

WATER PERMIT NO. 8196-3

Name of Applicant: **Red Willow Hutterian Brethren Inc.**

Address: **20019 474th Ave, White SD 57276** Phone: **605 350-5771**

Amount of Water Claimed: **3.56 cfs** Total Acres: **275 acres**

Source of Water Supply: **up to 4 wells**

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

Type of Waste Disposal System:

Location: **2 miles east of White**

PRIORITY Date Received: **1-19-16** Application/License Fee: **\$ 1250**

Corrected Application Received: **1-28-16** Period of Annual Use: **May 1 – September 30**

Remarks:

Diversion Point: **approximate centers of the NW
1/4 and NE 1/4, SE 1/4 NW 1/4, SE 1/4 NE 1/4 Sec
10-T111N-R49W**

Land to be Irrigated: **N 1/2 Sec 10-T111N-R49W**

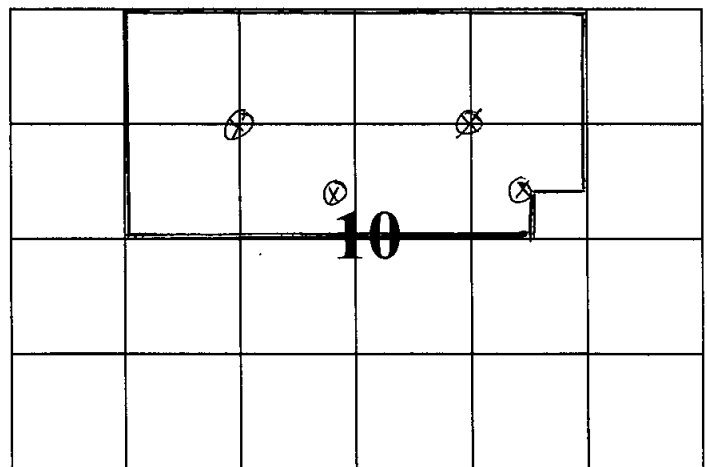
Depth of Well: **35 – 40 feet deep**

Well Driller:

Remarks:

Type of Map: **aerial**

Prepared by:



Reviewed and the Number Assigned on: **1-29-16**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

SD EForm - 0499LD V4

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8196-3</u> (office use only)	Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register</u>	
	<u>605-692-6271</u>	

RECEIVED

JAN 19 2016

WATER RIGHTS
PROGRAM

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

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent Red Willow Hutterian Brethren Inc
(name and complete address if different than above name)

Mailing Address 20019 474th Ave White SD 57216
(Address) (City) (State) (Zip Code)

Home Phone _____ Cell 905-350-5771 Email _____

2. Amount of water claimed 3.56 *CFS or 1600 **GPM 275.4 ***AF Total Acreage 275.4
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Wells 4

4. Location of point of diversion center of both gts 2 well each gt one center west
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
two center East of those 2400ft W 500ft south #4 1000ft E 600 S County Brookings

5. County or counties where water will be used Brookings

6. Annual period during which water is to be used May 1 thru September 30

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

Land Description	Acres	Land Description	Acres
NW 1/4 of the NW 1/4 T111N R49 W Sec 10	38	NE 1/4 of the NE 1/4 T111 R49 Sec 10	38
SW 1/4 of the NW 1/4 T111N R49 W Sec 10	32	SE 1/4 of the NE 1/4 T111 R49 Sec 10	21
SE 1/4 of the NW 1/4 T111N R49 W Sec 10	32	NW 1/4 of the NE 1/4 T111 R49 Sec 10	38
NE 1/4 of the NW 1/4 T111N R49 W Sec 10	38	SW 1/4 of the NE 1/4 T111 R49 Sec 10	38

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

I, Red Willow Colony Joe Grosz Pres., the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 8196-3

Date of first receipt of application January 19, 2016.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8196-3 to Red Willow Hutterian Brethren Inc., c/o Joe Grosz, 20019 474th Ave, White SD 57276 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. 8196-3 appropriates 3.56 cubic feet of water per second from up to four wells to be completed into the Unnamed Creek Management Unit of the Big Sioux Aquifer (35-40 feet deep) located in the center of the NW 1/4 and NE 1/4, SE 1/4 NW 1/4, SE 1/4 NE 1/4 Section 10 for irrigation of 275 acres located in the N 1/2 Section 10; all in T111N-R49W.
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 – September 30.
3. The date from which applicant may claim right is January 19, 2016.
4. The date of approval of Permit No. 8196-3 is April 11, 2016.
5. One-fifth of the construction is to be completed on or before October 11, 2018.
6. All construction is to be completed on or before April 11, 2021.
7. Water is to be put to beneficial use on or before April 11, 2025.
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 this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. 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. 8196-3 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: *Jeanne Goodman*

Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 29 2016

date



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 4 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

c) Well Depth 35-40 ft Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others _____

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

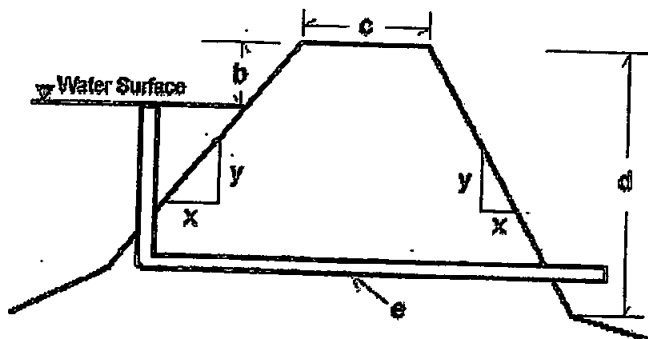
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



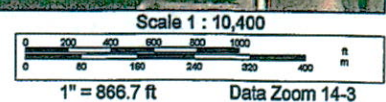


PPLS:10_111N_49W

Data use subject to license.

© DeLorme. XMap® 7.

www.delorme.com



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/19, 20 16

Red RECEIVED OF Red Willow Hutterian Brethren 20019 474th Ave White SD 57276

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

Fee for Application for Permit No. <u>8196-3</u> to Appropriate Water, to construct and to put water to beneficial use	950	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8196-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1150 00

No. 07667

By James Rodman
Chief Engineer

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/19, 20 16

RECEIVED OF Farmers Implement 3023 Hwy 14 Brookings SD 57006

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

Fee for Application for Permit No. <u>8196-3</u> to Appropriate Water, to construct and to put water to beneficial use	100	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	100 00

No. 07666

By J. Arne Goodman Jr
Chief Engineer



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 27, 2016 1:44 PM
To: daveg@farmersii.com
Subject: Application for Red Willow Hutterian Brethren
Attachments: Red Willow.pdf

Dave,

As stated in our phone call. Please resubmit the application completing the following:

Item No. 3 - proposed number of wells

Item No. 4 – proposed location of wells

Item No. 1 C (on second page) – proposed well depths

Mark the proposed well locations on the map.

The application needs to be signed by an officer of Red Willow Hutterian Brethren Inc. (see the attached list)

Here is the web site to download the irrigation application forms.

<http://denr.sd.gov/des/wr/app/E0499LDV5-IRRIG.pdf>

Let me know if you have questions.

