

WATER PERMIT NO. 8311-3

Name of Applicant: John Daly

Address: 34662 236th St, Pukwana SD 57370

Phone: 605 680-1354

Amount of Water Claimed: 1.67 cfs

Total Acres: 130

Source of Water Supply: 2 existing wells

Water to be used for: irrigation

County: Buffalo

Type of Waste Disposal System:

Location: approximate 12 miles northeast of Chamberlain

PRIORITY

Date Received: 9-25-17

Application/License Fee: \$ 1050

Corrected Application Received: 9-29-17

Period of Annual Use: May 1 – Sep 30

Remarks: Existing wells authorized by No. 8191-3

Diversion Point: SE 1/4 SW 1/4 Sec 28-T106N-

R70W

Land to be Irrigated: SW 1/4 Sec 16-T106N-R70W

	18	17	16	15	
	19	20 booster pump	21	22	
	30	29	28 wells	27	

Depth of Well: 57

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 9-29-17

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8311-3</u> (office use only) Hydrologic Unit <u>10140105</u>
	Basin <u>Missouri River</u>
	Newspaper <u>Central Dakota Times, Chamberlain</u> <u>Plainsman, Huron</u>

RECEIVED

SEP 25 2017

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application:



(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 John Daly

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

Mailing Address 34662 236 ST Parkwana SD 57370
(Address) (City) (State) (Zip Code)Phone 605-894-4192 Mobile 605-680-1354 Email John24688@hotmail.com2. Amount of water claimed _____ *CFS or 750 **GPM _____ ***AF Total Acreage 130
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply AguaFER4. Location of point of diversion 2 wells in Existing Permit 8191-3
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)106-70-S. 28 E 1/2 (SE 1/4 NE 1/4) County Buffalo5. County or counties where water will be used Buffalo6. Annual period during which water is to be used may - sept 307. 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>106-70 SW 1/4 Sec 16</u>	<u>130</u>		

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

Plan to extend existing IRR Line to the East of current
Pivots in Sec 17, 106, 70, -I, John Daly, the applicant, certify under
Name of Person Title (if applicable)

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

SOUTH DAKOTA
WATER PERMIT NO. 8311-3

Date of first receipt of application September 25, 2017.

Date of return to applicant for corrections, amendments or changes September 25, 2017.

Date of receipt of corrected application September 29, 2017.

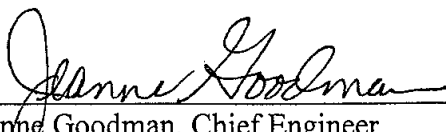
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8311-3 to John Daly, 34662 236th St, Pukwana SD 57370 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8311-3 authorizes irrigation of 130 new acres. Water Right No. 8191-3 appropriates 7.58 cubic feet of water per second from two existing wells completed into the Crow Creek Aquifer (55 and 57 feet deep) located in the SE 1/4 NE 1/4 Section 28 for irrigation of 615 acres. This permit authorizes irrigation of 130 new acres located in the SW 1/4 Section 16; all in T106N-R70W which is approximately 12 miles northeast of Chamberlain. This permit does not authorize any increase in the developed diversion rate.
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 September 25, 2017.
4. The date of approval of Permit No. 8311-3 is January 15, 2018.
5. One-fifth of the construction is to be completed on or before July 15, 2020.
6. All construction is to be completed on or before January 15, 2023.
7. Water is to be put to beneficial use on or before January 15, 2027.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under Water Right No. 8191-3 and Water Permit No. 8311-3 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. 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

JAN 18 2018
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 ____ Have test holes been drilled ☐ Yes ☐ No Drilled by ____
(if yes, please provide copies of logs)b) If existing wells, how many 2 Provide copy of log(s), if available. Drilled by Permit 8191-3

For either Existing or Proposed Wells:

c) Well Depth (required) 57' Depth to Top of Water Bearing Material 37' Depth to Water from Surface 20'd) Distance to nearest domestic well on applicant's property 1/2 mi Property owned by others 1/2 mi**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)

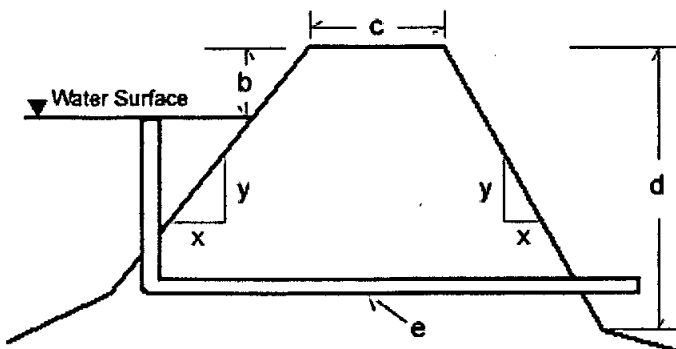
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





Sorry! ran low Ink

Sec.
16
106-70

13

Existing
14

Sec 17
106-70

Proposed new Pivot

12

Sec 17 T106N-R70W

NW ¼ SW ¼ - 33 ac
NE ¼ SW ¼ - 33 ac
NW ¼ SE ¼ - 33 ac
NE ¼ SE ¼ - 33 ac
NW ¼ SE ¼ - 26 ac
NE ¼ SE ¼ - 26 ac
NW ¼ SE ¼ - 37 ac
NE ¼ SE ¼ - 37 ac

Sec 20 T106N-R70W

NW ¼ NW ¼ - 3 ac
NE ¼ NW ¼ - 35 ac
SW ¼ NW ¼ - 3 ac
SE ¼ NW ¼ - 35 ac
NW ¼ NE ¼ - 33 ac
NE ¼ NE ¼ - 5 ac
SW ¼ NE ¼ - 29 ac

Sec 28 T106N-R70W

SE ¼ NW ¼ - 31 ac
SW ¼ NE ¼ - 40 ac
SE ¼ NE ¼ - 36 ac
NE ¼ SW ¼ - 31 ac
NW ¼ SE ¼ - 40 ac
NE ¼ SE ¼ - 36 ac

