

WATER PERMIT NO. 7852-3

Name of Applicant: Sioux Rural Water System Inc.

Address: 45703 176th St, Watertown SD 57201

Phone: 605 882-1321

Amount of Water Claimed: 600 acre-feet (0.79 add'l cfs)

Total Acres: NA

Source of Water Supply: groundwater (8 wells)

Water to be used for: rural water system use

County: Hamlin

Type of Waste Disposal System:

Location: 1/2 mile southwest of Castlewood

PRIORITY

Date Received: 6-5-13

Application/License Fee: \$ 1250

Corrected Application Received: 6-20-13

Period of Annual Use: January 1 – December 31

Remarks: Serve users in Hamlin, Codington, Deuel and Clark Counties

Diversion Point: NW 1/4 NE 1/4 Sec 3-T114N-R52W and SE 1/4 SW 1/4 Sec 34-T115N-R52W

Land to be Irrigated: NA

Depth of Well: 35-45 feet deep

Well Driller:

Remarks:

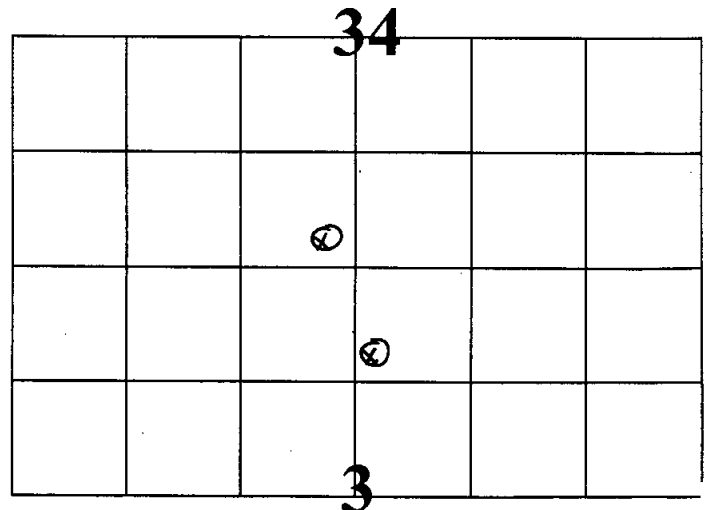
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 6-20-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for uses other than irrigation
(type or print)

DENR

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7852-3</u> (office use only)	Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>- See Sheet</u>	

RECEIVED
JUN - 5 2013
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☒ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other _____	

Type of Application:

(check one)

☐ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☒ Place to Beneficial Use Water Reserved by Future Use Permit No. <u>5094-3</u>		
☐ Amendment/Correction to Permit No. _____		

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

Add diversion points. Existing permits are #5960-3 and #5098-3.

1. Name to Appear on Water Permit Sioux Rural Water System, Inc.(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 45703 176th Street Watertown SD 57201
(Address) (City) (State) (Zip Code)

Home Phone 605-882-1321 Cell _____ Email manager@siouxruralwater.com

2. Amount of water claimed 1.33 *CFS or 600 **GPM ***AF /yr
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Groundwater - Big Sioux Aquifer

4. Location of point of diversion NW1/4 of NE1/4, Sec. 3, T114N, R52W
SE1/4 of SW1/4, Sec. 34, T115N, R52W County Hamlin
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No

If "Yes," where will water be used? _____

(example - NW1/4 section 12-T104N-R53W)

5. County or counties where water will be used Hamlin, Codington, Deuel, Clark6. Annual period during which water is to be used Jan. 1 - Dec. 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Sioux RWS provides domestic water for rural residents in portions of Hamlin, Codington, Deuel and Clark counties, and to the towns of Kranzburg, Bryant, Hazel, Castelwood and Hayti. This application is to construct new wells and increase use for the Sioux and Castlewood WTPs.

I, Heath Thompson, Manager, Sioux RWS the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

2012-09

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)

SOUTH DAKOTA
WATER PERMIT NO. 7852-3

Date of first receipt of application June 5, 2013.

Date of return to applicant for corrections, amendments or changes June 12, 2013.

Date of receipt of corrected application June 20, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7852-3 to Sioux Rural Water System, Inc., 45703 176th St, 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. 7852-3 appropriates 210 acre-feet annually, places 390 acre feet of water per year reserved by Future Use Permit No. 5094-3 to beneficial use, increases diversion rate authority of 1.33 cubic feet of water per second (cfs) and requests two additional wells to Water Right No. 5098-3 and Water Permit No. 5960-3. Water Right No. 5098-3 appropriates 2.0 cfs from two wells located in the SE1/4 SW1/4 Section 34-T115N-R52W and NW1/4 NE1/4 Section 3-T114N-R52W. Water Permit No. 5960-3 appropriates 600 acre feet of water at a diversion rate of 1.33 cfs from four wells in the SE1/4 SW1/4 Section 34-T115N-R52W. This permit appropriates 210 acre feet of water, places 390 acre feet of reserved water to beneficial use, increases of diversion authority by 1.33 cfs and adds two wells to this well field. Of the 600 acre feet of water, 390 acre-feet annually is appropriated and reserved by Future Use Permit No. 5094-3 which was approved September 3, 1986, and the remaining 210 acre feet of water will receive a priority date of June 5, 2013, based on this permit filing date. The two additional wells will be completed into the Big Sioux-Brookings Aquifer (35-45 feet deep) located in the NW 1/4 NE 1/4 Sec 3-T114N-R52W and SE 1/4 SW 1/4 Section 34-T115N-R52W. The intention of Sioux Rural Water System is to have water rights in place for this well field for a total appropriation of 2,100 acre feet of water with diversion rate authority of 4.66 cfs from eight wells.
2. The water appropriated shall be used for the purpose of rural water system use and may not exceed the amount of water needed for beneficial use.

Sioux Rural Water System, Inc. serves users in Hamlin, Codington, Deuel and Clark Counties including the towns of Kranzburg, Bryant, Hazel, Castlewood and Hayti.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 7852-3 is August 26, 2013.
5. The dates from which applicant may claim right are June 1, 1986 (390 acre-feet) and June 5, 2013 (210 acre-feet).
6. One-fifth of the construction is to be completed on or before February 26, 2016.
7. All construction is to be completed on or before August 26, 2018.
8. Water is to be put to beneficial use on or before August 26, 2022.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

(continued)

QUALIFICATIONS

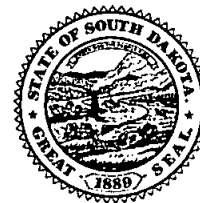
1. The wells approved under Water Right No. 5098-3, Water Permit Nos. 5960-3 and 7852-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The two new wells authorized by Permit No. 7852-3 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. Water Right No. 5098-3, Water Permit Nos. 5960-3 and 7852-3, combined, authorize a total annual diversion of 2,100 acre feet of water annually from the Big Sioux:Brookings Aquifer.
4. Sioux Rural Water System shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux:Brookings Aquifer.

WATER MANAGEMENT BOARD

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

SEP 27 2013

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☒ Using existing well(s)

a) If new wells, how many 2 Have test holes been drilled ☒ Yes ☐ No Drilled by Lacey
(if yes, please provide copies of logs)

b) If existing wells, how many 6 Provide copy of log(s), if available. Drilled by Lacey. For logs, see existing permits

c) Well Depth 35-45' Depth to Top of Water Bearing Material 5' Depth to Water from Surface 5'

d) Distance to nearest existing domestic well:

On applicant's property NA

On property owned by others over 3000'

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)

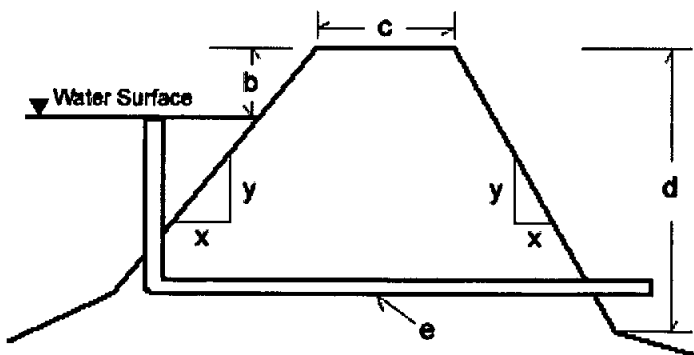
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Plot Date: 5/24/2013 3:35 PM

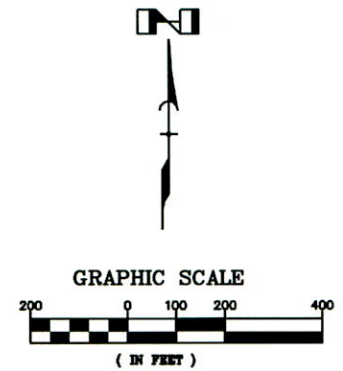
P:\08\0807\DWG\PREL\MINARYNEW\WTP\CASTLEWOOD\WTP_PROPOSED\RAW\WATER.DWG

-LEGEND-

- EXISTING WELLS •
- TEST HOLE AND/OR PROPOSED WELL •
- EXISTING PIPE - - -
- PROPOSED PIPE - - -
- VALVE I
- HYDRANT RECEIVED ♦