Karen Schlaak

Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352

Schlaak, Karen

From: Duvall, Ron
Sent: Thursday, January 28, 2016 4:51 PM
To: Schlaak, Karen; Gronlund, Eric
Cc: Smith, Kim (DENR)
Subject: FW: Atten: Karen Schlaak
Attachments: doc_08122920160128165458.pdf

*replaced
1st app.*

Karen, to your attention...

NOTE: When replying to this email do NOT click the person's [\[mailto:myname@email.com\]](mailto:myname@email.com) address since this may result in your reply being undeliverable. Either copy and paste just the email address (e.g. myname@email.com) or type just the address into your reply message.

From: Emily Voelker [\[mailto:emilyv@farmersii.com\]](mailto:emilyv@farmersii.com)
Sent: Thursday, January 28, 2016 4:48 PM
To: DENR INTERNET INFORMATION
Subject: Atten: Karen Schlaak

Good afternoon Karen!

Dave Gullickson with Farmers Implement and Irrigation asked me to send you the attached document for Red Willow Colony's application for irrigation.

Please let me know if there is anything else that I can assist with!

Emily

Emily Voelker
(605) 692-6153



Entity Detail File Annual Report Statement of Change Forms

Name **RED WILLOW HUTTERIAN BRETHREN, INC.** [Obtain a Certificate of Good Standing](#)
 Corporate ID **NS010796**
 Incorporation/Qualification Date **6/9/1997**

Home State **SOUTH DAKOTA**
 Status **Good Standing**
 Last Annual Report **2015**
 Corporation Type **Domestic Nonprofit**
 Stock Info **MEMBERS**

Registered Agent Documents Officers

Year	Director	Officer Type	First	Middle	Last	Address	City	State	Zip	Country
2015	☒	President	JERRY		WALDNER	40361 200TH STREET	HURON	SD	57350	
2015	☒	Vice President	PHILIP		WALDNER	40361 200TH STREET	HURON	SD	57350	
2015	☒	Secretary	NATHANIEL		GROSZ	40361 200TH STREET	HURON	SD	57350	
2015	☒	Treasurer	NATHANIEL		GROSZ	40361 200TH STREET	HURON	SD	57350	
2015	☐	Director	DALE		WALDNER	40361 200TH STREET	HURON	SD	57350	
2015	☐	Director	RILEY		WALDNER	40361 200TH STREET	HURON	SD	57350	

Water Rights Program - File Documentation

NAME: Dave Gullickson

ADDRESS: Farmers Implement

DATE: 1-28-19 **COUNTY:** BG **TELEPHONE:** 605 690-9013

RE: Red Willow Hutterian Brethren Inc., White SD

COMMENTS:

Dave Gullickson stated helped Joe Grosz with Red Willow Hutterian Brethren, Inc. complete their application.

Upon review of the Secretary of State Corporation web site, Joe Grosz who signed this application is not listed as on officer of the Red Willow Hutterian Brethren, Inc. with the Huron SD address.

Mr. Gullickson stated Joe Grosz has indicated to him that he is the President of Red Willow Hutterian Brethren, Inc. located at 20019 474th Ave, White SD 57276. The colony located at the White SD address is not the same at the Huron SD address. Mr. Grosz has indicated they will be getting the records with the Secretary of State correctly filed.



Karen Schlaak
Water Rights Program



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8196-3, Red Willow Hutterian Brethren, Inc.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8196-3, Red Willow Hutterian Brethren, Inc., c/o Joe Grosz, 20019 474th Avenue, White SD 57276.

The Chief Engineer is recommending APPROVAL of Application No. 8196-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. 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. 8196-3 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.

Jeanne Goodman, Chief Engineer
March 21, 2016

Report to the Chief Engineer
Water Permit Application No. 8196-3
Red Willow Hutterian Brethren
February 8, 2016

Water Permit Application No. 8196-3 proposes to appropriate water from the Unnamed Creek management unit of the Big Sioux aquifer at a maximum diversion rate of 3.56 cubic feet per second (cfs). The water would be used for the proposed irrigation of 275 acres located in the N ½ Section 10 in T111N-R49W in Brookings County. The application proposes to divert water from four wells 35 to 40 feet deep located in the center of NW ¼ and NE ¼, SE ¼ NW ¼, SE ¼ NE ¼ Section 10 all in T111N-R49W in Brookings County.

Aquifer: Unnamed Creek management unit of the Big Sioux aquifer (BS:UC)

Aquifer Characteristics and Hydrogeology

The Big Sioux aquifer is a shallow, glacial aquifer that underlays the Big Sioux River Valley and many of its tributaries (Koch, 1980). It is made up of very permeable, well-sorted glacial outwash sand (mostly medium to very coarse) and gravel (mostly very fine to medium) that overlies a relatively impermeable glacial till (Hamilton, 1989 and Koch, 1980). Near the Big Sioux River and major tributaries, the aquifer is under unconfined conditions; elsewhere it can underlie glacial till and be under confined conditions (Hamilton, 1989).

Based on the geographic location and proposed well depths, this application proposes to appropriate water from the Unnamed Creek management unit of the Big Sioux aquifer. The management unit is located in north central part of Brookings County and underlies portions of the drainage area of an unnamed tributary to the Big Sioux River (Hedges et al., 1982). Groundwater in the management unit moves southwest toward the Big Sioux River (Hamilton, 1989). Thickness of the aquifer ranges from less than 10 feet to in excess of 50 feet in some locations (Mathiowetz, 2013). The management unit is under unconfined conditions in the vicinity of the proposed well location for this application (SDGS, 2016 and Water Rights, 2016c).

The area of the Unnamed Creek management unit (as mapped by Hedges et al. (1982)) is approximated at 5,800 acres with an estimated 13,050 acre-feet of recoverable water. Hedges et al. (1982) also makes note of several areas in Brookings County where additional groundwater could be potentially located that were not included in the report's estimated aquifer areas due to data limitations. One of these areas is located adjacent to the area mapped by Hedges et al. (1982) as the Unnamed Creek management area. Hamilton (1989) and additional drilling confirms the presence of groundwater resources in that area (Water Rights, 2016c). As additional development has occurred in this area, water rights/permits wells have been assigned to the Unnamed Creek management unit based on extending the management unit of Hedges et al. (1982) to the upgradient areas. This is also the case for the Six Mile Creek management unit of

the Big Sioux aquifer located to the south of the Unnamed Creek aquifer. In the case of these two management areas, based on available data there appears to be an area in the extension of the two management units where they are hydraulically connected (SDGS, 2016; Hamilton, 1989; Hedges et al., 1982 and Schulz, 2004). This is shown in Figure 1. Additionally from Figure 1 it can be noted that this application is in the vicinity of the hydraulic connection between the two management unit areas. In considering the management units of other water rights in the vicinity, Water Right No. 7523-3 is located about 0.4 miles north of the nearest proposed diversion point for this application and is identified as appropriating water from the Unnamed Creek Management unit of the Big Sioux aquifer.

