

DO NOT LICENSE
THIS IS A
TEMPORARY
WATER PERMIT

WATER PERMIT NO. 8580-3

Name of Applicant: **Dale Bunkers and Jon Bunkers**

Address: **24007 461st Ave, Chester SD 57016** Phone: **605 270-3045**

Amount of Water Claimed: **1.78 cfs** Total Acres: **130**

Source of Water Supply: **groundwater (2 wells)**

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

Type of Waste Disposal System:

Location: **3 miles west of Chester**

PRIORITY Date Received: **1-10-22** Application/License Fee: **\$ 1050**

Corrected Application Received: Period of Annual Use: **April 1 – September 30**

Remarks:

Diversion Point: **E 1/2 NE 1/4 Sec 18-T105N-R51W**

Land to be Irrigated: **NE 1/4 Sec 18-T105N-R51W**

Depth of Well: **55 feet deep**

Well Driller:

Remarks:

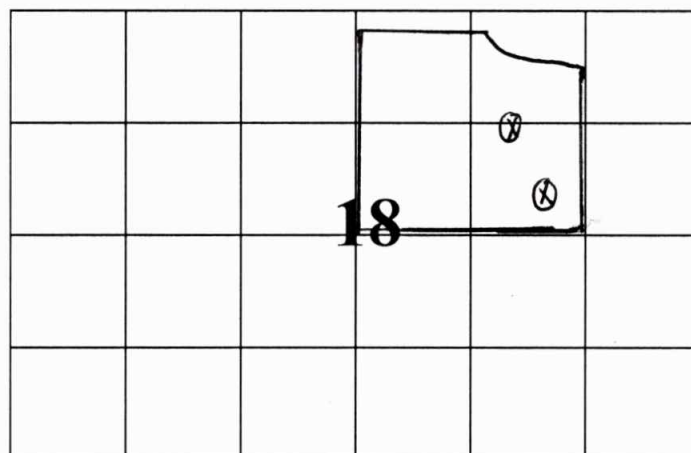
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **1-13-22**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 8580-3

Date of first receipt of application January 10, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Temporary Use Water Permit No. 8580-3 to Dale Bunkers & Jon Bunkers 24007 461st Ave, Chester SD 57016 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. Temporary Use Water Permit No. 8580-3 appropriates 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux Northern Skunk Creek aquifer (approximately 55 feet deep) located in the E 1/2 NE 1/4 Section 18 for irrigation of 130 acres located in the NE 1/4 Section 18; all in T105N-R51W. This site is located approximately 3 miles west of Chester 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 10, 2022.
4. The date of approval of Temporary Use Permit No. 8580-3 is February 25, 2022.
5. One-fifth of the construction is to be completed on or before August 25, 2024.
6. All construction is to be completed on or before February 25, 2027.
7. Water is to be put to beneficial use on or before February 25, 2031.
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 City of Madison, Kingbrook Rural Water System and Big Sioux Community Water have priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if, or when, the future use permit holders fully develop their reserve water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.
2. The wells approved under Water Permit No. 8580-3 are located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The wells authorized by Permit No. 8580-3 shall be constructed by a licensed well driller and construction of the wells and installation of the pumps 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.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

MAR 16 2022
date



RECEIVED

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8580-3</u>	(office use only) Hydrologic Unit <u>10170203</u>	JAN 10 2022
	Basin <u>Sioux River</u>	WATER RIGHTS PROGRAM	
	Newspaper <u>Madison Daily Leader</u>		

PAID

JAN 10 2022

Ck# 4881
Rec't# _____

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 Dale Bunkers & Jon Bunkers

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

Mailing Address 24007 441 Ave Chester SD 57016
(Address) (City) (State) (Zip Code)

Phone 605 489 2385 Mobile 605 270 3045 Email bunk@itctel.com

2. Amount of water claimed 1.78 *CFS or 600-800 **GPM ***AF Total Acreage 130
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Wells E 1/2

4. Location of point of diversion 1 of 2 Wells in NE 1/4 18 105 51
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Lake

5. County or counties where water will be used Lake

6. Annual period during which water is to be used April 1 - September 30

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>NE 1/4 NE 1/4 18 105-51</u>	<u>16</u>		
<u>SE 1/4</u>	<u>39</u>		
<u>SW 1/4</u>	<u>40</u>		
<u>NW 1/4</u>	<u>35</u>		

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

Land was irrigated before I owned when 2 wells
our plan is to drill one well first then make
decision one if a 2nd is needed

I, Dale Bunkers 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 2 Have test holes been drilled ☒ Yes ☐ No Drilled by Putzke Dilling
(if yes, please provide copies of logs)b) If existing wells, how many if needed Provide copy of log(s), if available. Drilled by _____

For either Existing or Proposed Wells:

c) Well Depth (required) 55 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)

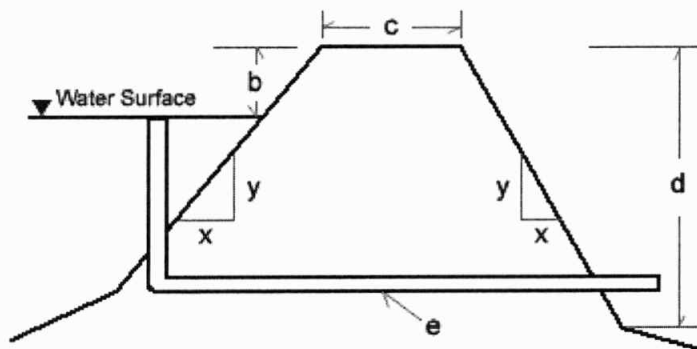
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



105N 52W
Section: 12

105N 51W
Section: 07

105N 51W
Section: 08

105N 52W
Section: 13

105N 51W
Section: 18

105N 51W
Section: 17

105N 52W
Section: 24

105N 51W
Section: 19

105N 51W
Section: 20

#1
X
#2
is needed

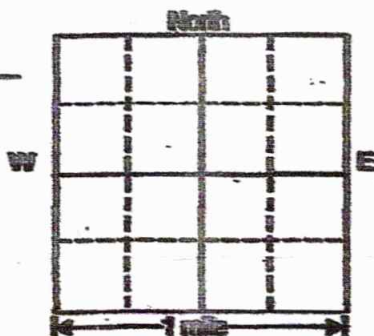
SOUTH DAKOTA WELL AND TEST HOLE PLUGGING REPORT

11-02

Location NE 1/4 1/4 Sec 18 Twp 05 Rg 51

County Lake

Please mark well location with an "X"



Plugging Completion Date 12-1-21

Well Owner:

Name:

Dale Burkens

Address:

24007 - 4161st

City, State, Zip:

Chester S.D 57016

Comments:

CHECK APPROPRIATE BOX

EXISTING WELL ☐

TEST HOLE ☒

Well depth

Casing material

Casing size(s)

Casing condition

Hole depth

Hole size

100

5"

Describe plugging procedure:

Run 1" Trimix line to bottom of test hole pump w/
Grout machine

Describe grout or plugging material:

Grout DF

0-2 Top Soil

2-30 Yellow clay

30-37 Sandyclay

37-56 Sand + Gravel

56-100 Blue Clay

Type of non-slip plug:

This well or test hole was plugged under license # 439 and this report is true and accurate.

Drilling firm: Dave Putzke Well Drilling & repair inc

Signature of Licensed Representative:

[Signature]

Signature of Well Owner:

Date:

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Agriculture and Natural Resources

Date January 10, 2022

RECEIVED OF Bunkers Farms LLC 24007 461 Ave Chester SD 57016

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

Fee for Application for Permit No. <u>8580-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>850.00</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>8580-3</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>1050.00</u>

By Eric Gronlund
Chief Engineer
Em

Water Rights Program - File Documentation

NAME: Dale Bunkers

ADDRESS: Chester SD

DATE: 1-13-22

RE: Pending application

COMMENTS:

I called Dale Bunkers who stated he would like the period of annual use on his application to be April 1 – September 30.

The proposed well depth should be 55 feet.



Karen Schlaak
Water Rights Program

Steen, Nakaila

From: Steen, Nakaila
Sent: Tuesday, January 25, 2022 3:50 PM
To: digdirt@itctel.com
Subject: Chester Sanitary District - Water Use 2014 to 2020

Mr. Jeff Carruthers,

Hello, I am Nakaila Steen from the Water Rights Program with the SD DANR.

I am working on a technical report for a water permit application to use water from the Big Sioux: Northern Skunk Creek aquifer, which is the water source for your District.

From our records, Chester Sanitary District holds Water Right No. 6046-3 which authorizes a maximum instantaneous diversion rate of 0.786 from two wells completed into the Big Sioux: Northern Skunk Creek aquifer.

As you may recall, one of our staff members contacted you in 2014 regarding the District's annual water use from the Big Sioux: Northern Skunk Creek aquifer. Water usage was provided for a time period from 2000 to 2013. This information was used to help determine the availability of water from the aquifer for an additional user.

For the withdrawal analysis in the technical report I am currently working on, I would appreciate getting the District's water use from 2014 to 2020.