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WATER RIGHTS
PROGRAM



NOTE:
SIOUX RWS OWNS ALL
OF SW $\frac{1}{4}$ OF SECTION 34

10"
WELL LINE

75' POWER LINE
EASEMENT

CENTER OF SEC.
34-115-52

T.H. #1

PROPOSED
RAW WATER MAIN

PROPOSED
WELL C-3
(T.H. #2)

CASTLEWOOD WTP

6"
S $\frac{1}{4}$ CORNER
SEC. 34-115-52

C-2 1.0 AC. OWNED BY
SIOUX RWS

PROPOSED
RAW WATER MAIN

1.0 AC. FUTURE
SIOUX RWS PROPERTY

PROPOSED
WELL C-4
(T.H. #3)

SIOUX RURAL WATER SYSTEM
CASTLEWOOD WELL FIELD
WATERTOWN, SOUTH DAKOTA

PROPOSED WELLS

REVISIONS

Project Manager: DLS
Designer: JLB
Project Number: 802807
Phone: (712) 472-2531



Sheet
1-C

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6/20, 2013

RECEIVED OF Sioux Rural Water System 45703 176th St Watertown SD 57201

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

Fee for Application for Permit No. <u>7852-3</u> to Appropriate Water, to construct and to put water to beneficial use	1050	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7852-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1250 00

No. **06362**

By James Goodman
Chief Engineer

Schlaak, Karen

From: Gronlund, Eric
Sent: Friday, June 14, 2013 4:15 PM
To: 'Darin Schriever'
Cc: Schlaak, Karen; Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Yes – that is satisfactory. The staff engineer assigned to review the applications may have questions when the technical review is conducted for the purpose of writing a report to the Chief Engineer that looks at the criteria for when a permit may be issued. But at this point, once the application filing fee is submitted DENR will consider the applications complete and move forward with processing. Eric

From: Darin Schriever [mailto:darin.schriever@dgr.com]
Sent: Friday, June 14, 2013 11:21 AM
To: Gronlund, Eric
Cc: Schlaak, Karen; Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Eric,

Thanks for the call this morning to discuss the permit app. Please see if the following adequately summarizes our discussion and the plan for moving forward.

1. Current water permitted for beneficial use:
 - a. 5098-3, 900 ac-ft, 2.00 cfs (1986; incorporated a previous permit)
 - b. 5960-3, 600 ac-ft, 1.33 cfs (1996)
 - c. TOTAL: 1500 ac-ft, 3.33 cfs
2. Current water permitted for future use:
 - a. 5094-3, 990 ac-ft (1986, rev. 1993)
 - b. Subtract 600 ac-ft (used in 5960-3 above)
 - c. REMAINING: 390 ac-ft
3. PROPOSAL:
 - a. Request another beneficial use permit:
 - i. Add 600 ac-ft, 1.33 cfs
 - ii. TOTAL: 2100 ac-ft, 4.66 cfs (2 existing permits plus new permit)
 - iii. This uses up the remaining 390 ac-ft in 5094-3
 - b. Request a new future use permit:
 - i. Reserve 2400 ac-ft (less than two times year 2012 use)

Fees will be \$1250 and \$255 respectively, for a total of \$1505.

For supporting documentation, I've attached two PDF files. Table 3 from the PER shows the number of connections since year 2000. Sioux has added about 18 connections per year for the past 12 years with a very passive (even somewhat limiting) approach to new users. The current Board of Directors wants to take a more active approach to new user additions, and they appear to be willing to make the required investments in infrastructure to support the added users. We have assumed an average of 35 new users per year, or the equivalent thereof. New usage could come in the form of connections to existing homes and farm sites, new livestock facilities, housing developments, city connections, etc.

The second PDF summarizes year 2012 actual, and 15 year and 30 year water use projections. By increasing the permitted water appropriations to 2100 ac-ft and 4.66 cfs (as proposed above), the system should be covered for 20 some years based on these projections.

Please let me know if this looks acceptable or if something should be revised or added. If it all looks OK, I'll contact Sioux and have them send the \$1505.

Darin Schriever

From: Darin Schriever
Sent: Thursday, June 13, 2013 2:52 PM
To: 'Gronlund, Eric'
Cc: Schlaak, Karen; Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Eric,

Thanks for your patience as I try to learn the procedure and understand this myself.

Sioux RWS used about 1290 ac-ft in year 2012. We estimate that Sioux RWS could be adding about 35 connections per year over the next 15 years, or 525 connections, or the equivalent thereof. Each connection in Sioux RWS uses about 1 ac-ft per year on average. Adding about 500 ac-ft to the current 1290 ac-ft puts us at 1800 ac-ft.

Let's see if this would work:

1. Current water permitted for beneficial use:
 - a. 5098-3, 600 ac-ft, 1.33 cfs (1986)
 - b. 5960-3, 600 ac-ft, 1.33 cfs (1996)
 - c. TOTAL: 1200 ac-ft, 2.66 cfs
2. Current water permitted for future use:
 - a. 5094-3, 990 ac-ft (1986, rev. 1993)
 - b. Subtract 600 ac-ft (used in 5960-3 above)
 - c. REMAINING: 390 ac-ft
3. PROPOSAL:
 - a. Request another beneficial use permit:
 - i. Add 600 ac-ft, 1.34 cfs
 - ii. TOTAL: 1800 ac-ft, 4.00 cfs (2 existing permits plus new permit)
 - iii. This uses up the remaining 390 ac-ft in 5094-3 (so it's done?)
 - b. Request a new future use permit:
 - i. Reserve 2400 ac-ft (less than two times year 2012 use)

Please let me know if this makes sense, or if I can provide further info or explanation. I can revise the permit forms as required. I assume the fees may change so maybe it's just as well that Sioux didn't send them yet (please let me know what the new fees would be).

Feel free to call me to discuss, 712-472-2531.

Darin Schriever

From: Gronlund, Eric [<mailto:Eric.Gronlund@state.sd.us>]
Sent: Thursday, June 13, 2013 10:36 AM
To: Darin Schriever
Cc: Schlaak, Karen; Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Sioux RWS did not submit the filing fees with the applications.

DENR will amend the future use area on the application based on your clarification.

The last issue is where the confusion occurs

DENR presumes that the remaining 390 ac-ft reserved by FU permit 5094-3 is to be used up and the remainder up to the 1,765 ac-ft is "new" application. – Not sure I follow you. 5094-3 reserved 1440 ac-ft. Are you saying that 1050 ac-ft of that permit has previously been placed in beneficial use and only 390 ac-ft remains? Maybe I don't understand how the whole water use and future use permit process works. Permits 5098-3 and 5960-3 have 600 ac-ft each for a total of 1200 ac-ft of water use permit currently. We'd like to get the water permit level to 1765 ac-ft total. We'd like to get the future use permit level to 2700 ac-ft.

1. The future use application is for 2,700 ac-ft and you indicate you'll provide some documentation to demonstrate a reasonable need for that amount. So at this time that's a non-issue.
2. Future Use Permit No. 5094-3 obtained in 1986 originally reserved 1,440 ac-ft of water. In 1993 during the statutory seven year review it was limited to 990 ac-ft of water which was representative of two times the RWS's use. WR No. 5960-3 obtained in 1997 placed 600 ac-ft of water reserved in FU Permit No. 5094-3 to beneficial use. So how I arrive at 390 ac-ft remaining is 990 ac-ft minus 600 ac-ft leaving 390 ac-ft.
3. Now here's where I get confused. The water permit application that is filed states a diversion rate of 4.1 cfs for 1765 ac-ft. Under my original thought 390 ac-ft of that would be placing the remaining reserve water from No. 5094-3 to beneficial use and the remaining amount of 1,375 ac-ft (to bring to 1765 ac-ft) would be considered "new". However, your email seems to indicate that it is Sioux RWS intent to a total of all water rights from this well field (Nos. 5098-3, 5960-3 and this new application) to total 1,765 ac-ft. Under that train of thought if Nos. 5098-3 and 5960-3 currently total 1,200 ac-ft the incremental increase in volume under this application should be 565 ac-ft of water. Of which 390 ac-ft is from the future use reservation (5094-3) and the remaining 175 ac-ft is new appropriation. Remember the future use portion will retain the original 1986 priority date while the new portion get a date of June 5, 2013 based on the date of filing.
4. That also begs the question of diversion rate authority. The current application states 4.1 cfs. Currently No. 5098-3 provides 2.0 cfs diversion authority and No. 5960-3 is for 1.33 cfs for a total of 3.33 cfs diversion rate authority. Is this application requesting an additional 4.1 cfs diversion authority or only 0.77 cfs (4.1 cfs – 3.33 cfs)?

Just trying to make sure DENR understands what is being requested. Eric

From: Darin Schriever [<mailto:darin.schriever@dgr.com>]
Sent: Thursday, June 13, 2013 9:50 AM
To: Gronlund, Eric
Cc: Schlaak, Karen; Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Eric,

Please see responses below.

