

**WATER PERMIT NO. 7589-3**

Name of Applicant: Denny Van Dyke

Address: 1831 Skyview Lane, Brookings SD 57006 Phone: 605 692-2740

Amount of Water Claimed: 1.78 cfs Total Acres: 300

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Brookings

Type of Waste Disposal System:

Location: 15 miles east of Brookings

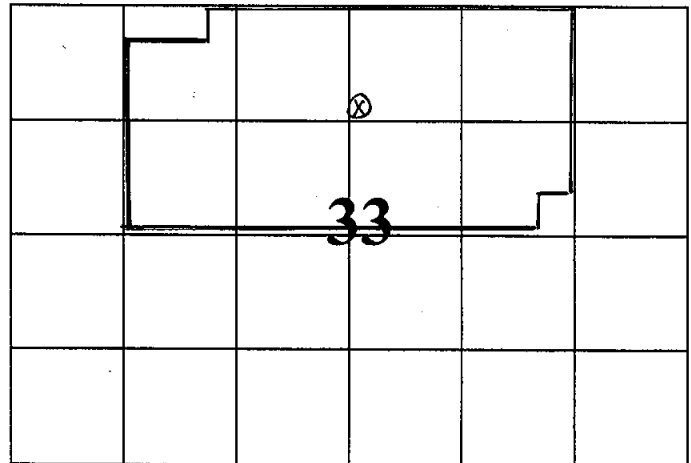
PRIORITY Date Received: 12-26-12 Application/License Fee: \$ 1250.00

Corrected Application Received: Period of Annual Use: May 1 – Sept 30

Remarks:

Diversion Point: NW 1/4 NE 1/4 Sec 33-T110N-R47W

Land to be Irrigated: N 1/2 Sec 33-T110N-R47W



Depth of Well: 214 feet deep

Well Driller: Kaiser Well Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-31-2012

By: Karen Schlaak

Notice of Hearing - date to intervene: \_\_\_\_\_

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

(office use only)  
No. 7589-3 Hydrologic Unit 10170202  
Basin Sioux River  
Newspaper Brookings Register  
PO Box 177  
Brookings 57006 605-692-6271

RECEIVED  
DEC 26 2012  
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 Denny Van Dyke  
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent (name and complete address if different than above name)

Mailing Address 1031 Sky View Lane Brookings SD 57006  
(Address) (City) (State) (Zip Code)

Home Phone 605-692-2740 Cell 605-695-1179 Email \_\_\_\_\_

2. Amount of water claimed 1.78 \*CFS or 800 \*\*GPM \*\*\*AF Total Acreage 300A  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*\*) Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply well

4. Location of point of diversion NW 1/4 of the NE 1/4 of Sect 33, T110N-  
R 47W County Brookings  
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

5. County or counties where water will be used Brookings

6. Annual period during which water is to be used May 1st to Sept 30

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

| Land Description                            | Acres     | Land Description                            | Acres     |
|---------------------------------------------|-----------|---------------------------------------------|-----------|
| <u>NW 1/4 of the NW 1/4 Sec 33 T110-R47</u> | <u>37</u> | <u>NE 1/4 of the NE 1/4 Sec 33 T110-R47</u> | <u>37</u> |
| <u>NE 1/4 of the NW 1/4 Sec 33 T110-R47</u> | <u>37</u> | <u>SE 1/4 of the NE 1/4 Sec 33 T110-R47</u> | <u>37</u> |
| <u>SE 1/4 of the NW 1/4 Sec 33 T110-R47</u> | <u>38</u> | <u>NW 1/4 of the NE 1/4 Sec 33 T110-R47</u> | <u>38</u> |
| <u>SW 1/4 of the NW 1/4 Sec 33 T110-R47</u> | <u>38</u> | <u>SE 1/4 of the NE 1/4 Sec 33 T110-R47</u> | <u>38</u> |

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

I, Denny Van Dyke, 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. 7589-3**

---

Date of first receipt of application December 26, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7589-3 to Denny VanDyke, 1831 Skyview Lane, Brookings SD 57006 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. 7589-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (214 feet deep) located in the NW 1/4 NE 1/4 Section 33 for irrigation of 300 acres located in the N 1/2 Section 33; all in T110N-R47W.
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 December 26, 2012.
4. The date of approval of Permit No. 7589-3 is March 11, 2013.
5. One-fifth of the construction is to be completed on or before September 11, 2015.
6. All construction is to be completed on or before March 11, 2018.
7. Water is to be put to beneficial use on or before March 11, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATIONS**

1. The well approved under 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 well authorized by Permit No. 7589-3 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, Chief Engineer  
Water Rights Program  
Department of Environment and Natural Resources

**APR 26 2013**

\_\_\_\_\_  
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 1 Have test holes been drilled ☒ Yes ☐ No Drilled by Kaiser Well Drilling  
(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 214 Depth to Top of Water Bearing Material 196 Depth to Water from Surface 2084  
to date

d) Distance to nearest existing domestic well:

