

WATER PERMIT NO. 7329-3

Name of Applicant: Michael Barrett

Address: 16432 452 Ave, Watertown SD 57201

Phone: 605 880-9534

Amount of Water Claimed: 1.56 cfs

Total Acres: 96 acre

Source of Water Supply: groundwater (1 well)

Water to be used for: irrigation

County: Codington

Type of Waste Disposal System:

Location: 5 miles north of Watertown

PRIORITY

Date Received: 3-5-12

Application/License Fee: \$ 950

Corrected Application Received:

Period of Annual Use: May 1 – Sept 30

Remarks:

Diversion Point: approximate center of SW ¼ Sec
15-T118N-R52W

Land to be Irrigated: SW ¼ Sec 15-T118N-R52W

Depth of Well: 45 feet deep

Well Driller: Lee Well Drilling

Remarks:

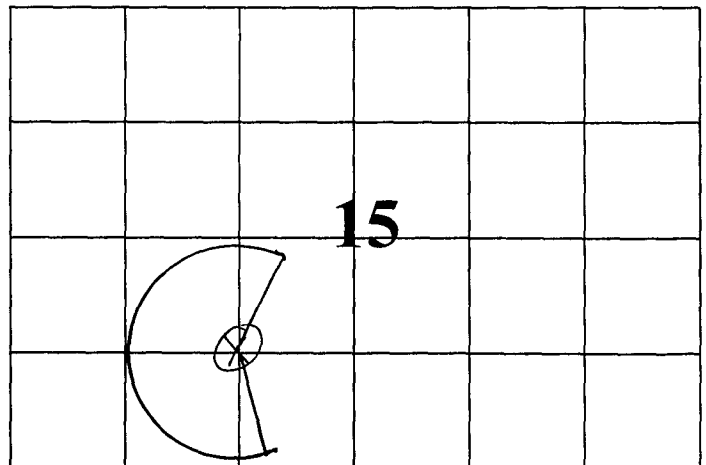
Type of Map: aerial

Prepared by: Sarah Wanner, Codington Co FSA

Reviewed and the Number Assigned on: 3-6-12

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	No. <u>7329-3</u> (office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Public Opinion P.O. Box 10</u>
	<u>605-886-6901</u> <u>Watertown 57201</u>

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MAR - 5 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 of Applicant Michael Barrett Phone 605-880-9534(check one) ☒ Owner ☐ Tenant/lessee
 Mailing Address 16432 452 Avenue Watertown SD 57201
 (Address) (City) (State) (Zip Code)

 2. Amount of water claimed 1.56*CFS or 700 **GPM ***AF Total Acreage 96
 (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply new well
 4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Codington
1 well in SW1/4 section 15-118-52R (approximate center)
5. County or counties where water will be used Codington6. Annual period during which water is to be used May 1 - 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
SW1/4SW1/4 section 15-118-52R	35		
NW1/4SW1/4 section 15-118-52R	35		
SE1/4SW1/4 section 15-118-52R	13		
NE1/4SW1/4 section 15-118-52R	13		

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

I intend to install a new center pivot in SW1/4 of section 15-118-52R. It would not make a full circle due to the Sioux River being there.

Approximately 96 acres would be covered, growing corn, soybeans, etc.

Requesting diversion rate greater than statutory limit.

STATE OF SOUTH DAKOTA)

County of Codington)

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

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

Applicant's signature

 Subscribed and sworn to before me this 1st day of March 20 12

Notary Public signature

Commission expires: 8/20/16

**SOUTH DAKOTA
WATER PERMIT NO. 7329-3**

Date of first receipt of application March 5, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7329-3 to Michael Barrett, 16432 452 Ave, Watertown SD 57201 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7329-3 appropriates 1.56 cubic feet of water per second (cfs) from one well to be completed into the Big Sioux:North Aquifer (45 feet deep) located in the approximate center of the SW 1/4 Section 15 for irrigation of 96 acres located in the SW 1/4 Section 15; all in T118N-R52W within the former boundaries of the Sisseton Wahpeton Indian Reservation.
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 March 5, 2012.
4. The date of approval of Permit No. 7329-3 is April 30, 2012.
5. One-fifth of the construction is to be completed on or before October 30, 2014.
6. All construction is to be completed on or before April 30, 2017.
7. Water is to be put to beneficial use on or before April 30, 2021.
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. 7329-3 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: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAY 10 2012

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 10 inch Depth 45 (est.)
- b) Casing Type grout Diameter 10 inch Thickness _____
- c) Screen Type stainless Diameter 10 inch Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) 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

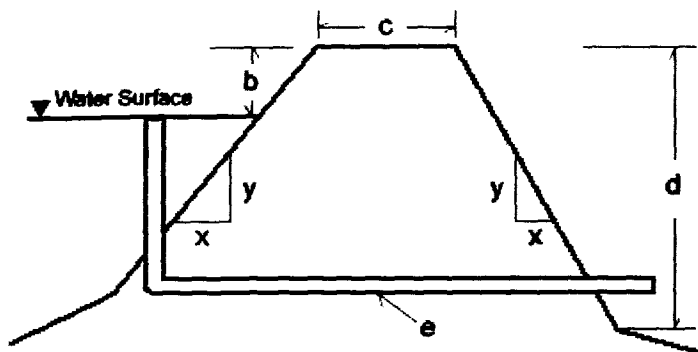
3. Dugout Information

- 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



United States Department of Agriculture
Farm Service Agency

PLSS: 15_118R_52R
Farm: 5627

Codington County

1:7,971



February 24, 2012

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area.
Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Common Land Units

Non Cropland

MAR - 5 2012

2010 Ortho-Photography - Not to Scale

**WATER RIGHTS
PROGRAM**

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/6, 20 12

RECEIVED OF Barrett Farm 16432 452nd Ave Watertown SD 57201

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

Fee for Application for Permit No. <u>7329-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>7329-3</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	950 00

No. 05367

By *Harold Erbe*
Chief Engineer

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Dear Sir or Madame,

I am submitting this application for irrigation water without test wells having been drilled. We have many irrigation wells close by and after speaking with Mr. Gronlund, I decided to start with the application to get it going. I have included an estimate from Lee Well Drilling who is also familiar with my area and he will be drilling a test hole in the near future.

Please call me if I can answer any questions as I would like to get this done asap so I can get a pivot up this spring if possible.

Thank you.

Sincerely,
Michael Barrett

A handwritten signature in black ink, appearing to read "Michael Barrett", with a stylized flourish at the end.

