subject: FW: [EXT] groundwater source

So there is your answer in a lot of words. In short, we would call it the Dakota aquifer with the information available and because there is no other likely candidate.



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

From: Schulz, Layne <Layne.Schulz@usd.edu>
Sent: Friday, January 19, 2024 1:12 PM
To: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>; Dewell, Amanda <Amanda.Dewell@state.sd.us>
Cc: Kilts, Whitney (DENR) <Whitney.Kilts@state.sd.us>; Cowman, Tim <Tim.Cowman@usd.edu>
Subject: RE: [EXT] groundwater source

Hey Adam,

It is possible that the Fall River could be present in Aurora County, but it certainly would be thinning and pinching out against the Sioux Ridge. We have a few E-logs in the area that reach the Dakota and two of those have "granite" or Sioux Quartzite described as the bottom hole formation immediately below the Dakota. The E-log at the Fish Lake golf course is two miles south of the described location and has a total depth of 710 feet with the top of the Dakota roughly 610 feet below land surface. Two other E-logs for holes drilled at the Plankinton rest area along I 90 show the Dakota at approximately 688 feet below land surface and have the Sioux Quartzite at bottom hole around 800 feet from land surface. These logs lead me to believe that the Fall River is not likely present in the area and the well described below is probably completed in the Dakota Formation. Please let me know if you have any questions. Thanks

From: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Sent: Friday, January 19, 2024 11:01 AM
To: Schulz, Layne <Layne.Schulz@usd.edu>
Cc: Kilts, Whitney <whitney.kilts@state.sd.us>; Cowman, Tim <Tim.Cowman@usd.edu>; Dewell, Amanda <amanda.dewell@state.sd.us>
Subject: FW: groundwater source

We are trying to determine potential water source for a flowing well in the below described section. Looking at the well logs data base there are quite a few Dakota wells that were flowing at ground surface in the past, some of which have been constructed in the last 20 years. However, none seem to have the high flow rate as described below. Which we don't expect high flow rates with the decline of pressure in the Dakota aquifer.

This lead me to the question, is there a possibility of Inyan Kara formation in eastern Aurora County or are we far enough southeast that there was no deposition or not likely any deposition of the Inyan Kara?

If there is a chance Inyan Kara formation is present, this means the water permit applicant would have to provide additional information so we could determine aquifer. We would likely require them to try to asses closed in pressure of the well and water temperature. If the water is relatively warm, probably above 80F, and has a high closed in pressure, probably above 50 psi, it is would likely be the Inyan Kara, if present, instead of the Dakota aquifer.

Any input or thoughts would be appreciated.



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

From: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Sent: Tuesday, January 16, 2024 4:08 PM
To: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Subject: groundwater source

Adam –

I'm looking for help in naming the potential source of a free-flowing artesian well located in the NE ¼ SE ¼ - 4 – 103N – 63W, near farm buildings.

Greg Rihanek says the well has been free flowing for decades, creating its own creek bed. He hopes to use this very old well to fill a dugout, measuring 150'W X 200'L X 15'D, which he will then irrigate 120 ac (SE ¼ Sec 4) with. Bad news, no great information on well depth. Good news, he's confident he can get 600 gpm. Thoughts?

Amanda Dewell
DANR - Water Rights Program
Main Phone: 605 773-3352
Website: danr.sd.gov



**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. 8842-3, Greg & Evette Rihanek**

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. 8842-3, Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368.

The Chief Engineer is recommending APPROVAL of Application No. 8842-3 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. 8842-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must 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. Any future replacement well must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. A replacement well may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.
3. 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
April 16, 2024

Report to the Chief Engineer
On Water Permit Application No. 8842-3

Greg & Evette Rihanek

April 17, 2024

Water Permit Application No. 8842-3 proposes to divert water at a maximum instantaneous diversion rate of 1.45 cubic feet per second (cfs) from one well completed into the Dakota aquifer located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 4 for the irrigation of 120 acres located in the SE $\frac{1}{4}$ of Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. The site of interest is located in Aurora County approximately five miles northeast of Plankinton, SD.

AQUIFER: Dakota (DKOT)

HYDROGEOLOGY:

The Dakota Formation is defined as the first relatively continuous sandstone below the Greenhorn Limestone, and it extends downward to the top of the Skull Creek Shale in western and central South Dakota (Schoon, 1971). In eastern South Dakota, the Skull Creek Shale is not continuous and when absent, the Dakota Formation directly overlies Precambrian bedrock or the Inyan Kara Group (Schoon, 1971). In western South Dakota, a stratigraphically equivalent formation to the Dakota Formation is the Newcastle Formation, which outcrops in the Black Hills (Bredehoeft, et al., 1983). In South Dakota, the Dakota Formation has been subdivided into three units (Schoon, 1971). The upper unit consists of light brown to reddish-brown, fine to medium grained, friable sandstone, interbedded with gray to dark gray shale. Thin, discontinuous beds of lignite are present in the lower part of the upper unit. The middle unit consists of a gray silty clay with small siderite pellets disseminated throughout. The lower unit consists of medium to coarse grained sandstone (Schoon, 1971).

The Dakota aquifer is comprised of the saturated and permeable portions of the Dakota Formation and is primarily a confined bedrock aquifer throughout most of South Dakota (Schoon, 1971; Water Rights 2024b and 2024d). Schoon (1971) estimated the Dakota Formation underlies 66,500 square miles of South Dakota and has an average thickness of 150 feet. The amount of water stored in the Dakota aquifer can be estimated by assuming 15% porosity for the Dakota Formation (Schoon, 1971), multiplied by the average thickness (150 feet) and the areal extent (66,500 square miles or 42.5 million acres) of the aquifer to calculate approximately 960 million acre-feet of stored water in South Dakota. In Aurora and Jerauld Counties, the Dakota aquifer has an average thickness of approximately 250 feet (Hamilton, 1985).

No water well or test hole completion report was submitted with Water Permit Application No. 8842-3. Using geophysical log information, lithologic logs, and water levels from various aquifers shown in existing wells, South Dakota Geological Survey and Water Rights Program staff determined the existing well proposed to be used is likely completed into the Dakota aquifer (Mathiowetz and Schultz, 2024). Water well completion reports on file with the DANR-Water

Rights Program for wells completed into the Dakota aquifer within approximately three miles of the existing well site have saturated aquifer thicknesses ranging from approximately 40 to 140 feet, with the depth to the top of aquifer materials ranging from approximately 500 to 660 feet below the ground surface, and static water levels at well completion ranging from flowing to 20 feet below the ground surface (Water Rights, 2024d). The Dakota aquifer is expected to be confined at the existing well site based on the well completion reports on file for nearby wells completed into the aquifer, which is supported by the applicant indicating the existing well proposed to be used as flowing (Water Rights, 2024d).

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 Dakota aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8842-3 proposes to appropriate water from the Dakota 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 Dakota aquifer is older than and stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010); however, 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 Dakota aquifer must be considered.

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 DANR-Water Rights Program monitors 46 observation wells completed into the Dakota aquifer (Water Rights, 2024b). The five closest observation wells to the existing well

site are AU-89A (approximately 12 miles southwest), HD-87A (approximately 43 miles northwest), BL-83A (approximately 45 miles east), HT-80B (approximately 55 miles southeast), and GY-89A (approximately 60 miles southwest) (Water Rights, 2024b). The hydrographs for these observation wells are displayed in Figures 1 to 5 (Water Rights, 2024b). 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. Figure 7 displays a map of the locations of nearby observation wells (Water Rights, 2024b).

The hydrographs for the observation wells display stable to slightly downward trending water levels over their respective periods of record (Water Rights, 2024b). While the overall trend in the historic static water level measurements in the Dakota aquifer observation wells is generally slightly downward, observation wells HT-80B (approximately 55 miles southeast) and ED-85A (Figure 6) (approximately 115 miles northwest of the existing well site) completed into the Dakota aquifer have recorded a trend that has been stable to slightly increasing (Water Rights, 2024b). The last water level measurement in observation well HD-87A occurred in August 2019 due to current access issues caused by a dam washout (Water Rights, 2024b).

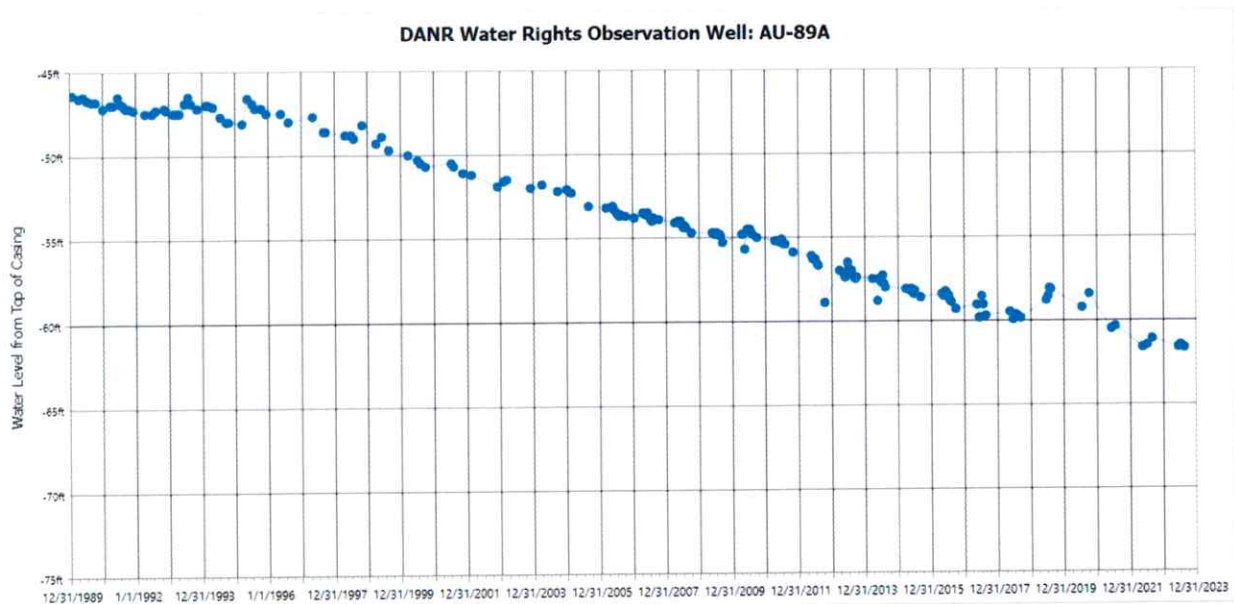


Figure 1. Hydrograph for observation well AU-89A (Water Rights, 2024b)

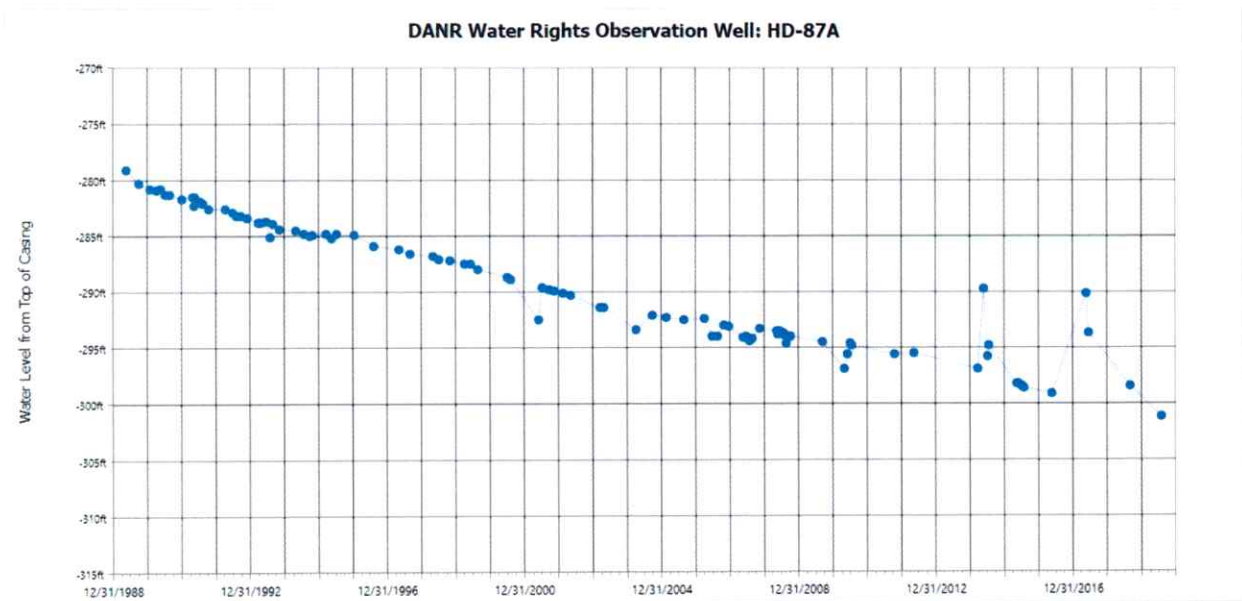


Figure 2. Hydrograph for observation well HD-87A (Water Rights, 2024b)

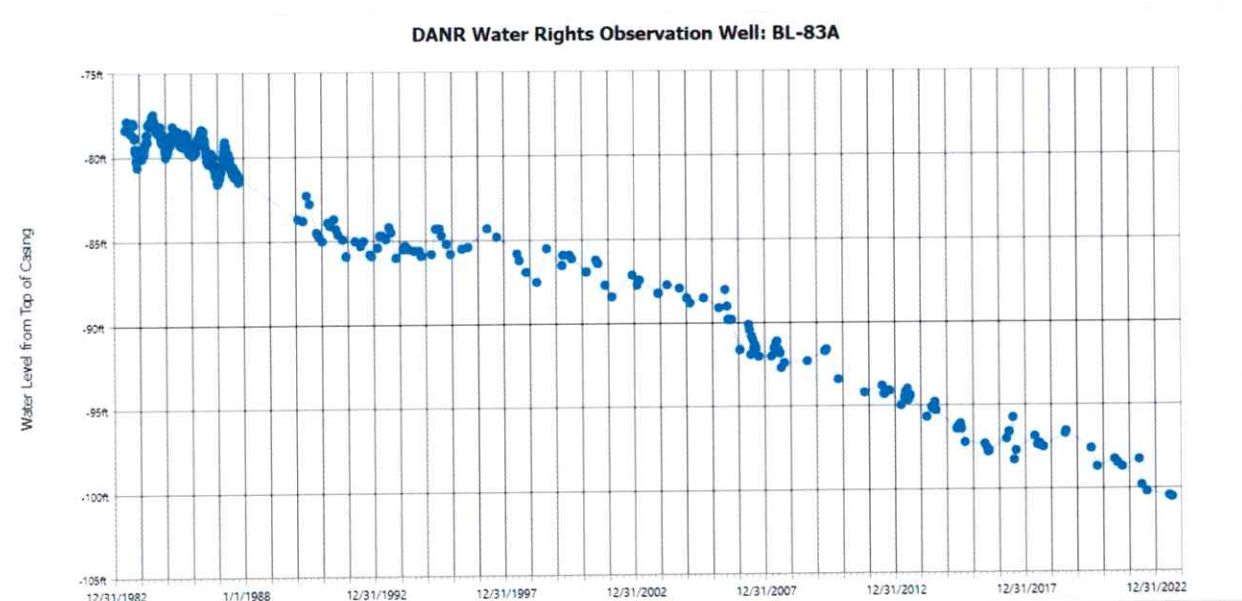


Figure 3. Hydrograph for observation well BL-83A (Water Rights, 2024b)

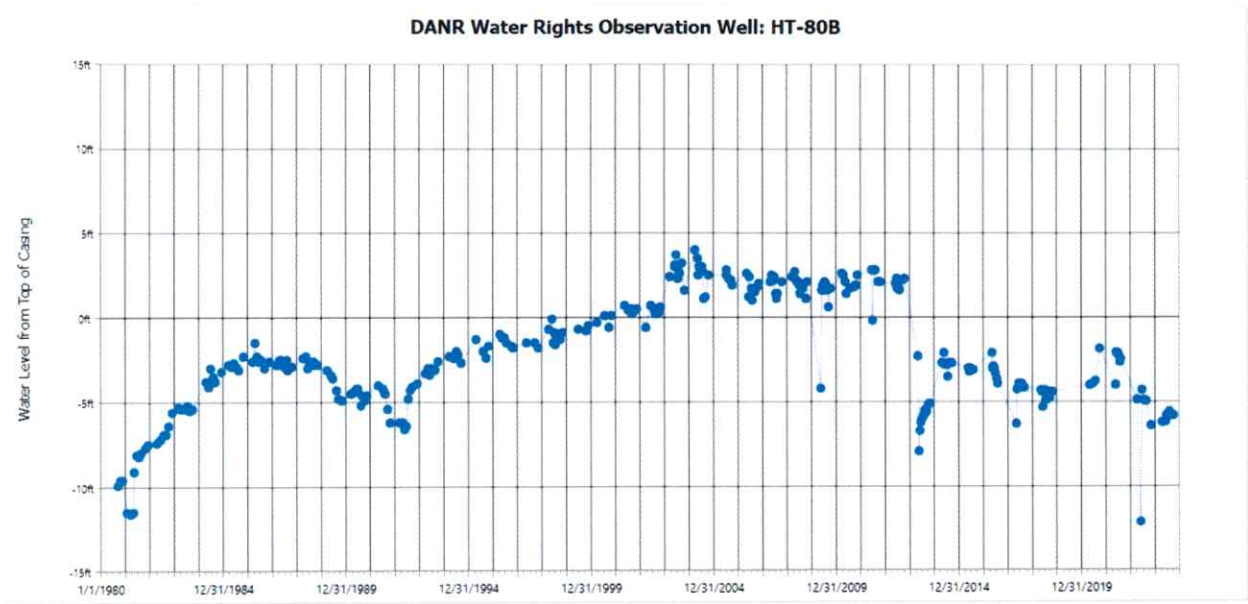


Figure 4. Hydrograph for observation well HT-80B (Water Rights, 2024b)

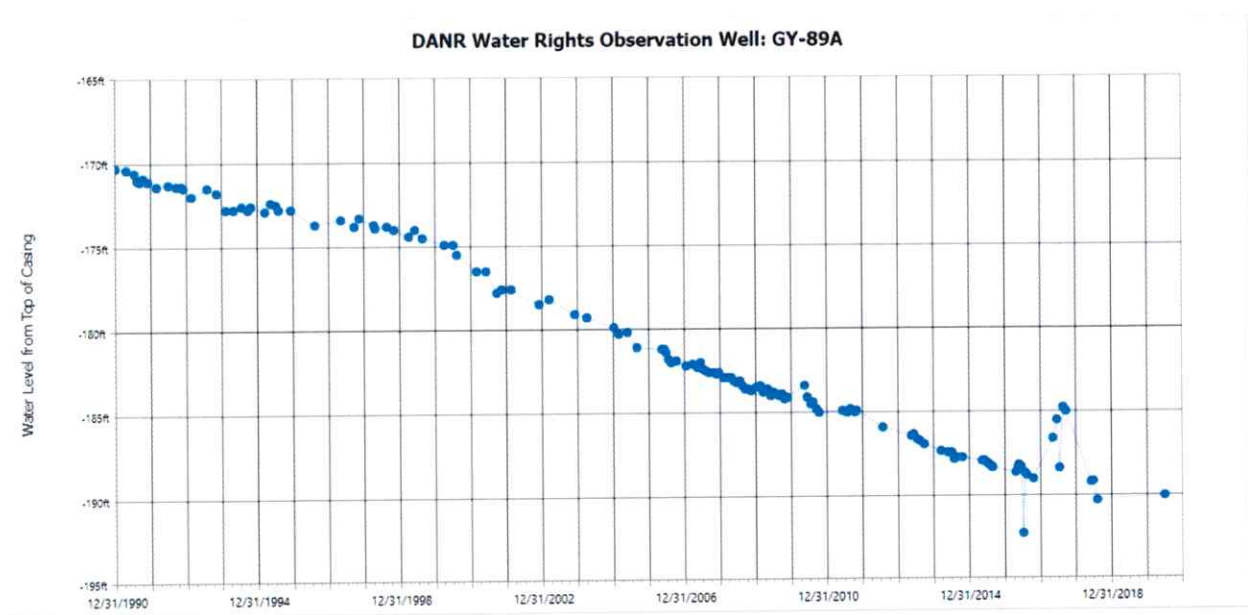


Figure 5. Hydrograph for observation well GY-89A (Water Rights, 2024b)

