

WATER PERMIT NO. 8469-3

Name of Applicant: Double A Farms LLC

Address: 420 Lincoln St, Centerville SD 57014

Phone: 605 360-7446

Amount of Water Claimed: 2.22 cfs

Total Acres: 114 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Lincoln

Type of Waste Disposal System:

Location: 4 miles northeast of Centerville

PRIORITY

Date Received: 1-4-21

Application/License Fee: \$ 950

Corrected Application Received:

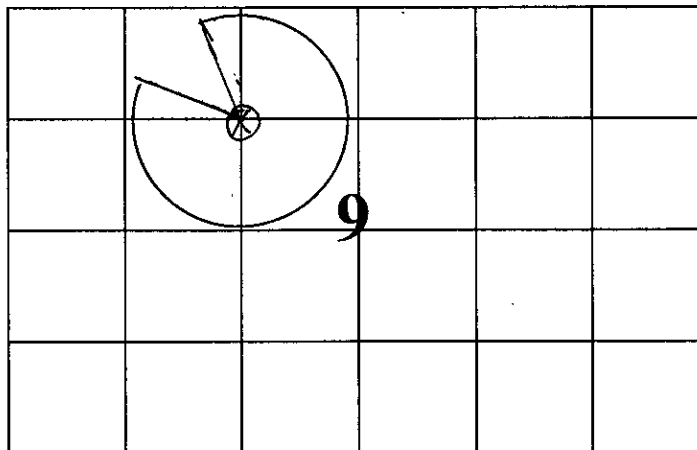
Period of Annual Use: April 1 – September 30

Remarks: Requesting diversion rate greater than statutory limit

Diversion Point: approximate center of NW 1/4

Sec 9-T96N-R51W

Land to be Irrigated: NW 1/4 Sec 9-T96N-R51W



Depth of Well: 140 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-4-21

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8469-3**

Date of first receipt of application January 4, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8469-3 to Double A Farms LLC, c/o Adam Carlson, 420 Lincoln St, Centerville SD 57014 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. 8469-3 appropriates 2.22 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri:South Aquifer (approximately 140 feet deep) located approximately in the center of the NW 1/4 Section 9 for irrigation of 114 acres located in the NW 1/4 Section 9; all in T96N-R51W. This site is located approximately 4 miles northeast of Centerville SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is January 4, 2021.
4. The date of approval of Permit No. 8469-3 is March 15, 2021.
5. One-fifth of the construction is to be completed on or before September 15, 2023.
6. All construction is to be completed on or before March 15, 2026.
7. Water is to be put to beneficial use on or before March 15, 2030.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 8469-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8469-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 8469-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 114 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 06 2021

date



JAN 04 2021

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8469-3</u>	(office use only) Hydrologic Unit <u>10170102</u>	WATER RIGHTS PROGRAM
	Basin <u>Vermillion River</u>		
	Newspaper <u>Sioux Valley News</u>		
	<u>Argus Leader</u>		

PAID

JAN 04 2021

Ck# 2327

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 Double A Farms, LLC - Adam Carlson

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

Mailing Address 420 Lincoln St Centerville SD 57014
(Address) (City) (State) (Zip Code)Phone _____ Mobile 605 360 7446 Email ajc_02@hotmail.com2. Amount of water claimed 2.22 *CFS or 1000 **GPM 0 ***AF Total Acreage 114
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable3. Source of water supply new well4. Location of point of diversion 1 well in NW 1/4 Sect 9 96N-51W (see attached)
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
(approximate center) County Lincoln5. County or counties where water will be used Lincoln6. Annual period during which water is to be used April-September 307. 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
<u>NW 1/4 Sect 9 96N-51W</u>	<u>114 acres</u>		
<u>135 acre field</u>	<u>40</u>		
	<u>40</u>		
	<u>34</u>		
<u>114 ac Irrigated</u>			

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

See attachedRequesting diversion rate greater than statutory limit.I, Adam Carlson aka Double A Farms LLC - Owner, the applicant, certify under
Name of Person Title (if applicable)

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by will be Sam Heine
(if yes, please provide copies of logs)b) If existing wells, how many Provide copy of log(s), if available. Drilled by

For either Existing or Proposed Wells:

c) Well Depth (required) 140 Depth to Top of Water Bearing Material? Depth to Water from Surface? d) Distance to nearest domestic well on applicant's property 1000ft Property owned by others 0

2. Wastewater Disposal System Information

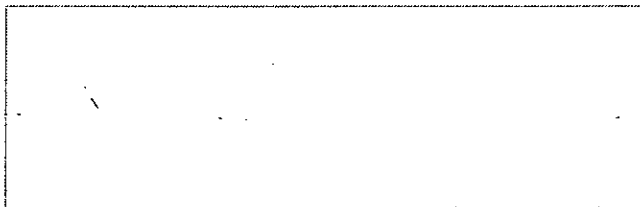
a) Type of System (i.e. septic tank, drain field) Farm House septic tankb) System Capacity (gallons) 500 Year Constructed 1991c) Connected to the City of Sanitary System

3. Dugout Information

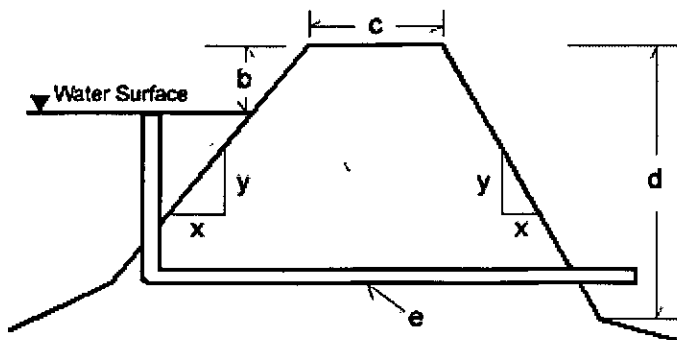
a) Surface Dimensions N/A Depth b) Depth to water (ground surface to water level) 4. Water Storage Dams N/A

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.

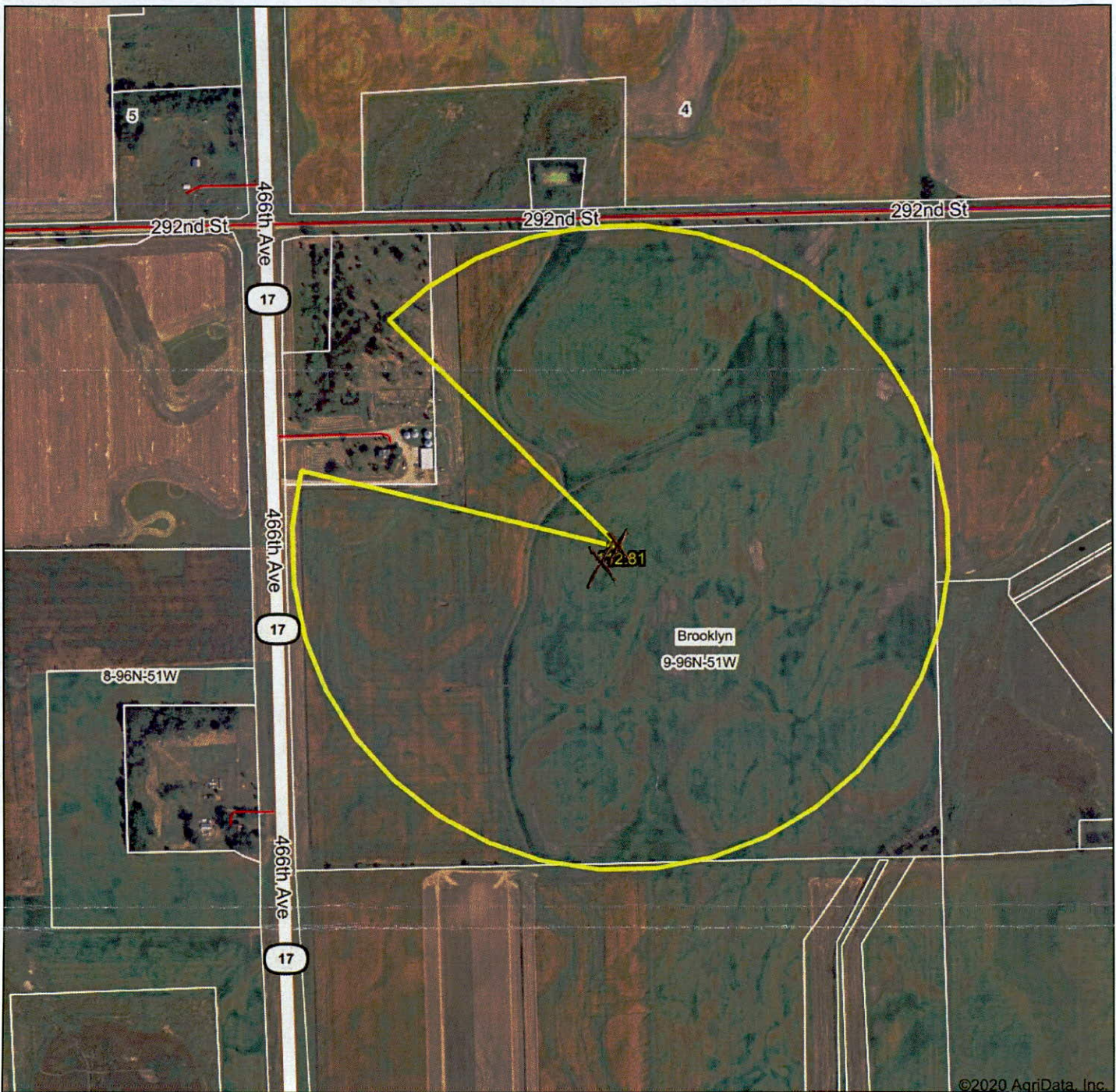
a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

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) Surface Area of Impoundment i) Storage Acre Feetj) Drainage Area Above Dam Acres

Aerial Map



Map Center: 43° 9' 9.34, -96° 52' 50.5

0ft 632ft 1263ft

Nutrien
Ag Solutions™

Maps Provided By:



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Field borders provided by Farm Service Agency as of 5/21/2008.