Sec 17 T106N-R70W

Sec 16 T106N-R70W

Sec 20 T106N-R70W

Sec 21 T106N-R70W

Sec 28 T106N-R70W

Well Locations

From the NE corner of
Sec 28 T106N-R70W

Well #1

Lat: 43.95522 Lon: -99.23153
2475 Ft S
1215 Ft W

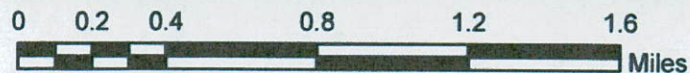
Well #2

Lat: 43.95550 Lon: -99.22922
2330 Ft S
565 Ft W

Booster Pump

Well #2

Well #1



Mark D Rath
Mark D Rath
Natural Resource Engineer
October 19, 2015

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date September 29, 20 17

RECEIVED OF Daly Farms Inc. 34662 236th Street Pukwana 57370

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

Fee for Application for Permit No. <u>8311-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	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>8311-3</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	1050	00

No. **08339**

By

Jeanne Goodman
Chief Engineer *me*



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

September 25, 2017

John Daly
34662 236th St
Pukwana SD 57370

Dear Mr. Daly:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Buffalo County. In order to complete the application, the following is required.

- The application/license filing fee to irrigate 130 acres will be \$1,050.00. Please submit.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, September 13, 2017 4:56 PM
To: john24688@hotmail.com
Subject: FW: [EXT] Permit changes

The new well would be considered a replacement well if the following criteria is met: 1) it is located within the same quarter-quarter of the section, 2) is approximately the same depth as the existing wells (40-42 feet deep- Crow Creek Aquifer) and 3) there is no increase in the diversion rate.

Please have the driller note on the well completion report that it is a replacement well.

A new permit application will need to be filed for the additional 130 acres.

Karen

From: Schlaak, Karen
Sent: Wednesday, September 13, 2017 8:36 AM
To: 'john daly'
Subject: RE: [EXT] Permit changes

John,
You will need to file a water permit application for the additional well and for the additional acres and go thru the permitting process. Application forms can be found on our website which I know you are familiar with. If you would prefer, I can mail you the application forms. When completing the application, if you have questions, please contact Eric Gronlund or me.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



From: john daly [<mailto:john24688@hotmail.com>]
Sent: Tuesday, September 12, 2017 3:01 PM
To: Schlaak, Karen
Subject: Fwd: [EXT] Permit changes

Sent from my iPad

Begin forwarded message:

From: John <john24688@hotmail.com>
Date: September 12, 2017 at 2:16:29 PM CDT
To: karenschlaak@state.sd.us
Subject: Permit changes

Dear water rights,

This letter is in regard to my irrigation permit no. 8191-3. I have found since installing the bigger pump in my older irrigation well, that it isn't able to pump the volume that the new well pumps. It appears the screen must be plugged and I would like to drill a new well in the near proximity of the existing well as to utilize the new pumps capacity.

I would also like to add 130 ac of irrigation on same system to run off of same pumps etc. this would be located in 106-70 sec 16.

Thanks for your consideration,
John daly.

Sent from my iPad

Water Rights Program -- DENR
Conversation File Documentation

NAME: John Daly

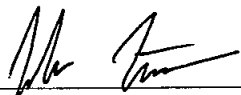
ADDRESS: 34662 236th St, Pukwana, SD 57370

DATE: November 13, 2017 **COUNTY:** Buffalo **TELEPHONE:** 605-680-1354

Re: Clarification of acres and pump rate

I contacted John Daly and spoke with him concerning the pumps in his wells for the irrigation of the additional acres. He stated that the 2 pumps are the same 1700 gpm capacity pumps as licensed under Water Right No. 8191-3, and that the application is for additional acreage with no increase in the maximum diversion rate. The booster pump that supplies the northern pivots remains the same, and he stated that he will have to have a variety of crops planted due to the capacity of the system. He is drilling one replacement well and reusing the existing pump. He also has the materials ready for the extension of his irrigation system and may run the pipe yet before winter.

NAME: _____


John Farmer

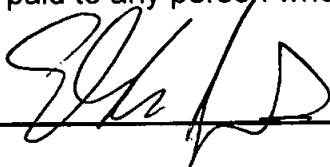
PRINTER'S AFFIDAVIT

STATE OF SOUTH DAKOTA,
COUNTY OF BEADLE: ss

I, ELDON JACOBS, being duly sworn on oath say that the PLAINSMAN is a daily paper published at Huron, Beadle County, South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am Legal Advertising Coordinator of said newspaper and know the facts herein state. The annexed notice headed:

**DALY, JOHN- #3387 WATER RIGHTS-
DALY**

was published for one day, in said newspaper, and not in any supplement of the said newspaper, the publication was of the 3RD Day JANUARY 2018. That the full amount of the fee charged for publishing THIRTY-SEVEN & 29/100 dollars insures to the benefit of the publisher 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 whom so ever.



Subscribed and sworn to me before this 16TH Day of JANUARY 2018.



Notary Public, South Dakota

My term expires 03/11/2022
Legal #3387

F.P. 01-03-18

**NOTICE OF
APPLICATION NO.
8311-3 to**

Appropriate Water

Notice is given that John Daly, 34662 236th St, Pukwana SD 57370 has filed an application for a water permit to irrigate 130 new acres. Water Right No. 8191-3 appropriate 7.58 cubic feet of water per second from two existing wells completed into the Crow Creek Aquifer (55 and 57 feet deep) located in the SE 1/4 NE 1/4 Section 28 for irrigation of 615 acres. This application proposes to irrigate 130 new acres located in the SW 1/4 Section 16; all in T106N-R70W which is approximately 12 miles northeast of Chamberlain. This application, if approved, does not authorize any increase in the developed diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8311-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and

Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by January 15, 2018.