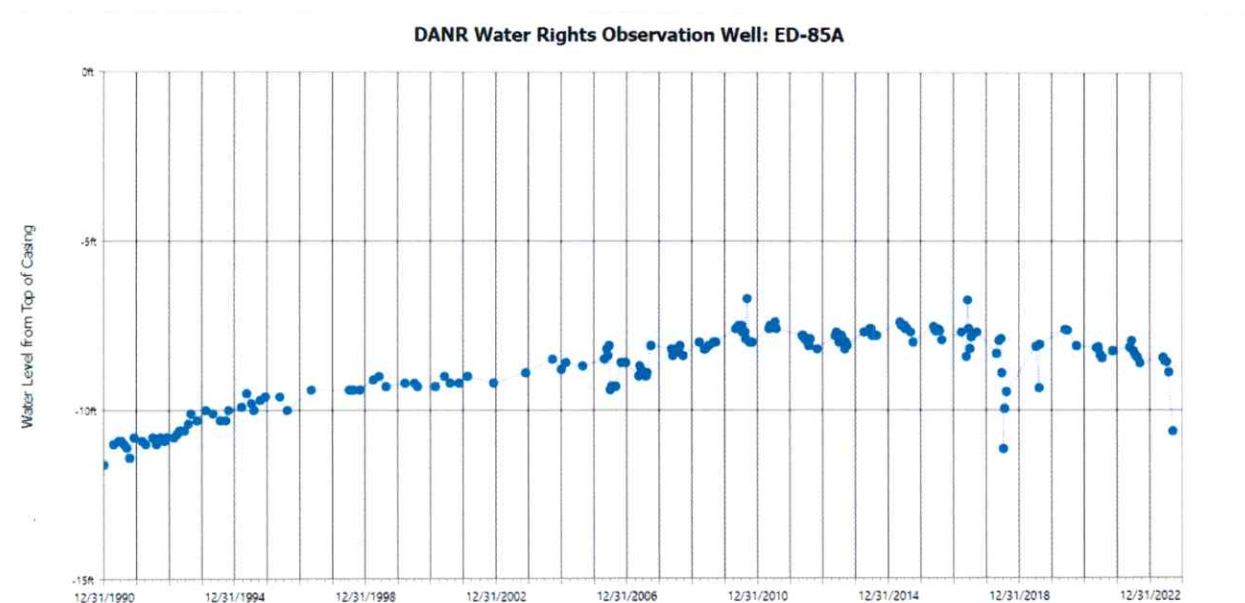


Figure 6. Hydrograph for observation well ED-85A (Water Rights, 2024b)

In addition to the observation well hydrographs, a record of the potentiometric surface is shown through historical accounts. Schoon (1971) developed maps of the potentiometric surface of the Dakota aquifer using data modified from Darton (1909), from the State Engineer's office for the period 1914 to 1915, and from a compilation of many reports over the period of 1936 to 1953. Wells that have been completed into the Dakota aquifer in roughly the past thirty years and within approximately five miles of the existing well site were used to approximate the current potentiometric surface conditions (Table 1) (Water Rights, 2024d).

Table 1. Historic and current approximate water level elevations near the existing well site (Schoon, 1971; Water Rights, 2024d)

Data Source	Year(s)	<i>Approximate</i> potentiometric surface in the vicinity of the existing well (fmsl)
Schoon (1971), after Darton	1909	1,500 to 1,550
Schoon (1971), State Engineer's Office	1914-1915	1,400 to 1,450
Schoon (1971)	1936-1953	1,400 to 1,450
Well Logs Database	2003 to Present	1,400 to 1,425

Throughout South Dakota, most of the hydrographs for observation wells completed into the Dakota aquifer, and the potentiometric surface measurements of the Dakota aquifer show a decreasing trend in hydraulic head (Water Rights, 2024b). A decline in water levels in a confined aquifer does not necessarily indicate a significant decrease in water stored in the aquifer, as water levels above the top of the aquifer materials are representative of the hydraulic head (water pressure) inside the aquifer. Additionally, there are uncontrolled, flowing wells discharging water from the Dakota aquifer at ground surface, and it is expected water from the aquifer is also being discharged to other aquifers if wells completed into the Dakota aquifer have experienced casing failure.

Concerns have developed over time about the decline in artesian head pressure of the Dakota aquifer. Schoon (1971) stated, “The fact that withdrawal from the artesian system exceeds recharge is clearly demonstrated by declining pressures.” However, the Water Management Board has found that past declines of the potentiometric surface (as shown on Table 1) do not automatically constitute that withdrawals have exceeded recharge (Water Rights, 1987). The Board has concluded that withdrawals exceeding the average annual recharge cannot be determined based solely upon a decline in head pressure, and in theory the Dakota aquifer head pressure is stabilizing relative to withdrawals and discharges (Water Rights, 1987). Since discharge from uncontrolled flowing wells is likely to continue until water levels in the aquifer decline to being at or below the ground surface and continuing to allow beneficial pumping to occur reduces the amount of water being discharged to waste, the Water Management Board’s decision to optimize development of the Dakota aquifer is favorable to issuance of permits to appropriate water for beneficial uses. Therefore, there is a reasonable probability unappropriated water from the Dakota aquifer is available for the proposed appropriation.

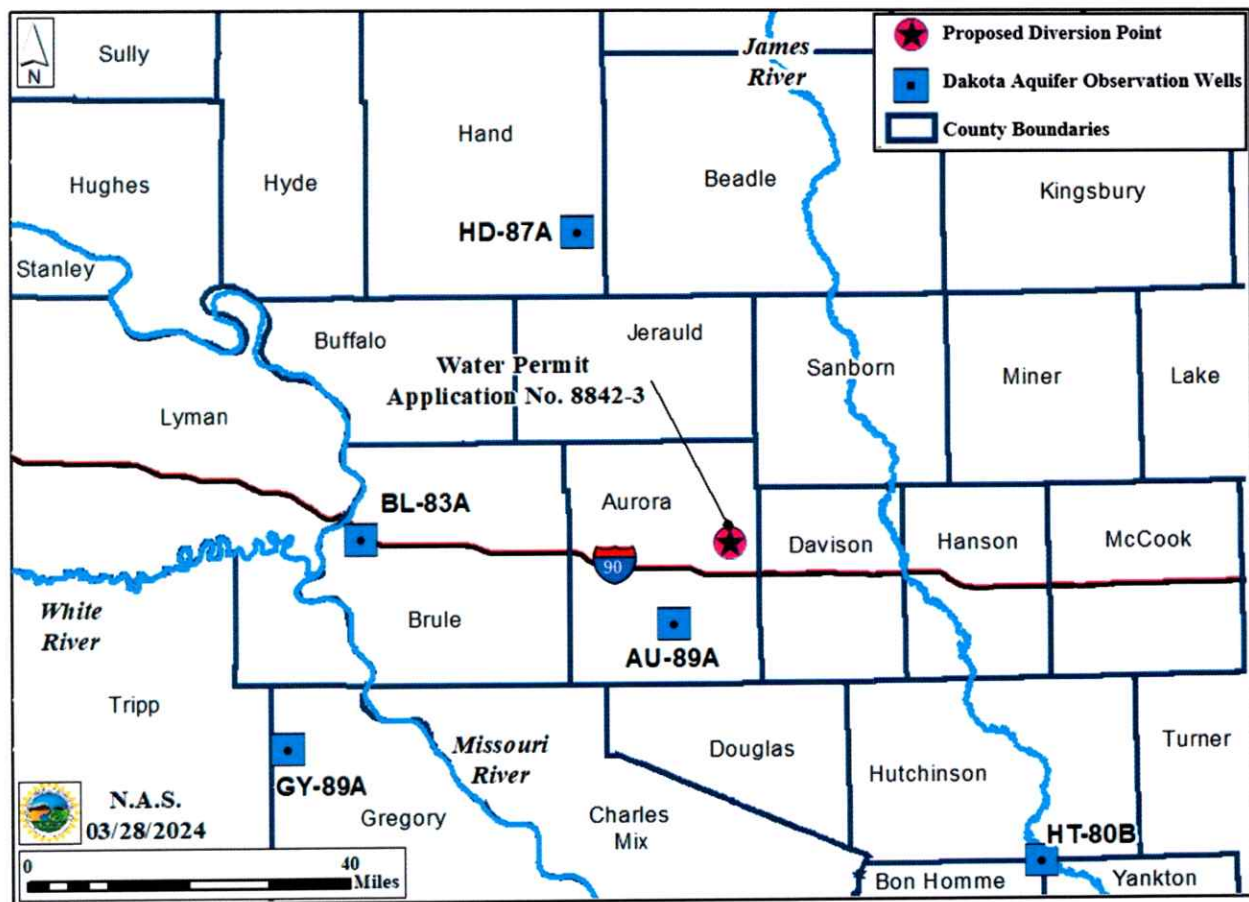


Figure 7. Location of the existing well site for Water Permit Application No. 8842-3 with the Dakota aquifer observation wells within approximately 60 miles (Water Rights, 2024b)

HYDROLOGIC BUDGET:

Recharge

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers with higher artesian pressure than the Dakota aquifer, downward seepage from overlying confining layers, and through the infiltration of precipitation on the Newcastle Formation outcrops in the Black Hills (Bredehoeft, et al., 1983; Water Rights, 2024b). Using computer modeling, Bredehoeft, et al. (1983) attempted to match Darton's (1909) potentiometric surface map of the Dakota aquifer to develop a recharge estimate of approximately 79.4 cfs (57,500 acre-feet per year) before well development began. However, many assumptions used in Bredehoeft, et al.'s (1983) recharge estimate were incorrect and outdated. For example, assuming steady-state flow conditions between aquifers is unrealistic of real-world conditions and the recharge estimates used for the Madison and Inyan Kara aquifers in Bredehoeft, et al.'s (1983) analysis are much lower than estimates measured by more recent research (Carter, et al., 2002). While Bredehoeft, et al.'s (1983) estimate can provide a scale of the Dakota aquifer's recharge rate, it cannot be used as an exact value for water management purposes. As the physical properties of aquifers and the locations where adjacent aquifers are in contact with each other are relatively undefined among many other factors, it is unknown whether the true recharge rate of the Dakota aquifer is higher or lower than Bredehoeft et al.'s (1983) estimate.

Discharge

Discharge from the Dakota aquifer in South Dakota occurs through well withdrawals, uncontrolled flowing wells and outflow through corroded well casings, and outflow to overlying adjacent aquifers because of higher artesian pressure in the Dakota aquifer (Bredehoeft, et al., 1983; Water Rights, 2024b and 2024d).

Currently, there are 261 water rights/permits appropriating water from the Dakota aquifer within South Dakota, plus one pending application - Water Permit Application No. 8828-3 requesting to irrigate 352 acres in Clay County (Water Rights, 2024c). Additionally, there are seven future use permits reserving water from the Dakota aquifer (Water Rights, 2024c). For the purpose of estimating average annual withdrawals, the seven future use permits are assumed to be fully developable for a total of 4,287 acre-feet per year (Table 2).

Table 2. Future use permits reserving water from the Dakota aquifer (Water Rights, 2024c)

Future Use Permit Holder	Amount of Reserved Water (acre-ft)
City of Canton (1262C-3, 5219-3)	1,849
City of Lennox (5101-3, 5101A-3)	0*
South Lincoln RWS (4817-3)	1,448
Lincoln RWS (5155-3)	440
City of Harrisburg (8400-3)	550
Total:	4,287
RWS: Rural Water System, *The City of Lennox has allocated the water they had reserved	

Of the 261 Dakota aquifer water rights/permits, 21 are for irrigation use and 240 are for non-irrigation use (Water Rights, 2024c). Table 3 summarizes the 240 non-irrigation water rights/permits authorized to appropriate water from the Dakota aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The use type determined for each water right/permit was based on the primary use categorized for each water right/permit as some permits have additional uses (Water Rights, 2024c). Historically, average water use by non-irrigation appropriations limited by an instantaneous diversion rate have been assumed to be pumping 60% of full time at the respective permitted diversion rate. Water rights/permits limited by an annual volume are assumed to withdraw their entire respective annual volume limitation. This is a standard method used by the DANR-Water Rights Program for estimating annual withdrawals by non-irrigation appropriations from an aquifer (Water Rights, 2024c).

Several non-irrigation water rights/permits on Table 3 are authorized to withdraw from one or more aquifers, including the Dakota aquifer. For the purpose of estimating average annual withdrawals, the non-irrigation water rights/permits that have a specified volume out of their entire appropriated volume that is authorized only for their Dakota aquifer well(s) are assumed to withdraw their full specified volume permitted only for their Dakota aquifer well(s). The remaining non-irrigation water rights/permits that do not have a certain diversion rate or volume designated for what each well from each aquifer is authorized to divert are assumed to be withdrawing their entire appropriated volume from the Dakota aquifer.

Additionally, there are municipal water rights/permits that are authorized to appropriate water from the Dakota aquifer that are identified as being connected to a rural water system (RWS) and likely maintain their wells for standby purposes (Drinking Water Program, 2024; Water Rights, 2024c); as such, the average annual water use for these water rights has been estimated to be zero acre-feet per year on Table 3. Overall, the average annual withdrawal rate for the Dakota aquifer non-irrigation water rights/permits is approximately 22,459 acre-feet per year (Table 3) (Water Rights, 2024c).

Table 3. Summary of the non-irrigation water rights/permits authorized to appropriate from the Dakota aquifer with estimated annual use determined by their respective diversion rate or annual volume (Drinking Water Program, 2024; Water Rights, 2024c)

Use Type	No. of Water Rights/Permits	Appropriation for Water Rights/Permits limited by Volume (acre-feet/year)	Appropriation for Water Rights/Permits limited by Diversion Rate (cfs)	Total Estimated Use (acre-feet/year)
RWS	6	2,005	2.2	2,961
SHD	7		3.33	1,447
REC	3	3.1	0.45	199
COM	109	2,032	11.48	7,020
DOM	11		1.753	762
FWP	4		2.73	1,187
GEO	2		2.33	1,013
INS	2		1.34	582
IND	7	167	0.84	534
MUN	89	3,274	8.01	6,755
TOTAL:	240	7,481	34.46	22,459
RWS: Rural Water System, SHD: Suburban Housing Development, REC: Recreation,				
COM: Commercial, DOM: Domestic, FWP: Fish & Wildlife Propagation, GEO: Geothermal,				
INS: Institutional, IND: Industrial, MUN: Municipal				

As development of the Dakota aquifer has increased over time, some of the appropriations have been made by rural water systems that are required to report their annual withdrawal rate (Water Rights, 2024c). The withdrawals that are annually reported from the Dakota aquifer by some appropriative users (South Lincoln RWS, Clay RWS, and Lincoln County RWS) are shown in Table 4 (Water Rights, 2024c and 2024f). The reported withdrawals by the RWS users listed on Table 4 are for comparison purposes only to show historically the average annual use has been less than the volume that is estimated on Table 3 (Water Rights, 2024c and 2024f). The reported annual withdrawal rate for two water rights/permits authorized for commercial and domestic use was also included on Table 4. The estimated use calculated on Table 3 for the water rights/permits that are required to report will be used in the analysis.

Table 4. Non-irrigation rural water system water rights/permits required to report their respective annual use from the Dakota aquifer (Water Rights, 2024c and 2024f)

	South Lincoln RWS	Clay RWS	Lincoln County RWS	Lakeview Hutterian Brethren	Michael J. Slama
	5647-3, 6300-3, 6490-3, 6778A-3	5997B-3	5156-3	8464-3	8252-3
2003	725				
2004	904				
2005	769				
2006	863	72			
2007	860	126			
2008	863	124	0		
2009	773	119	0		
2010	775	122	0		
2011	785	116	0		
2012	865	186	0		
2013	765	155	0		
2014	739	148	0		
2015	711.5	141	0		
2016	640	163	0		
2017	643	201	0		
2018	503	170	0		
2019	562	162	0		
2020	530	197	0		19.3
2021	588	194.7	0	40	19.3
2022	969	215	0	23.6	19.3
Max	969	215	0	40	19.3
Min	503	72	0	23.6	19.3
Avg	742	154	0	32	19.3
RWS: Rural Water System					

Currently, there are 21 irrigation water rights/permits authorized to appropriate water from the Dakota aquifer, plus one pending irrigation application (Water Rights, 2024c). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire (IQ) since 1979. The estimated average annual withdrawal rate for the Dakota aquifer irrigation water rights/permits that have reported over the period of record (1979 to 2022) is approximately 159 acre-feet per year (Water Rights, 2024a). To reflect the current development of irrigation water rights/permits more accurately, the average annual withdrawal rate for irrigation appropriations that have reported from 2013 to 2022 is approximately 233 acre-feet per year (Water Rights, 2024a).

Table 5 displays the average annual withdrawal rate for each irrigation water right/permit based on the reported annual values, with estimated use calculated for water permits that have either not been constructed or only have one year of reporting data. Several of the irrigation water rights/permits from the Dakota aquifer are authorized to irrigate using other water sources in addition to the Dakota aquifer, and the reported withdrawal rate represents total irrigation across all water sources (Water Rights, 2024a and 2024c). The estimated use calculated on Table 5 will be used in this analysis.

Water Right No. 394-3 is not required to submit an irrigation questionnaire and is authorized to irrigate 3.2 acres (Water Rights, 2024c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for the fluctuation in wet and dry cycles from year to year, a one foot of water per acre per year application rate will be used to estimate the annual withdrawal rate for this irrigation water right. Therefore, Water Right No. 394-3 is estimated to withdraw approximately 3.2 acre-feet per year (shown on Table 5) (Water Rights, 2024c).

Additionally, Water Permit Nos. 8423-3, 8510-3, 8560-3, 8727-3, and 8781-3 are authorized to irrigate 192.5 acres of turf and are limited to an annual appropriation that may not exceed two-acre feet annually for each acre of land authorized to be irrigated (Water Rights, 2024c). These water permits have either not been constructed or only have one year of reporting data (Water Rights, 2024a and 2024c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year (Water Rights, 2024a). However, because these permit holders are authorized to irrigate turf, the two foot of water per acre per year application rate will be used to somewhat overestimate the annual withdrawal rate. Therefore, the average annual withdrawal rate for Water Permit Nos. 8423-3, 8510-3, 8560-3, 8727-3, and 8781-3 is approximately 385 acre-feet per year (shown on Table 5).

Water Permit Application No. 8828-3 proposes to crop irrigate 352 acres authorized by Water Permit No. 8043-3. Water Permit No. 8043-3 is subject to cancellation due to non-construction. At this time, Water Permit No. 8043-3 is active and will be included in this analysis (Water Rights, 2024c). The one foot of water per acre per year application rate will be used to estimate the withdrawal rate for the crop irrigation requested by Water Permit Application No. 8828-3 on Table 5.