Michael Barrett
(605) 880-9534

Water Permit already
filed. (applied for)

Codington Co. Sec. 15
118-52R

Test hole in NW $\frac{1}{2}$ SW $\frac{1}{4}$
on east side, center

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PROGRAM

7329-3

In Water Since 1946

LACEY WELL DRILLING, INC.
47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979

Wells — Pumps
Dewatering Work
Test Drilling

Down-Hole Camera
Water Specialists
Irrigation Supplies

Mike Barrett

Test hole

3-16-12

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0-2 Topsoil

2-14 Brown Sand

14-30 Really Coarse Gravel

30-35 Fine Sand

35-49 Grey Good Sand

SW - 14'

Hole drilled by Lacey Well Drilling Inc.
Ln: # III

Driller Joan Redder-Lacey
Joan Redder Lacey



Pioneers of D.W. Wells & Rotary Drilling

Sales & Service **1-800-533-2848**

HOFFMAN (320) 986-2356 PO Box 143, 56339
 FAX (320) 986-2905
 ALEXANDRIA (320) 763-9791
 CHOKIO (320) 324-2562
 PERHAM (218) 346-2702
 MILBANK, SD (605) 432-5421

RESIDENTIAL	COMMERCIAL	FARM	WELLS	PUMPS	TOTAL WATER TREATMENT
PROPOSAL SUBMITTED TO Mike Barrett			DATE 2/25/12		
ADDRESS 16432 452nd Ave.			JOB LOCATION ADDRESS		
CITY, STATE, ZIP CODE Waterbury SD 57201			COUNTY Codington	TOWNSHIP Ranville	
GOPHER ONE CALLED	EXISTING WELLS	TOWNSHIP 118-N	RANGE S2-W	SECTION 15	FRACTION
TICKET #	YES ☒ NO ☐				
DATE/TIME	USED ☐ UNUSED ☐				

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We hereby submit specifications and estimates for:

A. IRRIGATION WELL

- State Notification Fee
- 10 inch diameter well drilled to an approximate depth of 45 ft at \$ 120 per ft
- 10 inch Galvanized Steel screen 20 ft in length at \$ 268 per ft
- Screen installation
- 2-10 inch Galvanized Steel weld ring and cap
- Graded gravel pack delivered and installed
- Drilling fluid
- Air development at an estimated 4 hrs at \$ 250 per hour minimum
- Grout casing according to State Code
- Backhoe charges at an estimated 60 hrs at \$ 14 per hour
- Test holes at an estimated depth of 60 ft at \$ 14 per ft
- Test pumping for estimated 125 hrs at \$ 125 per hour
- Chlorination and disinfection of well as per State Code
- Mobilization

\$ N/A So. Dak
 \$ 5400
 \$ 5360
 \$ 500
 \$ 600
 \$ 650
 \$ 500
 \$ 1000
 \$ 650
 \$ 840
 \$ Additional 2 required
 \$ 125
 \$ 1500

Sub Total for Irrigation Well \$17125

B. OTHERS:

- 40 HP EPS 700 GPM Sub w/ 40 HP Franklin 460 Volt 3 phase Motor
- 40 ft 6" Pump column & 4/3 Flat Sub wire
- 1-6" DI Check valve - Drilled & 2-6" Npfs
- 1-10' 6" well seal & 1-6" Plug & 1-6" Heavy tee
- 1-40 HP 460 Volt Franklin Submonitor panel - Electrician to install panel
- 1-Labor to install

Sub Total for Others \$15623

C. TERMS OF AGREEMENT

- LEE WELL DRILLING, INC (LWD) reserves the right if drilling is abandoned and no casing was installed, charges will be at \$ 75 per ft. If production casing was installed, material will remain with LWD to pull, if possible, and charges will be at \$ 75 price to compensate for operation and abandonment costs. If a new well is drilled, the well drilling charges for the new well will be in addition to the charges of the first well.
- The undersigned agrees that title to any and all materials furnished by LWD whether in the ground or attached to the premises, shall remain with LWD. LWD shall have the right to withdraw the casing from the ground and materials from the premises and/or assess a lien on said property until such time as full payment is received by LWD.
- All wells must be clearly staked and all underground wires marked as we will not be responsible for damages done to any property to include but not limited to wires, trees or lawn, etc. during construction of well.
- Due to weather conditions, the customer must provide means of transporting machinery in and out of the premises. (Whether by tractor or other suitable means.)

WE PROPOSE TO furnish material and labor complete in accordance with above specifications for the sum of

DOLLARS (\$32,748⁰⁰) TOTAL

Payment to be made as follows: Notification Fee(s) and \$ Down Payment with Half of the balance due upon completion and the outstanding balance due within 30 days after completion. A Finance Charge of 1.5% per month, annual rate of 18% will be invoiced on all past due accounts.

ACCEPTANCE OF PROPOSAL The above prices, specifications and conditions are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

LEE WELL DRILLING, INC

Customer Signature

[Signature] *Duckee* 2/25/12
 Authorized Signature

Customer Signature

Date of Acceptance

E-Mail Barrett m @ daily post . com

In Water Since 1946

LACEY WELL DRILLING, INC.47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979Wells — Pumps
Dewatering Work
Test Drilling4-24-12
Down-Hole Camera
Water Specialists
Irrigation Supplies

Attn:

Ken Buhler
773-3352DNR-Water Rights
523 East Capitol Ave 1st Floor
Pierre, S Dakota 57501-3182Fax
773-6035

We would like to request a test well
Variance for Mike Barrett: 16432 452nd Ave
Watertown S Dakota 57201

Legal Desc. Sec. 15 - T-118 - R.52
Codington Co. SW 1/4

The drilled well would be 50' deep in a
single aquifer with 12" PVC screen & casing.

We would like to drill this well before the
permit is issued for irrigation.

Thank you

Joan Redden Lacey

Lacey Well Drilling, Inc.

47582 240th St.

Dell Rapids, S Dakota 57022

Fax: 605-428-4449



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

April 24, 2012

Joan Redder-Lacey
Lacey Well Drilling, Inc.
47582 240th St.
Dell Rapids, SD 57022

Dear Ms. Redder-Lacey:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to construct a test well for Mike Barrett prior to approval of a water permit. The well is to be approximately 50 feet deep and completed into the Big Sioux: North aquifer in the SW¹/₄ Section 15, T118N-R523W,. The test well must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application; and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit.

Very truly yours,

GARLAND ERBELE, Chief Engineer
Water Rights Program
(605) 773-3352

cc: Mike Barrett, 16432 452nd Ave, Watertown, SD 57201



**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. 7329-3, Michael Barrett**

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. 7329-3, Michael Barrett, 16432 452nd Avenue, Watertown SD 57201.

The Chief Engineer is recommending APPROVAL of Application No. 7329-3 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. 7329-3 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
April 6, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO.7329-3
MICHAEL BARRETT
MARCH 29, 2012

Water Permit No. 7329-3 proposes to appropriate 1.56 cubic feet of water per second (cfs) from one well to be completed into the North management unit of the Big Sioux aquifer. The well will be approximately 45 feet deep and will be located in the approximate center of the SW¼ Section 15, T118N-R52W. Water from the well will be used to irrigate 96 acres located in the SW¼ Section 15, T118N-R52W. The well and acreage to be irrigated are located within the former boundaries of the Sisseton-Wahpeton Indian Reservation. This application is requesting a diversion rate greater than the statutory limit of one cfs per 70 acres.