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

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

Steven M. Pirner,
Secretary, Department of
Environment and Natural
Resources.

No. 3387 (adv.)

Published once at the
total approximate cost of
\$37.29.

RECEIVED

JAN 17 2018

WA & RIGHTS
+ & GRAM

AFFIDAVIT OF PUBLICATION

State of South Dakota

ss.

County of Brule

Debi Ruiz of said county, being first duly sworn, on oath, says: That she is the publisher of *Central Dakota Times*, a weekly newspaper, published in the City of Chamberlain, in said County of Brule and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4 inclusive; that said newspaper has been published within the said County of Brule and State of South Dakota, for at least one year next prior to the first publication of the attached public notice and that the Notice of Application No. 8311-3

To Appropriate Water

a printed copy of which, taken from the paper in which the same was published and which is hereto attached and made a part of this affidavit, was published in said newspaper for one successive week(s) to wit:

January 3, 20 18; _____, 20 _____;
_____, 20 _____; _____, 20 _____;
_____, 20 _____; _____, 20 _____;

That the full amount of the fee charged for the publication of the attached public notice inures to the sole benefit of the publisher or publishers; 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:

\$ 25.08

Signed: Debi Ruiz

Subscribed and sworn to before me this 4th day

of January, 20 18

Janet L. Petrak

Notary Public In and For The County of Brule,
South Dakota

JANET L. PETRAK
Notary Public
SEAL
South Dakota

NOTICE OF APPLICATION NO. 8311-3 TO APPROPRIATE WATER

Notice is given that John Daly, 34662 236th Street, Pukwana, SD 57370 has filed an application for a water permit to irrigate 130 new acres. Water Right No. 8191-3 appropriates 7.58 cubic feet of water per second from two existing wells completed into the Crow Creek Aquifer (55 and 57 feet deep) located in the SE 1/4 NE 1/4 Section 28 for irrigation of 615 acres. This application proposes to irrigate 130 new acres located in the SW 1/4 Section 16; all in T106N-R70W which is approximately 12 miles northeast of Chamberlain. This application, if approved, does not authorize any increase in the developed diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8311-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 East 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 Jan. 15, 2018.

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

Steven M. Pirner, Secretary,
Department of Environment and Natural Resources

(Published one week, January 3, 2018, at a total approximate cost of \$25.08.)

(January 3)

RECEIVED

JAN 08 2018

WATER RIGHTS
PROGRAM

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, December 27, 2017 11:51 AM
To: cdt@midstatesd.net
Subject: 8311-3, John Daly
Attachments: FORM8.FRM.doc; 8311-3.public.short.docx

Attached is a notice to be published on January 3, 2018.

John Daly, 34662 236th St, Pukwana SD 57370 (605 894-4192 or c 605 680-1354) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



*Called Deb
w/ date change
they had done it*

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, December 27, 2017 11:51 AM
To: Ruby Crandall (rnewman.plainsman@midconetwork.com)
Subject: 8311-3, John Daly
Attachments: FORM8.FRM.doc; 8311-3.public.short.docx

Attached is a notice to be published on January 3, 2018.

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

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



*Called Ruby
talked w/ McKenzie
change date*

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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 January 15, 201~~8~~⁹,

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

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

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

December 27, 2017

John Daly
34662 236th St
Pukwana SD 57370

Dear Mr. Daly:

Water Permit Application No. 8311-3 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 Central Dakota Times printed at Chamberlain SD (Ph # 605-234-0266) and the Plainsman printed at Huron SD (Ph # 605-353-7414). 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.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8311-3, John Daly**

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. 8311-3, John Daly, 34662 236th Street, Pukwana SD 57370.

The Chief Engineer is recommending APPROVAL of Application No. 8311-3 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 Water Right No. 8191-3 and Water Permit No. 8311-3 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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

A handwritten signature in black ink, reading "Jeanne Goodman". The signature is written in a cursive, flowing style.

Jeanne Goodman, Chief Engineer
December 27, 2017

REPORT TO THE CHIEF ENGINEER

Water Permit Application No. 8311-3

John Daly

December 20, 2017

Water Permit Application No. 8311-3 proposes to appropriate water for irrigation of 130 acres located in the SW $\frac{1}{4}$ Sec 16; T106N-R70W. These acres will be supplied using water from two existing irrigation wells currently authorized under Water Right No. 8191-3. Water Right No. 8191-3 appropriates 7.58 cubic feet per second (cfs) of water from two wells (55 feet deep and 57 feet deep) completed into the Crow Creek aquifer and located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 28 T106N-R70W.

This application is for the irrigation of 130 acres in a quarter section that was previously permitted for irrigation. Water Permit No. 7039-3 was for the irrigation of 520 acres located in the S $\frac{1}{2}$ Section 17, N $\frac{1}{2}$ Section 20 and the SW $\frac{1}{4}$ of Section 16; all in T106N-R70W. Water Permit No. 7039A-3 was a transfer of acres permitted under Water Permit 7039-3 and consisted of moving 100 acres from the SW $\frac{1}{4}$ of Section 16 to the S $\frac{1}{2}$ NE $\frac{1}{4}$ and the N $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 28; all in T106N-R70W. Water Permit Nos. 1684-3, 7039-3, 7039A-3, and 8191-3 were all incorporated into Water Right No. 8191-3.

Water Right No. 8191-3 is for the irrigation of 615 acres located in the S $\frac{1}{2}$ Section 17; NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, and the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 20; SE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, and the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 28; all in T106N-R70W. The wells that supply the water for Water Right No. 8191-3 are the same wells that will be used by this application. The diversion rate approved under Water Right No. 8191-3 is 7.58 cfs. This application is not seeking to increase this diversion rate, just the number of acres irrigated. Water Permit Application No. 8311-3, if approved, and Water Right No. 8191-3 combined, will authorize a total maximum diversion rate of 7.58 cfs from two wells for the irrigation of 745 acres in Buffalo County, SD.

