

WATER PERMIT NO. 8728-3

Name of Applicant: **Nick and Matt Kranz**

Address: **2137 20th Ave SE, Watertown, SD 57201**

Phone: **605-881-9454**

Amount of Water Claimed: **1.78**

Total Acres: **130**

Source of Water Supply: **Groundwater**

Water to be used for: **Irrigation**

County: **Codington**

Type of Waste Disposal System:

Location: **Approximately 1 mile from Watertown**

PRIORITY

Date Received: **3-2-2023**

Application/License Fee: **\$1050**

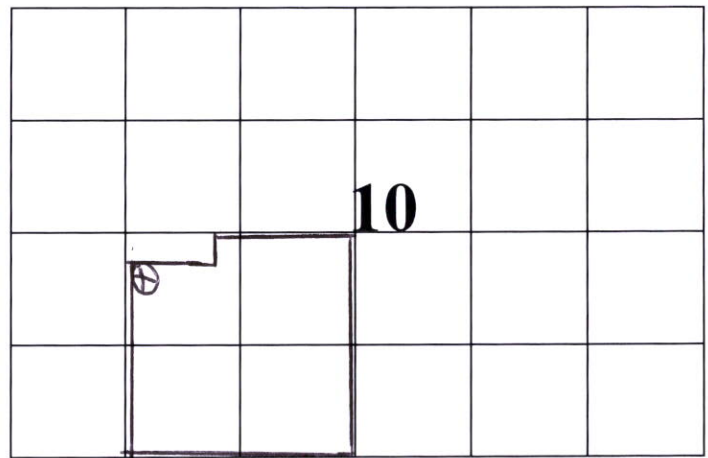
Corrected Application Received:

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

Remarks: **Using the existing 1 well**

Diversion Point: **NW 1/4 SW 1/4 Sec 10 – T116N-
R52W**

Land to be Irrigated: **SW 14 Sec 10 – T116N-
R52W**



Depth of Well: **35 feet**

Well Driller:

Remarks:

Type of Map: **aerial**

Reviewed and the Number Assigned on: **3-8-2023**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8728-3**

Date of first receipt of application March 2, 2023.

Date of receipt of corrected application March 8, 2023.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8728-3 to Nick and Matt Kranz Inc., 2137 20th Avenue SE, Watertown SD 57201 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. 8728-3 appropriates 1.78 cubic feet of water per second from one well completed into the Big Sioux: North Aquifer (37 feet deep) located in the NW1/4 SW 1/4 Section 10 for irrigation of 130 acres located in the SW1/4 Section 10; all in T116N-R52W. This site is located approximately 1 mile southeast of Watertown 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: May 1 – October 31.
3. The date from which applicant may claim right is March 2, 2023.
4. The date of approval of Permit No. 8728-3 is May 1, 2023.
5. One-fifth of the construction is to be completed on or before November 1, 2025.
6. All construction is to be completed on or before May 1, 2028.
7. Water is to be put to beneficial use on or before May 1, 2032.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit Nos. 8728-3 and 7334-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. 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

MAY 15 2023
date



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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8728-3</u> Hydrologic Unit <u>10170202</u>
	Basin <u>Big Sioux River</u>
	Newspaper <u>Public Opinion 886-6901</u>
	(office use only)

RECEIVED

MAR 02 2023

OFFICE OF
WATER

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 Nick and Matt Kranz Inc.

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

Mailing Address 2137 20th Ave SE Watertown SD 57201
(Address) (City) (State) (Zip Code)
Phone _____ Mobile 605-881-9454 Email judykranz@live.com

2. Amount of water claimed 1.78 *CFS or _____ **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 1 well - ground water

4. Location of point of diversion NW1/4 SW1/4 section 10-T116N-R52W - one well
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
County Codington

5. County or counties where water will be used Codington

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

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

Land Description	Acres	Land Description	Acres
SW1/4 sec 10-T116N-R52W	130		

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

I, Matthew S. Kranz, the applicant, certify under
Name of Person Title (if applicable)

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☐ Drilling new well(s) ☒ Using existing well(s)

- a) If new wells, how many _____ Have test holes been drilled? ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)
- b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Empire

For either existing or proposed wells:

- c) Well Depth (required) 35 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 1 mile

2. Wastewater Disposal System Information

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

3. Dugout Information

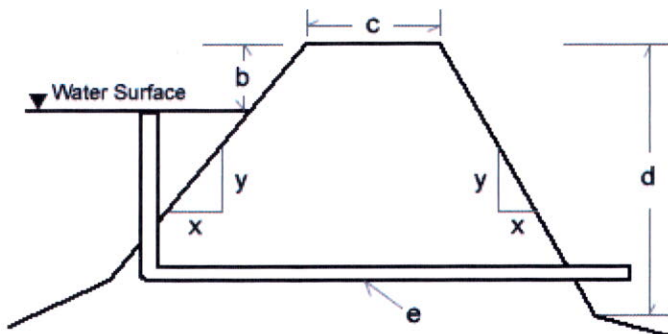
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____



- If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

Feet



Appl. No. 8728-3



(1) WELL CONSTRUCTION

WELL LOG

Attach sheet if more space is needed

0-29 10" ID Fiberglass

29-37 16" ID Fiberglass

If a flowing well, flow of completed well 1000 G.P.M.