AQUIFER: North management unit of the Big Sioux aquifer (BS:N)

General

The North management unit of the Big Sioux aquifer is an alluvium mantled, poorly to well-sorted, surficial outwash deposit, consisting of medium sand to medium gravel, located primarily in the flood plain of the Big Sioux River. The Big Sioux:North is a surficial aquifer that is generally under unconfined conditions. Groundwater movement in the aquifer is generally to the south and toward the Big Sioux River. The North management unit is hydraulically connected to Lake Kampeska, Pelican Lake, Still Lake and the Big Sioux River. The management unit extends from near Ortle, SD at the north, to near Castlewood, SD at the southern limit; underlying approximately 83,500 acres of Codington, Grant, Hamlin and Roberts Counties (see figure 1) (Hedges and others, 1982). The Big Sioux: North contains an estimated 187,880 acre-feet of recoverable water in storage (Hedges and others, 1982). The aquifer ranges from 2-54 feet thick (Putnam and Thompson, 1996). The test hole report submitted with this application indicates the outwash extends from 2-49 feet below grade at this site and the water table was reported to be 14 feet below grade.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is 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.

WATER AVAILABILITY:

This application proposes to appropriate 192 acre-feet annually from the Big Sioux:North aquifer. The actual water use if this application is approved will be less than the appropriation. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

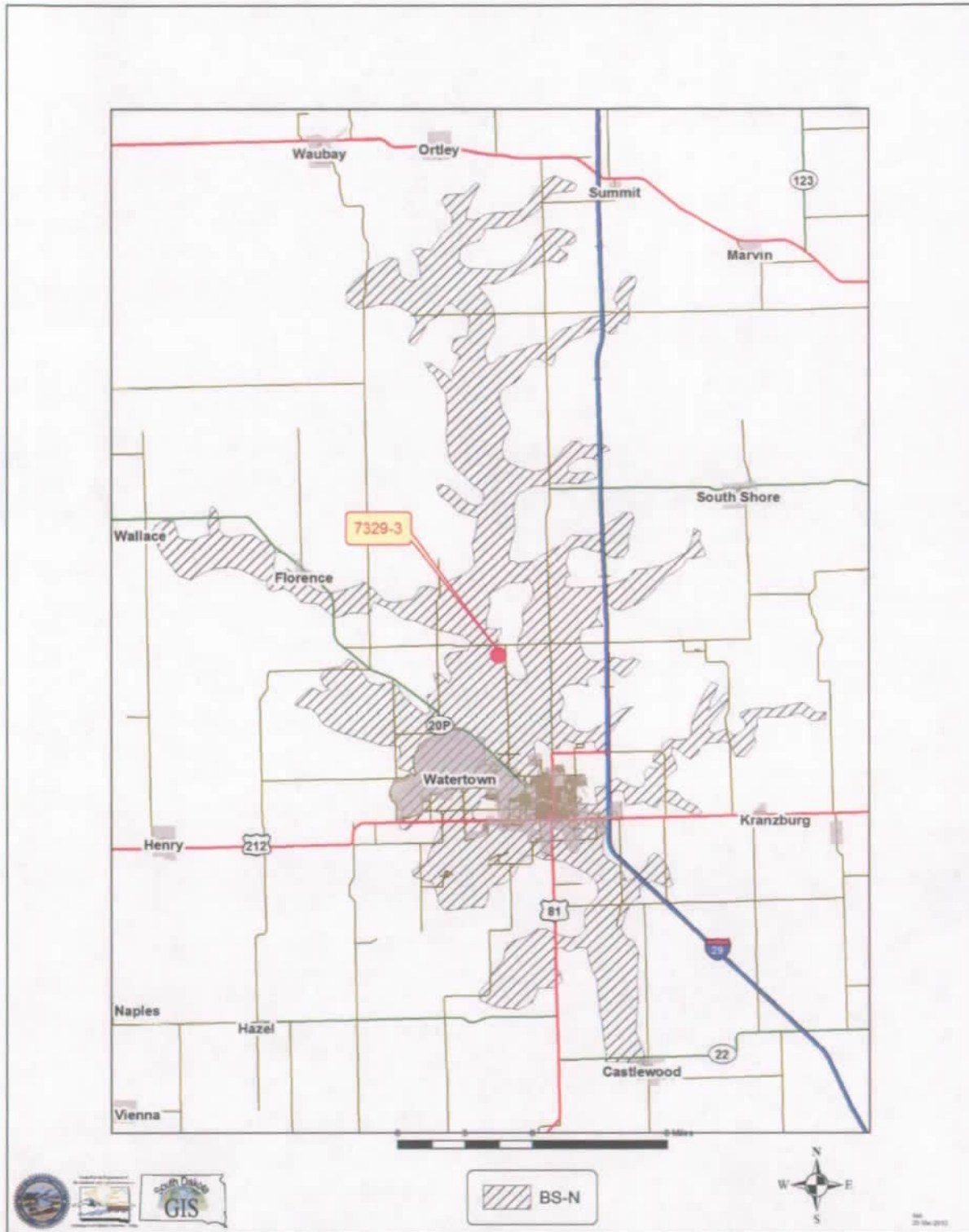


Figure 1. The North management unit of the Big Sioux aquifer and the well site proposed by Application No. 7329-3 (modified from Hedges and others, 1982)

Recharge versus Withdrawals:

Recharge:

Recharge to the Big Sioux: North occurs through infiltration and percolation of precipitation falling on the surface of the outwash. Since the aquifer is hydraulically connected to some area lakes and the Big Sioux River, recharge is provided to the aquifer during times of high runoff when surface water levels are higher than groundwater levels.

Several estimates have been made of the Big Sioux:North recharge rate. Hansen (1990) estimated recharge to the Big Sioux aquifer to be 4-10 inches per year (in/yr). Recharge rates calculated for the various management units of the Big Sioux aquifer range from 2.7 to 6.9 in/yr if flow-net analysis is ignored (Hedges and others, 1985). Putnam and Thompson (1996) estimated the average annual recharge to the Big Sioux: North to be in the approximate range of 2.9-5.8 in/yr. Average annual recharge to the Big Sioux: North was estimated to 5.53 in/yr for the purpose of computer modeling under steady state conditions (Putnam and Thompson, 1996). Given the area of management unit, average annual recharge to the aquifer is estimated to be 38,479 acre-feet per year.

This is not to suggest that the entire volume of annual recharge is available for use everywhere in the aquifer or that all of the recoverable water in storage in the aquifer is available for every diversion point. For example, in 1995, when considering Future Use Permit Application No. 5862-3, the Water Management Board determined that unappropriated water was not available for the entire requested future use reservation from the portion of the Big Sioux:North aquifer and the future use permit was approved for a reduced amount. The area of the management unit where unappropriated water is no longer available was described only by stating "The actual area of aquifer in the future use area and up-gradient is about 12,500 acres" (Goodman, 1995). A description of the 12,500 acres is not available but the probable fully appropriated portion of the Big Sioux:North aquifer is shown in figure 2.