Thank you for looking into this information for me. Please let me know if you have any questions.

Sincerely,
Nakaila Steen
Natural Resources Engineer I
SD DANR-Water Rights Program
605-773-6707

			16,946,000	
1/1/01 -	81,308,000		21,116,000	
1/2/02 -	2,424,000		19,822,000	
1/2/03 -	22,246,000		20,373,000	
1/3/04 -	42,619,000		18,402,000	
1/3/05 -	61,021,000		21,538,000	
1/3/06 -	82,559,000		16,678,000	
1/2/07 -	99,237,000		16,016,000	
1/2/08 -	15,395,000		13,592,000	
1/2/09 -	28,987,000		9,974,000	
12/31/09 -	38,961,000		10,026,000	
1/3/11 -	48,987,000		9,675,000	
1/3/12 -	58,662,000			
4/5/12 -	60,256,000	1,594,000		
CHANGED METER			11,911,000	
4/5/12	1,261,000			
12/31/12	11,578,000	10,317,000		
2013	old meter 1,076,000	756,000 Est.	11,644,000	35.73
	New meter 9,812,000			
2014 12/31	21,209,000		11,397,000	34.98
2015 12/30	32,492,000		11,283,000	34.63
2016 12/30	44,199,000		11,707,000	35.93
2017 6/1	48,967,000		4,768,000	hooked to Big Sioux Rural
Water				14.63

received:
1/28/2022

From
Jeff
Carruthers
- Chester
Sanitary
District



**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. 8580-3, Dale Bunkers and Jon Bunkers**

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. 8580-3, Dale Bunkers and Jon Bunkers, 24007 461st Ave, Chester SD 57016.

The Chief Engineer is recommending APPROVAL of Application No. 8580-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holders of future use permits fully develop water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing 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 City of Madison, Kingbrook Rural Water System and Big Sioux Community Water have priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if, or when, the future use permit holders fully develop their reserve water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.
2. The wells approved under Water Permit No. 8580-3 are located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The wells authorized by Permit No. 8580-3 shall be constructed by a licensed well driller and construction of the wells and installation of the pumps 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.
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 8, 2022

Report to the Chief Engineer
On Water Permit Application No. 8580-3
Dale Bunkers and Jon Bunkers

February 8, 2022

Water Permit Application No. 8580-3 proposes to irrigate 130 acres in the NE $\frac{1}{4}$ of Section 18 at a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) from two wells to be completed into the Big Sioux: Northern Skunk Creek aquifer (approximately 55 feet deep) and located in the E $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 18; all in T105N-R51W. The site of interest is located in Lake County approximately three miles west of Chester, SD.

AQUIFER: Big Sioux: Northern Skunk Creek (BS:NSC)

HYDROGEOLOGY:

The Northern Skunk Creek management unit of the Big Sioux aquifer is a glacial outwash primarily composed of medium to coarse sand and gravel (Hansen, 1986). In Lake and Moody Counties, Hedges and others (1982) estimated the Big Sioux: Northern Skunk Creek aquifer to underly approximately 25,400 acres and contain approximately 72,400 acre-feet of recoverable water in storage. Hansen (1986) estimated the Big Sioux: Northern Skunk Creek aquifer to underly 48 square miles, or 30,720 acres, and contain approximately 196,000 acre-feet of recoverable water in storage. The areal extent and amount of recoverable water stored in the Big Sioux: Northern Skunk Creek aquifer is expected to range between the values estimated by Hedges and others (1982) and Hansen (1986). Hansen's (1986) delineation of the Big Sioux: Northern Skunk Creek aquifer estimated approximately 27,250 acres of the total areal extent is under unconfined aquifer conditions (as shown in Figure 1).

In Lake and Moody Counties, the Big Sioux: Northern Skunk Creek aquifer has an average saturated aquifer thickness of approximately 39 feet and a documented maximum thickness of 73 feet (Hansen, 1986). The Big Sioux: Northern Skunk Creek aquifer is hydraulically connected to many local surface water sources, such as, Madison, Herman, and Brant Lakes and Skunk Creek (Hansen, 1986). The Northern Skunk Creek management unit of the Big Sioux aquifer is also hydraulically connected to the Middle Skunk Creek management unit to the south (Hansen, 1986; Water Rights, 2022b and 2022d). Water movement in the aquifer is generally from the northwest to the southeast (Hansen, 1986). The hydraulic gradient of the potentiometric surface in the aquifer ranges from four to twenty feet per mile, with the gradient decreasing where the aquifer widens near the group of lakes and increases where the aquifer narrows or thins (Hansen, 1986; Water Rights, 2022b). The aquifer is primarily under unconfined conditions; however, along the margin of the aquifer and in the south-central part of T105N-R51W, the aquifer may be overlain by up to 60 feet of till and is expected to be under confined conditions (Hansen, 1986).

No water well completion report was submitted with Water Permit Application No. 8580-3. However, a test hole plugging report was submitted with Water Permit Application No. 8580-3. The plugging report listed "Top Soil" from 0 to 2 feet below the ground surface, "Yellow Clay"

from 2 to 30 feet, “Sandy Clay” from 30 to 37 feet, “Sand & Gravel” from 37 to 56 feet, and “Blue Clay” from 56 to 100 feet below the ground surface. Wells within approximately one mile of the proposed diversion points have saturated aquifer thicknesses ranging from approximately 17 to 35 feet, with the depth to the top of aquifer materials ranging from approximately 2 to 45 feet below the ground surface, and static water levels varying between 10 to 30 below the ground surface at well completion (SDGS, 2022; Water Rights, 2022b, 2022c and 2022d). Based on the well completion reports for nearby Big Sioux: Northern Skunk Creek aquifer water rights/permits, and the lithologic logs for nearby observation wells, the Big Sioux: Northern Skunk Creek aquifer is expected to be locally confined at the proposed diversion points (SDGS, 2022; Water Rights, 2022b, 2022c and 2022d). Figure 1 displays the approximate Big Sioux: Northern Skunk Creek aquifer delineated by Hansen (1986) with the location of the proposed diversion points, and the Big Sioux: Northern Skunk Creek aquifer water rights/permits, future use permits, and observation wells (Water Rights, 2022b and 2022c).

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

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

SDCL 46-5-39. Authorization for Temporary use permits

Pursuant to SDCL 46-5-39, “Before an entity described in SDCL 46-5-38 is ready to use part or all of the water subject to a future use permit or permits, temporary appropriations may be made of the water. Any person desiring to appropriate the water shall make an application to the chief engineer for a temporary permit pursuant to the procedure contained in chapter 46-2A.”

SDCL 46-5-40. Temporary use permits--Cancellation.

Pursuant to SDCL 46-5-40, “The chief engineer may not cancel a temporary use permit with less than six months notice to the permit holder. In no case may a temporary use permit be cancelled prior to the time at which facilities are constructed and water may be put to beneficial use by an entity described in SDCL 46-5-38 holding a permit under the provisions of SDCL 46-5-38.1. No person may acquire any right under a temporary permit to the use of water beyond the time of cancellation of the temporary use permit.”

WATER AVAILABILITY:

Water Permit Application No. 8580-3 proposes to appropriate water from the Big Sioux: Northern Skunk Creek 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 Big Sioux: Northern Skunk Creek aquifer is not older than or stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010), and the applicant’s proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Big Sioux: Northern Skunk Creek aquifer must be considered.

