

WATER PERMIT NO. 8597-3

Name of Applicant: **CHS Farmer Alliance**

Address: **PO Box F, Freeman SD 57029** Phone: **605 925-4254**

Amount of Water Claimed: **0.1 cfs** Total Acres: **NA**

Source of Water Supply: **NA**

Water to be used for: **groundwater (one well)** County: **Hutchinson**

Type of Waste Disposal System:

Location: **1/2 north of Freeman**

PRIORITY Date Received: **2-22-22** Application/License Fee: **\$ 300**

Corrected Application Received: Period of Annual Use: **January 1 – December 31**

Remarks:

Diversion Point: **NE 1/4 SE 1/4 Sec 26-T99N-R56W**

Land to be Irrigated: **NA**

Depth of Well: **242**

Well Driller: **Dave Putzke Well Drilling & Repair**

Remarks:

Type of Map: **aerial**

Prepared by:

			26		
				⊗	

Reviewed and the Number Assigned on: **2-23-22**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8597-3**

Date of first receipt of application February 22, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8597-3 to CHS Farmers Alliance, Brad Letcher, PO Box F, Freeman SD 57029 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. 8597-3 appropriates 1.3 acre-feet of water annually at a maximum pump rate of 0.10 cubic feet of water per second from one well completed into the Niobrara Aquifer (242 feet deep) located in the NE 1/4 SE 1/4 Section 26-T99N-R56W for commercial use in Hutchinson and Turner Counties. This site is located approximately 1/2 mile north of Freeman SD.
2. The water appropriated shall be used for the purpose of commercial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date from which applicant may claim right is February 22, 2022.
5. The date of approval of Permit No. 8597-3 is May 16, 2022.
6. One-fifth of the construction is to be completed on or before November 16, 2024.
7. All construction is to be completed on or before May 16, 2027.
8. Water is to be put to beneficial use on or before May 16, 2031.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

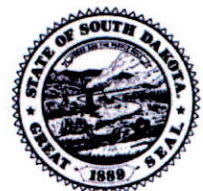
QUALIFICATIONS

1. The well approved under Water Permit No. 8597-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Niobrara aquifer.
3. Water Permit No. 8597-3 authorizes a total annual diversion of up to 1.3 acre-feet of water.

WATER MANAGEMENT BOARD

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

JUN 01 2022
date



RECEIVED

FEB 22 2022

PAID

FEB 22 2022

Ck# 560723104

Rec't#

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8597-3</u>	(office use only) Hydrologic Unit <u>10170102</u>	WATER RIGHTS PROGRAM
	Basin <u>Vermillion River</u>		
	Newspaper <u>Freeman Courier</u>		
	<u>New Era, Parker</u> <u>Press & Dakotan</u>		

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other	

Type of Application: (check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____		
☐ Amendment/Correction to Permit No. _____		

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

- Name to Appear on Water Permit CHS Farmers Alliance Freeman
Mailing Address P.O. Box F Freeman S.D. 57029
(Address) (City) (State) (Zip Code)
Phone 605-925-4254 Mobile 605-660-3371 Email Bradley.latcher@chsinc.com
- Amount of water claimed 0.1 *CFS or 45 **GPM and 1.3 ***AF or 430,000 Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply well
- Location of point of diversion 1-well 26-99 N - 56 W (NE 1/4 SE 1/4) County Hutchinson
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☒ Yes ☐ No
If "Yes," where will water be used? Hutchinson - Turner Counties
(example - NW 1/4 section 12-T104N-R53W)
- County or counties where water will be used Hutchinson - Turner
- Annual period during which water is to be used January 1 - December 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

I, Brad Latcher Location Manager, 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.



"YOUR CHOICE WHEN
QUALITY IS IMPORTANT"
3610 N. CLIFF AVE
SIOUX FALLS, SD 57104-0895
PHONE 605-338-7210
800-232-2637
FAX 605-338-6015
www.crsupply.com

For the year 2021

Gals / year

430,000 Gals

Supplemental Information

(type or print)

1. Well Information

(check one or both as applicable) ☐ Drilling new well(s) ☐ Using existing well(s)

- a) If new wells, how many ____ Have test holes been drilled ☐ Yes ☐ No Drilled by ____
(if yes, please provide copies of logs)
- b) If existing wells, how many ____ Provide copy of log(s), if available. Drilled by ____

For either Existing or Proposed Wells:

- c) Well Depth (required) 242 Depth to Top of Water Bearing Material ____ Depth to Water from Surface ____
- d) Distance to nearest domestic well on applicant's property ____ Property owned by others ____

2. Wastewater Disposal System Information

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

3. Dugout Information

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

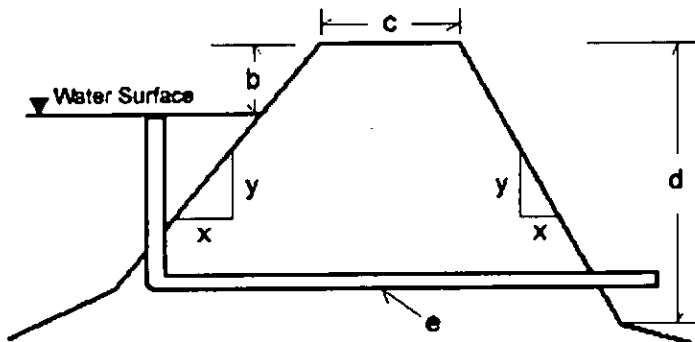
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

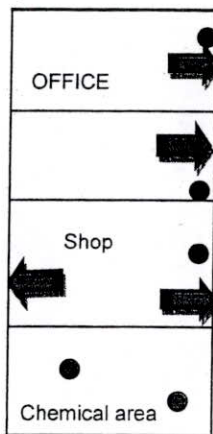
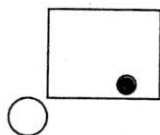
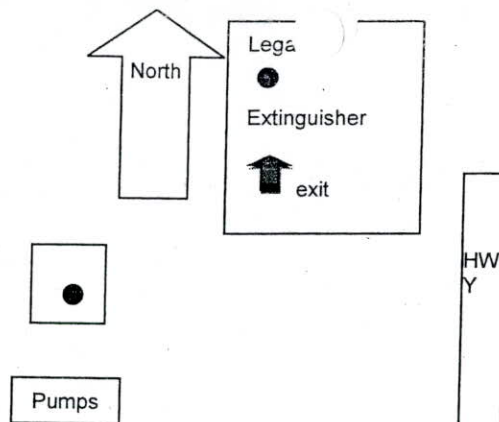
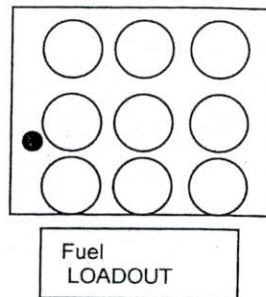
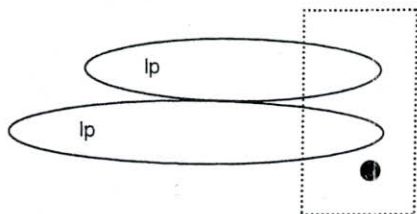
i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

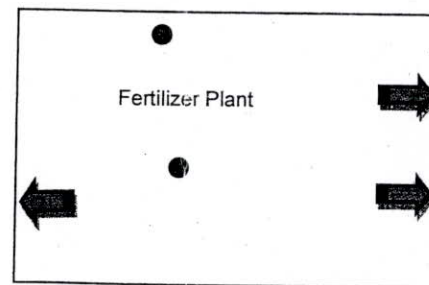
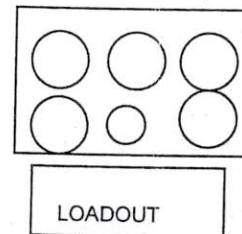


Cour Pride Coop
Freeman Agronomy

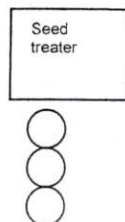
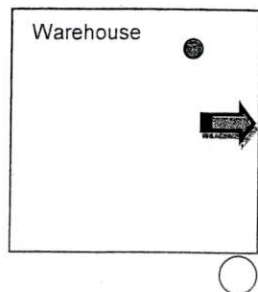
New well
old well



Head count area



L
p



Product	Refrigerator	Freezer	Product	Refrigerator	Freezer
EGGS			SOUPS & STEWS		
Fresh, in shell	3 weeks	Don't Freeze	Vegetable	3-4 days	2-3 months
Raw Yolks or whites . . .	2-4 days	1 year	w/Meat	3-4 days	2-3 months
Hard Cooked	1 week	Don't freeze			

R-56-W



New well

Aerial Map



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Resources for enriching lives.

Maps Provided By:



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www.AgriDataInc.com

Map Center: 43° 21' 40.52, -97° 25' 18.39



26-99N-56W
Hutchinson County
South Dakota



2/1/2022

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

99N 56W
Section: 15

99N 56W
Section: 22

99N 56W
Section: 23

99N 56W
Section: 24

99N 56W
Section: 27

99N 56W
Section: 26

99N 56W
Section: 25

99N 56W
Section: 34

99N 56W
Section: 35

99N 56W
Section: 36



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date February 22, 2022

RECEIVED OF CHS Farmer Alliance Freeman PO Box 65 Corsica SD 57328

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

Fee for Application for Permit No. <u>8597-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>100.00</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>8579-3</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>300.00</u>

By Eric Gronlund
Chief Engineer
eru



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 27, 2022

CHS
PO Box F
Freeman SD 57029

Dear Sir:

I am writing in regard to a well completion report filed by Dave Putzke Well Drilling & Repair Inc. The report shows a new well was completed for CHS on June 17, 2021. Based on the information in the report, you may need a water permit for this water use.

1. According to state law, a water permit is needed for any water use except for reasonable, private domestic use. Examples of commercial uses that require a water rights permit are: truckstops; motels; restaurants; bars; clubs; tourist attractions; campgrounds or any other business operation.
2. Also, as a new well owner, you need to be aware of some of your responsibilities. Enclosed is a copy of "Well Owner Responsibilities". Please review these responsibilities to ensure you are complying with all of the requirements.

Enclosed are an application form and instruction sheet to apply for a water permit. The completed form with the application fee and map can be returned to: Water Rights Program, 523 E. Capitol, Pierre, SD 57501. Please respond by March 1, 2022.

If you believe your water use does not require a water permit or that you have an existing permit, or if help is needed completing the application forms, please contact Ron Duvall or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
karen.schlaak@state.sd.us

enclosure



**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. 8597-3, CHS Farmers Alliance**

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. 8597-3, CHS Farmers Alliance, PO Box F, Freeman SD 57029.