The computer model for the Big Sioux: North aquifer suggests that during dry conditions, the ability of some high capacity wells to produce would be seriously impacted. The model suggests "The Big Sioux aquifer probably is unable to support extensive irrigation during dry periods such as those that occurred during 1980 and 1981, or in 1976" (Putnam and Thompson, 1996).

Withdrawals:

Natural discharge does occur from the Big Sioux:North aquifer to the lakes and rivers when groundwater levels are higher than surface water levels. In general the aquifer discharges to the area surface waters.

There are a number of completion reports on file with the DENR-Water Rights Program for domestic use wells completed into the Big Sioux:North aquifer (Water Rights, 2012b) and there are currently 82 Water Rights/Permits appropriating water from the North management unit of the Big Sioux aquifer (Water Rights, 2012c). There is one pending application from this management unit (No. 7328-3). Appropriations are for irrigation use (47 appropriations), municipal use (16 appropriations), commercial use (11 appropriations), industrial use (5 appropriations), for suburban housing development use (1 appropriation), and rural water system use (2 appropriations), (Water Rights, 2012d). Note: one of the appropriations for rural system use, No. 5158-3, Sioux Rural Water System, has not been used since 1998. The well field has "basically been abandoned" because of water quality issues (i.e. high concentrations of nitrates) (Anderson). In addition there are three future use permits that reserve a total of 3,469 acre-feet of water annually for the City of Watertown.

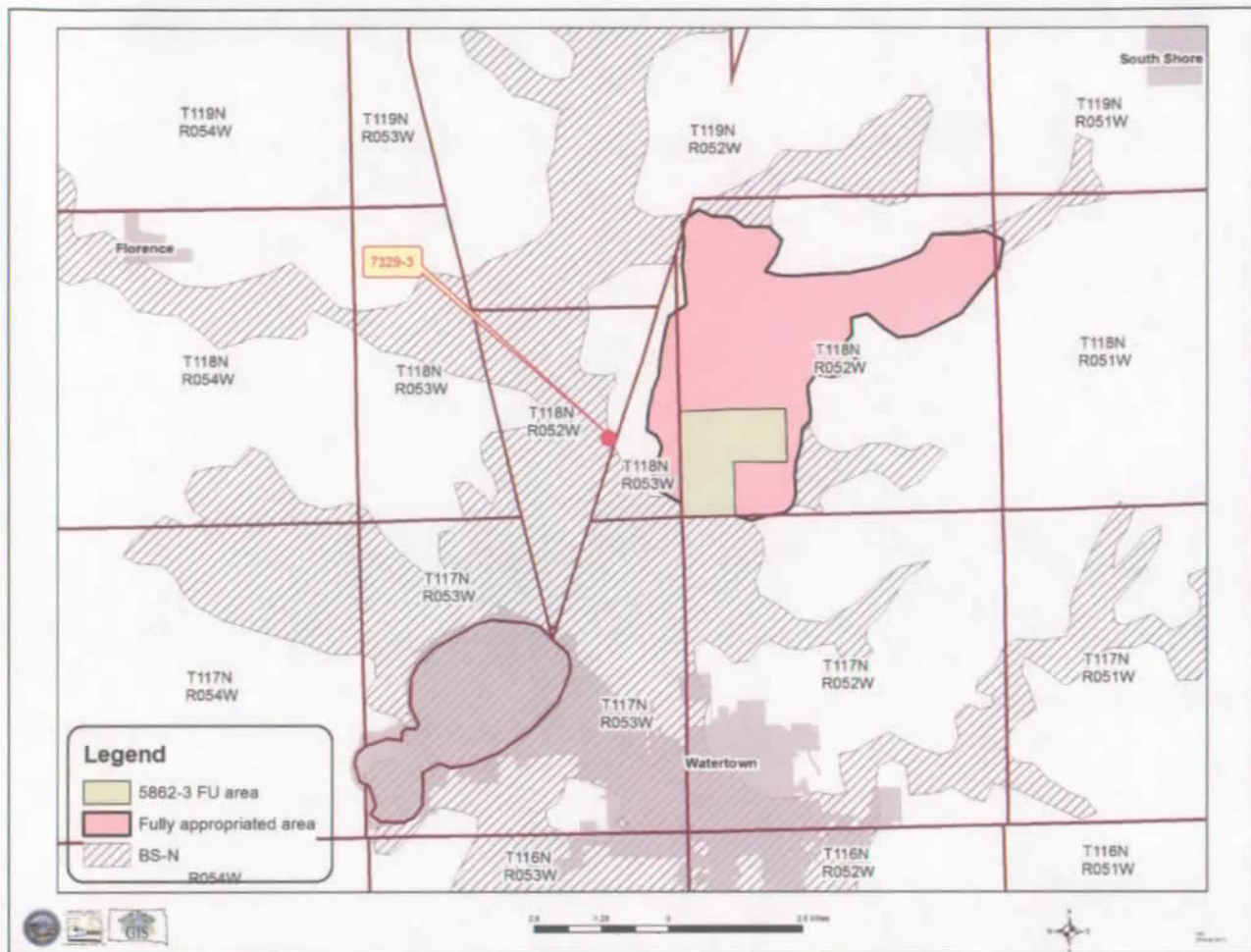


Figure 2. The location of the area reserved for future use by Future Use Permit no. 7329-3, the probable portion of the Big Sioux:North aquifer that is considered fully appropriated and the well site proposed by Application No. 7329-3 (modified from Hedges and others, 1982)

Reported water use from the Big Sioux: North for municipal, rural water system, and irrigation use are shown in tables 2 and 3.

REPORTED PUMPAGE FROM THE BS:N FOR MUNICIPAL AND RWS USE (acre-feet/year)		
	Watertown₁	Clark RWS₂
2011	3,864.039	143
2010	3,947.148	143
2009	3,735.26	164
2008	3,984.146	127
2007	4,062.464	44
2006	2,960.858	N/A
2005	2,391.826	N/A
2004	2,125.662	N/A
<i>Max</i>	<i>4,062.464</i>	<i>164</i>
<i>Ave</i>	<i>3,383.925</i>	<i>124.2</i>
₁ (Deville)		
₂ (Water Rights, 2008-2012)		

Table 2. Reported water use from the Big Sioux: North aquifer for municipal and rural water system use