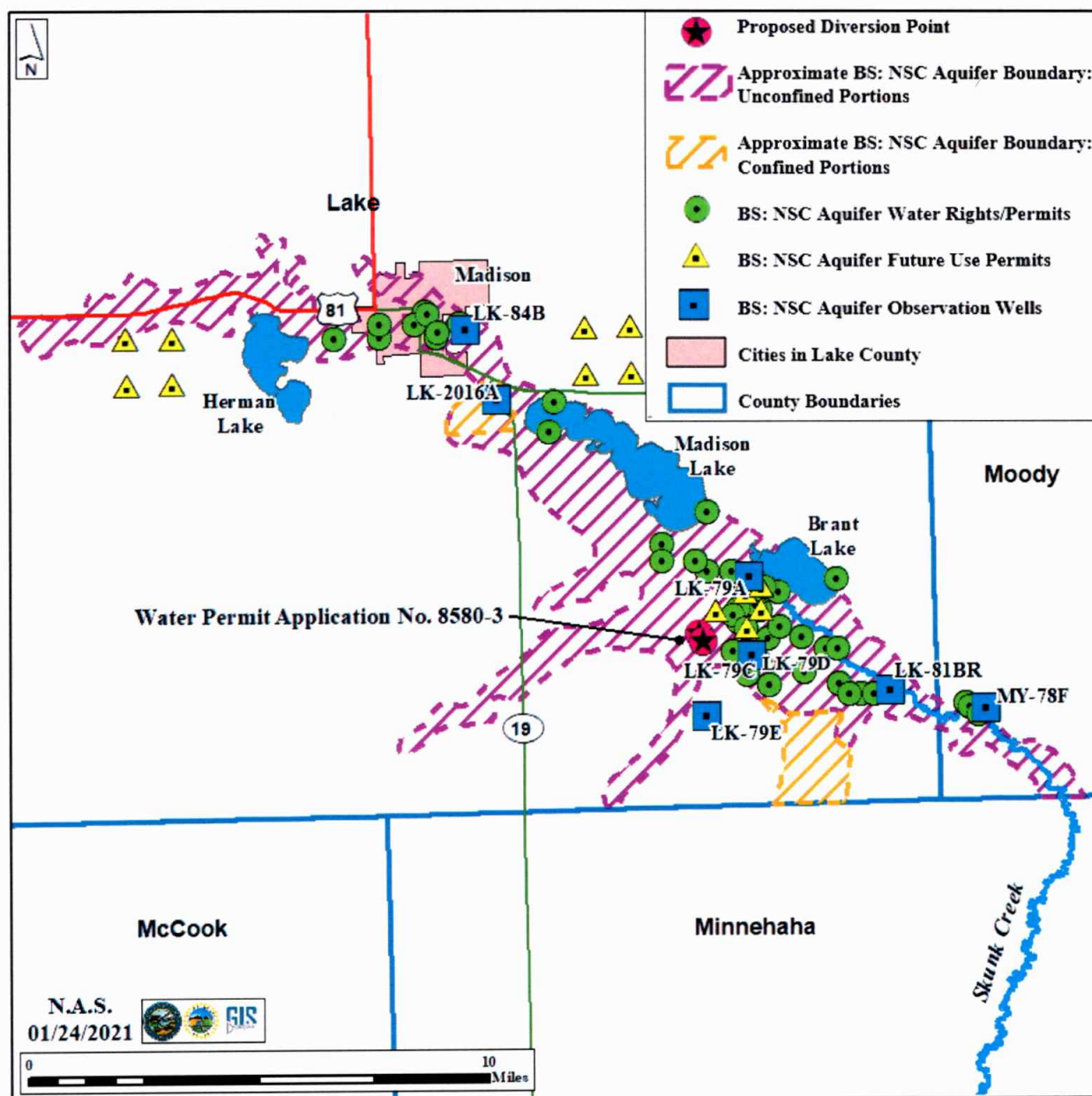


Figure 1. Map of the approximate Big Sioux: Northern Skunk Creek aquifer delineated by Hansen (1986) with the location of the proposed diversion points, and the Big Sioux: Northern Skunk Creek aquifer water rights/permits, future use permits, and observation wells (Water Rights, 2022b and 2022c)

HYDROLOGIC BUDGET:

Recharge

Recharge to the Big Sioux: Northern Skunk Creek aquifer is primarily through the infiltration of precipitation and snowmelt (Hansen, 1986). Madison, Herman, and Brant Lakes and Skunk Creek recharge the aquifer when the elevation of the surface water source is higher than the potentiometric surface in the aquifer (typically spring and early summer), and subsequently the aquifer discharges to the hydraulically connected surface water sources when the potentiometric surface in the aquifer is higher than the elevation of the lake/creek (typically late summer and early fall) (Hansen, 1986; Water Rights, 2022b).

Utilizing observation well analysis, Hedges and others (1985) estimated an average annual recharge rate to the Northern Skunk Creek management unit of 3.1 inches per year. Based on the estimated areal extent of 25,400 acres (Hedges et al., 1982), and applying Hedges and others' (1985) estimated recharge rate, the average annual recharge rate to the Big Sioux: Northern Skunk Creek aquifer is approximately 6,562 acre-feet per year. Utilizing observation well analysis with additional years of data, Buhler (2009) estimated an average annual recharge rate to the unconfined portions of the management unit of approximately 3.82 inches per year. Based on the estimated areal extent of the unconfined portions of the aquifer, 27,250 acres (Hansen, 1986), and applying Buhler's (2009) estimated recharge rate, the average annual recharge rate to the unconfined portions of the Big Sioux: Northern Skunk Creek aquifer is approximately 8,674 acre-feet per year. The estimated average annual recharge rate to the Big Sioux: Northern Skunk Creek aquifer is expected to range between approximately 6,562 to 8,674 acre-feet per year.

Discharge

Discharge from the Big Sioux: Northern Skunk Creek aquifer is primarily through well withdrawals, evapotranspiration where the aquifer is at or near the ground surface, and outflow to Madison, Herman, and Brant Lakes and Skunk Creek (Hansen, 1986; Water Rights, 2022c). Outflow to Minnehaha County was estimated to be approximately 1.5 acre-feet of water per day (547 acre-feet per year) and the average annual pan evaporation rate from Madison, Herman, and Brant Lakes is approximately 16,000 acre-feet per year (Hansen, 1986).

Currently, there are 35 water rights/permits authorized to appropriate water from the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022c). Additionally, there are five temporary use permits authorized to appropriate water at this time from the Big Sioux: Northern Skunk Creek aquifer pursuant to SDCL 46-5-39 – Temporary Use Permit Nos. 7131-3, 7275-3, 7829-3, 7915-3, and 7965-3 (Water Rights, 2022c). Furthermore, there are five future use permits reserving 2,118 acre-feet of water from the Big Sioux: Northern Skunk Creek aquifer (listed on Table 1) (Water Rights, 2022c).

Table 1. Future use permits reserving water from the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022c)

Future Use Permit Holder	Amount of Reserved Water (acre-feet)
City of Madison (747-3)	1,033
Kingbrook Rural Water System Inc (5643-3)	425
Big Sioux Community Water (5689-3, 6834-3, 6834A-3)	660
TOTAL:	2,118

Of the 35 water rights/permits, 18 are authorized for non-irrigation use and 17 are authorized for irrigation use (Water Rights, 2022c). Table 2 summarizes the 18 non-irrigation water rights/permits authorized to appropriate water from the Big Sioux: Northern Skunk Creek aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. Historically, average water use by non-irrigation appropriations limited by an instantaneous diversion rate have been assumed to be pumping 60% of full time at the respective permitted diversion rate. Water rights/permits limited by an annual volume are assumed to withdraw their entire respective annual volume limitation. This is a standard method used by the DANR-Water Rights Program for estimating annual withdrawals by non-irrigation appropriations from an aquifer (Water Rights, 2022c). The average annual withdrawal rate estimated for the non-irrigation water rights/permits is approximately 6,589 acre-feet per year (Water Rights, 2022f).

Table 2. Estimated annual withdrawal rate for the non-irrigation Big Sioux: Northern Skunk Creek aquifer water rights/permits (Water Rights, 2022c)

Permit No.	Name	Status	Use	Priority Date	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet/year)	Total Estimated Use (acre-feet/year)
371-3	City of Madison	LC	MUN	12/15/1956	0.31		135
372-3	City of Madison	LC	MUN	12/15/1956	0.26		113
1079-3	City of Madison	LC	MUN	11/10/1960	2.7		1,173
1453-3	City of Madison	LC	MUN	11/10/1960	0.78		339
4311A-3	Kingbrook RWS Inc	LC	RWS	06/26/1978	1.15	266	266
4367-3	Kingbrook RWS Inc	LC	RWS	01/09/1979	3.0		1,303
4943-3	Big Sioux Community Water	LC	RWS	01/26/1983	0.44		191
5168-3	Hilde Pipe & Gravel	LC	IND, DOM	12/18/1987	0.91		395
5646-3	Kingbrook RWS Inc	LC	RWS	03/19/1992	1.0	425	425
5688-3	Shipwreck Inn	LC	COM	01/01/1940	0.022		10
6040-3	City of Madison	LC	MUN	11/10/1960	1.67	600	600
6046-3	Chester Sanitary District	LC	MUN	02/04/1998	0.786		0*
6152-3	Big Sioux Community Water	LC	RWS	09/30/1999	0.5	360	360
6510-3	City of Madison	PE	MUN	11/10/1960	0.78	339	339
6531-3	Kingbrook RWS Inc	LC	RWS	02/27/1990	1.05	350	350
6730-3	Kingbrook RWS Inc	LC	RWS	06/05/2006	0.67		291
7117-3	David and Chrysella Daniel	PE	RWS	02/19/2009	0.89	600	600**
8387-3	Big Sioux Community Water	LC	RWS	03/19/2007	0.67	300	300
LC: Licensed Water Right; PE: Water Permit; COM: Commercial; DOM: Domestic; GEO: Geothermal;						TOTAL:	6,589
IND: Industrial; MUN: Municipal; RWS: Rural Water System							
*Identified as being connected to RWS							
**Annual reported withdrawal rate included with Big Sioux Community Water RWS on Table 3							

There are eleven non-irrigation water rights/permits (generally held by water distribution systems (Water Rights, 2022c)) that are required to report their annual usage from the Big Sioux: Northern Skunk Creek aquifer (listed on Table 3). Water Right No. 6046-3, held by Chester Sanitary District, does not have an annual reporting qualification (Water Rights, 2022c); however, the respective annual water use was obtained from Capen (2014) and Carruthers (2022) and will be included on Table 3. Carruthers' (2022) indicated Chester Sanitary District connected to Big Sioux Rural Water System in 2017, and it is likely the district maintains their wells for standby purposes; as such, the average annual water use for this water right has been estimated to be zero acre-feet per year on Table 2. Additionally, the wells authorized by Water Permit No. 7117-3, held by David and Chrysella Daniel, are for rural water system use at Big Sioux Community Water System (Water Rights, 2022c). As such, the average annual water use for Water Permit No. 7117-3 is included in Big Sioux Community Water System's reported withdrawals on Table 3 (Water Rights, 2022f). The reported withdrawals by the water users listed on Table 3 are for comparison purposes only to show historically the average annual use has been less than the volume that is estimated on Table 2 (Water Rights, 2022c and 2022f). The estimated use for the non-irrigation water rights/permits calculated on Table 2 will be used in the analysis.