9-96N-51W
Lincoln County
South Dakota



12/17/2020

Entirely
Owned by Double A Farms LLC
- Alan Carlson

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date January 4, 2021

RECEIVED OF Adam Carlson/Double A Farms, LLC 420 Lincoln St Centerville SD 57014

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

Fee for Application for Permit No. <u>8469-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$750.00
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$
Fee to retain Future Use Permit No. _____ after period of seven years.	\$
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8469-3</u>	\$200.00
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	\$950.00

By *Eric Gronlund*
Chief Engineer
me



531146404

B0163-8908 12/31/2020 3:18PM Rec'd by SD SOS

Secretary of State
500 E. Capitol Ave
Pierre, SD 57501-5070
(605) 773-4845

2021
FILING YEAR

ANNUAL REPORT

Domestic Limited Liability Company
SDCL 47-34A-211; 59-11-24, 24.1

Please Type or Print Clearly in Ink
Please submit one Original
Make payable to the SECRETARY OF STATE

Filing Fee: \$50

Total Fee: \$50

1. Business ID and Name:

DL131917
BUSINESS ID

Double A Farms, LLC
BUSINESS NAME

2. The jurisdiction under whose law it is formed South Dakota

3. The address of the principal executive office (business address):

Actual Street Address

**420 LINCOLN ST
CENTERVILLE, SD 57014-2031**

Mailing Address

**420 LINCOLN ST
CENTERVILLE, SD 57014-2031**

4. The South Dakota Registered Agent's Name:

South Dakota law permits the registered agent to be either (a) a noncommercial registered agent, or (b) a commercial registered agent.

(a) The South Dakota Noncommercial Registered Agent's name

Name Adam J Carlson

Actual Street Address in this State

**420 LINCOLN STREET
CENTERVILLE, SD 57014**

Mailing Address in this State

**420 LINCOLN ST
CENTERVILLE, SD 57014-2031**

5. If the LLC is manager-managed, list the names and addresses of its Managers. SDCL 59-11-24. If the LLC is member-managed, this section may be left blank.

6. Beneficial Owners (optional): A beneficial owner is a person who has or in some manner controls an equity security. Please consult an attorney for legal advice if you have any questions concerning this entry. Any question under this heading is considered a request for legal advice and the secretary of state's office is, by statute, not permitted, to provide legal advice.

No person may execute this report knowing it is false in any material respect. Any violation may be subject to a criminal penalty (SDCL 22-39-36).

12/31/2020

Dated

Email (Optional)

Adam Carlson

Signature of an Authorized Person

Adam Carlson

Printed Name



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8469-3, Double A Farms LLC c/o Adam Carlson**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8469-3, Double A Farms LLC c/o Adam Carlson, 420 Lincoln St, Centerville SD 57014.

The Chief Engineer is recommending APPROVAL of Application No. 8469-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and, 4) it is in the public interest with the following qualifications:

1. The well approved under Water Permit No. 8469-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8469-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 8469-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 114 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
February 24, 2021

Report to the Chief Engineer
On Water Permit Application No. 8469-3
Double A Farms LLC c/o Adam Carlson

February 24, 2021

Water Permit Application No. 8469-3 proposes to divert water at a maximum instantaneous diversion rate of 2.22 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South aquifer (140 feet deep) and located approximately in the center of the NW ¼ of Section 9 for the irrigation of 114 acres located in the NW ¼ of Section 9; all in T96N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The site is located in Lincoln County approximately four miles northeast of Centerville, South Dakota.

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

HYDROGEOLOGY:

The Upper Vermillion Missouri aquifer is a glacial outwash that is composed of fine sand to medium-pebble gravel (Lindgren and Hansen, 1990). The aquifer generally lays in a bedrock valley that trends north to south and underlies portions of Clay, Lincoln, and Turner Counties (Holmes and Filipovic, 2015). From 2013 to 2014, the SD DENR-Geological Survey completed a study to further understand the geologic and hydrologic conditions of the Upper Vermillion Missouri aquifer (Holmes and Filipovic, 2015). As a result, the aquifer is now divided into three management units (i.e. North, South, and West) that were adopted by the Water Management Board at the March 6, 2014 meeting (Water Rights, 2014).

Most of the Upper Vermillion Missouri aquifer is overlain by till that can be up to 160 feet thick but in some localized areas, the aquifer can be encountered near the ground surface (Holmes and Filipovic, 2015). The direction of groundwater movement in the Upper Vermillion Missouri aquifer is generally to the south/southeast (Lindgren and Hansen, 1990; Holmes and Filipovic, 2015). In Lincoln County, the Upper Vermillion Missouri aquifer has an average thickness of 41 feet and a documented maximum thickness of 116 feet (Niehus, 1997). The proposed diversion point for this application is located in the South management unit of the Upper Vermillion Missouri aquifer. The areal extent of the Upper Vermillion Missouri: South aquifer is approximately 78,820 acres (Figure 1) (Buhler, 2014). It is worth noting the southern boundary of the Upper Vermillion Missouri aquifer has not been delineated at this time, but data shows it extends several miles from the original border as it merges or transitions into the Lower Vermillion Missouri aquifer (Buhler, 2014; Holmes and Filipovic, 2015).

No water well completion report or test hole log was submitted with Water Permit Application No. 8469-3. Well completion reports on file with the DENR-Water Rights Program for wells completed into the Upper Vermillion Missouri: South aquifer within approximately five miles of the proposed diversion point for this application have saturated aquifer thicknesses ranging from approximately 30 to 100 feet, with the depth to the top of aquifer materials ranging from

approximately 55 to 140 feet below the ground surface, and static water levels at well completion varying from approximately 40 to 60 feet below the ground surface (Holmes and Filipovic, 2015; SDGS, 2021; Water Rights, 2021d). The Upper Vermillion Missouri: South aquifer is expected to be confined at the proposed diversion point based on the well completion reports for nearby wells and lithologic logs on file for nearby observation wells (SDGS, 2021; Water Rights, 2021b and 2021d). The proposed diversion point for Water Permit Application No. 8469-3 plots approximately 0.2 miles west outside of the Upper Vermillion Missouri: South aquifer boundary as aquifer boundaries are approximate.