On applicant's property X 1500 ft On property owned by others 2000 ft

### 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)

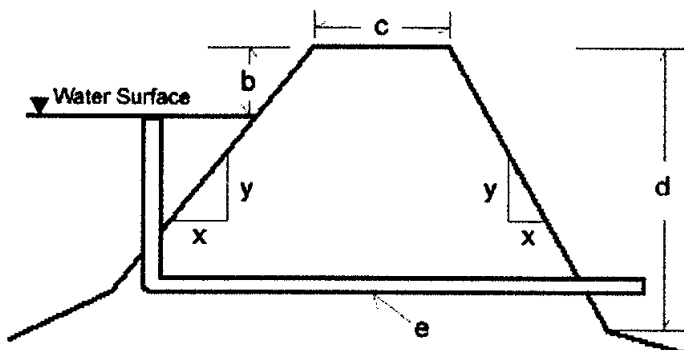
Upstream     

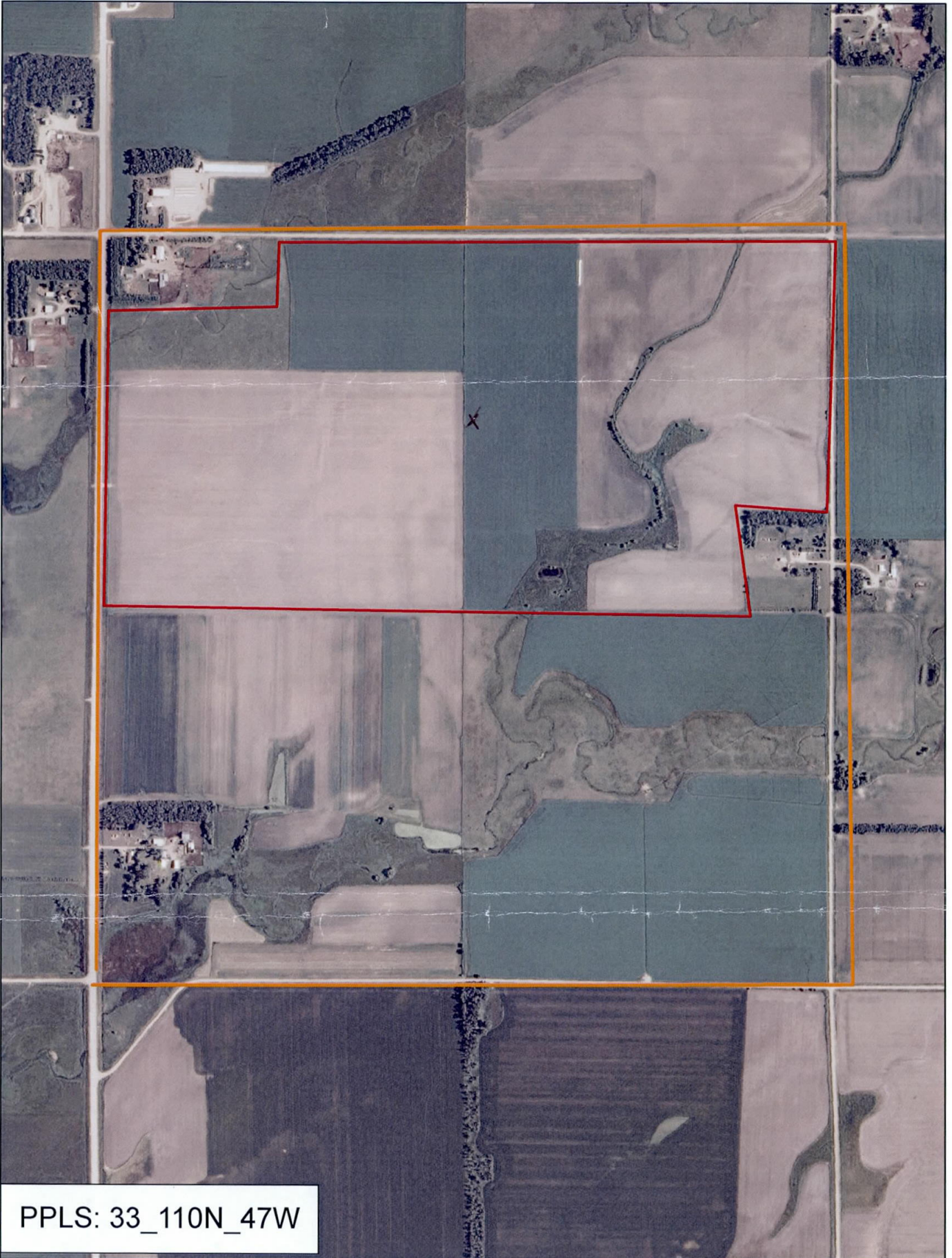
Downstream     

h) Surface Area of Impoundment     

i) Storage      Acre Feet

j) Drainage Area Above Dam      Acres





PPLS: 33\_110N\_47W

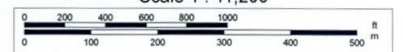
Data use subject to license.

© DeLorme. XMap® 7.

www.delorme.com



Scale 1 : 11,200



1" = 933.3 ft

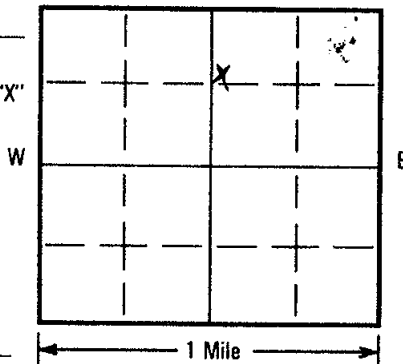
Data Zoom 14-2

## SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NE 1/4 NE 1/4 Sec 33 Twp 110 Rg 47County Brookings North

Please mark well location with an "X"



Well Completion Date

4-1-04

## LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 600 ft. from 10m land (identify source).

## PROPOSED USE:

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

## METHOD OF DRILLING:

Direct RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe \_\_\_\_\_

| PIPEWEIGHT         | DIAMETER    | FROM          | TO            | HOLE DIAMETER   |
|--------------------|-------------|---------------|---------------|-----------------|
| <u>5.140</u> LB/FT | <u>3</u> IN | <u>210</u> FT | <u>194</u> FT | <u>6 1/2</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>Drum</u> | <u>56</u>    | <u>54</u> lb./gal | <u>0</u> ft. | <u>185</u> ft. |
| _____       | _____        | _____ lb./gal     | _____ ft.    | _____ ft.      |

Describe grouting procedure pressure pull methodSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 3 IN Length 20 FEETMaterial plasticSlot Size 1035 Set From 194 Feet to 214 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? \_\_\_\_\_

Laboratory sent to for water quality analysis \_\_\_\_\_

Well Owner: Dennis Van DykeBusiness Name: Dennis Van DykeAddress: 1831 Skyview Lane  
Brookings S.D. 57006

## WELL LOG:

| FORMATION                  | DEPTH |    |
|----------------------------|-------|----|
|                            | FROM  | TO |
| Top Soil                   | 0     | 6" |
| yellow clay                | 6"    | 23 |
| yellow gravel medium       | 23    | 25 |
| yellow clay                | 25    | 37 |
| Blue Clay                  | 37    | 40 |
| yellow fine sand           | 40    | 44 |
| yellow clay                | 44    | 60 |
| yellow medium w/ 1/2 in. k | 60    | 63 |
| yellow clay                | 63    | 70 |
| Blue Clay                  | 70    | 96 |

STATIC WATER LEVEL 76 / 84 Feet

If flowing: closed in pressure \_\_\_\_\_ PSI

GPM flow \_\_\_\_\_ through \_\_\_\_\_ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other \_\_\_\_\_

Reduced Flowrate \_\_\_\_\_ GPM

Can well be completely shut in? \_\_\_\_\_

## WELL TEST DATA:

☒ PumpedDescribe: air lift☐ Bailed☐ Other

RECEIVED

DEC 26 2012

WATER RIGHTS PROGRAM

Pumping Level Below Land Surface

76 ft. After 1 Hrs. pumped 60+ GPM76 ft. After 3 Hrs. pumped 60+ GPM

If pump installed, pump rate \_\_\_\_\_ GPM

REMARKS

|                                  |           |
|----------------------------------|-----------|
| yellow clay                      | 46 - 150  |
| Blue Clay                        | 150 - 170 |
| Green clay                       | 170 - 180 |
| Soft light Blue clay             | 190 - 196 |
| Grey clay to medium w/ 1/2 in. k | 196 - 214 |
| Blue Clay                        | 214 - 220 |

This well was drilled under license # 689

And this report is true and accurate.

Drilling firm Kaiser Well Drilling

Signature of License Representative: \_\_\_\_\_

Signature of Well Owner or Equitable Property Holder: \_\_\_\_\_

Dennis Van DykeDate: 11-13-05

mailed to state 4-18-05

# RECEIPT

## WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date

12-31, 20 12

RECEIVED OF

Dennis VanDyke, 1831 Skyview La, Brookings SD 57006

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

|                                                                                                                        |       |         |
|------------------------------------------------------------------------------------------------------------------------|-------|---------|
| Fee for Application for Permit No. <u>7589-3</u> to Appropriate Water, to construct and to put water to beneficial use | 1050  | 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>7589-3</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 | 1250.00 |

No. 05818

By

Harland Erbele

Chief Engineer

KS



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 7589-3, Denny Van Dyke**

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. 7589-3, Denny Van Dyke, 1831 Skyview Lane, Brookings SD 57006.