Overall, the average annual withdrawal rate for the Dakota aquifer irrigation water rights/permits based on the reported annual values (280.8 acre-feet/year) (unless not required to submit IQ or still within construction period (1,132.1 acre-feet/year)) is approximately 1,412.9 acre-feet per year (Table 5) (Water Rights, 2024a and 2024c).

Table 5. Average reported withdrawal rate by the irrigation water rights/permits from the Dakota aquifer (Water Rights, 2024a and 2024c)

Permit No.	Status	Name	Priority Date	Acres	Avg Reported Use (acre-feet/year)	Est. Use for Non- Developed, Non-Reporting, or Limited Data Permits (acre-feet/year)	Comments/Total Estimated Use (acre-feet/year)
1054-3	LC	Rolling Hills Golf Development	01/01/1951	43.84	30.9	N/A	also uses water from surface water
394-3	LC	Kory Standy	01/01/1912	3.2	Does not report	3.2	also for domestic use
4769-3	LC	James Leheska	06/01/1981	130	23.5	N/A	last irrigated in 1993
5703-3	LC	Charles A Long	07/20/1992	2	0.5	N/A	
2328-2	LC	Michael Kirwan	02/21/1995	31	2.6	N/A	last irrigated in 2008
5905-3	LC	City of Groton	12/14/1995	30	66.9	N/A	also permits water from surface water- total water use across all sources
5947-3	LC	Fish Lake Country Club	09/23/1974	33	17.2	N/A	also permits water from surface water- total water use across all sources
5994-3	LC	Robert L Peterson	04/17/1997	3	6.2	N/A	
6110-3	LC	Dakota Dunes Community Improvement District	10/06/1998	11	49.8	N/A	
6527-3	LC	City of Beresford	07/22/2004	37	23.2	N/A	
6575-3	LC	Dakota Alliance Soccer Club	01/19/2005	15	6.2	N/A	
6734-3	LC	Avera Sacred Heart Health Services	06/14/2006	11.9	5.6	N/A	
7123-3	LC	Harrisburg School District	04/02/2009	30	7.7	N/A	
2566A-2	LC	Chamberlain Country Club	08/29/2005	63	9.6	N/A	
7916-3	PE	John H Thompson	10/18/2013	150	30.9	N/A	
8043-3	PE	Robert P Walsh	08/27/2014	391.9	limited data	391.9	subject to cancellation due to non-construction since the well was completed in 2021 after expiration of the construction period
8423-3	PE	City of Platte	02/10/2020	42	not constructed	84	not constructed-turf irrigation
8510-3	PE	TR Golf LLC	03/26/2021	30	limited data	60	turf irrigation- 143.3 acre-ft reported in 2022 for 8510-3
8560-3	PE	TR Golf LLC	10/25/2021	65	limited data	130	
8727-3	PE	TR Golf LLC	02/27/2023	10	not yet reporting	20	turf irrigation
8781-3	PE	City of Harrisburg	07/21/2023	45.5	not constructed	91	turf irrigation
8828-3	pending	Robert P Walsh	02/01/2024	352	not constructed	352	Water Permit No. 8043-3 subject to cancellation
LC: Licensed Water Right, PE: Water Permit			TOTAL:	1,530	280.8	1,132.1	1,412.9

There are domestic wells completed into the Dakota aquifer that do not require a water right/permit, so the withdrawal amount for domestic use is unknown (Water Rights, 2024d). Since the introduction of rural water systems, many domestic wells are likely no longer in use or are not being used as primary water sources. Due to their relatively low diversion rates and the availability of rural water, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget for the Dakota aquifer. It is currently unknown how much water is being discharged from the Dakota aquifer through uncontrolled flowing wells. The Water Management Board has previously determined water being discharged through uncontrolled flowing wells is not a beneficial use and does not constitute appropriation pursuant to SDCL 46-6-3.1 (Water Rights, 1987).

Hydrologic Budget Summary

The estimated average annual recharge to the Dakota aquifer has not been accurately quantified. Bredehoeft et al. (1983) estimated a recharge rate of approximately 57,500 acre-feet per year, but several factors make it uncertain if that is a high or low estimate. The estimated average annual withdrawal rate from the Dakota aquifer is approximately 28,279 acre-feet per year (including the estimated use for Water Permit Application No. 8828-3 (pending) and 8842-3, if approved) (including Water Permit No. 8043-3 (subject to cancellation) (Table 6). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Dakota aquifer for the proposed appropriation.

Table 6. Estimated use from Dakota aquifer, including Water Permit No. 8043-3 (subject to cancellation) (Water Rights, 2024a and 2024c)

Type of Water Right/Permit	Estimated Use (acre-feet/year)
Future Use Reservations	4,287
Non-Irrigation	22,459
Irrigation (<i>Water Permit No. 8043-3 subject to cancellation</i>) (including pending Water Permit App No. 8828-3)	1,412.9
Application No. 8842-3 (if approved, assuming one acre-foot, per acre, annually, crop irrigation)	120
TOTAL:	28,279

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 261 water rights/permits appropriating water from the Dakota aquifer within South Dakota, plus one pending application (Water Rights, 2024c). The closest water right/permit to the existing well site is Water Right No. 5947-3, which is held by Fish Lake Country Club. The diversion point for Water Right No. 5947-3 is located approximately 2.3 miles southwest of the existing well site for this application (Figure 8) (Table 7) (Water Rights, 2024c).

There are domestic wells on file with the DANR-Water Rights Program that are completed into the Dakota aquifer, with the closest domestic well on file (not held by the applicant) located approximately 3.2 miles north of the existing well site (Water Rights, 2024d). There could potentially be other domestic wells completed into the Dakota aquifer near the well the applicant proposes to use that are not on file with the DANR-Water Rights Program. The location of the domestic wells in the well completion report database maintained by the Water Rights Program is based on the location listed by the driller on the well completion report.

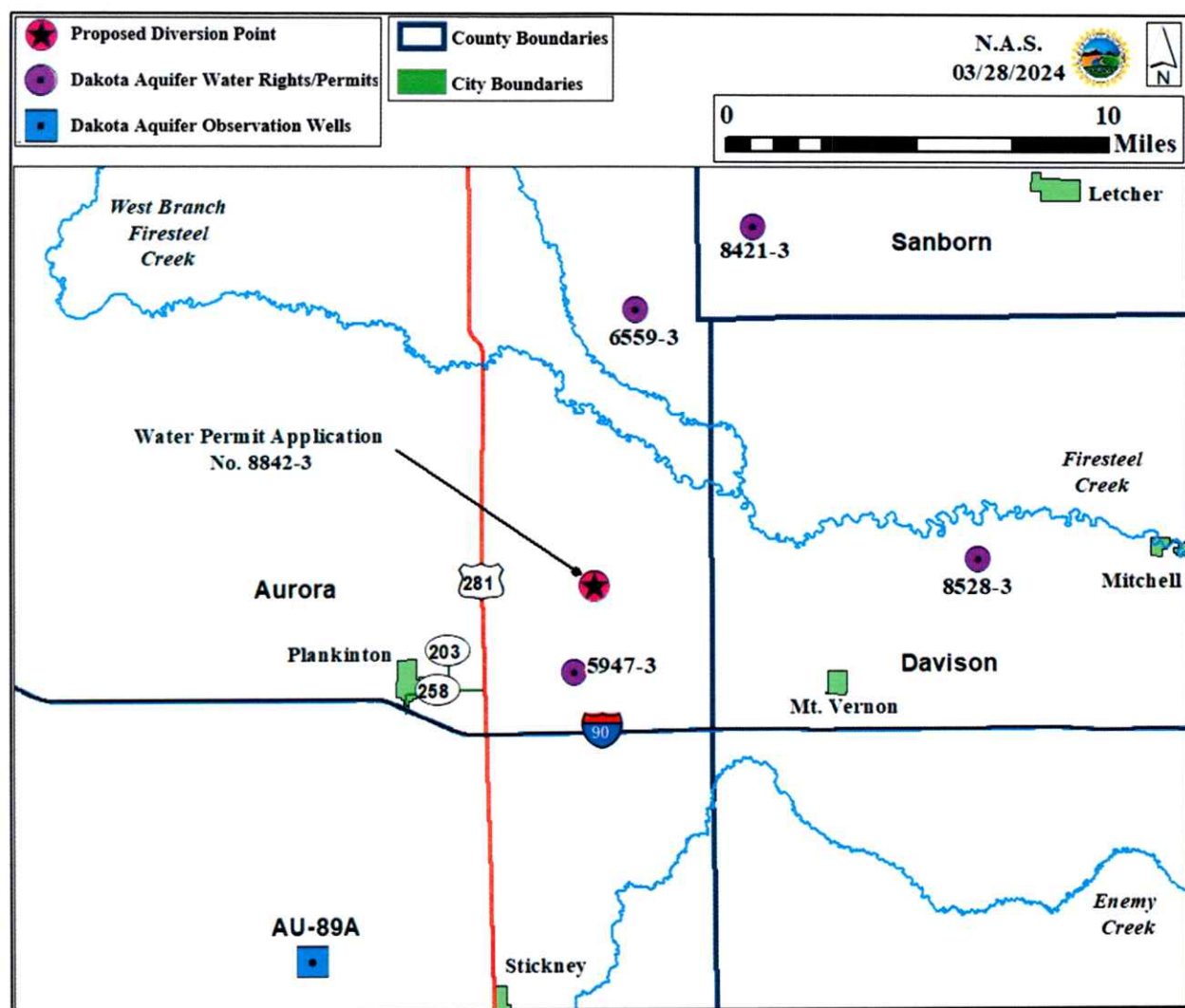


Figure 8. Location of the existing well site for Water Permit Application No. 8842-3, with the Dakota aquifer water rights/permits and observation wells within approximately fifteen miles (Water Rights, 2024b and 2024c)

Table 7. Water rights/permits authorized to withdraw water from the Dakota aquifer within approximately fifteen miles of the existing well site, as shown in Figure 8 (Water Rights, 2024c)

Permit No.	Name	Status	Use	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet/year)	Acres if IRR
5947-3	Fish Lake Country Club	LC	IRR	0.24		33
6559-3	Dwight Scott	LC	COM, LCO	0.1		
8421-3	Albert J Selland & Sons Feedlot	PE	COM, LCO	0.48	78.5	
8528-3	Bluestem Family Farms LLC	PE	COM, LCO	0.223	130	

LC: Licensed Water Right; PE: Water Permit; COM: Commercial; IRR: Irrigation; LCO: Livestock Confinement Operation

The Dakota aquifer is expected to be confined at the existing well site based on the well completion reports on file for nearby wells completed into the aquifer (Water Rights, 2024d). Since the Dakota aquifer is expected to be confined at the existing well site, drawdown can extend some distance but the exact drawdown behavior of a well cannot be known without an aquifer performance test. However, observation wells completed into the Dakota aquifer near permitted/licensed diversion points can provide some insight on how the aquifer responds to pumping.

Observation well AU-89A (approximately 12 miles southwest of the existing well site) has two high-yield wells (assumed to be a well with an authorized diversion rate greater than 0.2 cfs) within approximately twenty miles of it (Water Rights, 2024b and 2024c). The lithologic log on file for AU-89A noted the well was drilled 780 feet deep below the ground surface, had a casing stick up height of approximately zero feet, and the top of aquifer materials approximately 744 feet below the ground surface (SDGS, 2024). The lowest recorded static water level on the hydrograph (displayed in Figure 1) is approximately 62 feet below the top of the well casing, which indicates there was still approximately 680 feet of artesian head pressure in AU-89A even during drier periods when high-yield wells are expected to be pumping more water and when water levels are generally naturally lower in response to drier conditions (SDGS, 2024; Water Rights, 2024b).

Within approximately three miles of the existing well site, the Dakota aquifer has a saturated aquifer thickness ranging from approximately 40 to 140 feet (Water Rights, 2024d). 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 Aurora County, there are no substantiated complaints on file with the DANR-Water Rights Program regarding well interference for adequate wells completed into the Dakota aquifer (Water Rights, 2024e).

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 Dakota 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 thickness of the Dakota aquifer in Aurora County, the artesian head pressure in observation wells and appropriative user’s wells completed into the Dakota aquifer near the existing well site, and the lack of substantiated well interference complaints from the Dakota aquifer in the area, 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. Water delivery by means of artesian head pressure creating free flowing conditions without use of a pump is not guaranteed and not necessarily protected under SDCL and ARSD.

Special Consideration: Well Construction

It is unknown if the existing well meets the adequate well construction standards as defined in ARSD 74:02:04:20.

An adequate well has been defined in ARSD 74:02:04:20(6) as:

“A well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet.”

The alternative well construction requirements for certain Dakota aquifer wells (74:02:04:35) are not permitted for appropriative uses. Any future replacement wells shall meet the adequate well construction standard as defined in ARSD 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

CONCLUSIONS:

1. Water Permit Application No. 8842-3 proposes to divert water at a maximum instantaneous diversion rate of 1.45 cfs from one well completed into the Dakota aquifer for the irrigation of 120 acres. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. The site of interest is located in Aurora County approximately five miles northeast of Plankinton, SD.

2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Dakota aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8842-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.

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

References

- Bredehoeft, J.D., Neuzil, C.E., and Milly, P.C., 1983. Regional Flow in the Dakota Aquifer: A Study of the Role of Confining Layers. Alexandria, Virginia: U.S. Geological Survey, 1983. Water-Supply Paper 2237.
- Carter, J.M., Driscoll, D.G., Williamson, J.E., and Lindquist, V.A., 2002. Atlas of Water Resources in the Black Hills area, South Dakota. Rapid City South Dakota: U.S. Geological Survey, 2002. Hydrologic Investigations Atlas HA-747.
- Darton, N.H., 1909. Geology and Underground Waters of South Dakota. Water Supply Paper 227. U.S. Geological Survey, Washington D.C.
- Drinking Water Program, 2024. Drinking Water System Information. SD DANR – Drinking Water Program Online Database. Accessed April 2, 2024.
<<http://danr.sd.gov/des/dw/sysinfomap.aspx>>
- Fahrenbach, M.D., Steece, F.V., Sawyer, J.F., McCormick, K.A., McGillivray, G.L., Schulz, L.D., and Redden, J.A., 2010. South Dakota Stratigraphic Correlation Chart. Oil and Gas Investigations 3. SD DANR-Geological Survey, Vermillion, SD.
- Hamilton, L.J., 1985. Geology and Water Resources of Aurora and Jerauld Counties, South Dakota. Water-Resources Investigation Report 84-4030. United States Geological Survey. Huron, SD.
- Mathiowetz, A.W., and Schulz, L. 2024. Email Communication. South Dakota Geological Survey and SD DANR-Water Rights Program. Pierre, SD. Vermillion, SD.

Schoon, R.A., 1971. Geology and Hydrogeology of the Dakota Formation in South Dakota. South Dakota Geological Survey Report of Investigations No. 104. Vermillion, SD.

SDGS, 2024. South Dakota Geological Survey Lithologic Logs Database. Accessed April 2, 2024. <http://cf.sddanr.net/lithdb/>.

Water Rights, 1987. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 5136-3, Farmland Industries Inc of Huron, SD. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.

Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.

Water Rights, 2024a. "1979-2022 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights, 2024b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2024c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2024d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2024e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2024f. "2003-2022 Non-Irrigation Yearly Reports", SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, April 17, 2024 2:24 PM
To: Ruby Crandall
Subject: 8842-3 Greg & Evette Rihanek - Public Notice
Attachments: 8842-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on April 24, 2024.

Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368, 605-942-7131 or 605-999-1477 have 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 Ave, 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



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, April 17, 2024 2:21 PM
To: 'sdmail@siouxvalley.net'
Subject: 8842-3 Greg & Evette Rihanek - Public Notice
Attachments: 8842-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on April 25, 2024.

Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368, 605-942-7131 or 605-999-1477 have 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 Ave, 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





**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.**

April 18, 2024

Greg & Evette Rihanek
509 E 1st Street
Plankinton SD 57368

Dear Mr. & Mrs. Rihanek:

Water Permit Application No. 8842-3 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 South Dakota Mail printed in Plankinton SD (Ph # 605 942-7770) and the Plainsman printed in Huron SD (Ph # 605 353-7414). 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 April 24 or 25, 2024. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 8842-3 to Appropriate Water

Notice is given that Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368 has filed an application for a water permit to appropriate 1.45 cubic feet of water per second from one well completed into the Dakota Aquifer (depth unknown) located in the NE 1/4 SE 1/4 Section 4 for irrigation of 120 acres located in the SE 1/4 Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. This site is located approximately 5 miles northeast of Plankinton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8842-3 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 application, 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 this application or recommendation shall allege that the application, 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 application 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 application 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 recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by May 6, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by May 6, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Published once at the total approximate cost of_

Proof Of Publication

Huron Plainsman
49 3rd Street SE
Huron, SD 57350
605-353-7402
Legal Notice Number: 2558

I, Kim Davis, being duly sworn on oath say that the Plainsman is a daily paper published at Huron, Beadle County South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am a Legal Advertising Coordinator of said newspaper and know that facts herein state. The annexed notice headed: Greg Rihanek – Notice of Application was published for one day, in said newspaper and not in any supplement of the said newspaper; the publication was on 04/24/2024. That the full amount of the fee charged for the \$44.85 of Public Hearings to the benefit of the publisher of said newspaper; that no agreement or 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 whom so ever.

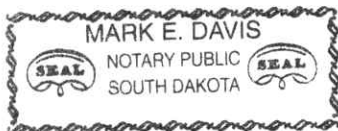


Subscribed and sworn to me before this date 4/29/24.



Notary Public, South Dakota

My Term Expires 12/27/2024



RECEIVED

MAY 03 2024

OFFICE OF
WATER

F. P. 04-24-24

**NOTICE OF
APPLICATION
NO. 8842-3 to**

Appropriate Water

Notice is given that Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368 has filed an application for a water permit to appropriate 1.45 cubic feet of water per second from one well completed into the Dakota Aquifer (depth unknown) located in the NE 1/4 SE 1/4 Section 4 for irrigation of 120 acres located in the SE 1/4 Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. This site is located approximately 5 miles northeast of Plankinton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8842-3 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 application, 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 this application or recommendation shall allege that the

application, 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 application 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 application 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 recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by May 6, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/> public or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does

not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by May 6, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

No. 2558 (adv.)

Published one time at the total approximate cost of \$44.85 and may be viewed free of charge at www.sdpublicnotices.com.

Form 8

RECEIVED

MAY 02 2024

OFFICE OF
WATER

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Aurora) SS

I, Gayle A. Van Genderen

certify that the attached printed Notice was taken

from the South Dakota
Mail Newspaper

printed and published in
Plankinton,

County of Aurora and

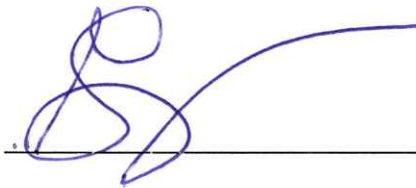
state of South Dakota. The notice was published

in the newspaper on the following date:

April 25, 2024

Cost of Printing

\$51.77



(Signature)

Publisher

(Title)

4-26-24

(Date Signed)

the applicant must be filed by May 6, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by May 6, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

(Published once at the total approximate cost of \$51.77.)