The Chief Engineer is recommending APPROVAL of Application No. 8597-3 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. 8597-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Niobrara aquifer.
3. Water Permit No. 8597-3 authorizes a total annual diversion of up to 1.3 acre-feet of water.

See report on application for additional information.

Eric Gronlund, Chief Engineer
April 22, 2022

Report of Water Permit Application 8597-3

Report to the Chief Engineer Water Permit Application 8597-3 CHS Farmers Alliance

Water Permit Application No. 8597-3 proposes to appropriate up to 1.3 acre-feet of water annually at a maximum instantaneous diversion rate of 0.10 cubic feet per second (cfs) from one well (approximately 242 ft deep) completed into the Niobrara aquifer for commercial use in Hutchinson and Turner Counties. The well is located in the NE ¼ SE ¼ Section 26-T99N-R56W in Hutchinson County. This site is located approximately 0.5 miles north of Freeman, SD.

Aquifer: Niobrara aquifer

Hydrogeology

The Niobrara Formation is a bedrock formation that underlies most of eastern and western South Dakota (Hedges et al, 1982; Allen et al, 1985). The Niobrara Formation is a Late Cretaceous age white to dark grey argillaceous (clay containing) chalk, marl, and shale that can contain thin bentonite beds, minor sand, and chalky carbonaceous shale (Tomhave, and Schulz, 2004). Locally, the Niobrara Formation is also known as “chalk rock” and is extensive throughout South Dakota; however, characteristics of the Niobrara aquifer vary greatly across the state (Hedges et al., 1982). The Niobrara aquifer is contained within portions of the Niobrara Formation where sufficient permeability exists to allow for the transmission of groundwater and where the permeable portions of the formation are sufficiently saturated to yield quantities of groundwater to wells. Both Hedges et al. (1982) and Stephens (1967) identified fractures and solution cavities as the main means of water movement through the Niobrara aquifer. Hedges et al. (1982) noted these features are partially controlled by flexures and faults. Where these secondary porosity features are absent, the Niobrara Formation is generally a low-permeability or almost a no-permeability formation that transmits little to no water (Hedges et al., 1982; Stephens, 1967). Weathering and glacial activity may also contribute to higher productive zones in the Niobrara aquifer (Hedges et al., 1982). The interconnected nature of secondary porosity is highly variable and unpredictable.

In southeastern South Dakota, there are several areas where portions of the Niobrara Formation were isolated from the main body of the Niobrara through erosional forces prior to being overlain by glacial deposits (Tomhave and Schulz, 2004). The proposed well site is located within the extent of one of these isolated portions of the Niobrara Formation. The extent of this portion of the Niobrara Formation is shown in Figure 1. This portion of the Niobrara Formation underlies approximately 340,550 acres (estimated from Tomhave and Schulz, 2004) of portions of Hutchinson, Clay, Turner, Yankton, and McCook Counties. This portion of the Niobrara directly underlies either the Pierre Shale (shown in Figure 1) or glacial deposits in areas not underlying the Pierre Shale and overlies the Carlilie Shale (Tomhave and Schulz, 2004). Well completion reports on file with the Water Rights Program report encountering water through this portion of the Niobrara Formation indicating widespread aquifer potential throughout this portion of the formation (Water Rights, 2022a; 2022b; 2022c). Since this portion of the Niobrara aquifer is isolated from the main body, the remainder of this report will focus solely on this isolated portion of the aquifer.

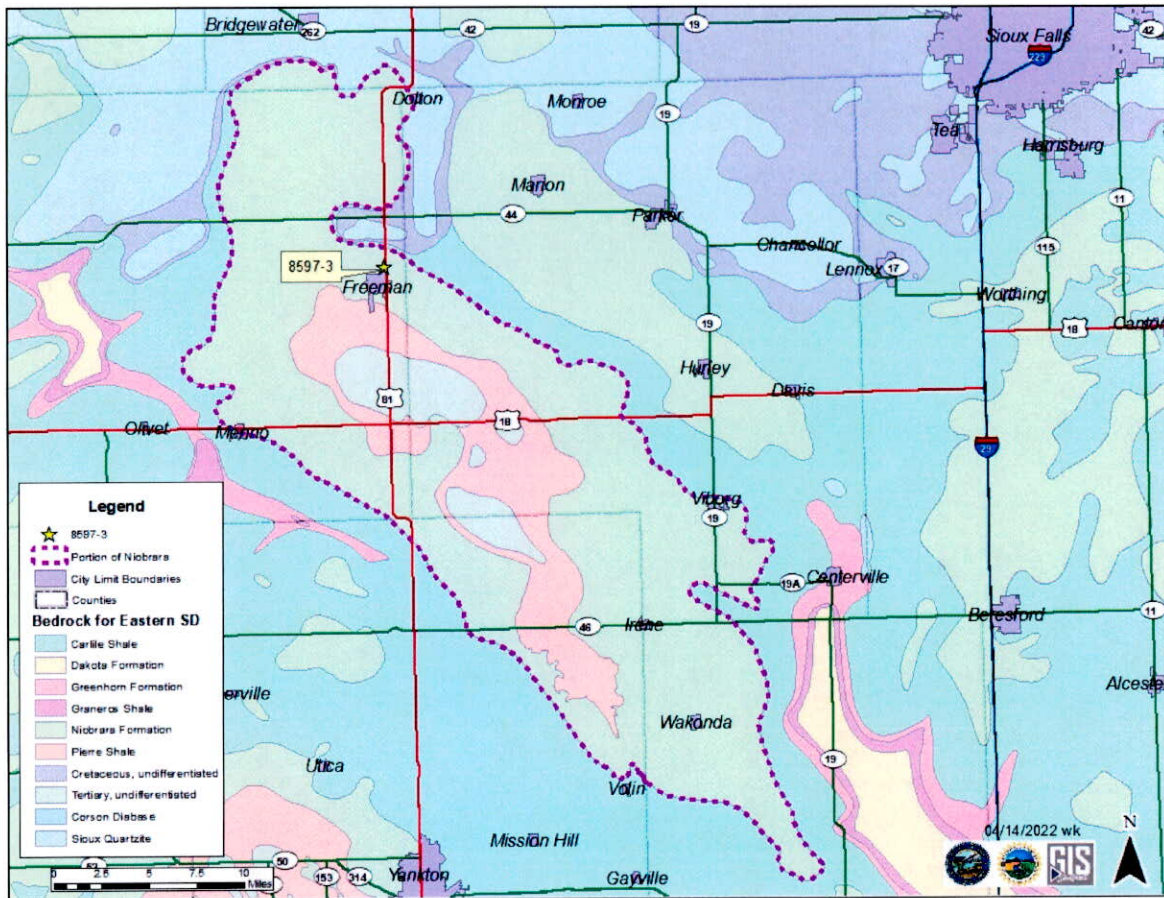


Figure 1: Map shown the first occurrence of bedrock material with the erosional remnant of the Niobrara Formation this application proposes to use (modified from Tomhave and Schulz, 2004)

This portion of the Niobrara aquifer is surrounded by valleys in the bedrock where the Niobrara Formation has been eroded, which contain deposits of glacial outwash that act as aquifers. Where these glacial outwash aquifers are in contact with this portion of the Niobrara (either overlaying or are adjacent to), there is potential for leakage between the aquifers based on hydraulic head. The Lower James Missouri aquifer lies in the bedrock valley to the west of this portion of the Niobrara and in some locations extends far enough east to be in contact with this portion of the Niobrara (Tomhave and Schulz, 2004; Hedges et al., 1982). The Upper Vermillion Missouri aquifer lies in the bedrock valley to the east of this portion of the Niobrara aquifer and can also be hydrologically connected (Lindgren and Hansen, 1990). Stephens (1967) indicated the presence of a glacial outwash aquifer (named the Wakonda aquifer) directly overlaying and with a strong hydrologic connection to this portion of the Niobrara in portions of Clay County. However, the first occurrence of aquifer materials mapping by Jensen (2000) indicates that the Wakonda aquifer is unlikely to be as extensive as was mapped by Hedges et al. (1982).

Potentiometric surface mapping done in the late 1980's and early 1990s, indicated water movement in this portion of the Niobrara aquifer is generally from the center toward the edges (Lindgren and Hansen, 1990; Bugliosi, 1986). Using more recent observation well and water well data, Mathiowetz (2016) created a May 2016 potentiometric surface (shown in Figure 2) for this

portion of the Niobrara aquifer. The May 2016 potentiometric surface shows water movement in the aquifer from the center toward the edges (moving from higher head to lower head). This indicates two things: first, this portion of the Niobrara aquifer is likely primarily discharging to aquifers located within the bedrock valleys surrounding this portion of the Niobrara aquifer and second, there is likely a recharge source near the center of the aquifer. The available reports for the area do not specifically identify a recharge source to the Niobrara aquifer but there are likely two possibilities. A portion of the Pierre Shale near the center of this portion is overlain by the Turkey Ridge aquifer which near its edges could be separated from the Niobrara by limited amounts of glacial till through which leakage could occur or the undifferentiated tertiary material can include high permeability materials (sands and gravel) which could allow for greater potential for infiltration of precipitation through overlying materials (Lindgren and Hansen, 1990; Tomhave and Schulz, 2004).

The well completion report for the well the applicant proposes to use was submitted with this application. The well completion reported the top of the chalk (Niobrara) at 198 feet below grade with a total well depth of 242 feet below grade. The static water level reported at the time of completion (June 17, 2021) was 80 feet below grade. This indicates that the aquifer is under confined conditions at the well site for this application and at the time of drilling had 118 feet of artesian head pressure.