The Chief Engineer is recommending APPROVAL of Application No. 7589-3 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 well 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 well authorized by Permit No. 7589-3 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.

Garland Erbele, Chief Engineer  
February 14, 2013

# **REPORT TO THE CHIEF ENGINEER**

## **WATER PERMIT APPLICATION NO. 7589-3**

**Denny Van Dyke**

**February 5, 2013**

Water Permit Application No. 7589-3 proposes to appropriate up to 600 acre-feet per year (ac-ft/yr) at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Rutland aquifer. The well is expected to be approximately 214 feet deep and is to be located in the NW¼ NE¼ of Section 33 to irrigate 300 acres located in the N½ of Section 33, all in T110N-R47W in Brookings County.

### **AQUIFER: Rutland aquifer (RUT)**

#### **GEOLOGY AND AQUIFER CHARACTERISTICS:**

The Rutland aquifer is an intermediate glacial outwash consisting of fine to very coarse sand and fine to medium gravel that is generally under artesian conditions. The southern part tends to consist of coarser materials than the northern part. The Rutland extends from Brookings County north into Deuel County, south into Moody County, and east into Minnesota. In Brookings County, the Rutland aquifer is estimated to underlie 240 square miles; these areal extents are shown in Figure 1 (Hamilton, 1989).

In Brookings County, the top of the Rutland aquifer is generally encountered from 37 to 324 feet below ground surface, the aquifer is 15 feet thick on average, and the water level of the aquifer ranges from flowing to 212 feet below ground surface. Groundwater in the aquifer generally moves south and west and appears to hydraulically connect to the Big Sioux aquifer (Hamilton, 1989).

Hamilton (1989) estimated that in the area of the proposed well site, the static water level would be 1,710 feet above mean sea level, which is approximately 60 feet below ground surface at the proposed well site. The top of the aquifer is expected to be encountered at approximately 200 feet below ground surface in the area of the proposed well site (Hamilton, 1989). Hamilton (1989) completed several geologic cross sections of Brookings County, mapped in Figure 2. Geologic cross section C'-C'' of Brookings County is shown in Figure 3; the proposed well site is located nearly on the cross section, between test holes 110 and 111 (Hamilton, 1989). From the well log submitted with the application, aquifer materials were found between 196 and 214 feet below ground surface, and the aquifer had an April, 2004 static water level of 76 below ground surface.

#### **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.

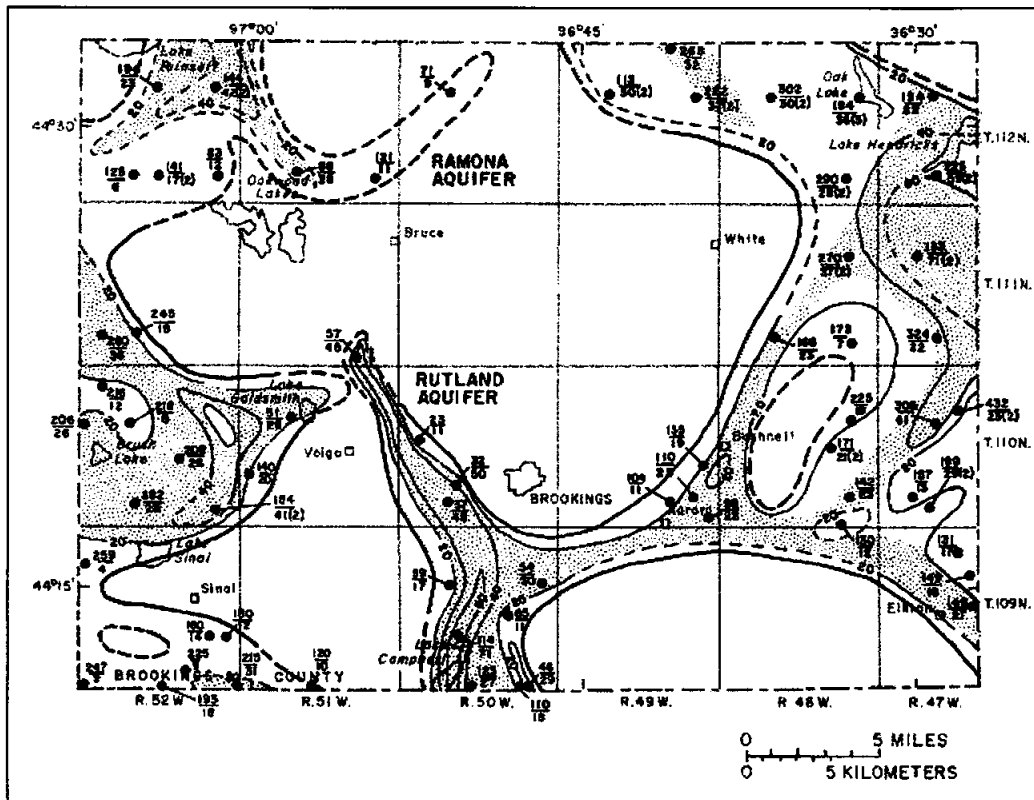


Figure 1: Areal extent of The Rutland aquifer in Brookings County (modified from Hamilton, 1989)

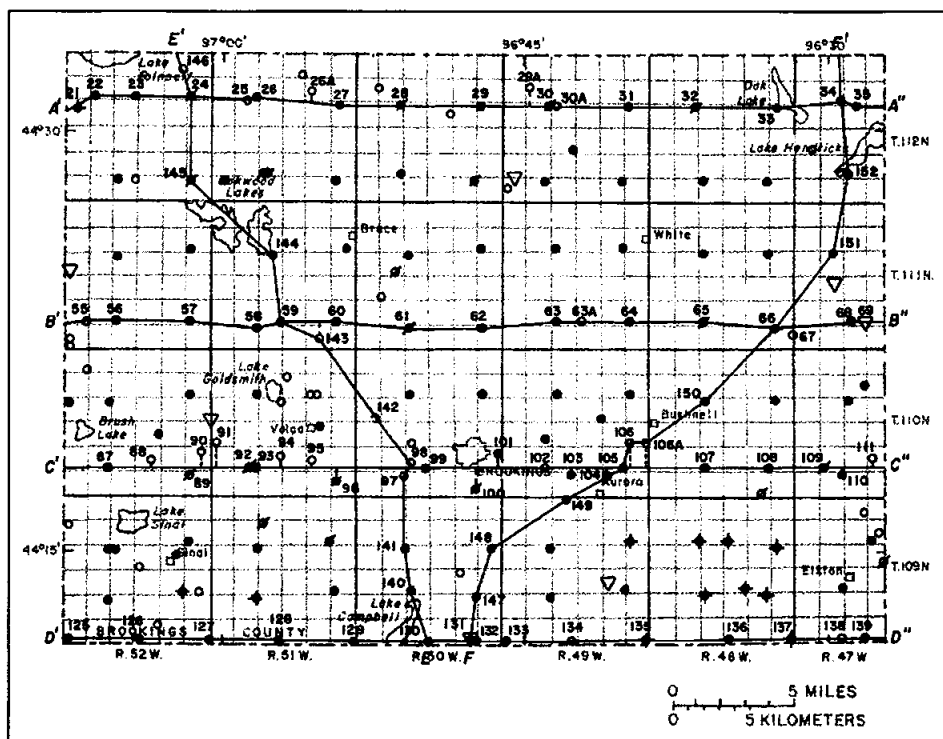


Figure 2: Map of geologic cross sections in Brookings County (modified from Hamilton, 1989)