Table 3. Estimated average annual withdrawal rate for Big Sioux: Northern Skunk Creek aquifer non-irrigation water rights/permits required to report their annual usage (Capen, 2014; Carruthers, 2022; Water Rights, 2022c and 2022f)

	Chester Sanitary District	Big Sioux Community Water	Kingbrook RWS	City of Madison
Permit Nos.	6046-3	4943-3, 6152-3, 8387-3, 7117-3	4311A-3, 5646-3, 6531-3, 6730-3	6040-3, 6510-3
	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)
Year				
2003	62.52	622.12	648.45	510.68
2004	56.47	711.46	640.08	195.97
2005	66.1	748.64	653.58	342.54
2006	51.18	777.55	664	713.59
2007	49.15	741	695.95	622.92
2008	41.71	690	647.1	614.03
2009	30.6	698.9	606	600.81
2010	30.76	727.91	620.22	765.48
2011	29.69	694.49	662.23	683.84
2012	36.55	752	677.23	629.98
2013	35.73	903.41	619.65	491.63
2014	34.98	804.65	644.81	473.02
2015	34.63	764.06	640.42	588.41
2016	35.93	742.18	662.86	626.05
2017	14.63	587	727.73	510.49
2018	n/a	661.41	723.14	398.59
2019	n/a	768.03	667.16	396.89
2020	n/a	762.6	727.12	382.1
Min	14.63	587	606	195.97
Max	66.1	903.4	727.7	765.5
Average	40.7	731	662.7	530.4

Currently, there are 17 irrigation water rights/permits authorized to appropriate water from the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022c). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire since 1979. The average annual withdrawal rate for the Big Sioux: Northern Skunk Creek aquifer irrigation water rights/permits that have reported over the period of record (not including temporary permits authorized for irrigation use) is approximately 826 acre-feet per year (Table 4) (Water Rights, 2022a). The number of irrigation water permits/rights authorized to appropriate water from the Big Sioux: Northern Skunk Creek aquifer, not including the temporary permits authorized pursuant to SDCL 46-5-39, has remained fairly constant over the period of record; therefore, the estimated average annual withdrawal rate for irrigation appropriations is likely representative of the current level of irrigation development in the aquifer.

There are domestic wells completed into the Big Sioux: Northern Skunk Creek aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2022d). 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 Big Sioux: Northern Skunk Creek 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 Big Sioux: Northern Skunk Creek aquifer.

Hydrologic Budget Summary

The average annual recharge rate to the Big Sioux: Northern Skunk Creek aquifer ranges between approximately 6,562 to 8,674 acre-feet per year. The average annual withdrawal rate of the Big Sioux: Northern Skunk Creek aquifer totals approximately 9,533 acre-feet per year (future use reservations: 2,118 acre/feet, non-irrigation: 6,589 acre/feet, irrigation (average reported from 1970 to 2020): 826 acre/feet). The estimated average annual withdrawal rate does not include use by the temporary permits authorized pursuant to SDCL 46-5-39 because those permits are withdrawing water accounted for by the future use reservations (Water Rights, 2022c). Based on the hydrologic budget, the estimated average annual withdrawal rate from the aquifer exceeds the estimated average annual recharge rate to the Big Sioux: Northern Skunk Creek aquifer.

Table 4. Reported historic withdrawal rate for the Big Sioux: Northern Skunk Creek aquifer irrigation water rights/permits, not including the temporary use water permits (Water Rights, 2022a and 2022c)

Year	No. of Permits Reporting	Reported Pumpage (acre-feet)
1979	14	393
1980	15	452
1981	15	941
1982	13	432.18
1983	14	763.59
1984	15	912
1985	14	941
1986	15	723
1987	14	870
1988	15	1,064.7
1989	15	1,129
1990	18	565
1991	18	1,198.7
1992	17	12
1993	18	86
1994	18	906.22
1995	18	347.34
1996	18	1,060.48
1997	18	574
1998	19	429.46
1999	19	964.04
2000	19	1,007.05
2001	19	1,475.57
2002	19	1,461.85
2003	19	1,116.52
2004	18	284.4
2005	18	825.56
2006	15	1,037.47
2007	16	1,337.56
2008	16	1,361.49
2009	17	700.1
2010	18	237.5
2011	18	541.04
2012	18	1,685
2013	18	1,198.99
2014	18	1,022.32
2015	17	490.71
2016	17	970.46
2017	17	1,053.44
2018	17	599.66
2019	17	122.05
2020	17	1,394.01
Min	13	12
Max	19	1,755
Average	17	826

Temporary Use Permits

There are five future use permits reserving 2,118 acre-feet of water from the Big Sioux: Northern Skunk Creek aquifer (listed on Table 1) (Water Rights, 2022c). There have been five temporary use permits (Permit Nos. 7131-3, 7275-3, 7829-3, 7915-3, and 7965-3) approved to appropriate water at this time from the Big Sioux: Northern Skunk Creek aquifer pursuant to SDCL 46-5-39 (Water Rights, 2022c). The water use by these temporary permits is accounted for by the future use reservation from which these permits derive their appropriation.

Temporary Use Permit Nos. 7131-3, 7275-3, 7915-3, and 7965-3 are authorized for irrigation use (Water Rights, 2022c). The time limit for the construction of works period for Permit No. 7131-3 has expired and the project was not developed; however, the permit may not be cancelled due to the qualification in SDCL 46-5-40, a temporary permit may not be cancelled for any reason other than the water reserved for future use being placed to beneficial use. Therefore, Permit No. 7131-3 will be kept on record and an irrigation questionnaire for reporting annual water use will no longer be necessary since the system was not developed (Water Rights, 2022c). Furthermore, the estimated use for Temporary Use Permit Nos. 7275-3, 7915-3, and 7965-3 (authorized for irrigation use) will only be accounted for.

Permit Nos. 7275-3, 7915-3, and 7965-3 are authorized to irrigate 210 acres. Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for the fluctuation in wet and dry cycles from year to year, the one foot of water per acre per year application rate will be used to liberally estimate the annual withdrawal rate for these temporary water permits authorized for irrigation use. Therefore, Temporary Use Permit Nos. 7275-3, 7915-3, and 7965-3 are estimated to collectively withdraw approximately 210 acre-feet per year (Water Rights, 2022c).

Temporary Use Permit No. 7829-3 authorizes a maximum instantaneous diversion rate of 0.133 cfs from four wells completed into the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022c). Assuming the permit holder pumps 60% of full time at the respective permitted diversion rate, the average annual withdrawal rate for Permit No. 7829-3 is approximately 58 acre-feet per year (Water Rights, 2022c).

Collectively, the average annual withdrawal rate for the temporary use permits authorized to appropriate water at this time from the Big Sioux: Northern Skunk Creek aquifer pursuant to SDCL 46-5-39 is approximately 268 acre-feet per year.

Although the hydrologic budget analysis of the Big Sioux: Northern Skunk Creek aquifer indicates average annual withdrawals exceed average annual recharge to the aquifer, Water Permit Application No. 8580-3 may be approved pursuant to SDCL 46-5-39. SDCL 46-5-39 allows the Water Management Board to authorize a temporary appropriation of water from the unused portion of a future use permit. However, SDCL 46-5-40 states that the temporary use permits would be effective only until such time as the future use holder wants to use the water covered by the temporary use permit. The holder of the temporary use permit would then be given six months of notice and the permit would be cancelled at the end of the six-month period.

There is sufficient water reserved by future use permits to support this proposed appropriation under SDCL 46-5-39 and 46-5-40.

OBSERVATION WELL DATA:

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

Observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The DNR-Water Rights Program monitors eight observation wells completed into the Northern Skunk Creek management unit of the Big Sioux aquifer (Water Rights, 2022b). The four closest observation wells to the proposed diversion points are LK-79C (approximately one mile southeast), LK-79D (approximately one mile southeast), LK-79E (approximately 1.6 miles south), and LK-79A (approximately 1.7 miles northeast) (as shown in Figures 1 and 6). The hydrographs for these observation wells are displayed in Figures 2 to 5 (Water Rights, 2022b). The data points utilized to construct the hydrographs are measurements of the static water level in the observation wells from the top of the well casing. It is worth noting, the observation well hydrographs do not reflect the use of the volume of water currently reserved by Big Sioux: Northern Skunk Creek aquifer future use permits.