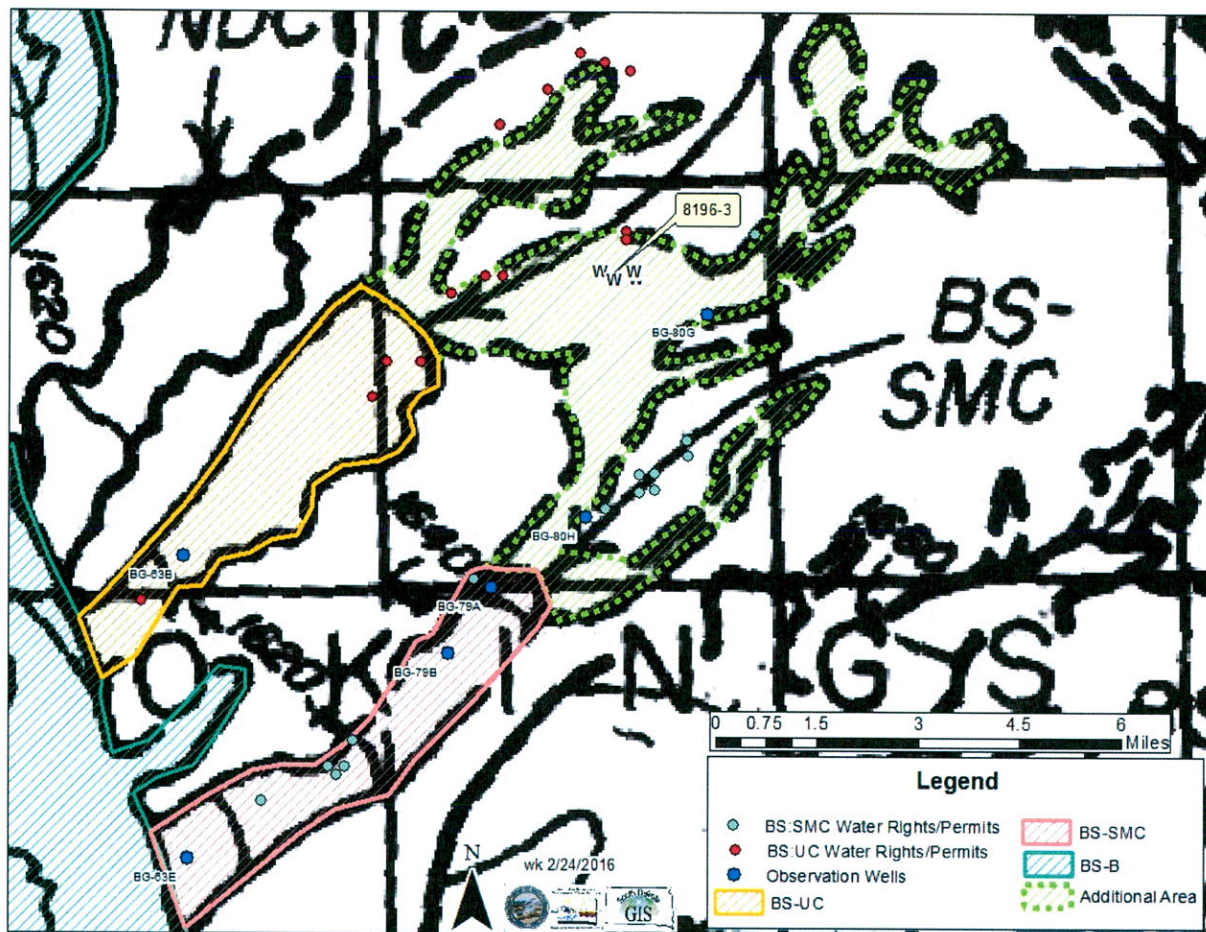


Figure 1: Unnamed Creek (UC) and Six Mile Creek (SMC) Management units as mapped by Hedges et al., 1982 and the additional area where surficial aquifers could be located. Additionally the extension of both management unit into this area based on the management units assigned to water right/permits is indicated by showing the diversion points for water rights/permits currently authorized to appropriate water from the management units (Water Rights, 2016a; Water Rights, 2016b and modified from Hedges et al., 1982)

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

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and existing rights from the aquifer that are pertinent to this application.

Water Availability

Water Permit Application No. 8196-3 proposes to appropriate water from the Unnamed Creek management unit of the Big Sioux aquifer for the purpose of irrigation. The probability of unappropriated water 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 has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a water distribution system is not involved and the Unnamed Creek management unit of the Big Sioux aquifer is not older or lower than the Greenhorn Formation, therefore the withdrawal/recharge issue must be considered.

Hydraulic Budget*Recharge*

Recharge to the aquifer occurs primarily during the spring from infiltration of snowmelt and precipitation (Hamilton, 1989). In Hedges, et al. (1985) recharge rates for the management units of the Big Sioux aquifer were estimated to range from 2.7 to 6.9 inches per year based on observation well analysis, base flow recession analysis, and computer model analysis. Hedges, et al. (1985) further addresses the Unnamed Creek management unit by estimating its recharge range as being toward the high end of 2 to 5.6 inches per year based on observation well analysis performed on data from unconfined aquifers in eastern South Dakota. Koch (1980) estimated recharge rates to the Big Sioux aquifer in Brookings, Deuel, and Hamlin counties at 6.57 inches per year in the water table portion of the aquifer and 3.29 inches per year in the confined portion of the aquifer via modeling. In considering these ranges, the range for the management units of the Big Sioux aquifer is likely more reflective of the geohydrologic conditions present in the Big Sioux: Unnamed Creek. Therefore the recharge rate of 2.7 to 6.9 inches per year will be used in the examination of the hydraulic budget for Unnamed Creek management unit. Utilizing the estimated area of 5,800 acres by Hedges, et al. (1982) for the Unnamed Creek management unit the average yearly recharge is estimated to be between 1,305 acre-feet per year and 3,335 acre-feet per year. However, since this management has been extended from the area mapped by

Hedges, et al. (1982) the recharge to the management unit could be greater than the estimated range.

Withdrawals

Withdrawals from the aquifer include evapotranspiration, seepage to surface water, pumping, and groundwater outflow to the Brookings management unit of the Big Sioux aquifer (Hamilton, 1989 and Hedges et al., 1982). Withdrawals from domestic wells are not considered a significant portion of the hydraulic budget for the Big Sioux: Unnamed Creek due to their relatively low diversion rates and the development of rural water in the area. There are currently 11 water rights/permits appropriating water from the Unnamed Creek management unit all of which are for irrigation use.

The irrigation appropriations and reported irrigation pumpage by year for the management unit over the period of record is shown in Figure 2. Between 1990 and 2012 irrigation appropriation in the aquifer was relatively steady; average reported irrigation for this time period was 350 acre-feet per year. An examination of the water rights in this management unit for this time period indicate that this usage is from the same eight water rights and can be considered reflective of the average annual withdrawals of those water rights. In recent years several new permits have been issued for the management unit. Aquifers in the eastern portion of the state, for which the application rate per irrigated acre has been quantified, have yielded application rates of less than ten inches per acre. This rate can be utilized to estimate withdrawals for the newer permits/rights (reporting irrigation use since 2013) in the management unit. Applying this rate to the acres authorized by newer water permits/rights (322 acres) in the management unit results in an estimated average annual withdrawal of less than 268 acre-feet per year. Combining this with the average reported pumpage of the eight older water rights, results in an estimated average annual appropriative withdrawal from the management unit of 618 acre-feet per year.