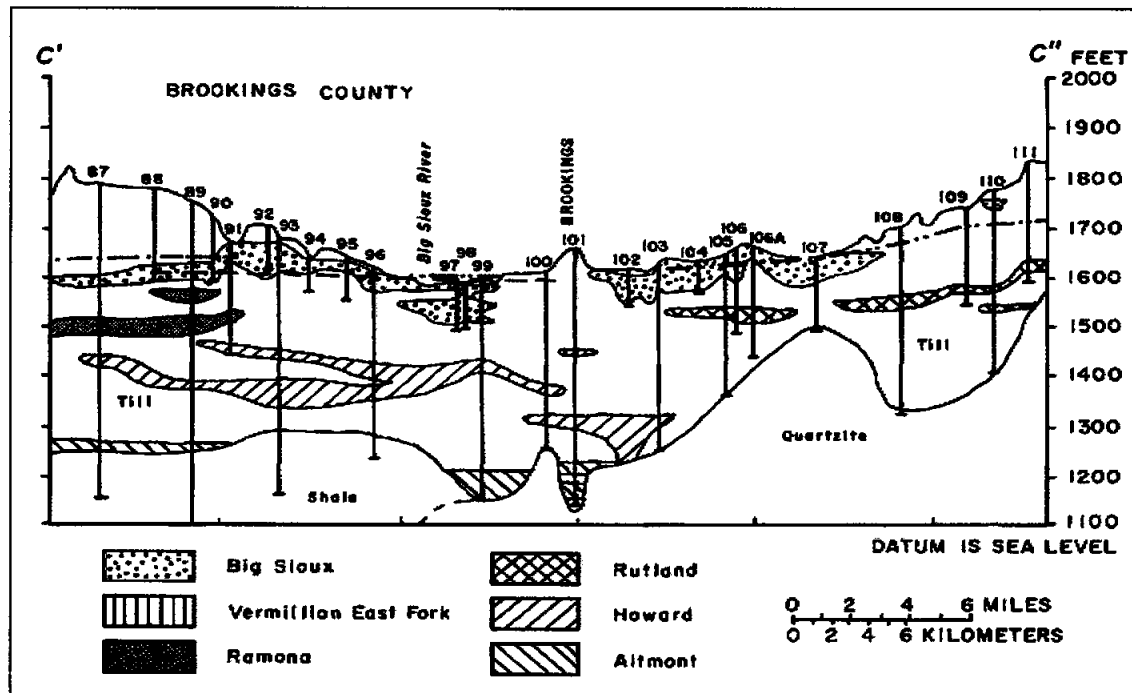


Figure 3: Geologic cross section C' – C'' (modified from Hamilton, 1989)

#### **WATER AVAILABILITY:**

This application proposes to appropriate 600 ac-ft/yr from the Rutland aquifer. If this application is approved, the actual water use will be less than the appropriation. 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 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.”

#### **Observation Well Data:**

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

The SD DENR-Water Rights Program monitors four observation wells completed into the Rutland aquifer. These are described in Table 2 and the hydrographs are shown in Figures 3 through 6 (Water Rights, 2013a).

The observation well data documents cyclic conditions of water levels, recharging during wet years and declining during dry years. Over the period of record, water levels in these observation wells have remained fairly constant. The hydrograph also shows the effects of nearby pumping on the aquifer. This data documents that, at the current level of development, temporal well withdrawal is masked by climatic conditions. Therefore, recharge to and natural discharge from

the aquifer greatly exceeds well withdrawal, indicating that unappropriated water is available from the Rutland aquifer to support the proposed appropriation of 600 ac-ft/yr.

Table 2: Rutland aquifer observation well information (Water Rights, 2013a)

| Name     | Distance<br>(from proposed well site) | Direction      | Type        | Figure |
|----------|---------------------------------------|----------------|-------------|--------|
| BG-2005A | 10.5                                  | west           | water table | 3      |
| BG-78E   | 1.5                                   | west           | artesian    | 4      |
| BG-78F   | 3.5                                   | west           | artesian    | 5      |
| BG-80I   | 5.0                                   | west-northwest | artesian    | 6      |

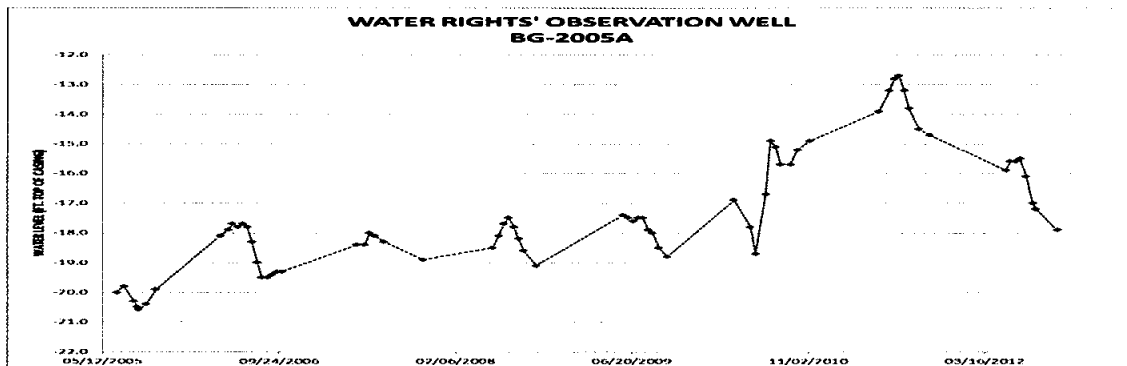


Figure 3: Hydrograph for observation well BG-2005A (Water Rights, 2013a)

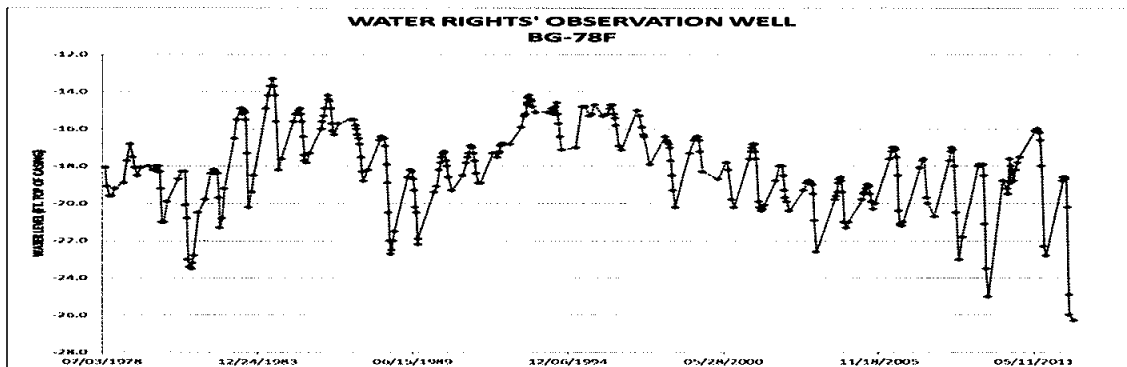


Figure 4: Hydrograph for observation well BG-78F (Water Rights, 2013a)