BS:N IRRIGATION		
YEAR	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
2010	16208.5	2421.27
2009	15948.5	1773.51
2008	15498.5	2743.94
2007	14584.5	3308.79
2006	15134.5	4285.97
2005	15250.5	2886.7
2004	14673.5	2448.79
2003	14113.5	3662.11
2002	14129.5	2835.49
2001	14116	2558.91
2000	14116	3013.88
1999	14047.6	2593.1
1998	14117.8	1702.52
1997	13612.8	1656
1996	13472.8	1497.96
1995	14136.8	1186.68
1994	14151.8	1192.95
1993	14445.8	865.5
1992	14311.8	1325.7
1991	17,240	1659
1990	22492.8	2520.1
1989	21096.8	2686.6
1988	19,564.8	2,740.40
1987	19564.8	1929.4
1986	19564.8	1079.1
1985	19659	1419.7
1984	21936.3	1684.5
1983	21141	1110.45
1982	20187	1384.05
1981	20814	1067
1980	20598	888
1979	20598	912
<i>Ave</i>	<i>16493.5</i>	<i>2032.502</i>
<i>Max</i>	<i>22492.8</i>	<i>4285.97</i>
<i>Min</i>	<i>13472.8</i>	<i>865.5</i>

Table 3. Irrigation from the Big Sioux: North (Water Rights, 1980-2011)

Withdrawals from the North management unit of the Big Sioux aquifer for domestic, commercial, industrial, and suburban housing development uses is expected to be less than 1,000 acre-feet per year, collectively.

Since 12,500 acres of the Big Sioux: North aquifer plus the drainage above the area reserved for future use by Future Use Permit No. 5862-3 was determined to be fully appropriated, water permits approved for the area have been approved as temporary use permits pursuant to SDCL 46-5-39. The portion of the aquifer that is fully appropriated is isolated from the portion of the aquifer that this well is to be completed into (see figure 2) and should not be a factor in considering this application.

In general the average annual withdrawals to the aquifer do not exceed the average annual recharge to the aquifer unappropriated water is available from the BS:N aquifer and in particular, unappropriated water is available for the 192 acre-feet appropriation proposed by this application.

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 to the aquifer”.

The DENR-Water Rights Program monitors 27 observation wells completed into the North management unit of the Big Sioux aquifer. Observation well CD-60A is located approximately 2.5 miles up-gradient (north) and observation well CD-60B is located approximately 2.5 miles down-gradient (south) of the well site proposed by this application. Hydrographs for these observation wells are shown in figures 3 and 4.

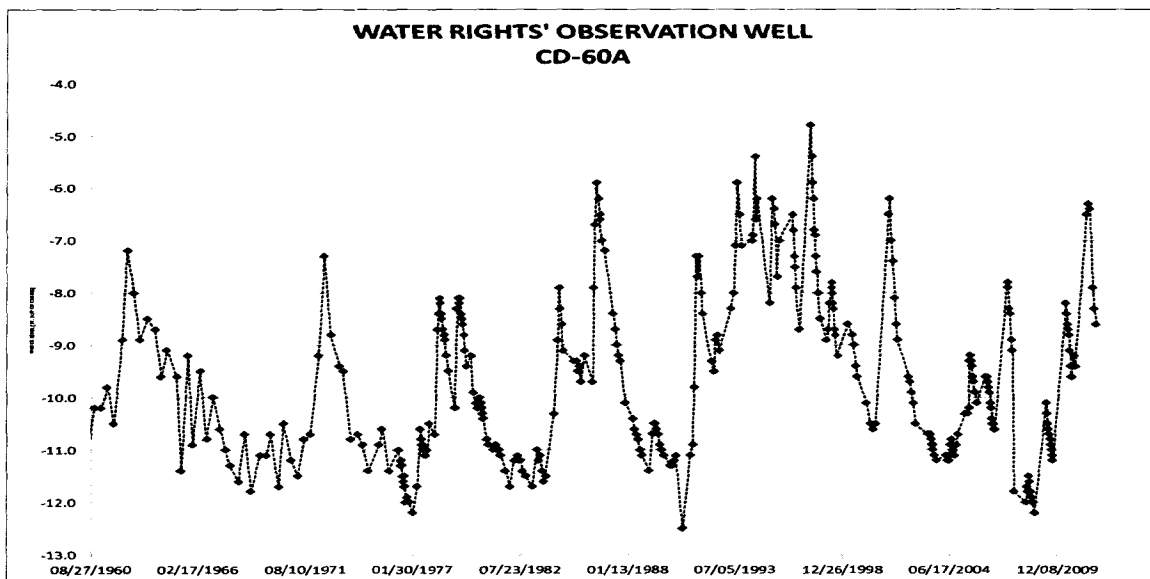


Figure 3. Hydrograph of DENR Water Rights' observation well located approximately 2.5 miles north of the well site proposed by Application No. 7329-3.

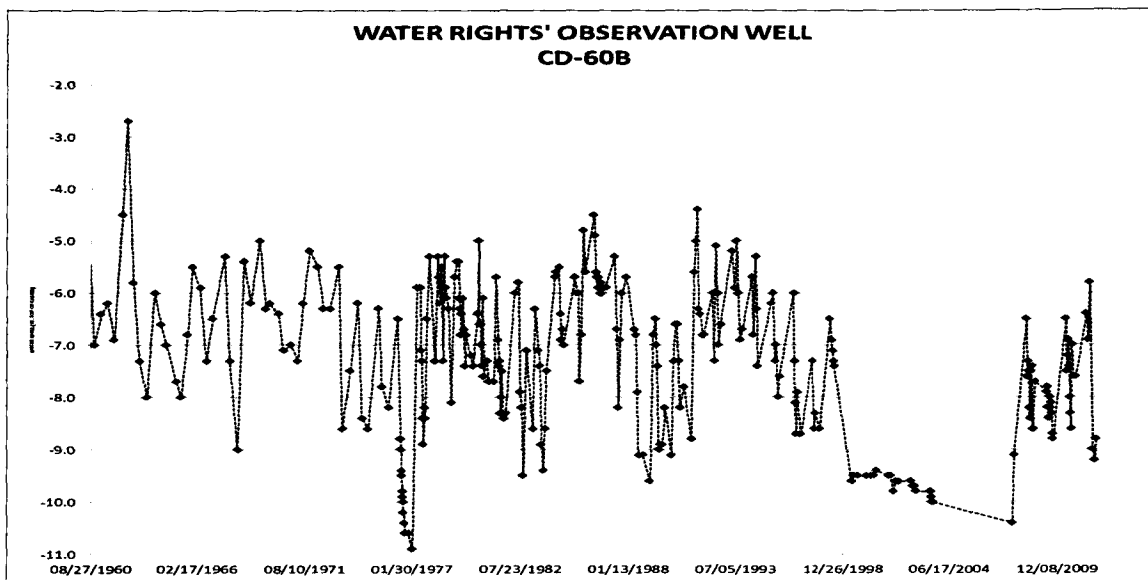


Figure 4. Hydrograph of DENR Water Rights' observation well located approximately 2.5 miles south of the well site proposed by Application No. 7329-3.

The observation well data shows the aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years. The water level data verifies that over the period of record, withdrawals have not exceeded recharge and unappropriated water is available for this appropriation.

