

WATER PERMIT NO. 8556-3

Name of Applicant: **Bradley Jongeling**

Address: **18995 461st Ave, Estelline SD 57234**

Phone: **605 881-3432**

Amount of Water Claimed: **1.33 cfs**

Total Acres: **120**

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

Water to be used for: **irrigation**

County: **Hamlin**

Type of Waste Disposal System:

Location: **6 miles northwest of Estelline**

PRIORITY

Date Received: **10-29-21**

Application/License Fee: **\$ 950**

Corrected Application Received:

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

Remarks:

Diversion Point: **N 1/2 SW 1/4 & S 1/2 NW 1/4 Sec
6-T113N-R51W**

Land to be Irrigated: **N 1/2 SW 1/4 & S 1/2 NW
1/4 Sec 6-T113N-R51W**

Depth of Well: **25 feet deep**

Well Driller: **Lacey Well Drilling**

Remarks:

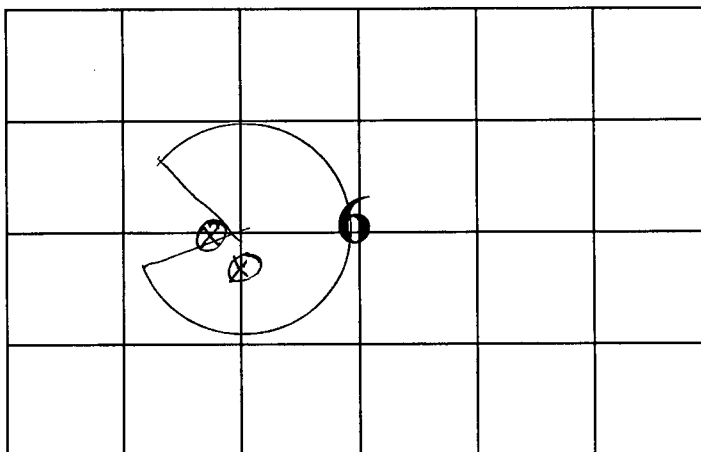
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **11-2-21**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 8556-3**

Date of first receipt of application October 29, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8556-3 to Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 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. 8556-3 appropriates 1.33 cubic feet of water per second from two wells to be completed into the Big Sioux:Brookings Aquifer (approximately 25 feet deep) located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 6 for irrigation of 120 acres located in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 6; all in T113N-R51W. This site is located approximately 6 miles northwest of Estelline SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is October 29, 2021.
4. The date of approval of Permit No. 8556-3 is January 24, 2022.
5. One-fifth of the construction is to be completed on or before July 24, 2024.
6. All construction is to be completed on or before January 24, 2027.
7. Water is to be put to beneficial use on or before January 24, 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 wells approved under Water Permit No. 8556-3 may be located near domestic wells. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8556-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. 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 01 2022
date



RECEIVED

PAID

OCT 29 2021

OCT 29 2021

Ck# 26071

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	(office use only)	
	No. <u>8556-3</u>	Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Hamlin County Herald</u> <u>Public Opinion</u>	

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(check one) (Use predates Mar 2, 1955)

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

- Name of Applicant Bradley Jongeling ☒ Owner ☐ Tenant/Lessee (check one) Phone 605-881-3432
Mailing Address 18995 461st Ave Estelline So Dak. State 57234
(Street, RR, or Box) (Zip Code)
- Amount of water claimed 1.33 *CFS or 600 **GPM ***AF Total Acreage 120
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout if applicable)
- Source of water supply 2-wells
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
2 wells in SE1/4 NW1/4 sec. 6 T113N - R51W
(N1/2 SW1/4 & S1/2 NW1/4) County Hamlin
- County or counties where water will be used Hamlin
- Annual period during which water is to be used April to Oct. 31
- 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
SE1/4 NW1/4 Sec 6 T113N-R51W	40	<u>N1/2 SW1/4 Sec 6 - T113N - R51W</u>	<u>60</u>
SW1/4 NW1/4 Sec 6 T113N-R51W	40	<u>S1/2 NW1/4</u>	<u>60</u>
NE1/4 NW1/4 Sec 6 T113N-R51W	40		

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

Farming Beans & Corn

email = jongelina@itckel.com
Brad's cell = 881-3432

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

STATE OF SOUTH DAKOTA)

County of _____

I, _____, the applicant, have read this application, examined the attached map, and certify that the matters stated are true. I intend and am able to complete the necessary construction.

Signed Bradley Jongeling

Subscribed and sworn to before me this _____ day of _____ 19 _____

Notary Public

Supplemental Information

(Type or print in ink)

1. Well Information - Proposed Construction 2 wells

- a) Drill Hole Diameter 20" Depth 25'
- b) Casing Type PVC Diameter 15" Thickness sch 40
- c) Screen Type slotted PVC Diameter 15" Thickness sch 40
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 12'
- f) Depth to Water (ground surface to water level) 12'
- g) Distance to nearest existing domestic well:

On applicants property None On property owned by others 2 miles

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) None
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System _____

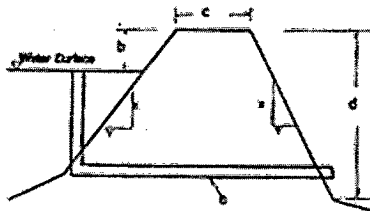
3. Dugout Information

- a) Surface Dimensions None 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 _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

In Water Since 1946

LACEY WELL DRILLING, INC.

47582 - 240th St.

Dell Rapids, South Dakota 57022

Telephone (605) 428-5979

Wells — Pumps
Dewatering Work
Test Drilling

Down-Hole Camera
Water Specialists
Irrigation Supplies

Brad Jongeling

18995 461st Ave.

Estelline, So Dak. 57234

Test Holes

NE of Center

0-1 Topsoil

1-12 Sand

12-25 Medium Sand

SWL 12'

NW of Center

0-2 Topsoil

2-12 Sand

12-25 Good Gravel

12' - static

Drilled 10-11-21

By: Lacey Well Drilling

Driller: Joan Redder-Lacey

Ln: 111

Signed: Joan Redder-Lacey

Aerial Map



**Castlewood
Farmers Elevator**
Phone: (605) 793 -2181

Map Center: 44° 37' 23.43, -96° 59' 48.12

0ft 822ft 1643ft

Maps Provided By:



**6-113N-51W
Hamlin County
South Dakota**



10/27/2021

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

Bradley Jones

605-881-3432

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Agriculture and Natural Resources

Date October 29, 2021

RECEIVED OF Bradley/Shelly Jongeling 18995 461st Ave Estelline SD 57234

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

Fee for Application for Permit No. <u>8556-3</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>8556-3</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



**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. 8556-3, Bradley Jongeling**

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. 8556-3, Bradley Jongeling, 18995 461st Ave, Estelline SD 57234.