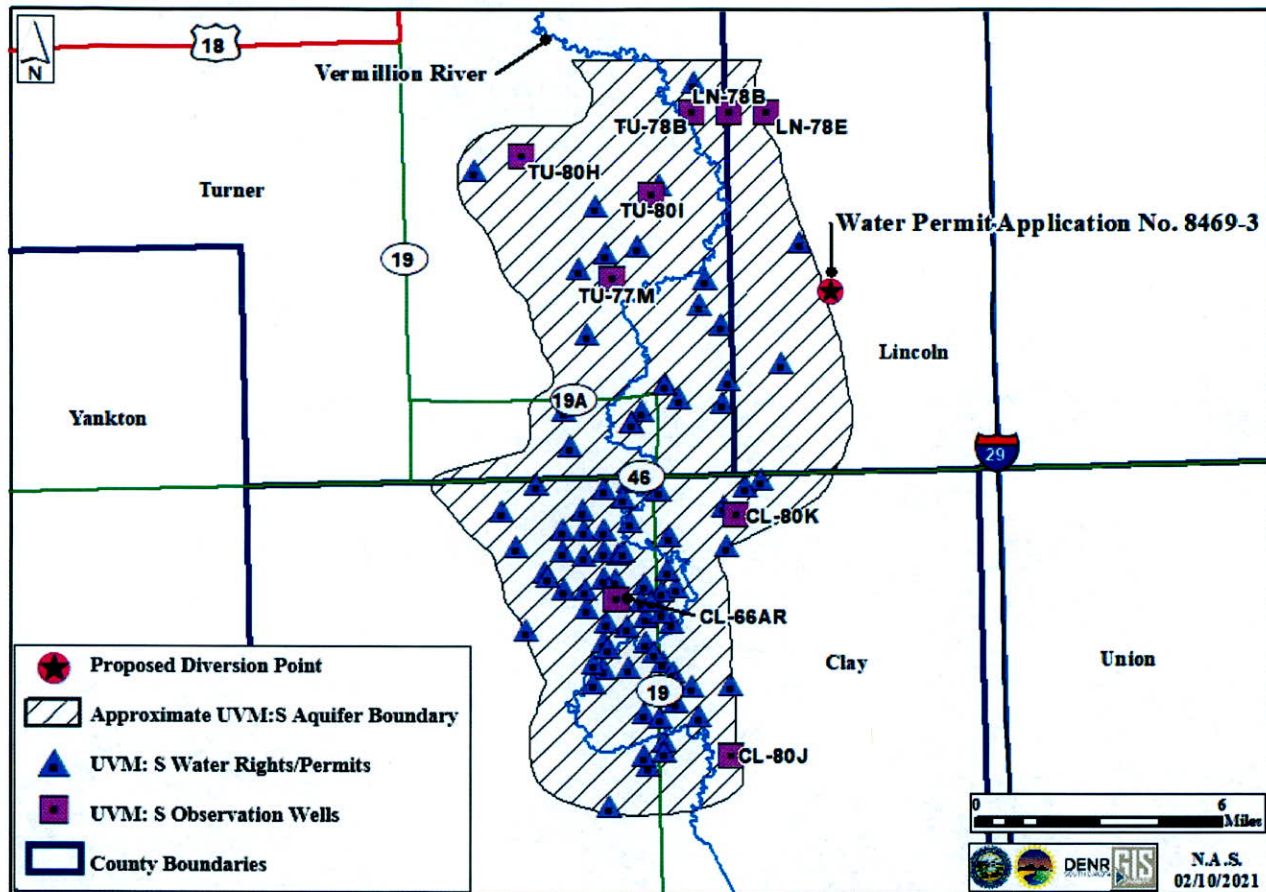


Figure 1. Map of the approximate Upper Vermillion Missouri: South aquifer delineated from Buhler (2014), the proposed diversion point for Water Permit Application No. 8469-3, and the Upper Vermillion Missouri: South aquifer water rights/permits and observation wells (Water Rights, 2021b and 2021c)

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 rights, and that the proposed use is a beneficial use and in the public interest.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing water rights within the Upper Vermillion Missouri: South aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8469-3 proposes to appropriate water from the Upper Vermillion Missouri: South aquifer. The probability of unappropriated water being available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Upper Vermillion Missouri: South aquifer is not older than or stratigraphically lower than the Greenhorn Formation, and the applicant’s proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Upper Vermillion Missouri: South aquifer must be considered.

Recharge

Recharge to the Upper Vermillion Missouri aquifer occurs primarily through the infiltration of precipitation where the aquifer is at or near the ground surface. Recharge also occurs where the Upper Vermillion Missouri aquifer is in direct contact with the Parker-Centerville aquifer (Holmes and Filipovic, 2015). There has been no quantification of the specific recharge rate to the Upper Vermillion Missouri: South aquifer. However, Hedges and others (1985) estimated a recharge rate of 0.25 inches per year using a regional flow net analysis for the entire Upper Vermillion Missouri as delineated at that time. The Upper Vermillion Missouri aquifer as delineated by Hedges and others (1982) had the North, South, and West management units as one singular aquifer. Applying the 0.25 inches per year recharge rate over the current areal extent of the Upper Vermillion Missouri: South aquifer leads to an estimated recharge rate of 1,642 acre-feet per year for the Upper Vermillion Missouri: South aquifer. This recharge rate is not supported by the observation well data nor by Buhler’s (2014) flow net analysis.

Discharge

Discharge from the Upper Vermillion Missouri aquifer occurs through evapotranspiration where the aquifer is near the ground surface, to other glacial aquifers, and through well withdrawals (Niehus, 1997; Holmes and Filipovic, 2015; Water Rights, 2021c).

There are domestic wells completed into the Upper Vermillion Missouri: South aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2021d). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the Upper Vermillion Missouri: South aquifer is the uppermost aquifer available; it is likely some domestic users may have transitioned to rural water. Therefore, the quantity of water withdrawn by domestic wells is estimated to be negligible to the hydrologic budget for the Upper Vermillion Missouri: South aquifer.

2014 Flow Net Analysis

Buhler (2014) completed an analysis of the Upper Vermillion Missouri aquifer that indicates recharge exceeded withdrawals from the Upper Vermillion Missouri: South aquifer by an estimated 5,637 to 8,223 acre-feet per year at that time based on estimated groundwater outflow from the Upper Vermillion Missouri: South aquifer. Buhler's (2014) analysis included all previously defined Upper Vermillion Missouri and Lower Vermillion Missouri aquifer water rights/permits that are now identified as withdrawing water from the South management unit of the Upper Vermillion Missouri aquifer. On the March 6, 2014 Water Management Board meeting, the Board approved twelve water permit applications: Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3, and 7919-3 (Water Rights, 2014 and 2021c). However, Water Permit Nos. 7623-3 and 7653-3 were cancelled in 2018 (Water Rights, 2021c). The remaining ten water permits authorize the irrigation of 1,295.83 acres (Water Rights, 2021c). Buhler (2014) calculated an average annual application rate per permitted acre from the Upper Vermillion Missouri aquifer of six inches per permitted acre. Using Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the average annual withdrawal rate that is expected from these ten Upper Vermillion Missouri: South aquifer water permits is approximately 648 acre-feet per year.

The Water Management Board has approved 20 additional water permit applications for wells completed into the Upper Vermillion Missouri: South aquifer since the March 6, 2014 Board meeting and the use type for each permit was irrigation (Water Rights, 2021c). These 16 water permits authorize the irrigation of 1,758.06 acres. Using Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the average annual withdrawal rate that is expected from these Upper Vermillion Missouri: South aquifer water permits is approximately 879 acre-feet per year.

Additionally, there is one pending application for the Upper Vermillion Missouri: South aquifer, Water Permit Application No. 8470-3, requesting 1.78 cfs for the irrigation of 160 acres in Turner County. When taking into account the requested appropriation of 2.22 cfs for the irrigation of 114 acres by this water permit application and by using Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer, the average annual withdrawal rate for the pending application and this application that is expected from the Upper Vermillion Missouri: South aquifer is approximately 137 acre-feet per year.

Table 1 summarizes these 30 Upper Vermillion Missouri: South water rights/permits and their estimated use based on Buhler's (2014) *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer. Collectively, the average annual withdrawal rate for the Upper Vermillion Missouri: South aquifer water rights/permits, either approved after the March 6, 2014 Water Management Board meeting or currently pending, is approximately 1,664 acre-feet per year. Therefore, since the Buhler (2014) analysis estimated recharge exceeds withdrawals by 5,637 to 8,223 acre-feet per year, there is a reasonable probability that unappropriated water is available to supply this proposed appropriation (Table 1).

Table 1. Estimated use for the Upper Vermillion Missouri: South aquifer water rights/permits, either approved after the March 6, 2014 Water Management Board meeting, or currently pending (Water Rights, 2021c)

Permit No.	Name	Priority Date	Status	Use	Acres	Estimated Use (acre-feet/year)
6811A-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	115	57.5
6820A-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	43	21.5
7383-3	Metabank	07/20/2012	PE	IRR	25	12.5
7384-3	Nicholas & Courtney Blake	07/20/2012	PE	IRR	80	40
7441-3	Jason or Alicia Knutson	09/26/2012	PE	IRR	140	70
7442-3	Leah Johnson	09/26/2012	PE	IRR	40	20
7466-3	Bethel Hagen Trust	10/18/2012	PE	IRR	152	76
7467-3	Cleland Hagen Trust	10/18/2012	PE	IRR	152	76
7600-3	Michael D Stevens	12/28/2012	PE	IRR	180	90
7601-3	Michael D Stevens	12/28/2012	PE	IRR	132	66
7603-3	Michael D Stevens	12/28/2012	PE	IRR	120	60
7690-3	Tim or Dave Ostrem	12/20/2013	PE	IRR	160	80
7693-3	Metabank	02/06/2013	PE	IRR	27.7	13.85
7900-3	Leon Thompson	09/11/2013	PE	IRR	136	68
7919-3	Larry & Marlene Erickson	10/23/2013	PE	IRR	83.83	41.915
7945-3	Brad R or Linda R Trudeau	01/17/2014	PE	IRR	60	30
7947-3	Leon, Holly and Jordan Rozeboom	01/23/2014	PE	IRR	133.44	66.72
7948-3	Majestic Farms LLP	01/23/2014	PE	IRR	55.02	27.51
7949-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	100.9	50.45
7964-3	Paul, Mike & John Shubeck	02/12/2014	PE	IRR	128	64
7976-3	Vasgaard Properties	02/27/2014	PE	IRR	160	80
7990-3	Robert P Walsh	04/02/2014	PE	IRR	240	120
7993-3	Jesse & Tanya Vandestroet	04/10/2013	PE	IRR	53	26.5
7994-3	Metabank	04/10/2014	PE	IRR	72	36
7995-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	25	12.5
8007-3	Louis Latendresse	04/18/2014	PE	IRR	150	75
8037-3	Tyler Anderson	06/10/2014	PE	IRR	103	51.5
8070-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	96	48
8071-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	51	25.5
8072-3	Jesse & Tanya Vandestroet	01/07/2015	PE	IRR	40	20
8469-3	Nicholas Blake		Pending	IRR	160	80
8470-3	Double A Farms LLC		Pending	IRR	114	57
PE: Water Permit, IRR: Irrigation				TOTAL:	3,328	1,664

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.