EXISTING WATER RIGHTS:

There are five water rights appropriating water from the Big Sioux:North aquifer within approximately two miles of the well site proposed by this application, see table 4.

PERMIT NO	NAME	STATUS	USE	CFS	ACRES
2120-3	DON ENDRES	LC	IRR	2.22	190
5379-3	DON ENDRES	LC	IRR	2.4	165
6308-3	BIG SIOUX NURSERY INC	LC	IRR	1.9	151.75
6457-3	BIG SIOUX NURSERY INC	LC	COM	0.0	0
6750-3	BIG SIOUX NURSERY INC	LC	COM	0.1	0

Table 4. Water Rights within approximately two miles of the well site proposed by Application No. 7329-3

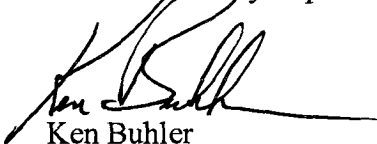
The only one of the water rights shown in table 4 that is within a mile of the well site proposed by this application is Water Right No. 2120-3. Water Right No. 2120-3 is supplied by three wells all located within approximately 1,900 feet of the well proposed by Application No. 7329-3. Since the Big Sioux aquifer is under unconfined conditions, drawdown from pumping an individual well is not expected to significant very far from the production well. Assuming an aquifer transmissivity similar to that calculated using the specific capacity of the Big Sioux Nursery well, which is the nearest irrigation well that data is available for, ($T=85,500$ gal/day/ft) ("Transmissivity From Specific Capacity"), drawdown at 1.56 cfs should be less than one foot 1,000 feet from a production well. Given the distance between this proposed well and Water Right No. 2120-3, any well interference is not expected to be adverse.

SDCL 46-5-6

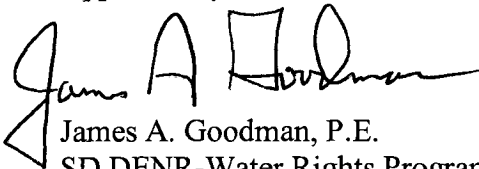
Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or "the equivalent thereof". The statute does provide that the Water Management Board may allow a greater diversion if the method of irrigation so requires. Water Permit Application No. 7329-3 proposes to divert at a rate of 1.56 cfs to irrigate 96 acres, or the equivalent to 1.14 cfs per 70 acres. It is not unusual for rates to exceed one cfs per 70 acres in similar situations where a center pivot irrigation system does not make a full rotation.

CONCLUSIONS:

1. This application proposes to appropriate up to 192 acre-feet annually from the Big Sioux:North aquifers.
2. There is a reasonable probability that unappropriated water is available from the Big Sioux:North aquifers to satisfy this proposed appropriation.
3. The Big Sioux:North aquifer is under unconfined (water table) conditions in this area and drawdown from pumping is not expected to be significant very far from a production well.
4. Withdrawals from the Big Sioux:North wells proposed by this application will not adversely impair existing water rights.



Ken Buhler
SD DENR-Water Rights Program
Approved by



James A. Goodman, P.E.
SD DENR-Water Rights Program

REFERENCES:

Anderson, Doug. Manager of Sioux Rural Water System. Personal interview. 26 Mar. 2012

Deville, Jeff. "2004-2011 water used." E-mail to Ken Buhler. 26 Mar. 2012

Goodman, J.A., 1995, Report on Water Permit Application No. 5862-3 for the City of Watertown Municipal Utilities Department, June 5, 1995, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Hansen, D.S., 1990, Water resources of Codington and Grant Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 89-4147, 47 p.

Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185

Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185

Putnam, L.D., and Thompson, R.C., 1996, Appraisal of the Water Resources of the Big Sioux Aquifer, Codington and Grant Counties, South Dakota: U.S. Geological Survey Water Resources Investigation No. 96-4275, 34 p.

“Transmissivity from Specific Capacity.” Aquifer Test Forum sponsored by HydroSOLVE, Inc.
16 Mar.2011< <http://www.aqtesolv.com/forum/transcap.asp>

Water Rights, 1980-2011, Irrigation Questioner Summaries 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2008-2012, Non-irrigation Water User Reporting 1997-2012, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2012a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2012b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2012c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

APR 23 2012

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of CODINGTON)

I, MONICA K. SAATHOFF

certify that the attached printed Notice was
taken

from the WATERTOWN PUBLIC OPINION

printed and published in WATERTOWN

County of CODINGTON and

state of South Dakota. The notice was
published

in the newspaper on the following two dates:

APRIL 13th, 2012

APRIL 20th, 2012

Cost of Printing \$106.97

Monica Saathoff
(Signature)

BOOKKEEPER

(Title)

APRIL 20th, 2012

(Date Signed)

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 April 30, 2012.

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 twice at the total approximate cost of \$102.00. (April 13 & 20, 2012)

All legal notices in the Public Opinion and other South Dakota newspapers can be found at
www.sdpublishnotices.com

DENR

NOTICE OF APPLICATION NO. 7329-3 to Appropriate Water

Notice is given that Michael Barrett, 16432 452nd Ave, Watertown SD 57201 has filed an application for a water permit to appropriate 1.56 cubic feet of water per second (cfs) for one well to be completed into the Big Sioux North Aquifer (45 feet deep) located in the approximate center of the SW 1/4 Section 15 for irrigation of 96 acres located in the SW 1/4 Section 15; all in T118N-R52W within the former boundaries of the Sisseton Wahpeton Indian Reservation. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7329-3 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,



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

April 6, 2012

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7329-3 to Appropriate Water to be published twice. Please publish the first notice on April 13, 2012 with the second publication 7 days later. 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, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Michael Barrett, 16432 452nd Ave. Watertown SD 57201 (Ph # 605-880-9534).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** 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

-----CUT HERE-----

No. 7329-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of April 6, 2012 enclosing Notice to Appropriate Water by Application No. 7329-3 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
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 RIGHT AWAY.

April 6, 2012

Michael Barrett
16432 452nd Ave
Watertown SD 57201

Dear Mr. Barrett:

Water Permit Application No. 7329-3 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 Publisher of the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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 applications.