AQUIFER: Crow Creek (CC)

HYDROGEOLOGY

The Crow Creek aquifer is composed of permeable and well sorted glacial outwash deposits ranging from medium to very coarse sand and gravel (Hamilton, 1985). The Crow Creek aquifer has been identified in Jerauld County by Hedges et al. (1982) and Hamilton (1985). Mapping of the first occurrence of aquifer materials in Jerauld County by Jensen (2005) better supports the aquifer boundaries as identified by Hamilton (1985). In Jerauld County, Hamilton (1985) estimated that the Crow Creek aquifer underlies approximately 44,800 acres with 270,000 acre-feet of water in storage. Hedges et al. (1982) identified the Crow Creek aquifer as encompassing 41,500 acres in Jerauld and Hand Counties, with 153,700 acre-feet of water in storage. The Crow Creek aquifer extends into Buffalo and Brule Counties; however the extent of the aquifer in these counties has not been determined due to limited data. Generally, the Crow Creek aquifer is present in the valley that Crow Creek resides within (Hamilton, 1985), however its presence is not limited to the creek valley.

The irrigation well for Water Right No. 1684-3 at the time of installation (6/27/1969) was under unconfined conditions, with aquifer materials from a depth of 15 to 55 feet, and a static water level of 19 feet. The aquifer materials identified in this well log are brown sand from 15 to 21 feet, clayey boulders and gravel from 21 to 23 feet, and fine to medium gravel from 23 to 55 feet (Water Rights, 2017b). The irrigation well for Water Permit No. 7039A-3 is also under unconfined conditions with a reported static water level of 16.7 feet, and aquifer materials, consisting of yellow gravel, from 10 to 57 feet below the land surface. These irrigation wells are located approximately one quarter mile south of Crow Creek and approximately one half mile northeast of Smith Creek.

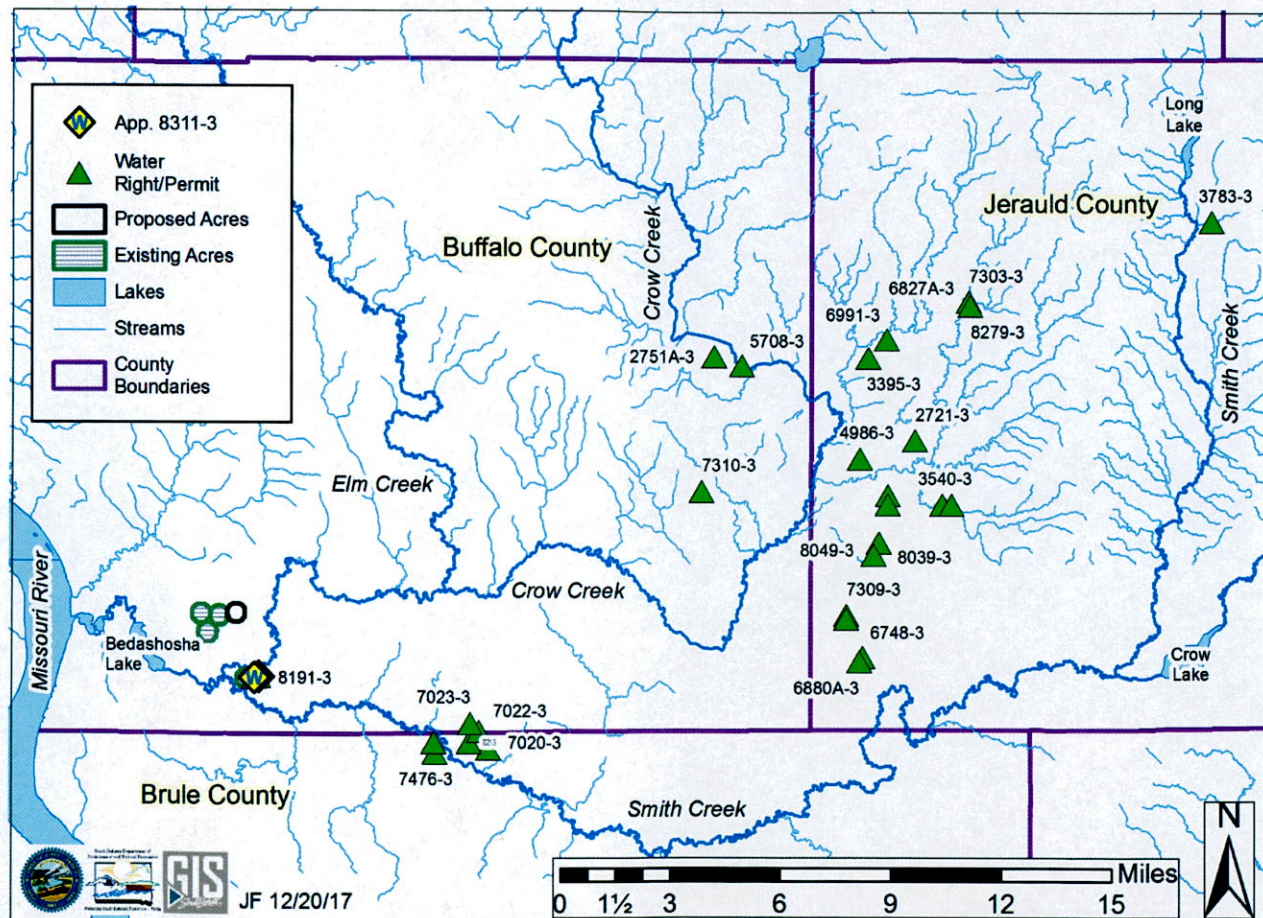


Figure 1. Map showing the location of the diversion and the distribution of Water Rights/Permits identified as using the Crow Creek aquifer (Water Rights, 2017a).