The Chief Engineer is recommending APPROVAL of Application No. 8556-3 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 wells approved under Water Permit No. 8556-3 may be located near domestic wells. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8556-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. 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
December 27, 2021

REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NO. 8556-3
BRADLEY JONGELING
DECEMBER 10, 2021

Water Permit Application No. 8556-3 proposes to appropriate water at a maximum instantaneous diversion rate of 1.33 cubic feet per second (cfs) of water from two wells, both approximately 25 feet-deep, to be completed into the Big Sioux: Brookings aquifer. The wells will be located in the N ½ SW ¼, S ½ NW ¼ Section 6 for the irrigation of 120 acres located in the N ½ SW ¼ and the S ½ NW ¼ Section 6; all in T113N-R51W. The site is in Hamlin County, approximately 6 miles northwest of Estelline, SD.

AQUIFER: Big Sioux: Brookings (BS: B)

Aquifer Characteristics

The Big Sioux aquifer is composed of well-sorted, very permeable glacial outwash composed of medium to very coarse-grained sand and very fine to medium gravel (Hamilton, 1989). The aquifer is hydraulically connected to lakes in the area, as well as the Big Sioux River and its tributaries (Hamilton, 1989). The Big Sioux: Brookings aquifer underlies approximately 323,000 acres in Brookings, Codington, Deuel, Hamlin, Kingsbury, and Moody Counties and contains approximately 1,453,000 million acre-feet of recoverable water in storage (Hedges et al., 1982, Stonesifer, 2013). Figure 1 shows the approximate areal extent of the Big Sioux: Brookings aquifer with the location of the proposed diversion point. In Hamlin County, the aquifer is overlain between 1 – 4 feet of topsoil and ranges in thickness between 2 – 123 feet, with an average of 30 feet thickness (Kume, 1985). Test hole information included with the application shows an average of 1.5 feet of topsoil overlying sand to a depth of 12 feet. The test holes then encountered sand or gravel to a depth of 25 feet. Both test holes measured a static groundwater level at 12 feet below the ground surface. The aquifer is under water-table conditions.

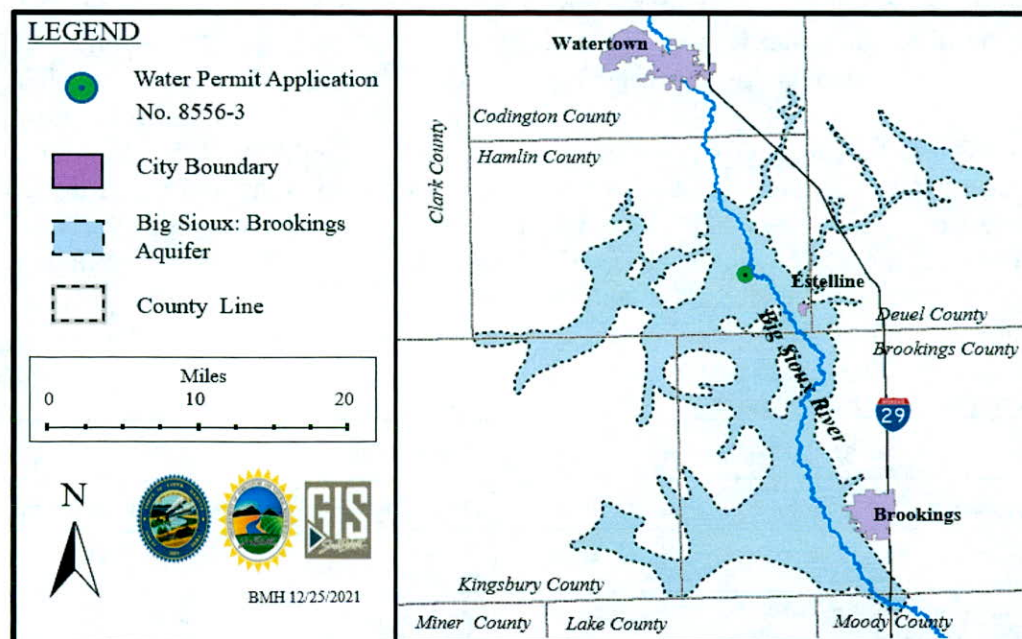


Figure 1. Water Permit Application No. 8556-3 shown within the boundary of the Big Sioux: Brookings aquifer (Hedges et al., 1982, Stonesifer, 2013).

SOUTH DAKOTA CODIFIED LAW (SDCL) 46-2A-9

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

WATER AVAILABILITY

Water Permit Application No. 8556-3 proposes to appropriate water from the Big Sioux: Brookings aquifer. The probability of unappropriated water being available from an aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source..." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system as defined in SDCL 46-1-6(17) has applied for a permit, the Board need not consider the balance of recharge to and withdrawal from the aquifer. For this application, a water distribution system is not involved, and the aquifer is not older or lower than the Greenhorn Formation, therefore the balance of recharge and withdrawal must be considered.

Hydrologic Budget**Recharge:**

Recharge to the Big Sioux: Brookings aquifer is primarily through infiltration of precipitation where the aquifer is exposed at the surface and infiltration from the Big Sioux River and other hydrologically-connected surface water sources when the level of water of the surface water source is higher than the water level in the underlying and adjacent aquifer (Kume, 1985). Table 1 contains several estimates for recharge rates to the Big Sioux aquifer from Hedges et al. (1985). Combining the lowest and highest recharge rates listed for the Big Sioux aquifer results in range from 2.7 to 6.5 in/yr. Applying this range over the 323,000 acre areal extent of the Big Sioux: Brookings aquifer estimated by Stonesifer (2013) results in an estimated average annual recharge range of 72,675 to 150,733 acre-feet/year (ac-ft/yr) for the Big Sioux: Brookings aquifer. An annual recharge value of 107,667 ac-ft/yr, for the Big Sioux: Brookings aquifer, is calculated when applying the Hedges et al. (1985) recharge value of 4.0 in/yr, specific to the Big Sioux: Brookings aquifer, to the areal extent of 323,000 acres as estimated by Stonesifer (2013).