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 first Notice on April 13, 2012 with the second publication 7 days later. 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. 7329-3 to Appropriate Water

Notice is give that Michael Barrett, 16432 452nd Ave, Watertown SD 57201 has filed an application for a water permit to appropriate 1.56 cubic feet of water per second (cfs) for one will to be completed into the Big Sioux:North Aquifer (45 feet deep) located in the approximate center of the SW ¼ Section 15 for irrigation of 96 acres located in the SW ¼ Section 15; all in T118N-R52W within the former boundaries of the Sisseton Wahpeton Indian Reservation. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7329-3 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 April 30, 2012

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 twice 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

MAY 10 2012

Michael Barrett
16432 452nd Ave
Watertown SD 57201

Dear Mr. Barrett:

Enclosed is Water Permit No. 7329-3 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

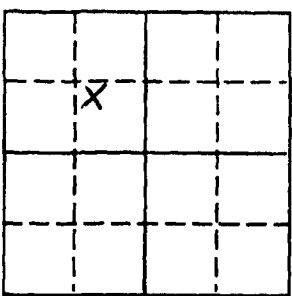
correct legal per phone call to driller

Sec 15-T118N-R52W

Water Permit No. 7329-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location <u>SE 1/4 NW 1/4</u> Sec <u>X18 XX XX XX XX XX XX XX XX</u> <u>53</u>		Well Owner: <u>Mike Barrett</u>	
County <u>Codington</u>		Business Name: _____	
North 		Address1: <u>16432 452nd Ave</u>	
Please mark well location with an "X"		Address2: _____	
Well completion Date <u>6-8-12</u>		City, State, Zip: <u>Watertown, South Dakota 57201</u>	
Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) <u>1/2 mile</u> from _____ (Identify source)		WELL LOG:	
PROPOSED USE: ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes ☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well		DEPTH	
METHOD OF DRILLING: <u>Bucket - False Casing</u>		FORMATION	
CASING DATA: ☐ Steel ☒ Plastic ☐ Other		FROM	
If other describe _____		TO	
PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER		FORMATION	
<u>10 LB/FT 12 IN + 1 FT 29 FT 20 IN</u>		<u>Topsoil</u>	
<u>LB/FT IN FT FT IN</u>		<u>Brown Gravel</u>	
<u>LB/FT IN FT FT IN</u>		<u>Coarse Gravel</u>	
GROUTING DATA:			
Grout Type No. of Sacks Grout Weight From To			
<u>Cement</u> <u>16</u> <u>Lb/gal</u> <u>0</u> <u>FT</u> <u>4</u> <u>FT</u>			
<u>Bostonite</u> <u>16</u> <u>Lb/gal</u> <u>4</u> <u>FT</u> <u>12</u> <u>FT</u>			
Describe grouting procedure _____			
SCREEN: ☐ Perforated pipe ☒ Manufactured		STATIC WATER LEVEL <u>13</u> FEET	
Diameter <u>12</u> Inches Length <u>20</u> Feet		If flowing: closed in pressure _____ PSI	
Material <u>C1160 PVC</u>		GPM flow _____ through _____ inch pipe	
Slot Size <u>.085</u> Set From <u>29</u> Feet to <u>49</u> Feet		Controlled by ☐ Valve ☐ Reducers ☐ Other _____	
Other information _____		Reduced flow rate _____ GPM	
WAS A PACKER OR SEAL USED? ☐ Yes ☒ No		Can well be completely shut in? _____	
If so, what material? _____		WELL TEST DATA:	
Describe packer(s) and location _____		☒ Pumped Describe: _____	
DISINFECTION: Was well disinfected upon completion?		☐ Bailed _____	
☒ Yes, How? <u>Chlorine</u>		☐ Other _____	
Lab sample sent to for water quality analysis		Pumping Level Below Land Surface	
<u>No-Ing</u>		<u>29'</u> FL After <u>2</u> Hrs. pumped <u>1000</u> GPM	
Please return White Copy to DENR Water Rights		_____ FL After _____ Hrs. pumped _____ GPM	
		If pump installed, pump rate: _____ GPM	
		REMARKS	
		<u>Really Good Well</u>	
		RECEIVED	
		JUL 12 2012	
		WATER RIGHTS PROGRAM	
		This well was drilled under license # <u>111</u>	
		And this report is true and accurate.	
		Drilling firm: <u>Lacey Well Drilling Inc.</u>	
		Signature of License Representative: <u>Jean Reddick</u>	
		Signature of Well Owner or Equitable Property Holder: <u>Mike Barrett</u>	
		Date: <u>7-4-12</u>	
		523 E. Capitol Ave., Pierre SD 57501	



7329-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 20, 2017

NOTICE

TO: MICHAEL BARRETT, 16432 452ND AVE, WATERTOWN, SD 57201

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) 7329-3. 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) 7329-3 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) 7329-3 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. 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.

7329-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 2, 2017

7329-3

Michael Barrett
16432 452nd Ave
Watertown SD 57201

Dear Mr. Barrett:

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. 7329-3. 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. 7329-3

I have this day, May 2, 2023, made a thorough examination of the water use system constructed by Michael Barrett; 16432 452th Ave, Watertown, SD 57201 of Permit No. 7329-3, bearing the priority of March 5, 2012 authorizing the diversion of 1.56 cu. ft. per second of the waters of the Big Sioux: North Aquifer for irrigation purposes, in Codington County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Lacey Well Drilling (drilled June 8, 2012)
- 2) No. of Wells: 1
- 3) Depth: 49 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 29 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless-steel, slotted
- 2) Length 20 feet
- 3) Static water level 13 feet

Pump:

- 1) Make Submersible
- 2) Model & size Unknown
- 3) Capacity 750 GPM

Motor: Unknown

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

- 1) Type Underground PVC
- 2) Size 10 inches
- 3) Length 600 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1350 feet
- 3) Number of towers 7
- 4) End gun Y
- 5) Capacity 750 GPM

Chemigation Equipment:

- 1) Chemigation: Yes, uses commercially available equipment

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by No, pumping 0.10 cfs more than authorized under permit
- 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: WELL LOCATION
2. From the SW corner Sec 15 T118N R52W, 2,060 ft N & 1,200 ft E, Lat 44.99717 Long -97.15961 (NW ¼ SW ¼).
3. The works are capable of diverting and conveying to the place of use 1.67 cu. ft. per second of water 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 15 T118N R52W

SW ¼ NW ¼ – 5.0 acres	NE ¼ SW ¼ – 5.9 acres
SE ¼ NW ¼ – 2.6 acres	SE ¼ SW ¼ – 14.7 acres
NW ¼ SW ¼ – 37.0 acres	SW ¼ SW ¼ – 30.8 acres

comprising a total of 96.0 acres of land and the license should be issued for 1.56 cfs

4. All structures, wells and lands on map Y

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

The irrigated acreage was determined with the aid of FSA imagery and ArcMAP software.