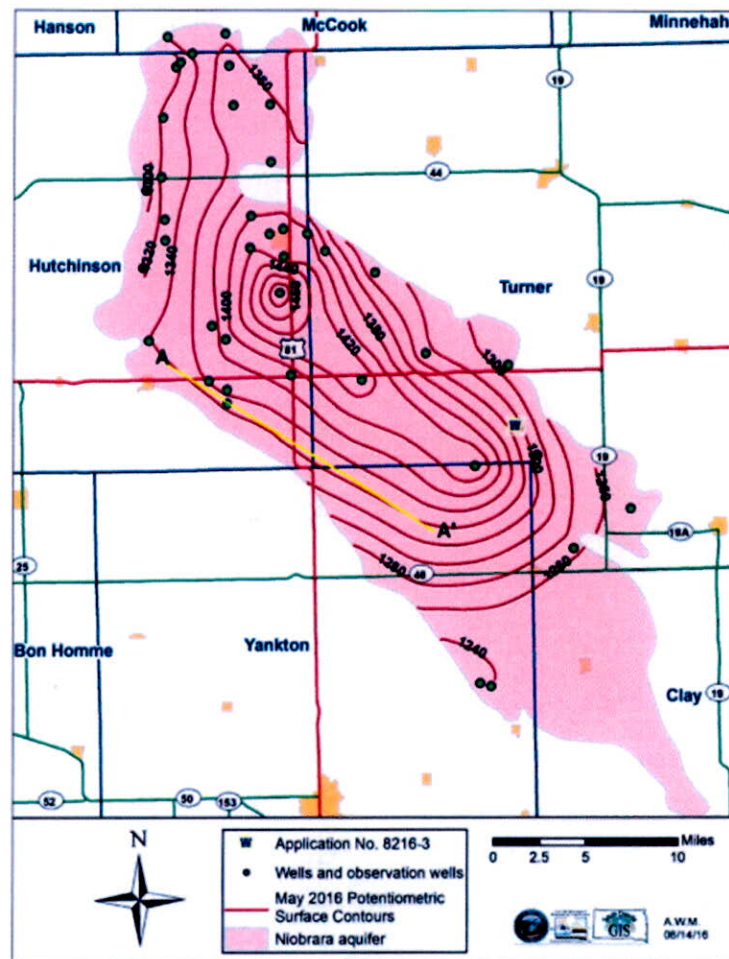


Figure 2: Approximate potentiometric surface contours from May 2016 (Mathiowetz, 2016)

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 this portion of the Niobrara aquifer.

Water Availability

Water Permit Application No. 8597-3 proposes to appropriate water from the Niobrara aquifer for commercial use. The probability of unappropriated water being available from an aquifer can be evaluated by considering SDCL 46-6-3.1 which requires, "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and the application is for a water distribution system defined in SDCL 46-1-6 (17), the Board need not consider the recharge/withdrawal issue. The Niobrara Formation is not older or lower than the Greenhorn Formation and this application is not for a water distribution system; therefore, the withdrawal/recharge issue must be considered.

Observation Well Data

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge.

The Water Rights Program monitors 12 observation wells in this portion of the Niobrara aquifer. The location of those observation wells is shown in Figure 3. The nearest observation well to the proposed well location is observation well TU-81A located approximately 1.2 miles to the southeast. The hydrograph for observation well TU-81A is shown in Figure 4. The remaining observation well hydrographs for this portion for the Niobrara aquifer are shown in Figure 5 through Figure 15. Observation well HT-81B has frequently been reported to be underwater since 2014 and, where there are readings from the well after 2014, the comments have indicated the presence of iron bacteria, which can impair observation well performance and measurement (Water Rights, 2022c). Therefore, the accuracy of any readings from HT-81B after 2014 are considered to be suspect.

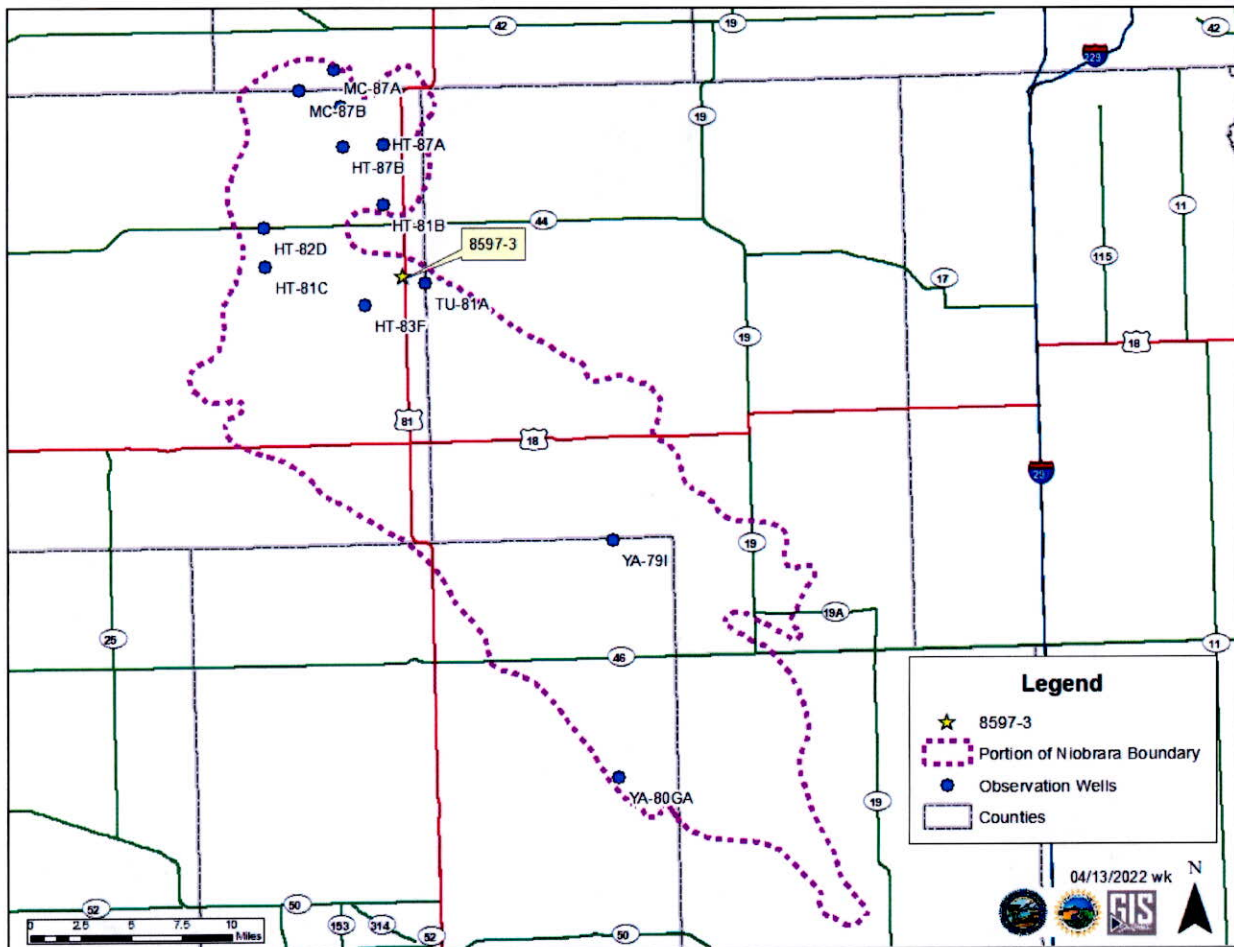


Figure 3: Location of Water Rights observation wells in this portion of the Niobrara aquifer (Water Rights, 2022c)

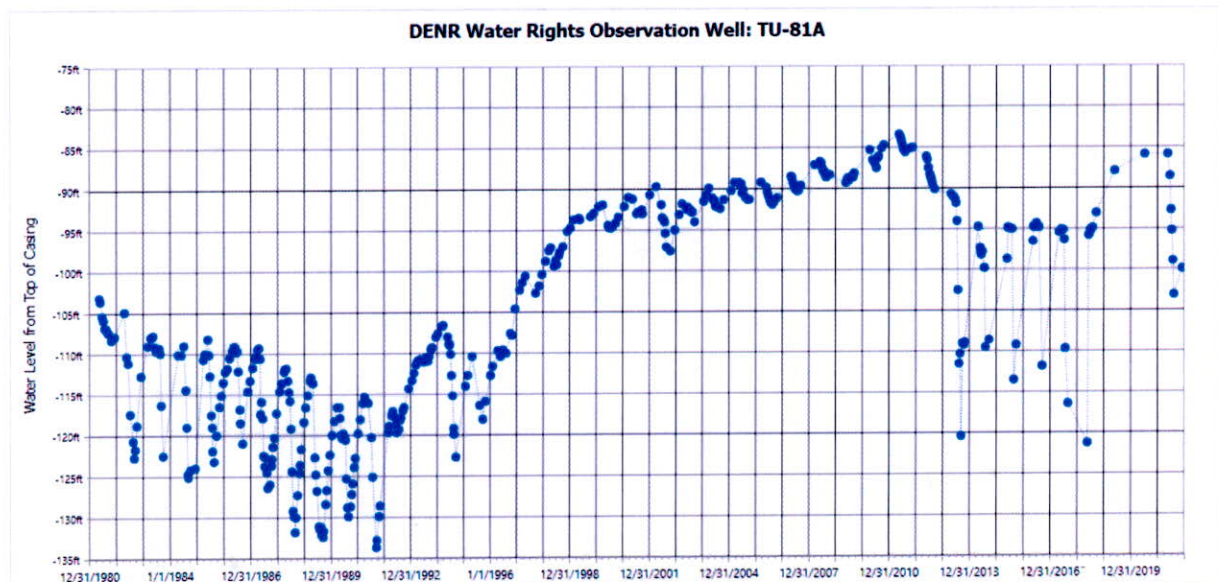


Figure 4: Hydrograph of observation well TU-81A located 1.2 miles east southeast (Water Rights, 2022b)

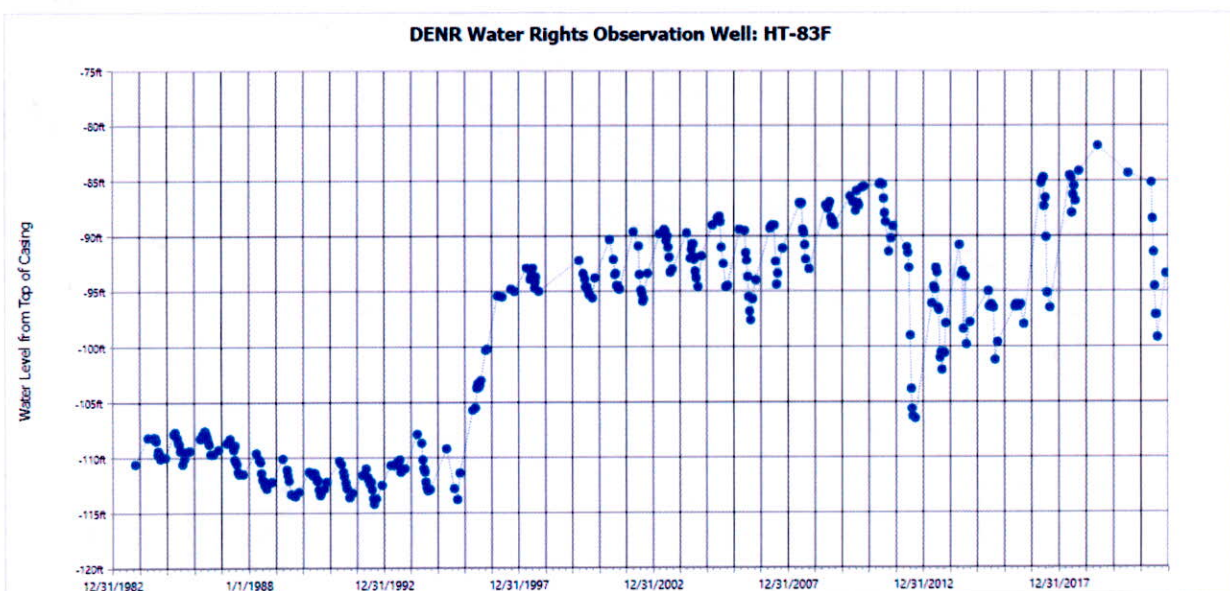


Figure 5: Hydrograph of observation well HT-83F located 2.3 miles southwest (Water Rights, 2022b)