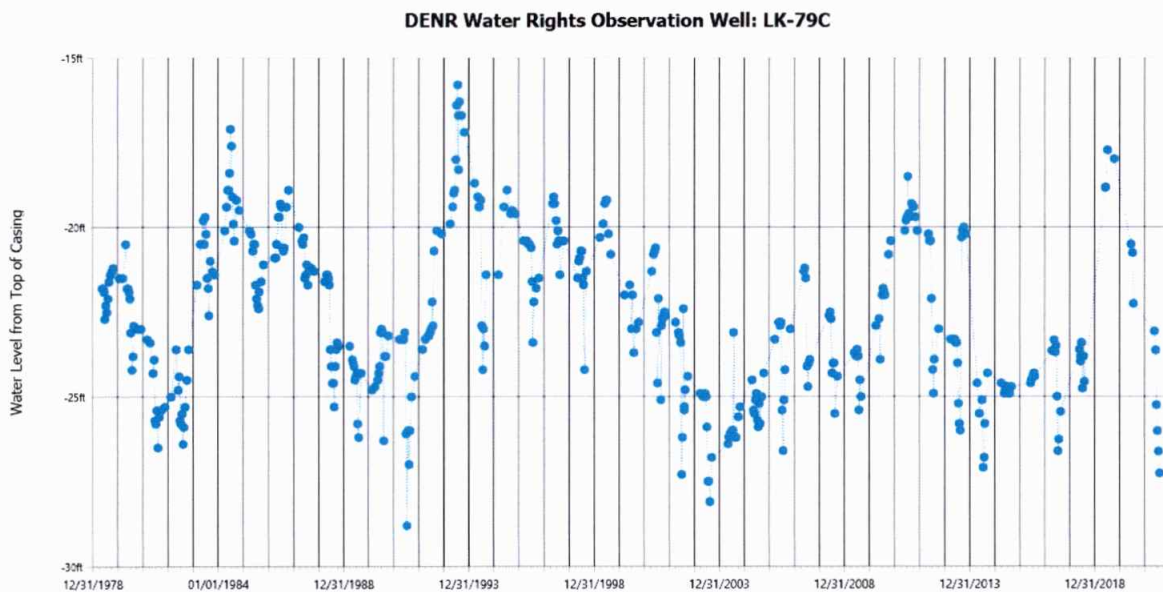


Figure 2. Hydrograph for observation well LK-79C (Water Rights, 2022b)

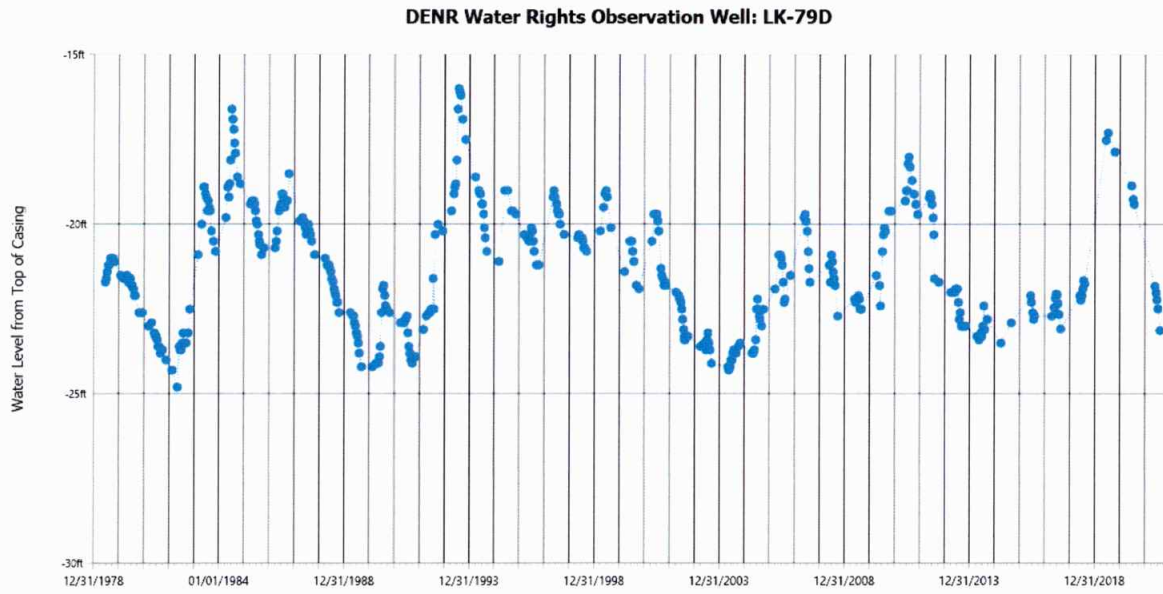


Figure 3. Hydrograph for observation well LK-79D (Water Rights, 2022b)

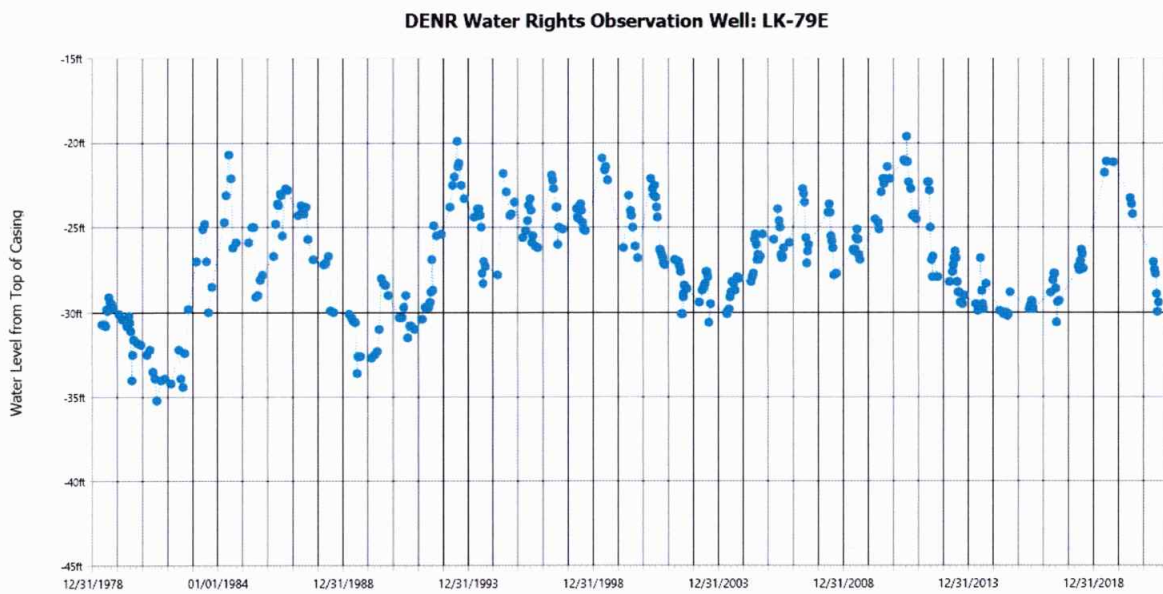


Figure 4. Hydrograph for observation well LK-79E (Water Rights, 2022b)

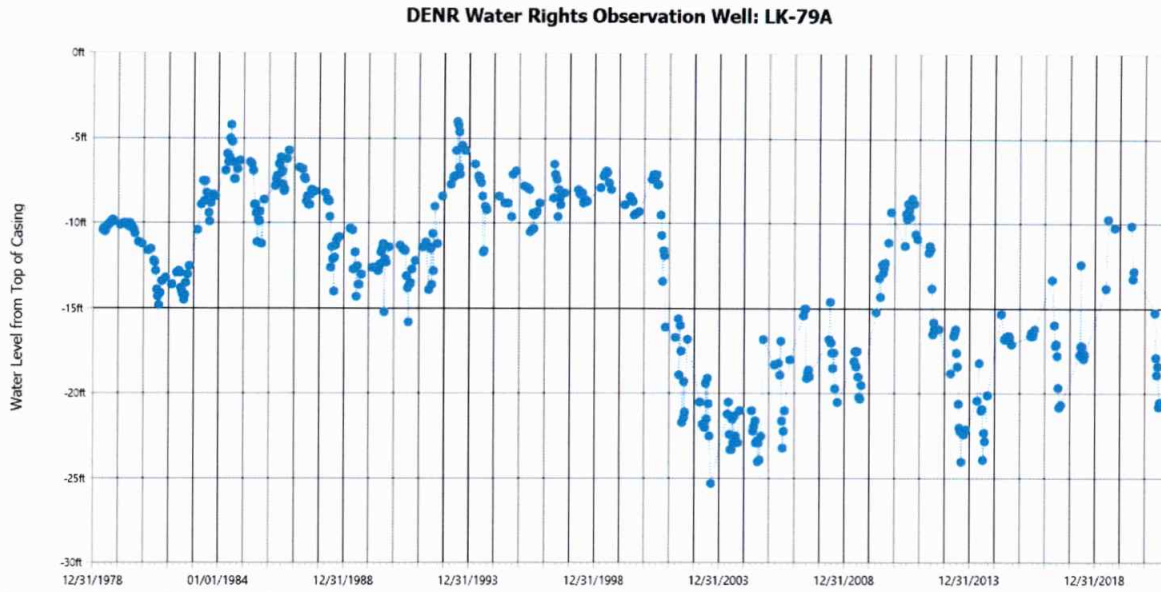


Figure 5. Hydrograph for observation well LK-79A (Water Rights, 2022b)