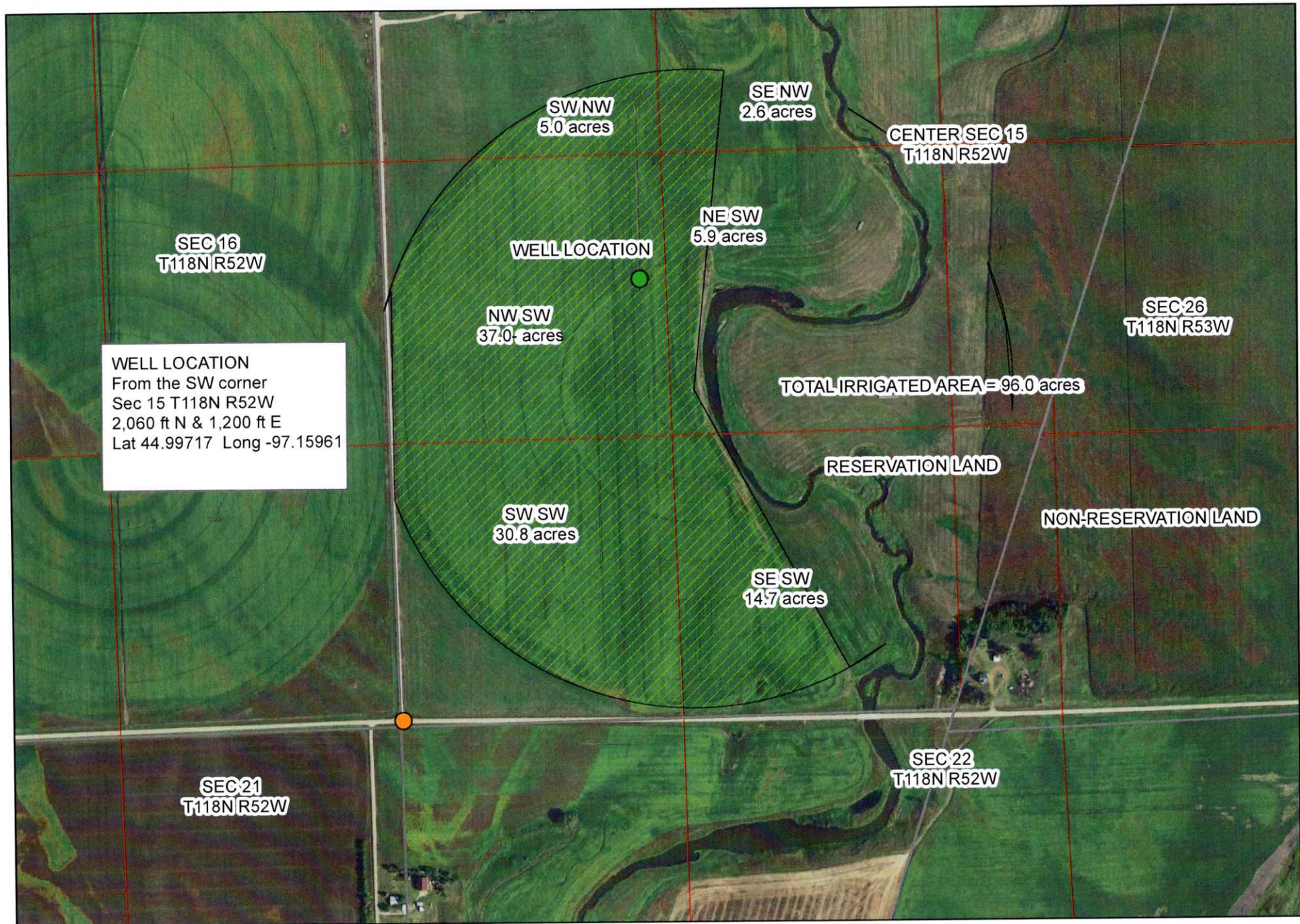
The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity.

The mailing address and the telephone number in the permit materials are current.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: May 6, 2023



0 0.075 0.15 0.3 0.45 0.6 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

Licensing of Acreage Outside of Permitted Area

NAME: Michael Barrett

ADDRESS: 16432 452nd Ave, Watertown SD 57201

DATE: May 11, 2023 COUNTY: Codington

AUTHORITY

Pursuant to SDCL 46-5-30.5, acreage developed for irrigation outside of the area described on the permit may be licensed provided the following conditions are met:

NO INCREASE IN PERMITTED ACREAGE OR WATER APPROPRIATED:

The acreage developed for irrigation is 96 acres as compared to 96 acres authorized by the permit.

UNPERMITTED ACREAGE:

- **Contiguous to Permitted Acreage**

Water Permit No. 7329-3 authorizes the irrigation of 96 acres in SW ¼ of Section 15. The 7.6 acres are located in the SW ¼ NW ¼, SE ¼ NW ¼ of Section 15; all in T118N-R52W(res).

- **Owned by Same Property Owner**

The permit holders own all the property irrigated

- **Developed Prior to Expiration of Construction Period**

A review of the irrigation questionnaires shows construction for the irrigation project was completed prior to April 30, 2017

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the 7.6 acre area be included in the water license.



Mark D Rath, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant to SDCL 46-5-30.5 that:

This acreage change does not impair existing water rights and the overall project, as developed, is consistent with the original application. Licensing of the unpermitted acreage may occur without application or publication pursuant to SDCL 46-2A-4.



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

MAY 11 2023

7329-3

Michael Barrett
16432 452nd Ave
Watertown SD 57201

Dear Mr. Barrett:

Enclosed is Water License No. 7329-3. 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 found your irrigation system is capable of diverting 1.67 cubic feet of water per second (cfs) which is equivalent to approximately 750 gallons per minute. Water Permit No. 7329-3 was issued for a maximum of 1.56 cfs (equivalent to 700 gpm) for irrigation of 96 acres. Diversion of water under this water license is limited to 1.56 cfs.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7329-3**

(1) Michael Barrett, 16432 452nd Ave., Watertown SD 57201 made Application No. 7329-3, March 5, 2012, for a water permit to divert 1.56 cubic feet of water per second from ground water, one well (Big Sioux North Aquifer), Codington County, South Dakota for irrigation purposes. Permit No. 7329-3, with a priority date of March 5, 2012, was approved April 30, 2012, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 30, 2017, and for the application to beneficial use of water on or before April 30, 2021.

The investigation of the water use system found acreage developed outside of the permitted area. Pursuant to SDCL 46-5-30.5, the Chief Engineer made a finding that the change in acreage did not impair existing water rights and the overall project, as developed, is consistent with the original application.

(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 1.56 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 2,060'N & 1,200'E of the SW corner of Section 15, T118N, R52W (NW ¼ SW ¼)
Latitude 4.99717, Longitude -97.15961

The above legal description is within the former boundaries of the Sisseton Wahpeton Indian Reservation.

(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 15, T118N, R52W			
SW ¼ NW ¼	5.0 acres	NE ¼ SW ¼	5.9 acres
SE ¼ NW ¼	2.6 acres	SE ¼ SW ¼	14.7 acres
NW ¼ SW ¼	37.0 acres	SW ¼ SW ¼	30.8 acres
96.0 acres			

The above legal descriptions are within the former boundaries of the Sisseton Wahpeton Indian Reservation.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Michael Barrett, 16432 452nd Ave., Watertown SD 57201 the holder and/or owner of Water Right No. 7329-3 is issued a license to appropriate water, the right to use 1.56 cubic feet of water per second from ground water, one well (Big Sioux North Aquifer) with a priority date of March 5, 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. 7329-3 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.

Continued

- The well authorized by Permit No. 7329-3 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 June 2012 by Lacey Well Drilling. 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 Agriculture and Natural Resources

MAY 11 2023
date