The DENR-Water Rights Program monitors nine observation wells completed into the Upper Vermillion Missouri: South aquifer (Water Rights, 2021b). The observation wells are LN-78E, LN-78B, TU-78B, TU-77M, TU-80I, TU-80H, CL-80K, CL-66AR and CL-80J. Observation wells CL-66AR and CL-80J were originally identified as completed into the Lower Vermillion Missouri aquifer; however, these observation wells are now considered completed into the Upper Vermillion Missouri: South aquifer. These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The five closest observation wells to the proposed diversion point are LN-78E (approximately 4.5 miles northwest), TU-80I (approximately 5 miles northwest), LN-78B (approximately 5.1 miles northwest), TU-77M (approximately 5.4 miles west), and TU-78B (approximately 5.6 miles northwest) (as shown in Figure 1). The hydrographs for these observation wells are displayed in Figures 2 to 6 (Water Rights, 2021b). 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.

The hydrographs for the Upper Vermillion Missouri: South aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. Additionally, the water levels in the observation wells display that the amount of recharge to and natural discharge from the aquifer greatly exceeds pumping with the aquifer returning to pre-pumping conditions between irrigation seasons. Aquifer recovery indicates that climatic conditions and therefore, the effects of recharge to and natural discharges from the aquifer governs the long-term fluctuations in water level of aquifer rather than the impacts of pumping from the Upper Vermillion Missouri: South aquifer. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation and support the data from Buhler's (2014) flow net analysis.

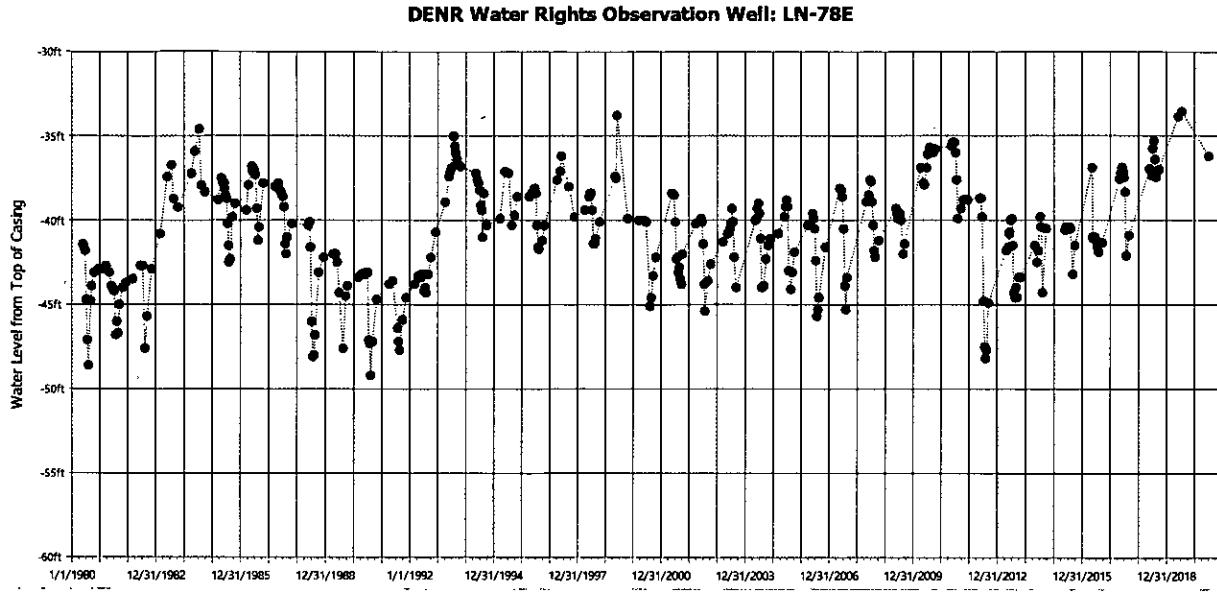


Figure 2. Hydrograph for observation well LN-78E (Water Rights, 2021b)

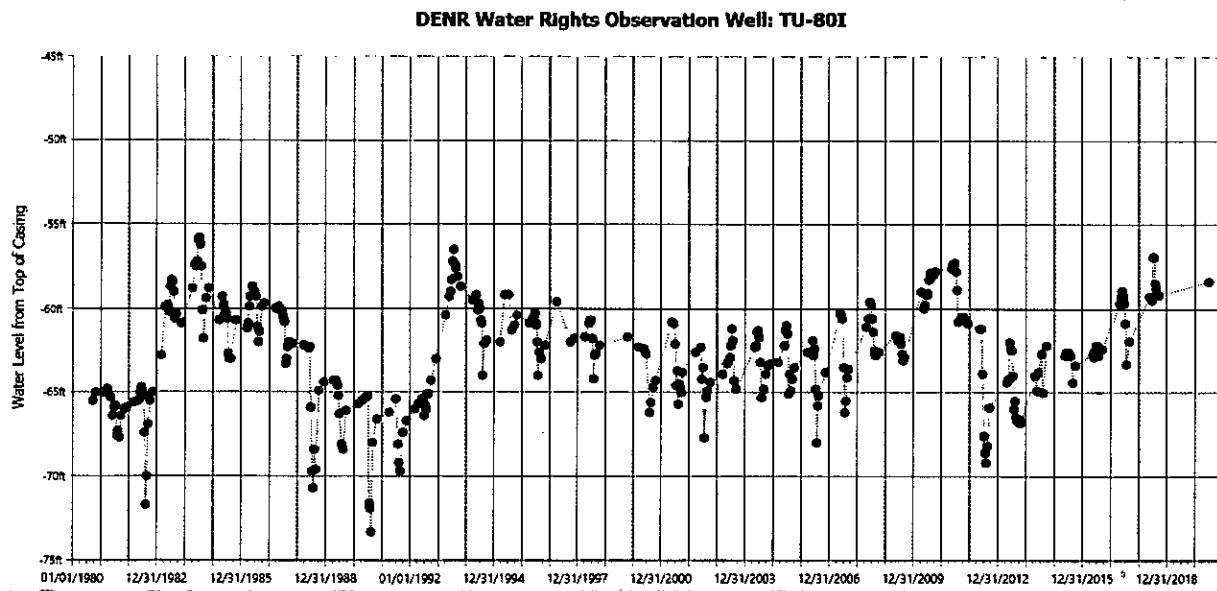


Figure 3. Hydrograph for observation well TU-80I (Water Rights, 2021b)

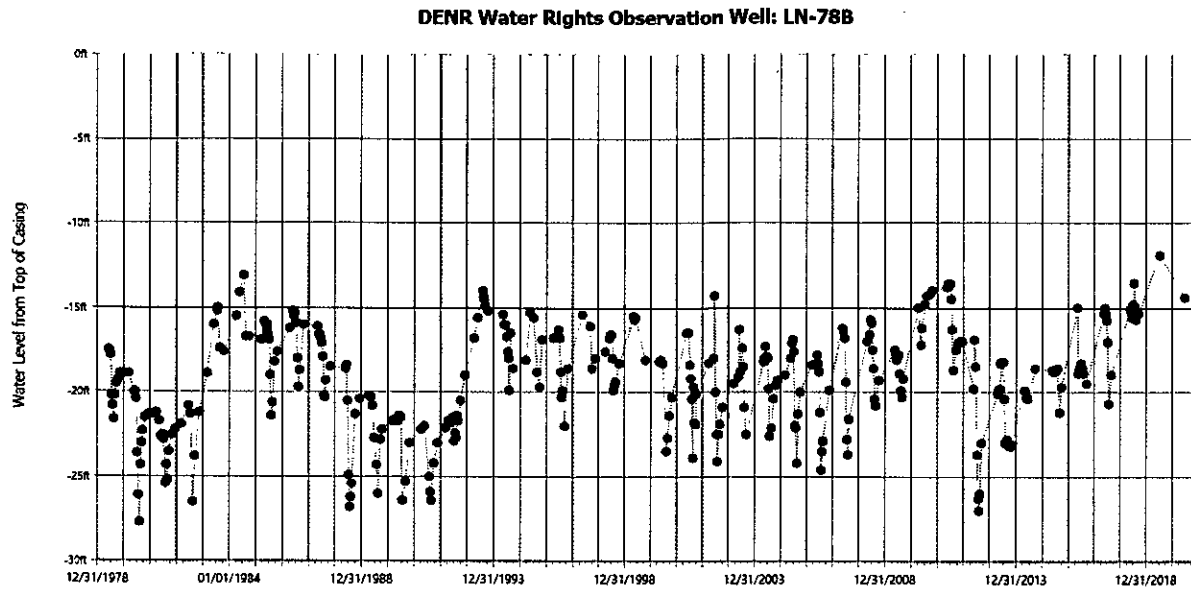


Figure 4. Hydrograph for observation well LN-78B (Water Rights, 2021b)