NOTICE OF APPLICATION NO. 8842-3 to Appropriate Water

Notice is given that Greg & Evette Rihanek, 509 E. 1st Street, Plankinton SD 57368 has filed an application for a water permit to appropriate 1.45 cubic feet of water per second from one well completed into the Dakota Aquifer (depth unknown) located in the NE 1/4 SE 1/4 Section 4 for irrigation of 120 acres located in the SE 1/4 Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. This site is located approximately 5 miles northeast of Plankinton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8842-3 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 application, 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 this application or recommendation shall allege that the application, 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 application 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 application 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 recommendation, the applicant shall also file a petition. A petition filed by either an interested person or

RECEIVED

MAY 02 2024

OFFICE OF
WATER

ACKNOWLEDGEMENT:

State of South Dakota, County of Aurora

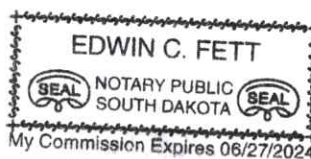
On this the 26th day of April, 2024 before me,

Edwin C Fett, the undersigned officer, personally appeared Gayle Van Gendevan known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for purposed therein contained.

In Witness whereof, I hereunto set my hand and official seal.

My commission expires: 6/27/24

Edwin C Fett
Notary Public



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, April 18, 2024 7:55 AM
To: gregrihanek@hotmail.com
Subject: 8842-3 Greg & Evette Rihanek - Public Notice
Attachments: 8842-3 Rec.pdf; 8842-3 Ltr.pdf; 8842-3 PubNotice.pdf

Good morning,

Attached is a copy of the report, chief engineer's recommendation, and information regarding the public notice for your water permit application. As stated in the letter, please contact the paper(s) as soon as possible to authorize publication and arrange for payment. This information is also being mailed to you today.

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





RECEIVED

MAY 03 2024

OFFICE OF
WATER

DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES

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

Petition

4-30-2024

Opposing Application for a Water Right Permit

Application No. 8842-3 Name of Applicant Greg & Evette Rihaneh

The Application No. and applicant's name can be found in the public notice at <https://danr.sd.gov/public>.

Note. According to South Dakota Codified Law section 46-2A-4(5), all the following information is required.
Describe the unique injury approval of this application will have upon you.

I am a Aurora Co. Farmer & I live N.E. of Plankinton, S. Dak
My farm has livestock & 3 houses that my son & Grand son
live on my farm & now doing the farming. If our well
was drained would affect our cattle & sheep plus
3 family's.

List the reasons for your opposition to this application.

- #1- Back in the 1950's a farmer NE of Plankinton dug a well & wanted to irrigate, not enough water didn't work.
- #2- Back in 1976 another farmer dug a 21" well to cover his 200 acres of corn. He only drained 9 wells & affected many more in my area. Only 5-6 miles north of where this well would be dug. We found this well for 4 yrs. Took a lot of damage to homes & animals. Hired a Atty @ cost us \$20,000.00 to get him shut off. 1981 my neighbor lost 307 fat cattle because some one poisoned them & he went BROKE.
- #3- I due think you don't want me & my neighbors to have to go over something again. Not enough water to irrigation.

Provide name and mailing address of the person filing this petition or the petitioner's legal counsel.

First Name: Clyde Last Name: Olsen

Mailing Address: 30926 243rd St.

City: Plankinton State: S. Dak Zip: 57368

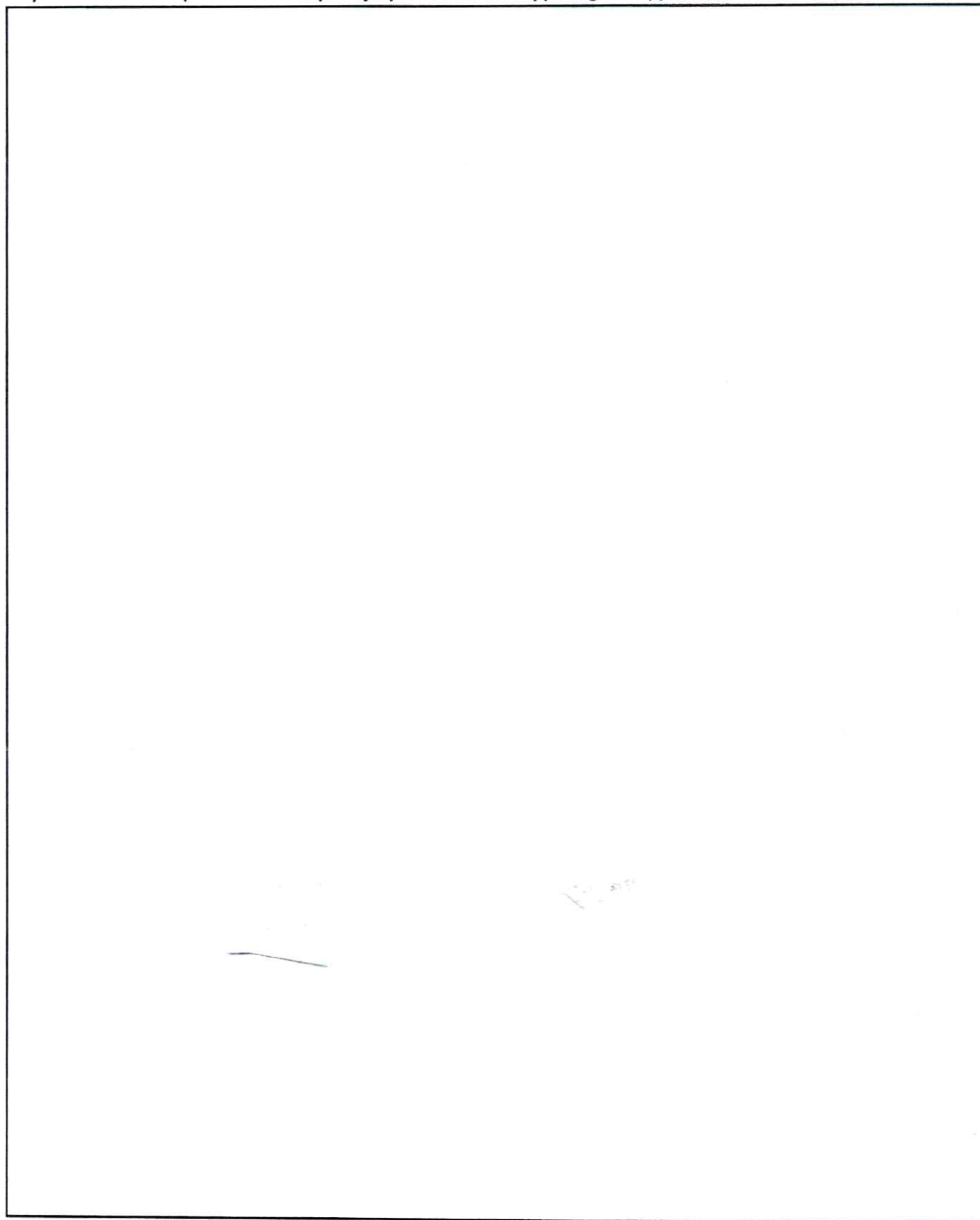
Optional contact information. Phone: #605-999-4683 Email: None

Note. This petition needs to be submitted via mail or personally served upon Water Rights no later than the deadline date provided in the public notice. The mailing address is provided above and should be sent to "Attention - Water Rights Program." A copy of this petition also needs to be mailed to, or personally served upon, the applicant whose mailing address is provided in the public notice.

Application No. _____

Petitioner's Name _____

Any additional description of the unique injury or reasons for opposing this application:





**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. 8842-3, Greg & Evette Rihanek**

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. 8842-3, Greg & Evette Rihanek, 509 E 1st Street, Plankinton SD 57368.

The Chief Engineer is recommending APPROVAL of Application No. 8842-3 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. 8842-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must 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. Any future replacement well must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. A replacement well may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.
3. 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
April 16, 2024

Report to the Chief Engineer
On Water Permit Application No. 8842-3

Greg & Evette Rihanek

April 17, 2024

Water Permit Application No. 8842-3 proposes to divert water at a maximum instantaneous diversion rate of 1.45 cubic feet per second (cfs) from one well completed into the Dakota aquifer located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 4 for the irrigation of 120 acres located in the SE $\frac{1}{4}$ of Section 4; all in T103N-R63W. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. The site of interest is located in Aurora County approximately five miles northeast of Plankinton, SD.

AQUIFER: Dakota (DKOT)

HYDROGEOLOGY:

The Dakota Formation is defined as the first relatively continuous sandstone below the Greenhorn Limestone, and it extends downward to the top of the Skull Creek Shale in western and central South Dakota (Schoon, 1971). In eastern South Dakota, the Skull Creek Shale is not continuous and when absent, the Dakota Formation directly overlies Precambrian bedrock or the Inyan Kara Group (Schoon, 1971). In western South Dakota, a stratigraphically equivalent formation to the Dakota Formation is the Newcastle Formation, which outcrops in the Black Hills (Bredehoeft, et al., 1983). In South Dakota, the Dakota Formation has been subdivided into three units (Schoon, 1971). The upper unit consists of light brown to reddish-brown, fine to medium grained, friable sandstone, interbedded with gray to dark gray shale. Thin, discontinuous beds of lignite are present in the lower part of the upper unit. The middle unit consists of a gray silty clay with small siderite pellets disseminated throughout. The lower unit consists of medium to coarse grained sandstone (Schoon, 1971).

The Dakota aquifer is comprised of the saturated and permeable portions of the Dakota Formation and is primarily a confined bedrock aquifer throughout most of South Dakota (Schoon, 1971; Water Rights 2024b and 2024d). Schoon (1971) estimated the Dakota Formation underlies 66,500 square miles of South Dakota and has an average thickness of 150 feet. The amount of water stored in the Dakota aquifer can be estimated by assuming 15% porosity for the Dakota Formation (Schoon, 1971), multiplied by the average thickness (150 feet) and the areal extent (66,500 square miles or 42.5 million acres) of the aquifer to calculate approximately 960 million acre-feet of stored water in South Dakota. In Aurora and Jerauld Counties, the Dakota aquifer has an average thickness of approximately 250 feet (Hamilton, 1985).

No water well or test hole completion report was submitted with Water Permit Application No. 8842-3. Using geophysical log information, lithologic logs, and water levels from various aquifers shown in existing wells, South Dakota Geological Survey and Water Rights Program staff determined the existing well proposed to be used is likely completed into the Dakota aquifer (Mathiowetz and Schultz, 2024). Water well completion reports on file with the DANR-Water

Rights Program for wells completed into the Dakota aquifer within approximately three miles of the existing well site have saturated aquifer thicknesses ranging from approximately 40 to 140 feet, with the depth to the top of aquifer materials ranging from approximately 500 to 660 feet below the ground surface, and static water levels at well completion ranging from flowing to 20 feet below the ground surface (Water Rights, 2024d). The Dakota aquifer is expected to be confined at the existing well site based on the well completion reports on file for nearby wells completed into the aquifer, which is supported by the applicant indicating the existing well proposed to be used as flowing (Water Rights, 2024d).

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 Dakota aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8842-3 proposes to appropriate water from the Dakota 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 Dakota aquifer is older than and stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010); however, 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 Dakota aquifer must be considered.

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 DANR-Water Rights Program monitors 46 observation wells completed into the Dakota aquifer (Water Rights, 2024b). The five closest observation wells to the existing well

site are AU-89A (approximately 12 miles southwest), HD-87A (approximately 43 miles northwest), BL-83A (approximately 45 miles east), HT-80B (approximately 55 miles southeast), and GY-89A (approximately 60 miles southwest) (Water Rights, 2024b). The hydrographs for these observation wells are displayed in Figures 1 to 5 (Water Rights, 2024b). 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. Figure 7 displays a map of the locations of nearby observation wells (Water Rights, 2024b).

The hydrographs for the observation wells display stable to slightly downward trending water levels over their respective periods of record (Water Rights, 2024b). While the overall trend in the historic static water level measurements in the Dakota aquifer observation wells is generally slightly downward, observation wells HT-80B (approximately 55 miles southeast) and ED-85A (Figure 6) (approximately 115 miles northwest of the existing well site) completed into the Dakota aquifer have recorded a trend that has been stable to slightly increasing (Water Rights, 2024b). The last water level measurement in observation well HD-87A occurred in August 2019 due to current access issues caused by a dam washout (Water Rights, 2024b).

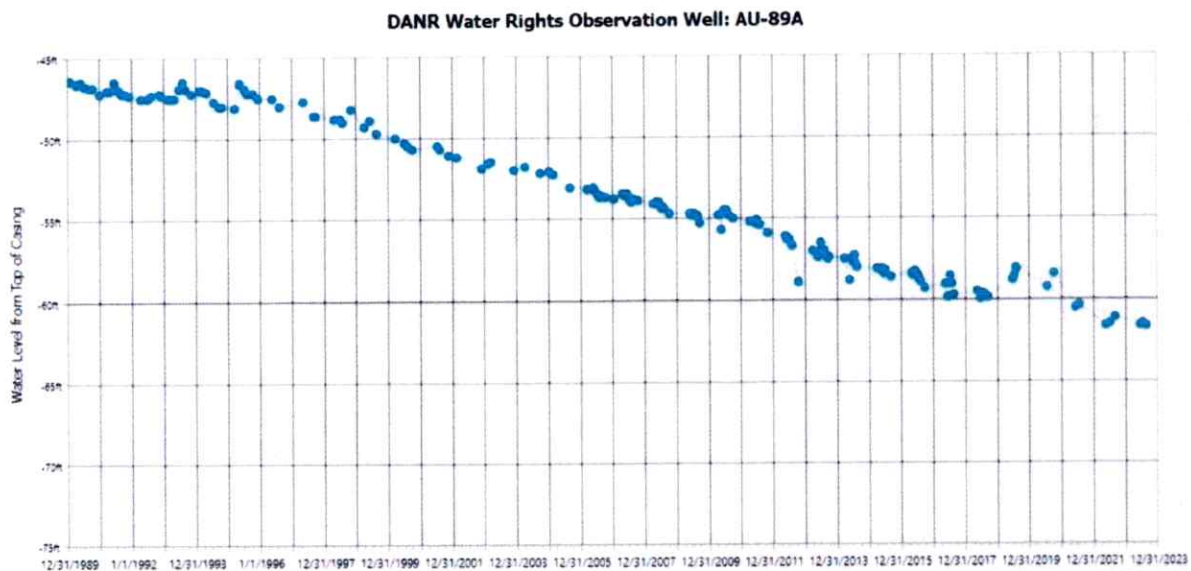


Figure 1. Hydrograph for observation well AU-89A (Water Rights, 2024b)

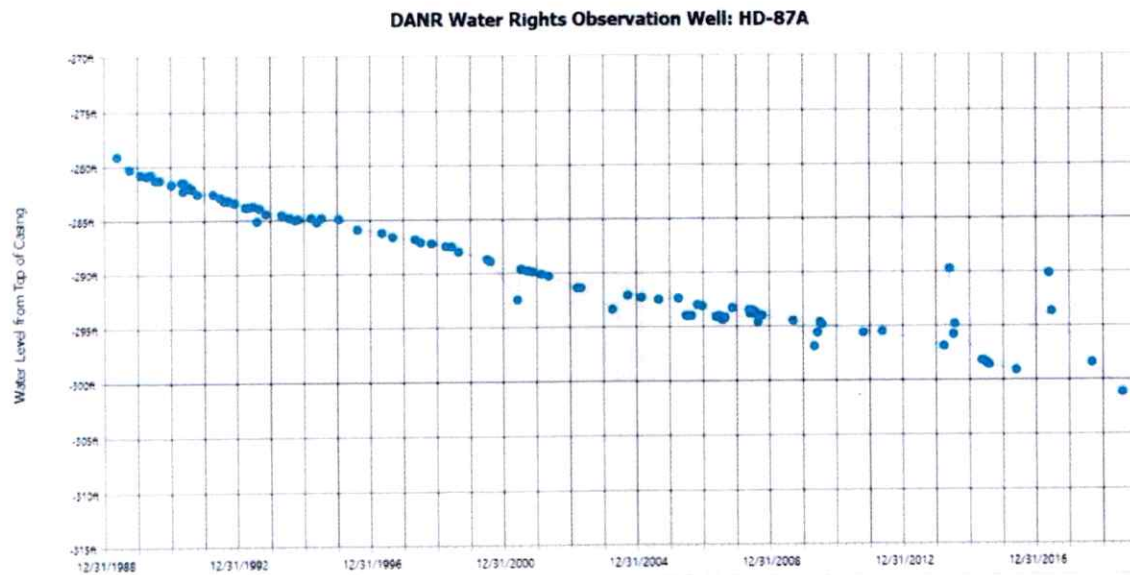


Figure 2. Hydrograph for observation well HD-87A (Water Rights, 2024b)

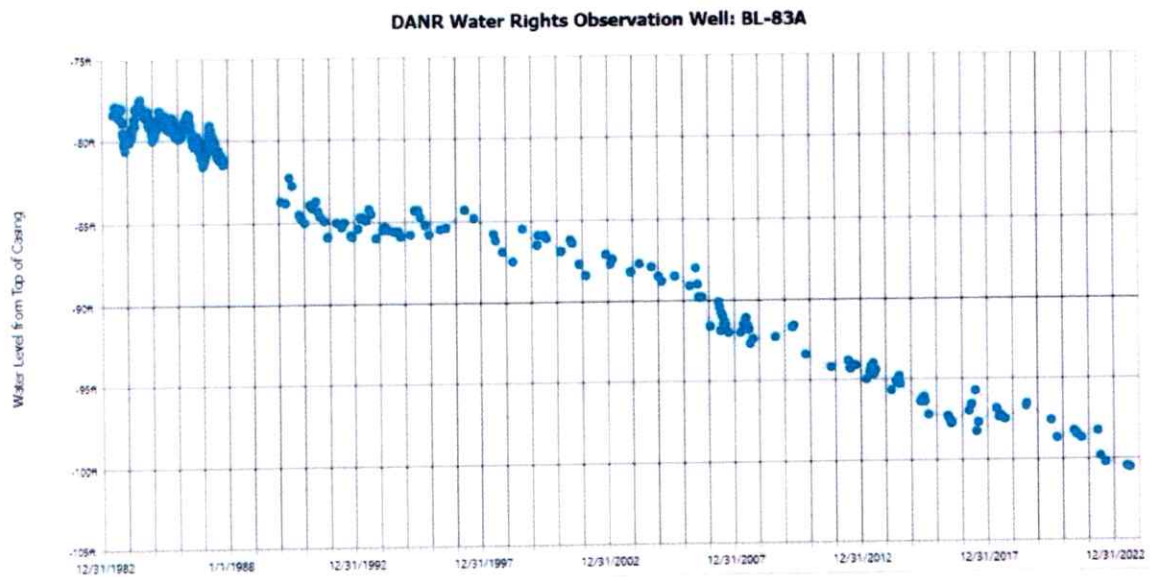


Figure 3. Hydrograph for observation well BL-83A (Water Rights, 2024b)

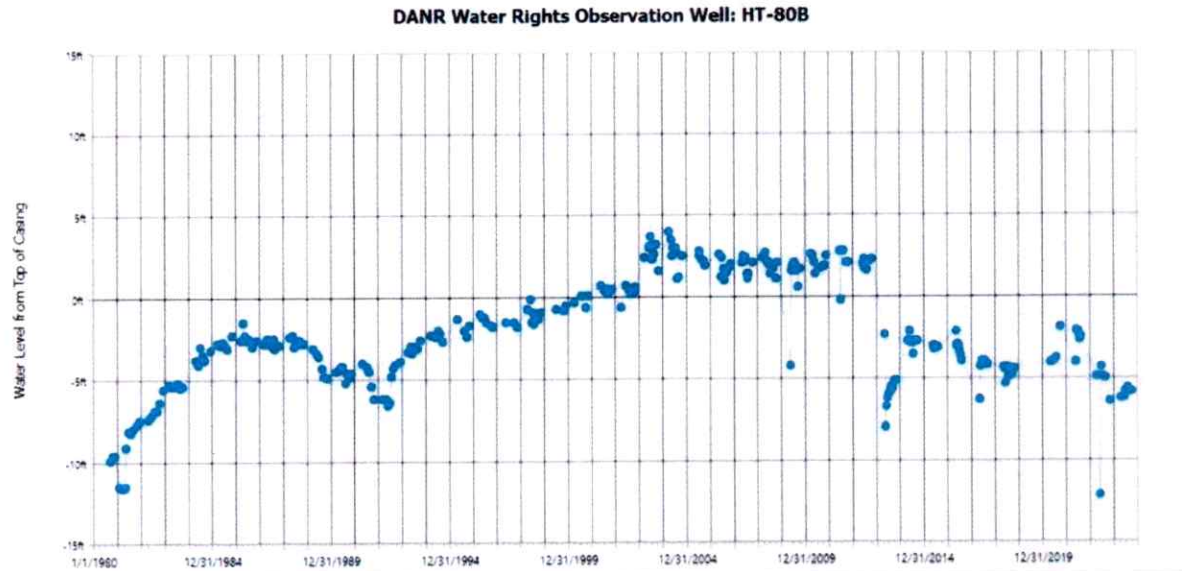


Figure 4. Hydrograph for observation well HT-80B (Water Rights, 2024b)