The hydrographs for the observation wells display slightly decreasing to stable water levels over their respective periods of record. The hydrographs for these four observation wells were compared to the hydrographs for the other four observation wells completed into the Big Sioux: Northern Skunk Creek aquifer and each displayed a similar trend as shown on the hydrographs displayed in Figures 2 to 5, with an exception to LK-2016A as the period of record of water level readings in this well is limited because the well was completed into the aquifer in 2016 (Water Rights, 2022b). The downward trend on the water levels shown on some of the hydrographs for observation wells (specifically, LK-79A and LK-79C) completed into the Big Sioux: Northern Skunk Creek aquifer can be attributed to the observation wells' close proximity to high-capacity wells (assumed to be a well with an authorized diversion rate greater than 0.2 cfs) (Water Rights, 2022b, 2022c, and 2022d). Observation well LK-79A is located within approximately one-half mile of the four wells authorized by Water Right Nos. 4943-3 (priority date: January 26, 1983) and 6152-3 (priority date: September 30, 1999), held by Big Sioux Community Water for rural water system use (Water Rights, 2022b and 2022c). The downward trend shown on the water levels in observation well LK-79A in the late 1900's to early 2000's is likely attributed to the increase in development at Big Sioux Community Water, and it appears the water levels in the aquifer may be attempting to equilibrate to new pumping from it, while trending at a slight increase from 2003 to present time (as shown in Figure 5). The water table has since remained at a steady to slightly increasing elevation since development of the aquifer increased, indicating that on an aquifer basis withdrawals have not exceeded recharge (Water Rights, 2022b, 2022c, and 2022d). The hydrographs for the Big Sioux: Northern Skunk Creek 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 during drier periods. Additionally, the water levels in the observation wells display that the amount of recharge to and natural discharge from the aquifer exceeds pumping with the aquifer returning to pre-pumping conditions between irrigation seasons. Aquifer recovery indicates that climatic conditions and therefore, the effects

of recharge to and natural discharges from the aquifer govern the long-term fluctuations of waters levels in the aquifer rather than the impacts of pumping from the Big Sioux: Northern Skunk Creek aquifer. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate that withdrawals from the aquifer do not exceed recharge to the aquifer.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 35 water rights/permits authorized to appropriate water from the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022c). There are five water rights/permits and two future use areas authorized by future use permits (Permit Nos. 4311A-3, 4367-3, 5151-3, 6531-3, and 6730-3 and Future Use Permit Nos. 5643-3 and 6834-3) within approximately one mile of the proposed diversion points (as shown in Figure 6) (Table 5) (Water Rights, 2022c).

There are domestic wells on file with the DNR-Water Rights Program that are completed into the Big Sioux: Northern Skunk Creek aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.7 miles southwest of the proposed diversion points (Water Rights, 2022d). There could potentially be other domestic wells completed into the Big Sioux: Northern Skunk Creek aquifer near the proposed diversion points that are not on file with the DNR-Water Rights Program.

The Big Sioux: Northern Skunk Creek aquifer is primarily unconfined but is expected to be under confined conditions along the margin of the aquifer and in the south-central part of T105N-R51W (Hansen, 1986; SDGS, 2022; Water Rights, 2022b, 2022c and 2022d). The Big Sioux: Northern Skunk Creek aquifer is expected to be confined near the proposed diversion points based on the well completion reports for nearby water rights/permits, and the lithologic logs for nearby observation wells (SDGS, 2022; Water Rights, 2022b, 2022c and 2022d). Drawdown created by pumping a well generally does not extend far from the pumped well in an unconfined aquifer; however, in a confined aquifer, drawdown from pumping could extend a distance from the diversion point. The exact drawdown behavior of a well cannot be known without an aquifer performance test.

Wells within approximately one mile of the proposed diversion points have saturated aquifer thicknesses ranging from approximately 17 to 35 feet, with the depth to the top of aquifer materials ranging from approximately 2 to 45 feet below the ground surface, and static water levels varying between 10 to 30 below the ground surface at well completion (SDGS, 2022; Water Rights, 2022b, 2022c and 2022d). 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 Lake County, there are no substantiated complaints on file with the DNR-Water Rights Program regarding well interference for adequate wells completed into the Big Sioux: Northern Skunk Creek aquifer (Water Rights, 2022e).

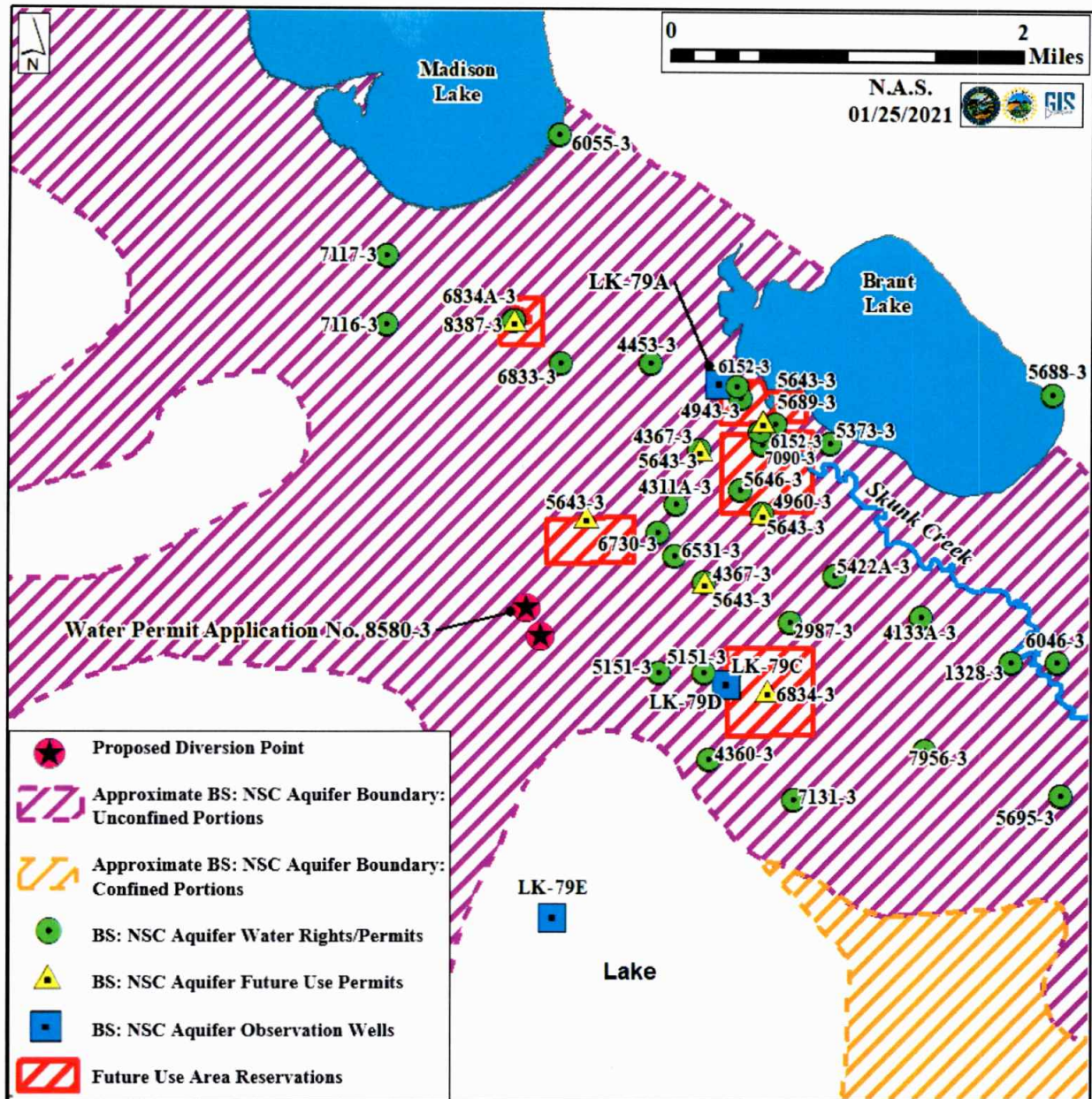


Figure 6. Location of proposed diversion points with the Big Sioux: Northern Skunk Creek aquifer water rights/permits, future use area reservations, and observation wells within approximately three miles (Water Rights, 2022b and 2022c)

Table 5. Big Sioux: Northern Skunk Creek aquifer water rights/permits, and future use permits, within approximately three miles of the proposed diversion points, as shown in Figure 6 (Water Rights, 2022c)