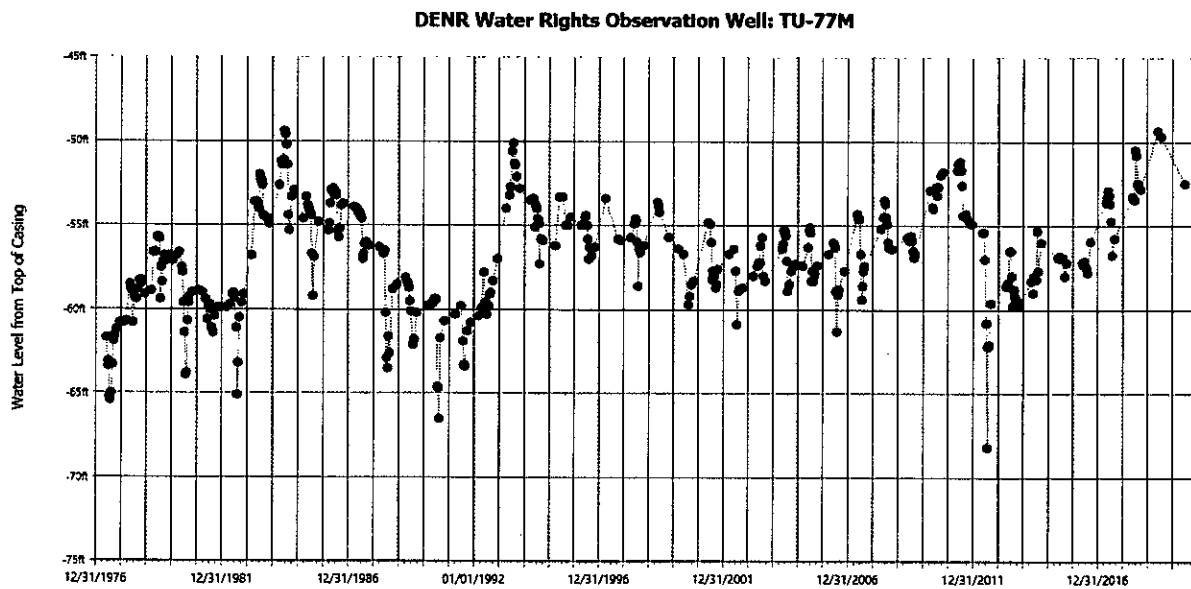


Figure 5. Hydrograph for observation well TU-77M (Water Rights, 2021b)

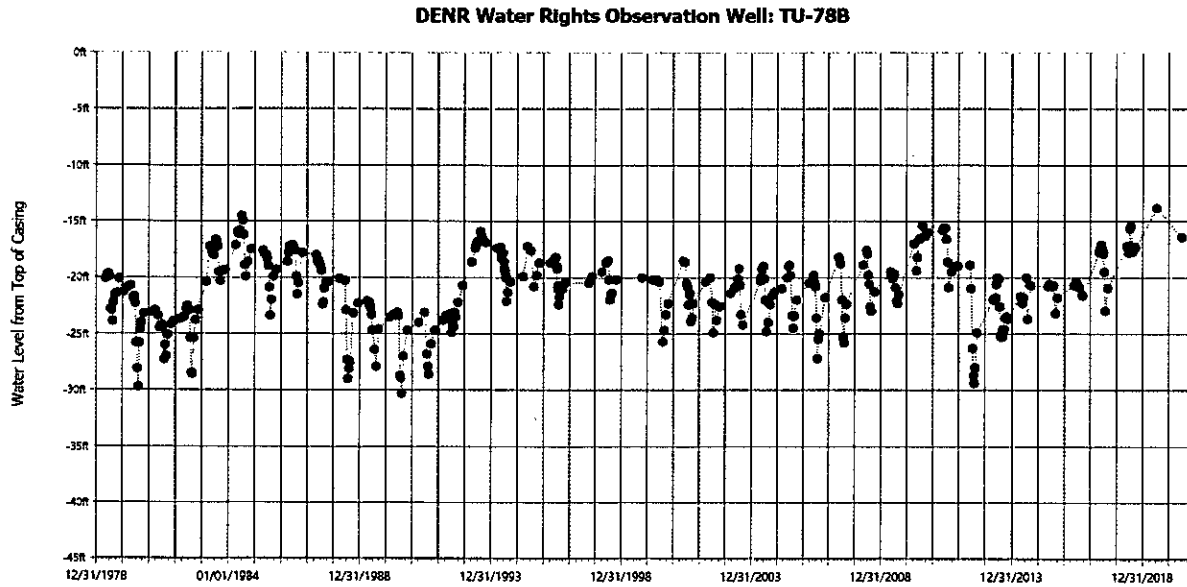


Figure 6. Hydrograph for observation well TU-78B (Water Rights, 2021b)

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 86 water rights/permits authorized to appropriate water from the Upper Vermillion Missouri: South aquifer, plus one pending application - Water Permit Application No. 8461-3 (Water Rights, 2021c). The closest water right/permit to the proposed diversion point is Water Permit No. 7466-3, which is held by Bethel Hagen Trust. The diversion point for Water Permit No. 7466-3 is located approximately 1.5 miles northwest of the proposed diversion point for this application (Table 2) (Figure 7) (Water Rights, 2021c).

There are domestic wells on file with the DENR-Water Rights Program that are completed into the Upper Vermillion Missouri: South aquifer, with the closest domestic well on file (not held by the applicant) approximately 3.6 miles west of the proposed diversion point (Water Rights, 2021d). There are potentially other domestic wells completed into the Upper Vermillion Missouri: South aquifer near the proposed diversion point that are not on file with the DENR-Water Rights Program.

Table 2. Water rights/permits authorized to withdraw water from the Upper Vermillion Missouri: South aquifer within approximately five miles of the proposed diversion point, as shown in Figure 7 (Water Rights, 2021c)

Permit No.	Name	Status	Use	Diversion Rate (cfs)
2269-3	Travis Wiese	LC	IRR	2.44
2941-3	Russell D Austin	LC	IRR	1.11
3409-3	Virgil L Null	LC	IRR	1.88
3646-3	Steven R Null	LC	IRR	2
3737-3	William M Jenter	LC	IRR	4.57
3918-3	JBS Hansen Farms	LC	IRR	2.66
4204-3	City of Centerville	LC	MUN	0.22
5352-3	Linda Hendrickson	LC	IRR	2.15
5425-3	Johnke Land Trust	LC	IRR	1.88
5898-3	City of Centerville	LC	IRR	0.89
6754-3	JBS Hansen Farms	LC	IRR	0*
6968-3	Roger Blake	LC	IRR	1.47
7128-3	Paul Scubeck	PE	IRR	1.78
7466-3	Bethel Hagen Trust	PE	IRR	1.78
7467-3	Cleland Hagen Trust	PE	IRR	1.78
7600-3	Michael D Stevens	PE	IRR	3.56
7601-3	Michael D Stevens	PE	IRR	1.89
7603-3	Michael D Stevens	PE	IRR	1.78
7690-3	Tim or Dave Ostrem	PE	IRR	1.78
7900-3	Leon Thompson	PE	IRR	1.89
7976-3	Vasgaard Properties	PE	IRR	1.78
8037-3	Tyler Andersen	PE	IRR	1.61
LC: Licensed Water Permit; PE: Water Permit; IRR: Irrigation; MUN: Municipal				
*Diversion rate accounted for under another water permit				

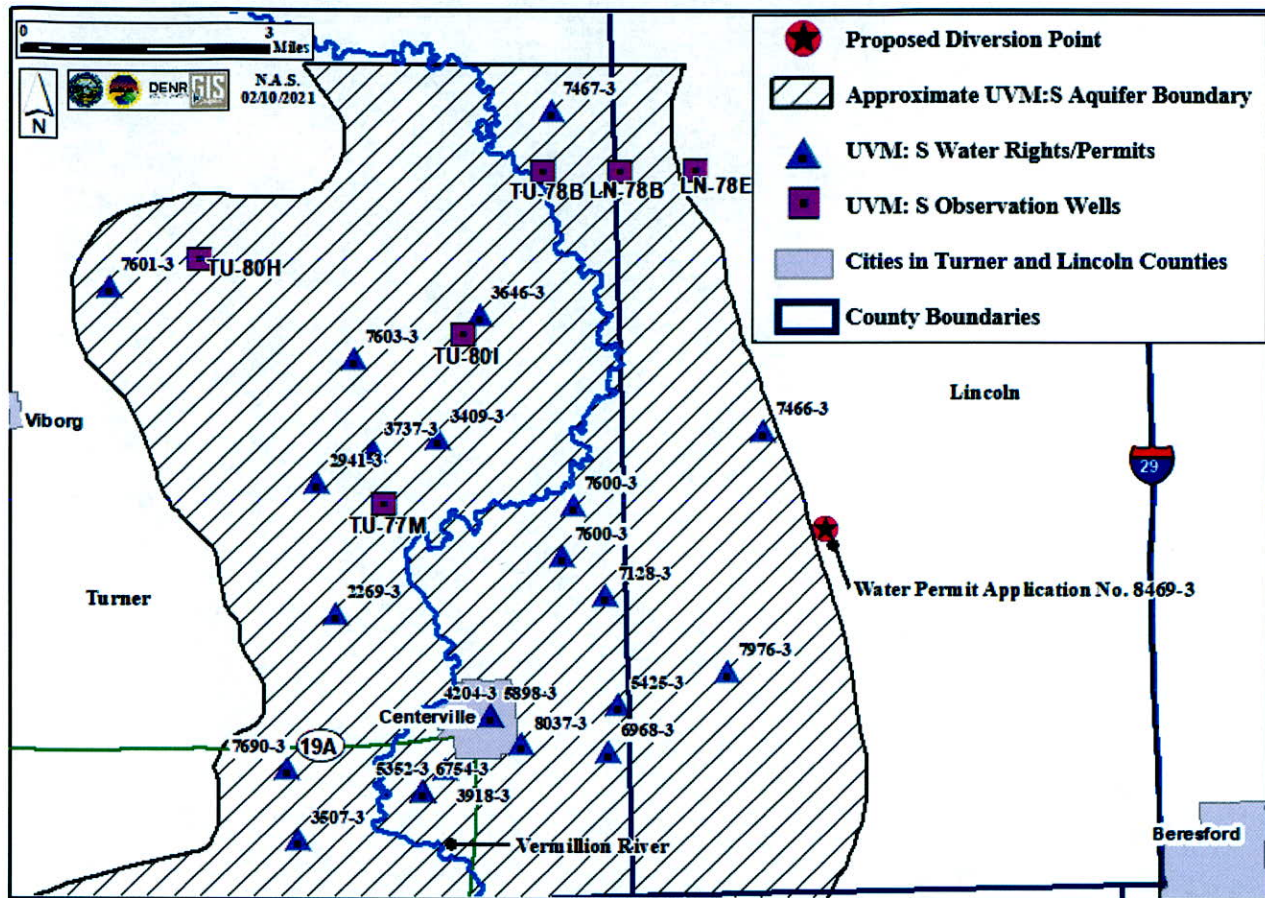


Figure 7. Location of the proposed diversion point for Water Permit Application No. 8469-3 with the Upper Vermillion Missouri: South aquifer water rights/permits within approximately five miles and the observation wells used in this analysis (Water Rights, 2021b and 2021c)