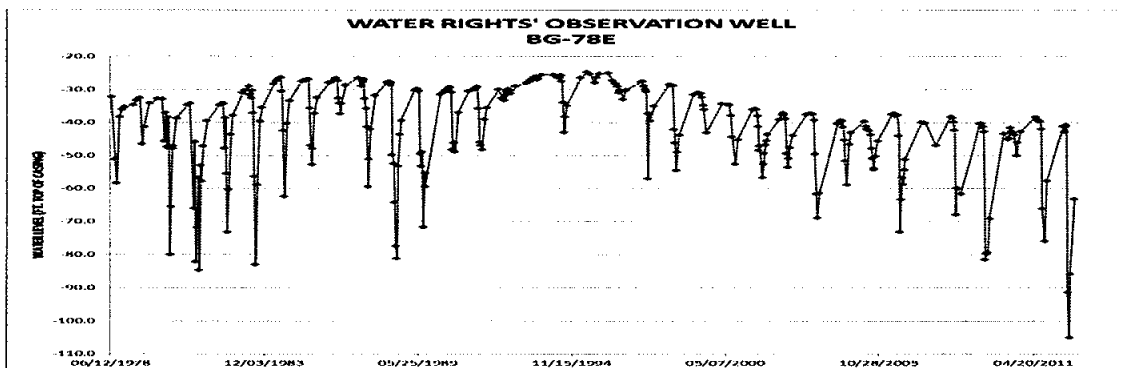


Figure 5: Hydrograph for observation well BG-78E (Water Rights, 2013a)

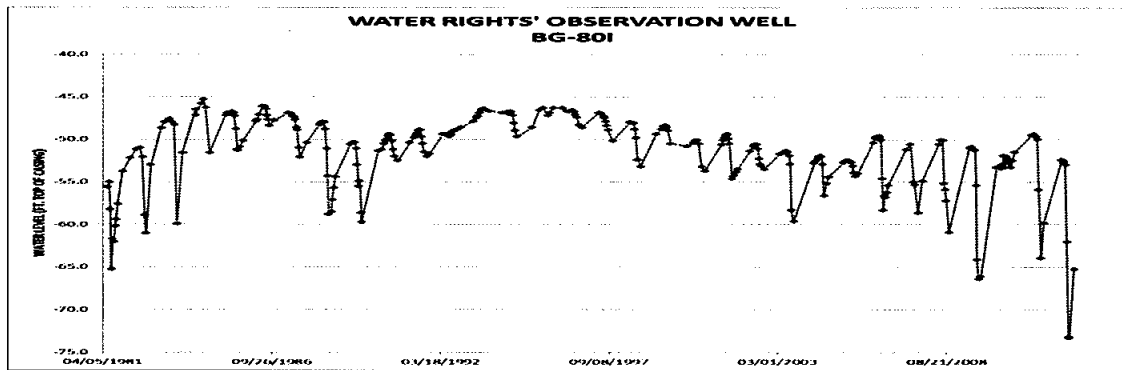


Figure 6: Hydrograph for observation well BG-80I (Water Rights, 2013a)

### Hydrologic Budget:

#### Discharge:

Discharge from the Rutland aquifer occurs through subsurface outflow and well withdrawals (Hamilton, 1989). Outflow from the Rutland aquifer in Brookings County to Moody County has been estimated to be 6,000 ac-ft/yr (Hamilton, 1989). Recognize that this discharge can be captured for pumping. There are a total of 17 water rights/permits appropriating water from the Rutland aquifer in South Dakota, which are all in Brookings County; these are shown in Table 1 (Water Rights, 2013b).

In addition, there are many domestic wells on record with the SD DENR-Water Rights Program that appear to be completed into the Rutland aquifer (Water Rights, 2013c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer. Consider also that many of these domestic wells are no longer in use due to users connecting to local rural water systems.

Table 1: Water rights/permits appropriating from the Rutland aquifer in Brookings County (Water Rights, 2013b)

| Permit No.                                                                | Name              | Priority Date | Status | Type    | CFS  | Acres |
|---------------------------------------------------------------------------|-------------------|---------------|--------|---------|------|-------|
| 2676-3                                                                    | Terrance A Hill   | 04/14/1976    | LC     | IRR     | 1.88 | 264   |
| 3047-3                                                                    | Heartland HBI     | 10/05/1976    | LC     | IRR     | 1.88 | 132   |
| 3876-3                                                                    | David Pankonin    | 03/23/1977    | LC     | IRR     | 4    | 480   |
| 4213-3                                                                    | Heartland HBI     | 01/06/1978    | LC     | IRR     | 2    | 146   |
| 5822-3                                                                    | KC Dairies LLP    | 05/10/1994    | LC     | COM/LCO | 0.82 | 0     |
| 5893-3                                                                    | Newdale Colony    | 11/02/1995    | LC     | DOM     | 0.1  | 0     |
| 6087-3                                                                    | Hilltop Dairy LLP | 06/19/1998    | LC     | COM/LCO | 0.22 | 0     |
| 6113-3                                                                    | Rolland HTRN BRTH | 12/01/1998    | LC     | DOM     | 0.18 | 0     |
| 6403-3                                                                    | Rick Even         | 04/03/2003    | LC     | IRR     | 1.78 | 100   |
| 6414-3                                                                    | Andy Weber        | 04/01/2003    | LC     | IRR     | 1.34 | 132   |
| 6622-3                                                                    | Sandra Hanson     | 05/05/2005    | LC     | IRR     | 1.78 | 146   |
| 6623-3                                                                    | Bradley Hanson    | 05/05/2005    | LC     | IRR     | 1.56 | 135   |
| 6802-3                                                                    | Dale L Bowne      | 02/02/2007    | LC     | IRR     | 1.78 | 156   |
| 7067-3                                                                    | Marion J Rus      | 09/05/2008    | LC     | IRR     | 2.67 | 228   |
| 7068-3                                                                    | Marion J Rus      | 09/05/2008    | LC     | IRR     | 3.34 | 273   |
| 7263-3                                                                    | Rolland HTRN BRTH | 08/24/2011    | PE     | DOM     | 0.33 | 0     |
| 7420-3                                                                    | Rick Even         | 09/10/2012    | PE     | IRR     | 2.22 | 240   |
| LC = Water Right, PE = Water Permit                                       |                   |               |        |         |      |       |
| IRR = Irrigation, COM = Commerical, LCO = Livestock confinement operation |                   |               |        |         |      |       |

The irrigation development of the Rutland aquifer over the period of record has generally increased but remains relatively small. The annual withdrawal from the Rutland aquifer fluctuates, which is probably mostly dependent on annual growing season climatic conditions. Over the period of record, the average pumpage reported equals 347 ac-ft/yr. The maximum and minimum pumpage reported was 1,142 and 0 ac-ft/yr, respectively (Water Rights, 1980-2011). Since 2011, one irrigation type water permit was approved, appropriating up to 480 ac-ft/yr, and this water permit was submitted, proposing up to 600 ac-ft/yr for irrigation (Water Rights, 2013b). The full use of these approved or proposed appropriations is assumed for this hydrologic budget.