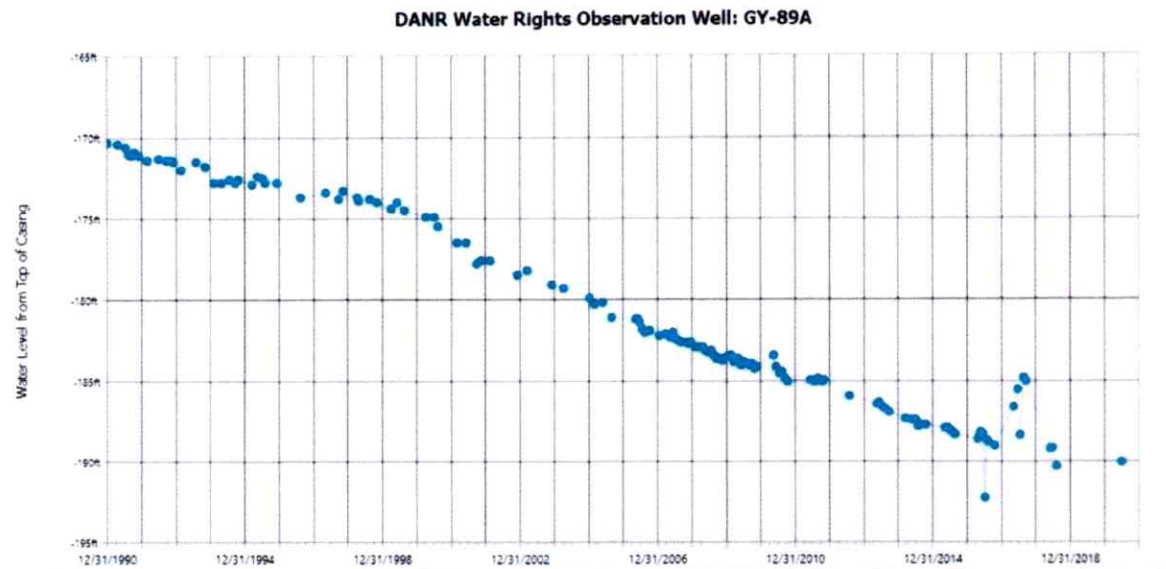


Figure 5. Hydrograph for observation well GY-89A (Water Rights, 2024b)

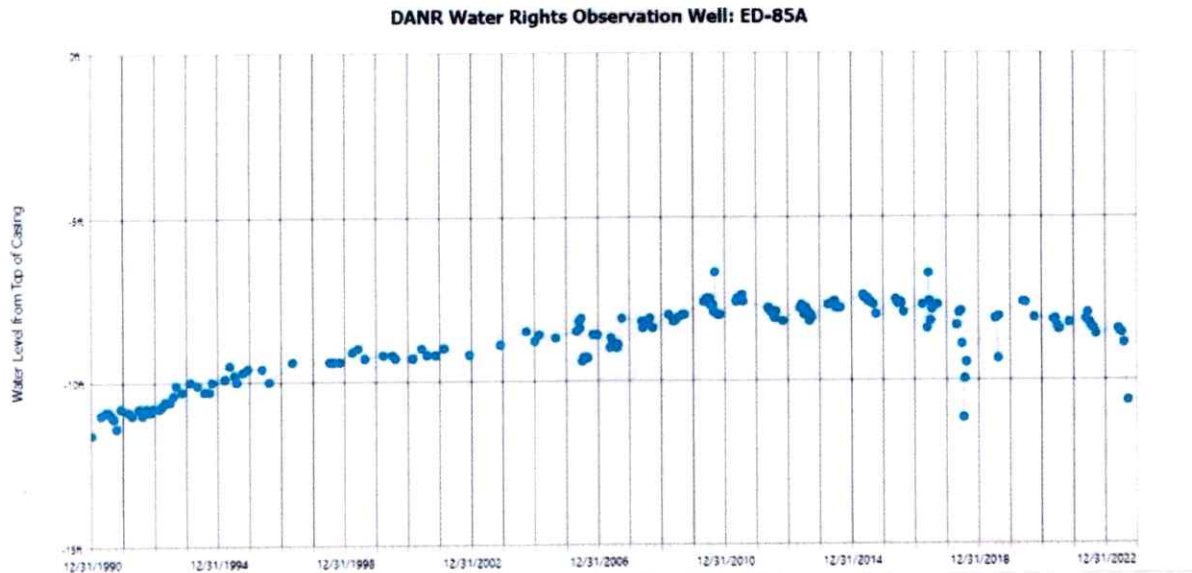


Figure 6. Hydrograph for observation well ED-85A (Water Rights, 2024b)

In addition to the observation well hydrographs, a record of the potentiometric surface is shown through historical accounts. Schoon (1971) developed maps of the potentiometric surface of the Dakota aquifer using data modified from Darton (1909), from the State Engineer's office for the period 1914 to 1915, and from a compilation of many reports over the period of 1936 to 1953. Wells that have been completed into the Dakota aquifer in roughly the past thirty years and within approximately five miles of the existing well site were used to approximate the current potentiometric surface conditions (Table 1) (Water Rights, 2024d).

Table 1. Historic and current approximate water level elevations near the existing well site (Schoon, 1971; Water Rights, 2024d)

Data Source	Year(s)	<i>Approximate potentiometric surface in the vicinity of the existing well (fmsl)</i>
Schoon (1971), after Darton	1909	1,500 to 1,550
Schoon (1971), State Engineer's Office	1914-1915	1,400 to 1,450
Schoon (1971)	1936-1953	1,400 to 1,450
Well Logs Database	2003 to Present	1,400 to 1,425

Throughout South Dakota, most of the hydrographs for observation wells completed into the Dakota aquifer, and the potentiometric surface measurements of the Dakota aquifer show a decreasing trend in hydraulic head (Water Rights, 2024b). A decline in water levels in a confined aquifer does not necessarily indicate a significant decrease in water stored in the aquifer, as water levels above the top of the aquifer materials are representative of the hydraulic head (water pressure) inside the aquifer. Additionally, there are uncontrolled, flowing wells discharging water from the Dakota aquifer at ground surface, and it is expected water from the aquifer is also being discharged to other aquifers if wells completed into the Dakota aquifer have experienced casing failure.

Concerns have developed over time about the decline in artesian head pressure of the Dakota aquifer. Schoon (1971) stated, “The fact that withdrawal from the artesian system exceeds recharge is clearly demonstrated by declining pressures.” However, the Water Management Board has found that past declines of the potentiometric surface (as shown on Table 1) do not automatically constitute that withdrawals have exceeded recharge (Water Rights, 1987). The Board has concluded that withdrawals exceeding the average annual recharge cannot be determined based solely upon a decline in head pressure, and in theory the Dakota aquifer head pressure is stabilizing relative to withdrawals and discharges (Water Rights, 1987). Since discharge from uncontrolled flowing wells is likely to continue until water levels in the aquifer decline to being at or below the ground surface and continuing to allow beneficial pumping to occur reduces the amount of water being discharged to waste, the Water Management Board’s decision to optimize development of the Dakota aquifer is favorable to issuance of permits to appropriate water for beneficial uses. Therefore, there is a reasonable probability unappropriated water from the Dakota aquifer is available for the proposed appropriation.

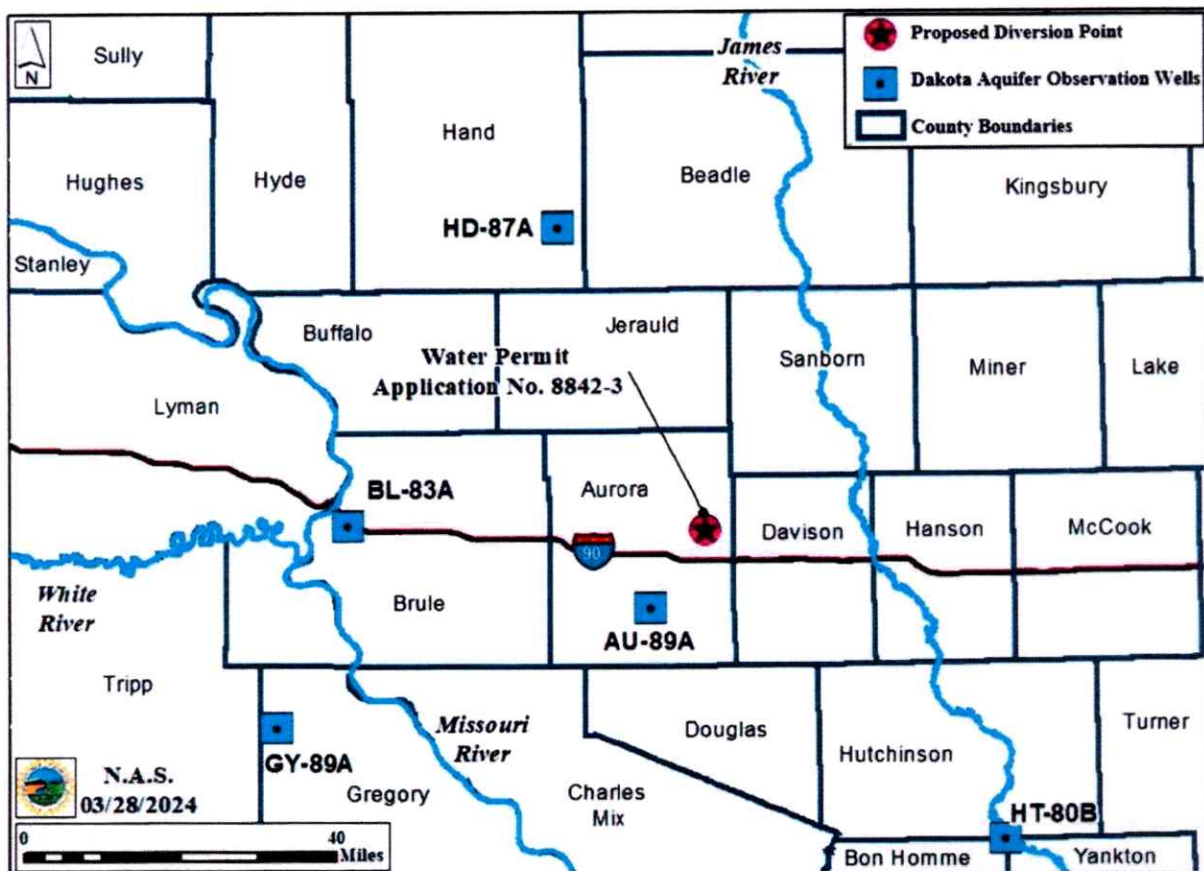


Figure 7. Location of the existing well site for Water Permit Application No. 8842-3 with the Dakota aquifer observation wells within approximately 60 miles (Water Rights, 2024b)

HYDROLOGIC BUDGET:

Recharge

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers with higher artesian pressure than the Dakota aquifer, downward seepage from overlying confining layers, and through the infiltration of precipitation on the Newcastle Formation outcrops in the Black Hills (Bredehoeft, et al., 1983; Water Rights, 2024b). Using computer modeling, Bredehoeft, et al. (1983) attempted to match Darton's (1909) potentiometric surface map of the Dakota aquifer to develop a recharge estimate of approximately 79.4 cfs (57,500 acre-feet per year) before well development began. However, many assumptions used in Bredehoeft, et al.'s (1983) recharge estimate were incorrect and outdated. For example, assuming steady-state flow conditions between aquifers is unrealistic of real-world conditions and the recharge estimates used for the Madison and Inyan Kara aquifers in Bredehoeft, et al.'s (1983) analysis are much lower than estimates measured by more recent research (Carter, et al., 2002). While Bredehoeft, et al.'s (1983) estimate can provide a scale of the Dakota aquifer's recharge rate, it cannot be used as an exact value for water management purposes. As the physical properties of aquifers and the locations where adjacent aquifers are in contact with each other are relatively undefined among many other factors, it is unknown whether the true recharge rate of the Dakota aquifer is higher or lower than Bredehoeft et al.'s (1983) estimate.

Discharge

Discharge from the Dakota aquifer in South Dakota occurs through well withdrawals, uncontrolled flowing wells and outflow through corroded well casings, and outflow to overlying adjacent aquifers because of higher artesian pressure in the Dakota aquifer (Bredehoeft, et al., 1983; Water Rights, 2024b and 2024d).

Currently, there are 261 water rights/permits appropriating water from the Dakota aquifer within South Dakota, plus one pending application - Water Permit Application No. 8828-3 requesting to irrigate 352 acres in Clay County (Water Rights, 2024c). Additionally, there are seven future use permits reserving water from the Dakota aquifer (Water Rights, 2024c). For the purpose of estimating average annual withdrawals, the seven future use permits are assumed to be fully developable for a total of 4,287 acre-feet per year (Table 2).

Table 2. Future use permits reserving water from the Dakota aquifer (Water Rights, 2024c)

Future Use Permit Holder	Amount of Reserved Water (acre-ft)
City of Canton (1262C-3, 5219-3)	1,849
City of Lennox (5101-3, 5101A-3)	0*
South Lincoln RWS (4817-3)	1,448
Lincoln RWS (5155-3)	440
City of Harrisburg (8400-3)	550
Total:	4,287
RWS: Rural Water System, *The City of Lennox has allocated the water they had reserved	

Of the 261 Dakota aquifer water rights/permits, 21 are for irrigation use and 240 are for non-irrigation use (Water Rights, 2024c). Table 3 summarizes the 240 non-irrigation water rights/permits authorized to appropriate water from the Dakota aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The use type determined for each water right/permit was based on the primary use categorized for each water right/permit as some permits have additional uses (Water Rights, 2024c). Historically, average water use by non-irrigation appropriations limited by an instantaneous diversion rate have been assumed to be pumping 60% of full time at the respective permitted diversion rate. Water rights/permits limited by an annual volume are assumed to withdraw their entire respective annual volume limitation. This is a standard method used by the DANR-Water Rights Program for estimating annual withdrawals by non-irrigation appropriations from an aquifer (Water Rights, 2024c).

Several non-irrigation water rights/permits on Table 3 are authorized to withdraw from one or more aquifers, including the Dakota aquifer. For the purpose of estimating average annual withdrawals, the non-irrigation water rights/permits that have a specified volume out of their entire appropriated volume that is authorized only for their Dakota aquifer well(s) are assumed to withdraw their full specified volume permitted only for their Dakota aquifer well(s). The remaining non-irrigation water rights/permits that do not have a certain diversion rate or volume designated for what each well from each aquifer is authorized to divert are assumed to be withdrawing their entire appropriated volume from the Dakota aquifer.

Additionally, there are municipal water rights/permits that are authorized to appropriate water from the Dakota aquifer that are identified as being connected to a rural water system (RWS) and likely maintain their wells for standby purposes (Drinking Water Program, 2024; Water Rights, 2024c); as such, the average annual water use for these water rights has been estimated to be zero acre-feet per year on Table 3. Overall, the average annual withdrawal rate for the Dakota aquifer non-irrigation water rights/permits is approximately 22,459 acre-feet per year (Table 3) (Water Rights, 2024c).

Table 3. Summary of the non-irrigation water rights/permits authorized to appropriate from the Dakota aquifer with estimated annual use determined by their respective diversion rate or annual volume (Drinking Water Program, 2024; Water Rights, 2024c)

Use Type	No. of Water Rights/Permits	Appropriation for Water Rights/Permits limited by Volume (acre-feet/year)	Appropriation for Water Rights/Permits limited by Diversion Rate (cfs)	Total Estimated Use (acre-feet/year)
RWS	6	2,005	2.2	2,961
SHD	7		3.33	1,447
REC	3	3.1	0.45	199
COM	109	2,032	11.48	7,020
DOM	11		1.753	762
FWP	4		2.73	1,187
GEO	2		2.33	1,013
INS	2		1.34	582
IND	7	167	0.84	534
MUN	89	3,274	8.01	6,755
TOTAL:	240	7,481	34.46	22,459
RWS: Rural Water System, SHD: Suburban Housing Development, REC: Recreation,				
COM: Commercial, DOM: Domestic, FWP: Fish & Wildlife Propagation, GEO: Geothermal,				
INS: Institutional, IND: Industrial, MUN: Municipal				

As development of the Dakota aquifer has increased over time, some of the appropriations have been made by rural water systems that are required to report their annual withdrawal rate (Water Rights, 2024c). The withdrawals that are annually reported from the Dakota aquifer by some appropriative users (South Lincoln RWS, Clay RWS, and Lincoln County RWS) are shown in Table 4 (Water Rights, 2024c and 2024f). The reported withdrawals by the RWS users listed on Table 4 are for comparison purposes only to show historically the average annual use has been less than the volume that is estimated on Table 3 (Water Rights, 2024c and 2024f). The reported annual withdrawal rate for two water rights/permits authorized for commercial and domestic use was also included on Table 4. The estimated use calculated on Table 3 for the water rights/permits that are required to report will be used in the analysis.

Table 4. Non-irrigation rural water system water rights/permits required to report their respective annual use from the Dakota aquifer (Water Rights, 2024c and 2024f)

	South Lincoln RWS	Clay RWS	Lincoln County RWS	Lake view Hutterian Brethren	Michael J. Slama
	5647-3, 6300-3, 6490-3, 6778A-3	5997B-3	5156-3	8464-3	8252-3
2003	725				
2004	904				
2005	769				
2006	863	72			
2007	860	126			
2008	863	124	0		
2009	773	119	0		
2010	775	122	0		
2011	785	116	0		
2012	865	186	0		
2013	765	155	0		
2014	739	148	0		
2015	711.5	141	0		
2016	640	163	0		
2017	643	201	0		
2018	503	170	0		
2019	562	162	0		
2020	530	197	0		19.3
2021	588	194.7	0	40	19.3
2022	969	215	0	23.6	19.3
Max	969	215	0	40	19.3
Min	503	72	0	23.6	19.3
Avg	742	154	0	32	19.3
RWS: Rural Water System					

Currently, there are 21 irrigation water rights/permits authorized to appropriate water from the Dakota aquifer, plus one pending irrigation application (Water Rights, 2024c). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire (IQ) since 1979. The estimated average annual withdrawal rate for the Dakota aquifer irrigation water rights/permits that have reported over the period of record (1979 to 2022) is approximately 159 acre-feet per year (Water Rights, 2024a). To reflect the current development of irrigation water rights/permits more accurately, the average annual withdrawal rate for irrigation appropriations that have reported from 2013 to 2022 is approximately 233 acre-feet per year (Water Rights, 2024a).