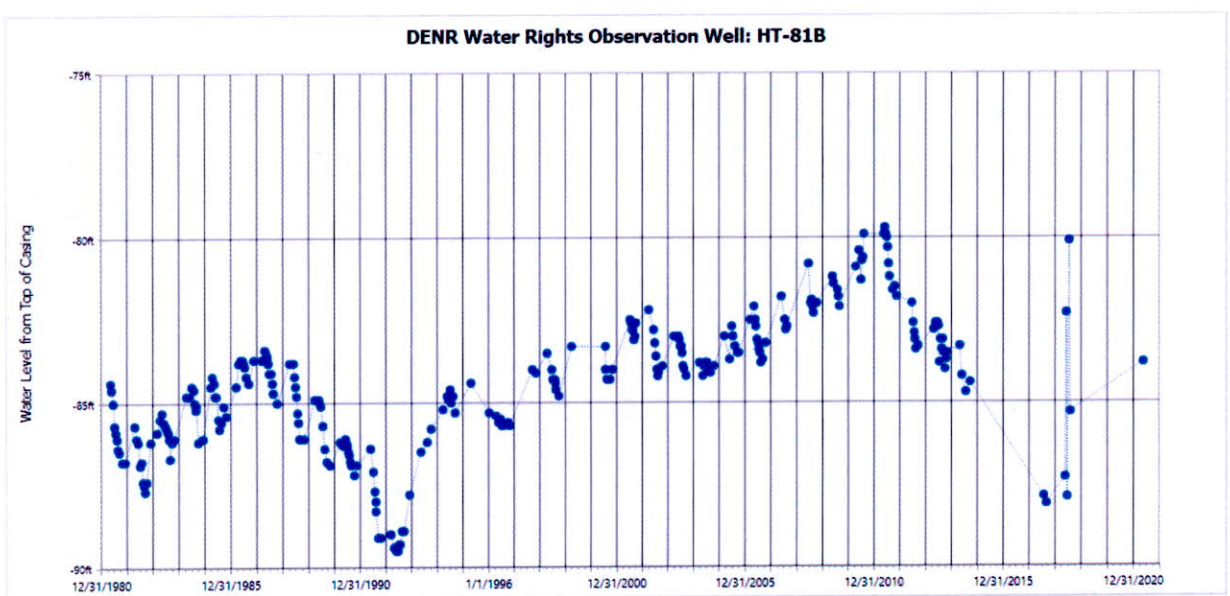


Figure 6: Hydrograph of observation well HT-81B located 3.8 miles north (Water Rights, 2022b)

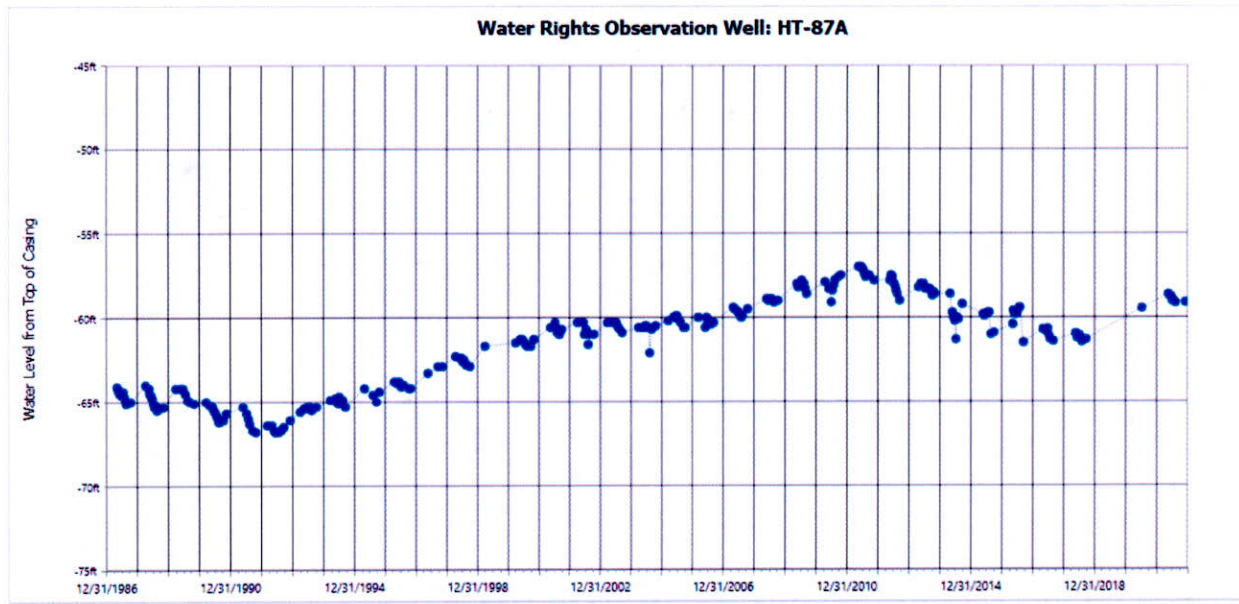


Figure 7: Hydrograph of observation well HT-87A located 6.7 miles north (Water Rights, 2022b)

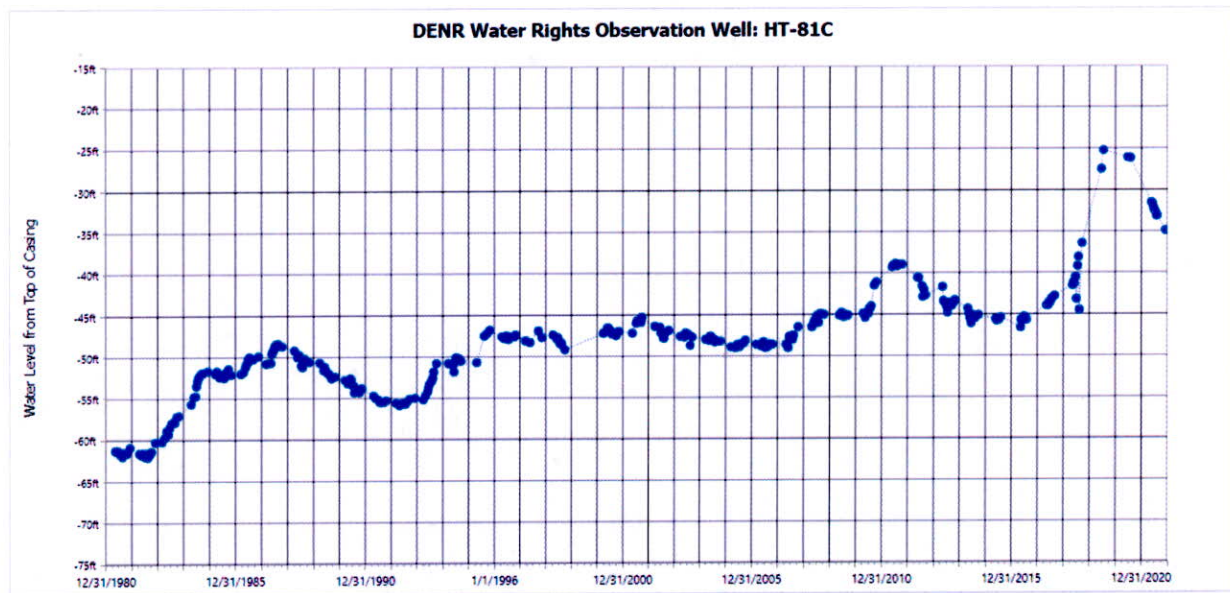


Figure 8: Hydrograph of observation well HT-81C located 6.9 miles west (Water Rights, 2022b)

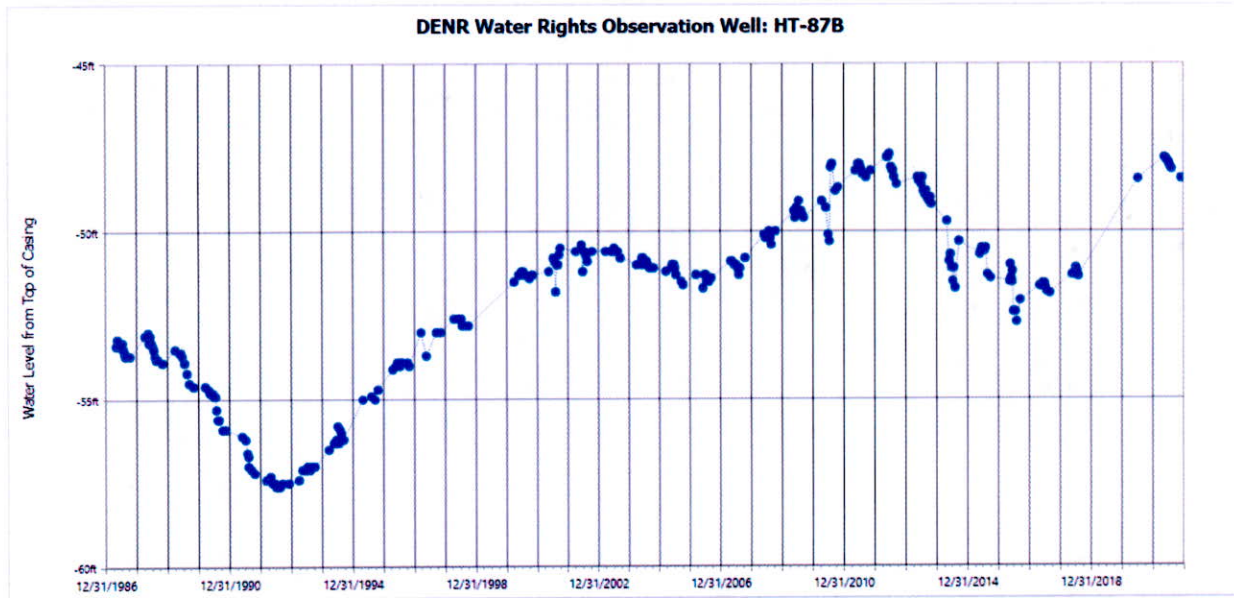


Figure 9: Hydrograph of observation well HT-87B located 7.2 miles north (Water Rights, 2022b)