Darin Schriever

From: Gronlund, Eric [<mailto:Eric.Gronlund@state.sd.us>]
Sent: Wednesday, June 12, 2013 1:36 PM
To: Darin Schriever
Cc: Schlaak, Karen
Subject: RE: Sioux RWS - Water Appropriations Permit

Darin – DENR received Sioux RWS's water permit application and future use application.

FU application

Can Sioux RWS provide documentation to demonstrate a reasonable need for this quantity of water? – I'll work on providing some documentation.

The location of future use area under Item No. 2 of the application states the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 3, T114N, R52W and the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 34, T115N, R52W. However the map outlines the SW $\frac{1}{4}$ Section 34, T115N, R52W and the NW $\frac{1}{4}$ NE $\frac{1}{4}$ and NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 3, T114N, R52W. Which is correct? – Map is correct; sorry for the mistake. Do you need me to correct it and re-submit?

I presume the proposed well depths filed with the application for the new wells is applicable to the proposed depth of future use development? – Correct.

The application filing fee for future use permit application is \$285. – I asked Sioux to send it in with the signed application. Was it not sent in?

Water Permit application

DENR presumes that the remaining 390 ac-ft reserved by FU permit 5094-3 is to be used up and the remainder up to the 1,765 ac-ft is “new” application. – Not sure I follow you. 5094-3 reserved 1440 ac-ft. Are you saying that 1050 ac-ft of that permit has previously been placed in beneficial use and only 390 ac-ft remains? Maybe I don’t understand how the whole water use and future use permit process works. Permits 5098-3 and 5960-3 have 600 ac-ft each for a total of 1200 ac-ft of water use permit currently. We’d like to get the water permit level to 1765 ac-ft total. We’d like to get the future use permit level to 2700 ac-ft.

Can you provide the test hole logs drill by Lacey be provided. – We were not provided with any lithology from the test drilling effort. We were only given a map which stated that test holes #2 and #3 were best. I assume the lithology is very similar to the existing production wells.

The filing fee for this application is \$2,250. – I asked Sioux to send it in with the signed application. Was it not sent in?

The combined filing fee total is \$2,535.

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

From: Darin Schriever [<mailto:darin.schriever@dgr.com>]
Sent: Friday, May 24, 2013 3:07 PM
To: Gronlund, Eric
Cc: Bruce Jennings
Subject: RE: Sioux RWS - Water Appropriations Permit

Eric,

Thanks for the feedback. I have modified the permit applications.

The Water Permit Application has been changed to 4.1 cfs, 1850 gpm, 1765 ac-ft/yr. This is about 30% above 2012 use. Please let me know what the permit fee will be.

The Future Use Application has been changed to 2700 ac-ft/yr. This is about two times the 2012 use. Please let me know what the permit fee will be.

Darin Schriever

From: Gronlund, Eric [<mailto:Eric.Gronlund@state.sd.us>]
Sent: Tuesday, May 14, 2013 3:26 PM
To: Darin Schriever
Subject: RE: Sioux RWS - Water Appropriations Permit

Darin – Here are my initial thoughts. Obviously once the applications are filed and handed out for staff review there may be other issues that arise.

Water Permit Application:

- 1) I have attached Water Right No. 5098-3 and Water Permit No. 5960-3 with applicable maps that are both held by Sioux RWS in this area. From the maps is fairly easy to see what wells are authorized by these water rights (4 under No. 5960-3 and 2 under No. 5098-3).
- 2) In the description it states “and change use”. I am not sure what that means as the water rights are for rural water system use.
- 3) In Item No. 7 are all the towns and separate water distribution systems served by the RWS listed. If not, please do so.
- 4) The RWS holds future use permit No. 5094-3 for this area which reserves 390 ac-ft. DENR will require as part of this application the RWS to place this remaining amount to beneficial use. I believe the application reflects that but want to make sure we are on the same page that 390 ac-ft is from water reserved by No. 5094-3 and the remaining 2,010 will get a new priority date.
- 5) The fee for 2,400 ac-ft annually is \$2,500 application plus \$200 licensing for a total of \$2,750.

Future Use Permit

- 1) Future use permit is to reserve water for contemplated future needs. Is there an engineering study completed regarding future water supply projections? If so, it will need to be included or some type of justification to demonstrate a reasonable need for this quantity of water.
- 2) Administrative rule state “that board may, at its discretion, limit the future use application and future use permit to two times the annual amount actually put to beneficial use. Under Permit No. 5960-3, the operation manager reported use of 1355 ac-ft in 2012 and between 1050 and 1100 between 2009 – 2011. This is technically above the 990 ac-ft authorized by No. 5960-3. I surmise that the operation manager may also have been including his reporting of 5098-3 under this report.
- 3) Either way – the water permit application is for nearly two folds the amount of water currently reported and this future use permit is for an additional 4800 ac-ft. Sioux RWS will have to demonstrate a reasonable need for this quantity of water in this quantity especially given the rule set forth in No. 2 above.
- 4) Item No. 2 – future use permits are quantified by ac-ft only and not a diversion rate. The diversion rate is quantified when an entity applies to place reserved water to beneficial use.
- 5) Filing fee for 4800 ac-ft = \$455

Has DGR looked at the ability of a well field consisting of 80 acre to produce the quantity of water requested?

Eric

From: Darin Schriever [<mailto:darin.schriever@dgr.com>]
Sent: Tuesday, May 14, 2013 12:13 PM
To: Gronlund, Eric
Cc: Bruce Jennings; Heath Thompson (E-mail)
Subject: Sioux RWS - Water Appropriations Permit

Eric,

Attached please find draft copies of two permit applications for Sioux RWS. Could you please take a quick look at them and let me know if they look complete or if additional info is needed? Can you tell me which wells are currently permitted and which ones need a new permit?

Also, regarding application fees, I calculate the current use permit fee at \$4050 and the future use permit fee at \$715. Does that look correct?

I'm attempting to get this right the first time and have everything in order before I send the applications to Sioux RWS for signatures and submittal to DENR.

Thanks for your help.

Darin L. Schriever, P.E.

DGR Engineering

1302 South Union Street
Rock Rapids, IA 51246
phone: 712-472-2531
cell: 712-348-1525



Table 3
Number of Customers by User Group

Year	Rural	Town/Lake	Seasonal	Bulk	Total
2000	1,072	83	31	4	1,190
2001	1,103	85	34	4	1,226
2002	1,123	84	34	4	1,245
2003	1,149	83	36	4	1,272
2004	1,172	88	38	5	1,303
2005	1,192	86	42	5	1,325
2006	1,212	87	43	5	1,347
2007	1,230	87	43	5	1,365
2008	1,253	89	41	5	1,388
2009	1,253	83	44	5	1,385
2010	1,268	83	44	5	1,400
2011	1,277	79	40	5	1,401

Sioux RWS				
2013 Well Permit App				
Supporting Documentation				
		Year 2012	15 yr	30 yr
	units	Actual	Projection	Projection
Connections		1400	1900	2400
Annual Use	MGY	420	570	720
Annual Use	ac-ft	1289	1749	2210
Average Day	MGD	1.15	1.56	1.97
Peak Day	MGD	1.73	2.34	2.96
Peak Day (22 hr)	gpm	1308	1775	2242
Peak Day (22 hr)	cfs	2.91	3.95	4.99



**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. 7852-3, Sioux Rural Water System, Inc.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 7852-3, Sioux Rural Water System, Inc. c/o Heath Thompson, Manager, 45703 176th Street, Watertown SD 57201.

The Chief Engineer is recommending APPROVAL of Application No. 7852-3 because 1) Future Use Permit No. 5094-3 reserved 390 acre feet of water requested to be placed to beneficial use, 2) there is reasonable probability that there is unappropriated water available for the applicant's proposed use of the remaining 210 acre feet of water requested to be placed to beneficial use, 3) the proposed diversion can be developed without unlawful impairment of existing rights, 4) the proposed use is a beneficial use and 5) it is in the public interest with the following qualifications:

1. The wells approved under Water Right No. 5098-3, Water Permit Nos. 5960-3 and 7852-3 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.
1. The two new wells authorized by Permit No. 7852-3 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.
2. Water Right No. 5098-3, Water Permit Nos. 5960-3 and 7852-3, combined, authorize a total annual diversion of 2,100 acre feet of water annually from the Big Sioux:Brookings Aquifer.
3. Sioux Rural Water System shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux:Brookings Aquifer.

See report on application for additional information.