Table 5 displays the average annual withdrawal rate for each irrigation water right/permit based on the reported annual values, with estimated use calculated for water permits that have either not been constructed or only have one year of reporting data. Several of the irrigation water rights/permits from the Dakota aquifer are authorized to irrigate using other water sources in addition to the Dakota aquifer, and the reported withdrawal rate represents total irrigation across all water sources (Water Rights, 2024a and 2024c). The estimated use calculated on Table 5 will be used in this analysis.

Water Right No. 394-3 is not required to submit an irrigation questionnaire and is authorized to irrigate 3.2 acres (Water Rights, 2024c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for the fluctuation in wet and dry cycles from year to year, a one foot of water per acre per year application rate will be used to estimate the annual withdrawal rate for this irrigation water right. Therefore, Water Right No. 394-3 is estimated to withdraw approximately 3.2 acre-feet per year (shown on Table 5) (Water Rights, 2024c).

Additionally, Water Permit Nos. 8423-3, 8510-3, 8560-3, 8727-3, and 8781-3 are authorized to irrigate 192.5 acres of turf and are limited to an annual appropriation that may not exceed two-acre feet annually for each acre of land authorized to be irrigated (Water Rights, 2024c). These water permits have either not been constructed or only have one year of reporting data (Water Rights, 2024a and 2024c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year (Water Rights, 2024a). However, because these permit holders are authorized to irrigate turf, the two foot of water per acre per year application rate will be used to somewhat overestimate the annual withdrawal rate. Therefore, the average annual withdrawal rate for Water Permit Nos. 8423-3, 8510-3, 8560-3, 8727-3, and 8781-3 is approximately 385 acre-feet per year (shown on Table 5).

Water Permit Application No. 8828-3 proposes to crop irrigate 352 acres authorized by Water Permit No. 8043-3. Water Permit No. 8043-3 is subject to cancellation due to non-construction. At this time, Water Permit No. 8043-3 is active and will be included in this analysis (Water Rights, 2024c). The one foot of water per acre per year application rate will be used to estimate the withdrawal rate for the crop irrigation requested by Water Permit Application No. 8828-3 on Table 5.

Overall, the average annual withdrawal rate for the Dakota aquifer irrigation water rights/permits based on the reported annual values (280.8 acre-feet/year) (unless not required to submit IQ or still within construction period (1,132.1 acre-feet/year)) is approximately 1,412.9 acre-feet per year (Table 5) (Water Rights, 2024a and 2024c).

Table 5. Average reported withdrawal rate by the irrigation water rights/permits from the Dakota aquifer (Water Rights, 2024a and 2024c)

Permit No.	Status	Name	Priority Date	Acres	Avg Reported Use (acre-feet/year)	Est. Use for Non- Developed, Non-Reporting, or Limited Data Permits (acre-feet/year)	Comments/Total Estimated Use (acre-feet/year)
1054-3	LC	Rolling Hills Golf Development	01/01/1951	43.84	30.9	N/A	also uses water from surface water
394-3	LC	Kory Standy	01/01/1912	3.2	Does not report	3.2	also for domestic use
4769-3	LC	James Leheska	06/01/1981	130	23.5	N/A	last irrigated in 1993
5703-3	LC	Charles A Long	07/20/1992	2	0.5	N/A	
2328-2	LC	Michael Kirwan	02/21/1995	31	2.6	N/A	last irrigated in 2008
5905-3	LC	City of Groton	12/14/1995	30	66.9	N/A	also permits water from surface water- total water use across all sources
5947-3	LC	Fish Lake Country Club	09/23/1974	33	17.2	N/A	also permits water from surface water- total water use across all sources
5994-3	LC	Robert L. Peterson	04/17/1997	3	6.2	N/A	
6110-3	LC	Dakota Dunes Community Improvement District	10/06/1998	11	49.8	N/A	
6527-3	LC	City of Beresford	07/22/2004	37	23.2	N/A	
6575-3	LC	Dakota Alliance Soccer Club	01/19/2005	15	6.2	N/A	
6734-3	LC	Avera Sacred Heart Health Services	06/14/2006	11.9	5.6	N/A	
7123-3	LC	Harrisburg School District	04/02/2009	30	7.7	N/A	
2566A-2	LC	Chamberlain Country Club	08/29/2005	63	9.6	N/A	
7916-3	PE	John H Thompson	10/18/2013	150	30.9	N/A	
8043-3	PE	Robert P Walsh	08/27/2014	391.9	limited data	391.9	subject to cancellation due to non-construction since the well was completed in 2021 after expiration of the construction period
8423-3	PE	City of Platte	02/10/2020	42	not constructed	84	not constructed-turf irrigation
8510-3	PE	TR Golf LLC	03/26/2021	30	limited data	60	turf irrigation- 143.3 acre-ft reported in 2022 for 8510-3
8560-3	PE	TR Golf LLC	10/25/2021	65	limited data	130	
8727-3	PE	TR Golf LLC	02/27/2023	10	not yet reporting	20	turf irrigation
8781-3	PE	City of Harrisburg	07/21/2023	45.5	not constructed	91	turf irrigation
8828-3	pending	Robert P Walsh	02/01/2024	352	not constructed	352	Water Permit No. 8043-3 subject to cancellation
LC: Licensed Water Right, PE: Water Permit			TOTAL:	1,530	280.8	1,132.1	1,412.9

There are domestic wells completed into the Dakota aquifer that do not require a water right/permit, so the withdrawal amount for domestic use is unknown (Water Rights, 2024d). Since the introduction of rural water systems, many domestic wells are likely no longer in use or are not being used as primary water sources. Due to their relatively low diversion rates and the availability of rural water, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget for the Dakota aquifer. It is currently unknown how much water is being discharged from the Dakota aquifer through uncontrolled flowing wells. The Water Management Board has previously determined water being discharged through uncontrolled flowing wells is not a beneficial use and does not constitute appropriation pursuant to SDCL 46-6-3.1 (Water Rights, 1987).

Hydrologic Budget Summary

The estimated average annual recharge to the Dakota aquifer has not been accurately quantified. Bredehoeft et al. (1983) estimated a recharge rate of approximately 57,500 acre-feet per year, but several factors make it uncertain if that is a high or low estimate. The estimated average annual withdrawal rate from the Dakota aquifer is approximately 28,279 acre-feet per year (including the estimated use for Water Permit Application No. 8828-3 (pending) and 8842-3, if approved) (including Water Permit No. 8043-3 (subject to cancellation) (Table 6). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Dakota aquifer for the proposed appropriation.

Table 6. Estimated use from Dakota aquifer, including Water Permit No. 8043-3 (subject to cancellation) (Water Rights, 2024a and 2024c)

Type of Water Right/Permit	Estimated Use (acre-feet/year)
Future Use Reservations	4,287
Non-Irrigation	22,459
Irrigation (<i>Water Permit No. 8043-3 subject to cancellation</i>) (including pending Water Permit App No. 8828-3)	1,412.9
Application No. 8842-3 (if approved, assuming one acre-foot, per acre, annually, crop irrigation)	120
TOTAL:	28,279

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 261 water rights/permits appropriating water from the Dakota aquifer within South Dakota, plus one pending application (Water Rights, 2024c). The closest water right/permit to the existing well site is Water Right No. 5947-3, which is held by Fish Lake Country Club. The diversion point for Water Right No. 5947-3 is located approximately 2.3 miles southwest of the existing well site for this application (Figure 8) (Table 7) (Water Rights, 2024c).

There are domestic wells on file with the DNR-Water Rights Program that are completed into the Dakota aquifer, with the closest domestic well on file (not held by the applicant) located approximately 3.2 miles north of the existing well site (Water Rights, 2024d). There could potentially be other domestic wells completed into the Dakota aquifer near the well the applicant proposes to use that are not on file with the DNR-Water Rights Program. The location of the domestic wells in the well completion report database maintained by the Water Rights Program is based on the location listed by the driller on the well completion report.

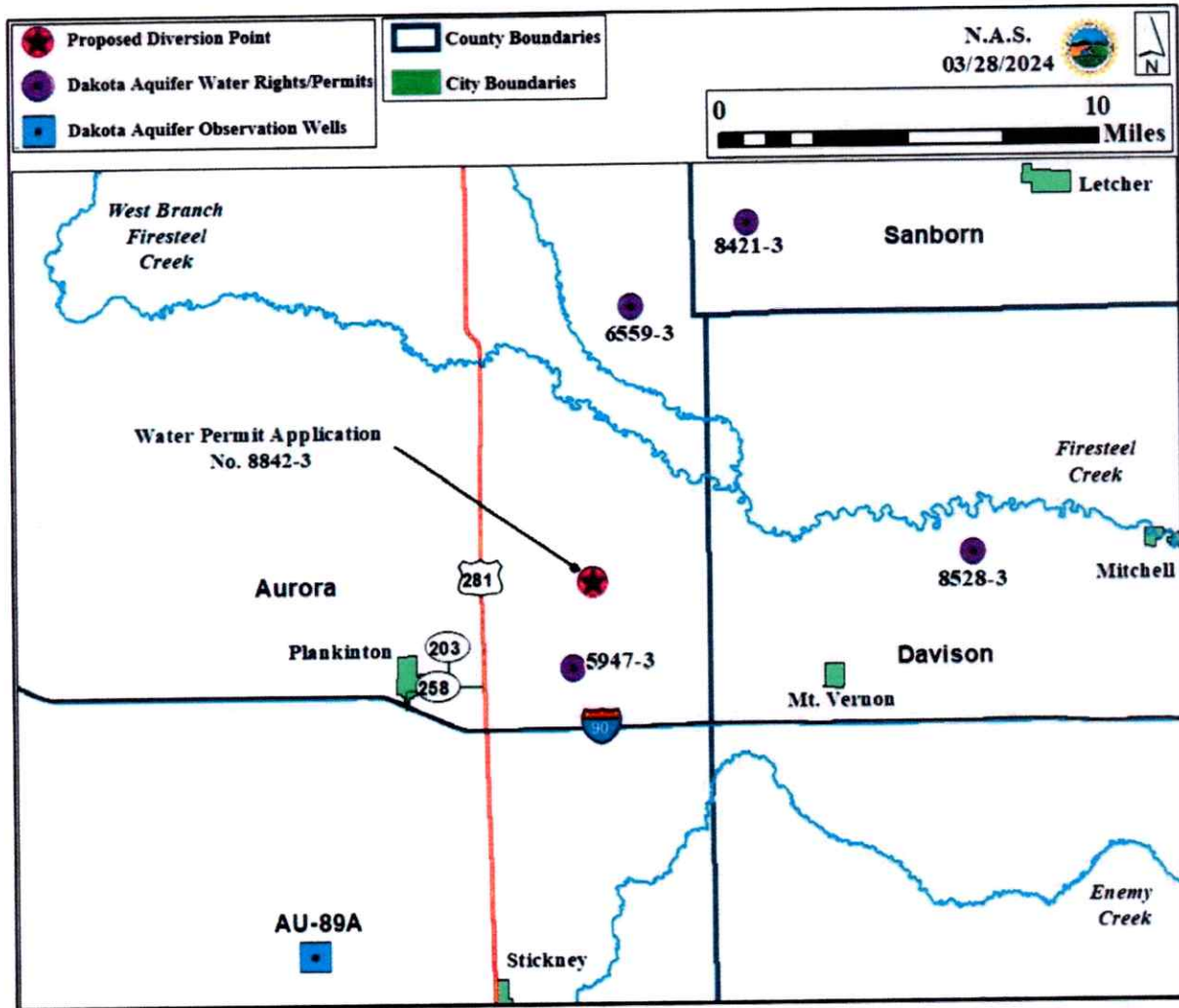


Figure 8. Location of the existing well site for Water Permit Application No. 8842-3, with the Dakota aquifer water rights/permits and observation wells within approximately fifteen miles (Water Rights, 2024b and 2024c)

Table 7. Water rights/permits authorized to withdraw water from the Dakota aquifer within approximately fifteen miles of the existing well site, as shown in Figure 8 (Water Rights, 2024c)

Permit No.	Name	Status	Use	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet/year)	Acres if IRR
5947-3	Fish Lake Country Club	LC	IRR	0.24		33
6559-3	Dwight Scott	LC	COM, LCO	0.1		
8421-3	Albert J Selland & Sons Feedlot	PE	COM, LCO	0.48	78.5	
8528-3	Bluestem Family Farms LLC	PE	COM, LCO	0.223	130	

LC: Licensed Water Right; PE: Water Permit; COM: Commercial; IRR: Irrigation; LCO: Livestock Confinement Operation

The Dakota aquifer is expected to be confined at the existing well site based on the well completion reports on file for nearby wells completed into the aquifer (Water Rights, 2024d). Since the Dakota aquifer is expected to be confined at the existing well site, drawdown can extend some distance but the exact drawdown behavior of a well cannot be known without an aquifer performance test. However, observation wells completed into the Dakota aquifer near permitted/licensed diversion points can provide some insight on how the aquifer responds to pumping.

Observation well AU-89A (approximately 12 miles southwest of the existing well site) has two high-yield wells (assumed to be a well with an authorized diversion rate greater than 0.2 cfs) within approximately twenty miles of it (Water Rights, 2024b and 2024c). The lithologic log on file for AU-89A noted the well was drilled 780 feet deep below the ground surface, had a casing stick up height of approximately zero feet, and the top of aquifer materials approximately 744 feet below the ground surface (SDGS, 2024). The lowest recorded static water level on the hydrograph (displayed in Figure 1) is approximately 62 feet below the top of the well casing, which indicates there was still approximately 680 feet of artesian head pressure in AU-89A even during drier periods when high-yield wells are expected to be pumping more water and when water levels are generally naturally lower in response to drier conditions (SDGS, 2024; Water Rights, 2024b).

Within approximately three miles of the existing well site, the Dakota aquifer has a saturated aquifer thickness ranging from approximately 40 to 140 feet (Water Rights, 2024d). 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 Aurora County, there are no substantiated complaints on file with the DANR-Water Rights Program regarding well interference for adequate wells completed into the Dakota aquifer (Water Rights, 2024e).

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 Dakota 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 thickness of the Dakota aquifer in Aurora County, the artesian head pressure in observation wells and appropriative user's wells completed into the Dakota aquifer near the existing well site, and the lack of substantiated well interference complaints from the Dakota aquifer in the area, 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. Water delivery by means of artesian head pressure creating free flowing conditions without use of a pump is not guaranteed and not necessarily protected under SDCL and ARSD.

Special Consideration: Well Construction

It is unknown if the existing well meets the adequate well construction standards as defined in ARSD 74:02:04:20.

An adequate well has been defined in ARSD 74:02:04:20(6) as:

"A well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet."

The alternative well construction requirements for certain Dakota aquifer wells (74:02:04:35) are not permitted for appropriative uses. Any future replacement wells shall meet the adequate well construction standard as defined in ARSD 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

CONCLUSIONS:

1. Water Permit Application No. 8842-3 proposes to divert water at a maximum instantaneous diversion rate of 1.45 cfs from one well completed into the Dakota aquifer for the irrigation of 120 acres. The water from the well will be directed into a dugout and then pumped from the dugout to irrigate. The site of interest is located in Aurora County approximately five miles northeast of Plankinton, SD.

2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Dakota aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8842-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.

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

References

- Bredehoeft, J.D., Neuzil, C.E., and Milly, P.C., 1983. Regional Flow in the Dakota Aquifer: A Study of the Role of Confining Layers. Alexandria, Virginia: U.S. Geological Survey, 1983. Water-Supply Paper 2237.
- Carter, J.M., Driscoll, D.G., Williamson, J.E., and Lindquist, V.A., 2002. Atlas of Water Resources in the Black Hills area, South Dakota. Rapid City South Dakota: U.S. Geological Survey, 2002. Hydrologic Investigations Atlas HA-747.
- Darton, N.H., 1909. Geology and Underground Waters of South Dakota. Water Supply Paper 227. U.S. Geological Survey, Washington D.C.
- Drinking Water Program, 2024. Drinking Water System Information. SD DANR – Drinking Water Program Online Database. Accessed April 2, 2024.
<<http://danr.sd.gov/des/dw/sysinfomap.aspx>>
- Fahrenbach, M.D., Steece, F.V., Sawyer, J.F., McCormick, K.A., McGillivray, G.L., Schulz, L.D., and Redden, J.A., 2010. South Dakota Stratigraphic Correlation Chart. Oil and Gas Investigations 3. SD DANR-Geological Survey, Vermillion, SD.
- Hamilton, L.J., 1985. Geology and Water Resources of Aurora and Jerauld Counties, South Dakota. Water-Resources Investigation Report 84-4030. United States Geological Survey. Huron, SD.
- Mathiowetz, A.W., and Schulz, L. 2024. Email Communication. South Dakota Geological Survey and SD DANR-Water Rights Program. Pierre, SD. Vermillion, SD.

- Schoon, R.A., 1971. Geology and Hydrogeology of the Dakota Formation in South Dakota. South Dakota Geological Survey Report of Investigations No. 104. Vermillion, SD.
- SDGS, 2024. South Dakota Geological Survey Lithologic Logs Database. Accessed April 2, 2024. <http://cf.sddanr.net/lithdb/>.
- Water Rights, 1987. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 5136-3, Farmland Industries Inc of Huron, SD. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2024a. "1979-2022 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights, 2024b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024f. "2003-2022 Non-Irrigation Yearly Reports", SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

APR 29 2024

OFFICE OF
WATER

4-24-24
Plankinton, S. Dak.

To: Ron Duvall

I'm a Farmer NE. of Plankinton near the Application for a well to irrigation 120 acres of farm land. I'm opposed to this permit to given to Mr. Rihanek. I've tryed to call you for 2 Days & your dont answer your Phone.

Please send to me what ever I need to oppose this Permit. I know there isn't enough water in this area to irrigate a corn field. You better look back on the records in Belford Twp. Aurora Co. back in 1977-1980. A well drained 9 wells in my area & my farm was the worst. Dug a new well & that did not help. I know this will not work!

If you want to give me a call.

Clyde Olsen # 605-999-4683

Thanks

Clyde Olsen

38926- 243 St.

Plankinton, S. Dak.

57368



RECEIVED

MAY 03 2024

OFFICE OF
WATER

DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES

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

Petition

Opposing Application for a Water Right Permit

4-30-2024

Application No. 8842-3 Name of Applicant Greg & Evette Rihaneck

The Application No. and applicant's name can be found in the public notice at <https://danr.sd.gov/public>.

Note. According to South Dakota Codified Law section 46-2A-4(5), all the following information is required.

Describe the unique injury approval of this application will have upon you.

I am a Aurora Co. Farmer & I live N.E. of Plankinton, S.Dak
My farm has livestock & 3 houses that my son & Grand son
live on my farm & now doing the farming. If our well
was drained would affect our cattle & sheep plus
3 family's.

List the reasons for your opposition to this application.

- #1- Back in the 1950's a farmer NE of Plankinton dug a well & wanted to irrigate, not enough water didn't work.
- #2- Back in 1976 another farmer dug a 21" well to cover his 200 acres of corn. He only drained 9 wells & affected many more in my area. Only 5-6 miles north of where this well would be dug. We fought this well for 4 yrs. Took a lot of damage to homes & animals. Hired a Atty @ cost us \$20,000.00 to get him shut off. 1981 my neighbor lost 307 fat cattle because some one poisoned them & he went BROKE.
- #3- I due think you don't want me & my neighbors to have to go over something again. Not enough water to irrigation.

Provide name and mailing address of the person filing this petition or the petitioner's legal counsel.