Permit No.	Name	Status	Use	Authorized Acres if IRR	Authorized Diversion Rate (cfs)	Authorized/Reserved Annual Volume (acre-feet)
1328-3	Shawn or Jill Martin	LC	IRR	176	2.5	
2987-3	Larry Alverson	LC	IRR	128	1.44	
4133A-3	Shawn or Jill Martin	LC	IRR	80	1.11	
4311A-3	Kingbrook RWS Inc	LC	RWS		1.15	266
4360-3	Darrell Muller	LC	IRR	128	1.44	
4367-3	Kingbrook RWS Inc	LC	RWS		3	
4453-3	Alan Brown	LC	IRR	126	1.56	
4943-3	Big Sioux Community Water	LC	RWS		0.44	
4960-3	Ronald C Alverson	LC	IRR	188	2	
5151-3	Shawn or Jill Martin	LC	IRR	72	1.03	
5373-3	Ron Alverson	LC	IRR	43	0.62	
5422A-3	Larry Alverson	LC	IRR	198	1.78	
5643-3	Kingbrook RWS Inc	FU	RWS			425
5646-3	Kingbrook RWS Inc	LC	RWS	1		425
5688-3	Shipwreck Inn	LC	COM		0.022	
5689-3	Big Sioux Community Water	FU	RWS			360
5695-3	Terry J Gasper	LC	IRR	110	1.57	
6046-3	Chester Sanitary District	LC	MUN		0.786	
6055-3	Lakes Golf Course	LC	IRR	38	0.54	
6152-3	Big Sioux Community Water	LC	RWS		0.5	360
6531-3	Kingbrook RWS Inc	LC	RWS		1.05	350
6730-3	Kingbrook RWS Inc	LC	RWS		0.67	
6833-3	Longacre Farms Inc	PE	IRR	90	1.11	
6834-3	Big Sioux Community Water	FU	RWS			300
6834A-3	Big Sioux Community Water	FU	RWS			
7090-3	Ronald C Alverson	LC	IRR	45	0.56	
7116-3	David & Chrysella Daniel	PE	IRR	90	1.11	
7117-3	David & Chrysella Daniel	PE	RWS		0.89	600
7131-3	Charles Alverson	PE	IRR	68	1	
7956-3	Terry Gasper	PE	IRR	84	1.11	
8387-3	Big Sioux Community Water	LC	RWS		0.67	300
LC: Licensed Water Right; PE: Water Permit; COM: Commercial; DOM: Domestic; GEO: Geothermal;						
IND: Industrial; MUN: Municipal; RWS: Rural Water System						

When considering the saturated aquifer thickness of the aquifer near the proposed diversion points, and the lack of well interference complaints for adequate wells completed into the Big Sioux: Northern Skunk Creek aquifer in Lake County, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed diversion by Water Permit Application No. 8580-3 will not impose unlawful impairments on existing users with adequate wells.

CONCLUSIONS:

1. Water Permit Application No. 8580-3 proposes to irrigate 130 acres at a maximum instantaneous diversion rate of 1.78 cfs from two wells to be completed into the Big Sioux: Northern Skunk Creek aquifer (approximately 55 feet deep). The site of interest is located in Lake County approximately three miles west of Chester, SD.
2. Based on the hydrologic budget and observation well analysis, there is not a reasonable probability unappropriated water is available for the proposed appropriation from the Big Sioux: Northern Skunk Creek aquifer. However, there are undeveloped future use permits reserving volumes of water from the Big Sioux: Northern Skunk Creek aquifer.
3. Pursuant to SDCL 46-5-39 and 46-5-40, a temporary use water permit allows the Water Management Board to authorize a temporary appropriation of water reserved by future use water permits to be put to beneficial use until the future use permit holder uses the water reserved by the water permit.
4. Five temporary use water permits have been approved pursuant to SDCL 46-5-39 since it was determined there is not a reasonable probability unappropriated water is available from the Big Sioux: Northern Skunk Creek aquifer. Given the amount of water reserved by future use permits, there is a reasonable probability that reserved water is temporarily available from the Big Sioux: Northern Skunk Creek aquifer future use permits to supply the proposed appropriation.
5. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8580-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.



Nakaila Steen

Natural Resources Engineer I

SD DANR - Water Rights Program

Reviewed by:



Adam Mathiowetz, PE

Natural Resources Engineer IV

SD DANR - Water Rights Program

References

- Buhler, K.A., 2009. Report to the Chief Engineer on Water Permit Application No. 7136-3, Big Sioux Community Water. SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Capen, B., 2014. Report to the Chief Engineer on Water Permit Application No. 7956-3, Terry Gasper. SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Carruthers, J. 2022. Personal Communication. Chester Sanitary District Contact Person. January 25 2022.
- Fahrenbach, M.D., Steece, F.V., Sawyer, J.F., McCormick, K.A., McGillivray, G.L., Schulz, L.D., and Redden, J.A. 2010. South Dakota Stratigraphic Correlation Chart. Oil and Gas Investigations 3. SD DANR-Geological Survey, Vermillion, SD.
- Hansen, D.S., 1986. Water Resources of Lake and Moody Counties, South Dakota. Water-Resources Investigations Report 84-4209, 51p. USGS, Huron, SD.
- 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., 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; United States Army Corps of Engineers Contract DACW 45-80-C-0185.
- SDGS, 2022. South Dakota Geological Survey Lithologic Logs Database. Accessed January 21, 2022. <http://cf.sddanr.net/lithdb/>.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2022a. "1979-2020 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights, 2022b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022f. "2003-2020 Non-Irrigation Yearly Reports", SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

AFFIDAVIT OF PUBLICATION
RECEIVED

STATE OF SOUTH DAKOTA)
) ss.
County of Lake)

FEB 28 2022
WATER RIGHTS
PROGRAM

Kim Benedict, of the City of Madison, County of Lake, State of South Dakota, being first duly sworn on oath, deposes and says:

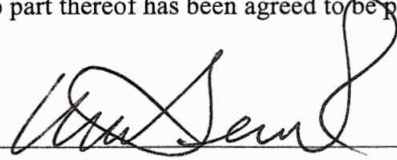
The Madison Daily Leader is a daily legal newspaper of general circulation, printed and published in the City of Madison, in said County of Lake, by Wick Communications, Kim Benedict, publisher, and has been such legal newspaper during the times hereinafter mentioned; That the said Madison Daily Leader has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, the Plaintiff, is the Publisher of the said newspaper, a member of the Daily Leader staff thereof, and has personal knowledge of all the facts stated in this affidavit and the advertisement headed

NTC OF APP #8580-3 WATER
DEPT. OF AG/NAT RESOURCES

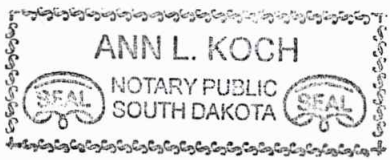
Printed copy of which hereunto attached, was printed and published in the said newspaper for 1 successive week(s), once each week and on the same day of the week, on the following dates, to-wit:

2/15/2022

That \$ 46.15 being the full amount of the fees for publication of the attached notice inures solely for the benefit of the publication of the said newspaper; that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.



Subscribed and sworn before me this 22nd day of
February, 2022




Notary Public, Lake County, South Dakota
Exp. 11-14-25

Tuesday, Feb. 15

NOTICE OF APPLICATION
NO. 8580-3 TO APPROPRIATE
WATER

Notice is given that Dale Bunkers and Jon Bunkers, 24007 461st Ave, Chester SD 57016 have filed an application for a water permit to appropriate 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux Northern Skunk Creek aquifer (approximately 55 feet deep) located in the E 1/2 NE 1/4 Section 18 for irrigation of 130 acres located in the NE 1/4 Section 18; all in T105N-R51W. This site is located approximately 3 miles west of Chester SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer is recommending APPROVAL of Application No. 8580-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holders of future use permits fully develop water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing 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. 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 February 25, 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 February 25, 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 \$46.15

Schlaak, Karen

From: Duvall, Ron
Sent: Tuesday, February 8, 2022 5:04 PM
To: ads@madisondailyleader.com
Cc: Schlaak, Karen
Subject: ATTENTION: Legal Public Notice
Attachments: FORM8.FRM.doc; 8580-3public.short_final.docx

Hello,

Attached is a notice to be published on February 15, 2022. Dale Bunkers and Jon Bunkers, 24007 461st Ave, Chester SD 57016 has been asked to contact you to authorize publication and arrange for payment.

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

Please acknowledge receipt of this email and let me know if you have any questions.

Thank you,

Ron Duvall
Dept. of Agriculture & Natural Resources
Office of Water, Water Rights Program
605.773.3352
danr.sd.gov



DANR
SOUTH DAKOTA

Schlaak, Karen

From: Duvall, Ron
Sent: Tuesday, February 8, 2022 5:07 PM
To: bunk@itctel.com
Cc: Schlaak, Karen
Subject: Water Permit Application No. 8580-3
Attachments: 8580-3APPL.pdf

Dale or Jon,

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 tomorrow along with a receipt for the fee you submitted with your application.

Please let me know if you have any questions.