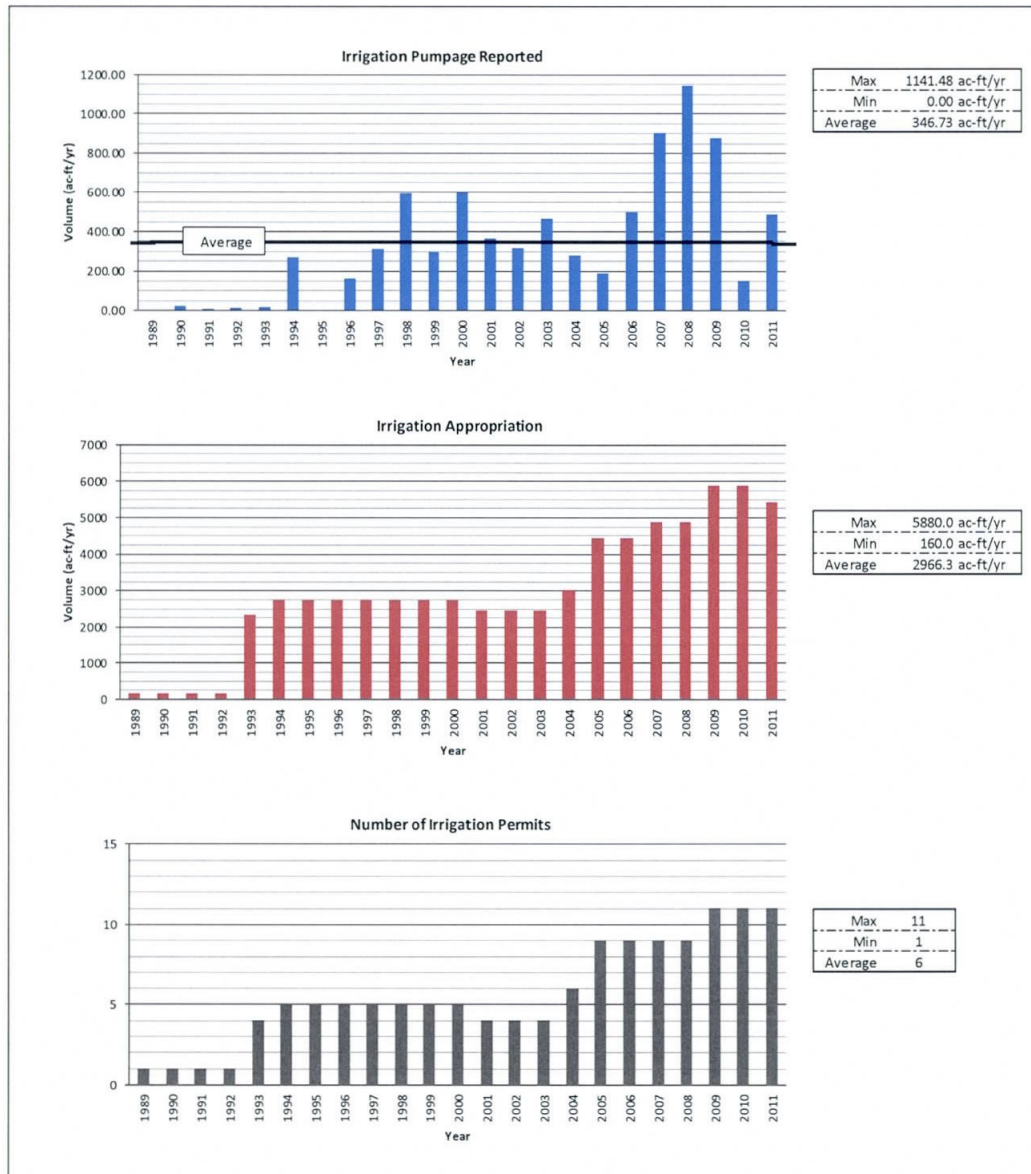


Figure 7: Historic irrigation type water use from the Rutland aquifer (Water Rights, 1980-2011)

The amount of water that can be expected to be withdrawn by the non-irrigation use water rights/permits can be estimated by assuming water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate at 60 percent of the time. Therefore, the total annual withdrawal from the Rutland aquifer in Brookings County by non-irrigation use is expected to be less than a total of 720 ac-ft/yr (Water Rights, 2013b).

*Recharge:*

Recharge to the Rutland aquifer likely occurs through infiltration (Hamilton, 1989). Hamilton (1989) estimated the subsurface outflow of the Rutland aquifer from Brookings into Moody County to be 6,000 ac-ft/yr. The source of recharge must at least equal outflow, and so, recharge for the Rutland aquifer in Brookings County must be at least 6,000 ac-ft/yr.

*Hydrologic Budget:*

The average annual withdrawal is estimated to be 2,150 ac-ft/yr, which is much less than the estimated annual recharge of 6,000 ac-ft/yr. Therefore, there is a reasonable probability that unappropriated water is available from the Rutland aquifer for the proposed appropriation of 6,000 ac-ft/yr.

**EXISTING WATER RIGHTS:**

If approved, the proposed well will be located near other wells that obtain water from the same aquifer. There are eight water rights/permits in South Dakota and within two miles of the proposed well site. The nearest water right/permit is located further than three quarter miles from the proposed well site (Water Rights, 2013b). There are 14 domestic wells on record with the SD DENR-Water Rights Program within two miles of the proposed well site that appear to be completed into the Rutland aquifer (Water Rights, 2013c).

The Rutland aquifer appears to be under artesian conditions at the proposed well site; therefore, some drawdown due to pumping is likely. The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. SDCL 46-6-6.1 does not require protection of artesian head pressure as a means of groundwater delivery. However, reasonable domestic use must be assured before irrigation use is allowed. Therefore, when considering irrigation projects, the Water Management Board must give consideration to maintaining artesian head pressure as a method of delivery for domestic wells. To balance interests between irrigation use and delivery of groundwater by artesian pressure, ARSD 74:02:04:20(7) defines an adversely impacted domestic well 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”

Depending on the specific characteristics of the Rutland aquifer at the proposed well site, some existing well owners may need to lower their pumps to accommodate possible reduction of head pressure.

Observation well BG-78E, whose hydrograph is shown in Figure 5, is located near several water rights/permits. As previously discussed, the hydrograph for this observation well documents pumping; however, the effects are minimal relative to climatic conditions (Water Rights, 2013a).

In the area of the proposed well site, there is likely at least 100 feet of head pressure in the aquifer. Therefore, there is a reasonable probability that any well interference from the proposed appropriation will not adversely or unlawfully impair existing nearby wells.

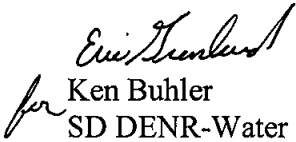
**CONCLUSIONS:**

1. The application proposes to appropriate 600 ac-ft/yr for irrigation. However, the actual water use will likely be less than the appropriation.
2. There is a reasonable probability that unappropriated water is available from the Rutland aquifer to supply the proposed appropriation.
3. There is a reasonable probability that this proposed well will not adversely or unlawfully impair existing nearby wells.