The movement of groundwater within the Crow Creek aquifer is generally from the east-northeast to the west-southwest towards the Missouri River. In Jerauld County, Hamilton (1985) shows the Crow Creek aquifer as being separated from the Crow Lake aquifer by an area of low transmissivity. No other aquifers have been identified as being hydraulically connected to the Crow Creek aquifer. Assuming the Elm Creek aquifer in Hyde and Hand counties (Hedges et al., 1982) roughly follows Elm Creek through Buffalo County, the Elm Creek aquifer could possibly contribute recharge to the Crow Creek aquifer. In addition, there are several water rights/permits that have been issued as being in the Crow Creek aquifer but are located along Smith Creek. These water rights/permits along Smith Creek are withdrawing water from a

gravel unit at a similar depth to the Crow Creek aquifer at the applicant's location. It is currently unclear if the outwash deposits along both creeks are hydraulically connected or if they just experience similar hydrologic conditions.

Aquifer Testing

The irrigation well for Water Right No. 1684-3 has been tested several times in regards to the capacity to pump and the response of the aquifer to the pumping. At the time of installation, the well was pumped for approximately 10 hours. From the notes in the file for Water Right No. 1684-3, the initial pump rate was 120 gpm for 3 hours, then increasing to roughly 2,000 gpm for 6 hours, the pump rate was then reduced to 1,000 gpm for 10 minutes, and further reduced to 850 gpm for another 10 minutes. At the end of this pumping, the water level in the well had declined 4.5 feet. When the pump was shut off, it was indicated on the well log that it took less than a minute to return to the static water level.

After the original application was deferred due to concerns of the neighbors, Frank Cable was granted permission by the Water Rights Commission and the consent of the concerned parties to pump during the remainder of the 1969 irrigation season to determine the effect that pumping would have on nearby domestic wells. The irrigation well was pumped at approximately 800 gpm for about 300 hours between July 22 and August 22, 1969. Measurements of nearby domestic wells at the end of this pumping were recorded as showing 12 inches of drawdown 1/8 mile north, 8 inches 1/2 mile north, 1 inch 1/4 mile to the northeast, and 2.5 inches 3/4 mile northeast. In addition to this test showing that the aquifer is composed of heterogeneous material, it is unclear how the aquifer was responding to other hydrologic conditions during this period, so some of these domestic well measurements may be anecdotal.

At the end of the 1969 growing season, the US Geological Survey (USGS) conducted an aquifer test using the irrigation well for Water Right No. 1684-3 (Howells, 1970). Four observation wells were completed into gravel and located between 80 and 320 feet from the irrigation well. The well was pumped at an average measured rate of 872 gpm for 57 hours, and the water level at the observation wells was recorded prior to, during, and after pumping. The results of this aquifer test showed that near the well the aquifer transmissivity is greater than 130,000 gallons per day per foot, and the storativity ranged between 0.03 and 0.08. The USGS report on the aquifer test states that near the interpreted aquifer boundaries, the transmissivity of the aquifer decreases through a combination of the aquifer materials changing and a decrease in aquifer thickness.

South Dakota Codified Law 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 within the Crow Creek aquifer.

WATER AVAILABILITY

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the

quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older than or stratigraphically lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not take into consideration the balance of aquifer recharge and withdrawal. Here, the water source is not older or lower than the Greenhorn Formation and a water distribution system is not involved. Therefore, the balance of withdrawal and recharge must be considered.

Hydrologic Budget

Recharge

Recharge to the Crow Creek aquifer occurs primarily through direct infiltration of precipitation through the very permeable overlying deposits of sandy alluvium, outwash, and till (Hamilton, 1985). In Jerauld County, Hamilton (1985) estimated the average recharge to the Crow Creek aquifer to be 9,100 acre-feet per year (2.4 inches per year). Using observation well data, Hedges et al. (1985) estimated the average annual recharge to the Crow Creek aquifer to be 3.8 inches per year (14,190 acre-feet using the same area as Hamilton). By using observation well data, the data represents both withdrawals from and recharge to the aquifer, as they occur simultaneously. When the recharge is greater than discharge, this method produces a lower than actual recharge rate. The same holds true when discharge is greater than recharge, the calculated discharge rate is lower than the actual discharge rate. The estimated average annual recharge to the Crow Creek aquifer is likely between 9,100 and 14,190 ac-ft/yr.

Discharge

Discharge from the Crow Creek aquifer occurs through well withdrawals, evapotranspiration from areas where the aquifer is near the land surface, and flow from springs and seeps into Crow Creek (Hamilton, 1985). Currently there are 23 Water Rights/Permits appropriating water from the Crow Creek aquifer (Water Rights, 2017a). Table 1 shows a summary of Water Rights/Permits with their appropriation and estimated annual expected use. The amount of water that can be expected to be withdrawn from non-irrigation users can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually, water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and future use permits will be fully developed.

Table 1: Water rights/permits authorized to withdraw water from the Crow Creek aquifer including estimated annual volume pumped (Water Rights, 2017a)