Table 1. Recharge rates to Big Sioux aquifer (Hedges et al., 1985).

Analysis Method	Inches/year	Recharge ^a (ac-ft/yr)	Comments
Base Flow recession	6.5	174,958	Average of all management units in Basin
Observation well	2.7 - 5.6	72,675 – 150,733	Range of all management units of the Big Sioux aquifer
Observation well	4.0	107,667	Value specific to Big Sioux: Brookings
a - determined from Big Sioux: Brookings areal extent of 323,000 acres from Stonesifer (2013)			

Discharge:

Discharge from the Big Sioux: Brookings aquifer occurs through evapotranspiration, outflow to hydraulically connected surface water, and well withdrawals (Kume, 1985). Currently, there are 270 water rights/permits (46 non-irrigation, 213 irrigation, and 11 Future Use) appropriating water from the Big Sioux: Brookings aquifer (Water Rights, 2021a). The total estimated volume of water to be withdrawn can be determined by assuming that water rights/permits limited by an annual volume will pump the entire appropriated volume annually or that water rights/permits not limited by annual volume will pump at the maximum permitted diversion rate 60 percent of the time. A summary of the 46 non-irrigation water rights/permits are listed in Table 2. (Water Rights, 2021a). Several municipal use permits (Water Right Nos. 534A-3, 617-3, 3117-3, 4950-3, and 5071-3) are held by municipalities that are connected to a rural water system and are maintained for standby purposes (Drinking Water, 2021). For the purpose of the hydrologic budget, the average annual water use for these water rights is assumed to be 0 ac-ft/yr and will be included in the number of water rights/permits for municipal use in Table 2.

Table 2. Non-irrigation permits with estimated annual volume usage (Water Rights, 2021a).

Use ^a	No. of Water Rights/Permits	Permitted Diversion rate (cfs)	Permitted Annual Volume (ac-ft/yr)	Expected Annual Use (ac-ft/yr)
MUN	16	5.19	1,914	4,169
IND	2	0.24	N/A	106
RWS	16	7.56	4,037	7,321
COM	9	3.24	N/A	1,405
SHD	2	0.07	N/A	30
GEO	1	0.00	120	120
Total:	46	16.30	6,071	13,151

a - MUN: Municipal; IND: Industrial; RWS: Rural Water System; COM: Commercial; SHD: Suburban Housing Development; GEO: Geothermal

Discharge from the Big Sioux: Brookings aquifer also occurs through irrigation use with actual pumpage from the aquifer reported to the DANR-Water Rights Program through annual irrigation questionnaires. Currently, there are 213 irrigation water rights/permits in the Big Sioux: Brookings aquifer (Water Rights, 2021a). Figure 2 shows the historical annual appropriated acres compared to the actual reported pumpage (Water Rights, 1979 – 2020). For the entire period of record, the average annual reported pumping for the Big Sioux: Brookings aquifer is approximately 8,685 ac-ft/yr (Water Rights, 1979-2020). With the number of irrigation water rights/permits continuing to increase over the last decade, the historical average of estimated average annual withdrawal rate for irrigation appropriations may not accurately reflect the current level of development. An average annual withdrawal rate of approximately 9,331 ac-ft/yr was determined to better reflect the level of irrigation development in the Big Sioux: Brookings aquifer from 2009 - 2020. Table 3 contains both the historical (1979 – 2020) average of annual withdrawal rate and the approximate withdrawal rate to show the increase (2009 – 2020) in appropriation of the aquifer (Water Rights, 1979 - 2020). Additionally, two irrigation permits have been recently authorized (Nos. 8531-3 and 8537-3) with a combined authorized acreage of 382 acres. Assuming 12 inches of water is applied per permitted acre, that is an average of 382 ac-ft/yr. This amount will be added to the value of 9,331 ac-ft/yr, for a total of 9,713 ac-ft/yr, to be included in the water balance for irrigation permits.

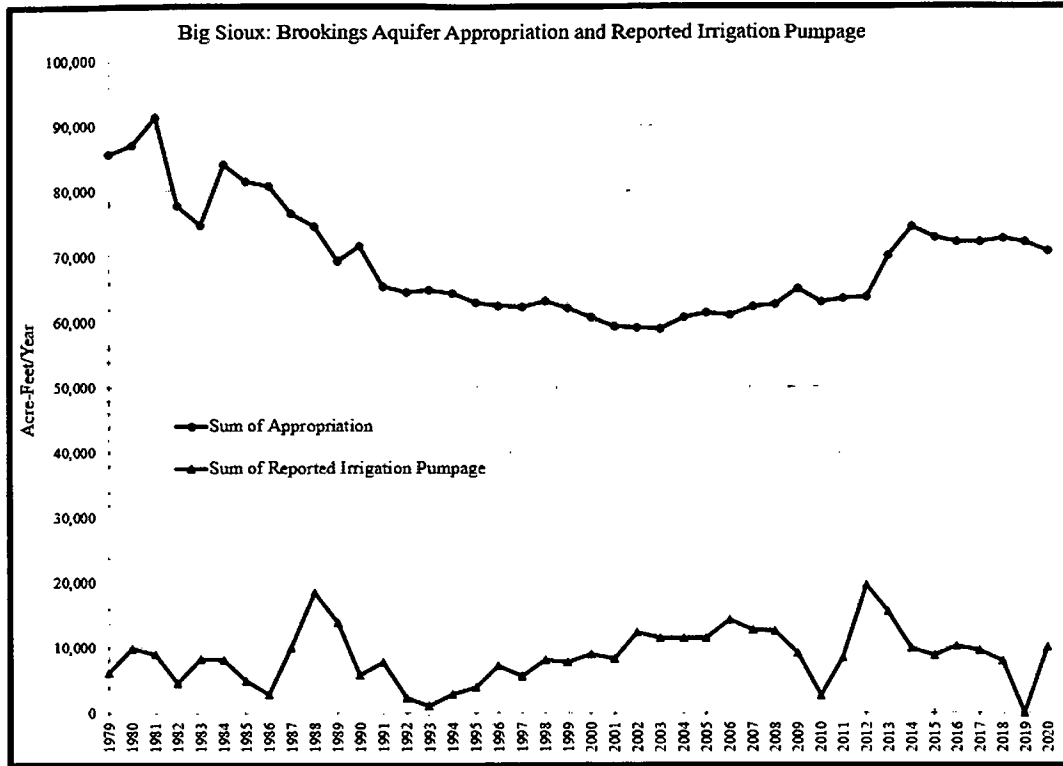


Figure 2. Comparison of appropriation to reported irrigation pumpage for the Big Sioux: Brookings aquifer (Water Rights, 1979-2020).