Jeanne Goodman, Chief Engineer

August 6, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7852-3
AND
FUTURE USE PERMIT APPLICATION NO. 7853-3
SIOUX RURAL WATER SYSTEM, INC
AUGUST 07, 2013

Water Permit Application No. 7852-3 proposes to appropriate 210 acre-feet (ac-ft) of water annually, place 390 ac-ft of water per year reserved by Future Use Permit No. 5094-3 to beneficial use, increase the diversion rate authority by 1.33 cubic feet of water per second (cfs) and requests two additional wells to those authorized by Water Right No. 5098-3 and Water Permit No. 5960-3. Water Right No. 5098-3 appropriates 2.0 cfs from two wells located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 34, T115N-R52W and NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T114N-R52W. Water Permit No. 5960-3 appropriates 600 ac-ft of water at a diversion rate of 1.33 cfs from four wells in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 34, T115N-R52W. Of the applied for 600 ac-ft of water, 390 ac-ft annually is appropriated and reserved by Future Use Permit No. 5094-3, which was approved September 3, 1986, and the remaining 210 ac-ft of water, if approved, will receive a priority date of June 5, 2013, based on the application filing date. The two additional wells will be completed into the Big Sioux: Brookings aquifer (approximately 35 to 45 feet deep) and are to be located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T114N-R52W and the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 34, T115N-R52W. In total, Water Right No. 5098-3, Water Permit No. 5960-3, and this application, if approved, would authorize the appropriation of 2,100 ac-ft of water annually at a maximum diversion rate of 4.66 cfs from eight wells.

Future Use Permit Application No. 7853-3 proposes to appropriate and reserve 2,400 ac-ft of water annually from the Big Sioux: Brookings aquifer. The area to be reserved for future use is to be located in the SW $\frac{1}{4}$ Section 34, T115N-R52W and the NE $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T114N-R52W. The water is to be reserved for the purpose of providing water supplies to the rural water system to serve users in Hamlin, Codington, Deuel and Clark Counties, including the towns of Kranzburg, Bryant, Hazel, Castlewood, and Hayti. Approval of this application does not authorize construction of works or the application of water to beneficial use.

AQUIFER: Brookings management unit of the Big Sioux aquifer (BS: B)

AQUIFER CHARACTERISTICS:

The Big Sioux: Brookings aquifer is a predominantly surficial outwash aquifer that is primarily under water table conditions in the area of these applications (Koch, 1980). The Big Sioux: Brookings aquifer extends south from Hamlin County into Brookings County, and east into Deuel County. The aquifer underlies approximately 191,100 acres and contains an estimated 642,230 ac-ft of recoverable water in storage (Hedges et. al, 1982). In Hamlin County alone, the aquifer underlies approximately 88,500 acres and has an estimated 331,880 ac-ft of recoverable water in storage (Hedges et. al, 1982). The aquifer is hydraulically connected to area lakes, streams, and the Big Sioux River (Kume, 1985). The aquifer is also connected to the Big Sioux: North in northern Hamlin County and the Big Sioux: Moody in central Moody County (Hedges

et. al, 1982). Kume (1985) estimated that the Big Sioux: Brookings has an average thickness of 30 feet, and wells completed in the aquifer could yield in excess of 1,000 gallons per minute of water that is suitable for irrigation. There were no well completion reports submitted with these applications, however, there are completion reports on file for the wells authorized by Water Right No. 5098-3 and Water Permit No. 5960-3.

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

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for this 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.

SDCL 46-2A-10

Pursuant to SDCL 46-2A-10, a reservation for a future use may be approved only if there is a reasonable probability that unappropriated water is available for the appropriation, that the quantity of water reserved will be needed by the entity and that the proposed use will be a beneficial use and in the public interest.

The Water Management Board has consistently found that the use of water for a rural water system is a beneficial use of water and in general is in the public interest. This report will address the availability of unappropriated water and existing rights from the Brookings management unit of the Big Sioux aquifer and if the quantity of water to be reserved for future use will be needed by Sioux Rural Water System, Inc.

WATER AVAILABILITY:

These applications propose to appropriate water from the Big Sioux: Brookings aquifer. 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." If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. While a public water system has filed these applications, the aquifer is not older or lower than the Greenhorn Formation, therefore the withdrawal/recharge issue must be considered.

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: Brookings aquifer is by infiltration of precipitation, and seepage from the Big Sioux River and its tributaries (Kume, 1985). Recharge rates and volumes from various sources for the entire aquifer and just Hamlin County are shown in Table 1. This is not to suggest that the entire volume of recharge or of recoverable water in the aquifer is available everywhere in the aquifer, but to demonstrate that in general that the Big Sioux: Brookings aquifer is readily recharged.

Source	Rate (in/yr)	Entire Aquifer (ac-ft)	Hamlin County (ac-ft)
Koch, 1980	6.57	104,627	48,454
Kume, 1985			48,531*
Hedges et. al, 1985	4	63,700	29,500
*= volume is for Hamlin and Deuel County			

Table 1- Recharge rates and volumes to the Big Sioux: Brookings aquifer

Discharge:

The Big Sioux: Brookings aquifer discharges through seepage to the Big Sioux River and its tributaries during periods of low flow and stage, evapotranspiration, and well withdrawals (Koch, 1980). There are 246 water rights/permits appropriating water and nine future use permits reserving water from the Big Sioux: Brookings aquifer with 116 water rights/permits and four future use permits in Hamlin County alone including Future Use Permit No. 5094-3 (Water Rights, 2013b). The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming: 1) water rights/permits limited by an annual volume will pump the entire volume appropriated, 2) water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and 3) future use permits can be fully developed. The estimated average annual withdrawal by non-irrigation appropriations including future use permits, except Future Use Permit No. 5094-3, from the Big Sioux: Brookings aquifer is 16,371 ac-ft with 5,244 ac-ft from Hamlin County alone (Water Rights, 2013b). Note that several of the municipalities with water rights/permits authorizing the withdrawal of water from the Big Sioux: Brookings aquifer only use their water rights/permits as backup to rural water (Friedeman, 2013).

The withdrawal for domestic use from the Big Sioux: Brookings is not significant to the hydrologic budget of the aquifer, especially since many of the domestic wells are no longer used as primary sources of water since the introduction of rural water systems to the area. Table 2 shows the irrigation withdrawal from the entire Big Sioux: Brookings aquifer as well as just from Hamlin County. The average annual irrigation withdrawals from the Big Sioux: Brookings aquifer is 8,608.5 ac-ft with 3,983.2 ac-ft from Hamlin County alone (Water Rights, 1979-2013).

Hydrologic Budget:

Using Hedges and others (1985) recharge estimate, the most conservative estimate, there is approximately 38,721 ac-ft/yr of recharge that is unappropriated from the entire Big Sioux: Brookings aquifer with approximately 20,273 ac-ft/yr in Hamlin County alone. Therefore, there is a reasonable probability that there is unappropriated water available for these proposed appropriations.

Entire Aquifer				Hamlin County		
Year	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)
2012	177	63694.4	19482.51	86	30704	9699.49
2011	174	63494.4	8527.61	85	30544	4927.3
2010	172	62966.4	2713.39	84	30304	1681.63
2009	174	65098.4	9172.9	80	29384	3986.48
2008	166	62761.8	12505.85	75	28037.2	5934.02
2007	164	62374.8	12730.13	73	27571.2	5702.96
2006	161	61075.8	14325.04	69	26687.2	6807.48
2005	159	61435.8	11513.48	68	26573.2	5626.58
2004	156	60695.8	11809.91	66	26093.2	6106.78
2003	149	58970.8	11380.47	59	24353.2	5554.05
2002	149	59186.8	12410.94	60	24623.2	5620.65
2001	149	59312.8	8384.81	60	24623.2	3751.65
2000	153	60799.8	8933.72	62	25634.2	3778.59
1999	155	62181.3	7841.04	62	25646.2	3262.16
1998	157	63306.2	8109.71	63	26410.2	2908.97
1997	153	62281.7	5650	61	25867.7	2209
1996	154	62575.2	7220.95	61	25867.7	3624.86
1995	161	62961.2	3862.25	66	26997.7	2273.54
1994	160	64395.2	2854.62	65	26997.7	915.94
1993	162	64963.7	1042.9	67	28013.7	746.5
1992	162	64603.7	2331.6	67	27621.7	1289.6
1991	165	65534.97	7771.74	67	27732.7	4332.54
1990	175	71616.95	5862.92	76	32927.08	3352.82
1989	166	69391.27	13930.7	69	31952.4	7536.6
1988	167	74615.27	18521.4	64	31575.4	8181.4
1987	171	76624.07	10015	62	31060.9	4430.5
1986	179	80788.57	2854.7	64	33206.9	1453.82
1985	181	81385.57	4951.4	65	33462.9	1676.4
1984	188	84188.07	8177.6	65	33721.9	3948.1
1983	161	74854.57	8227.46	56	30070.9	2639.26
1982	155	77754.57	4551.86	55	31398.9	1771.63
1981	197	91051	9040	61	29392	2629
1980	187	87093	9837	60	27812	4597
1979	184	85701	6144	60	27200	2472
Min	149	58970.8	1042.9	55	24353.2	746.5
Max	197	91051	19482.5	86	33721.9	9699.5
Avg	166.0	68521.6	8608.5	66.6	28531.4	3983.2

Table 2- Irrigation water use from the entire Big Sioux: Brookings aquifer and from just in Hamlin County (Water Rights, 1979-2013)

Observation Well Data:

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

The DENR-Water Rights Program monitors 80 observation wells completed into the Big Sioux: Brookings aquifer with 25 of the observation wells in Hamlin County (Water Rights, 2013a). Water levels in the observation wells show response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The hydrographs show the effects of pumping, but it does not appear to be significant over the period of record. The

climatic effects on water level mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Big Sioux: Brookings aquifer significantly exceeds pumping. Recognizing that natural discharge can be captured for pumping, there is a reasonable probability that unappropriated water is available for these proposed appropriations. The nearest of the observation wells to the proposed well sites are listed in Table 3. The hydrographs for observation wells HN-77B, HN-57A, HN-2008B, and HN-77I are representative of the aquifer and are shown in Figures 1, 2, 3, and 4, respectively. These four hydrographs, in general, show similar hydrologic conditions to the other observation wells through the aquifer.