PERMIT NO.	NAME	COUNTY	STATUS	USE	CFS	ACRES	ESTIMATED ANNUAL PUMPAGE (AC-FT)
2721-3	SPRING VALLEY HTTRN BRTH	JE	LC	IRR	1.55	132	N/A
2751A-3	REX ZASTROW	BF	LC	IRR	1.66	132	N/A
3395-3	STRAW HAT LAND & CATTLE LLP	JE	LC	IRR	1.56	109	N/A
3540-3	SPRING VALLEY HTTRN BRTH	JE	LC	IRR	1.66	268	N/A
3783-3	PAT HOARTY	JE	LC	IRR	1.55	122	N/A
4986-3	SPRING VALLEY HTTRN BRTH	JE	LC	IRR	3.55	266	N/A
5708-3	REX ZASTROW	BF	LC	IRR	2.44	205	N/A
6748-3	BRIAN & ED HAVLIK	JE	LC	COM/DOM	0.12	N/A	52.1
6827A-3	MYRON VAN BUSKIRK	JE	PE	IRR	3.21	225	N/A
6880A-3	PHEASANT CREST LODGE INC	JE	PE	IRR	4	280	N/A
6991-3	STRAW HAT LAND & CATTLE LLP	JE	PE	IRR	0.33	105	N/A
7020-3	RODNEY L LARSEN	BL	LC	IRR	1.67	134	N/A
7021-3	RODNEY L LARSEN	BL	LC	IRR	1.67	134	N/A
7022-3	RODNEY L LARSEN	BF	LC	IRR	1.67	134	N/A
7023-3	RODNEY L LARSEN	BF	LC	IRR	1.67	134	N/A
7303-3	MYRON VAN BUSKIRK	JE	PE	IRR	1	75	N/A
7309-3	TODD GROHS	JE	LC	IRR	3.9	716	N/A
7310-3	KLEIN LAND & CATTLE	BF	LC	IRR	1.67	130	N/A
7476-3	THOMPSON HEREFORD RANCH	BL	LC	IRR	4.33	400	N/A
8039-3	GROHS FARMS PARTNERSHIP	JE	PE	IRR	4	320	N/A
8049-3	SPRING VALLEY COLONY	JE	PE	IRR	4.47	313	N/A
8191-3	JOHN DALY	BF	LC	IRR	7.58	615	N/A
8279-3	MYRON VAN BUSKIRK	JE	PE	IRR	0	40	N/A
BF = Buffalo, BR = Brule, JE = Jerauld							
LC = Water Right, PE = Water Permit							
COM = Commercial, DOM = Domestic, IRR = Irrigation							

Due to different parts of the state having varying hydrologic conditions and soil types, the estimated annual use from irrigation water rights/permits is determined by looking at the historical reported usage of the aquifer. Table 2 shows a summary of the reported irrigation questionnaire data from 1979 to 2016, the most recent reported data. The average historic irrigation pumpage from the Crow Creek aquifer for 1979 through 2016 is 1,745 ac-ft/year.

Across South Dakota, the average application rate for irrigation is generally less than 10 inches per year. Assuming this application applies an average of 10 inches per year, the estimated annual pumpage from this application, if approved, would be 108.3 ac-ft/yr.

There are a number of domestic wells on file that withdraw water from the Crow Creek aquifer (Water Rights, 2017b), however the magnitude of their withdrawals is small, and since the introduction of rural water systems, many of these wells may no longer be in use. The annual quantity of water withdrawn for domestic uses is considered to not be significant to the overall hydrologic budget of the aquifer.

Table 2: Reported Irrigation Questionnaire data from 1979 to 2016 (Water Rights, 1980-2017)

Year	No. of Permits	Appropriation (ac-ft/yr)	Pumpage (ac-ft)
1979	26	13643	1654.62
1980	26	13643	2621.52
1981	28	14523	2737.96
1982	20	10145.35	1586.03
1983	21	10043.35	2413.23
1984	24	10887.35	2178
1985	24	10887.35	2451
1986	23	10567.35	1454
1987	23	10567.35	2169
1988	23	10567.35	3954.3
1989	23	10567.35	2858.7
1990	23	10567.35	1699
1991	21	9764.35	2049
1992	19	9265.35	827
1993	18	8670.35	842
1994	18	9053.7	1162.99
1995	18	9053.7	858.65
1996	17	7881	1031
1997	16	7581	246
1998	16	7581	262.07
1999	16	7581	793.47
2000	16	7581	1331.95
2001	16	7581	571.49
2002	16	7581	2011.26
2003	16	7581	1543.45
2004	16	7581	948.23
2005	15	7386	1195.92
2006	16	8384	1756.1
2007	16	8384	1275.02
2008	21	9964	1874.96
2009	22	11004	853.55
2010	22	11004	551.42
2011	22	11004	1127.04
2012	27	11884	4004.14
2013	28	11884	3115.76
2014	27	11647	2162.27
2015	23	11005	3363.64
2016	21	10661	2773.61
Min	15	7386	246
Max	28	14523	4004.14
Avg	21	9872.5	1745.0

Hydrologic Budget

The estimated withdrawals from the Crow Creek aquifer are 52.1 ac-ft/yr by non-irrigation users and 1,745 ac-ft/yr by irrigation. Including an estimated 108.3 ac-ft/yr from this application, if approved, the estimated average annual withdrawal from the Crow Creek aquifer would be 1,905 ac-ft/yr. The estimated annual recharge to the Crow Creek aquifer is between 9,100 and 14,190 ac-ft/yr. Due to the withdrawals being several times smaller than the recharge, there is a reasonable probability there is unappropriated water available from the Crow Creek aquifer for the proposed appropriation.

Observation Well Data

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

The Water Rights Program currently monitors nine observation wells completed in the Crow Creek aquifer (Water Rights, 2017c). There is one additional observation well, BF-77B, in which monitoring was ceased in 1999 because it was destroyed by road construction. In addition to the Crow Creek aquifer observation wells, there are five observation wells in the area that are identified as being completed into an Unknown unit of the Pleistocene Series (PS:U) aquifer. These PS:U observation wells are located near water rights/permits that are identified as being in the Crow Creek aquifer.

The nearest observation well is BF-78C, identified as being in the PS:U, located just over 5 miles to the east-southeast of existing irrigation wells for this application. The nearest observation well identified as being in the Crow Creek aquifer is BF-77B, and is located over 14 miles to the east-northeast. The next nearest Crow Creek aquifer observation well that has a current period of record is BF-77A located 15.6 miles to the northeast. Seven other Crow Creek observation wells are 18.6 to 21.5 miles away in a northeast to east-northeast direction. The locations of these observation wells are shown in Figure 2, and the hydrographs for these ten observation wells are shown in Figure 3.