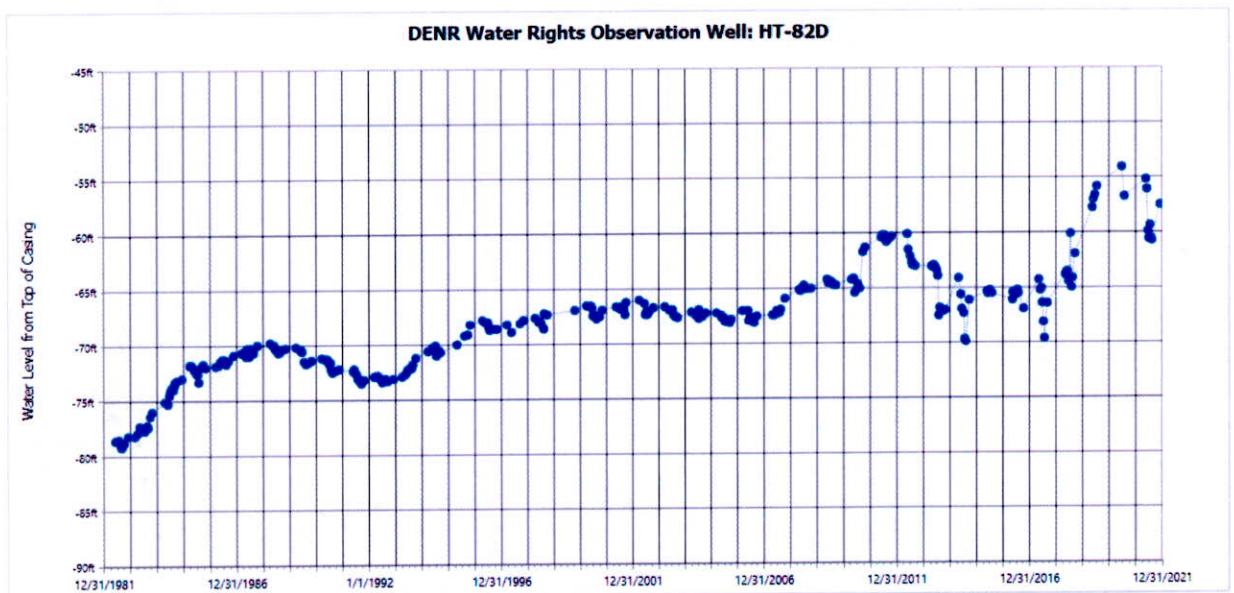


Figure 10: Hydrograph of observation well HT-82D located 7.3 miles west northwest (Water Rights, 2022b)

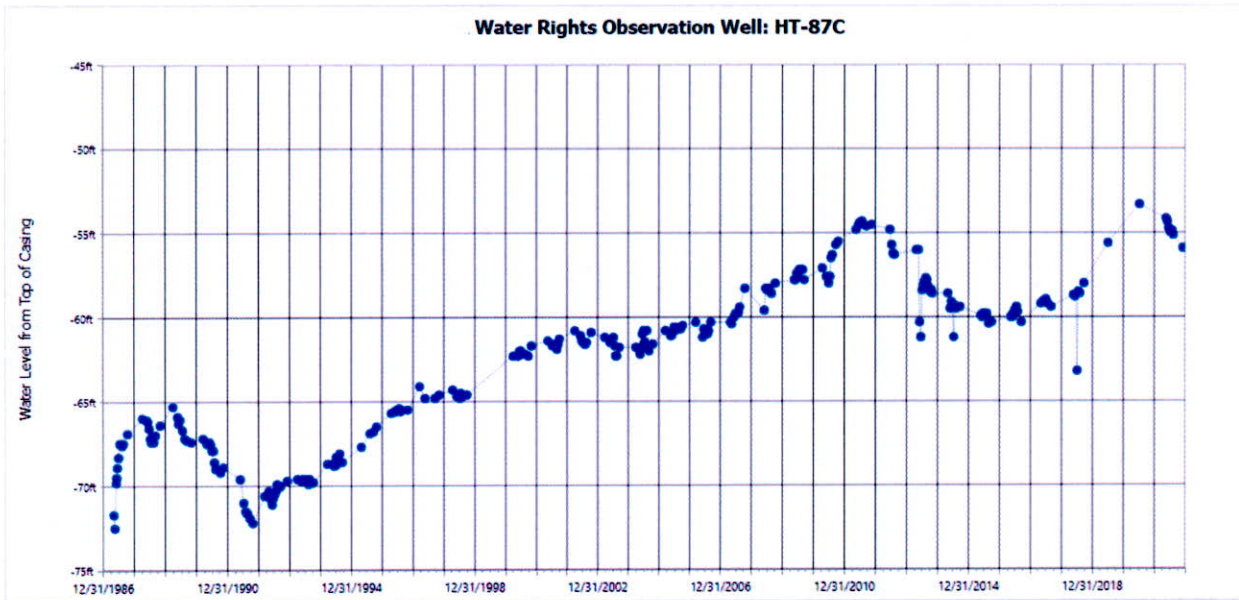


Figure 11: Hydrograph of observation well HT-87C located 9.0 miles north (Water Rights, 2022b)

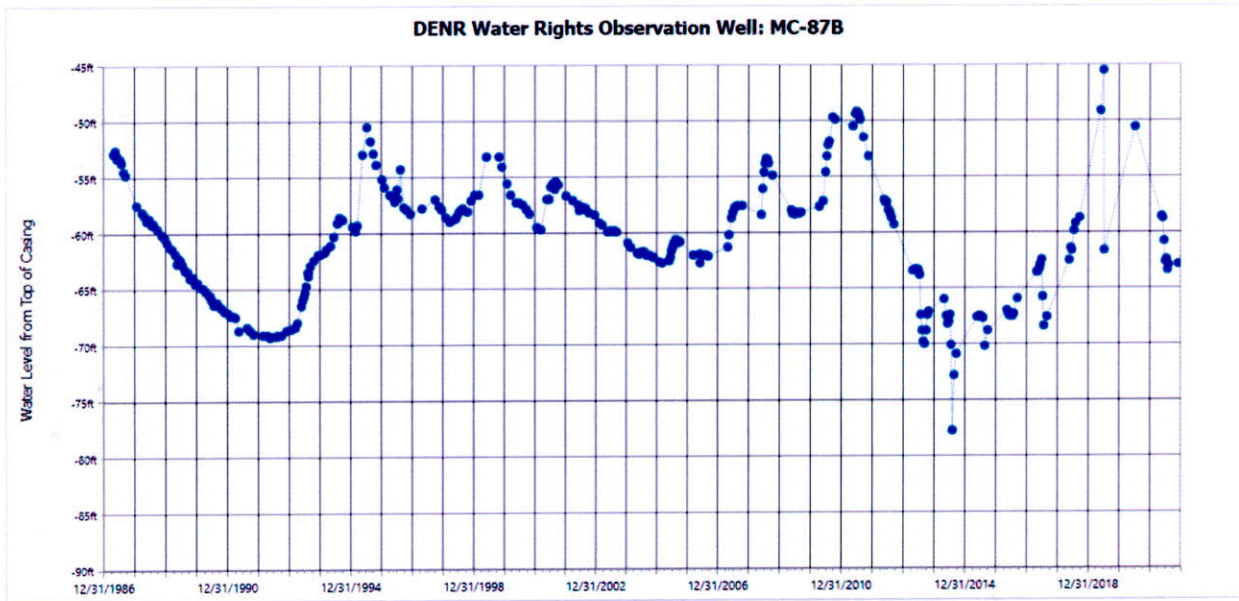


Figure 12: Hydrograph of observation well MC-87B located 10.7 miles west northwest (Water Rights, 2022b)

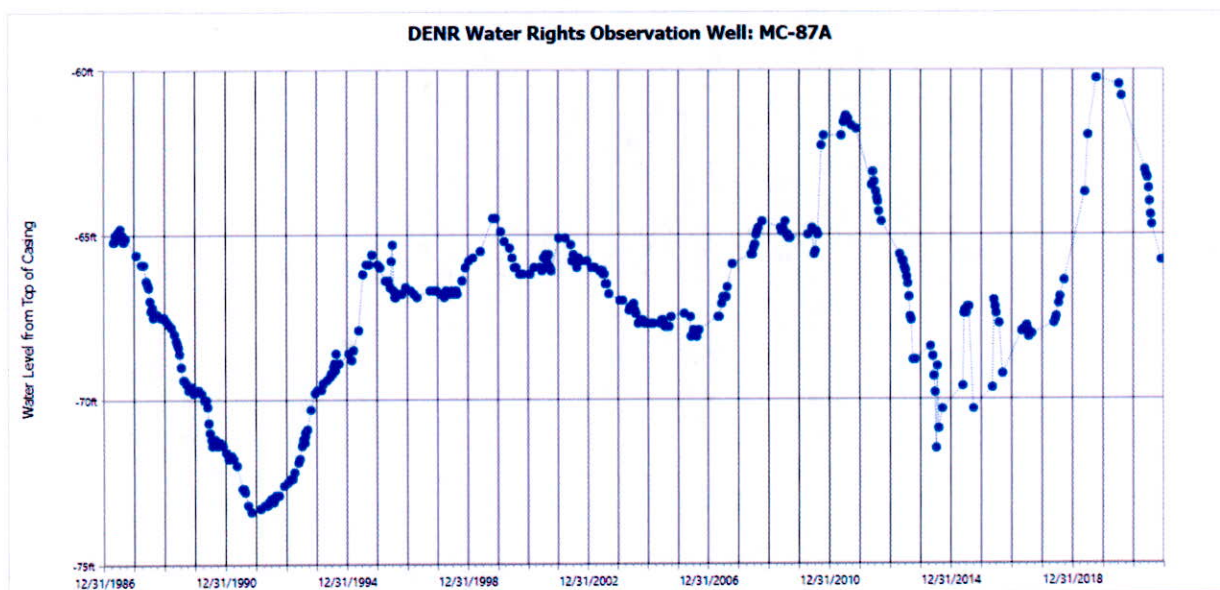


Figure 13: Hydrograph of observation well MC-87A located 10.7 miles west northwest (Water Rights, 2022b)