Name	Distance from well sites	Figure Number
HN-77B	1.1 miles southwest	1
HN-57A	1.1 miles northeast	2
HN-2008B	1.5 miles northwest	3
HN-77I	1.6 miles east	4

Table 3- Observation wells nearest to the proposed well sites (Water Rights, 2013a)

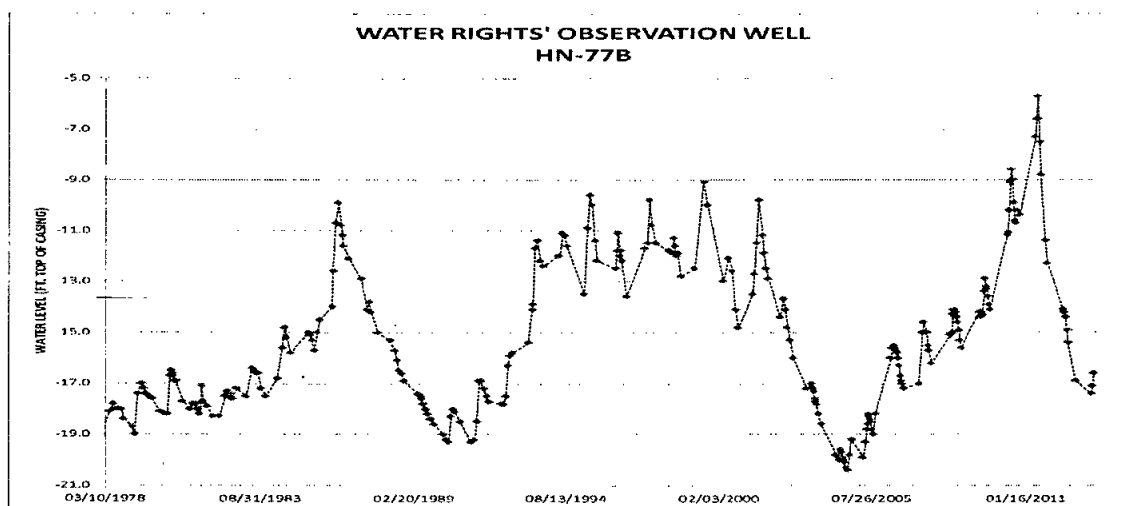


Figure 1- Hydrograph of DENR-Water Rights' observation well HN-77B (Water Rights, 2013a)

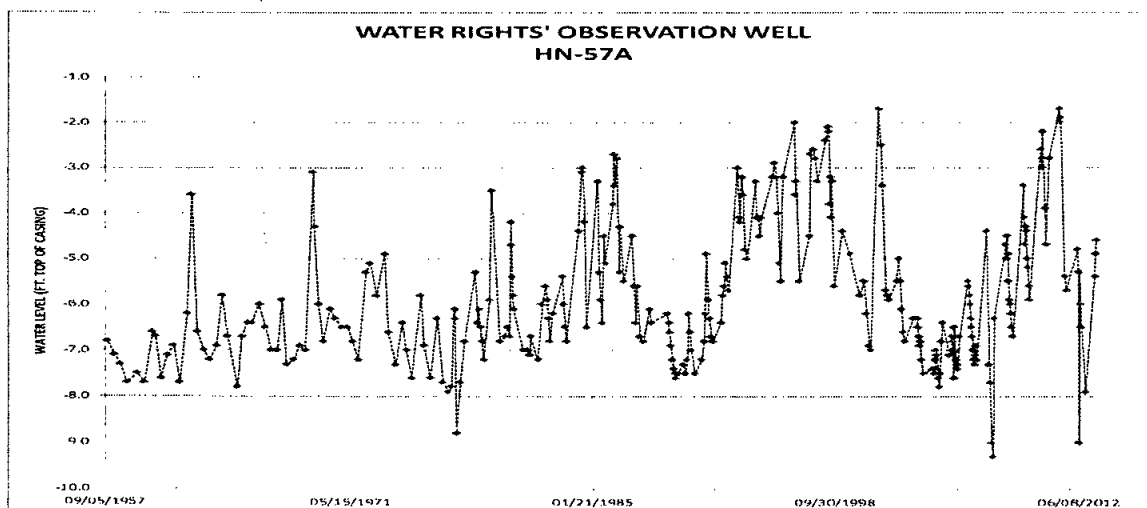


Figure 2- Hydrograph of DENR-Water Rights' observation well HN-57A (Water Rights, 2013a)

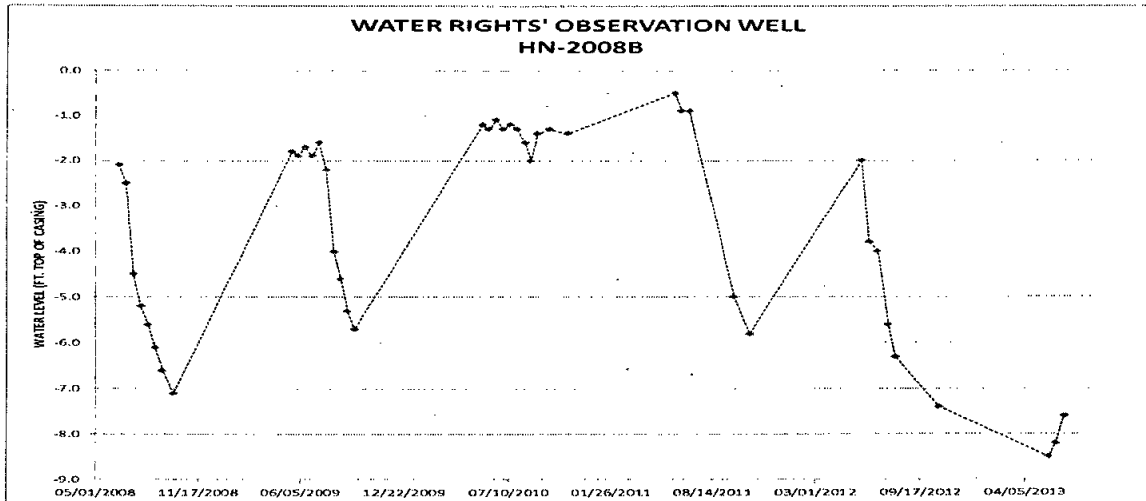


Figure 3- Hydrograph of DENR-Water Rights' observation well HN-2008B (Water Rights, 2013a)

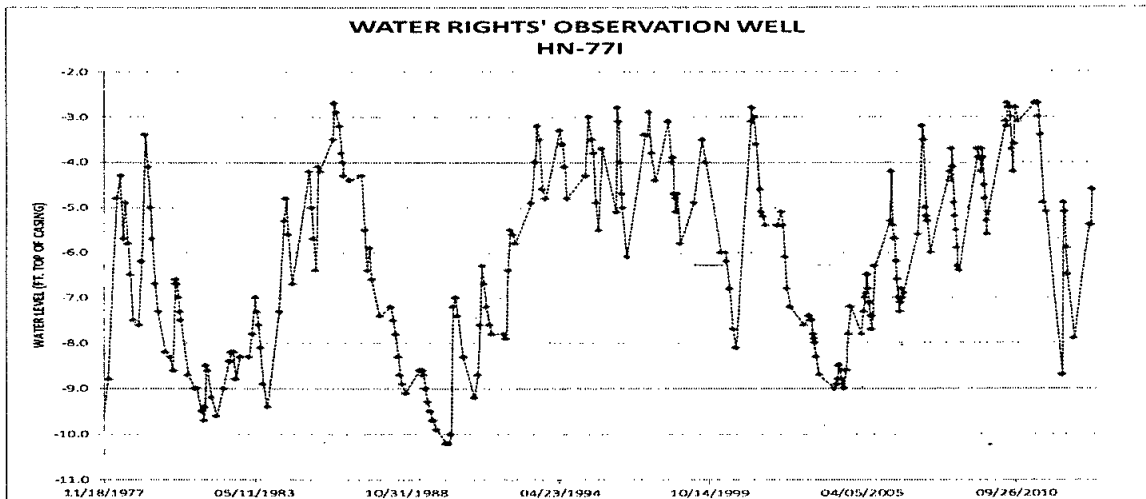


Figure 4- Hydrograph of DENR-Water Rights' observation well HN-77I (Water Rights, 2013a)

EXISTING WATER RIGHTS:

There are six water rights/permits and two future use areas within approximately 1.5 miles of the proposed well site and future use area (Water Rights, 2013b). These water rights/permits are shown in Table 4. The next nearest water right/permit authorized to withdraw water from the Big Sioux: Brookings is approximately two and one quarter miles away from the proposed well site and future use area. There is a water right approximately two miles away from the proposed sites for these applications, but it authorizes the withdrawal of water from the Big Sioux: North aquifer. There are five domestic wells on file with the SD DENR-Water Rights Program within approximately 1.5 miles of the sites proposed by these applications (Water Rights, 2013c). The nearest well is approximately 0.5 miles south of the well site proposed by Water Permit Application No. 7852-3 and 0.25 miles south of the future use area for Future Use Permit Application 7853-3.