In Lincoln County, the Upper Vermillion Missouri: South aquifer is primarily under confined conditions with some variation in depth to the top of the aquifer and saturated aquifer thickness (SDGS, 2021; Water Rights, 2021c and 2021d). The Upper Vermillion Missouri: South aquifer is expected to be confined at the proposed diversion point based on the well completion reports for nearby wells and lithologic logs on file for nearby observation wells (SDGS, 2021; Water Rights, 2021b and 2021d). Since the Upper Vermillion Missouri: South aquifer is confined at the proposed diversion point, drawdown can extend some distance from pumping a well but the exact drawdown behavior of a well cannot be known without an aquifer performance test. Observation well TU-77M (approximately 5.4 miles west of proposed diversion point) has five high-yield irrigation wells within approximately two miles of it (Water Rights, 2021b and 2021c). The drawdown from pumping can be seen on the hydrograph for TU-77M on Figure 5, along with the aquifer returning to pre-pumping conditions between irrigation seasons (Water Rights, 2021b). The lithologic log on file for TU-77M noted the well was drilled 185 feet deep with the top of aquifer at 106 feet below the ground surface (SDGS, 2021). The lowest recorded static water level on the hydrograph is approximately 68 feet, which indicates there was still about 38 feet of artesian head pressure in TU-77M even during drier periods when high-yield irrigation wells are expected to be pumping more water (Water Rights, 2021b).

Well completion reports on file with the DENR-Water Rights Program for wells completed into the Upper Vermillion Missouri: South aquifer within approximately five miles of the proposed diversion point for this application have a saturated aquifer thickness ranging from approximately 30 to 100 feet and have the depth to the top of aquifer materials ranging from approximately 55 to 140 feet below the ground surface (Holmes and Filipovic, 2015; SDGS, 2021; Water Rights, 2021d). This would 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 Lincoln and Turner County, there are no complaints on file with the DENR-Water Rights Program regarding well interference for adequate wells completed into the Upper Vermillion Missouri: South aquifer (Water Rights, 2021e).

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

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

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Upper Vermillion Missouri: South aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), the saturated aquifer thickness of the Upper Vermillion Missouri: South aquifer in Lincoln County, and the lack of well interference complaints for adequate wells completed into the Upper Vermillion Missouri: South aquifer in Lincoln and Turner Counties, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water rights/permits or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments on existing users with adequate wells.

SDCL 46-5-6:

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of 1.0 cfs per 70 acres, or "the equivalent thereof." The statute does provide that: "The Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires..." Water Permit Application No. 8469-3 proposes to divert water at a maximum rate of 2.22 cfs for the irrigation of 114 acres, from April 1 to September 30, or at a rate of 1.36 cfs per 70 acres. The applicant did not provide a reason for the exceedance however, the proposed pivot layout shows the pivot center is not making a full turn. A possible reason for the exceedance is that center pivot often needs a certain diversion rate to operate and the pivot is not making a full turn. This type of reason has been accepted by the Water Management Board in past. The request by the applicant is practical as it will likely not cause unlawful impairment on domestic use, including livestock watering, and existing water rights/permits, and based on a reasonable probability there is unappropriated water from the Upper Vermillion Missouri: South aquifer available.

CONCLUSIONS:

1. Water Permit Application No. 8469-3 proposes to appropriate water at a maximum instantaneous diversion rate of 2.22 cfs from one well to be completed into the Upper Vermillion Missouri: South aquifer for the irrigation of 114 acres. The site is located in Lincoln County approximately four miles northeast of Centerville, South Dakota.
2. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The diversion rate request by the applicant is practical as it will likely not cause unlawful impairment on domestic use, including livestock watering, or existing water rights/permits, and based on a reasonable probability there is unappropriated water from the Upper Vermillion Missouri: South available.
3. Based on the hydrologic budget and observation well data, there is a reasonable probability that unappropriated water is available from the Upper Vermillion Missouri: South aquifer to supply the proposed appropriation.
4. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8469-3 will not unlawfully impair adequate wells for existing water right/permit holders and domestic users.



Nakaila Steen
Natural Resources Engineer I
SD DENR - Water Rights Program

Reviewed by:

Adam Mathiowetz

Adam Mathiowetz, PE
Natural Resources Engineer III
SD DENR -Water Rights Program

References

- Buhler, K.A., 2014. Report to the Chief Engineer on 21 Water Permit Applications from the Upper Vermillion Missouri Aquifer. SD DENR – Water Rights Program, Joe Foss Bldg., Pierre, SD.
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- Water Rights, 2014. Final Order. DENR-Water Rights Program File for Water Right No. 7466-3, Pages 152 to 156. SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD

Water Rights, 2021a. "1979-2019 Irrigation Summaries by Aquifer", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights, 2021b. Observation Well Data, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2021c. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2021d. Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2021e. County Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, February 24, 2021 1:23 PM
To: ajc_02@hotmail.com
Subject: Water Permit Application No. 8469-3, Double A Farms LLC
Attachments: 0800.pdf

Attached is a copy of the report, chief engineer 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 being mailed to you today.

Karen Schlaak
Water Rights Program
(605) 773-3352



Argus Leader

P.O. Box 677349, Dallas, TX 75267-7349

RECEIVED

MAR 15 2021

WATER RIGHTS
PROGRAM

Account No.: 6053607446

Ad No.: 0004618805

PO #: APPLICATION NO. 8469-3

Lines : 109

This is not an invoice

of Affidavits: 1

DOUBLE A FARMS LLC
420 LINCOLN ST
CENTERVILLE, SD 57014

Account No.: 6053607446
Ad No.: 0004618805

Argus Leader AFFIDAVIT OF PUBLICATION

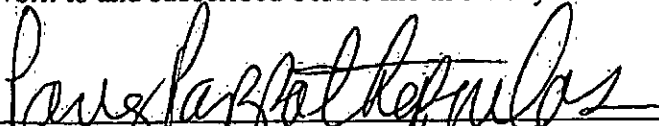
STATE OF SOUTH DAKOTA

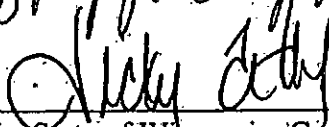
COUNTY OF MINNEHAHA

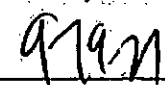
I being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached,

Thursday, March 4, 2021

Sworn to and subscribed before me this 4 day of March, 2021.


Legal Clerk


Notary Public, State of Wisconsin, County of Brown


My Commission expires

VICKY FELTY
Notary Public
State of Wisconsin

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the petitioner's mailing address, the petitioner or the petitioner's local chapter (if local counsel is obtained).

If the applicant does not contest the recommendation of the Local Chapter Executive (and no petition to rescind the application is pending), the Local Chapter's statement on the petition is sufficient to the recommendation, with no hearing held before the Water Management Board.

If a petition opposing the applicant's application for reorganization is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. A notice of this hearing will be given to the applicant and any opposing local chapters.

Published copy of the Local Chapter Executive's petition is:

4-158355 Mar. 4, 1971

[illegible]

Any person interested in organizing or supporting this collection, or recommending a financial tip or written petition with BOTH the appli-

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

TERESA ZOMER

being first duly sworn on his oath says; that the Sioux Valley News is a legal weekly newspaper of general circulation as required by South Dakota Code of Nineteen Hundred Thirty-Nine, and any acts amendatory thereto, printed and published by the Sioux Valley News, Inc., in Canton, in said county and State, and has been such legal newspaper during the time hereinafter mentioned; that he is and during all of said time was publisher of said newspaper and has personal knowledge of the facts stated in this affidavit; that the advertisement headed:

Waters Rights Programs Notice of Application

a printed copy of which is hereto attached, was printed and published in said newspaper for ONE successive week(s) upon the following dates, to-wit:

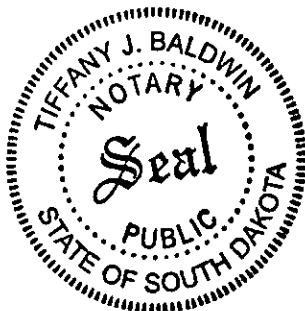
March 4, 2021

that the full amount of the fees charged for publishing the same to-wit: the sum of \$27.45 inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.