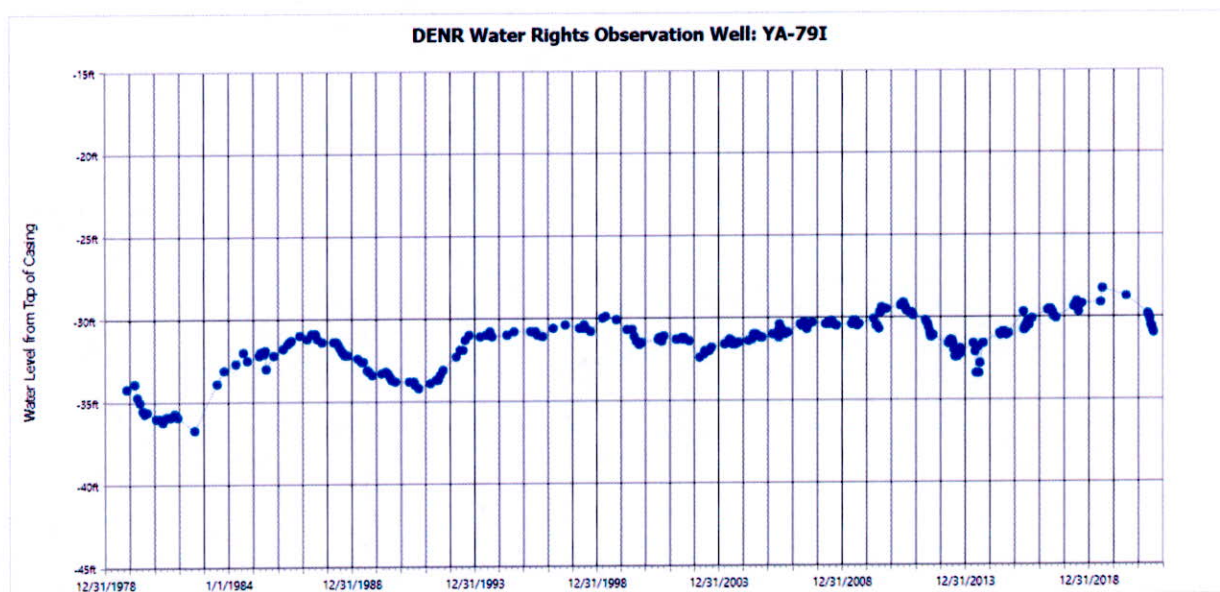


Figure 14: Hydrograph of observation well YA-79I located 16.8 miles west southeast (Water Rights, 2022b)

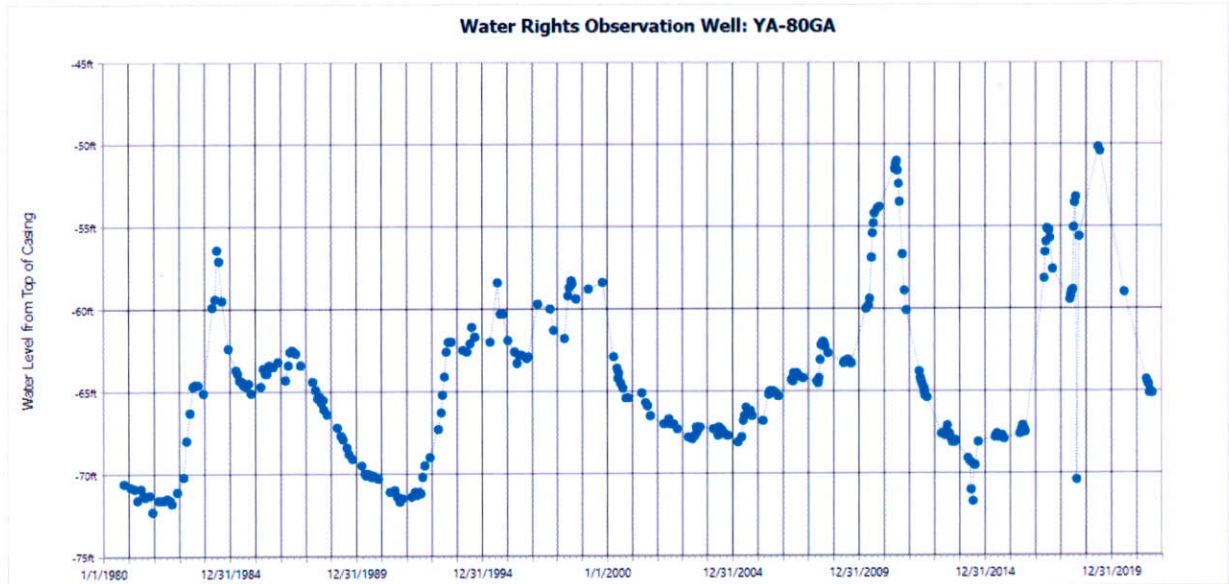


Figure 15: Hydrograph of observation well YA-80GA located 27.3 miles west southeast (Water Rights, 2022b)

Generally, the observation wells show an increase in water levels since the start of their periods of record (excluding HT-81B). Within that increasing trend, the response of water levels to climatic conditions can be noted, although the magnitude of the response to climatic condition varies due to localized conditions within the aquifer. Several observation wells that are close to irrigation wells show localized seasonal dips in measured water levels during the irrigation season in response to pumping (for example HT-83F and TU-81A). This is representative of the artesian head pressure of the aquifer in the area responding to seasonal irrigation pumping. However, water levels recover after the end of the irrigation season when pumping ends for the season. Water levels in the observation wells monitoring the aquifer generally rise during wet periods and decline to stable levels during drier periods. This type of behavior, along with aquifer recovery following the irrigation season, is indicative that climatic conditions, and therefore the effects of recharge to and natural discharge from the aquifer, govern the long-term fluctuations in water levels in the aquifer instead of pumping. Since recharge to and natural discharge from an aquifer can be captured for pumping, there is a reasonable probability that unappropriated water is available from this portion of the Niobrara aquifer for the proposed appropriation.

Hydraulic Budget

Recharge

Recharge to this portion of the Niobrara aquifer is likely from groundwater inflow from adjacent or overlying aquifers due to leakage from these hydrologically connected aquifers when the potentiometric gradients are favorable (a higher hydraulic head in the connected overlying or adjacent aquifer than in the Niobrara aquifer would indicate potential for leakage into the Niobrara aquifer), infiltration from precipitation where the Niobrara is at or near ground surface, and leakage through till (Lindgren and Hansen, 1990). There is no estimate of average annual recharge to this portion of the Niobrara aquifer or the Niobrara aquifer in general available for South Dakota

(Hedges et al., 1985). However, of the Niobrara aquifer in SD, Hedges, et al. (1985) noted the Niobrara aquifer had such high storage and low use it was unlikely that withdrawals are approaching or exceeding recharge and that there was no evidence of significant head loss in the aquifer to suggest that use is exceeding recharge. As documented in the observation well section of this report the additional years of observation well data collected since Hedges, et al. (1985) still show no evidence of significant head loss in the aquifer (Water Rights, 2022b).

Discharge

Discharge from this portion of the Niobrara aquifer is due to well withdrawals and likely leakage to hydrologically connected aquifers where the potentiometric gradients are favorable (a higher hydraulic head in the Niobrara aquifer than in an overlying or adjacent aquifer would indicate potential for discharge from the Niobrara). There are currently 25 active water rights/permits in this portion of the Niobrara aquifer and one pending application with a priority date senior to this application that has been recommended for deferral (Water Rights, 2022b). Of those, 19 are for irrigation use, 3 for municipal use, 2 for commercial use, and 1 for institutional use. Mathiowetz (2016) created and analyzed a May 2016 potentiometric surface (Figure 2) for this portion of the Niobrara aquifer using observation well and water well data. The Mathiowetz (2016) analysis estimated that natural groundwater discharge along the western side of this portion of the Niobrara aquifer to the Lower James Missouri aquifer to be at least 9,837 acre-feet per year. Natural discharge from an aquifer serves as an indicator of the magnitude by which recharge is exceeding withdrawals from an aquifer. Since this estimate is for a single point in time (May 2016), this value does not represent an average annual value for discharge from the aquifer but does offer insight into the magnitude by which recharge is exceeding withdrawals on the western flank of the aquifer at the time the analysis was performed. Actual natural groundwater discharge from this aquifer is likely higher than indicated by Mathiowetz (2016). This is due to the direction of groundwater flow being generally from the center of the aquifer outward to the edges of the aquifer and Mathiowetz (2016) only quantified discharge from the western side of the aquifer, so an unquantified amount of natural discharge is likely occurring from the north, east, and south edges of the aquifer.

The six non-irrigation water rights/permits in this portion of the Niobrara aquifer are summarized in Table 1. The Town of Irene and the City of Freeman both purchase their water from a rural water system but keep their water rights on standby for emergency use, so their average annual withdrawal is estimated to be zero (Drinking Water, 2022). Historically, average water use by non-irrigation appropriations limited solely by instantaneous diversion rate have been less than 60% of full time pumping at the maximum permitted diversion rate. For water rights/permits limited to an annual volume, full use of that volume is assumed for estimation of average annual withdrawal. Appropriative non-irrigation water use is summarized in Table 1. The estimated average annual appropriative non-irrigation use from this portion of the Niobrara aquifer is 533 acre-ft per year. There are a number of domestic wells completed into this portion of the Niobrara aquifer that do not require appropriative water permits or report annual pumpage. Due the development of rural water systems in the area and to their relatively limited diversion rates; it is assumed the volume pumped from domestic wells is negligible to the hydrologic budget for this aquifer.

Report of Water Permit Application 8597-3

Table 1: Non-irrigation Use (Water Rights, 2022b)							
Permit No.	Name of Permit Holder	Priority Date	Status	Use	Rate (cfs)	Annual Volume Limit (acre-ft)	Estimated Average Annual Use (acre-ft per yr.)
810-3	City of Freeman	01/01/1950	LC	MUN	1.26	n/a	0 (system on standby)
1229-3	Town of Irene	01/01/1915	LC	MUN	0.56	n/a	0 (system on standby)
5239-3	City of Freeman	10/17/1988	LC	MUN	0.33	n/a	0 (system on standby)
6524-3	Freeman Jr College & Freeman Academy	07/19/2004	LC	INS	0.07	n/a	30
6706-3	Pheasant Run Farm	02/21/2006	PE	COM	0.1	n/a	43
8216-3	B&K Dairy Farms LLC	02/01/2016	PE	COM	0.67	460	460
						Total	533
LC-water right, PE-water permit, MUN-municipal, INS-institutional, COM-commercial							

The majority of water rights/ permits for irrigation are required to report annual irrigation usage to the Water Rights Program. The 19 active water rights/permits for irrigation from this portion of the Niobrara aquifer are summarized in Table 2 and their reported annual irrigation pumping summarized Table 3. Water Right No. 5913-3 incorporated portions of another permit when licensed, so reported irrigation usage for the incorporated permit is also included in Table 3. Water Permit Nos. 7512-3, 7513-3, and 7514-3 all have a required completion of construction date of February 19, 2018; however, the 2013-2021 irrigation questionnaires for these permits all indicated that the systems have not been constructed (Water Rights, 2022a; Water Rights, 1980-2022). Water Permit No. 7814-3 has a completion of construction date of June 24, 2018; however, the 2013-2021 irrigation questionnaires for this permit all indicated that the system has not been constructed (Water Rights, 2022a; Water Rights, 1980-2022). Water Permit Nos. 7512-3, 7513-3, 7514-3, and 7814-3 are all likely subject to cancellation due to failure to construct the system in the five year construction period for the permit. Therefore, since they are subject to cancellation the average annual usage for these permits is estimated at zero acre-feet per year.