Permit No.	Name	Status	Use	CFS	Acres	Volume (ac-ft)
558A-3	City of Castlewood	FU	MUN			123
558B-3	City of Castlewood	LC	MUN	0.56		
558D-3	City of Castlewood	LC	MUN	0.33		
5094-3	Sioux Rural Water System	FU	RWS			390
5098-3	Sioux Rural Water System	LC	RWS	2		
5600-3	City of Castlewood	LC	IRR	0.88	78	
5960-3	Sioux Rural Water System	PE	RWS	1.33		600
6424-3	Claremont Htrn Brethren	PE	IRR	1.14	80	
7296-3	Ed Aderhold	PE	IRR	1.33	110	
FU= Future Use, LC= Water Right, PE= Water Permit, MUN= Municipal, RWS= Rural Water System, IRR= Irrigation						

Table 4- Water Rights/Permits and Future Use Permits within approximately 1.5 miles of proposed well site and future use area (Water Rights, 2013b)

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. The water table conditions of the aquifer in this area and the proximity of the Big Sioux River dictate that drawdown due to pumping would not be significant far from the proposed well site. There has also been a history of large capacity wells in the area; the City of Castlewood and Sioux Rural Water System both have several wells in this area.

However, pumping from this relatively thin aquifer could lead to water level declines being compounded and magnified and, therefore, an overall decline of water table in the aquifer. Drawdown cannot be precisely quantified without aquifer testing in the area. While the withdrawals would not exceed recharge of the aquifer as a whole, this cumulative impact of withdrawals could lead to a reduction of water levels to the extent that water rights/permits can no longer pump at their developed or “historically established,” diversion rates. This may be considered an adverse impact. If approved, the water permit should include a qualification that the well owner should control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

ARSD 74:02:01:24.01

Administrative Rule of South Dakota 74:02:01:24.01 states, “Future use applications and future use permits for entities without permits to use water shall be limited to the amount of water actually needed to cover the uses specified in the future use application or future use permit. The board may, at its discretion, limit future use applications and future use permits for entities with permits to use water to two times the annual amount actually put to beneficial use.” Included with these applications was a table showing 2012 water use and 15 and 30 year projected use. This table is shown as Table 5. Since Sioux Rural Water System has had future use permits in the past and has requested a volume of water less than two times current use, it is reasonable to approve Future Use Permit No. 7853-3 for 2,400 ac-ft annually.

Sioux RWS				
2013 Well Permit App				
Supporting Documentation				
		Year 2012	15 yr	30 yr
	units	Actual	Projection	Projection
Connections		1400	1900	2400
Annual Use	MGY	420	570	720
Annual Use	ac-ft	1289	1749	2210
Average Day	MGD	1.15	1.56	1.97
Peak Day	MGD	1.73	2.34	2.96
Peak Day (22hr)	gpm	1308	1775	2242
Peak Day (22hr)	cfs	2.91	3.95	4.99

Table 5- Sioux RWS current and projected water use

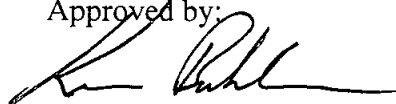
CONCLUSIONS:

1. Water Permit Application No. 7852-3 proposes to appropriate 210 ac-ft of water annually from the Big Sioux: Brookings aquifer for Rural Water System use, place 390 ac-ft of water per year reserved by Future Use Permit No. 5094-3 to beneficial use, increase the diversion rate authority by 1.33 cfs and request two additional wells to those authorized by Water Right No. 5098-3 and Water Permit No. 5960-3.
2. Water Right No. 5098-3 appropriates 2.0 cfs from two wells and Water Permit No. 5960-3 appropriates 600 ac-ft annually at a maximum diversion rate of 1.33 cfs from four wells.
3. Of the applied for 600 ac-ft/yr, 390 ac-ft/yr is appropriated and reserved by Future Use Permit No. 5094-3, which was approved September 3, 1986, and the remaining 210 ac-ft/yr of water, if approved, would have a priority date of June 5, 2013. Future Use Permit No. 5094-3 would then have no water remaining reserved.
4. Water Right No. 5098-3, Water Permit No. 5960-3, and Water Permit Application No. 7852-3, if approved, would authorize the appropriation of 2,100 ac-ft of water annually at a maximum diversion rate of 4.66 cfs from eight wells completed into the Big Sioux: Brookings aquifer.
5. Future Use Permit Application No. 7853-3 proposes to appropriate and reserve 2,400 ac-ft of water annually from the Big Sioux: Brookings aquifer for providing water supplies to a rural water system. Approval of this application does not authorize construction of works or the application of water to beneficial use.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

Friedeman, B. Personal Communication. SD DENR-Drinking Water Program. July 9, 2013.

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.

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

Koch, N.C. 1980. Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota. Water-Resources Investigations Report 80-100. USGS, Huron, South Dakota.

Kume, J. 1985. Water Resources of Deuel and Hamlin Counties, South Dakota. Water-Resources Investigations Report 84-4069. USGS, Huron, South Dakota.

Water Rights. 1979-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.

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

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

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

AUG 16 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA
COUNTY OF DEUEL

The undersigned Ken Reiste being first duly sworn, on oath deposes and says: That he is in charge of the advertising department of the Clear Lake Courier; which newspaper is published by Ken Reiste; that the Clear Lake Courier is a weekly newspaper printed and published in Clear Lake, Deuel County, South Dakota and the undersigned has full and personal knowledge of all facts hereinafter stated; that said newspaper is a legal newspaper and has a bona-fide circulation of a least two hundred copies weekly, and has been published within said County for fifty-two successive weeks next prior to the publication of the notice herein mentioned, and was and is printed wholly or in part in an office maintained at said place of publication, that the

Notice Of Application
Nos 7852-3 and 7853-3
To Appropriate Water
Sioux Rural Water System, Inc.

printed copy of which, taken from the paper in which the same was printed, is attached to this sheet, and is made part of the Affidavit, was published in said newspaper at least once in each week for one successive weeks, on the day of each week on which said newspaper was regularly published, to wit:

August 14, 2013

at the full amount of the fees for the publication of the annexed notice is \$44.81

Ken Reiste
Ken Reiste

Subscribed and sworn to before me

this 14th day of August,
2013

Jeanie L. Kjenstad
Notary Public, South Dakota
My commission expires:

My Commission Expires
JEANIE L. KJENSTAD
SEAL NOTARY PUBLIC SEAL
SOUTH DAKOTA
01/06/17

Public notice

NOTICE OF APPLICATION
NOS. 7852-3 AND 7853-3
TO APPROPRIATE WATER

Notice is given that Sioux Rural Water System, Inc., c/o Heath Thompson, 45703 176th St, Watertown SD 57201 has filed the following applications for a water permit.

Application No. 7852-3 proposes to appropriate 210 acre-feet annually, place 390 acre feet of water per year reserved by Future Use Permit No. 5094-3 to beneficial use, an increase in diversion rate authority of 1.33 cubic feet of water per second (cfs) and requests two additional wells to Water Right No. 5098-3 and Water Permit No. 5960-3. Water Right No. 5098-3 appropriates 2.0 cfs from two wells located in the SE 1/4 SW 1/4 Section 34-T115N-R52W and NW 1/4 NE 1/4 Section 3-T114N-R52W. Water Permit No. 5960-3 appropriates 600 acre feet of water at a diversion rate of 1.33 cfs from four wells in the SE 1/4 SW 1/4 Section 34-T115N-R52W. This application seeks to appropriate 210 acre feet of water, place 390 acre feet of reserved water to beneficial use, increase of diversion authority by 1.33 cfs and add two wells to this well field. Of the 600 acre feet of water, 390 acre-feet annually is appropriated and reserved by Future Use Permit No. 5094-3 which was approved September 3, 1986, and the remaining 210 acre feet of water will receive a priority date of June 5, 2013, based on the application filing date. The two additional wells will be completed into the Big Sioux-Brookings Aquifer (35-45 feet deep) located in the NW 1/4 NE 1/4 Sec 3-T114N-R52W and SE 1/4 SW 1/4 Section 34-T115N-R52W. The intention of Sioux Rural Water System is to have water rights in place for this well field for a total appropriation of 2,100 acre feet of water with diversion rate authority of 4.66 cfs from eight wells.

Sioux Rural Water System, Inc. serves users in Hamlin, Codington, Deuel and Clark Counties including the towns of Kranzburg, Bryant, Hazel, Castlewood and Hayti.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7852-3 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.