Table 3: Reported historic irrigation use from the Big Sioux: Brookings aquifer (Water Rights, 1979 - 2020).

Year	No. of Water Rights/Permits	Reported Pumpage (ac-ft/yr)	Year	No. of Water Rights/Permits	Reported Pumpage (ac-ft/yr)
1979	184	6,144	2002	149	12,411
1980	187	9,837	2003	149	11,380
1981	197	9,040	2004	156	11,380
1982	155	4,552	2005	159	11,513
1983	161	8,227	2006	161	14,325
1984	188	8,178	2007	164	12,730
1985	181	4,951	2008	166	12,506
1986	179	2,855	2009	174	9,173
1987	171	10,015	2010	172	2,713
1988	167	18,521	2011	174	8,528
1989	166	13,931	2012	177	19,483
1990	175	5,863	2013	198	15,432
1991	165	7,772	2014	212	9,948
1992	162	2,332	2015	209	8,796
1993	162	1,043	2016	210	10,267
1994	160	2,855	2017	209	9,572
1995	161	3,862	2018	211	7,953
1996	154	7,221	2019	211	106
1997	153	5,650	2020	209	10,001
1998	157	8,110	Avg	174	8,675
1999	155	7,841	Max	212	19,483
2000	153	8,934	Min	149	106
2001	149	8,385	AVG 2009-2020	197	9,331

There are eleven future use permits appropriating water from the Big Sioux: Brookings aquifer in Brookings and Hamlin Counties. There are five municipal future use permits held by the City of Castlewood (558A-3), the City of Lake Norden (4055-3 & 6261-3), and the City of Volga (5875-3 & 6259-3). There are six rural water supply future use permits held by Joint Well Field Incorporation (3982-3, 3982A-3, 3982B-3, and 6988-3) and the Sioux Rural Water System (5094-2 & 7853-3). These permits have a combined reservation of 6,686 ac-ft/yr of water.

There are numerous domestic wells on file with the Water Rights Program within the Big Sioux: Brookings aquifer (Water Rights 2021b). Domestic users are not required to report their annual water usage and, with their low diversion rates, are not considered a significant portion of the hydrologic budget. Additionally, some domestic wells may no longer be in use after transitioning to getting water from one of the rural water systems in the area.

Water Balance:

The estimated average annual withdrawal rate from the entire Big Sioux: Brookings aquifer is 29,550 ac-ft/yr (non-irrigation: 13,151; irrigation: 9,713; future use: 6,686). The estimated annual recharge for the Big Sioux: Brookings aquifer is 107,667 ac-ft/yr. The expected use of 120 ac-ft/yr (irrigating 120 acres with an application rate of 1 foot per acre) by this application does not result in an exceedance of the minimum recharge rate compared to the annual withdrawal for the Big Sioux: Brookings. Therefore, there is reasonable probability unappropriated water is available for this application.

Observation Well Data

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

The DANR-Water Rights Program monitors 77 observation wells completed into the Big Sioux: Brookings aquifer (Water Rights, 2021c). Figures 3 through 5 are hydrographs for the observation wells within 3.5 miles to the proposed application. 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. They are representative of the hydrographs for the other observation wells completed into the Big Sioux: Brookings aquifer. The hydrographs show the water level of the aquifer is stable over the period of record. They indicate that the aquifer responds well to climatic conditions with rising water levels during wet periods and declining water levels during drier periods. They also demonstrate that any drawdowns from pumping are temporary because the water levels typically recover to pre-pumping levels after the irrigation season. This recovery indicates that climatic conditions (the natural effects of recharge to and discharge from the aquifer) govern the long-term fluctuations of the water level rather than the impacts of pumping from the Big Sioux: Brookings aquifer. Recognizing that recharge to and natural discharge from the aquifer can be captured for pumping, there is a reasonable probability that unappropriated water available in this aquifer.

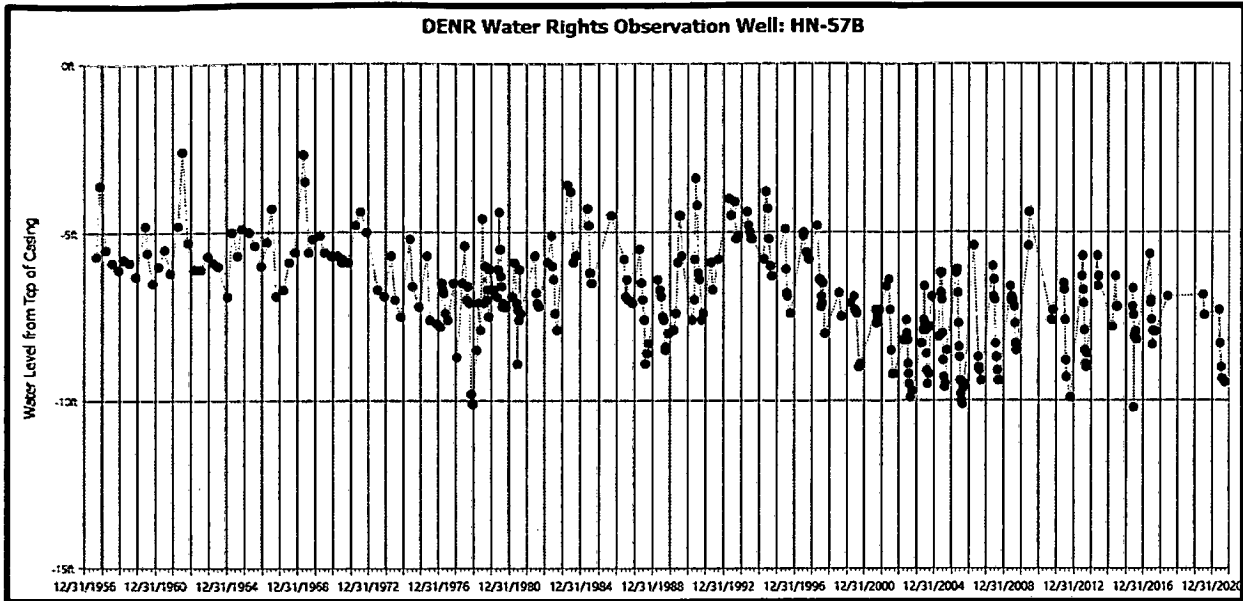


Figure 3. Hydrograph for observation well HN-57B. It is approximately 0.6 miles north of the proposed well location for Water Permit Application No. 8556-3 (Water Rights, 2021c).

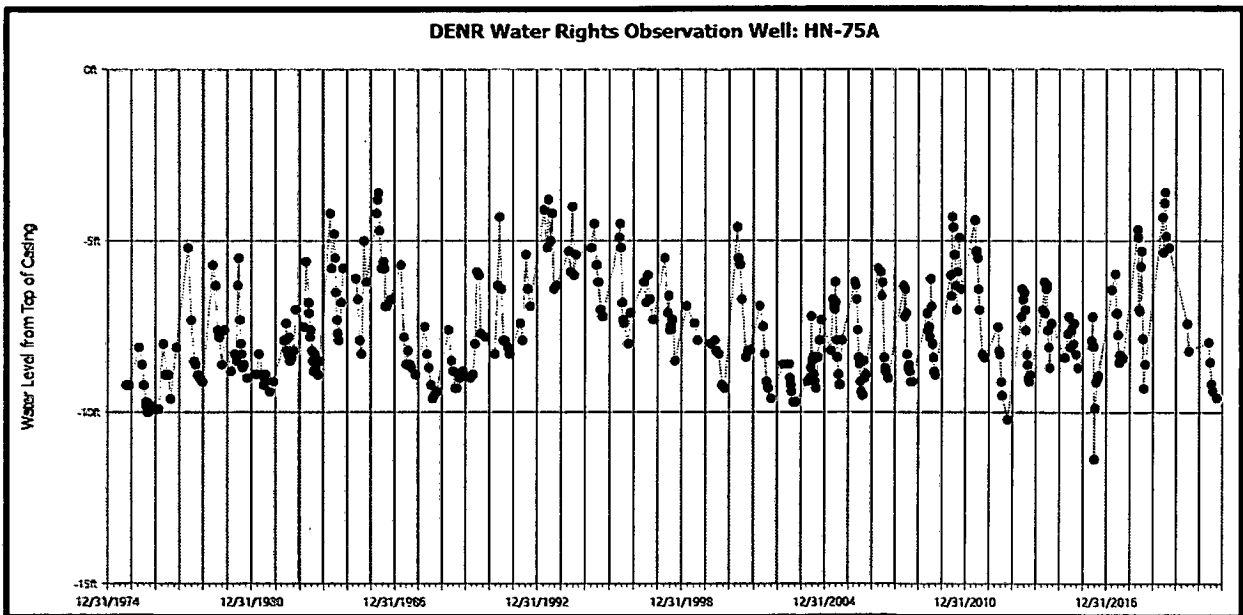


Figure 4. Hydrograph for observation well HN-75A. It is approximately 3.3 miles southeast of the proposed well location for Water Permit Application No. 8556-3 (Water Rights, 2021c).

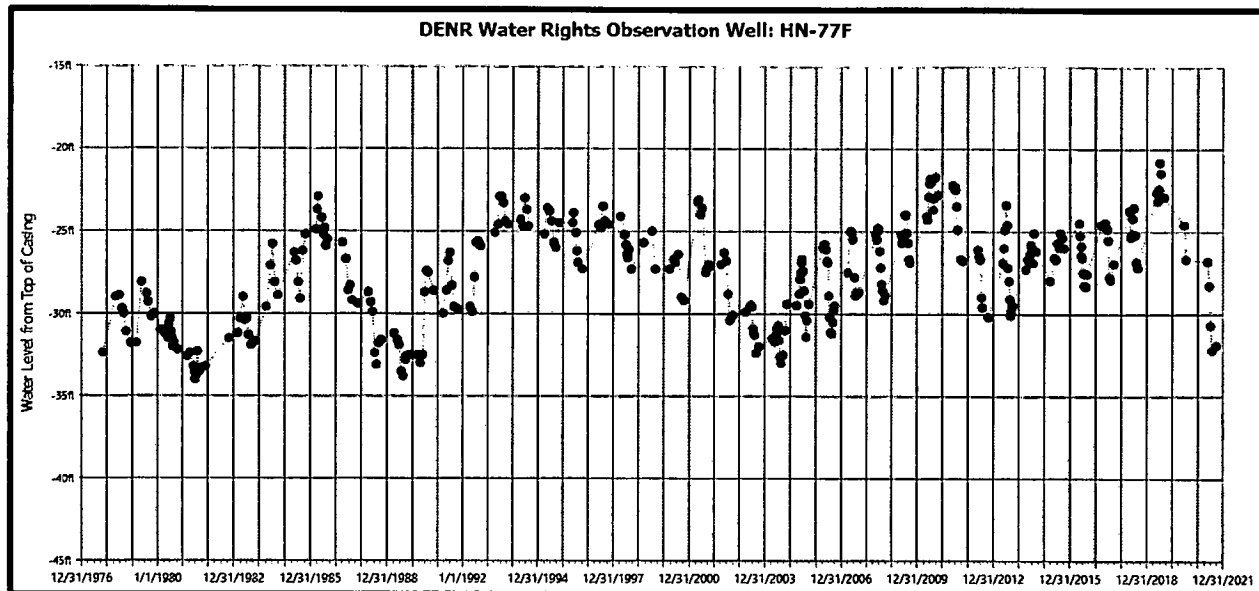


Figure 5. Hydrograph for observation well HN-77F. It is approximately 3.2 miles northeast of the proposed well location for Water Permit Application No. 8556-3 (Water Rights, 2021c).

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS

Currently, there are 270 water rights/permits (46 non-irrigation, 213 irrigation, and 11 Future Use) appropriating water from the Big Sioux: Brookings aquifer (Water Rights, 2021a). The closest water right is Water Right No. 2528-3, an irrigation permit held by Ronald Jongeling, approximately 0.7 miles northwest of the proposed well location. The closest water right/permit, not held by someone with the same last name as the applicant, is Water Right No. 7160-3, an irrigation use maintained by Mark Rust, and located is 1.5 miles to the southeast of this application. Table 4 lists the water rights/permits shown in Figure 6 located within 2 miles of the proposed well location.

There are numerous domestic wells on file with the DANR-Water Rights Program with the closest being approximately 0.5 miles north of the proposed well site (Water Rights 2021b). There are also several domestic wells within approximately one mile of the well site proposed by this application that appear to be completed into the Big Sioux: Brookings aquifer (Water Rights, 2021b). Additionally, there may be domestic wells completed into the Big Sioux: Brookings aquifer that are not on file with the DANR-Water Rights Program. Nevertheless, when considering that drawdown from pumping in an unconfined aquifer does not extend far beyond the pumping well, domestic users with adequate wells are not anticipated to be adversely impacted by the pumping proposed for this application.

To protect domestic well 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”.

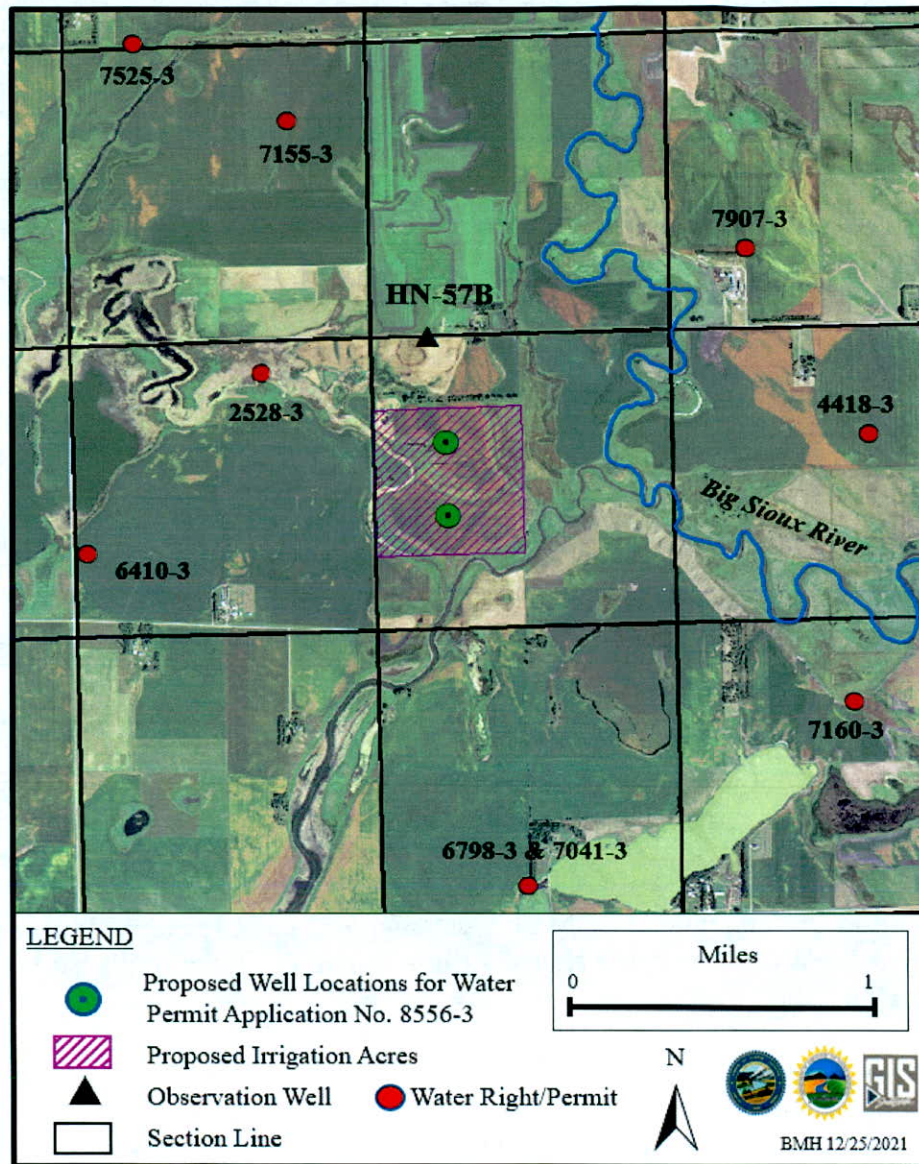


Figure 6. Existing Big Sioux: Brookings aquifer water rights/permits in the vicinity of Water Permit Application No. 8556-3 (Water Rights 2021a, Water Rights 2021c).

Table 4. Water rights/permits shown in Figure 5 (Water Rights, 2021a).

Permit Number	Name	Rate (cfs)	Acres	Use ^a	Status ^a	County ^a
2528-3	RONALD JONGELING	1.11	125	IRR	LC	HM
4418-3	RONALD JONGELING	1.33	134			
6410-3	RONALD JONGELING	1.78	132			
6798-3	RONALD JONGELING	1.78	132			
7041-3	TODD JONGELING	0.00	100			
7155-3	RON OR TODD JONGELING	2.22	224			
7160-3	MARK RUST	1.22	80			
7525-3	BRAD JONGELING	1.54	108			
7907-3	RONALD JONGELING	0.00	0			

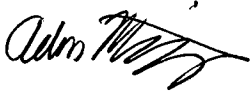
a - IRR: Irrigation; LC: Licensed Water Right; HM: Hamlin County

3. There is a reasonable probability the diversion proposed by this application can be made without unlawfully impairing existing appropriative or domestic users with adequate wells.



Blaise Hansen
SD DANR – Water Rights Program

Reviewed By:



Adam Mathiowetz
SD DANR-Water Rights Program

REFERENCES:

- Drinking Water. (2021). *Drinking Water System Information*. SD DANR – Drinking Water Program Online Database. Accessed 12/02/2021. <<https://denr.sd.gov/des/dw/sysinfo.aspx>>.
- Hamilton, L. J. (1989). *Water Resources of Brookings and Kingsbury Counties, South Dakota: Water-Resources Investigation Report 88-4185*. USGS, Huron, South Dakota: U.S. Geological Survey.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. (1982). *Evaluation of Ground-water Resources in 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*. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Kume J. (1985). *Water Resources of Deuel and Hamlin Counties, South Dakota; Water-Resources Investigations Report 84-4069* SDGS, Huron, South Dakota.
- Stonesifer, J. R. (2013). *Report to the Chief Engineer Water Permit Application No. 7854-3: David Ulverstad*. Pierre, South Dakota: SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

There is a complaint, from 1976, from a domestic well owner alleging that irrigation activity was lowering the water level in their well (Water Rights, 2021d). An investigation of observation well data, conducted by DANR staff, concluded that the low water table was a result of seasonal fluctuation rather than pumping from irrigation. DANR staff also recommended maintenance to unplug the well of sand and silt that may have collected in the well or clogged well screen. The complainant also noted that they had to lower their pump to obtain the same water they were accustomed to and that they were going to hook up to a rural water system. No additional dialog is present in the DANR files regarding this issue.

Within approximately two miles of the diversion point for this application, the Big Sioux: Brookings aquifer has saturated aquifer thickness ranging from approximately 6 to 40 feet, with an average of 23 feet. The depth to the top of aquifer material ranges from the land surface to 20 feet below land surface, with an average of 10 feet. The static water level below the land surface (at the time of well completion) varies from 2 feet to 19 feet, with an average depth of 9 feet (Water Rights, 2021a and 2021b). This would allow for adequate saturated thickness for a pump to be placed 20 feet below the top of the aquifer in most situations; which fulfills the requirements for an adequate well as defined in ARSD 74:02:04:20(6). However, the Big Sioux: Brookings aquifer is a relatively thin aquifer in some locations which will only provide a limited amount of water in storage in those areas. While the average annual withdrawal does not exceed the average annual recharge to the aquifer, conditions may occur when withdrawal exceeds recharge. When this occurs, water will be removed from storage reducing the saturated thickness of the aquifer. If the saturated thickness is reduced to the extent that water rights/permits or domestic wells can no longer pump at their developed or "historically established" diversion rates, this may be considered an adverse impact. If approved, the water permit should include a qualification that the well owner should control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

When considering that drawdown from pumping does not extend far from the pumping well in an unconfined aquifer, an average of 23 feet of saturated thickness for the aquifer in this area, the hydrographs of nearby observation wells not showing detrimental impact of pumping, and the lack of substantiated well interference complaints due to pumping, there is reasonable probability that the proposed diversion can be developed without unlawfully impairing existing appropriative or domestic water users with adequate wells.

CONCLUSIONS:

1. Water Permit Application No. 8556-3 proposes to appropriate water at a maximum instantaneous diversion rate of 1.33 cubic feet per second (cfs) of water from two wells, both approximately 25 feet-deep, to be completed into the Big Sioux: Brookings aquifer. The wells will be located in the N $\frac{1}{2}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 6 for the irrigation of 120 acres located in the N $\frac{1}{2}$ SW $\frac{1}{4}$ and the S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 6; all in T113N-R51W.
2. Based on the hydrologic budget for the Big Sioux: Brookings aquifer, there is reasonable probability unappropriated water is available for this proposed water use.

Water Rights. (1979-2020). *Irrigation Questionnaires*. SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights. (2021a). *Water Right/Permit Files*. SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights. (2021b). *Well Completion Reports*. SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights. (2021c). *Observation Well Files*. SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

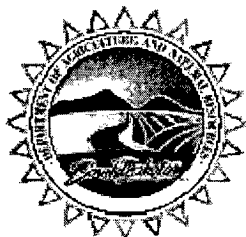
Water Rights. (2021d). *Hamlin County Files*. SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 1:53 PM
To: Brad & Shelly Jongeling
Subject: Water Permit Application No. 8556-3
Attachments: 2389.pdf

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

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



LOCALiQ

Aberdeen News
Watertown Public Opinion

PO Box 630567 Cincinnati, OH 45263-0567

PROOF OF PUBLICATION

Karen Schlaak
Bradley Jongeling
18995 461st AVE
Estelline SD 57234-5701

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:

01/12/2022

and that the fees charged are legal.
Sworn to and subscribed before on 01/12/2022

RECEIVED

JAN 25 2022

WATER RIGHTS
PROGRAM

Danish Roberts
Legal Clerk

Kathleen Allen
Notary, State of WI, County of Brown

My commission expires

Publication Cost: \$47.84

Order No: 6744411

of Copies:

Customer No: 659557

1

PO #: App # 8556-3

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

KATHLEEN ALLEN
Notary Public
State of Wisconsin

NOTICE OF
APPLICATION NO. 8556-3
to Appropriate Water

Notice is given that Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from two wells to be completed into the Big Sioux:Brookings Aquifer (approximately 25 feet deep) located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 6 for irrigation of 120 acres located in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 6; all in T113N-R51W. This site is located approximately 6 miles northwest of Estelline SD. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8556-3 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 January 24, 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 January 24, 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 \$47.84.
Jan. 12, 2022 #6744411

RECEIVED

JAN 18 2022

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County of Hamlin) SSI, Lee Anne Dufek

certify that the attached printed Notice was taken

from the The HamlinCounty Herald Enterpriseprinted and published in HaytiCounty of Hamlin and

state of South Dakota. The notice was published

in the newspaper on the following date:

Jan. 12, 2022Cost of Printing \$ 39.29Lee Anne Dufek
(Signature)Owner
(Title)1-12-2022
(Date Signed)NOTICE OF APPLICATION NO.
8556-3 TO APPROPRIATE WATER

Notice is given that Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from two wells to be completed into the Big Sioux-Brookings Aquifer (approximately 25 feet deep) located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 6 for irrigation of 120 acres located in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 6; all in T113N-R51W. This site is located approximately 6 miles northwest of Estelline SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8556-3 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 oppos-

ing 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 January 24, 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 January 24, 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 Jan. 12, 2022, at total cost of \$39.29.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 12:47 PM
To: Watertown Public Opinon (legals@thepublicopinion.com)
Subject: 8556-3, Bradley Jongeling
Attachments: 8556-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on January 12, 2022.

Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 (605 881-3432) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak

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



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 12:45 PM
To: Hamlin County Publishing (hcp@itctel.com)
Subject: 8556-3, Bradley Jongeling
Attachments: 8556-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on January 12, 2022 in the Hamlin County Herald Enterprise.

Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 (605 881-3432) has been notified to contact you to authorize publication and arrange for payment.

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Karen Schlaak

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





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

January 5, 2022

Bradley Jongeling
18995 461st Ave
Estelline SD 57234

Dear Mr. Jongeling:

Water Permit Application No. 8556-3 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 Hamlin County Herald Enterprise printed at Hayti (Ph # 605 783-3636) and the Public Opinion printed at Watertown (Ph # 605 886-6901). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

enclosures

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

NOTICE OF APPLICATION NO. 8556-3 to Appropriate Water

Notice is given that Bradley Jongeling, 18995 461st Ave, Estelline SD 57234 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from two wells to be completed into the Big Sioux:Brookings Aquifer (approximately 25 feet deep) located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 6 for irrigation of 120 acres located in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 6; all in T113N-R51W. This site is located approximately 6 miles northwest of Estelline SD.

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Published once at the total approximate cost of _

February 24, 2022

PAYMENT REQUEST FORM

PAYEE: Bradley Jongeling
18995 461st Ave
Estelline SD 57234

FROM: DANR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Over Payment of Water Permit Application

AMOUNT: \$100.00

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION: *Eric Lundberg* 2/28/2022

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct.
I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAR 01 2022

Bradley Jongeling
18995 461st Ave
Estelline SD 57234

Dear Mr. Jongeling:

Enclosed is Water Permit No. 8556-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

An application/license filing fee of \$1,050.00 was submitted with the application. The correct fee for this permit is \$950.00. \$100.00 will be refunded to you. The refund check should be received within the next couple of weeks.

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

8556-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

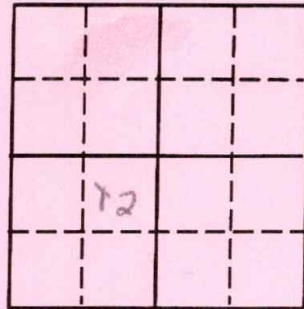
11-02

Location NE 1/4 SW 1/4 Sec 6 Twp 113-N Rg 5W

County

Hamlin

North

Please mark well
location with an "X"

Well completion Date

11-19-21

1 Mile

Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? 3/4 mile ft. from house - septic tank (identify source)

PROPOSED USE:

- ☐ Domestic/Stock
☐ Irrigation
☐ Municipal
☐ Industrial
☐ Business
☐ Institutional
☐ Test Holes
☐ Monitoring

METHOD OF DRILLING:

Bucket - Fake casing

CASING DATA:

- ☐ Steel
☒ Plastic
☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>25 LB/FT</u>	<u>15 IN</u>	<u>+2 FT</u>	<u>18 1/2 FT</u>	<u>20 IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bestonite</u>	<u>6</u>	<u>Lb/gal</u>	<u>0 FT</u>	<u>4 FT</u>
		Lb/gal	FT	FT

Describe grouting procedure

SCREEN:

- ☐ Perforated pipe
☒ Manufactured

Diameter 15 Inches Length 6 1/2 FeetMaterial PVCSlot Size .080 Set From 18 1/2 Feet to 25 Feet

Other information

WAS A PACKER OR SEAL USED?

- ☐ Yes
☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

- ☒ Yes, How?

- ☐ No, Why Not?

Lab sample sent to for
water quality analysis200

Well Owner:

Brad Tinseling

Business Name:

Address:

18945 41st Ave.

City, State, Zip:

Est Line, SD 0201 57234

WELL LOG:

DEPTH

FORMATION

FROM

TO

<u>Topsoil</u>	<u>0</u>	<u>2</u>
<u>Clay, sand</u>	<u>2</u>	<u>3</u>
<u>Brown Gravel</u>	<u>3</u>	<u>12</u>
<u>Coarse Gray Gravel</u>	<u>12</u>	<u>25</u>

STATIC WATER LEVEL

5'

FEET

If flowing: closed in pressure

PSI

GPM flow through inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:Artificially☐ Bailed☐ Other

Pumping Level Below Land Surface

15' Ft. After 2 Hrs. pumped 120 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate:

GPM

REMARKS

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm:

Lacey Well Drilling & Pumping

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

1-20-22

RECEIVED

OCT 24 2022

OFFICE OF
WATER

Please return WHITE COPY to: DENR Water Rights

523 E Capitol Ave. Pierre SD 57501

8556-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

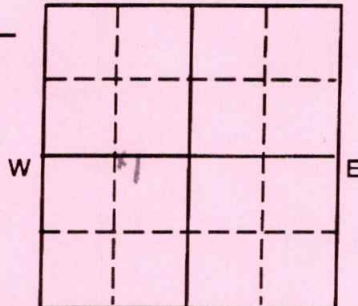
11-02

Location NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 6 Twp 113-N Rg 57-W

County Hamlin

North

Please mark well location with an "X"



Well completion Date

11-19-21

Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? 3/4 mile ft. from house-sewer system (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket false casing

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>25</u> LB/FT	<u>15"</u> IN	<u>+2</u> FT	<u>19 1/2</u> FT	<u>20</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bestgrade</u>	<u>6</u>	Lb/gal	<u>0</u> Ft	<u>8</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 15" Inches Length 6 1/2 Feet

Material PVC

Slot Size .080 Set From 19 1/2 Feet to 26 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How?

☐ No, Why Not?

Lab sample sent to for water quality analysis

2/14

Well Owner:

Brad Jongeling

Business Name:

Address:

18495 461st Ave.

City, State, Zip:

Estelline, S.D. 57234

WELL LOG:

DEPTH

FORMATION

FROM

TO

Black Topsoil

0

1

Clay Sand

1

2

Brown Sand

2

8

Medium Sand

8

14

Gravel

14

26

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow

through

Inch pipe

Controlled by

☐ Valve

☐ Reducers

☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped

Describe:

Air developed

☐ Bailed

☐ Other

Pumping Level Below Land Surface

16 1/2'

Ft. After

2

Hrs. pumped

400

GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

This well was drilled under license #

111

And this report is true and accurate.

Drilling firm:

Lacey Well Drilling Co.

Signature of License Representative:

Jean Reddaway

RECEIVED

OCT 24 2022

Signature of Well Owner or Equitable Property Holder:

signed by Bradley Jongeling

OFFICE OF WATER

Date:

1-20-22

Please return **WHITE COPY** to: **DENR Water Rights**

523 E Capitol Ave. Pierre SD 57501