Table 2 Summary of Irrigation Water Rights/Permits (Water Rights, 2022b)						
Permit No.	Name of Permit Holder	Priority Date	Status	Rate (cfs)	Acres	Comments
5764-3	City of Freeman	03/15/1993	LC	0.24	27.5	irrigation reporting started in 2016
5913-3	Roger Schmidt	04/02/1981	LC	0.77	123	incorporates portions of 4679-3
6708-3	David Huber	04/03/2006	LC	1.78	271	
7344-3	Michael Schultz	04/09/2012	PE	5.33	399	
7448-3	Robert Heckenlaible	10/03/2012	PE	6.67	560	
7512-3	Greg Wirth	10/24/2012	PE	2.28	160	not constructed
7513-3	Greg Wirth	10/24/2012	PE	1.74	122	not constructed
7514-3	Greg Wirth	10/24/2012	PE	2.28	160	not constructed
7515-3	Greg Wirth	10/24/2012	PE	2.28	160	
7526-3	Derrick Walter	11/15/2012	PE	3.56	257	
7617-3	Brett Guthmiller	01/07/2013	LC	1.34	119	
7683-3	Roger Guthmiller	01/28/2013	LC	1.34	134	
7700-3	David Huber	02/14/2013	PE	2.22	160	
7814-3	David Huber	04/01/2013	PE	1.78	80	not constructed
7893-3	Wayne or Trina Knutson	09/03/2013	LC	0.07	1.2	
8162-3	Don Schellpfeffer	05/28/2015	PE	1.78	122.65	
8260-3	Cameron Johnson	12/27/2016	PE	1.67	117.35	
8326-3	Jerry Nelsen	01/08/2018	PE	2	120	
8416-3	Jerome Poeschl	12/02/2019	PE	1.56	116	

Average reported irrigation usage for the water rights/permits for irrigation from this portion of the Niobrara aquifer is 156 acre-ft per year. Since the number of irrigation water rights/permits has continued to increase, the estimated average annual withdrawal rate for

irrigation appropriations for the entire period of record may not accurately reflect the current level of development. The average annual withdrawal rate for irrigation appropriations from 2013 to 2020, 590 acre-feet, better represents the current level of irrigation development in this portion of the Niobrara aquifer. There is also one pending application (Water Permit Application No. 8579-3) with a senior priority date to this application from this portion of the which proposes to irrigate 32 acres. In eastern South Dakota, center pivot application rates typical average less than 1 foot per acre, so average water usage by Water Permit Application No. 8579-3, if approved, is estimated to be less than 32 acre-feet per year. Therefore, average estimated irrigation usage from this portion of the Niobrara aquifer is 620 acre-ft per year.

Balance

Estimated average annual appropriative withdrawals for this portion of the Niobrara aquifer are estimated at 1,153 acre-ft per year (irrigation: 620 acre-ft per year and non-irrigation: 533 acre-ft per year). This application proposes to use up to 1.3 acre-feet of water annually. Natural discharge along the western side of this portion of the Niobrara aquifer to the Lower James Missouri aquifer is estimated to be at least 9,837 acre-feet per year (Mathiowetz, 2016). Since natural discharge from an aquifer represents water available in excess of withdrawals at the time of the estimation, and estimated natural discharge exceeds estimate average annual withdrawals plus the appropriation proposed by this application, there is a reasonable probability that unappropriated water is available in this portion of the Niobrara aquifer.

Report of Water Permit Application 8597-3

Table 3: Reported Irrigation use (Water Rights,1981-2021; Water Rights, 1982-2022)

Year	No. Permits	Reported Pumping (acre-feet)
1981	1	0.0
1982	1	69.7
1983	1	35.6
1984	1	42.0
1985	1	50.0
1986	1	50.0
1987	1	120.0
1988	1	72.9
1989	1	136.6
1990	1	92.8
1991	1	106.1
1992	1	6.6
1993	1	0.0
1994	1	33.1
1995	1	29.4
1996	2	6.6
1997	2	18.0
1998	2	0.0
1999	2	0.0
2000	2	0.0
2001	2	0.0
2002	2	25.2
2003	2	7.7
2004	2	0.0
2005	2	0.0
2006	2	0.0
2007	2	23.1
2008	2	49.5
2009	2	28.3
2010	2	0.0
2011	2	141.4
2012	3	381.6
2013	13	999.1
2014	14	928.9
2015	15	724.6
2016	16	518.1
2017	17	616.8
2018	18	98.0
2019	18	20.5
2020	19	815.0
Max	19	999.09
Min	1	0
1981-2020 Avg.	4.5	156.2
2013-2020 Avg	16.25	590.1

Potential For Unlawful Impairment of Existing Water Rights

Water rights/permits currently authorized to appropriate water from this portion of the Niobrara aquifer in the area of the well for this application are shown in Figure 16 and summarized in Table 4. The nearest water right/permit is Water Right No. 5913-3 located 0.7 miles to the northeast of the well site for this application. There are several domestic wells on file with the Water Rights Program located within one mile of the area for the proposed wells for this application that are completed into the Niobrara aquifer (Water Rights, 2022a).



Figure 16: Water rights/permits located in the area of Application No. 8597-3 (Water Rights, 2022b and 2022c)

Table 4: Summary of water rights/permits shown in Figure 16 (Water Rights, 2022b)

Permit No.	Name	Status	Use	Rate (cfs)	Acres
810-3	City of Freeman	LC	MUN	1.26	n/a
5239-3	City of Freeman	LC	MUN	0.33	n/a
5764-3	City of Freeman	LC	IRR	0.24	27.5
5913-3	Roger Schmidt	LC	IRR	0.77	123
6524-3	Freeman Jr College & Freeman Academy	LC	INS	0.07	n/a
7344-3	Michael Schultz	PE	IRR	5.33	399

LC=water right, PE=water permit, MUN= municipal, IRR=irrigation, INS= institutional

The exact amount of drawdown as a result of the diversion requested by this application cannot be quantified without aquifer testing. However, the Theis equation can be used to estimate theoretical drawdown from a pumping well in a confined aquifer. Aquifer transmissivity for the area of the well for this application was estimated using specific capacity to estimate transmissivity for wells for which the well test information was provided with two excessively high values discarded as outliers, which resulted in an estimated aquifer transmissivity for the area of 776.7 gallons/day/ft (103.8 ft²/day) (Aqtesolv, 2014). Storativity was estimated at 0.0001 (Mathiowetz, 2016). For a conservative estimate of drawdown it was assumed that that entire annual volume would be pumped at one time, so at a diversion rate of 0.1 cfs continuously the annual limit of 1.3 acre-feet would be pumped in approximately 6.6 days. This results in a calculated theoretical drawdown estimate of 1.4 feet at a distance of 1 mile, 0.7 feet of drawdown at a distance of 1.2 mile, and 0.17 feet of drawdown at a distance of 1.5 mile (Utah, 2010). The nearest observation well to the well site for this application is TU-81A located 1.2 miles east southeast (Figure 4). At the lowest measured water level for observation well TU-81A, approximately 86 feet of artesian head pressure remained (Water Rights, 2022c). A more realistic pattern of water use for this application is pumping for short periods of time throughout the year. This would allow for the partial to full recovery of water levels within the area of influence for the well when the well is not in use. The well completion report for the well on this application indicated at the time of well completion there was 118 feet of artesian head pressure at the well site. Therefore, there is a reasonable probability that this application, if approved, will not adversely impact nearby adequate wells as defined by ARSD 74:02:04:20(6).

Water Permit Application No. 8579-3 proposes to appropriate water from this portion of the Niobrara aquifer from a proposed diversion point located approximately 10.2 miles to the south, southwest of the well site for this application (Water Rights, 2022c). The Chief Engineer recommended deferral of this application for up to two years to allow for further study to determine if the existing irrigation in the area of the proposed well site for Application No. 8579-3 is unlawfully impairing two adequate domestic wells whose owner complained of loss of water during late summer and early fall of 2021 (Water Rights, 2022c). The domestic wells that were the subject of the complaint are located approximately 7.2 miles to the southwest of the well site for this application (No. 8597-3) and the nearest irrigation well related to the complaint is located approximately 3.3 miles to the southwest of the well site for this application. Given the diversion rate, annual volume, and distance of the well site for this application (No. 8597-3), this application, if approved, is not expected to increase drawdown in the area of the complaint of unlawful impairment of two adequate domestic wells.

In 2013, the Water Rights Program received a complaint of a domestic well being impacted in the general area of this application; however, when investigated, it was determined that the well had likely collapsed and was not an adequate well as defined by ARSD 74:02:04:20(6) (Water Rights, 2022d). In 2015, a complaint was received that Water Permit No. 7526-3 (near the northern edge of this portion of the Niobrara aquifer) was impacting springs; however, the springs were identified as artesian in nature and artesian head pressure is not protected as a means of delivery. Therefore, it was concluded that no unlawful impairment was occurring (Water Rights, 2022). In the case of Water Permit Application No. 2313-2 for the Coca-Cola Bottling Company of the Black Hills the Water Management Board adopted findings that noted that if the increased costs or

decreased production as a result of the impacts of legitimate users on artesian head pressure could be considered an adverse impact, it would conflict with SDCL 46-1-4 (Water Rights, 1995). SDCL 46-1-4 requires the water resources of the state be put to beneficial use to the maximum extent of which they are capable (Water Rights, 1995).