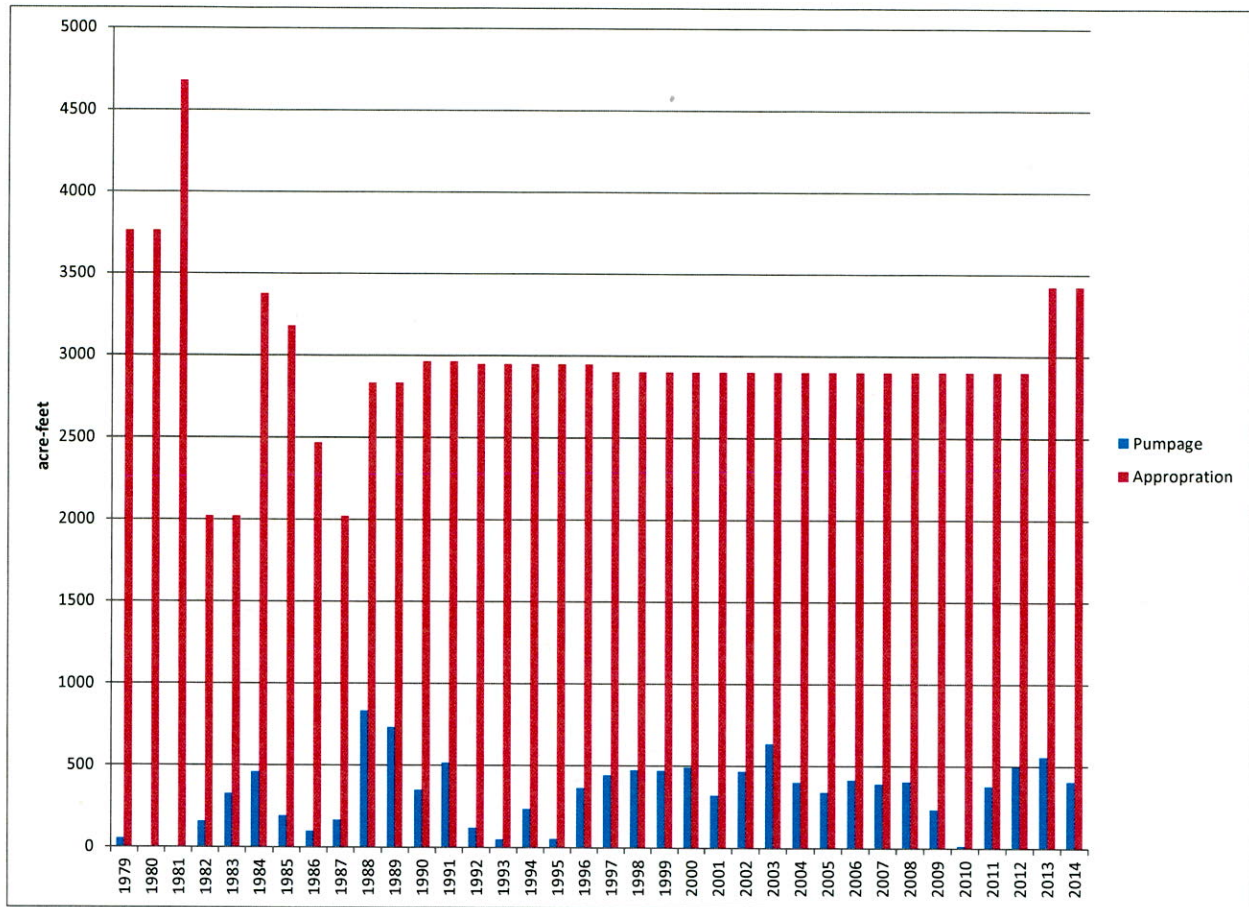


Figure 2: Irrigation appropriations and reported irrigation pumpage and for the Unnamed Creek management unit over the period of record (Water Rights, 1980-2015)

Balance

The estimated average annual appropriative withdrawal from the management unit is 618 acre-feet per year. The application, if approved, is likely to use less than 230 acre-feet per year. The estimated average annual recharge for the management unit is estimated to be between 1,305 acre-feet per year and 3,335 acre-feet per year. The estimated average annual appropriative withdrawal for the management unit is less than even the bottom end of the range of estimated average annual recharge; therefore there is a reasonable probability that unappropriated water is available within the management unit.

Observation Wells

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on the record of observation well measurements, in addition to other data, to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated annual recharge.

The Water Rights Program currently monitors one observation in the Unnamed Creek management unit of the Big Sioux aquifer. This is observation well BG-63B which is located approximately 7.5 miles to the southwest of the proposed well location for this application. The

hydrograph for this well is shown in Figure 3, and the location is shown in Figure 1. However since the proposed well location for this application area is near where the areas of the Unnamed Creek and Six Mile Creek management units appear to be hydraulically connected, the nearby observation well BG-80G (located about 1.3 miles to the southeast and shown in Figure 1) that is monitoring the Six Mile Creek management unit can be considered indicative of aquifer conditions in the area of the proposed well locations for this application. The hydrograph for this observation well is shown in Figure 4.