Joseph R Stonesifer  
SD DENR-Water Rights Program

Approved by



Ken Buhler  
SD DENR-Water Rights Program

**REFERENCES:**

Hamilton, L.J. 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 88-4185, 82 p.

Water Rights. 1980-2011. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2013a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2013b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2013c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

MAR - 6 2013

10/

Affidavit of Publication

State of South Dakota

ss

WATER RIGHTS  
PROGRAM

Exhibit "A"

County of Brookings

Chaylee Duis 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#254 Notice #7589-3-Van Dyke

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

February 28, 2013

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-two dollars and sixty-nine cents \$22.69



1st day of

March

2013

Notary Public in and for the County of Brookings, South Dakota.  
My Commission expires August 3, 2017.

Legal 254, 1x, 2/28  
NOTICE OF APPLICATION NO. 7589-3 to  
Appropriate Water  
Notice is given that  
Denny Van Dyke, 1831  
Skyview Lane,  
Brookings SD 57006  
has filed an application  
for a water permit to  
appropriate 1.78 cubic  
feet of water per second  
from one well to be  
completed into the  
Rutland Aquifer (214  
feet deep) located in the  
NW 1/4 NE 1/4 Section  
33 for irrigation of 300  
acres located in the N  
1/2 Section 33; all in  
T110N-R47W.  
Pursuant to SDCL 46-  
2A-2, the Chief  
Engineer recommends  
APPROVAL of  
Application No. 7589-3  
because 1) unappropri-  
ated 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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. 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 March 11, 2013. 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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$22.69.



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

February 20, 2013

Brookings Register  
PO Box 177  
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7589-3 to Appropriate Water. Please publish the notice once on February 28, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Denny Van Dyke, 1831 Skyview Lane, Brookings SD 57006 (Ph # 605-692-2740).

**Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.**

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund  
Natural Resources Engineer  
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182

[denr.sd.gov](http://denr.sd.gov)

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

February 20, 2013

Denny Van Dyke  
1831 Skyview Lane  
Brookings SD 57006

Dear Mr. Van Dyke:

Water Permit Application No. 7589-3 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

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.

Instruction to Newspaper - Publish the Notice on February 28, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

---

NOTICE OF APPLICATION NO. 7589-3 to Appropriate Water

Notice is given that Denny Van Dyke, 1831 Skyview Lane, Brookings SD 57006 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (214 feet deep) located in the NW 1/4 NE 1/4 Section 33 for irrigation of 300 acres located in the N 1/2 Section 33; all in T110N-R47W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7589-3 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

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 March 11, 2013.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of\_\_\_\_\_.



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**APR 26 2013**

Denny VanDyke  
1831 Skyview Lane  
Brookings SD 57006

Dear Mr. VanDyke:

Enclosed is Water Permit No. 7589-3 authorizing construction of your 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

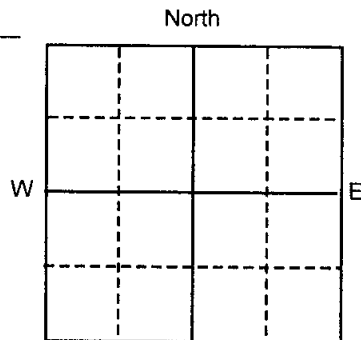
SD EForm - 1621LD V1

11-02

Location NE 1/4 NE 1/4 Sec 33 Twp 110 Rg 47

County Brookings

Please mark well location with an "X"



Well Completion Date

April 9, 2014

← 1 Mile →

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?  
1,500.0 ft. from septic (identify source)

**PROPOSED USE:**

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

**METHOD OF DRILLING:**

Mud Rotary

**CASING DATA:**

If other describe ☒ Steel ☐ Plastic ☐ Other

| PIPEWEIGHT | DIAMETER        | FROM          | TO              | HOLE DIAMETER   |
|------------|-----------------|---------------|-----------------|-----------------|
| LB/FT      | <u>12.00</u> IN | <u>0.0</u> FT | <u>181.0</u> FT | <u>17.50</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>Bentonite</u> | <u>55</u>    | Lb/gal       | <u>0.0</u> Ft | <u>179.0</u> 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 80 Set From 181.0 Feet to 201.0 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: Denny VanDyke

Business Name:

Address: 1831 Skyview Lane

City, State, Zip: Brookings SD 57006

**WELL LOG:**

| FORMATION       | DEPTH |     |
|-----------------|-------|-----|
|                 | FROM  | TO  |
| Topsoil - Black | 0     | 2   |
| Gravel - Brown  | 2     | 4   |
| Clay - Brown    | 4     | 28  |
| Gravel - Brown  | 28    | 32  |
| Clay - Gray     | 32    | 179 |
| Gravel/sand     | 179   | 200 |
| Clay - Gray     | 200   | 205 |
|                 |       |     |
|                 |       |     |

**STATIC WATER LEVEL** 70.0 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

104.0 Ft. After 16.0 Hrs. pumped 650.0 GPM

\_\_\_\_\_ Ft. After \_\_\_\_\_ Hrs. pumped \_\_\_\_\_ GPM

If pump installed, pump rate: 700.0 GPM

**REMARKS**

GPS:  
 N 44 17.53  
 W 096 28.878

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

Drilling firm: Thein Well Company, Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

**RECEIVED**

**MAY 27 2014**

**WATER RIGHTS PROGRAM**

*[Signature]*



7589-3  
DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
PMB 2020  
523 EAST CAPITOL  
PIERRE SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

January 20, 2017

NOTICE

TO: DENNY VAN DYKE, 1831 SKYVIEW LANE, BROOKINGS, SD 57006  
FROM: Ron Duvall, Natural Resources Engineer  
for Jeanne Goodman, Chief Engineer  
Water Rights Program

SUBJECT: Reporting Requirement for 2016 Irrigation Questionnaire(s)

Our records indicate your 2016 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7589-3. The request for the Questionnaire was dated October 21, 2016. The Water Management Board has directed that owners of water permits who have not submitted the 2016 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7589-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 1, 2017 at 11:00 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7589-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 1, 2017** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at [genny.mcmath@state.sd.us](mailto:genny.mcmath@state.sd.us). If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

**NOTE:** Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



7589-3  
DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

denr.sd.gov

February 8, 2017

7589-3

Denny Van Dyke  
1831 Skyview Lane  
Brookings SD 57006

Dear Mr. Van Dyke:

I am writing to acknowledge receipt of your 2016 irrigation questionnaire.