First Name: Clyde Last Name: Olsen
Mailing Address: 38926 243rd St.
City: Plankinton State: S. Dak Zip: 57368

Optional contact information. Phone: #605-999-4683 Email: None

Note. This petition needs to be submitted via mail or personally served upon Water Rights no later than the deadline date provided in the public notice. The mailing address is provided above and should be sent to "Attention - Water Rights Program." A copy of this petition also needs to be mailed to, or personally served upon, the applicant whose mailing address is provided in the public notice.

Application No. _____

Petitioner's Name _____

Any additional description of the unique injury or reasons for opposing this application:



DEPARTMENT of AGRICULTURE and NATURAL RESOURCES

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

June 10, 2024

NOTICE OF HEARING

TO: Greg & Evette Rihanek
509 E 1st Street
Plankinton SD 57368

Clyde Olsen
38926 243rd Street
Plankinton SD 57368

Jennifer Verleger, Assistant Attorney General
1302 East Highway 14, Suite 1
Pierre SD 57501-8501

FROM: Ron Duvall, Engineer III
SD DANR, Water Rights Program

SUBJECT: Notice of Hearing on Water Permit Application No. 8842-3, Greg & Evette Rihanek

A petition opposing Water Permit Application No. 8842-3 was received by the Chief Engineer on May 3, 2024, in response to the Notice of Application published in the Huron Plainsman and South Dakota Mail on April 24 and 25, 2024, respectively. This notice schedules a hearing on Application No. 8842-3 before the South Dakota Water Management Board.

Water Permit Application No. 8842-3 appropriates 1.45 cubic feet of water per second one existing well completed into the Dakota Aquifer located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 4, for the irrigation of 120 acres located in the SE $\frac{1}{4}$ Section 4; all in T103N-R63W, Aurora County. Water from the well will be directed into a dugout and then pumped from the dugout to irrigate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends approval of Application No. 8842-3 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 Water Management Board will conduct a hearing to consider Application No. 8842-3 at 9:45 AM (Central Time), on Wednesday, July 10, 2024, at the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre SD. The time is an estimate and may be delayed due to prior items on the agenda. Notice will be provided if there is a change in the time or date of the hearing.

The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny the application after it reaches a conclusion based on the facts presented at the public hearing.

Notice of Hearing – Application No. 8842-3

June 10, 2024

The July 10, 2024, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition opposing the application. A request for an automatic delay must be filed by **June 20, 2024**. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol Ave, Pierre SD 57501." If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicant and the petitioner regarding the time, date, and location.

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

Enclosed is a copy of the report, recommendation, and the petition filed in the matter of Water Permit Application No. 8842-3. State law directs the Chief Engineer to provide Water Management Board members with a copy of all pleadings including petitions or comments for each proceeding. The information being provided to you is also being sent to the Board members in advance of the hearing. Notices, orders, other pleadings, and comments filed in this matter are posted on DANR's contested case page at <https://danr.sd.gov/public/ContestedCase.aspx>. In addition, enclosed are two documents intended to acquaint parties with the hearing process entitled "Procedure for Hearings before the Water Management Board" and "Summary of South Dakota Water Laws and Rules." If you intend to participate in the hearing, you are encouraged to review these documents prior to the hearing.

Contact Ron Duvall at the above Chief Engineer's address to request an additional copy of the staff report, recommendation, application, or other information related to the application. Notice is given to individuals with disabilities that the meeting is being held in a physically accessible location. Individuals requiring assistive technology or other services in order to participate in the meeting or materials in an alternate format should contact Brian Walsh, Nondiscrimination Coordinator, by calling (605) 773-5559 or by email at Brian.Walsh@state.sd.us as soon as possible but no later than two business days prior to the meeting in order to ensure accommodations are available.

Under SDCL 1-26-17(7) notices must state that "if the amount in controversy exceeds \$2,500.00 or if a property right may be terminated, any party to the contested case may require the agency to use the Office of Hearing Examiners by giving notice of the request to the agency no later than ten days after service of a notice of hearing issued pursuant to SDCL 1-26-17." This is a Notice of Hearing, service is being provided by direct mail to you, and the applicable date to give notice to the Chief Engineer is June 20, 2024. However, since this particular matter is a water permit application and not a monetary controversy in excess of \$2,500.00 or termination of a property right, the Chief Engineer disputes the applicability of this provision and maintains that the hearing must be conducted by the Board.

As applicable, the following provides the legal authority and jurisdiction under which the hearing will be held and the particular statutes and rules pertaining to this application: SDCL 1-26-16 thru 1-26-28; SDCL 46-1-1 thru 46-1-9, 46-1-13 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-17; 46-2A-1 thru 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21, 46-2A-23; 46-5-1.1, 46-5-2 thru 46-5-26, 46-5-30.2 thru 46-5-30.4, 46-5-31 46-5-32 thru 46-5-34.1, 46-5-38 thru 46-5-39, 46-5-46, 46-5-47, 46-5-49; 46-6-1 thru 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-21, 46-6-26; Board Rules ARSD 74:02:01:01 thru 74:02:01:24.02 and ARSD Chapter 74:02:04.

Questions regarding the hearing process may be directed to Ron Duvall, Water Rights Program at (605) 773-3352 or ron.duvall@state.sd.us.

CERTIFICATION

The undersigned hereby certifies under the penalty of perjury that a true and correct copy of a Notice of Hearing dated June 10, 2024, with attachments regarding Water Permit Application No. 8842-3 – Greg & Evette Rihanek, was served upon the following by enclosing the same in envelopes with first class postage prepaid, and depositing said envelopes in the United States mail on June 10, 2024.

Greg & Evette Rihanek
509 E 1st Street
Plankinton SD 57368

Clyde Olsen
38926 243rd Street
Plankinton SD 57368

Above also Sent Inter-office to:

Jennifer Verleger, Assistant Attorney General
1302 East Highway 14, Suite 1
Pierre SD 57501-8501


Shannon Konst
Water Rights Program, DANR

[illegible]

Sworn to, before me, this 10th day of June, 2024.


Rachel Rodriguez
Notary Public
My Commission expires May 16, 2025



Procedure for Hearings before the Water Management Board

April 19, 2023

The Water Management Board's function is to regulate and control the development, conservation, and allocation of the use of water according to the principles of beneficial use and priority of appropriation. In this role, the Water Management Board conducts contested case hearings on water right permit applications. This document is intended to acquaint participants in hearings of general procedures before the Board.

The Board is a citizen board consisting of seven members appointed by the Governor. They are from varying backgrounds and locations around the state. The Board has meetings approximately every two months.

South Dakota codified laws (SDCL) and administrative rules (ARSD) govern water rights. The laws and rules are available online at <https://sdlegislature.gov/>. Laws of interest include SDCL chapters 1-26, 46-1, 46-2, 46-2A, 46-4, 46-5 and 46-6. Administrative rules to review are ARSD 74:02:01.

Individuals may represent themselves in a contested case before the Board or may be represented by legal counsel. However, an organization, association, partnership, corporation, etc., must be represented by an attorney. Attorneys that intend to participate in the hearing must file a Notice of Appearance to all other parties. Non-resident attorneys must be able to demonstrate compliance with the requirements set forth SDCL 16-18-2 to practice in South Dakota.

Burden of Proof

An applicant for a water right permit has the burden of proving that the Water Management Board should approve the application and issue the permit. The applicant must therefore be prepared to present the permit application and the proposed operation to the Board at a contested case hearing. This burden then switches to the petitioning parties to prove their case. Do not rely on the Water Rights Program to carry the burden of proof. Although the Chief Engineer makes a recommendation to the Board, this recommendation is in no way binding upon the Board. While a Water Rights expert will present their report and be subject to questioning by the Board and parties on the application, Water Rights is not an advocate for your position.

SDCL 46-2A-9 sets forth the four criteria that must be present to approve an application. They are:

1. A reasonable probability that unappropriated water is available for the proposed use;
2. The proposed diversion will not unlawfully impair existing domestic water uses and water rights;
3. The use is a beneficial use; and
4. The use is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board.

Procedure

You or your legal counsel need to be at the hearing to present your position in a contested case hearing.

The Board Chairman runs the hearing. Address all questions and objections to the Chairman for a ruling. In some instances, the Board will appoint a hearing officer to preside over prehearing conferences and prehearing motions. An attorney from the Attorney General's office is seated with the Board to provide

legal advice to the Board. In addition, the Water Rights Program is represented by legal counsel. This is a legal proceeding so expect to swear an oath to tell the truth when you testify.

Contested case hearings are conducted pursuant to procedures outlined in SDCL ch. 1-26. Only parties of record can participate in the hearing by presenting testimony, calling witnesses, or cross-examining witnesses. Parties include the applicant and those individuals that have filed a petition as set forth in the public notice. The following procedure is followed:

1. Opening statements (parties may waive their opening statement)
 - a. Applicant
 - b. Water Rights
 - c. Petitioners and Intervenors
2. Evidentiary hearing
 - a. Water Rights – staff present their report and the Chief Engineer’s recommendation
 - b. Applicant (applicant’s opportunity to present testimony and call witnesses)
 - c. Petitioners and Intervenors (opportunity to present testimony and call witnesses)

Be prepared to explain your position on the application. Although the Board members have a great deal of expertise, don’t presume they know anything about your issue before them. If you’re the applicant, state what the proposed project is, the location of the project, timelines for completed the project and its benefits. If you are an opponent to the application, explain where you live in proximity to the proposed project and how the proposed project will injure you in a manner that is unique to you and not suffered by the public in general.

Parties may call witnesses on their behalf. The Board oftentimes hears testimony from technical experts, neighbors, or other witnesses regarding the proposal. Written endorsements are subject to the hearsay rule at the time of the hearing since the person cannot be cross-examined. Written comments will usually be allowed only if there is no objection from any other party.

Upon the conclusion of any witness’s testimony, Board members may ask questions of the witness and all parties will be afforded an opportunity in an orderly manner to cross-examine the witness regarding their testimony. Cross-examination is your opportunity to ask questions of the witness related to their direct testimony. It is not the appropriate time for you to provide your testimony.

3. Rebuttal. Parties may be afforded an opportunity to present testimony rebutting a prior witnesses’ testimony. Witnesses are again subject to cross-examination but only related to their rebuttal testimony.
4. Closing arguments (summation of your position)
 - a. Applicant
 - b. Water Rights
 - c. Petitioners and Intervenors
5. Board decision. The decision-making process occurs in public in front of all concerned and on the record. Normally, the Board limits discussion to its members but may call on witnesses,

attorneys, or parties to clarify a point. Upon making a verbal decision, the Board will direct either the prevailing party or Water Rights Program's attorney to prepare findings of fact, conclusions of laws and a final decision that will be considered at the Board's next meeting. The findings are a record of the facts considered by the Board. In the event the Board's decision is appealed to court, the findings reflect the facts considered by the Board to arrive at a decision. The non-prevailing party may waive their rights to findings if they are satisfied the Board addressed their concerns or have no intention of appealing the decision.

Although hearings may sometimes be considered informal, it is evidentiary hearing. Attorneys cannot testify or answer factual questions. Cross-examination is allowed and copies of exhibits must be available for opposing counsel and other parties.

Ex-parte Communication

It is improper for any party to a pending application or contested case proceeding to contact Board members prior to the hearing. To do so is ex-parte communication with the likely result being the Board member excusing himself from the proceeding. The Board is very careful to avoid even the appearance of discussing a contested case hearing that will come before it. Situations do arise where a party requests to have a Board ruling on a motion prior to the evidentiary hearing. If an applicant or party has an issue he wishes to raise prior to the hearing, please contact the Water Rights Program and they will put you in contact with either the Board's attorney or the Water Rights Program attorney.

Exhibits

Exhibits are pictures, maps, or documents you wish the Board to consider in conjunction with your testimony. Used effectively, exhibits greatly increase the interest and knowledge of the Board. Please have all exhibits you intend to present marked in advance of the hearing. Contact the Water Rights Program to find out how you should number your exhibits. Provide enough copies of each exhibit for the Board, Water Rights Program, opposing counsel, and other parties. The exchange of exhibits by parties prior to the hearing is encouraged. Be aware that someone may object to admission of an exhibit. The Board Chairman will rule whether the exhibit is admissible. All exhibits become part of the record and will not be returned.

Transcript

A court reporter is present at all contested case hearings. A party wishing to have a transcript of the hearing should make their own arrangement with the court reporter. Water Rights will tape the proceeding and will prepare minutes of the hearing.

Appeal of Board's Decision

South Dakota statutes provide that decisions of the Board may be appealed to the courts. Notice of appeal of the Board's decision must be filed within thirty days from when the signed findings of fact, conclusions of law and final decision is mailed to parties. The notice of appeal must be in accordance with procedures established in SDCL 1-26-31.

The best advice is to come to the hearing prepared! If you have question regarding the hearing process, please contact Ron Duvall, Water Rights Program at (605) 773-3352.



DEPARTMENT of AGRICULTURE and NATURAL RESOURCES

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

Summary of South Dakota Water Laws and Rules

Prepared by Water Rights Program
February 2021

The following is a summary of South Dakota water laws and rules. This summary is provided as a service of the Water Rights Program, Department of Environment and Natural Resources for the purpose of introducing the public to the water rights laws of South Dakota. The actual text of the laws and rules may be viewed at <https://sdlegislature.gov/>.

PLEASE NOTE: This summary is not a substitute for the South Dakota Codified Laws or Administrative Rules of South Dakota and is not intended to serve as legal advice. In the event there is a difference in interpretation between this document and South Dakota Codified Law and/or Administrative Rule, the law and/or rule controls.

ADMINISTRATIVE OVERVIEW

- 1) Water in South Dakota is owned by the people of the state and not by private individuals. The right to use water may be obtained under State Law.

Reference: SDCL 46-1-1, 46-1-3, and 46-5-5.

- 2) South Dakota water rights are administered by a system commonly called the "Doctrine of Prior Appropriation." This means the first in time (senior priority) is the first in right, except for individual domestic use. Priority is established based on the date of filing the application. Uses of water developed prior to or under development as of March 2, 1955 (surface water) or February 28, 1955 (ground water) may qualify for a vested water right depending on the type of use involved.

Reference: SDCL 46-1-9, 46-2A-9, 46-2A-12, 46-4-1, 46-4-2, 46-5-4, 46-5-7, 46-5-8, 46-5-34, 46-5-34.1, and 46-6-3.

- 3) Domestic use of water takes precedence over appropriative rights.

Reference: SDCL 46-1-5, 46-1-6(7), and 46-1-6(14).

- 4) The seven member Water Management Board regulates water use, approves and denies permits, validates vested rights, cancels water right permits or rights, establishes ordinary high and low water marks for lakes as well as setting lake outlet elevations.

Reference: SDCL 1-40-15, 43-17-21, 43-17-23 thru 43-17-25, 43-17-28, 46-2-9, 46-2-11, 46-2A-7, 46-2A-8, 46-2A-16, 46-4-2, and 46-5-8.1.

DOMESTIC WATER USE – no permit needed

- 1) The following domestic uses do not require a water right permit:

- a. Domestic use of water from other than a common water distribution system that does not exceed 25,920 gallons per day (which is 18 gpm pumped 24 hours per day) or a peak diversion rate of 25 gallons per minute (gpm) for:
 1. Individual farm or ranch use including livestock water;
 2. Individual household use for drinking, washing, sanitary, culinary, and other ordinary household purposes; and
 3. Irrigation of a noncommercial family garden, trees, lawn, shrubbery, or orchard that is no larger in area than one acre. Lawn, tree, and garden watering within a city, town, or from other common water distribution systems is covered by the system waterright.

Note: Drip irrigation systems for noncommercial purposes and not exceeding 18 gpm do not need to be permitted even if the irrigated area exceeds one acre.

- b. Water use from other than a common water distribution system that does not exceed 18 gallons per minute (gpm) for:
 1. Schools, parks and other public recreation areas;
 2. Geothermal heating or cooling of a single household. Most heat pump installations for household heating and cooling should not require more than 5 to 10 gpm; and
 3. Noncommercial on-farm alcohol production.

Reference: SDCL 46-1-6(7), 46-5-50 thru 46-5-52. Water Management Board Rules 74:02:01:01 and 74:02:01:03.

WATER RIGHT PERMITTING

- 1) Except for the previously described domestic water uses and water distribution systems (e.g. towns, rural water systems, subdivisions, and mobile home parks) that do not pump more than 18 gpm, all uses of water require a water right permit pursuant to procedures in SDCL Chapter 46-2A. Water uses supplied from a water distribution system do not need a separate permit. Examples of uses which require a permit are:

- a. Cities, towns, rural water systems, mobile home parks, subdivisions, and other common water distribution systems that pump more than 18 gpm. Those systems not pumping more than 18 gpm that may expand and increase pumping above 18 gpm, should obtain a water right permit to establish a priority date.

Note: Certain water distribution systems that do not pump more than 18 gpm may still be subject to compliance with Safe Drinking Water Standards. SDCL Chapter 34A-3A. Water Management Board Rules Chapter 74:04:05.

- b. Domestic use for farm, ranch, household, and livestock use from other than a common water distribution system in excess of either 25,920 gallons per day (18 gpm continuously for a day) or 25 gpm (peak rate).
- c. Any well that is allowed to flow more than 18 gpm.
- d. Any dam or dugout on a dry draw or nonnavigable watercourse impounding more than 25 acre feet.
- e. Any dam constructed for any purpose on a stream considered navigable.
- f. Irrigation of more than one acre.
- g. Commercial use, even less than 18 gpm, when supplied from other than a common water distribution system to a truckstop, tourist attraction, eating, drinking, or lodging establishment, commercial campground and any other business. An existing business without a water right has no right to the use of water. The commercial user without a water right is not entitled to receive protection in the event of well

interference by a new or future user who has a water right. The new user with a water right will have the senior priority over an existing user without a water right.

- h. Industrial, manufacturing, gravel washing and mining uses when supplied by other than a common water distribution system. Temporary water permits may be issued for temporary, short term projects. See Temporary Water Permitting.
- i. Geothermal use of any amount of water from other than a common water distribution system, for businesses, churches, schools, or any other building, except for individual homes using 18 gpm or less.
- j. Any use by a school, park, rest area or other public recreation area in excess of 18 gpm when supplied by other than a common water distribution system.
- k. Any use by a hospital, nursing home or church when supplied by other than a common water distribution system.

Fees for permit applications are set by SDCL 46-2-13(2).

Depending on the type of use involved a person who applied water to a beneficial use for works constructed prior to or under construction as of March 2, 1955 (surface water) or February 28, 1955 (ground water), may qualify for a vested right pursuant to SDCL 46-1-9 or 46-6-1, if that vested water right has not been forfeited or abandoned. Vested water right claims may be filed or the chief engineer may require vested water right claims to be filed pursuant to SDCL 46-5-49 or 46-6-2.

Reference: SDCL 46-1-3, 46-1-6(3), 46-1-9, 46-1-15, 46-5-1.1, 46-5-6.2 thru 46-5-6.8, 46-5-8.2, 46-5-9, 46-5-10, 46-5-49 and 46-6-2. Water Management Board Rules ARSD 74:02:01:03.

2) Criteria for granting a water right permit as set forth in SDCL 46-2A-9:

- a. Water must be available for the proposed use.

The water source, whether surface or ground water, needs to be capable of supporting the proposed water use. For ground water, the average annual use from the water source may not exceed the average estimated annual recharge with some limited exceptions – please refer to “WELLS, Ground Water Management” for additional details.

- b. The proposed diversion can be developed without unlawful impairment of existing rights.

Existing rights, including domestic uses of water, may not be unlawfully impaired regardless of whether the proposed source is surface or ground water. In order for a well to be protected it must meet the definition of an “adequate” well – please refer to “WELLS, Well Construction” for additional details.

- c. The use of water must be a beneficial use.