Ascribed and sworn to before me this 4th day of March, 2021


Notary Public, South Dakota

(Seal)



My Commission Expires
January 12, 2024

RECEIVED

MAR 08 2021

WATER RIGHTS
PROGRAM

NOTICE OF APPLICATION NO.

8469-3 to Appropriate Water

Notice is given that Double A Farms, LLC, c/o Adam Carlson, 420 Lincoln St, Centerville SD 57014 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri South Aquifer (approximately 140 feet deep) located approximately in the center of the NW 1/4 Section 9 for irrigation of 114 acres located in the NW 1/4 Section 9; all in T96N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 4 miles northeast of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8469-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.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 or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 15, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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 in the Sioux Valley News on March 4, 2021 at the total approximate cost of \$27.45.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, February 24, 2021 1:15 PM
To: legals@argusleader.com
Subject: 8469-3, Double A Farms LLC
Attachments: 8469-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on March 4, 2021.

Double A Farms LLC c/o Adam Carson, 420 Lincoln St, Centerville SD 57014 (605 360-7446) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak
Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, February 24, 2021 1:15 PM
To: svn@siouxvalleynewsonline.com
Subject: 8469-3, Double A Farms LLC
Attachments: 8469-3public.short.docx; FORM8.FRM.doc

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

Karen Schlaak

Water Rights Program
(605) 773-3352





DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

February 24, 2021

Double A Farms LLC
c/o Adam Carlson
420 Lincoln St
Centerville SD 57014

Dear Mr. Carlson:

Water Permit Application No. 8469-3 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 Sioux Valley News printed at Canton SD (Ph # 605 764-2000) and the Argus Leader printed at Sioux Falls SD (Ph # 605 331-2200). 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,

Karen Schlaak

Karen Schlaak
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 March 4, 2021. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 8469-3 to Appropriate Water

Notice is given that Double A Farms, LLC, c/o Adam Carlson, 420 Lincoln St, Centerville SD 57014 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri:South Aquifer (approximately 140 feet deep) located approximately in the center of the NW 1/4 Section 9 for irrigation of 114 acres located in the NW 1/4 Section 9; all in T96N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 4 miles northeast of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8469-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.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 or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 15, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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_



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

APR 06 2021

Double A Farms LLC
c/o Adam Carlson
420 Lincoln St.
Centerville SD 57014

Dear Mr. Carlson:

Enclosed is Water Permit No. 8469-3 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

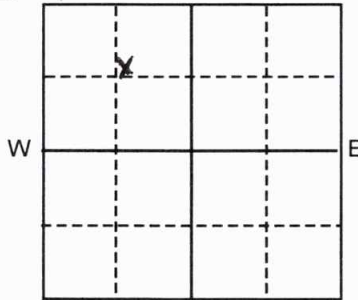
8469-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 NW 1/4 Sec 9 Twp 96 Rg 51County Turner

North

Please mark well
location with an "X"

1 Mile

RECEIVED

APR 29 2022

WATER RIGHTS
PROGRAM

Well Completion Date

4/14/22

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1,000.0 ft. from Septic (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	84.0 FT	18.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	24	Lb/gal	0.0 Ft	79.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12.00 Inches Length 20.0 FeetMaterial Stainless steelSlot Size .080 Set From 84.0 Feet to 104.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?

☒ No, Why Not? Irrigation only
 Lab to which water
 quality sample sent for analysis
Well Owner: Adam Carlson

Business Name:

Address: 29214 466th AveCity, State, Zip: Centerville SD 57014

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Clay brown	2	33
Clay gray	33	71
Clay blue w/a few sand layers	71	83
Gravel	83	95
Clay gray	95	98
Gravel & rocks	98	104
Clay gray	104	110

STATIC WATER LEVEL 53.5 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

71.5 Ft. After 6.5 Hrs. pumped 400.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Irrigation well

GPS: N43 9.1550 W96 52.7700

This well was drilled under license # 475 and this report is true and accurate.Drilling firm: THEIN WELL COMPANY, INCORPORATED

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

Adam Carlson

Centerville SD
Irrigation Well 4/14/22

Legerid

Adam Carlson - Irrigation Well - 104'

N

Gronlund, Eric

From: Adam Carlson <ajc_02@hotmail.com>
Sent: Tuesday, November 22, 2022 2:39 PM
To: Gronlund, Eric
Cc: Duvall, Ron; Schlaak, Karen; Pontious, Brian
Subject: Re: [EXT] Irrigation well
Attachments: New well pic.png

Double A Farms, LLC c/o Adam Carlson
Permit No.: 8469-3

We would move west of the current well approx. 1200ft, close to 466th Ave to get further into the aquifer, drill a test well and most likely develop a well estimated to 120-140ft depth. (picture attached) NW ¼ of Sect. 9 Brooklyn twp. Lincoln Co SD

There would be no more water used than was stated in the original permit.
The current well would be reduced to approx. 200gpm, with the new well approx. 300-500gpm for a total maximum of 500-700gpm irrigating 114+- acres.

Adam Carlson,
dba. Double A Farms, LLC

From: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Sent: Tuesday, November 22, 2022 1:07 PM
To: ajc_02@hotmail.com <ajc_02@hotmail.com>
Cc: Duvall, Ron <Ron.Duvall@state.sd.us>; Schlaak, Karen <Karen.Schlaak@state.sd.us>; Pontious, Brian <Brian.Pontious@state.sd.us>
Subject: Irrigation well

Adam – If you intend to add a well that can likely be done administratively as long as the additional well is in the same source of water, no additional water is appropriated and no new land is to be irrigated if DANR can make a finding that it does not increase the potential for interference. Below is the applicable statute.

46-5-13.1. Change of location of diversion point.

The location of a point of diversion may be changed or additional points of diversion may be approved if the new or additional point of diversion is from the same source of water, no additional water is appropriated, and, if the water use is for irrigation, no new land is to be irrigated. The change in location of diversion points may be allowed without application or publication pursuant to § 46-2A-4, if the chief engineer is contacted and makes a finding that the change does not increase the potential for interference with existing diversions.

You will need to make a request for the additional well that 1) provides approximate depth, 2) states that it is not your intent to increase what is authorized by the existing water right, and 3) provides a map of the additional wells

location in reference to the existing well as well as references a section corner. The request will be reviewed. Turn around time is generally about 2 – 3 weeks if this can be granted administratively with the formal application and publication process.

I look on the water rights database and did not see a water permit in your name. You will need to provide the number assigned to the water right.

Hope this helps. Eric

Eric Gronlund
Water Rights Program, DANR
605 773-3352
Eric.gronlund@state.sd.us

From: Pontious, Brian <Brian.Pontious@state.sd.us>
Sent: Tuesday, November 22, 2022 12:53 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Subject: FW: [EXT] Irrigation well

For you?

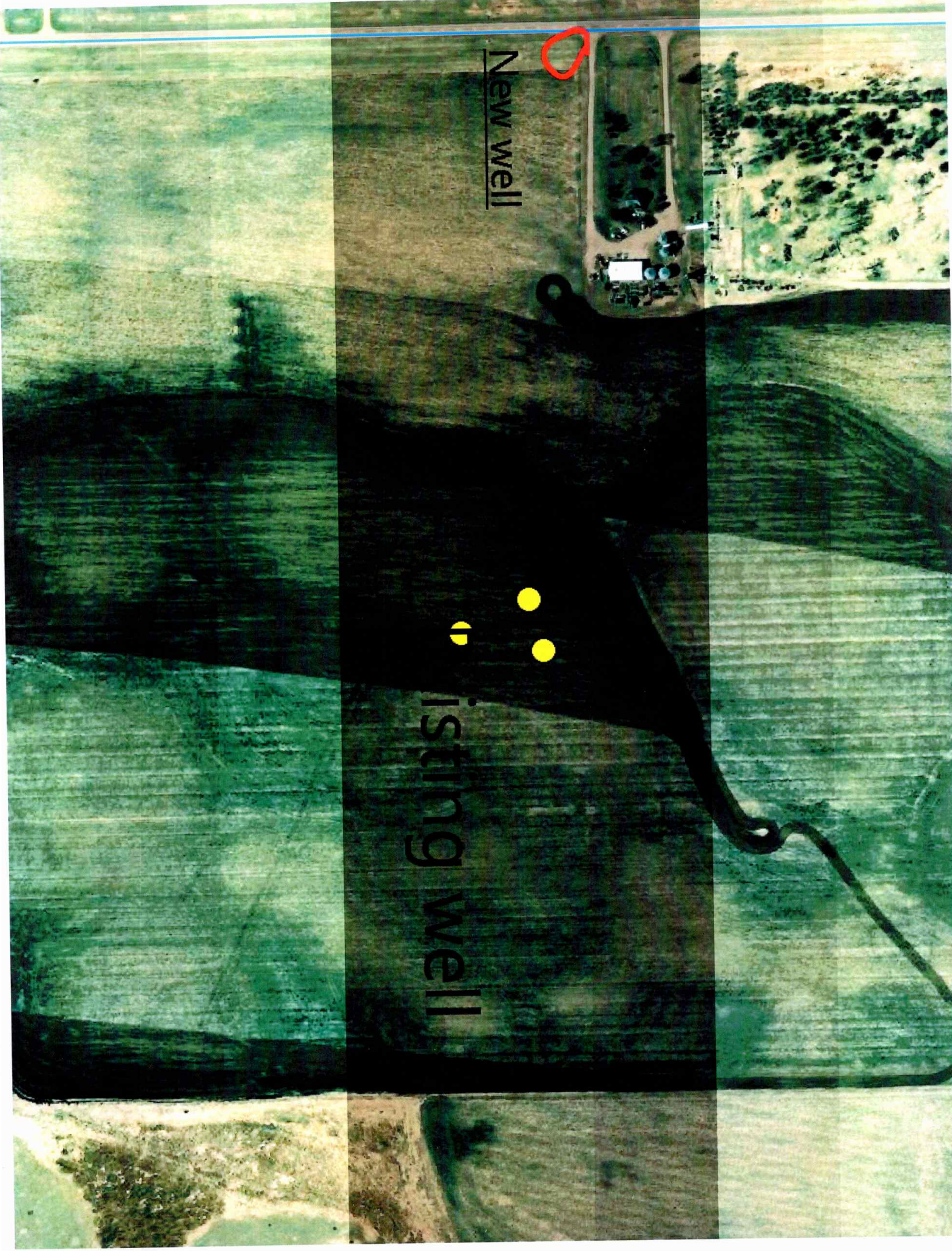
From: Adam Carlson <ajc_02@hotmail.com>
Sent: Tuesday, November 22, 2022 11:59 AM
To: DANR Mail <DANRMail@state.sd.us>
Subject: [EXT] Irrigation well