Future Use Permit Application No. 7853-3 proposes to appropriate and re-

serve 2,400 acre-feet of water annually from the Big Sioux-Brookings Aquifer. The area to be reserved for future water use is to be located in the SW 1/4 Section 34-T115N-R52W and the NW 1/4 NE 1/4 and NE 1/4 NW 1/4 Section 3-T114N-R52W. The water is to be reserved for the purposes of providing future water supplies to the rural water system to serve those users listed above. This application does not authorize construction of works or application of water to beneficial use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7853-3 because 1) there is reasonable probability that there may be development of the water reserved by this permit, 2) Sioux Rural Water System had demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 August 26, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$44.81. (25-1/117)

**NOTICE OF APPLICATION NOS.
7852-3 and 7853-3 to Appropriate Water**

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Future Use Permit Application No.

7853-3 proposes to appropriate and reserve 2,400 acre-feet of water annually from the Big Sioux-Brookings Aquifer. The area to be reserved for future water use is to be located in the SW 1/4 Section 34-T115N-R52W and the NE 1/4 NW 1/4, NW 1/4 NE 1/4 Section 3-T114N-R52W. The water is to be reserved for the purposes of providing future water supplies to the rural water system to serve those users listed above. This application does not authorize construction of works or application of water to beneficial use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7853-3 because 1) there is reasonable probability that there may be development of the water reserved by this permit, 2) Sioux Rural Water System had demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be a beneficial use of water, and 4) it is in the public interest.

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

Published once at the total
approximate cost of \$43.25.

8-14-1t

Affidavit of Publication

State of South Dakota

§

County of Clark

William J. Krikac of said county, being first duly sworn, on oath says that he is the publisher of the **Clark County Courier**, a weekly newspaper printed and published in Clark in said County of Clark and has a full and personal knowledge of all the facts therein stated; that said newspaper is a legal newspaper and has a bona-fide circulation of at least two hundred copies weekly, and has been published within said County for fifty-two successive weeks next prior to the publication of the notice herein mentioned, and was and is printed wholly or in part in an office maintained at said place of publication; that the

SIOUX RURAL WATER SYSTEM

a printed copy of which taken from the paper in which same was published, is attached to this sheet, and is made a part of this Affidavit, was published in said newspaper at least once in each week for

ONE

successive weeks, on the day of each week on which said newspaper was regularly published, to wit:

AUGUST 14, 2013

that the full amount of the fees for the publication of the annexed notice is

43.25

William J. Krikac

Subscribed and sworn to before me this

14TH DAY OF AUGUST, 2013

Anne Helke

Notary Public

Clark County, South Dakota

My Commission expires: 06/04/2019

RECEIVED

AUG 15 2013

**WATER RIGHTS
PROGRAM**

RECEIVED

AUG 23 2013

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

12

STATE OF SOUTH DAKOTA)
County of Hamlin) SS

I, LeeAnne Dufek

certify that the attached printed Notice was taken

from the Hamlin County
Republican

printed and published in Castlewood

County of Hamlin and

state of South Dakota. The notice was published

in the newspaper on the following date:

Aug. 14, 2013

Cost of Printing \$41.58

LeeAnne Dufek
(Signature)

8-21-13
(Title)

Publisher
(Date Signed)

**NOTICE OF APPLICATION
NOS. 7852-3 AND 7853-3
TO APPROPRIATE WATER**

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be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

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*Published Aug. 14, 2013, at total cost of \$41.58.

RECEIVED

AUG 22 2013

WATER RIGHTS
PROGRAM

Form 8

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 date:

August 14th, 2013

Cost of Printing \$95.06

Monica K. Saathoff
(Signature)

Bookkeeper

(Title)

August 14th, 2013

(Date Signed)

DEPARTMENT OF ENVIRON- MENT AND NATURAL RESOURCES

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7853-3

may be development of the water reserved by this permit, 2) Sioux Rural Water System had demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be a beneficial use of water, and 4) it is in the public interest.

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95-06
All legal notices in the Public Opinion and other South Dakota newspapers can be found at
www.sdpublicnotices.com



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

August 7, 2013

Clear Lake Courier
PO Box 830
Clear Lake SD 57336

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7852-3 & 7853-3 to Appropriate Water. Please publish the notice once on August 14, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Sioux Rural Water System, c/o Heath Thompson, 45703 176th St, Watertown SD 57201 (Ph # 605-882-1321).

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

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

August 7, 2013

Clark County Courier
119 1st Ave E
Clark SD 57225

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605 773-3352

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and NATURAL RESOURCES

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

denr.sd.gov

August 7, 2013

Hamlin County Republican
PO Box 50
Castlewood SD 57223

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Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

August 7, 2013

Public Opinion
PO Box 10
Watertown SD 57201

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

August 7, 2013

Sioux Rural Water System
Heath Thompson
45703 176th St
Watertown SD 57201

Dear Mr. Thompson:

Water Permit Application Nos. 7852-3 & 7853-3 for rural water system use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the following newspapers:

Hamlin Co. Republican printed at Castlewood SD (605-793-2293)
Public Opinion printed at Watertown SD (605-886-6901)
Clark Co. Courier printed at Clark SD (605-532-3654)
Clear Lake Courier printed at Clear Lake SD (605-874-2499)

You will need to contact the newspaper(s) 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(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(s) 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 applications.

Instruction to Newspaper - Publish the Notice on August 14, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

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updated

NOTICE OF APPLICATION NOS. 7852-3 and 7853-3 to Appropriate Water

Notice is given that Sioux Rural Water System, Inc., c/o Heath Thompson, 45703 176th St, Watertown SD 57201 has filed the following applications for a water permit.

Application No. 7852-3 proposes to appropriate 210 acre-feet annually, place 390 acre feet of water per year reserved by Future Use Permit No. 5094-3 to beneficial use, an increase in diversion rate authority of 1.33 cubic feet of water per second (cfs) and requests two additional wells to Water Right No. 5098-3 and Water Permit No. 5960-3. Water Right No. 5098-3 appropriates 2.0 cfs from two wells located in the SE1/4 SW1/4 Section 34-T115N-R52W and NW1/4 NE1/4 Section 3-T114N-R52W. Water Permit No. 5960-3 appropriates 600 acre feet of water at a diversion rate of 1.33 cfs from four wells in the SE1/4 SW1/4 Section 34-T115N-R52W. This application seeks to appropriate 210 acre feet of water, place 390 acre feet of reserved water to beneficial use, increase of diversion authority by 1.33 cfs and add two wells to this well field. Of the 600 acre feet of water, 390 acre-feet annually is appropriated and reserved by Future Use Permit No. 5094-3 which was approved September 3, 1986, and the remaining 210 acre feet of water will receive a priority date of June 5, 2013, based on the application filing date. The two additional wells will be completed into the Big Sioux-Brookings Aquifer (35-45 feet deep) located in the NW 1/4 NE 1/4 Sec 3-T114N-R52W and SE 1/4 SW 1/4 Section 34-T115N-R52W. The intention of Sioux Rural Water System is to have water rights in place for this well field for a total appropriation of 2,100 acre feet of water with diversion rate authority of 4.66 cfs from eight wells.

Sioux Rural Water System, Inc. serves users in Hamlin, Codington, Deuel and Clark Counties including the towns of Kranzburg, Bryant, Hazel, Castlewood and Hayti.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7852-3 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.

Future Use Permit Application No. 7853-3 proposes to appropriate and reserve 2,400 acre-feet of water annually from the Big Sioux-Brookings Aquifer. The area to be reserved for future water use is to be located in the SW 1/4 Section 34-T115N-R52W and the NW 1/4 NE 1/4 and NE 1/4 NW 1/4 Section 3-T114N-R52W. The water is to be reserved for the purposes of providing future water supplies to the rural water system to serve those users listed above. This application does not authorize construction of works or application of water to beneficial use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7853-3 because 1) there is reasonable probability that there may be development of the water reserved by this permit, 2) Sioux Rural Water System had demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 August 26, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

SEP 27 2013

Sioux Rural Water System Inc.
Heath Thompson, Manager
45703 176th St
Watertown SD 57201

Dear Mr. Thompson:

Enclosed are Water Permit No. 7852-3 and Future Use Permit No. 7853-3.

Water Permit No. 7852-3 authorizes 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.

When plans for facilities are prepared to put any portion of the water granted in Future Use Permit No. 7853-3 to beneficial use, an application covering such facilities and water use should be submitted to this office before construction is initiated.

Sincerely,

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

enclosures

7852-3

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7852-3

I have this day, April 26, 2022, made a thorough examination of the water use system constructed by Sioux Rural Water System Inc., 45703 176th St, Watertown, SD 57201 of Water Right No. 5098-3, Water Permit No. 5960-3 and Water Permit No. 7852-3 all located in the Big Sioux-Brookings Aquifer for rural water system use located in Hamlin County.

Water Right No. 5098-3 authorizes 2.00 cubic feet of water per second (cfs) from 2 wells [C-1 and C-2] with priority dates of December 19, 1983, and June 1, 1986.