Empire Irrigation Drilling
Name of Drilling Contractor C. C. Inc.

2) PUMP INSTALLATION

PUMP INSTALLATION
 Company name and size of pump Not done by Empire HP. _____
 Type of pump _____ Capacity of installed pump _____ G.P.M.
 Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____,
tube material _____.

Name of Pump Installation Contractor _____



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date March 8, 2023

RECEIVED OF Nick & Matt Kranz Inc. 2137 20th Ave SE Watertown SD 57201

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

Fee for Application for Permit No. <u>8728-3</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>8728-3</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



531729616

ANNUAL REPORT

Domestic Business Corporation
SDCL 59-11-24, 24.1

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

2023
FILING YEAR

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

Filing Fee: \$50

Total Fee: \$50

1. Business ID and Name:

DF015148
BUSINESS ID

NICK & MATT KRANZ, INC.
BUSINESS NAME

2. The jurisdiction under whose law it is formed **SOUTH DAKOTA**

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

Actual Street Address

2137 20TH AVE SE
WATERTOWN, SD 57201-9184

Mailing Address

PO BOX 1443
WATERTOWN, SD 57201-1443

4. The South Dakota Registered Agent's Name:

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

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

Name **MATTHEW S KRANZ**

Actual Street Address in this State

2137 20TH AVE SE
WATERTOWN, SD 57201-9184

Mailing Address in this State

5. The names and business addresses of its principal officers.

Title	Name	Address
President	MATTHEW S KRANZ	2137 20TH AVE SE, WATERTOWN, SD, 57201-9184
Treasurer	MATTHEW S KRANZ	2137 20TH AVE SE, WATERTOWN, SD, 57201-9184
Vice President	JUDY K KRANZ	2137 20TH AVE SE, WATERTOWN, SD, 57201-9184
Secretary	JUDY K KRANZ	2137 20TH AVE SE, WATERTOWN, SD, 57201-9184

6. The names and business addresses of its directors (governors).

Name	Address
MATTHEW S KRANZ	2137 20TH AVE SE WATERTOWN, SD 57201-9184

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

B0256-0514 02/14/2023 8:17AM Rec'd by SD SOS



No person may execute this report knowing it is false in any material respect. Any violation may be subject to a civil and/or criminal penalty (SDCL 47-1A-129; 22-39-36).

02/14/2023

Dated

Email (Optional)

Matthew S Kranz

Signature of an Authorized Person

Matthew S Kranz

Printed Name

B0256-0515 02/14/2023 8:17AM Rec'd by SD SOS

Schlaak, Karen

From: Gronlund, Eric
Sent: Monday, February 27, 2023 2:28 PM
To: Schlaak, Karen; Rodriguez, Rachel
Cc: McMath, Genny; Mathiowetz, Adam (DENR)
Subject: WP No. 7334-3, Kranz

Rod Kemmick ?sp? called regarding this water permit. He is a realtor selling the SW ¼ Section 10-T116N-R52W owned by Kranz. Land is just south of Watertown Wanted know about the water permit associated with it.

WP No. 7334-3 appropriates water from the Big Sioux:North aquifer to irrigate 240 acres in the W ½ Section 1-T116N-R52W. Date to complete construction was May 2017 and to put water to beneficial use May 2021.

Looking at the past irrigation questionnaires, Mr. Kranz report irrigating 120 acres. But the reporting does not state whether irrigation exists in the NW ¼ or SW ¼ or if they alternate. Mr Kemmick stated only the NW ¼ has been irrigated. Looking at Google Map it is evident there is a center pivot on the NW ¼ and there are no signs of irrigation equipment in SW ¼.

Mr. Kemmick wanted to know what is necessary to get the permit for the SW ¼ active. I stated at this time, apply for a new water permit as the permit is likely limited to what was timely developed. – meaning only the NW ¼ is eligible for licensing and the SW ¼ should be removed.

Sent him application forms via email. I expect we'll get an application. When conducting the completeness review you will see a permit is in place so thought I should email you to let you know what is going on.

Genny – maybe this is one we should have Darrell do an inspection.

Adam – including you as Mr. Kemmick asked if get a permit would be a problem.



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



**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. 8728-3, Nick and Matt Kranz Inc.**

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. 8728-3, Nick and Matt Kranz Inc., 2137 20th Avenue SE, Watertown SD 57201.

The Chief Engineer is recommending APPROVAL of Application No. 8728-3 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 Nos. 8728-3 and 7334-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
April 12, 2023

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8728-3
FOR
NICK AND MATT KRANZ INC.
APRIL 13, 2023

Application No. 8728-3 proposes to withdraw water at a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) from one existing well, authorized by Water Permit No. 7334-3, completed into the Big Sioux: North aquifer (37 feet deep) located in the NW ¼ SW ¼ Section 10 for the irrigation of 130 acres located in the SW ¼ Section 10; all in T116N-R52W. The site is located approximately 1 mile southeast of Watertown.

AQUIFER: Big Sioux: North (BS:N)

Aquifer Characteristics:

The Big Sioux aquifer is a surficial glacial outwash and alluvium aquifer ranging from medium sand to medium gravel and can be well to poorly sorted (Hanson, 1990). The aquifer primarily underlies the floodplain of the Big Sioux River and its tributaries. The North management of the Big Sioux aquifer, henceforth called the Big Sioux: North aquifer, is the northernmost portion lying north of the USGS stream gaging station near Castlewood and as defined in Hedges et al. (1982). The aquifer is generally under unconfined conditions (Water Rights, 2023d and 2023f).

The Big Sioux: North aquifer underlies approximately 83,500 acres of Codington, Grant, Hamlin, and Roberts Counties with an estimated 187,880 acre-feet (ac-ft) of recoverable water in storage (Hedges et al, 1982). Stonesifer (2013) reevaluated the extent of the aquifer (see Figure 1) and determined the aquifer's areal extent to be 111,700 acres when including several of the offshoot areas that were mapped by Hedges et al. (1982) that could contain potential additional aquifer area as well as studies by Hansen (1994), Kume (1985), Putnam and Thompson (1996), and Thompson (2001). Stonesifer's (2013) area should be considered a likely minimum. The reevaluation left observation wells CK-78S and CD-78A far outside the body of the Big Sioux: North aquifer. Determination of which aquifer those two observation wells are completed into is still ongoing. The Big Sioux: North aquifer is hydrologically connected to the Big Sioux River, Lake Kampeska, Pelican Lake, and Still Lake (Putnam and Thompson, 1996) and a connection to the Big Sioux: Brookings aquifer along its southern boundary (Hedges et al., 1982).

The existing well was completed in June 1975 to a total depth of 37 feet. Sand and gravel were encountered from 5 to 37 feet below land surface. A nearby DANR-Water Rights Program observation well (2023d) and other wells (Water Rights, 2023f) in the area have static water levels ranging from 5 feet to 12 feet below land surface. All of these wells are under unconfined conditions.

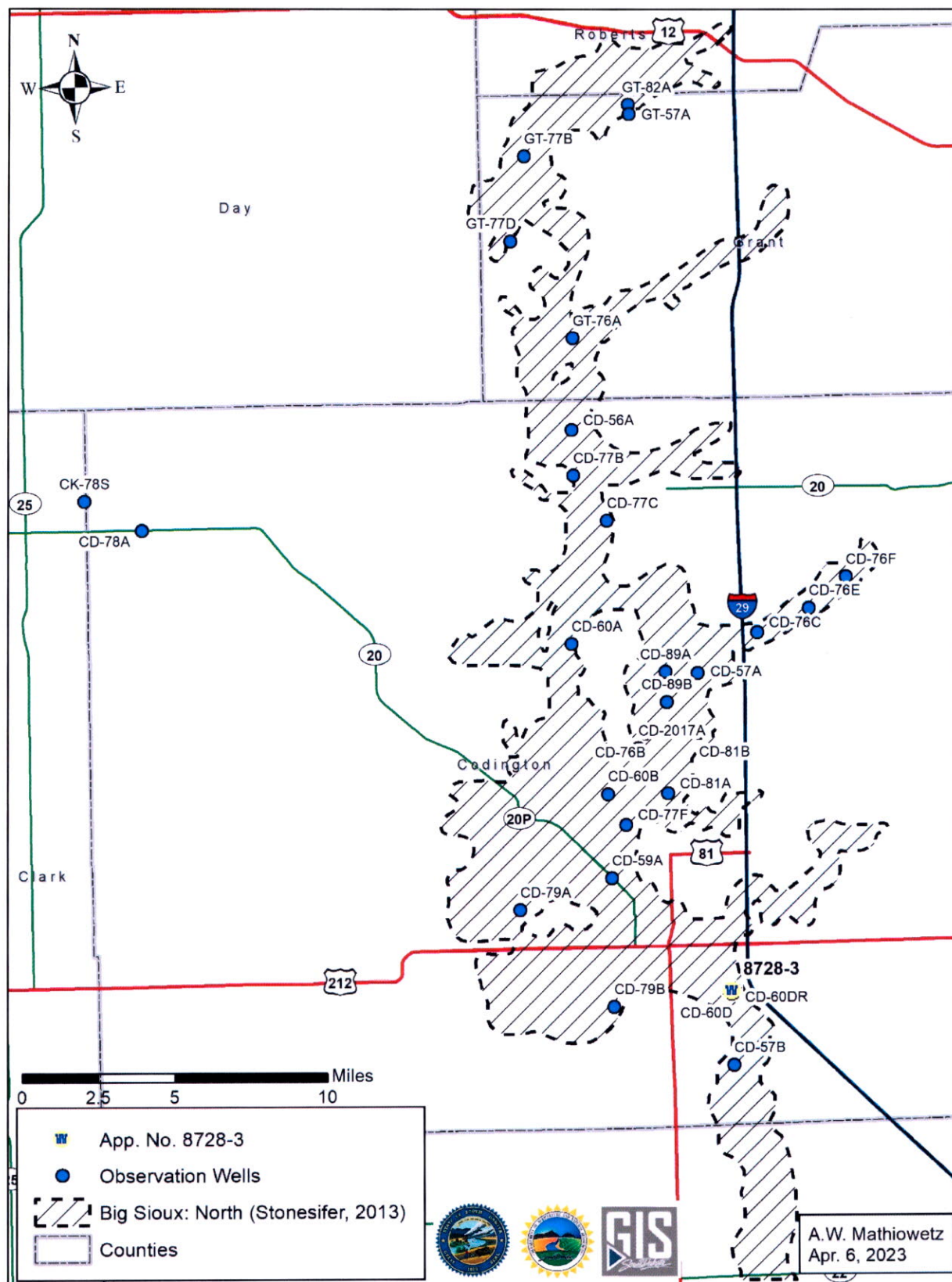


Figure 1- Big Sioux: North aquifer (Stonesifer, 2013), Big Sioux: North aquifer observation wells (Water Rights, 2023e), and the location of Application No. 8728-3

APPLICABLE SOUTH DAKOTA CODIFIED LAW (SDCL):

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: North aquifer.

This application proposes to appropriate water from the Big Sioux: North aquifer. The probability of unappropriated water 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 Greenhorn Formation is Cretaceous aged Formation. The Big Sioux: North aquifer is not older or stratigraphically lower than the Greenhorn Formation. Furthermore, the applicant is not a water distribution system. Therefore, the balance between recharge to and withdrawals from the Big Sioux: North aquifer must be considered for this application.

Hydrologic Budget:*Recharge*

Recharge to Big Sioux: North aquifer is primarily from the infiltration of precipitation and seepage from surface water sources when water levels are higher in the surface waters than in the aquifer (Putnam and Thompson, 1996). Several studies have estimated recharge rates for various management units of the Big Sioux aquifer. Hedges et al. (1985) estimated a range of 2.7 to 6.9 inches per year, not including flow net analysis. Using observation well analysis, 3.2 in/yr was estimated for just the Big Sioux: North (Hedges et al., 1985). Hansen (1990) estimated a range of 4 to 10 in/yr. While Putnam and Thompson (1996) used observation well data to determine a recharge rate estimate of 2.9 to 5.8 in/yr for Grant and Codington Counties. Putnam and Thompson (1996) also used steady-state modeling of the aquifer and determined a recharge rate of 5.53 in/yr best reproduced average water levels during their study period. Using the range of 2.9 to 5.8 in/yr from Putnam and Thompson (1996), covers most of the estimated recharge rates. Multiplying the areal extent from Stonesifer (2013) by that range produces an estimated recharge rate range of 27,000 to 54,000 ac-ft/yr. The likely average annual recharge rate is toward the middle or top end of that range based on review and comparison of all of these varied studies and methods used to estimate average recharge to the Big Sioux: North aquifer.

Discharge

Discharge from the Big Sioux: North aquifer is primarily through well withdrawals, groundwater outflow, evapotranspiration, and seepage to hydrologically connected surface water bodies when the water level of the aquifer is higher than that of the surface water (Hansen, 1990). There are domestic wells completed into the Big Sioux: North aquifer that do not require a water right/permit, so withdrawal is unknown (Water Rights, 2023f). Due to their relatively low diversion rate, withdrawals for domestic use are not considered a significant portion of the hydrologic budget. Furthermore, the development of rural water systems in areas where the Big Sioux: North aquifer is available means it is likely some domestic well users have transitioned away from well use to rural water. Therefore, the quantity of water withdrawn by domestic wells is assumed to be a negligible portion of the hydrologic budget for the Big Sioux: North aquifer.

Currently, there are 98 water rights/permits appropriating water and 3 future use permits reserving water from the Big Sioux: North aquifer (Water Rights, 2023e). The future use permits are summarized in Table 1. Of the 98 water rights/permits, there are 38 water rights/permits for non-irrigation use. The amount of water withdrawn by non-irrigation permits is estimated by averaging reported pumping for permits with at least 10 years of reported data, assuming permits limited by annual volume limit will pump their total volume unless reporting the average pumpage is used and permits only limited by diversion rate are assumed to pump at their permitted diversion rate for 60% of the time unless the reported average is used. These are the standard methods used by the Water Rights Program for estimating average annual use by non-irrigation water rights/permits. Non-irrigation water rights/permits that annually report pumpage are shown in Table 2. The estimated average annual use by the non-reporting non-irrigation water rights/permits is 10,940.5 ac-ft/yr. For a total estimated average annual use by non-irrigation water rights/permits of 13,684 ac-ft/yr.

Table 1-Big Sioux: North aquifer future use permits (Water Rights, 2023d)

Permit No.	Name	Priority Date	Vol. (ac-ft/yr)
1218-3	City of Watertown	12/03/1956	2,709
2107-3*	City of Watertown	08/26/1974	
5862-3	City of Watertown	04/06/1995	760
Total			3,469
<i>*adds additional future use area to Future Use Permit No. 1218-3</i>			

Table 2-Big Sioux: North aquifer reporting non-irrigation permits with estimated average annual water use (Water Rights, 2023c)

Permit No.	Name	Status	Priority Date	Use	CFS	Permitted Vol. (ac-ft/yr)	Years Reported	Reported Avg. Vol. (ac-ft/yr)	Est. Avg. Vol. (ac-ft/yr)
6595-3	CLARK RWS INC	LC	01/26/2005	RWS	0.440	404.00	15	129.3	129.3 ^A
6856-3	WATERTOWN MUNICIPAL UTILITIES	LC	09/02/1965	MUN	2.14	927	15	2,486.8	2,486.8 ^A
7055-3		LC	04/06/1995	MUN	8	4500			
7969-3	BRONSON CUSTOM FARMS INC	LC	02/13/2014	COM/LCO	0.200		8	167.8	86.9 ^B
8297-3	VALLEY VIEW FARMS INC	PE	06/16/2017	COM/LCO	0.080	35.00	5	19.4	35 ^C
8336-3	L G EVERIST INC	LC	03/12/2018	COM/IND	0.044	5.50	4	0.002	5.5 ^C
A=Calculated Average, B=60% pumping, C=Permitted Volume								Total	2,743.5
LC=Water Right, PE=Water Permit, RWS=Rural Water System, MUN=Municipal, COM=Commercial, LCO=Livestock Confinement Operation, IND=Industrial									

Irrigation water rights/permits are required to report annual pumpage. The reported annual use from the Big Sioux: North aquifer is shown in Table 3. The average annual pumpage by irrigation water rights/permits over the entire period of record, 1979-2021, is 2,442.1 ac-ft/yr. However, to better reflect current development and the likely average annual use going forward as well as to account for a significant increase in the number of permits in the last decade, the average annual reported irrigation use from 2012-2021 will be used for this review of the hydrologic budget. The 2012-2021 reported average annual irrigation use is 3,782.1 ac-ft/yr.

Hydrologic Budget

The Big Sioux: North aquifer has an estimated recharge rate range of 24,000 to 57,000 ac-ft/yr. The estimated average annual pumpage from the Big Sioux: North aquifer is 17,466.1 ac-ft/yr. Therefore, there is a reasonable probability unappropriated water is available for this proposed appropriation.

Table 3- Historic reported irrigation pumpage from the Big Sioux: North aquifer (Water Rights, 2023b)

Year	Number of Permits Reporting	Pumpage Reported (ac-ft/yr)
1979	39	912
1980	39	888
1981	37	1067
1982	32	1384.05
1983	34	1110.45
1984	36	1684.5
1985	36	1419.7
1986	35	1079.1
1987	35	1929.4
1988	35	2740.4
1989	40	2686.6
1990	44	2520.1
1991	38	1659
1992	33	1325.7
1993	34	865.5
1994	33	1192.95
1995	32	1186.68
1996	30	1497.96
1997	31	1656
1998	35	1702.52
1999	35	2593.1
2000	36	3013.88
2001	36	2558.91
2002	37	2835.49
2003	37	3662.11
2004	38	2448.79
2005	40	2886.7
2006	38	4285.97
2007	38	3308.79
2008	41	2743.94
2009	45	1773.51
2010	46	2421.27
2011	46	2147.88
2012	50	4970.47
2013	56	4943.32
2014	61	3268.69
2015	61	3603.05
2016	63	4436.23
2017	63	4276.36
2018	64	3894.14
2019	62	1189.26
2020	60	2966.3
2021	61	4273.54
Min	30	865.5
Max	64	4970.47
Avg. (1979-2021)	42.4	2442.1
Avg. (2012-2021)	60.1	3782.1

Observation Well Data:

Administrative Rule of South Dakota Section 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. As shown in Figure 1, the Water Rights Program maintains 29 observation wells in the Big Sioux: North aquifer (Water Rights, 2023d). The

hydrographs for the nearest observation wells completed into the Big Sioux: North aquifer are shown in Figure 2. Observation well CD-57B is 2.4 miles south, CD-60D and CD-60DR are 0.1 miles south, and CD-79B is 3.9 miles west of the applicant's well site (Water Rights, 2023d). Observation well CD-60D appears to no longer be functioning properly based on the large downward spike and slow recovery after air development of the well as part of regular maintenance by Water Rights staff. The other hydrographs shown in Figure 2 are representative of the hydrographs for other observation wells completed into the Big Sioux: North aquifer.

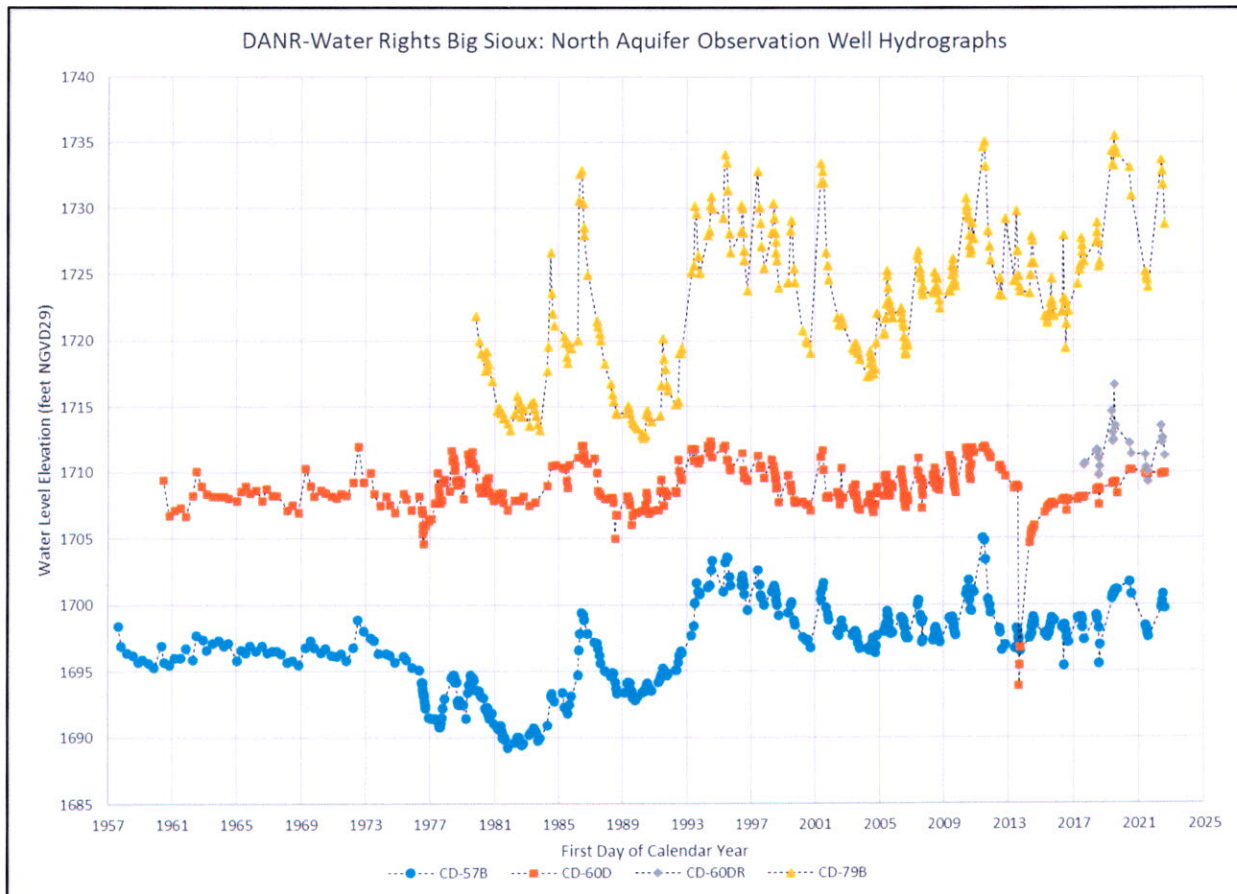


Figure 2- Hydrographs for observation wells CD-57B, CD-60D, CD-60DR, CD-79B (Water Rights, 2023d)

In general, the hydrographs show water levels in the Big Sioux: North aquifer are stable over their respective periods of record. The water levels shown in the hydrographs document the aquifer rises during wetter periods and slowly declines during drier periods. Furthermore, the water level recovers between irrigation season and during periods of recharge, late-winter through spring. This means natural conditions, recharge to and natural discharge from, the aquifer govern the water levels of the aquifer. Recognizing natural discharge can be captured for pumping, there is a reasonable probability unappropriated water is available for this proposed appropriation. The observation well data agrees with the hydrologic budget data.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

The nearest well for water rights/permits is a second well authorized by Water Permit No. 7334-3 located approximately 0.3 miles north and owned by the applicant (Water Rights, 2023e). The nearest water right/permit not held by the applicant is Water Right No. 722-3A located approximately 1.2 miles southeast of the applicant's well (Water Rights, 2023e). There are a number of domestic wells on file with the Water Rights Program for wells completed into the Big Sioux: North aquifer (Water Rights, 2023f). The nearest domestic well on file completed into the Big Sioux: North aquifer not owned by the applicant is located approximately 0.7 miles southeast of the applicant's well. There may be other domestic wells completed into the Big Sioux: North aquifer not on file with the Water Rights Program in proximity to the applicant's well.

In the area of this application, the Big Sioux: North aquifer is expected to be under unconfined conditions (Water Rights, 2023d and 2023f). The static water level is expected to range from 5 to 12 feet below land surface with a saturated aquifer thickness ranging from 20 to 37 feet (Water Rights, 2023d and 2023f). That would allow a pump to be placed at least 20 feet into the saturated aquifer, in most cases, as required by Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) to qualify as an adequate well.

The Water Management Board has recognized in the past to place water to maximum beneficial use some drawdown may occur. In order to protect domestic users, the Water Management Board defined an "adversely impacted domestic well" in ARSD 74:02:04:20(7) as:

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

Observation well CD-57B is located within approximately one mile of six high-capacity wells, assumed to be wells with a diversion rate greater than 0.2 cfs (Water Rights, 2023d and 2023e). The hydrograph, shown in Figure 2, shows a generally stable water level and documents minimal impacts from pumping on the water level.

While precise drawdown cannot be determined without aquifer performance testing, any drawdown created from pumping this proposed diversion is not expected to cause unlawful impairment of existing water rights with adequate wells or adequate domestic wells. This is due to the highly transmissive and unconfined nature of the aquifer. While there is a reasonable probability recharge exceeds withdrawals on an average annual basis, there may be times when withdrawals from the aquifer exceed recharge during brief periods of time. If that were to occur, water levels in the aquifer may decline to such a point where adequate wells in thinner parts of the aquifer may be unable to access needed water, and what could be considered an unlawful impairment of existing water rights may occur. Thus, if this application is approved, the applicant should control their withdrawals so that adequate wells, both domestic and appropriative with senior water rights/permits, are able to access needed water. In Grant County, there have been numerous complaints concerning adverse impacts of appropriative wells on the water levels of dugouts completed into the Big Sioux: North aquifer (Water Rights, 2023a). Dugouts are not

considered adequate wells pursuant to ARSD 74:02:04:20(6) and thus are not afforded protection under South Dakota water law. There has been one substantiated complaint of well interference on an adequate well completed into the Big Sioux: North aquifer in Codington County (Water Rights, 2023a). In 2015 it was determined pumping by the City of Watertown adversely impacted several adequate wells. The wells had limited saturated aquifer thickness (approximately 4 feet in one well) and the pumping by the city in conjunction with the dry conditions caused several wells to be unable to pump needed water supplies. The city mitigated the issue by having the affected well owners with adequate wells connected to rural water. This issue occurred approximately 9 miles northwest of the applicant's well site. Therefore, based on the highly transmissive and unconfined nature of the aquifer, the very limited number of substantiated well interference complaints concerning adequate wells, and the saturated thickness in this area of the aquifer, there is a reasonable probability development of this proposed diversion will not unlawfully impair adequate domestic wells or senior water rights/permits with adequate wells.

CONCLUSIONS:

1. Application No. 8728-3 proposes to divert water at a maximum instantaneous diversion rate of 1.78 cfs from one existing well, originally authorized under Water Permit No. 7334-3, for the irrigation of 130 acres in Codington County.
2. Based on the hydrologic budget and observation well data there is a reasonable probability unappropriated water is available for this application.
3. There is a reasonable probability that pumping this proposed diversion will not unlawfully impair existing users with adequate wells.



Adam Mathiowetz, PE
SD DANR-Water Rights Program

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Water Rights. 2023e. Water Right/Permit Files. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2023f. Well Completion Reports. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, 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 NEWSPAPERS RIGHT AWAY.**

April 17, 2023

Nick and Matt Kranz, Inc.
2137 20th Ave SE
Watertown SD 57201

Dear Sirs:

Water Permit Application No. 8728-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Public Opinion printed in Watertown SD (Ph # 605 886-6901). 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 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 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 publishers have 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,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

NOTICE OF APPLICATION NO. 8728-3 to Appropriate Water

Notice is given that Nick and Matt Kranz Inc., 2137 20th Ave SE, Watertown, SD 57201 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well completed into the Big Sioux: North Aquifer (37 feet deep) located in the NW1/4 SW 1/4 Section 10 for irrigation of 130 acres located in the SW1/4 Section 10; all in T116N-R52W. This site is located approximately 1 mile southeast of Watertown SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8728-3 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 1, 2023.

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 1, 2023.

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 _

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Friday, April 14, 2023 3:43 PM
To: legals@thepublicopinion.com
Subject: 8728-3 Nick and Matt Krantz, Inc - Public Notice
Attachments: FORM8.FRM.doc; 8728-3 public.short_final.docx

Attached is a notice to be published on April 21, 2023.

Nick and Matt Kranz, Inc., 2137 20th Ave SE, Watertown SD 57201, (605-881-9454) has been notified to contact you to authorize publication and arrange for payment.

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

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

Thank you,

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



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Friday, April 14, 2023 4:20 PM
To: judykranz@live.com
Subject: FW: 8728-3 Nick and Matt Kranz Inc - Public Notice - Contact Info for Public Opinion
Attachments: Order_Confirmation_Liners - 2023-04-14T160416.020.pdf

Attached is the order confirmation from the newspaper.

Prepayment is required. Please call 8442545287 to pay

Your notice is scheduled to publish April 21 in the Public Opinion. The total cost of your ad is \$48.40, which includes a publisher affidavit that will be mailed to you after the last date of publication. **Please review your proof carefully and advise of any corrections needed.**

Thank you,

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



Rachel 605 880-2112
Rod Kemmick called for Kranz. He contacted Public Opinion. They couldn't publish until April 22 (Sat) told him that was okay - 10 days is still may!

From: Rodriguez, Rachel
Sent: Friday, April 14, 2023 3:48 PM
To: judykranz@live.com
Subject: 8728-3 Nick and Matt Kranz Inc - Public Notice

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.

Thank you,

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

Order No
8724883

Acct # 559375

Published - April 21st

LOCALiQ

Aberdeen News
Watertown Public Opinion

PO Box 630567 Cincinnati, OH 45263-0567

PROOF OF PUBLICATION

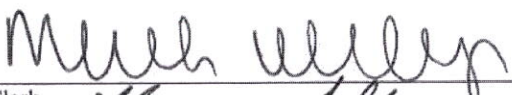
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PO BOX 1593
Watertown SD 572016593

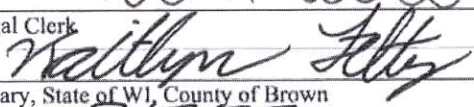
STATE OF SOUTH DAKOTA, COUNTY OF CODINGTON

The Watertown Public Opinion is, and during all the times hereafter mentioned was, a daily legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4, as amended, published at Watertown, Codington County, South Dakota, by Watertown Public Opinion; that the notice, order or advertisement, a printed copy of which is attached, was published in said newspaper in the issue dated:

04/21/2023

and that the fees charged are legal.
Sworn to and subscribed before on 04/21/2023



Legal Clerk


Notary, State of WI, County of Brown
3/7/27

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Notary Public
State of Wisconsin

NOTICE OF
APPLICATION NO. 8728-3
to Appropriate Water

Notice is given that Nick and Matt Kranz Inc., 2137 20th Ave SE, Watertown, SD 57201 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well completed into the Big Sioux: North Aquifer (37 feet deep) located in the NW1/4 SW 1/4 Section 10 for irrigation of 130 acres located in the SW1/4 Section 10; all in T116N-R52W. This site is located approximately 1 mile southeast of Watertown SD.

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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.

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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 April 21, 2023, at the total approximate cost of \$48.40 and may be viewed free of charge at www.sdpublicnotices.com

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Friday, April 14, 2023 3:48 PM
To: judykranz@live.com
Subject: 8728-3 Nick and Matt Kranz Inc - Public Notice
Attachments: 8728-3_rec.pdf; 8728-3 APPL.docx; 8728-3 public.short_final.docx

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.

Thank you,

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



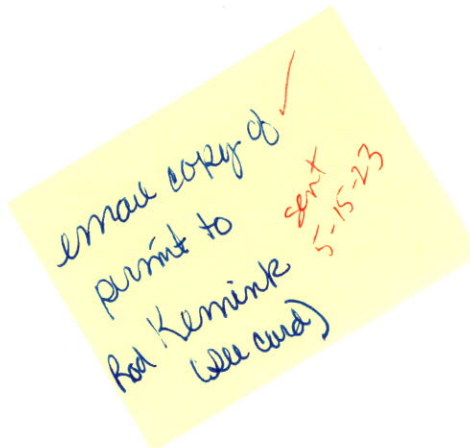


**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAY 15 2023

Nick and Matt Kranz Inc.
2137 20th Ave SE
Watertown SD 57201



Dear Sirs:

Enclosed is Water Permit No. 8728-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

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

Sincerely,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
on DANR Website**

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

Application No.: 8728-3

Name of Applicant: Nick & Matt Kranz Inc.

Date of Posting: 4/17/2023

Date of Removal: 5/15/2023



Ron Duvall, Water Rights Permitting Administrator

5/24/23

Date

Subscribed and sworn to before me, a notary public, this 24 day of May, 2023.



Notary Public - South Dakota
My commission expires: 4/1/2025