These observation well hydrographs are representative of the Crow Creek aquifer. Observation wells BF-77A and JE-78J are under confined conditions, and the eight others shown on the hydrograph are under water table conditions. The hydrographs show that the aquifer responds well to hydrologic conditions, recharging during wetter periods and declining during drier periods. The hydrographs also show that the aquifer responds to seasonal pumping near irrigation and other high capacity wells. The observation well measurements show that the effects from pumping are temporal, and that the aquifer generally returns to pre-pumping conditions. The seasonal drawdown is especially apparent in observation well BF-77A because it is under confined conditions and located one eighth of a mile from the nearest irrigation well. Overall, the water levels observed at these observation wells have remained steady with a very slight rise since the early 1980's. The observation well data indicates that there is a reasonable probability that there is unappropriated water available from the Crow Creek aquifer.

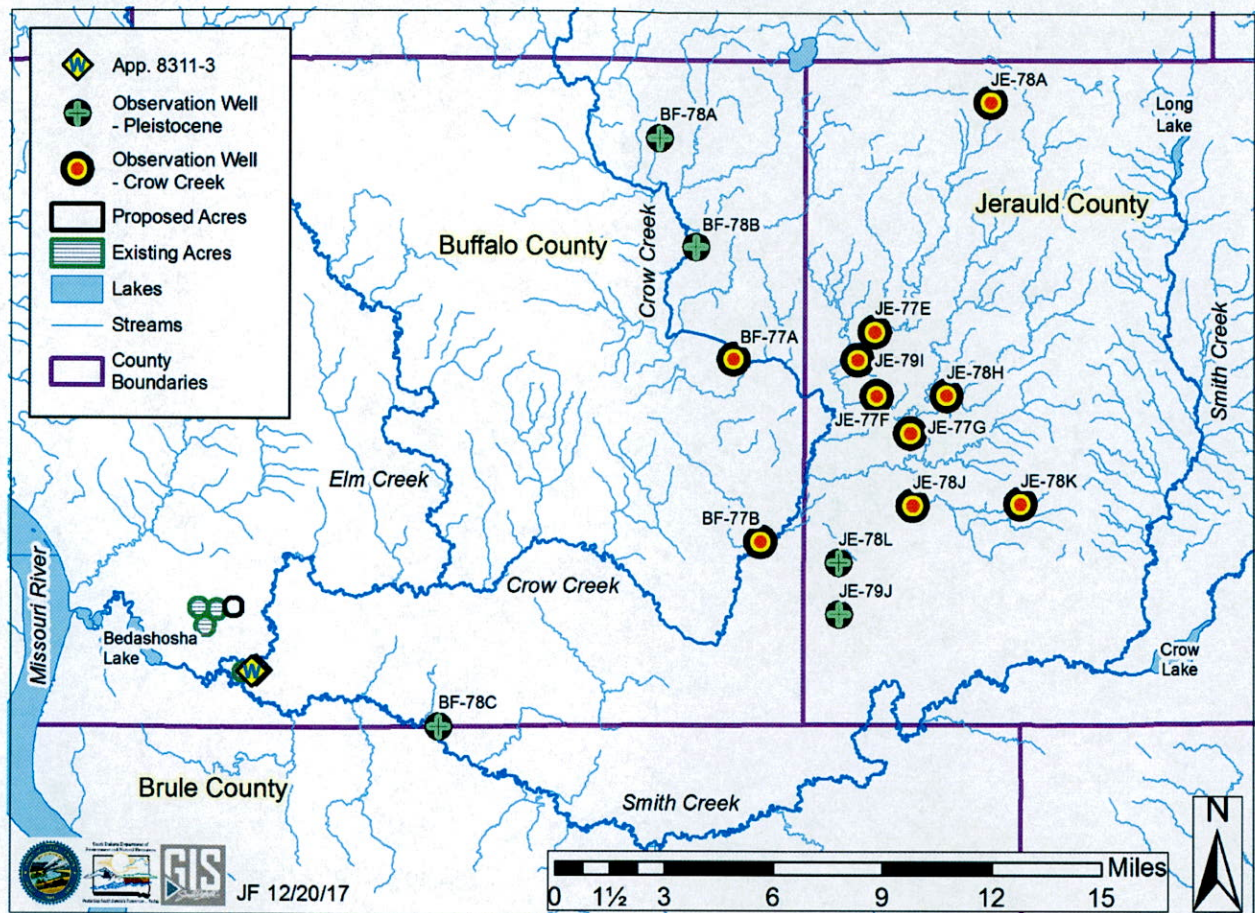


Figure 2. Map showing the location of observation wells in the Crow Creek aquifer and nearby observation wells completed into unidentified Pleistocene units (Water Rights, 2017c)