Water Permit No. 5960-3 authorizes 1.33 cfs from 4 wells [S-1, S-2, S-3, and S-4] with a priority date of June 2, 1986.

Water Permit No. 7852-3 authorizes 1.33 cfs from 2 wells [T-1 and T-2] with a priority date of June 5, 2013.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 8
- 3) Depth(s) 35 - 45 feet
- 4) Well log is available Y If no, explain in comments

Comments: **Five (5) logs available**

Casing:

- 1) Diameter 12 & 16 inches
- 2) Length 27 to 32 feet
- 3) Type steel
- 4) Capacity See attached Excel doc GPM

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating See attached Excel doc hp

Screen:

- 1) Type Stainless steel
- 2) Length 8 & 9 feet
- 3) Static water level 4 & 5 feet

Pump:

- 1) Make Submersibles
- 2) Model Unknown
- 3) Size Unknown

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

- 1) Type _____
- 2) Size _____ inches
- 3) Length _____ feet

Comments: **Buried plastic pipe of various lengths**

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in excellent condition with the points of diversion located as follows:

Well locations from SW corner Section 34-T115N-R52W

WELL C-1 (inside building)

150 ft N & 2550 ft E Lat 44.71733 Long -97.05745

WELL C-2 315 ft S & 2675 ft E Lat 44.71598 Long -97.05712

WELL S-1 865 ft N & 2540 ft E Lat 44.71923 Long -97.05756

WELL S-2 605 ft N & 2535 ft E Lat 44.71863 Long -97.05749

WELL S-3 600 ft N & 2120 ft E Lat 44.71862 Long -97.05949

WELL S-4 475 ft N & 2320 ft E Lat 44.71840 Long -97.05822

WELL T-1 215 ft N & 1815 ft E Lat 44.71781 Long -97.06029

WELL T-2 125 ft N & 2220 ft E Lat 44.71728 Long -97.05882

2. The works are capable of diverting and conveying to the place of use 6.2 cfs of water which is to be used for rural water use. The license should be issued for 4.66 cfs.
3. All structures, wells and lands on map Y

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

The applicable portions of Water Right No. 5098-3 and Water Permit No. 5960-3 are incorporated into Water Right No. 7852-3.

The current email address for the system manager is now manager@siouxruralwater.com after Travis Steffensen moved to the Kingbrook Rural Water System.

The well locations were determined with on-site visits and the aid of FSA imagery and ArcMAPS software.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: November 9, 2022

used these for labeling wells on map & license 7852-3

This column will be permanent well name FY 2021 and beyond

prior name

Water Right Permit	Date Drilled	Current Well Name	Post Treatment Plant Improvement Well Name	Pump & Motor Info	GPM	Location	Plant Well Provides Water Too	Location	Listed As Backup Well
1989		C1	C1	C1 - 15 hp 460v VHS Turbi	210 gpm	115-52-34	Castlewood Treatment Plant	Castlewood Well Field	
1989		C2	C2	C2 - 15hp 460v	250 gpm	114-52-3	Castlewood Treatment Plant	Castlewood Well Field	
1996		S1	C8	S1 - 20hp 460v (as far as I	315 gpm	115-52-34	Sioux Treatment Plant	Castlewood Well Field	
2019		S2	C7	S2 - 20hp 460v	305 gpm	115-52-34	Sioux Treatment Plant	Castlewood Well Field	
1996		S3	C6	S3 - 20hp 460v	445 gpm	115-52-34	Castlewood or Sioux Treatment Plant	Castlewood Well Field	
1996		S4	C5	S4 - 20hp 460v	305 gpm	115-52-34	Castlewood or Sioux Treatment Plant	Castlewood Well Field	
2019		T1	C3	T1 - 30HP	680 gpm	115-52-34	Castlewood Treatment Plant	Castlewood Well Field	
2019		T2	C4	T2 - 20HP	266 gpm	115-52-34	Castlewood Treatment Plant	Castlewood Well Field	
1977		Old 2	S1	Old S2 - SHP	175 gpm	116-52-27	Sioux Treatment Plant	Sioux Well Field	
1977		Old 3	S2	Old S3 - SHP	175 gpm	116-52-27	Sioux Treatment Plant	Sioux Well Field	X
1982 - ?		Old 4	S3	unknown	n/a	116-52-27	Sioux Treatment Plant	Sioux Well Field	X
1986 - ?		Old 5	S4	unknown	n/a	116-52-27	Sioux Treatment Plant	Sioux Well Field	X

Well gpm number is well running individually.



0 0.05 0.1 0.2 0.3 0.4 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



115N 52W
Section: 20

115N 52W
Section: 21

115N 52W
Section: 22

115N 52W
Section: 23

115N
Section: 24

115N 52W
Section: 29

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115N 52W
Section: 34

115N 52W
Section: 35

115N
Section: 36

114N 52W
Section: 05

114N 52W
Section: 04

114N 52W
Section: 03

114N 52W
Section: 02

114N
Section: 01

114N 52W
Section: 08

114N 52W
Section: 09

114N 52W
Section: 10

114N 52W
Section: 11



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUL 14 2023

Sioux Rural Water System Inc
c/o Heath Thompson
45703 176th St
Watertown SD 57201

7852-3
5960-3
5098-3

Dear Mr. Thompson:

Enclosed is Water License No. 7852-3. 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

NOTES: The applicable portions of Water Right No. 5098-3 and Permit No. 5060-3 have been incorporated into this license.

The investigation found your irrigation system capable of diverting 6.2 cubic feet of water per second (cfs) which is equivalent to approximately 2,780 gallons per minute. The combined authorized rate of diversion from 5098-3, 5960-3, and 7852-3 is 4.66 cfs (equivalent to 2,090 gpm). Diversion of water under this water license is limited to 4.66 cfs.

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7852-3

(1) Sioux Rural Water System Inc; 45703 176th St, Watertown SD 57201, made Application No. 7852-3, June 5, 2013, for a water permit to appropriate 210 acre feet (ac-ft) of water, place 390 ac-ft of reserved water (Future Use Permit No. 5094-3) to beneficial use, increase the rate of diversion by 1.33 cubic feet of water per second (cfs), and adds two (2) news wells (Big Sioux: Brookings Aquifer) to the existing well field. Permit No. 7852-3, with a priority date of June 5, 2013, was approved August 25, 2013, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before August 26, 2018, and for the application to beneficial use of water on or before August 26, 2022.

Water Permit No. 5960-3 appropriates 600 ac-ft of water at a diversion rate of 1.33 cfs from four (4) wells and Water Right No. 5098-3 authorizes 2.0 cfs from two (2) additional wells. The applicable portions of Permit No. 59

60-3 and Right No. 5098-3 are now incorporated into Water Right No. 7852-3.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 4.66 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well C-1: 150 ft N & 2,550 ft E of the SW corner of Section 34, T115N, R52W (*inside building*) (SE ¼ SW ¼) (Latitude 44.71733 Longitude -97.05745)
- Well C-2: 315 ft S & 2,675 ft E of the NW corner of Section 3, T114N, R52W (NW ¼ NE ¼) (Latitude 44.71598 Longitude -97.05712)
- Well S-1: 865 ft N & 2,540 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71923 Longitude -97.05756)
- Well S-2: 605 ft N & 2,535 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71863 Longitude -97.05749)
- Well S-3: 600 ft N & 2,120 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71862 Longitude -97.05949)
- Well S-4: 475 ft N & 2,320 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71840 Longitude -97.05822)
- Well T-1: 215 ft N & 1,815 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71781 Longitude -97.06029)
- Well T-2: 125 ft N & 2,220 ft E of the SW corner of Section 34, T115N, R52W (SE ¼ SW ¼) (Latitude 44.71728 Longitude -97.05882)

(3) Pursuant to South Dakota Water Law 46-5-30.1 Sioux Rural Water System Inc, the holder and/or owner of Water Right No. 7852-3 is issued a license to appropriate water, the right to use 4.66 cubic feet of water per second from groundwater, eight (8) wells (Big Sioux: Brookings Aquifer), with priority dates of December 19, 1983, authorizing 1.0 cfs (established under, now incorporated, Right No. 4490-3), June 1, 1986, authorizing 1.0 cfs (established under Right No. 5098-3), June 2, 1986, authorizing 1.33 cfs for 600 ac-ft, (established under Permit No. 5960-3), 1.33 cfs, at 390 ac-ft with a priority date of June 1, 1986 and 290 ac-ft with a priority date of June 5, 2013, (established under Permit No. 7852-3), from the locations specified in (2) of this license for rural water system purposes.

continued

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7852-3 and subject to the following qualifications:

1. The wells approved under Water Right No. 5098-3, and Water Permit Nos. 5960-3 & 7852-3 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 their 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 two new wells authorized by Permit No. 7852-3 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. Water Right No. 5098-3 and Water Permit Nos. 5960-3 & 7582-3, combined, authorize a total annual diversion of 2,100 acre feet of water annually from the Big Sioux: Brookings Aquifer.
4. Sioux Rural Water System Inc shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux: Brookings Aquifer.

Eric Gronlund

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

JUL 14 2023

date