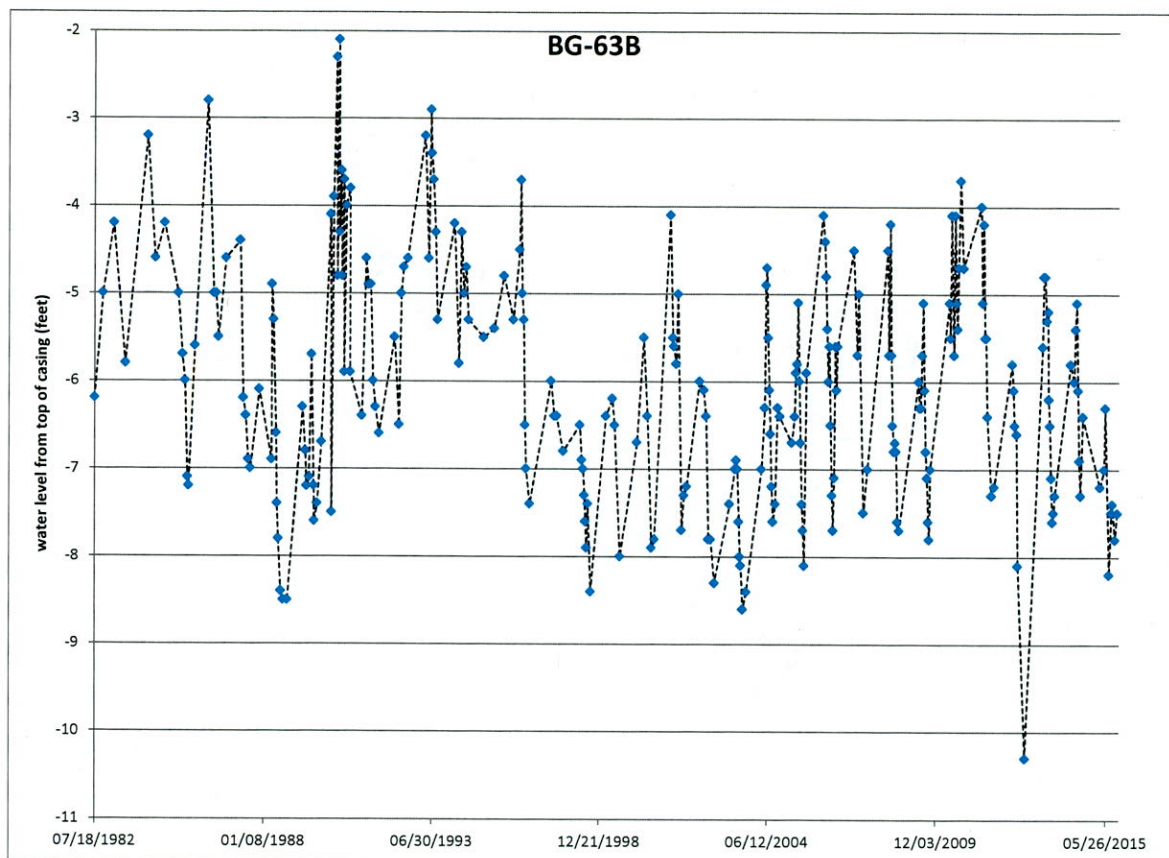


Figure 3: Observation Wells Hydrograph BG-63B (Water Rights, 2016a)

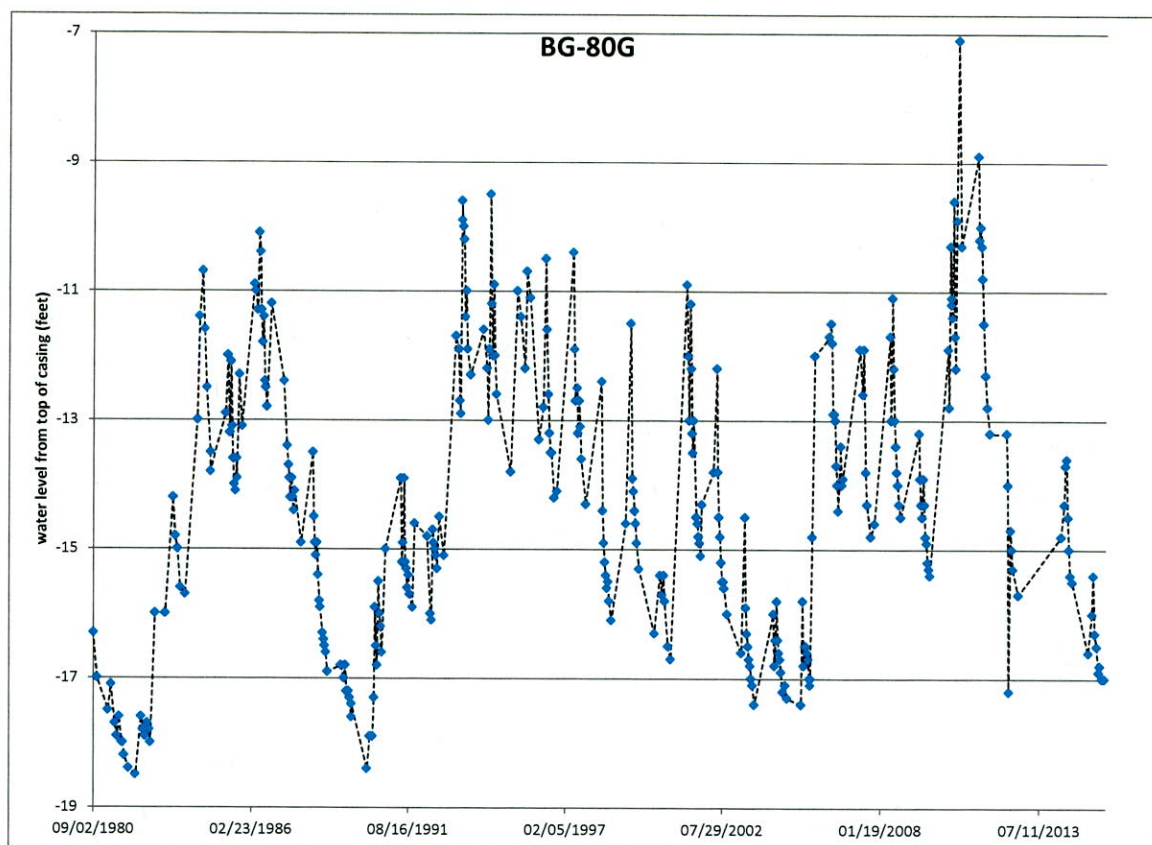


Figure 4: Observation Well Hydrograph BG-80G (Water Rights, 2016a)

Both these hydrographs indicate that the management unit responds well to climatic conditions. The observation well hydrographs in this management unit show little to no effects of pumping. This indicates that natural conditions dominate within the management unit. Therefore, there is a reasonable probability that unappropriated water is available for capture within the management unit.

Existing Rights

The approximate diversion points for water rights/permits appropriating water from the Big Sioux aquifer in the area of the proposed well for this application are shown in Figure 5. The nearest water right to the proposed well location for this application is Water Right No. 7523-3 (Shown in Figure 5). The nearest diversion point for Water Right No. 7523-3 is located about 0.4 miles north of the nearest proposed diversion point for this application.

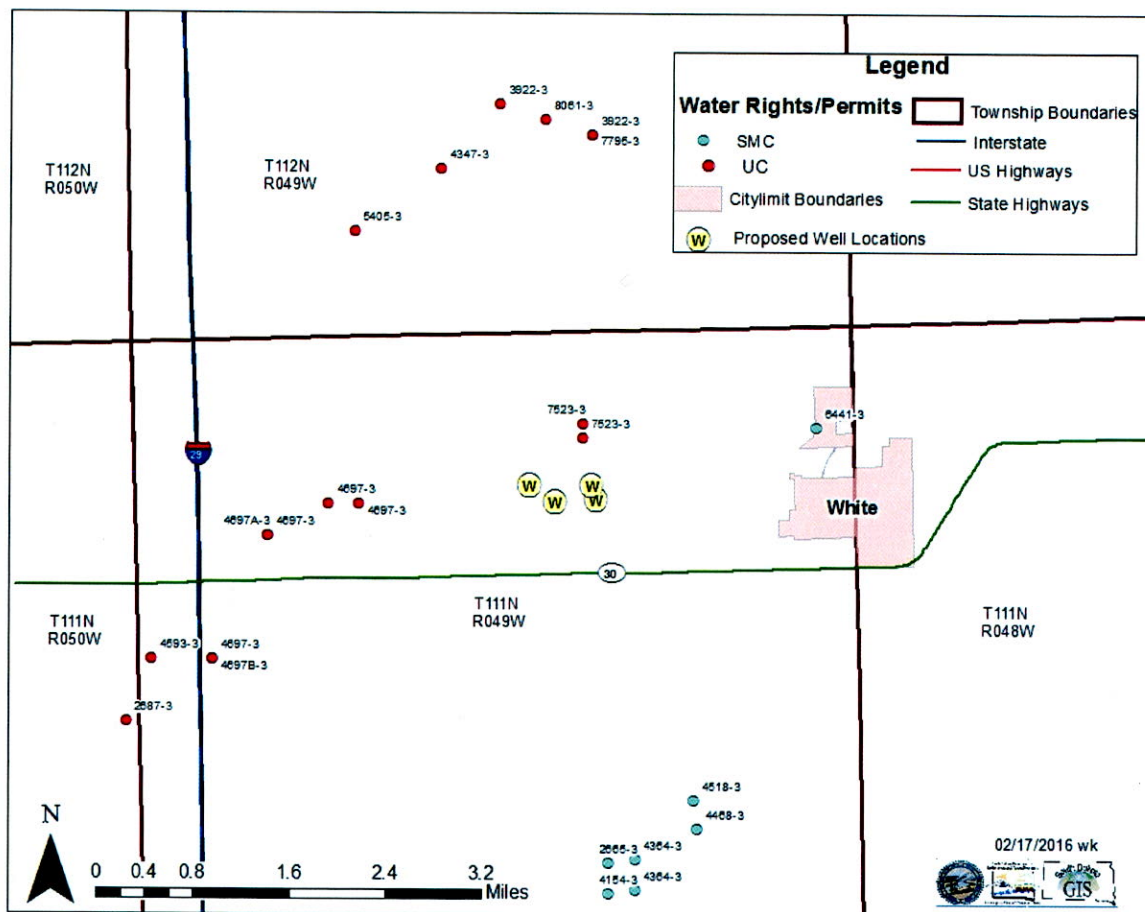


Figure 5: Diversion points for water rights/permits currently authorized to appropriate water from the Unnamed Creek (UC) and Six Mile Creek (SMC) management units of the Big Sioux aquifer (Water Rights, 2016b)

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under unconfined conditions drawdown due to pumping would not typically be significant far from the well site. Additionally Hamilton (1989) notes that, “Effects of withdrawals from wells that tap the Big Sioux aquifer generally are small because of extensive recharge and unconfined conditions. Drawdown of water levels is temporary and a few feet at most at distances of about a mile from large-capacity wells.” Therefore, nearby adequate wells are not expected to be adversely impacted by this application, if approved. Additionally since the applicant is proposing four wells any drawdown as a result of pumping would first affect the proposed wells of this application before affecting the wells of any existing water rights/permits.

The Unnamed Creek management unit is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when the withdrawal exceeds recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the aquifer. If the saturated thickness is reduced to the extent that the water rights/permits can no

longer pump at their developed or "historically established" rates, this may be considered an adverse impact.

Conclusions

1. Water Permit Application No. 8196-3 proposes to appropriate water from the Unnamed Creek management unit of the Big Sioux aquifer at a maximum diversion rate of 3.56 cfs for the proposed irrigation of 275 acres located in the N ½ Section 10 in T111N-R49W in Brookings County from four wells 35 to 40 feet deep located in the center of NW ¼ and NE ¼, SE ¼ NW ¼, SE ¼ NE ¼ Section 10 all in T111N-R49W in Brookings County.
2. There is a reasonable probability that unappropriated water is available in the management unit.
3. There is a reasonable probability this application will not adversely impact existing water rights/permits.



Whitney Kilts

SDDENR-Water Rights Program

Approved by



Ken Buhler

SDDENR-Water Rights Program

References

- Hamilton, L. 1989. Water Resources of Brookings and Kingsbury Counties, South Dakota. USGS, Huron, SD.
- Hedges, L.S., Burch, S. L., Iles, D. L., Barari, R. A., and Schoon, R. A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 3: Ground-Water Storage. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J. and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 7: Ground-Water Recharge. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Koch, N. C. 1980. Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel and Hamlin Counties, South Dakota. USGS, Huron, SD.
- Mathiowetz, A. 2013. Water Permit No. 7795-3. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Schulz, L. D. 2004. First Occurrence of Aquifer Materials in Brookings County, South Dakota. Aquifer Materials Map 19. South Dakota Geologic Survey, Vermillion, SD.
- SD Geological Survey. 2016. Lithological Logs Database, SD DENR-Geological Survey Program, Vermillion, SD.
- Water Rights. 1980-2015. "1979-2014 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2016a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2016b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2016c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Affidavit of Publication

10/

State of South Dakota

ss

County of Brookings

Katherine Foiles of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

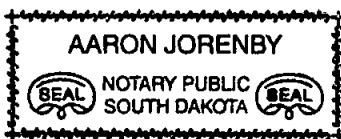
Leg#632 Application 8196-3 to Appropriate Water

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

March 30 2016

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

Twenty-Five Dollars and Sixty Cents \$25.60



1 day of

April

2016

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires February 22, 2020.

RECEIVED

APR - 6 2016

WATER RIGHTS
PROGRAM

Legal 632, 1x, 3/30
NOTICE OF APPLICA-
TION NO. 8196-3 to

Appropriate Water
Notice is given that Red Willow Hutterian Brethren Inc., c/o Joe Grosz, 20019 474th Ave, White SD 57276 has filed an application for a water permit to appropriate 3.56 cubic feet of water per second from up to four wells to be completed into the Unnamed Creek Management Unit of the Big Sioux Aquifer (35-40 feet deep) located in the center of the NW 1/4 and NE 1/4, SE 1/4 NW 1/4, SE 1/4 NE 1/4 Section 10 for irrigation of 275 acres located in the N 1/2 Section 10; all in T111N-R49W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of

Application No. 8196-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 11, 2016.

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

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$25.60.

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, March 22, 2016 8:35 AM
To: registerclassifieds (registerclassifieds@brookingsregister.com)
Subject: No. 8196-3, Red Willow Hutterian Brethren
Attachments: 8196-3publicnov2015.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on March 30, 2016.

Red Willow Hutterian Brethren, Inc. c/o Joe Grosz, 20019 474th Ave, White SD 57276 (605 350-5771) 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.

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

Karen Schlaak

Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.**

March 22, 2016

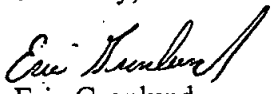
Red Willow Hutterian Brethren Inc
Joe Grosz
20019 474th Ave
White SD 57276

Dear Mr. Grosz:

Water Permit Application No. 8196-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) 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(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

cc: Dave Gullikson, Farmer's Implement, PO Box 29, Brookings SD 57006

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. 8196-3 to Appropriate Water

Notice is given that Red Willow Hutterian Brethren Inc., c/o Joe Grosz, 20019 474th Ave, White SD 57276 has filed an application for a water permit to appropriate 3.56 cubic feet of water per second from up to four wells to be completed into the Unnamed Creek Management Unit of the Big Sioux Aquifer (35-40 feet deep) located in the center of the NW 1/4 and NE 1/4, SE 1/4 NW 1/4, SE 1/4 NE 1/4 Section 10 for irrigation of 275 acres located in the N 1/2 Section 10; all in T111N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8196-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 11, 2016.

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

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

APR 29 2016

Red Willow Hutterian Brethren Inc
Joe Grosz
20019 474th Ave
White SD 57276

Dear Mr. Grosz:

Enclosed is Water Permit No. 8196-3 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.

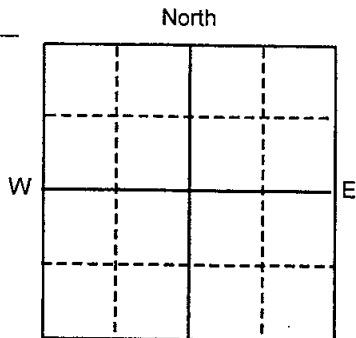
Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 NE 1/4 Sec 10 Twp 111N Rg 49WCounty BrookingsPlease mark well
location with an "X"

Well Completion Date

May 3, 2016Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
75.0 ft. from septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

If other describe ☐ Steel ☒ Plastic ☐ Other

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	27.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	12	Lb/gal	0.0 Ft	27.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ ManufacturedDiameter 12.00 Inches Length 20.0 FeetMaterial Stainless steelSlot Size .070 Set From 27.0 Feet to 47.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinated☐ No, Why Not?Lab to which water
quality sample sent for analysis

n/a

Well Owner: Red Willow Farms

Business Name:

Address: 20019 474th AveCity, State, Zip: White SD 57276

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Gravel	2	47
Gray clay	47	60

STATIC WATER LEVEL 25.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After 8.0 Hrs. pumped 200.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 44 26.268

W 96 41.493

Well #1

BIG SIOUX: UNNAMED CREEK 1/2This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Jerald Walden

Date:

RECEIVED

SEP 12 2016

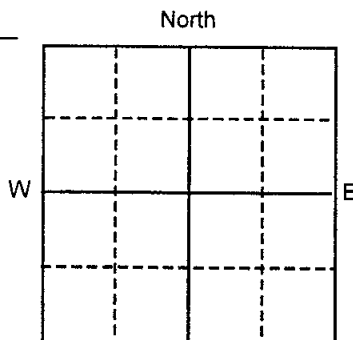
WATER RIGHTS
PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ NE ¼ Sec 10 Twp 111N Rg 49W

County Brookings

Please mark well
location with an "X"

Well Completion Date

May 5, 2016

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	24.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	8	Lb/gal	0.0 Ft	22.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 20.0 Feet

Material Stainless steel

Slot Size .070 Set From 22.0 Feet to 42.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinatedLab to which water
quality sample sent for analysis

n/a

Well Owner: Red Willow Farms

Business Name:

Address: 20019 474th Ave

City, State, Zip: White SD 57276

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1
Brown silt	1	3
Gravel	3	18
Gravel & rocks	18	20
Gravel	20	43
Gray clay	43	43

STATIC WATER LEVEL 22.0 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

Ft. After 8.0 Hrs. pumped 194.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

GPS: N 44 26 185

W 96 41.304

Well #2

Big Book: UNNAMED CRANK KR

This well was drilled under license # 475 and this
report is true and accurate.

Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date

RECEIVED

SEP 12 2016

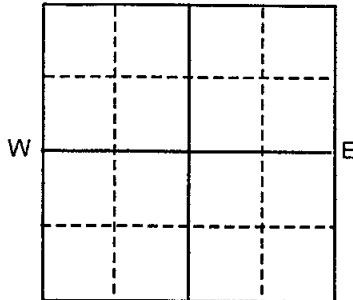
WATER RIGHTS
PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 NE 1/4 Sec 10 Twp 111N Rg 49WCounty Brookings

North

Please mark well
location with an "X"

Well Completion Date

May 18, 2016

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	30.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	8	Lb/gal	0.0 Ft	27.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ ManufacturedDiameter 12.00 Inches Length 10.0 FeetMaterial Stainless steelSlot Size .070 Set From 27.0 Feet to 37.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinated☐ No, Why Not?Lab to which water
quality sample sent for analysis

n/a

Well Owner: Red Willow Farms

Business Name:

Address: 20019 474th AveCity, State, Zip: White SD 57276

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1
Brown silt	1	3
Gravel	3	19
Rock	19	20
Gravel	20	22
Medium to coarse sand	22	24
Gravel	24	39
Gray clay	39	39

STATIC WATER LEVEL 25.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After 8.0 Hrs. pumped 200.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 44 26 12.34
W 96 41 28.14

Well #3

Big Sioux: Unnamed Creek 142This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Jamie L. Lohman

Date:

RECEIVED

SEP 12 2016

WATER RIGHTS
PROGRAM

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8196-3

I have this day, June 8, 2021, made a thorough examination of the water use system constructed by Red Willow Hutterian Brethren Inc, 20019 474th Ave, White, SD 57276 of Permit No. 8196-3, bearing the priority of January 28, 2016 authorizing the diversion of 3.56 cu. ft. per second of the waters of the Unnamed Creek Management Unit of the Big Sioux Aquifer for irrigation purposes, in Brookings County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Thein Well Co, Inc
- 2) No. of Wells 3
- 3) Depth(s) # 1 - 47; # 2 - 42; # 3 - 37 feet
- 4) Well logs are available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 27, 24, 30 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless steel
- 2) Length 20, 20, 10 feet
- 3) Static water level 25, 22, 25 feet

Pump:

- 1) Make NA
- 2) Model Submersible
- 3) Size NA
- 4) Capacity 3 @ 200 = 600 GPM

Motor: Unknown

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

3850 feet of buried pipe is used to supply the two (2) pivots from three (3) wells.

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make 2 - Valley
- 2) Overall length 1300 feet
- 3) Number of towers 7 & 8
- 4) End gun Y
- 5) Capacity 600 GPM

Chemigation Equipment: None

D. Compliance with Permit Requirements:

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

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **all from the E ¼ corner of Section 10, T111N, R49W; Well #1 - 1,320' N & 1,320' W, Latitude 44.43782, Longitude -96.69155; Well #2 - 915' N & 1,323' W, Latitude 44.43670, Longitude -96.69113; Well #3 - 810' S & 470' W, Latitude 44.43640, Longitude - 96.68831**
2. The works are capable of diverting and conveying to the place of use 1.33 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All land in Sec 10-T111N-R49W

NW1/4 NW 1/4 - 33 ac
NE 1/4 NW 1/4 - 33 ac
SE 1/4 NW 1/4 - 31 ac
SW 1/4 NW 1/4 - 32 ac

NW1/4 NE 1/4 - 33 ac
NE 1/4 NE 1/4 - 33 ac
SE 1/4 NE 1/4 - 20 ac
SW 1/4 NE 1/4 - 33 ac

comprising a total of 248 acres of land and the license should be issued for 1.33 cfs (combined capacity of all three wells)

3. All structures, wells and lands on map Y

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

Three (3) 200 gpm wells provide water to two (2) center pivots which operate one at a time.

The irrigated acreage was determined by using FSA maps and the ArcMAPS software.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: June 9, 2021

Well Locations

From the E quarter corner
of Sec 10 T111N-R49W

Well 1

1320 ft N & 1320 W

Lat 44.43782

Long -96.69155

Well 2

915 ft N & 1323 W

Lat 44.43670

Long -96.69113

Well 3

810 ft S & 470 W

Lat 44.43640

Long -96.68831

Irrigated Acres

All acres in Sec 10
T111N-R49W

NW1/4 SW1/4 -33 ac

NE1/4 SW1/4 -33 ac

SE1/4 SW1/4 -31 ac

SW1/4 SW1/4 -32 ac

NW1/4 SE1/4 -33 ac

NE1/4 SE1/4 -33 ac

SE1/4 SE1/4 -20 ac

SW1/4 SE1/4 -33 ac



0 0.125 0.25 0.5 0.75 1 Miles

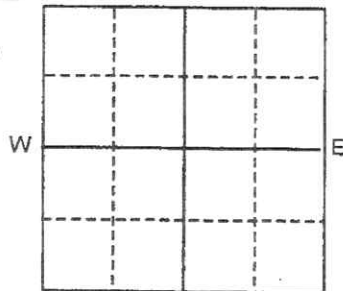
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ NE ¼ Sec 10 Twp 111N Rg 49W

County Brookings

North

Please mark well
location with an "X"

Well Completion Date

May 3, 2016

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	27.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	12	Lb/gal	0.0 Ft	27.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 20.0 Feet

Material Stainless steel

Slot Size .070 Set From 27.0 Feet to 47.0 Feet

Other information

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinated☐ No, Why Not?Lab to which water
quality sample sent for analysis

n/a

Well Owner: Red Willow Farms

Business Name:

Address: 20019 474th Ave

City, State, Zip: White SD 57276

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Gravel	2	47
Gray clay	47	60

STATIC WATER LEVEL 25.0 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

Ft. After 8.0 Hrs. pumped 200.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

GPS: N 44 26.268

W 96 41.493

Well #1

BIG SPOOK: UNNAMED CREEK 19

This well was drilled under license # 475 and this
report is true and accurate.

Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

RECEIVED

SEP 12 2016

Date:

WATER RIGHTS
PROGRAM

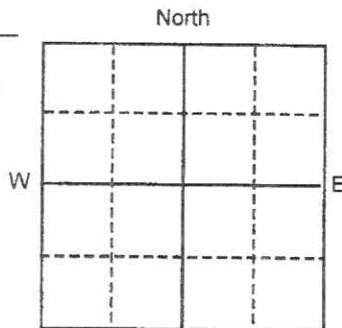
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 NE 1/4 Sec 10 Twp 111N Rg 49W

County Brookings

Please mark well location with an "X"



Well Completion Date

May 5, 2016

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	24.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	8	Lb/gal	0.0 Ft	22.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 20.0 Feet

Material Stainless steel

Slot Size .070 Set From 22.0 Feet to 42.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinated

Lab to which water ☐ No, Why Not?

quality sample sent for analysis

n/a

Well Owner: Red Willow Farms

Business Name:

Address: 20019 474th Ave

City, State, Zip: White SD 57276

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1
Brown silt	1	3
Gravel	3	18
Gravel & rocks	18	20
Gravel	20	43
Gray clay	43	43

STATIC WATER LEVEL 22.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After 8.0 Hrs. pumped 194.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 44 26 185

W 96 41.304

Well #2

Big Pool: UNNAMED CREEK

This well was drilled under license # 475 and this report is true and accurate.

Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date

RECEIVED

SEP 12 2016

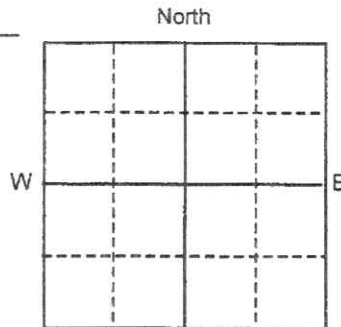
WATER RIGHTS PROGRAM

11-02

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location SE 1/4 NE 1/4 Sec 10 Twp 111N Rg 49WWell Owner: Red Willow Farms

Business Name:

Address: 20019 474th AveCity, State, Zip: White SD 57276County BrookingsPlease mark well
location with an "X"

Well Completion Date

May 18, 2016

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	30.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	8	Lb/gal	0.0 Ft	27.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12.00 Inches Length 10.0 FeetMaterial Stainless steelSlot Size .070 Set From 27.0 Feet to 37.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorinated
☐ No, Why Not?
Lab to which water
quality sample sent for analysis

n/a

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1
Brown silt	1	3
Gravel	3	19
Rock	19	20
Gravel	20	22
Medium to coarse sand	22	24
Gravel	24	39
Gray clay	39	39

STATIC WATER LEVEL 25.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After 8.0 Hrs. pumped 200.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 44 26 12.34

W 96 41 28.14

Well #3

Big Sioux: Unnamed Creek 142This well was drilled under license # 475 and this report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIVED

SEP 12 2016

WATER RIGHTS
PROGRAM



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JUN 28 2001

8196-3

Joe Grosz
Red Willow Hutterian Brethren Inc
20019 474th Ave
White SD 57276

Dear Mr. Grosz:

Enclosed is Water License No. 8196-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 8196-3

(1) Red Willow Hutterian Brethren Inc., 20019 474th Ave., White SD 57276 made Application No. 8196-3, January 19, 2016 for a water permit to divert 3.56 cubic feet of water per second from ground water, up to four wells (Unnamed Creek Management Unit of the Big Sioux Aquifer), Brookings County, South Dakota for irrigation purposes. Permit No. 8196-3, with a priority date of January 19, 2016 was approved April 11, 2016 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 11, 2021 and for the application to beneficial use of water on or before April 11, 2025.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 1.33 cubic feet of water per second for beneficial use.

Three wells were developed for irrigation and are located as follows:

- **Well #1** - 1,320' N & 1,320' W of the E $\frac{1}{4}$ corner of Section 10, T111N, R49W (center of NE $\frac{1}{4}$)
Latitude 44.43782, Longitude -96.69155
- **Well #2** - 915' N & 1,323' W of the E $\frac{1}{4}$ corner of Section 10, T111N, R49W (SE $\frac{1}{4}$ NE $\frac{1}{4}$)
Latitude 44.43670, Longitude -96.69113
- **Well #3** - 810' S & 470' W of the E $\frac{1}{4}$ corner of Section 10, T111N, R49W (SE $\frac{1}{4}$ NE $\frac{1}{4}$)
Latitude 44.43640, Longitude -96.68831

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 10, T111N, R49W			
NW $\frac{1}{4}$ NW $\frac{1}{4}$	33 acres	NW $\frac{1}{4}$ NE $\frac{1}{4}$	33 acres
NE $\frac{1}{4}$ NW $\frac{1}{4}$	33 acres	NE $\frac{1}{4}$ NE $\frac{1}{4}$	33 acres
SE $\frac{1}{4}$ NW $\frac{1}{4}$	31 acres	SE $\frac{1}{4}$ NE $\frac{1}{4}$	20 acres
SW $\frac{1}{4}$ NW $\frac{1}{4}$	32 acres	SW $\frac{1}{4}$ NE $\frac{1}{4}$	33 acres
Total 248 acres			

(4) Pursuant to South Dakota Water Law 46-5-30.1 Red Willow Hutterian Brethren Inc., 20019 474th Ave., White SD 57276 the holder and/or owner of Water Right No. 8196-3 is issued a license to appropriate water, the right to use 1.33 cubic feet of water per second from ground water (three wells) (Unnamed Creek Management Unit of the Big Sioux Aquifer) with a priority date of January 19, 2016 from the locations specified in (2) of this license for irrigation purposes.

continued

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8196-3 and subject to the following qualifications:

- The wells approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right 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.
- The wells authorized by Permit No. 8196-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the 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. *The three wells were drilled by Thein Well Co Inc. in May, 2016. Copies of the well completion reports are on file with the Water Rights Program.*
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

JUN 23 2021

date