Thank you,

Ron Duvall
Dept. of Agriculture & Natural Resources
Office of Water, Water Rights Program
605.773.3352
danr.sd.gov



DANR
SOUTH DAKOTA



**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 NEWSPAPER RIGHT AWAY.**

February 9, 2022

Dale Bunkers and Jon Bunkers
24007 461st Ave
Chester SD 57016

Dear Mr. Bunkers:

Water Permit Application No. 8580-3 has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Madison Daily Leader (Ph # 605 256-4555). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application is enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the 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. 8580-3 to Appropriate Water

Notice is given that Dale Bunkers and Jon Bunkers, 24007 461st Ave, Chester SD 57016 have filed an application for a water permit to appropriate 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux Northern Skunk Creek aquifer (approximately 55 feet deep) located in the E 1/2 NE 1/4 Section 18 for irrigation of 130 acres located in the NE 1/4 Section 18; all in T105N-R51W. This site is located approximately 3 miles west of Chester SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer is recommending APPROVAL of Application No. 8580-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holders of future use permits fully develop water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing 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. 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 February 25, 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 February 25, 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 _



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAR 16 2022

Dale Bunkers and Jon Bunkers
24007 461st Ave
Chester SD 57016

Dear Sirs:

Enclosed is Temporary Water Permit No. 8580-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit. This is a temporary water permit and subject to development of water reserved by existing future use permits.

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 temporary permit can be reissued as developed.

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

Sincerely,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

June 17, 2024

8580-3

Dale & John Bunkers
24007 461st Ave
Chester SD 57016

Dear Mr. Bunkers:

I am writing in regard to Temporary Use Water Permit No. 8580-3 authorizing the irrigation of 130 acres located within the NE ¼ Section 18, T105N-R51W, Lake County.

On June 14, 2024, a staff engineer from the Water Rights Program made a site visit to conduct an inspection of the water use systems authorized under Temporary Use Water Permit No. 8580-3.

With the inspection having been conducted and the report completed, we are ready to proceed with reissuance of the temporary use permit. However, as stated in the temporary use permit, you have until February 25, 2027, to complete the construction of your water use systems and until February 25, 2031, 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" forms and return them in the postage paid envelope. Once we have these completed forms back from you, we will proceed with re-issuing Temporary Use Water Permit No. 8580-3, based on the system as developed.

Sincerely,

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

enclosure

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. **8580-3**

I have this day, **June 14, 2024**, made a thorough examination of the water use system constructed by **Dale and Jon Bunkers, 24007 461st Ave, Chester, SD 57016** of Permit No. **8580-3**, bearing the priority of **January 10, 2022** authorizing the diversion of **1.78** cu. ft. per second of the waters of the **Big Sioux:Northern Skunk Creek Aquifer** for **irrigation** purposes, in **Lake** County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Putzke Drilling**
- 2) No. of Wells **2 (very similar)**
- 3) Depth(s) **56** feet
- 4) Well log is available **N** If no, explain in comments

Comments: **Dave Putzke plugged a well at this location in 2021. Presumably would have also drilled wells but no WCRs can be found.**

Casing:

- 1) Diameter **12** inches
- 2) Length **36** feet
- 3) Type **Plastic**

Screen:

- 1) Type **SS**
- 2) Length **20** feet
- 3) Static water level **Unknown** feet

Pump:

- 1) Make **Submersible**
- 2) Model **Unknown**
- 3) Size **Unknown**
- 4) Capacity **600 (total)** GPM

Motor:

- 1) Make **Unknown**
- 2) Model No. **Unknown**
- 3) Horsepower rating **25 each** hp

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

- 1) Type PVC 2) Size 8 inches 3) Length 1350 feet

Comments: **xx**

C. Works used to apply water to beneficial use:**Center pivot:**

- 1) Make Valley - corner
2) Overall length 1350 feet
3) Number of towers 7 plus 1 leg
4) End gun Y
5) Capacity 600 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

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

E. Condition and Location:

1. The system is in **excellent** condition with the point(s) of diversion located as follows: WELL LOCATIONS; From the NE corner Sec 18 T105N R51W: "W" WELL 1345 ft S & 810 ft W Lat 43.90241 Long -96.99203 (SE ¼ NE ¼) "E" WELL 1380 ft S & 720 ft W Lat 43.90233 Long -96.99164 (SE ¼ NE ¼).

2. The works are capable of diverting and conveying to the place of use 1.34 cu. ft. per second of water which is to be used for **irrigation**. Water has been put to beneficial use to the maximum extent as follows:

legal description/acreage

All land in Sec 18 T105N R51W

NW 1/4 NE 1/4 - 32 acres

NE 1/4 NE 1/4 - 24 acres

SE 1/4 NE 1/4 - 36 acres

SW 1/4 NE 1/4 - 38 acres

comprising a total of 130 acres of land and the license should be issued for 1.34 cfs

3. All structures, wells and lands on map Y

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

The irrigated acres were estimated with the aid of FSA maps and the ArcGIS software.

I talked to Mr. Jon Bunkers (605/270-2440) who is now the contact person for the Permit. The mailing address found in the application materials is current. He also told me the flow rating for the center pivot and provided me with the well and pump information.

A handwritten signature in black ink, appearing to read "Darrell DeBoer", written over a horizontal line.

Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: June 15, 2024



0 500 1,000 2,000 3,000 4,000 Feet



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

8580-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

TO: Water Rights Program, DANR
523 E. Capitol Ave.
Pierre, SD 57501-3182
or via email to DANRmail@state.sd.us

Date 7-14-24

FROM: Jon Bunkers 605-270-2440
(name) (phone)
46085 - 240th St jonbunkers@icloud.com
(address) (email)
Chester SD 57016
(city, state, zip)

notice
address
change

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.

Temporary Use Permit No.

~~Water Permit No.~~ 8580-3 states that the water use system is to be constructed by

February 25, 2027, and water is to be put to beneficial use by February 25, 2031.
(date) (date)

The water use system was completed on 8-1-2022
(date)

Applying the water to beneficial use was completed on 8-1-2022
(date)

Temporary Use Permit may be re-issued.
You may schedule an inspection so that the ~~water license may be issued~~.

RECEIVED

JUL 22 2024

**OFFICE OF
WATER**



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

SEP 24 2024

8580-3

Dale or Jon Bunkers
46085 240th St
Chester SD 57016

Dear Mr. Bunkers:

Enclosed is Reissued Temporary Use Water Permit No. 8580-3. This is the final document completing your process of obtaining and perfecting a temporary use permit. Included with your reissued permit is a map prepared by the staff engineer who conducted the field investigation.

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

This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if, or when, the future use permit holders fully develop their reserved water supply. If you have any questions, please contact our office.

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA
REISSUED TEMPORARY USE WATER PERMIT NO. 8580-3

(1) Dale Bunkers & Jon Bunkers, 46085 240th St, Chester SD 57016, made Application No. 8580-3, January 10, 2022, for a water permit to divert 1.78 cubic feet of water per second from groundwater, two wells (Big Sioux: Northern Skunk Creek Aquifer), Lake County, South Dakota for irrigation purposes. Temporary Use Permit No. 8580-3, with a priority date of January 10, 2022, was approved February 25, 2022, and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before February 25, 2027, and for the application to beneficial use of water on or before February 25, 2031.

The permit holders submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on July 14, 2024. The Notice stated the diversion system was completed and the water was placed to beneficial use on August 1, 2022.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.34 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- West Well: 1,345 ft S & 810 ft W of the NE corner Section 18, T105N, R51W (SE $\frac{1}{4}$ NE $\frac{1}{4}$) (Latitude 43.90241 & Longitude -96.99203)
- East Well: 1,380 ft S & 720 ft W of the NE corner Section 18, T105N, R51W (SE $\frac{1}{4}$ NE $\frac{1}{4}$) (Latitude 43.90233 & Longitude -96.99164)

(3) The amount of 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.

(4) The permit holders have complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate to following land:

Section 18, T105N, R51W			
NE $\frac{1}{4}$ NE $\frac{1}{4}$	24 acres	SW $\frac{1}{4}$ NE $\frac{1}{4}$	38 acres
NW $\frac{1}{4}$ NE $\frac{1}{4}$	32 acres	SE $\frac{1}{4}$ NE $\frac{1}{4}$	36 acres
TOTAL: 130 acres			

(5) Pursuant to South Dakota Water Law 46-5-30.1 Dale Bunkers & Jon Bunkers, the holders and/or owners of Temporary Use Permit No. 8580-3 are reissued a temporary use permit to appropriate water to use 1.34 cubic feet of water per second from groundwater, two wells (Big Sioux: Northern Skunk Creek), with a priority date of January 10, 2022, from the location specified in (2) of this license for irrigation purposes.

This Temporary Use Permit is subject to South Dakota Water Law, any limitations or conditions listed in Temporary Use Permit No. 8580-3 and subject to the following qualifications:

1. The City of Madison, Kingbrook Rural Water System, and Big Sioux Community Water have priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if, or when, the future use permit holders fully develop their reserved water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.

continued

2. The wells approved under Water Permit No. 8580-3 are located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The wells authorized by Permit No. 8580-3 shall be constructed by a licensed well driller and construction of the wells 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.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

SEP 24 2024
date