Beneficial use is the use of water that is reasonable and useful and beneficial to the owner and consistent with the best utilization of water supplies. In general, beneficial uses of water include, but are not limited to: 1) domestic, 2) municipal, 3) rural water system, 4) irrigation, 5) suburban housing, 6) commercial, 7) industrial, 8) recreation, 9) fish and wildlife, and 10) institutional.

- d. The use of water must be in the public interest.

Public interest is not specifically defined in water rights law and is a determination made by the Board based on testimony at the time of hearing. In making a public interest determination, the Board may recognize that some issues are within the jurisdiction of local, state and federal entities.

WATER RIGHT PERMIT ADMINISTRATION

- 1) After approval of a water right permit, the permit owner has five years to complete any construction. The owner then has an additional four years to put the water to beneficial use.

A water right permit may be amended to extend the time for completion of construction or the time to put the water to beneficial use. The extension may be granted on account of delays due to physical or engineering difficulties, due to operation of law, or due to exigent circumstances identified by the Water Management Board. An application to amend a permit to extend the time for construction or the time to put the water to use needs to be made prior to expiration of the time period to be extended.

Reference: SDCL 46-2A-1(2), 46-2A-8, and 46-5-26.

- 2) An existing water right permit or right may be amended. Amendment examples are: to change the use of water, to change place of use, to extend time for construction beyond five years, to change diversion points or to add diversion points. An amendment can not be granted to increase the rate of diversion or volume of water appropriated under the original permit or if an existing water right will be impaired. An application to increase the rate of diversion or volume of water will be treated as a new application and will be assigned a new priority date.

The location of an existing diversion point may be moved or additional diversion points may be added without application or publication, if:

- a. The water source remains unchanged;
- b. No additional water is appropriated;
- c. If for irrigation purposes, no new land is irrigated; and
- d. The Chief Engineer makes a finding that the potential for interference with existing diversions is not increased.

Reference: SDCL 46-2A-1(2), 46-2A-12, 46-5-13.1, 46-5-30.4, and 46-5-31.

- 3) Notice of any sale, grant, lease, conveyance or other transfer of an application, permit, or license to appropriate water must be filed with the Chief Engineer of the Water Rights Program within 90 days. No assignment is binding, except upon the parties thereto, unless filed for record in the Water Rights Program.

Reference: SDCL 46-5-30.3 and 46-5-32.

- 4) Water right permits can be cancelled for nonconstruction. However, the Board may reinstate any water right permit with a priority date after March 31, 1977, within three years after expiration of the original construction period if unappropriated water is available. A new priority date is assigned to a reinstated permit. A water right permit or right can be lost for any of the following three reasons:

- a. Abandonment - The water right permit or right owner has no intent to use water and abandons its use. Once a water right permit or right is abandoned, it can not be reclaimed under the original permit or right.

- b. Forfeiture - Occurs by operation of law if water is not used for a three year period without legal excuse. A "legal excuse" would include, generally, the lack of water, but may include other reasons. Once a water right permit or right is forfeited, it can not be reclaimed under the original permit or right.
- c. A third violation of a condition of a water right permit or right.

Reference: SDCL 46-1-12, 46-2A-8.1, 46-5-36, 46-5-37, and 46-5-37.1. Water Management Board rules ARSD 74:02:01:36 thru 74:02:01:41.

FUTURE USE PERMITTING

- 1) The following entities may reserve water for expected future needs pursuant to procedures in SDCL 46-2A:
 - a. State institution;
 - b. Municipality as defined in SDCL 9-1-1;
 - c. The South Dakota conservancy district or water development districts as defined in SDCL 46A-2-4;
 - d. Water user district as defined in SDCL 46A-9-2;
 - e. Nonprofit rural water supply company as defined in SDCL 10-36A-1;
 - f. Sanitary district as defined in SDCL Chapter 34A-5;
 - g. Irrigation district as defined in SDCL 46A-4; or
 - h. Water project district as defined in SDCL Chapter 46A-18.

Approval of an application to appropriate water for future use is a reservation of a definite amount of water with a specific priority date. A future use permit does not grant authority to construct works or put the water to beneficial use. An additional application is required to construct works and put reserved water to beneficial use. The fee for a future use application is 10% of the usual fee for an application to construct works and put water to beneficial use.

Future use permits are subject to review by the Water Management Board every seven years. If the future use permit is allowed to remain in effect after the seven year review, an additional 10% fee is required.

Reference: SDCL 46-2-13(2), 46-5-38, and 46-5-38.1.

FLOOD CONTROL PERMITTING

- 1) Flood control permits are required pursuant to SDCL 46-2A for facilities constructed on a watercourse to control flooding. Emergency facilities may be constructed without a permit. However, the Chief Engineer of the Water Rights Program must be promptly notified. Flood control permits are not required for flood control facilities constructed on dry draws.

Reference: SDCL 46-2A-11, 46-5-47, and 46-5-48.

TEMPORARY WATER PERMITTING

- 1) Temporary water permits may be issued by the Chief Engineer when limited amounts of public water are needed on a temporary basis. For example, permission may be granted to use water for highway and other construction projects and exploration drilling. A temporary permit is not valid after December 31 of the year in which the permit was issued and, under certain circumstances, a temporary permit may be rescinded. In

addition, a temporary permit is temporary permission to use public water and does not grant any right of priority for the temporary use.

Temporary permits may be granted to use water from either public or privately owned sources of water. Approval of a temporary permit does not grant trespass rights to access the water. Water may be obtained from municipalities and other permitted water distribution systems without a temporary permit.

Reference: SDCL 46-5-40.1. Water Management Board Rules ARSD 74:02:01:32 thru 74:02:01:34.02.

WELLS

1) Ground Water Management

- a. An adversely impacted domestic well is a well in which the pump intake is at least 20 feet below the top of the aquifer 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 from the well owner's needs.

Reference: Water Management Board Rules ARSD 74:02:04:20(7)

- b. South Dakota water laws do not allow the "mining" of ground water. "Mining" occurs when the average quantity of water pumped annually from a ground water aquifer exceeds the estimated average annual recharge to the aquifer. There are a few areas in South Dakota where additional water right permits are not being approved for this reason. A limited exception to "no mining" is made by SDCL 46-6-3.1 for water distribution systems. The Water Rights Program maintains more than 1,500 observation wells to monitor ground water levels.

Reference: SDCL 46-2-14 and 46-6-3.1.

- c. South Dakota water law does not protect artesian head pressure as a means of diversion. In other words, a well owner is not necessarily guaranteed that water from a flowing well or from a pump placement that relies on head pressure will always be available. A pump must be capable of being placed 20 feet into the aquifer or set as near to the bottom of the aquifer as practical if the aquifer is less than 20 feet thick.

2) Well Construction

- a. All wells must be completed in accordance with South Dakota Well Construction Standards. A well driller must be licensed to drill water wells in South Dakota. The driller is required by law to file a copy of a well completion report with the Water Rights Program within 30 days of completion of each well.

Reference: 46-2A-13, 46-6-9, and 46-6-11. Water Management Board Rules ARSD Chapter 74:02:04

- b. Any person who performs work for compensation in the repair of wells or as a well pump installer must obtain either a well driller's license or a well pump installer's license.

Reference: 46-2A-13 and 46-6-9.2.

- c. An adequate well is defined as a well constructed to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet.

Reference: Water Management Board Rules ARSD 74:02:04:20(6)

3) Well Owner Responsibilities

- a. The owner or equitable property holder is responsible for the well from the time the licensed well driller successfully completes the well in compliance with the Well Construction Standards ARSD Chapter 74:02:04. The owner shall keep the well capped or covered, in good repair, and in a sanitary condition.

Reference: Water Management Board Rules ARSD 74:02:04:74

- b. All flowing wells must be controlled by the owner to produce only the amount of water needed and to prevent waste of water.

Reference: SDCL 46-2-18, 46-6-10, 46-6-14, 46-6-20, 46-6-21, 46-6-29, and 46-6-30. Water Management Board Rules ARSD 74:02:04:74.

- c. When 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. Other abandoned wells must also be plugged. If an old well is not to be abandoned or will be used, the well must still be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

Reference: SDCL 46-6-18 and 46-6-27.

DAMS OR DUGOUTS

- 1) Dams or dugouts of any size on a navigable watercourse or storing greater than 25 acre feet of water located on a dry draw or on a nonnavigable watercourse require a water right permit.

Reference: SDCL 46-4-1 and Water Management Board Rules ARSD 74:02:01:03.

- 2) Dams or dugouts storing 25 acre feet or less of water located on a dry draw or on a nonnavigable watercourse can be constructed without a water right permit provided a location notice is filed. However, the dam may not be constructed if it changes the course of the water, interferes with water rights, or wrongfully floods land owned by others.

Reference: SDCL 46-4-1.1, 46-4-3 and 46-5-2.

- 3) The owner of a dam or dugout storing 25 acre feet or less on a dry draw must file a location notice with the county Register of Deeds and the Water Management Board to avail the owner of the rights provided in SDCL Chapter 46-4 including establishment of a priority date. The \$50.00 filing fee is set by SDCL 46-2-13(1).

Reference: SDCL 46-4-3 thru 46-4-6.

- 4) The Board may not enforce limitations on domestic use of water from dry draw dams except in response to a written complaint from a person claiming interference with water permits or rights on the same watercourse.

Reference: SDCL 46-2-22

- 5) Water Management Board Safety of Dams Rules Chapter 74:02:08 apply to dams that are 25 feet or more in height (top of dam) or that store 50 acre-feet or more of water (maximum storage to top of dam.)

Reference: Water Management Board Safety of Dams Rule ARSD 74:02:08:01(7).

- 6) Beaver dams - No person owning land through which a watercourse passes may prohibit the removal of obstructions built by beavers in a watercourse, if the beavers have obstructed or interfered with the flow of water through the watercourse in a manner that floods land belonging to others or impairs existing water rights.

Reference: SDCL 46-5-1.2.

ORDINARY HIGH/LOW WATER MARKS AND LAKE OUTLET ELEVATIONS

- 1) The Water Management Board establishes ordinary high water marks (OHWM), ordinary low water marks (OLWM) and lake outlet elevations for public lakes.

State law provides that all navigable rivers and lakes are public highways within 50 feet landward from the water's nearest edge, provided that the outer boundary of such public highway may not expand beyond the OHWM and may not contract within the OLWM. Thus, the public has the right to use a strip of land up to 50 feet wide below the OHWM beginning at the water's edge or the OLWM. Further, while the public may use the 50 foot strip of land for only "public" purposes, the private adjoining landowner may use the land for any purpose not inconsistent with the rights of the public.

The meander line is a survey line and is usually not a property line nor is the title of an adjacent landowner limited to the meander line, except when the land title conveyance clearly states that the meander line is the property line. Subject to the preceding exception, the meander line defines neither the boundary of a lake or stream nor the extent of land area owned by the adjacent landowner. The meander line was established during early government surveys and used to determine the acres of land subject to sale.

Reference: SDCL 43-17-1 thru 43-17-4, and 43-17-20 thru 43-17-30.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUL 25 2024

Greg and Evette Rihanek
509 E 1st Street
Plankinton SD 57368

Dear Mr. & Mrs. Rihanek:

Enclosed is Water Permit No. 8842-3 authorizing construction of the 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,

Eric Gronlund, 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
Posting 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.: 8842-3

Name of Applicant: Greg & Evette Rihanek

Date of Posting: 4/22/2024

Date of Removal: 7/25/2024

Ron Duvall, Engineer III

7/25/2024

Date

Subscribed and sworn to before me, a notary public, this 25th day of July, 2024.

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

October 24, 2025

8842-3

Greg & Evette Rihanek
814 E State St
Plankinton SD 57368

Dear Mr. & Ms. Rihanek:

Enclosed is a "Notice" dated October 8, 2025, concerning the 2025 Irrigation Questionnaire.

The notice was originally mailed to you at 509 E 1st St, Plankinton SD 57368. The post office notified our office that your address has changed, and your records have been updated accordingly.

This is a time sensitive matter. Please complete and return the enclosed questionnaire or submit your report online at <https://danr.sd.gov/iq/> using this password **UAKPOP**.

If this change of address is in-correct, please contact our office immediately to update your contact information.

Sincerely,

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

enclosures

RETURN TO SENDER
RIHANEK, EVETTE
814 E STATE ST
PLANKINTON SD 57368-6604
RETURN TO SENDER

8842-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 20, 2026

NOTICE

TO: GREG & EVETTE RIHANEK, 814 E STATE ST, PLANKINTON, SD 57368
FROM: Ron Duvall, Engineer III
for Adam Mathiowetz, PE, Acting Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2025 Irrigation Questionnaire(s)

Our records indicate your 2025 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8842-3. The request for the Questionnaire was dated October 8, 2025. The Water Management Board has directed owners of water permits who have not submitted the 2025 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) 8842-3 qualification:

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

The hearing will be held on **Wednesday, March 4, 2026 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) 8842-3 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 4, 2026** 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 Shannon Konst at (605) 773-3352 or email at shannon.konst@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: UAKPOP**

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.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Greg & Evette Rihanek
314 E State St
Plankinton, SD 57368



9590 9402 6392 0303 3260 03

2. Article Number (Transfer from service label)

7021 1970 0000 9489 8377

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Evette Rihanek*

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

USPS TRACKING #



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

9590 9402 6392 0303 3260 03

United States
Postal Service

RECEIVED

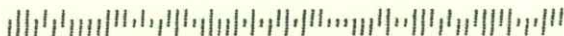
MAR 12 2022

OFFICE OF
WATER

• Sender: Please print your name, address, and ZIP+4® in this box •

DANR WATER RIGHTS PROGRAM
523 E CAPITOL AVE
PIERRE SD 57501

1-318299





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

March 12, 2026

8842-3

Greg Rihanek
509 E 1st St
Plankinton, SD 57368

Dear Mr. Rihanek:

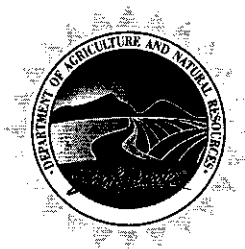
I am writing to acknowledge the receipt of your 2025 irrigation information submitted for Water Right No 8842-3 on March 10, 2026.

The Water Management Board moved to suspend Water Right No. 8842-3 for a period of one year if the questionnaire was not returned prior to April 6, 2026. You may disregard the "Notice of Entry of Order for One Year Suspension" for Water Right No. 8842-3, dated March 4, 2026.

Sincerely,

Shannon Konst

Shannon Konst
Water Rights Program
605 773-3352
Shannon.konst@state.sd.us



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

March 6, 2026

NOTICE OF ENTRY OF ORDER FOR ONE YEAR SUSPENSION OF WATER RIGHT

TO: Greg & Evette Rihanek, 814 E State St, Plankinton SD 57368

FROM: Adam Mathiowetz, PE, Acting Chief Engineer
DANR - Water Rights Program

SUBJECT: One Year Suspension of Water Permit No. 8842-3

On March 4, 2026, the South Dakota Water Management Board ordered:

- Effective April 3, 2026, Water Permit No. 8842-3 be suspended for the 2026 irrigation season.

This action was taken by the Board for failure to return the 2025 irrigation questionnaire. If the 2025 irrigation questionnaire is received prior to April 3, 2026, the suspension will not take effect.

A one-year suspension of Water Permit No. 8842-3 means water may not be pumped during the 2026 irrigation season. Consistent with the Board's order, you are not permitted to irrigate in 2026 unless the 2025 irrigation questionnaire is submitted prior to April 3, 2026.

After April 3, 2026, you may petition the Board to rescind the suspension. You will need to submit, to the Water Rights Program, the 2025 irrigation questionnaire and a letter including your reason for not completing the 2025 irrigation questionnaire within the allotted time and requesting time on the agenda for the next Water Management Board meeting. The next Water Management Board meeting is scheduled for May 6, 2026, in Pierre SD.

Decisions made by the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

Please contact Amanda Dewell, Water Rights Permitting Administrator (605) 773-3352 with any questions.

NOTE: Water Rights staff will conduct unscheduled compliance checks of suspended water rights to ensure irrigation is not taking place.

7021 1970 0000 9489 8377

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- | | | |
|--|----|--|
| ☐ Return Receipt (hardcopy) | \$ | |
| ☐ Return Receipt (electronic) | \$ | |
| ☐ Certified Mail Restricted Delivery | \$ | |
| ☐ Adult Signature Required | \$ | |
| ☐ Adult Signature Restricted Delivery | \$ | |

Postmark
Here

Postmark

\$

Total

\$

Sent

Street

City

Greg & Evette Rihanek

814 E State St

Plankinton, SD 57368

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

CERTIFICATION

The undersigned hereby certifies under the penalty of perjury that I have personally mailed a true and correct NOTICE OF ONE- AND THREE-YEAR SUSPENSION OF WATER RIGHT dated March 6, 2026, via certified mail to the following parties.

Chance & Michelle Wientjes
PO Box 96
Mobridge, SD 57601

Vernon & Marlys Walkling
29832 267th Ave
Crookston, NE 69212

Vasgaard Properties
28746 462nd Ave
Centerville, SD 57014

Doug & Darla Van Gerpen
40930 305th St
Avon, SD 57315

John & Bryan Uecker
PO Box 573
Wagner, SD 57380

Twisted Land & Cattle Co.
C/O Brad Peterson
19030 391st Ave
Hitchcock, SD 57348

Tilton Ranch Inc.
C/O Janet Burback
2199 Skinner Rd
Belgrade, MT 59714

Dale Sprague
16221 Twilight Rd
Mud Butte, SD 57758

Greg & Evette Rihanek
814 E State St
Plankinton, SD 57368

Wayne Reiersen
30048 Reiersen Pl
Pollock, SD 57648

Charlotte or Phillip Nichols
7497 Rolling Meadow Dr
West Chester, OH 45069

Wilma Heien (Walter Heien)
PO Box 145
Blunt, SD 57522

David & Jerry Wieber
PO Box 238
Lidgerwood, ND 58053

Vintage Square Estates
PO Box 594
Ft Pierre, SD 57532

Valley View Farms Inc.
17716 458th Ave
Watertown, SD 57201

Kash & Trish Van Dyke
48549 219th St
Elkton, SD 57026

Oscar Inc.
C/O Floyd Peterson
209 27th St NW
Huron, SD 57350

Dan & David Trudeau
33927 478th Ave
Jefferson, SD 57038

Terrill Farms Inc.
C/O Tony Terrill
42099 176th St
Clark, SD 57225

Swan Creek Land Co. Inc
PO Box 435
Akaska, SD 57420

Six Mile Creek Golf Course
20307 483rd Ave
White, SD 57276

Robert Phelps Jr
16220 Spring Valley Rd
Piedmont, SD 57769

GW Evridge
20151 Saddle Ct
Whitewood, SD 57793

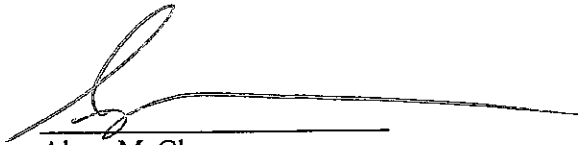
Mark & Melvin Morlock
33820 112th St
Eureka, SD 57437

Laverne Neuharth
33567 109th St
Eureka, SD 57437

Central Valley Golf Club
700 E Hwy 38
Hartford, SD 57033

Dale & Mary Helen Bisson
PO Box 844
Ft Pierre, SD 57532

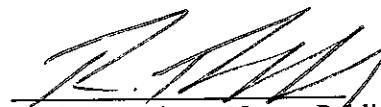
Ryan Edwards
25331 Yellow Eagle Rd
White River, SD 57579



Alyce McGhee
Senior Secretary-Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 6 day of March, 2026.



Rachel Rodriguez Notary Public
My Commission expires May 16, 2029