Conclusions

1. Water Permit Application No. 8597-3 proposes to appropriate up to 1.3 acre-feet of water annually at a maximum instantaneous diversion rate of 0.10 cfs from one well completed into the Niobrara aquifer located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 26-T99N-R56W for commercial use in Hutchinson and Turner Counties.
2. Based on the hydrologic budget and observation well data, there is a reasonable probability that water is available in this portion of the Niobrara aquifer to meet the water use proposed by this application.
3. There is a reasonable probability that, based on the available information for the area, that this application will not unlawfully impair existing water rights/permits with adequate wells or domestic users with adequate wells.


Whitney Kilts
SDDANR-Water Rights Program

References

- Allen, J.C., Iles, D.L., and Petres, A.K. 1985. Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota Tasks 3A.B.C. and 4A.B.: Groundwater Resource Inventory Final Report. U.S. Army Corps of Engineers Contract DACW 45-82-C-0151. SD DANR-Geological Survey. Vermillion, South Dakota.
- Aqtesolv. 2014. Transmissivity from Specific Capacity. HydroSOLVE, Inc. Accessed April 13, 2022. <<http://www.aqtesolv.com/forum/transcap.asp>>.
- Bugliosi, E. F. 1986. Water Resources of Yankton County, South Dakota. Water-Resources Investigation Report 84-4241. United States Geological Survey. Huron, SD.
- Drinking Water. 2022. South Dakota Drinking Water System Information. SDDANR-Water Rights Program. Accessed April 15, 2022. <<https://danr.sd.gov/OfficeOfWater/DrinkingWater/default.aspx>>.

- Hedges, L.S., Burch, S. L., Iles, D. L., Barari, R. A., and Schoon, R. A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J. and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 7: Ground-Water Recharge. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Jensen, A. R. 2000. First Occurrence of Aquifer Materials in Clay County, South Dakota. Aquifer Materials Map 1. South Dakota Geological Survey. Vermillion, SD.
- Lindgren, R.J. and Hansen, D.S. 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water Resources Investigations Report 90-4093. USGS. Huron, SD.
- Mathiowetz, A. 2016. Report to the Chief Engineer on Water Permit Application No. 8216-3. SD DANR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- SDGS. 2022. South Dakota Geological Survey Lithologic Logs Database. Accessed March 2022. <<http://cf.sddenr.net/lithdb/>>.
- Stephens, J.C. 1967. Geology and Hydrology of Clay County South Dakota: Part II Water Resources. Bulletin 19. SDGS. Vermillion, SD.
- Tomhave, D. T. and Schulz, L.D. 2004 Bedrock Geologic Map Showing Configuration of the Bedrock Surface in South Dakota East of the Missouri River. General Map 9, scale 1:500,000. South Dakota Geological Survey. Vermillion, South Dakota.
- Utah Division of Water Rights. 2010. Theis Equation Calculation for Aquifer Testing and Well Drawdown. Accessed Apr. 19, 2022. <http://waterrights.utah.gov/wellinfo/theis/theis_input.asp>.
- Water Rights. 1981-2021. "1979-2020 Irrigation Summaries by Aquifer": SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 1982-2022. 1979-2021 Irrigation Questionnaire: SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2022a. Well Completion Reports. SD DANR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2022b. Water Right/Permit Files. SD DANR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2022c. Observation Well Files. SD DANR-Water Rights Program. Joe Foss Building, Pierre, South Dakota.

Report of Water Permit Application 8597-3

Water Rights. 2022d. Hutchinson County Complaint File. Water Rights County Complaint Files.
SD DANR-Water Rights Program. Joe Foss Building, Pierre, South Dakota.

Water Rights. 2022e. File for Water Permit Application No. 8579-3: Brett Guthmiller. SD DANR-
Water Rights Program. Joe Foss Building, Pierre, South Dakota.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 25, 2022 9:50 AM
To: bradley.letcher@chsinc.com
Subject: Water Permit Application No. 8579-3
Attachments: 3324.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
DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County of Turner) SS

I, Michelle Stewart

certify that the attached printed Notice was taken

from the New Era

Newspaper

printed and published in Parker

County of Turner and

state of South Dakota. The notice was published

in the newspaper on the following date:

May 5th, 2022

Cost of Printing \$50.47

Michelle Stewart
(Signature)

Assistant

(Title)

11th Day of May
(Date Signed)

NOTICE OF APPLICATION NO. 8597-3 TO APPROPRIATE WATER

Notice is given that CHS Farmers Alliance, c/o Brad Letcher, Manager, PO Box F, Freeman SD 57029 has filed an application for a water permit to appropriate 1.3 acre-feet of water annually at a maximum pump rate of 0.10 cubic feet of water per second from one well completed into the Niobrara Aquifer (242 feet deep) located in the NE

1/4 SE 1/4 Section 26-T99N-R56W for commercial use in Hutchinson and Turner Counties. This site is located approximately 1/2 mile north of Freeman SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8597-3 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

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WATER RIGHTS
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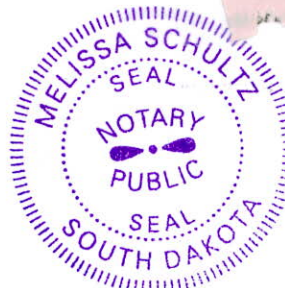
provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given 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 16, 2022.

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 16, 2022.

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 \$50.47. (N0505-2)



Melissa Schultz

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MAY 09 2022

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

County of Hutchinson)

) ss.

State of South Dakota)

Jeremy Waltner, of said county and state, being duly sworn, on his oath, deposes and says: That the Freeman Courier is a weekly newspaper of general circulation and a legal newspaper as required by law, printed and published in the town of Freeman in said county and state by Jeremy Waltner, and has been such newspaper during the time hereinafter mentioned: That I, Jeremy Waltner, the undersigned, am publisher of said newspaper in charge of the advertising department thereof, and have personal knowledge of all the facts stated in this affidavit, and that the advertisement headed Notice of Application

a printed copy of which is hereto attached, was printed and published in the said newspaper for one successive issues to-wit:

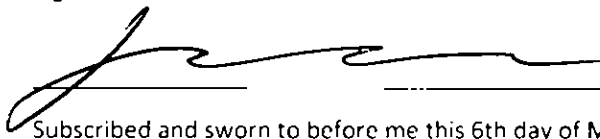
The first publication on:

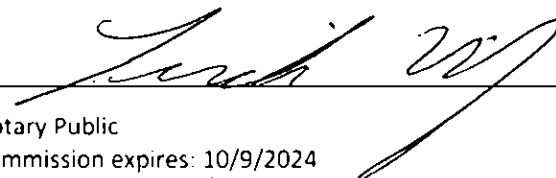
May 5, 2022

the second publication on:

and the third publication on:

That the full amount of the fees charged for publishing the same to-wit: The sum of \$41.87 insures solely to the benefit of the publisher of the Freeman Courier, that no agreement or understanding for any division thereof has been made with any other person whomsoever, and the amount of \$41.87 is the rate for publishing legal notices.


Subscribed and sworn to before me this 6th day of May 2022.


Notary Public
Commission expires: 10/9/2024

Publication fee: \$41.87

Notary fee:

Total: \$41.87

CHS FARMERS ALLIANCE

Notice of Application

No. 8597-3 to Appropriate Water

Notice is given that CHS Farmers Alliance, c/o Brad Letcher, Manager, PO Box F, Freeman SD 57029 has filed an application for a water permit to appropriate 1.3 acre-feet of water annually at a maximum pump rate of 0.10 cubic feet of water per second from one well completed into the Niobrara Aquifer (242 feet deep) located in the NE 1/4 SE 1/4 Section 26-T99N-R56W for commercial use in Hutchinson and Turner Counties. This site is located approximately 1/2 mile north of Freeman SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8597-3 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 16, 2022.

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 16, 2022.

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Published once at the total approximate cost of \$41.87

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

MAY 09 2022

WATER RIGHTS
PROGRAM

CHS FARMERS ALLIANCE
PO BOX F
FREEMAN SD 57029

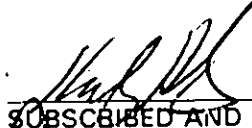
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
5 + 5 NOTICE OF APPLICATION

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 5th DAY OF May, 2022
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$39.84 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 05/05/2022

FILED ON: 05/05/2022


SUBSCRIBED AND SWORN TO BEFORE ME THIS 5th DAY OF May, 2022


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026

Ad text : 5 + 5

Notice of Application No. 8597-3 to Appropriate Water

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MAY 09 2022

WATER RIGHTS
PROGRAM

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Published once at the total approximate cost of \$39.84 and can be viewed free of charge at www.sdpublicnotices.com

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 25, 2022 9:45 AM
To: New Era
Subject: 8597-3, CHS Farms Alliance
Attachments: 8597-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on May 5, 2022.

CHS Farmers Alliance, c/o Brad Letcher, Manager, PO Box F, Freeman SD 57029 (605 660-3371) 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

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 25, 2022 9:44 AM
To: 'courier@gwtc.net'
Subject: 8597-3, CHS Farms Alliance
Attachments: 8597-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on May 5, 2022.

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Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 25, 2022 9:54 AM
To: Kelly Kronaizl
Subject: FW: 8597-3, CHS Farms Alliance
Attachments: 8597-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on May 5, 2022 in the Press & Dakotan.

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Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**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 25, 2022

CHS Farmers Alliance
c/o Brad Letcher, Manager
PO Box F
Freeman SD 57029

Dear Mr. Letcher:

Water Permit Application No. 8597-3 for commercial use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the following papers:

Freeman Courier, Freeman	925-7033
New Era, Parker	297-4419
Press & Dakota, Yankton	665-7811

You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

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.

Notice of Application No. 8597-3 to Appropriate Water

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Published once at the total approximate cost of_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 01 2022

CHS Farmers Alliance
c/o Brad Letcher
PO Box F
Freeman SD 57029

Dear Mr. Freeman:

Enclosed is Water Permit No. 8597-3 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
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Sincerely,

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

enclosures

8547-3
RECEIVED

JUN 23 2022

OFFICE OF
WATERNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 6-20-2022TO: Water Rights Program, DANR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

CHS Farmers Alliance
(name)803 N US Hwy 81
(address)Freeman S. Dak 57029
(city, state, zip)605-925-4254
(phone)P.O. Box F is
mailing address

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

Water Permit No. 8547-3 states that the water use system is to be constructed byMay 16, 2022, and water is to be put to beneficial use by May 16, 2031.
(date) (date)The water use system was completed on 5-27-2021.
(date)Applying the water to beneficial use was completed on 5-27-21.
(date)

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

Brad Petch

(signature)





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

June 23, 2022

8597-3

Brad Letcher
CHS Farmers Alliance
PO Box F
Freeman SD 57029

Dear Mr. Letcher:

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

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

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

Sincerely,

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