I completed an irrigation well and put to use this year, it is not putting out quite what we had hoped and are looking to move aprox. 1000 ft and drill a test hole and assume we would develop another well on the same property for the same irrigator. Do I need to do anything with the denr for this?

Adam Carlson,

New well

Existing well





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

December 5, 2022

No. 8469-3

Adam Carlson
Double A Farms LLC
420 Lincoln Street
Centerville, SD 57014

Dear Mr. Carlson,

I am writing in regard to the request submitted by Double A Farms LLC for one additional well to what is currently authorized under Water Permit No. 8469-3.

Water Permit No. 8469-3 authorizes a maximum instantaneous diversion rate of 2.22 cubic feet of water per second (cfs) from one well completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) in the approximate center of the NW $\frac{1}{4}$ of Section 9 for the irrigation of 114 acres; all in T96N-R51W. At this time, only one well has been completed in the approximate center of the NW $\frac{1}{4}$ of Section 9-T96N-R51W into the Upper Vermillion Missouri: South aquifer. The additional well is requested because the original well does not produce enough water. Therefore, there will be a total of two wells authorized for the irrigation of the authorized acres.

Upon review of the request and pursuant to SDCL 46-5-13.1, the additional well to be located in the NW $\frac{1}{4}$ of Section 9-T96N-R51W and completed into the Upper Vermillion Missouri: South aquifer, is authorized without application or publication of a notice of hearing pursuant to SDCL 46-2A-4. No increase in the authorized diversion rate of 2.22 cfs from the two wells is authorized. If the total diversion rate increases, a new water right permit will need to be obtained.

Under Water Permit No. 8469-3, the construction of works deadline is on or before March 15, 2026.

If you have any questions, please contact me at (605) 773-3352.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program

Approval of Additional Diversion Point

NAME: Double A Farms LLC c/o Adam Carlson, Owner

ADDRESS: 420 Lincoln Street, Centerville, SD 57014

DATE: November 23, 2022

COUNTY: Lincoln

TELEPHONE: 605-360-7446

BACKGROUND:

Water Permit No. 8469-3 authorizes a maximum instantaneous diversion rate of 2.22 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri: South aquifer (approximately 140 feet deep) in the approximate center of the NW $\frac{1}{4}$ of Section 9 for the irrigation of 114 acres located in the NW $\frac{1}{4}$ of Section 9; all in T96N-R51W. At this time, one well has been completed in the approximate center of the NW $\frac{1}{4}$ in Section 9 of T96N-R51W into the Upper Vermillion Missouri: South aquifer.

Adam Carlson, representing Double A Farms LLC, submitted an email on November 22, 2022, requesting one additional well to be located in the NW $\frac{1}{4}$ of Section 9 of T96N-R51W. It was noted in the email that the additional well is requested because the original well is not producing enough water.

AUTHORITY:

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

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

The water source remains the Upper Vermillion Missouri: South aquifer. Adam Carlson indicated in the email that the original well and proposed additional well will not exceed 2.22 cfs during operation. Therefore, no additional water is appropriated.

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

Water Permit No. 8469-3 authorizes the irrigation of 114 acres. Adam Carlson indicated in the email that other than the additional well, all other information from Water Permit No. 8469-3 remains the same.

- **Review of existing diversions**

The original well and proposed additional well are located/to be located in the NW $\frac{1}{4}$ in Section 9 of T96N-R51W. Water Permit No. 7466-3, held by Bethel Hagen Trust, is the closest water right to the original well and proposed additional well. The diversion point authorized by Water Permit No. 7466-3 is located approximately 1 to 1.1 miles northwest of the proposed additional well location. Given there is no history of well interference complaints, and no additional water is to be appropriated, there is a reasonable probability the additional well will not increase the potential for unlawful impairment of existing water rights/permits, or domestic users with adequate wells within the Upper Vermillion Missouri: South aquifer.

RECOMENNDED ACTION:

Based on the above criteria, it is recommended that the additional diversion point location be authorized under Water Permit No. 8469-3.



Nakaila Steen
Natural Resources Engineer II
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46:5:13.1 and ARSD 74:02:01:14:01 that:

The additional diversion point does not increase the potential for adverse effects to existing diversions.



Eric Gronlund, Chief Engineer
Water Rights Program

Gronlund, Eric

From: Adam Carlson <ajc_02@hotmail.com>
Sent: Monday, June 5, 2023 11:39 AM
To: Gronlund, Eric
Subject: Re: [EXT] Irrigation well

Was looking to move the location of the second well across the highway to the location on that map, but was looking very spendy, so we just drilled where we were originally planning.

Adam,

From: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Sent: Thursday, June 1, 2023 1:48 PM
To: Adam Carlson <ajc_02@hotmail.com>
Subject: RE: Irrigation well

Adam:

Currently Permit 8469-3 authorizes 2 wells – see attached letter.

Are you now looking to add a third well? If so, we will have to go through the same process that was used to add the second well.

Eric

From: Adam Carlson <ajc_02@hotmail.com>
Sent: Tuesday, May 30, 2023 9:55 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Subject: Re: [EXT] Irrigation well

Regarding this new well, we are testing a spot I have marked on this picture. Just checking to make sure it does not affect my previous request to add a well not to exceed the permitted water usage or add any additional irrigated acres and still be pulling from the same water source.

Just looking to add depth to the well with more gravel thickness for reliability.

Permit No.:8469-3

Adam Carlson,
Double A Farms, LLC c/o Adam Carlson

From: Gronlund, Eric <Eric.Gronlund@state.sd.us>

Sent: Tuesday, November 22, 2022 1:07 PM

To: ajc_02@hotmail.com <ajc_02@hotmail.com>

Cc: Duvall, Ron <Ron.Duvall@state.sd.us>; Schlaak, Karen <Karen.Schlaak@state.sd.us>; Pontious, Brian <Brian.Pontious@state.sd.us>

Subject: Irrigation well

Adam – If you intend to add a well that can likely be done administratively as long as the additional well is in the same source of water, no additional water is appropriated and no new land is to be irrigated if DANR can make a finding that it does not increase the potential for interference. Below is the applicable statute.

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You will need to make a request for the additional well that 1) provides approximate depth, 2) states that it is not your intent to increase what is authorized by the existing water right, and 3) provides a map of the additional wells location in reference to the existing well as well as references a section corner. The request will be reviewed. Turn around time is generally about 2 – 3 weeks if this can be granted administratively with the formal application and publication process.

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Eric Gronlund
Water Rights Program, DANR
605 773-3352
Eric.gronlund@state.sd.us

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Sent: Tuesday, November 22, 2022 12:53 PM

To: Gronlund, Eric <Eric.Gronlund@state.sd.us>

Subject: FW: [EXT] Irrigation well

For you?

From: Adam Carlson <ajc_02@hotmail.com>

Sent: Tuesday, November 22, 2022 11:59 AM

To: DANR Mail <DANRMail@state.sd.us>

Subject: [EXT] Irrigation well

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Adam Carlson,

Proposed new Well

Existing Well





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

September 27, 2024

8469-3

Double A Farms LLC
c/o Adam Carlson
420 Lincoln St
Centerville SD 57014

Dear Mr. Carlson:

On August 28, 2024, a staff engineer from the Water Rights Program made a site visit to conduct an inspection of the water use system authorized under Permit No. 8469-3 for irrigation of acreage in the NW ¼ Section 9, T96N, R51W.

With the inspection having been conducted and the report completed, we are ready to proceed with the licensing of your water use system. However, as stated in Permit No. 8469-3, you have until March 15, 2026, to complete the construction of your water use system and until March 15, 2030, to put that water to beneficial use.

If you have finished the construction and are satisfied with your water use system, please complete the highlighted portions of the enclosed "Notice of Completion of Works" form and return it in the postage paid envelope. Once we have this completed for back from you, we will proceed with the licensing of your system.

If you have any questions, I'd be happy to help.

Sincerely,

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

enclosure