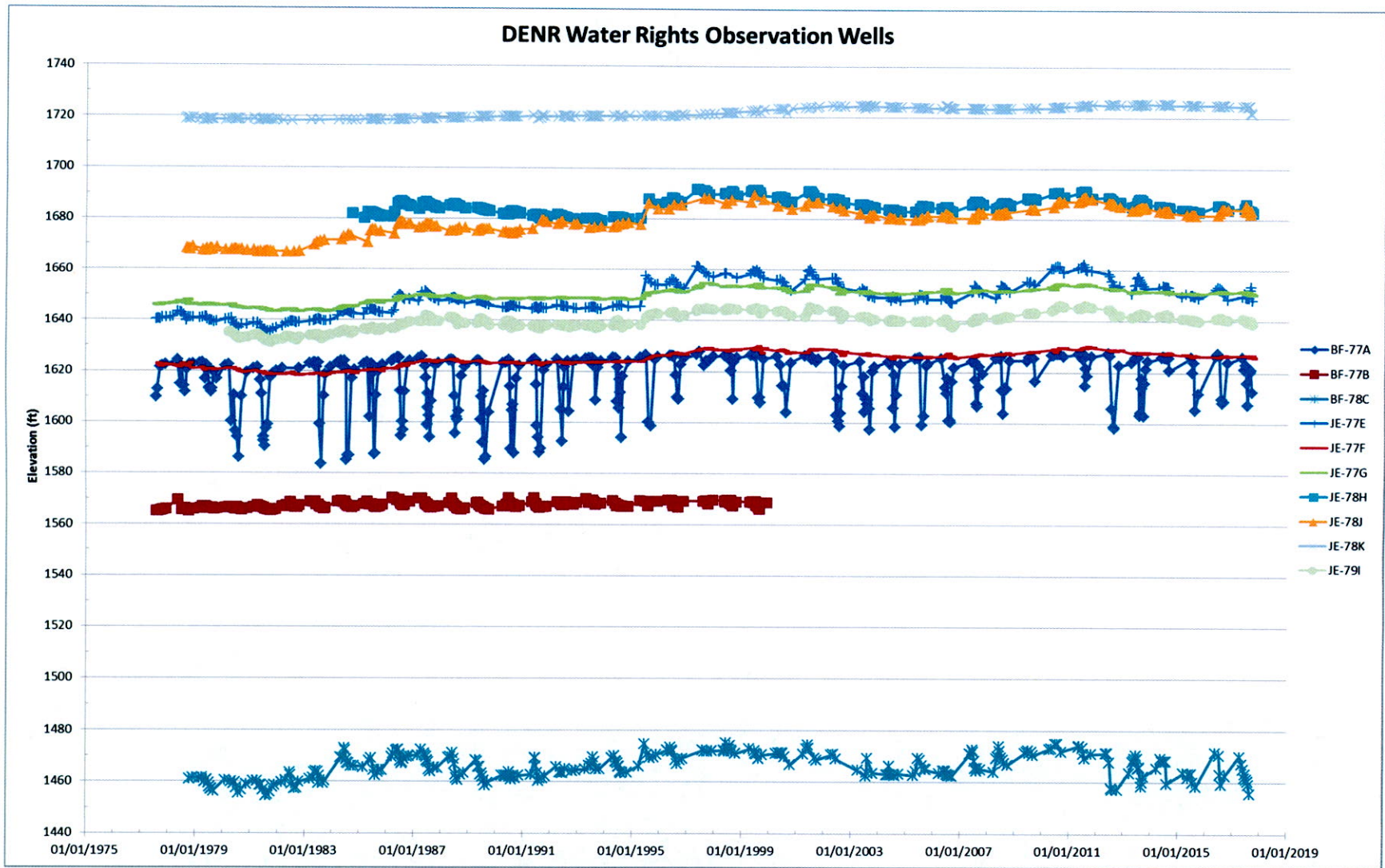


Figure 3: Hydrographs for Observation Wells BF-77A, BF-77B, BF-78C, JE-77E, JE-77F, JE-77G, JE-78H, JE-78J, JE-78K, and JE-79I (Water Rights, 2017c)

EXISTING WATER RIGHTS

There are 23 water rights/permits appropriating water from the Crow Creek aquifer (Water Rights, 2017a). The location of the diversion points for water rights/permits authorized to withdraw water from the Crow Creek aquifer are shown in Figure 1. The nearest water right/permit to this application, not including Water Right No. 8191-3 owned by the applicant, is located over five miles to the east-southeast. There are several domestic wells located within two miles of the applicant's irrigation wells.

Drawdown from well withdrawals within the Crow Creek aquifer is generally not significant at distances far from the pumping well. Examination of the hydrographs of observation wells completed into the Crow Creek aquifer show no signs of being significantly impacted by drawdown caused by pumping, despite usually being located near irrigation wells. There has not been a history of well interference issues in the Crow Creek aquifer. This application, if approved, is not expected to adversely impact nearby adequate wells.

An adequate well has been defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) as:

“a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet”

Although this application proposes no increase to the maximum diversion rate for this existing well, the water demand of irrigating an additional 130 acres will result in an increase of the average diversion rate over the irrigation season. There was some concern by Howells (1970) that extended, continuous pumping could draw down the aquifer to a point where the well could no longer pump at the rate required for the irrigation system. It was also theoretically determined by Howells (1970) that at the point where the irrigation pump could no longer pump, drawdown one quarter mile away would be less than 5 feet. At the distances involved and the small increase in the irrigated acres, there is a reasonable probability that well interference from this application will not be adverse.

CONCLUSIONS

1. Water Permit Application No. 8311-3 proposes to irrigate 130 additional acres from two existing wells but does not authorize any increase in the diversion rate already authorized by Water Right No. 8191-3.
2. Water Permit Application No. 8311-3, if approved, and Water Right No. 8191-3 combined, will authorize a total diversion rate of 7.58 cfs for the irrigation of 745 acres.
3. Although there would be an increase in water use, there is a reasonable probability that unappropriated water is available for the application.

4. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Crow Creek aquifer.
5. These are existing irrigation wells and there is a reasonable probability that the diversions proposed by this application will not adversely impact adequate wells for existing water rights and domestic use.



John Farmer
SD DENR – Water Rights Program

REFERENCES

- Hamilton, L.J. 1985. Water Resources of Aurora and Jerauld Counties, South Dakota. Water-Resources Investigations Report 84-4030. U.S. Geological Survey.
- Hedges, L.S., Allen, J. and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 7: Ground-Water Recharge. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Burch, S. L., Iles, D. L., Barari, R. A., and Schoon, R. A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 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.
- Howells, L.W. 1970. Cable Aquifer Test conducted by U.S. Geological Survey, located in file for Water Right No. 1684-3, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Jensen, A.R. 2005. First Occurrence of Aquifer Materials in Jerauld County, South Dakota, scale 1:100,000. Aquifer Materials Map 21. SDGS. Vermillion, SD.
- Water Rights. 1980-2016. “1979-2015 Irrigation Summaries by Aquifer”: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2017a. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2017b. Well Completion Report Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2017c, “Observation Well Database”, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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JAN 18 2018

John Daly
34662 236th St
Pukwana SD 57370

Dear Mr. Daly:

Enclosed is Water Permit No. 8311-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures