

WATER PERMIT NO. 8154-3

Name of Applicant: Dale G Williams

Address: 19151 465th Ave, Estelline SD 57234

Phone: 605 690-9319

Amount of Water Claimed: no additional

Total Acres: 28 acres

Source of Water Supply: groundwater (two existing wells)

Water to be used for: irrigation

County: Hamlin

Type of Waste Disposal System:

Location: 2 miles north of Estelline

PRIORITY

Date Received: 5-13-15

Application/License Fee: \$ 700

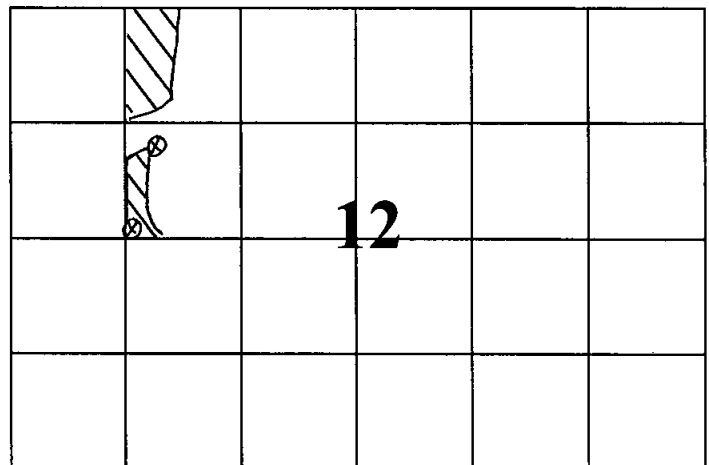
Corrected Application Received:

Period of Annual Use: May 1 – Sept 30

Remarks: Utilizing well authorized by Waer Right No. 5303-3

Diversion Point: SW 1/4 NW 1/4 Sec 12-T113M-
R51W

Land to be Irrigated: W 1/2 NW 1/4 Sec 12-
T113N-R51W



Depth of Well: 37 feet

Well Driller: Steffl Drilling & Pump, Inc.

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 5-13-15

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8154-3</u> (office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Estelline Journal</u> <u>Watertown Public Opinion</u>

RECEIVED
MAY 13 2015
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 5303-3
(Use predates Mar 2, 1955)

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

adding 28 acres for subirrigation

1. Name to Appear on Irrigation Permit Dale G. Williams

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 19151 465th Ave Estelline SD 57234
(Address) (City) (State) (Zip Code)

Home Phone 605 873 9319 Cell 605 690 9319 Email dwilliams21@hotmail.com 28 AC

2. Amount of water claimed no add'l *CFS or **GPM ***AF Total Acreage 241.82
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply existing wells (two wells)

4. Location of point of diversion SW 1/4 NW 1/4 Sec 12-T113N-R51W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Hanlin

5. County or counties where water will be used Hanlin

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

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

Land Description	Acres	Land Description	Acres
NW 1/4 NW 1/4 sec. 12 - 113N - 51W	20.02		
SW 1/4 NW 1/4 sec. 12 - 113N - 51W	8.00		

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

We tiled 28 acres and we want to subirrigate those acres We are not asking for more GPM subirrigation will only take 150 GPM

I, Dale G. Williams, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

**SOUTH DAKOTA
WATER PERMIT NO. 8154-3**

Date of first receipt of application May 13, 2015.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8154-3 to Dale G Williams, 19151 465th Ave, Estelline SD 57234 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. 8154-3 authorizes irrigation of 28 new acres. Water Right No. 5303-3 authorizes 1.78 cfs from two wells completed into the Big Sioux:Brookings Aquifer (27 and 37 feet deep) located in the SW 1/4 NW 1/4 Section 12 for irrigation of 223 acres located in the N 1/2 Section 12; all in T113N-R51W. This permit will irrigate 28 new acres located in the W 1/2 NW 1/4 Section 12-T113N-R51W from the two existing wells. This permit does not increase the authorized 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 May 13, 2015.
4. The date of approval of Permit No. 8154-3 is July 27, 2015.
5. One-fifth of the construction is to be completed on or before January 27, 2018.
6. All construction is to be completed on or before July 27, 2020.
7. Water is to be put to beneficial use on or before July 27, 2024.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Jeanne Goodman

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

AUG 04 2015

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 _____

c) Well Depth _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest existing domestic well:

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

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

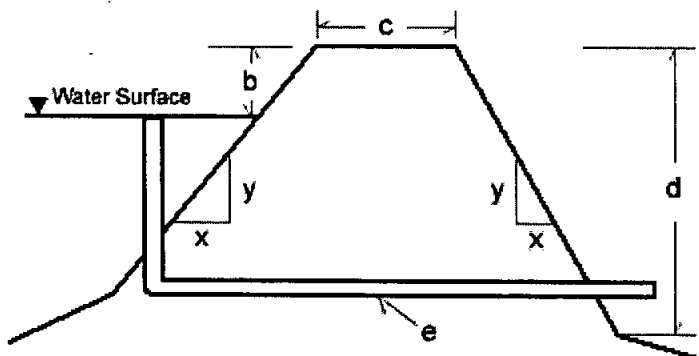
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



SOUTH DAKOTA WATER WELL COMPLETION REPORT

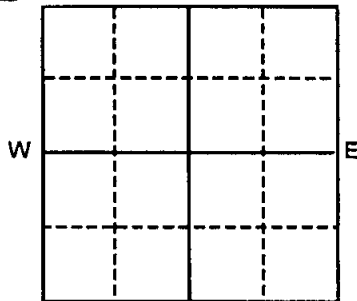
11-02

Location SW 1/4 NW 1/4 Sec 12 Twp 113 Rg 51Well Owner: Dale Williams

Business Name: _____

Address: 19151 465th AveCity, State, Zip: Estelline SD 57234County Hamlin

North

Please mark well
location with an "X"

Well Completion Date

December 5, 2012

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	27.0 FT	17.50 IN
LB/FT	12.00 IN	37.0 FT	42.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	9	Lb/gal	0.0 Ft	17.0 Ft
Red Flint	25	Lb/gal	17.0 Ft	42.0 Ft

Describe grouting procedure
Pressure Tremmie for grout

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 12.00 Inches Length 10.0 Feet
 Material Stainless Steel
 Slot Size 120 Set From 27.0 Feet to 37.0 Feet

Other Information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine☐ No, Why Not? _____Lab to which water
quality sample sent for analysis _____

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	2
Sand	2	30
Sand	30	37

STATIC WATER LEVEL 10.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: _____
☐ Bailed
☐ Other

Pumping Level Below Land Surface

21.3 Ft. After 6 Hrs. pumped 340 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

 Production Well #2
 44 36 32.8N
 96 54 17.0W
 Elev 1678

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This well was drilled under license # 463 and this report is true and accurate.Drilling firm: Steffl Drilling & Pump Inc / Kris Van Heuveln

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 2-14-2013



Common Land Unit  Tract Boundary
 Cropland  PLSS
 Non-Cropland

Wetland Determination Identifiers

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



2015 Program Year

Map Created April 08, 2015

Farm 3991

12 -113N -51W

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

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**WATER RIGHTS
PROGRAM**

Dale Williams
HamlinC EstellineT
Section 12

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WATER RIGHTS
PROGRAM



- 4 inch lateral
- 6 inch Main
- 8 inch Main
- 4 inch lateral
- Control Structure



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 5/13, 20 15

RECEIVED OF Dale G Williams 19151 465th Ave Estelline SD 57234

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

Fee for Application for Permit No. <u>8154-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	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>8154-3</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	700 00

No. 07400

By James Goodman
Chief Engineer



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8154-3, Dale G Williams**

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. 8154-3, Dale G Williams, 19151 465th Avenue, Estelline SD 57234.

The Chief Engineer is recommending APPROVAL of Application No. 8154-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
June 29, 2015

REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NOS. 8149-3 and 8154-3

Dale G. Williams

June 10, 2015

Water Permit Application No 8149-3 proposes to appropriate water from one existing well completed into the Brookings Management Unit of the Big Sioux aquifer at a maximum rate of 0.66 cubic feet per second (cfs) or 300 gallons per minute (gpm) for the irrigation of 65.4 acres in the E $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 16, T113N-R51W. The well is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 16, T113N-R51W of Hamlin County and is completed to a depth of 50 feet below ground surface. The existing well was originally authorized and constructed under Water Permit No. 7489-3.

Water Permit Application No 8154-3 proposes to appropriate water from two existing wells completed into the Brookings Management Unit of the Big Sioux aquifer for the irrigation of 28 acres in the W $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 12, T113N-R51W. The wells are both located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 12, T113N-R51W of Hamlin County and are completed to depths of approximately 27 and 37 feet below ground surface. The wells are currently authorized under Water Right No. 5303-3. This application does not propose to increase the maximum diversion rate allowed under Water Right No. 5303-3 of 1.78 cfs or 800 gallons per minute.

In both applications, Dale Williams has indicated the acres in question will be sub irrigated by pumping water into a tile drain system approximately two to three feet below the ground surface.

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

HYDROGEOLOGY

The Brookings management unit of the Big Sioux aquifer is an alluvium mantled outwash consisting of well-sorted, permeable, medium to coarse sand and fine to medium gravel. Generally, the aquifer is underlain by till and, when buried, overlain by till. The aquifer is often under unconfined conditions near the Big Sioux River and can be confined elsewhere (Hamilton, 1989).

Stonesifer (2013) constructed a composite map based on delineation of the Big Sioux: Brookings aquifer by Hamilton (1989), Hansen (1988), Hedges and others (1982), and Kume (1985). In total the Big Sioux: Brookings aquifer underlies approximately 323,000 acres of Brookings, Codington, Deuel, Hamlin, Kingsbury, and Moody Counties (Hamilton, 1989; Hansen, 1988; Hedges and others, 1982; Kume, 1985; Stonesifer, 2013). From the average thickness of 30 feet and an assumed common storativity of 0.15, the Big Sioux: Brookings aquifer is estimated to contain 1,453,000 acre-feet (ac-ft) of recoverable water in storage (Hedges and others, 1982; Hamilton, 1989; Kume, 1985). The Brookings Management Unit is hydraulically connected to the North Management Unit to the north, the Battle Creek aquifer to the west, the North Deer Creek, Unnamed Creek, Six Mile Creek, and Aurora Management Units to the east, and the Moody Management Unit to the south (Hedges and others, 1982). The aquifer also is hydraulically connected to surface waters, specifically the Big Sioux River. Water in the aquifer generally moves south and locally towards the Big Sioux River (Hamilton, 1989).

Well construction logs submitted with these applications show the aquifer material in the area of the existing well sites is encountered from just below ground surface to a depth of at least 50 feet below ground surface in Section 16 and at least 37 feet below ground surface in Section 12. Of the two existing wells in Section 12, only one well completion report is available. The static water level in these wells at the time of construction was approximately nine to 10 feet below ground surface (Water Rights, 2015c).

SDCL 46-2A-9

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

WATER AVAILABILITY

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires that no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge. If the source of the groundwater is older or lower than the Greenhorn formation and will be used for a water distribution system, recharge and withdrawal does not need to be considered.

Here, a water distribution system is not involved and the aquifer is above the Greenhorn formation. So, recharge and withdrawal must be considered. This will be considered by two methods: a hydrologic budget considering quantified values of recharge and withdrawal and an observation well analysis considering water levels.

HYDROLOGIC BUDGET

Recharge:

Recharge to the Big Sioux: Brookings aquifer occurs through infiltration of precipitation in areas where the aquifer is at or near land surface, seepage through till, lake deposits, and underlying aquifers, and inflow from the Big Sioux River and its tributaries during times of high stages (Hamilton, 1989; Kume, 1985).

Hedges and others (1985) estimated the average recharge rate to the entire Big Sioux aquifer system by base flow analysis to be 6.5 inches per year (in/yr). Koch (1980) estimated average recharge to the Big Sioux aquifer in Brookings, Deuel, and Hamlin Counties by modeling to be 6.57 in/yr to the unconfined portions. Kume (1985) estimated recharge to the Big Sioux aquifer in Hamlin and Deuel Counties to be 5.11 in/yr. Hansen (1988) estimated recharge to the Big Sioux aquifer in Moody County by modeling to be on average 4.85 in/yr. Hedges and others (1985) estimated recharge specifically of the Brookings Management Unit by observation well analysis to be 4.0 in/yr. Given its focus on the Brookings Management Unit and its conservative nature relative to other estimates, this report will use the latter of the established recharge

estimates, 4.0 in/yr (Hedges and others, 1985). Using an area of 323,000 acres (Hamilton, 1989; Hansen, 1988; Hedges and others, 1982; Kume, 1985; Stonesifer, 2013), it follows that annual recharge is approximately 107,000 ac-ft.

Discharge:

Discharge from the aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface, outflow to the Big Sioux River and its tributaries when the river stage is below that of the aquifer, and well withdrawals (Hamilton, 1989; Kume, 1985). There are a total of 255 water rights/permits appropriating water from the aquifer and 10 future use permits. Several of the future use permits reserving water from the Big Sioux: Brookings aquifer have been partially or fully developed. The difference between what has been historically approved for reservation under future use permits and what has been subsequently developed and put to beneficial use is 7,327 ac-ft/yr. It is assumed this water, still reserved by future use permits, will be fully developed in the coming years.

Of those water permits/rights actively diverting water, 212 are for irrigation, 10 are for commercial purposes, one is for geothermal, two are for industrial use, 16 are for municipal systems, 12 supply rural water systems, and two are for suburban housing developments.

Of the 16 water permits and rights which are for municipal use, five are held by the cities of Bruce, Hayti, and Clear Lake. These cities currently use rural water systems as a primary source. Their water rights/permits along with their pump systems are retained for backup or redundancy purposes only and are assumed to use no water (Holan, 2015).

The amount of water that can be expected to be withdrawn by non-irrigation water rights/permits at the current level of appropriation can be estimated by assuming water rights/permits limited by an annual volume will pump that entire volume annually, and water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time. Given the expectation of future growth in municipal and rural water systems, average historical usage in instances when those entities report annual pumping is not expected to be an accurate representation of future use. Consequently, even in instances when reporting is available, it is still assumed that those permits/rights limited by volume will divert that entire volume. Similarly, those that report usage but which are limited by a maximum diversion rate will still be assumed to pump at that diversion rate 60 percent of the time. Given the preceding assumptions, non-irrigation water use is expected to account for 13,057 ac-ft/yr from the Big Sioux: Brookings aquifer (Water Rights, 2015b).

Historic irrigation use from the Big Sioux: Brookings aquifer is listed below in Table 1 (Water Rights, 1980-2015). Although the number of permits/rights authorized to divert water from the Big Sioux: Brookings aquifer and the total appropriation rate has remained relatively constant up until 2012, a significant increase has occurred in the past two years. Over the period of record, the average irrigation use in the aquifer has been 8,807.5 ac-ft/yr. The percentage of actual water pumped compared to the appropriation rate has averaged 13.1 percent. Given the increased number of permits and appropriation in 2014, and the expected usage compared to appropriation, it is expected that future irrigation use from the Big Sioux: Brookings aquifer is likely to be closer to 9,747.3 ac-ft/yr.

Year	Number of Permits	Appropriation (ac-ft/yr)	Usage (ac- ft/yr)
1979	184	85701.00	6144.00
1980	187	87093.00	9837.00
1981	198	91361.00	9040.00
1982	155	77754.57	4551.86
1983	161	74854.57	8227.46
1984	188	84188.07	8177.60
1985	181	81385.57	4951.40
1986	179	80788.57	2854.70
1987	171	76624.07	10015.00
1988	167	74615.27	18521.40
1989	166	69391.27	13930.70
1990	175	71616.95	5862.92
1991	165	65534.97	7771.74
1992	162	64603.70	2331.60
1993	162	64963.70	1042.90
1994	160	64395.20	2854.62
1995	161	62961.20	3862.25
1996	154	62575.20	7220.95
1997	153	62281.70	5650.00
1998	157	63306.20	8109.71
1999	155	62181.30	7841.04
2000	153	60799.80	8933.72
2001	149	59312.80	8384.81
2002	149	59186.80	12410.94
2003	149	58970.80	11380.47
2004	156	60695.80	11809.91
2005	159	61435.80	11513.48
2006	161	61075.80	14325.04
2007	164	62374.80	12730.13
2008	166	62761.80	12505.85
2009	174	65098.40	8172.90
2010	172	62966.40	2713.39
2011	174	63494.40	8527.61
2012	177	63694.40	19482.51
2013	198	70084.90	15432.29
2014	212	74387.36	9947.64
Max	212	91361.00	19482.51
Min	149	58970.80	1042.90
Average	168	68736.59	8807.49

Table 1: Historic irrigation use from the Big Sioux: Brookings aquifer (Water Rights, 1980-2015)

Water Balance:

Water use from the Big Sioux: Brookings aquifer, assuming full development of future use permits, is expected to equal approximately 30,131.3 ac-ft/yr. Recharge has been estimated to equal approximately 107,000 ac-ft/yr. If approved, is it expected that Water Permit Application Nos. 8149-3 and 8154-3 will pump an additional 65.4 ac-ft/yr and 28 ac-ft/yr, respectively. Therefore, given the information available, ample water is available from the aquifer for the proposed appropriation.

OBSERVATION WELL DATA

The South Dakota Water Rights Program currently monitors 79 observation wells completed into the Big Sioux: Brookings aquifer (Water Rights, 2015a). Observation wells completed into the aquifer show historic water levels that are climatically controlled, with water levels varying on a seasonal as well as long term scale. The closest observation wells to the existing well sites for these applications are HN-75A (located approximately 0.6 miles to the northeast of the well site in Section 16 and two miles to the southwest of the well sites in Section 12) and HN-77J (located approximately 1.2 miles to the northeast of the well site in Section 16 and 1.3 miles to the southwest of the well sites in Section 12). These observation wells have been in place since 1975 and 1977, respectively, and show historic water levels that are consistent with the overall trend for the aquifer. Water levels display the effects of pumping in the area but are predominantly controlled by climatic conditions, rising during wet years and declining during dry years (see Figures 1 and 2 below). Climatically controlled water levels indicate recharge to and natural discharge from the aquifer far exceed well withdrawals, meaning unappropriated water is available for the proposed use.

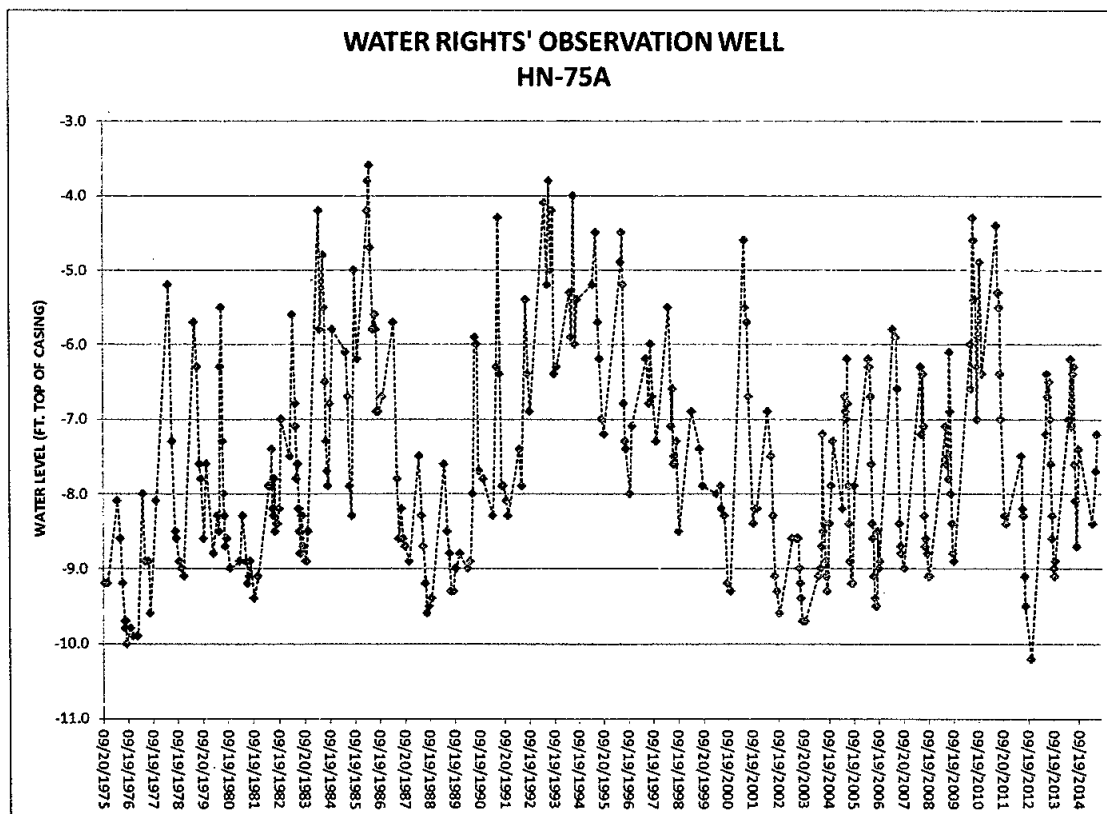


Figure 1: Historic water levels in Observation Well HN-75A (Water Rights, 2015a).

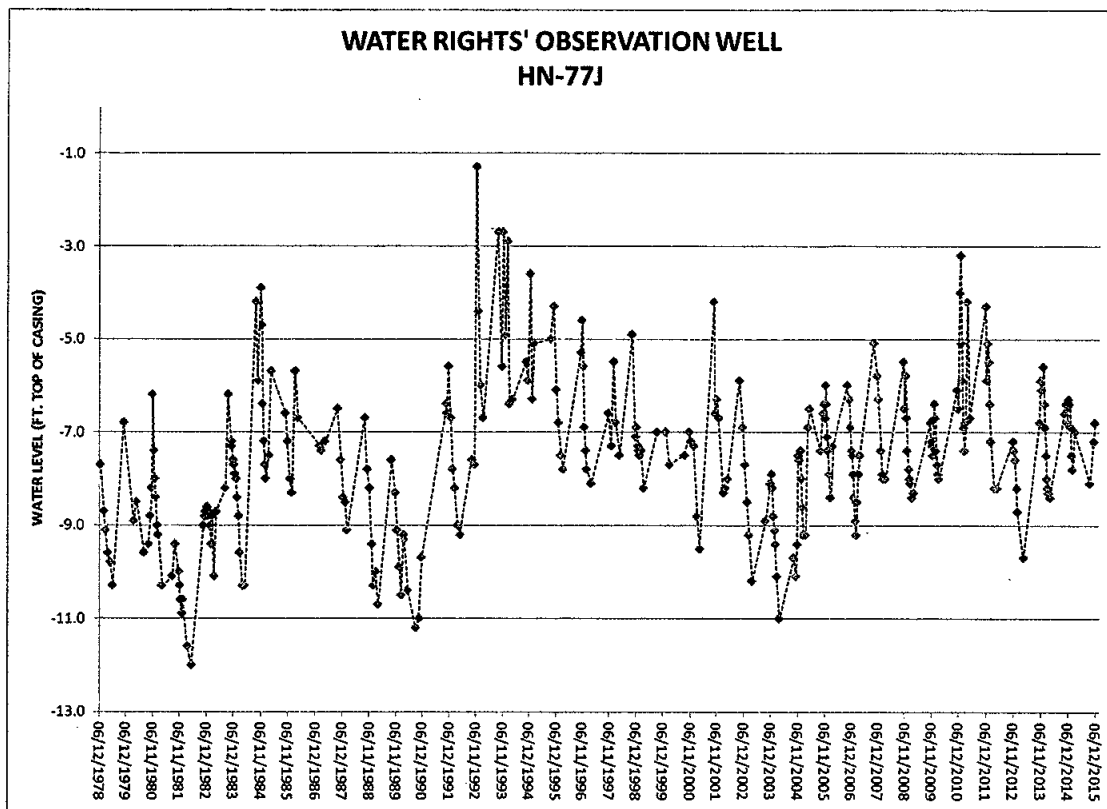


Figure 2: Historic water levels in Observation Well HN-77J (Water Rights, 2015a).

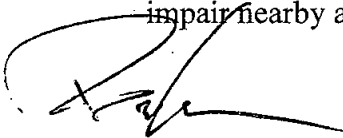
EXISTING WATER RIGHTS:

Currently, there are 255 water rights/permits and 10 future use permits appropriating and reserving water from the Big Sioux: Brookings aquifer (Water Rights, 2015b). Of these, the closest to the existing well sites are Water Right 7124-3 (located approximately one mile to the southeast of the well site in Water Permit Application No. 8149-3) and Water Right No. 3237-3 (located approximately 0.3 miles to the south of the well sites in Water Permit Application No. 8154-3). Although Water Permit Application No. 8154-3 does not propose to increase the maximum diversion rate authorized for the existing wells in Section 12, the increase in irrigated land by 28 acres is expected to result in an increased water use of 28 ac-ft/yr. This equates to 0.08 cfs pumped continuously for the entire 180 day irrigation season. Based on data in the well log provided with this application, a transmissivity of 46,000 gallons per foot per day was calculated from specific capacity ("Transmissivity from Specific Capacity"). Given a storativity of 0.075, a diversion rate of 0.08 cfs for 180 days was calculated to result in approximately three inches of drawdown at 0.3 miles away ("Theis Equation Calculator").

The diversion rate and number of acres irrigated in Water Permit Application No. 8149-3 is expected to be the equivalent of 0.18 cfs pumped continuously for 180 days and is not expected to cause more than three inches of drawdown in the well associated with Water Right No. 7124-3). Therefore, assuming adequate construction of nearby wells, approval of these two applications is not expected to impair existing water rights or domestic wells.

CONCLUSIONS:

1. Water Permit Application Nos. 8149-3 and 8154-3 propose to withdraw groundwater from one existing well completed into the Big Sioux: Brookings aquifer in Sections 16 and two existing wells in Section 12, both in T113N-R51W in order to irrigate 65.4, and 28 acres, respectively.
2. Water Permit Application No. 8149-3 proposes to pump additional water at a maximum rate of 0.66 cfs. Water Permit Application No. 8154-3 does not propose to increase the maximum diversion rate authorized for the existing well.
3. There is a reasonable probability that unappropriated water is available from the Big Sioux: Brookings aquifer to supply the proposed appropriations.
4. The expected increases in diversion rates and irrigated acres are not expected to adversely impair nearby adequate wells.



Bracken Capen
SD DENR-Water Rights Program

Approved by,



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

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- Water Rights. 2015b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2015c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

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JUL 23 2015

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

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:

July 15th, 2015

Cost of Printing 73.27

Monica K Saathoff
(Signature)

Bookkeeper
(Title)

July 15th, 2015
(Date Signed)

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

NOTICE OF APPLICATION NOS. 8149-3 and 8154-3 to Appropriate Water

Notice is given that Dale G Williams, 19151 465th Ave, Estelline SD 57234 has filed the following applications for a water permit. Application No. 8149-3 proposes to irrigate 65.4 new acres. Water Permit No. 7489-3 authorizes 1.78 cubic feet of water per second (cfs) from the Big Sioux:Brookings Aquifer for irrigation of 152 acres located in the NE 1/4 Section 21; all in T113N-R51W. This application proposes to appropriate an additional 0.66 cfs from an existing well covered by No. 7489-3 located in the NE1/4 SE1/4 to irrigate 65.4 new acres located in the E 1/2 SE 1/4 all in section 16-T113N-R51W.

Application 8154-3 proposes to irrigate 28 new acres. Water Right No. 5303-3 authorizes 1.78 cfs from two wells completed into the Big Sioux:Brookings Aquifer (27 and 37 feet deep) located in the SW 1/4 NW 1/4 Section 12 for irrigation of 223 acres located in the N 1/2 Section 12; all in T113N-R51W. This application proposes to irrigate 28 new acres located in the W 1/2 NW 1/4 Section 12-T113N-R51W from the two existing wells. This application, if approved, does not increase the authorized diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 8149-3 and 8154-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations.

If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition. 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 July 27, 2015.

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 an approximate cost of \$68.26. (July 15, 2015)

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

RECEIVED

JUL 17 2015

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Hamlin) SS

I, LeeAnne Dufek

certify that the attached printed Notice was taken

from the Estelline Journal

printed and published in Estelline

County of Hamlin and

state of South Dakota. The notice was published

in the newspaper on the following date:

July 15, 2015

Cost of Printing \$29.70

LeeAnne Dufek
(Signature)

Owner
(Title)

7-15-2015
(Date Signed)

NOTICE OF APPLICATION
NOS. 8149-3 AND 8154-3
TO APPROPRIATE WATER

Notice is given that Dale G Williams, 19151 465th Ave, Estelline SD 57234 has filed the following applications for a water permit. Application No. 8149-3 proposes to irrigate 65.4 new acres. Water Permit No. 7489-3 authorizes 1.78 cubic feet of water per second (cfs) from the Big Sioux:Brookings Aquifer for irrigation of 152 acres located in the NE 1/4 Section 21; all in T113N-R51W. This application proposes to appropriate an additional 0.66 cfs from an existing well covered by No. 7489-3 located in the NE1/4 SE1/4 to irrigate 65.4 new acres located in the E 1/2 SE 1/4 all in section 16-T113N-R51W.

Application 8154-3 proposes to irrigate 28 new acres. Water Right No. 5303-3 authorizes 1.78 cfs from two wells completed into the Big Sioux:Brookings Aquifer (27 and 37 feet deep) located in the SW 1/4 NW 1/4 Section 12 for irrigation of 223 acres located in the N 1/2 Section 12; all in T113N-R51W. This application proposes to irrigate 28 new acres located in the W 1/2 NW 1/4 Section 12-T113N-R51W from the two existing wells. This application, if approved, does not increase the authorized diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 8149-3 and 8154-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the

Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

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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 July 15, 2015, at total cost of \$29.70.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

June 29, 2015

Estelline Journal
PO Box 50
Castlewood SD 57223

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 8149-3 and 8154-3 to Appropriate Water. Please publish the notice once on July 15, 2015. 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 Dale G. Williams, 19151 465th Ave, Estelline SD 57223 (Ph # 605-873-9319).

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

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

denr.sd.gov

June 29, 2015

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 8149-3 and 8154-3 to Appropriate Water. Please publish the notice once on July 15, 2015. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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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

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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 DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.

June 29, 2015

Dale G. Williams
19151 465th Ave
Estelline SD 57223

Dear Mr. Williams:

Water Permit Application Nos. 8149-3 and 8154-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Estelline Journal printed at Estelline SD (Ph # 605-793-2293) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). 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.

NOTICE OF APPLICATION NOS. 8149-3 and 8154-3 to Appropriate Water

Notice is given that Dale G Williams, 19151 465th Ave, Estelline SD 57234 has filed the following applications for a water permit. Application No. 8149-3 proposes to irrigate 65.4 new acres. Water Permit No. 7489-3 authorizes 1.78 cubic feet of water per second (cfs) from the Big Sioux:Brookings Aquifer for irrigation of 152 acres located in the NE 1/4 Section 21; all in T113N-R51W. This application proposes to appropriate an additional 0.66 cfs from an existing well covered by No. 7489-3 located in the NE1/4 SE1/4 to irrigate 65.4 new acres located in the E 1/2 SE 1/4 all in section 16- T113N-R51W.

Application 8154-3 proposes to irrigate 28 new acres. Water Right No. 5303-3 authorizes 1.78 cfs from two wells completed into the Big Sioux:Brookings Aquifer (27 and 37 feet deep) located in the SW 1/4 NW 1/4 Section 12 for irrigation of 223 acres located in the N 1/2 Section 12; all in T113N-R51W. This application proposes to irrigate 28 new acres located in the W 1/2 NW 1/4 Section 12-T113N-R51W from the two existing wells. This application, if approved, does not increase the authorized diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 8149-3 and 8154-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

AUG 04 2015

Dale G Williams
19151 465th Ave
Estelline SD 57234

Dear Mr. Williams:

Enclosed are Water Permit Nos. 8149-3 and 8154-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses 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



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

November 5, 2020

5252-3

5303-3

7489-3

8149-3

8154-3

Jeff Williams
19132 465th St
Estelline SD 57234

Dear Mr. Williams:

As indicated on your 2020 Irrigation Questionnaires enclosed are partially completed "Notice of Transfer" forms for use in filing an ownership change on the water permits/rights listed above. The water permits/rights are currently listed in the name of Dale G Williams.

The transfer forms should be checked over for accuracy and signed by the new owner. Upon completion, return the forms to our office with a required filing fee of \$50.00 each (total \$250.00).

For informational purposes, under South Dakota Water Law, water must be placed to beneficial use for the purpose it was appropriated at least once every three years in order to maintain water permit. This three year period can be waived if legal excuse exists for the years of nonuse. Enclosed are excerpts of the water right laws and Water Management Board Rules dealing with these issues.

South Dakota Water Law 46-5-30.3 requires Notice of any sale, grant, lease, conveyance or other transfer of a water permit or water right to appropriate water to be filed with this office within ninety days.

If you have any questions, please contact Genny McMath or me.

Sincerely,

Karen Schlaak

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

enclosures

WATER RIGHTS PROGRAM -- FILE DOCUMENTATION

NAME & ADDRESS: Jeff Williams, 19132 465th St, Estelline SD 57234

DATE: November 10, 2020

TELEPHONE: 605 690-2265

RE: Water Right/Permit Nos. 5252-3, 5303-3, 7489-3, 8149-3 and 8154-3

COMMENTS:

In response to irrigation questionnaires returned by Jeff Williams, a letter was sent to him with transfer forms for changing the water rights from Dale Williams to Jeff's name.

Jeff called and indicated he was Dale's son. He and his brother are taking over some of the farming and of course the paperwork but Dale still owns the land.

He wanted the annual questionnaires sent to him, but ownership stays under Dale G Williams. I told him to disregard the transfer forms we mailed to him.



Genny McMath
Water Rights Program

8154-3



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

January 20, 2022

NOTICE

TO: JEFF WILLIAMS, OPERATOR, 19132 465th St, ESTELLINE, SD 57234
FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2021 Irrigation Questionnaire(s)

Our records indicate your 2021 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 5252-3, 5303-3, 7489-3, 8149-3 & 8154-3. The request for the Questionnaire was dated October 22, 2021. The Water Management Board has directed that owners of water permits who have not submitted the 2021 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 5252-3, 5303-3, 7489-3, 8149-3 & 8154-3 qualification:

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

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

1. Suspend or cancel Permit No(s) 5252-3, 5303-3, 7489-3, 8149-3 & 8154-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

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

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

c: Dale G Williams, 19151 465th Ave, Estelline SD 57234

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

8154-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 31, 2022

Jeff Williams
19132 465th St
Estelline SD 57234

RE: Water Permit or Right Nos. 5252-3, 5303-3, 7489-3, 8149-3 & 8154-3

Dear Mr. Williams:

I am writing to acknowledge receipt of your 2021 irrigation questionnaires (copies enclosed).

You may disregard the January 20, 2022, "Notice" concerning reporting requirements for the above listed Water Permits or Rights. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8154-3

I have this day, April 27, 2022, made a thorough examination of the water use system constructed by Dale G Williams 19151 465th Ave, Estelline, SD 57234 of Permit No. 8154-3, bearing the priority of May 13, 2015 authorizing the diversion of 1.78 cu. ft. per second of the waters of the Big Sioux-Brookings Aquifer for irrigation purposes, in Hamlin County.

A. Works used to divert the water:

Well Information: Authorized by Water Right 5303-3

- 1) Well Drilling Firm: Steffl Drilling & pump Inc
- 2) No. of Wells 1
- 3) Depth(s) 27 & 37 feet
- 4) Well log is available Y (for 37' well)

Casing:

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

Screen:

- 1) Type Stainless steel
- 2) Length 10 feet
- 3) Static water level 10 feet

Pump:

- 1) Make submersible
- 2) Model & size unknown
- 3) Capacity 800 GPM

Motor: unknown

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

- 1) Type above ground steel pipe
- 2) Size 6 inches
- 3) Length 30 feet

C. Works used to apply water to beneficial use: See section F

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

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

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **Well Locations: From the NW corner Sec 12 T113N R51W Well #1 – 1,720' S & 230' E (Lat 44.611098, Longitude -96.90430) Well #2 – 2,540' S & 90' E, Lat 44.60906 Long -96.90476 (both in SW ¼ NW ¼).**
2. The works are capable of diverting and conveying to the place of use 1.78 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent to irrigate the following - all in Section 12, T113N, R51W:

NE ¼ NW ¼	26 acres	NW ¼ NE ¼	40 acres
NW ¼ NW ¼	2.5 acres	NE ¼ NE ¼	29 acres
SE ¼ NW ¼	32 acres	SW ¼ NE ¼	40 acres
SW ¼ NW ¼	32 acres	SE ¼ NE ¼	29 acres

comprising a total of 230.5 acres of land and the license should be issued for 1.78 cfs

3. All structures, wells and lands on map Y/N

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

This is a unique project in that it is using buried, closely spaced, drain tubing as a means to perform subirrigation to the crops. The well located in the SW corner of the field delivers water to one (1) standpipe (big black vertical pipe on the right side of the photo) as shown in the accompanying photo which in turn deliver water to the buried tubes.

This system is using wells authorized by Water Permit 5303-3.

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

The mailing address and the telephone number presented in the permit application materials are current. Mr. Jeff Williams, son, farms the land and can be contacted at 605/690-2265.

The original permit was for 28 acres but only 6.5 acres are currently being irrigated. See accompanying project map which shows the undeveloped acreage. Mr. Jeff Williams was advised that there is a possibility of a partial termination of the permit acreage due to lack of system development.

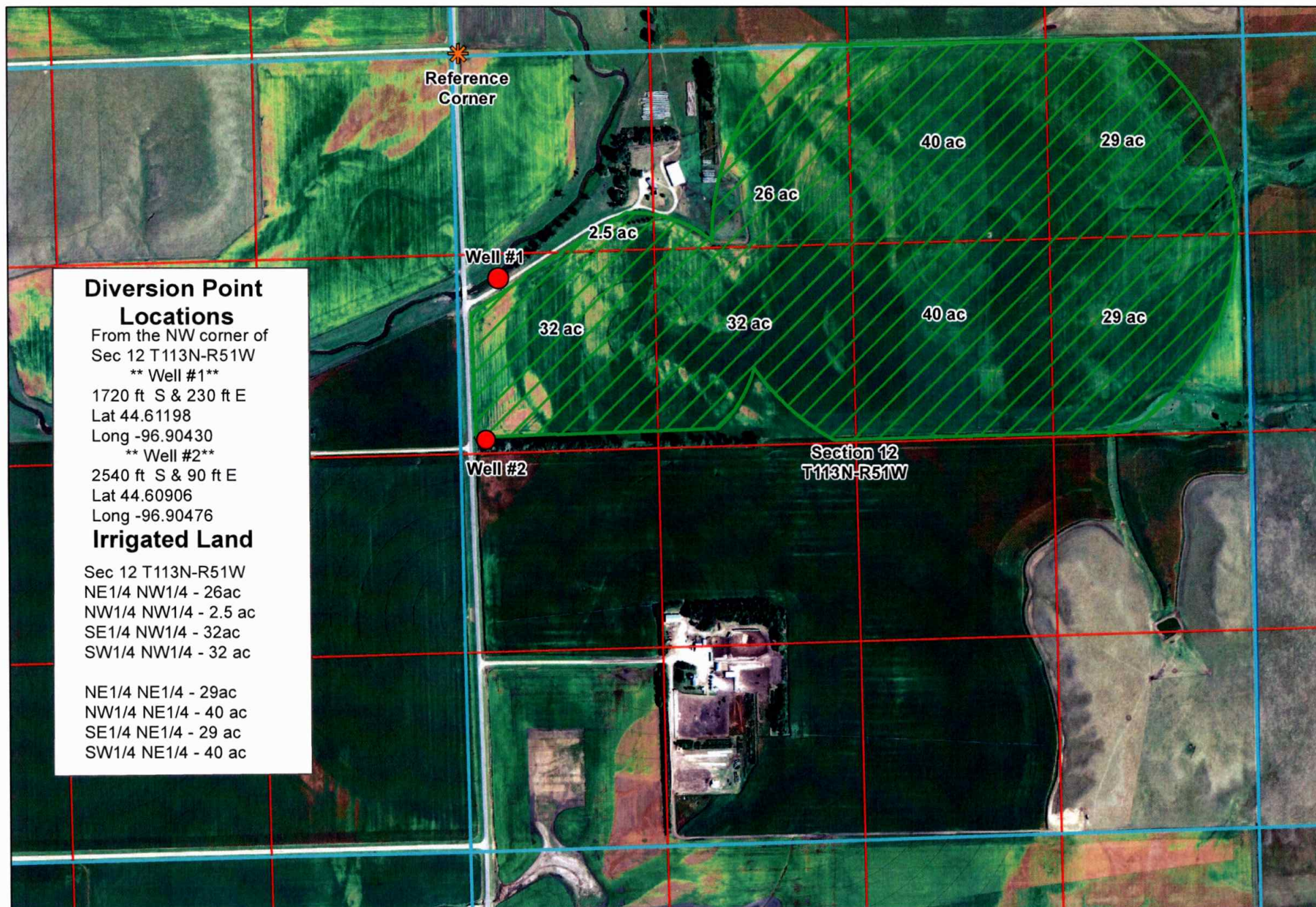


Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: April 30, 2022

Note: The applicable portions of Water Right No. 5303-3 will be incorporated into Water License No. 8154-3. The acreage described on page 2 of this report combines the acreage from both 5303-3 and 8154-3.

Genny



Diversion Point

Locations

From the NW corner of
Sec 12 T113N-R51W

**** Well #1 ****

1720 ft S & 230 ft E

Lat 44.61198

Long -96.90430

**** Well #2 ****

2540 ft S & 90 ft E

Lat 44.60906

Long -96.90476

Irrigated Land

Sec 12 T113N-R51W

NE1/4 NW1/4 - 26ac

NW1/4 NW1/4 - 2.5 ac

SE1/4 NW1/4 - 32ac

SW1/4 NW1/4 - 32 ac

NE1/4 NE1/4 - 29ac

NW1/4 NE1/4 - 40 ac

SE1/4 NE1/4 - 29 ac

SW1/4 NE1/4 - 40 ac



0 625 1,250 2,500 3,750 5,000 Feet



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

May 11, 2022

RECEIVED

8184-3

Jeff Williams
19132 465th St
Estelline SD 57234

MAY 17 2022

**OFFICE OF
WATER**

Dear Mr. Williams:

I am writing in follow-up to our phone conversation concerning licensing of Water Permit No. 8184-3 and possible incorporation of the older Water Right No. 5303-3.

Permit No. 8184-3 was obtained to use two existing wells to irrigate an additional 28 acres. On April 27, 2022, one of our staff inspectors conducted a field investigation of the area described in the new permit. In his report, he mentioned one well and described 6.5 acres had been developed.

I have enclosed a copy of both Water Right No. 5303-3 and Water Permit No. 8184-3 for your review. Also included is a map with questions or comments to consider before licensing.

After you have had a chance to review the enclosed materials, give me a call. We can decide at that point if we need to wait on licensing of No. 8184-3 or if it can be licensed and combined with No. 5303-3.

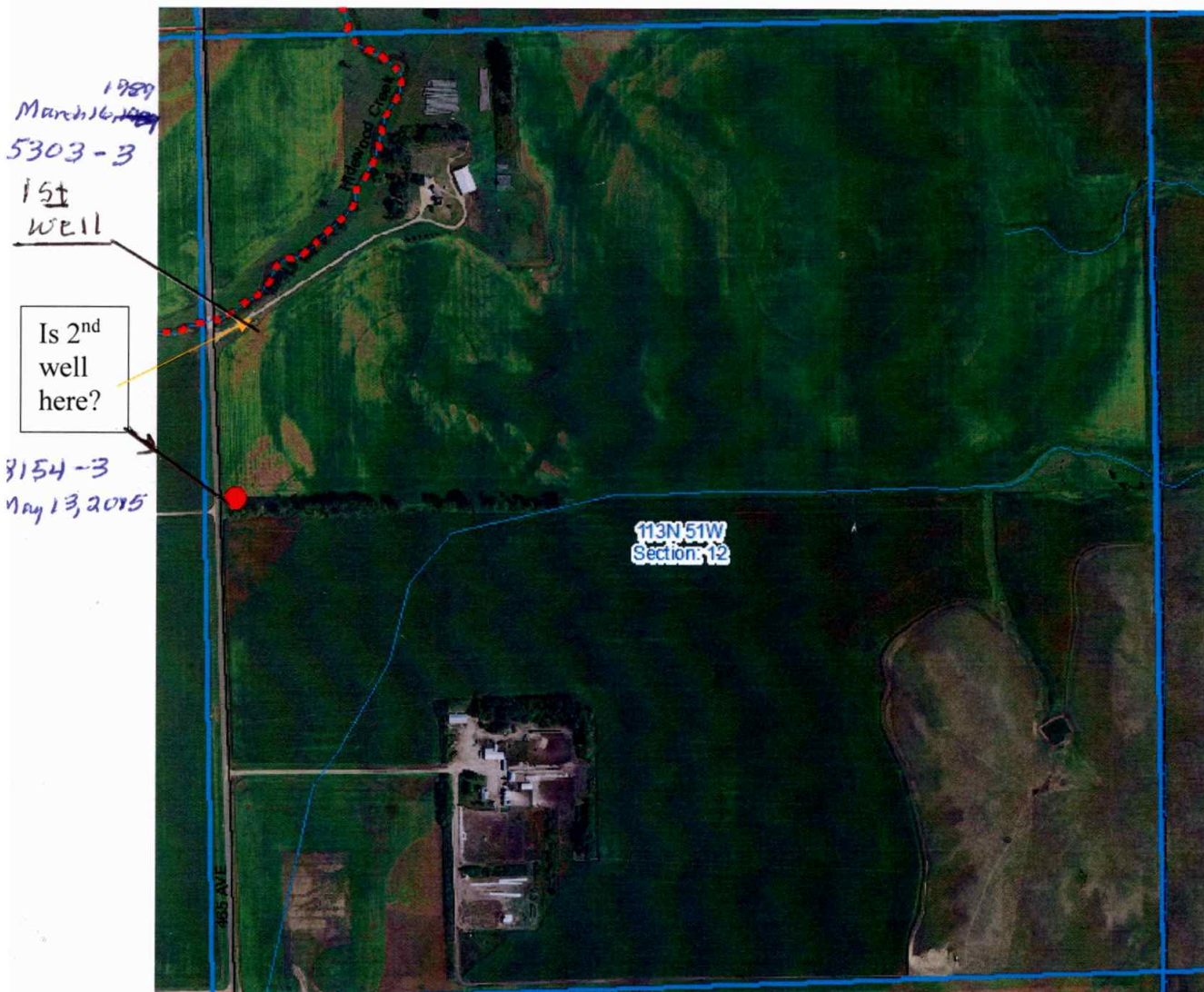
Sincerely,

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

c: Dale Williams, 19151 465th Ave, Estelline SD 57234

We will not be trying to develop the 20 acres north of creek at this time.

Section 12, T113N, R51W



Well location is that little red dot by the shelter belt. ^{first} Is the ~~second~~ well right below the driveway to the farm place?

The dotted red line on the upper part of the map is the creek.

One thing to consider, if the area to the north of the creek will be irrigated within the next couple years, we could hold up on licensing Permit No. 8154-3. If the area can not be irrigated unless another well is put in, and you don't feel that would happen, then we could go ahead and license the portion to the west of the small pivot. Keep in mind, you only have authorization for the 2 wells. If a third well is needed, that may require additional permitting.

Additionally, if we proceed with licensing and incorporate the older license with the new one, you will retain a priority date of March 6, 1989, for the entire diversion rate of 800 gpm and 223 acres (small and large pivot). You would receive a newer priority date of May 13, 2015, for the sub irrigated portions (as described in Permit No. 8154-3).

8154-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 02 2022

5303-3
8154-3

Dale G Williams
19151 465th Ave
Estelline SD 57234

Dear Mr. Williams:

Enclosed is Water License No. 8154-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

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

enclosures

Note: Upon licensing, the applicable portions of Water Right No. 5303-3 were incorporated into Water License No. 8154-3.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8154-3**

(1) Dale G Williams, 19151 465th Ave., Estelline SD 57234 made Application No. 8154-3, May 13, 2015, for a water permit to add 28 acres to Water Right No. 5303-3 using the existing two wells Big Sioux Brookings Aquifer). The irrigation system is located in Hamlin County, South Dakota. Permit No. 8154-3, with a priority date of May 13, 2015, was approved July 27, 2015, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before July 27, 2020, and for the application to beneficial use of water on or before July 27, 2024.

Water Right No. 5303-3, with a priority date of March 16, 1989, authorizes diversion of 1.78 cfs from two wells for irrigation of 223 acres. Water Permit No. 8154-3 did not allow for an increase in the authorized diversion rate.

The applicable portions of Water Right No. 5303-3 are incorporated into this Water License No. 8154-3. A priority date of March 16, 1989 is retained for 1.78 cfs and 223 acres. A priority date of May 13, 2015 is retained for the 6.5 acres developed under Water Permit No. 8154-3.

(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 1.78 cubic feet of water per second for beneficial use. The diversion points are located as follows:

Well #1: 1,720'S & 230'E of the NW corner of Section 12, T113N, R51W (SW ¼ NW ¼)
Latitude 44.611098, Longitude -96.90430

Well #2: 2,540'S & 90'E, of the NW corner of Section 12, T113N, R51W (SW ¼ NW ¼)
Latitude 44.60906, Longitude -96.90476

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

Section 12, T113N, R51W	NE ¼ NW ¼	26.0 acres	NW ¼ NE ¼	40.0 acres
	NW ¼ NW ¼	2.50 acres	NE ¼ NE ¼	29.0 acres
	SE ¼ NW ¼	32.0 acres	SW ¼ NE ¼	40.0 acres
	SW ¼ NW ¼	32.0 acres	SE ¼ NE ¼	29.0 acres

Total of 230.5 acres

Priority Dates: **May 13, 2015:** 6.5 acres in SW ¼ NW ¼ Section 12 (established under No. 8154-3)
March 16, 1989: remaining 223 acres in Section 12 and 1.78 cfs (established under No. 5303-3)

(4) Pursuant to South Dakota Water Law 46-5-30.1 Dale G Williams, 19151 463rd Ave., Estelline SD 57234 the holder and/or owner of Incorporated Water Right No. 8154-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, two wells (Big Sioux Brookings Aquifer) with priority dates of May 13, 2015 (6.5 acres) and March 16, 1989 (223 acres & 1.78 cfs) from the locations specified in (2) of this license for irrigation purposes.

continued

Water License No. 8154-3

Page 2

This license is subject to South Dakota Water Law, any limitations or conditions listed in Incorporated Water Right No. 8154-3 and subject to the following qualifications:

- The wells approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

Eric Gronlund, Chief Engineer

Water Rights Program

Department of Agriculture and Natural Resources

JUN 02 2022

date