You may disregard the January 20, 2017, "Notice" concerning reporting requirements for Water Permit No. 7589-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

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

## Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7589-3

I have this day, April 27, 2021, made a thorough examination of the water use system constructed by Denny Van Dyke, 1831 Skyview Lane, Brookings, SD 57006 of Permit No. 7589-3, bearing the priority of December 26, 2012 authorizing the diversion of 1.78 cu. ft. per second of groundwater from the Rutland 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 1
- 3) Depth(s) 200 feet
- 4) Well log is available Y Casing:
  - 1) Diameter 12 inches
  - 2) Length 181 feet
  - 3) Type steel Screen:
    - 1) Type stainless steel
    - 2) Length 20 feet
    - 3) Static water level 70 feet

#### Pump:

- 1) Make NA
- 2) Model Submersible
- 3) Size NA
- 4) Capacity 850 GPM

#### Motor:

- 1) Make NA
- 2) Model No. NA
- 3) Horsepower rating 75 hp

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

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 410 feet

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

- 1) Make Valley
- 2) Overall length 1280 feet
- 3) Number of towers 7
- 4) End gun Y
- 5) Capacity 850 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: none

**E. Condition and Location:**

- 1) The system is in good condition with the point(s) of diversion located as follows: From the NW corner of Section 33, T110N, R47W 1705 ft south & 1320 ft east (NW ¼ Sec 33) Lat 44.29213, Long -96.48140.
- 2) The works are capable of diverting and conveying to the place of use 1.89 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows: legal description/acreage  
All land in Sec 33 -T110N-R47W  
NW1/4 NW 1/4 - 24 ac  
NE 1/4 NW 1/4 - 33 ac  
SE 1/4 NW 1/4 - 33 ac  
SW 1/4 NW 1/4 - 33 ac  
comprising a total of 123 acres of land and the license should be issued for 1.78 cfs
- 3) All structures, wells and lands on map Y



Darrell W DeBoer  
Water Rights Inspector  
DENR, Water Rights Program

Date report completed: April 28, 2021

**Well Location**

From the NW corner of  
Sec 33 T110N-R47W  
1705 ft S & 1320 ft E  
Lat 44.29213  
Long -96.4814

**Irrigated Acres**

All acres in Sec 33  
T110N-R47W

NW1/4 NW1/4 -24 ac  
NE1/4 NW1/4 -33 ac  
SE1/4 NW1/4 -33 ac  
SW1/4 NW1/4 -33 ac



0 0.075 0.15 0.3 0.45 0.6 Miles

## Approval of Location Change and/or Additional Diversion Point(s)

NAME: Denny Van Dyke

ADDRESS: 1831 Skyview Lane, Brookings SD 57006

DATE: 06/25/2021

COUNTY: Brookings

### GENERAL DESCRIPTION OF AUTHORIZED PROJECT:

The permit holder is authorized to construct a 214 foot deep well into the Rutland Aquifer in the NE  $\frac{1}{4}$  ~~NW~~ of Section 33 for irrigation of 300 acres in the N  $\frac{1}{2}$  of Section 33; all in T110N-R47W.

### AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed, or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The permit holder constructed a 200 foot well into the Rutland Aquifer on the quarter line in the S  $\frac{1}{2}$  NW  $\frac{1}{4}$  of Section 33 T110N-R47W at a location approximately 1300 feet southwest of the permitted location.

- **If irrigation, no new land is irrigated**

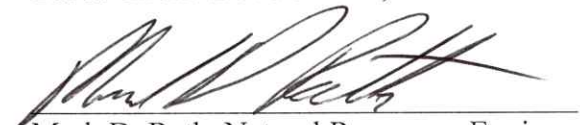
The permit holder is developed 123 acres in the NW  $\frac{1}{4}$  of Section 33 T110N-R47W.

- **Review of Existing Diversions**

There are 3 existing water permits/rights within a mile of where the this well was developed. All were existing permits/rights when this permit was issued, it was determined that there was reasonable probability any well interference due to pumping of this well would not adversely or unlawfully impair existing rights. The same would be expected for the well constructed in the new location.

### RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Mark D. Rath, Natural Resources Engineer  
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Eric Gronlund, Chief Engineer  
Water Rights Program



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

JUL 13 2021

7589-3

Denny Van Dyke  
1831 Skyview Ln  
Brookings SD 57006

Dear Mr. Van Dyke:

Enclosed is Water License No. 7589-3. 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, Chief Engineer  
Water Rights Program  
(605) 773-3352

enclosures

**Note: The investigation of your water use system found the system capable of diverting 1.89 cubic feet per second (cfs) or approximately 850 gpm. No. 7589-3 was limited at the time of permitting to 1.78 cfs or 800 gpm. Water License No. 7589-3 is limited to 1.78 cfs.**

**STATE OF SOUTH DAKOTA  
WATER LICENSE NO. 7589-3**

---

(1) Denny Van Dyke, 1831 Skyview Lane, Brookings SD 57006 made Application No. 7589-3, December 26, 2012 for a water permit to divert 1.78 cubic feet of water per second from ground water, one well (Rutland Aquifer), Brookings County, South Dakota for irrigation purposes. Permit No. 7589-3, with a priority date of December 26, 2012 was approved March 11, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 11, 2018 and for the application to beneficial use of said water on or before March 11, 2022.

The investigation found the well located in the NW  $\frac{1}{4}$  rather than the NE  $\frac{1}{4}$  Section 33, T110N, R47W. The Chief Engineer made a finding pursuant to SDCL 46-5-13.1 and ARSD 74:01:01:14.01 that the change in the diversion point does not increase the potential for adverse effects to existing diversions.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,705' S and 1,320' E of the NW corner of Section 33, T110N, R47W (NW  $\frac{1}{4}$  Section 33)  
Latitude 44.29213, Longitude -96.48140

(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:

|                        |                                   |           |
|------------------------|-----------------------------------|-----------|
| T110N, R47W Section 33 | NW $\frac{1}{4}$ NW $\frac{1}{4}$ | 24 acres  |
|                        | NE $\frac{1}{4}$ NW $\frac{1}{4}$ | 33 acres  |
|                        | SE $\frac{1}{4}$ NW $\frac{1}{4}$ | 33 acres  |
|                        | SW $\frac{1}{4}$ NW $\frac{1}{4}$ | 33 acres  |
| Total                  |                                   | 123 acres |

(4) Pursuant to South Dakota Water Law 46-5-30.1 Denny Van Dyke, 1831 Skyview Lane, Brookings SD 57006 the holder and/or owner of Water Right No. 7589-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, one well (Rutland Aquifer) with a priority date of December 26, 2012 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7589-3 and subject to the following qualifications:

- The well 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 well authorized by Permit No. 7589-3 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 well was drilled in April, 2014 by Thein Well Company Inc. A copy of the well completion report is 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 Environment and Natural Resources

JUL 13 2021

date





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

January 20, 2022

### NOTICE

TO: DENNY VAN DYKE, 1831 SKYVIEW LANE, BROOKINGS, SD 57006  
FROM: Ron Duvall, Water Rights Permitting Administrator  
for Eric Gronlund, Chief Engineer  
Water Rights Program

SUBJECT: Reporting Requirement for 2021 Irrigation Questionnaire(s)

Our records indicate your 2021 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7589-3. The request for the Questionnaire was dated October 22, 2021. The Water Management Board has directed that owners of water permits who have not submitted the 2021 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7589-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 2, 2022 at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7589-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 2, 2022** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at [genny.mcmath@state.sd.us](mailto:genny.mcmath@state.sd.us). **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: KFWIOB**

**NOTE:** Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

January 26, 2022

7589-3

Denny Van Dyke  
1831 Skyview Ln  
Brookings SD 57006

Dear Mr. Van Dyke:

I am writing to acknowledge receipt of your 2021 irrigation questionnaire.

You may disregard the January 20, 2022, "Notice" concerning reporting requirements for Water Right No. 7589-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath  
Water Rights Program  
605 773-3352  
Genny.mcmath@state.sd.us