

WATER PERMIT NO. 8149-3

Name of Applicant: **Dale G Williams**

Address: **19151 465th Ave, Estelline SD 57234** Phone: **605 690-9319**

Amount of Water Claimed: **0.66 cfs** Total Acres: **65.4 acres**

Source of Water Supply: **groundwater (1 existing well)**

Water to be used for: **irrigation** County: **Hamlin**

Type of Waste Disposal System:

Location: **2 miles northwest of Estelline**

PRIORITY Date Received: **4-28-15** Application/License Fee: **\$ 950**

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

Remarks: **Utilizing well authorized by Water Permit No. 7489-3**

Diversion Point: **NE 1/4 SE 1/4 Sec 16-T113N-**
R51W

Land to be Irrigated: **E 1/2 SE 1/2 Sec 16-T113N-**
R51W

Depth of Well: **50 feet deep**

Well Driller: **Steffl Drilling & Pump Inc.**

Remarks:

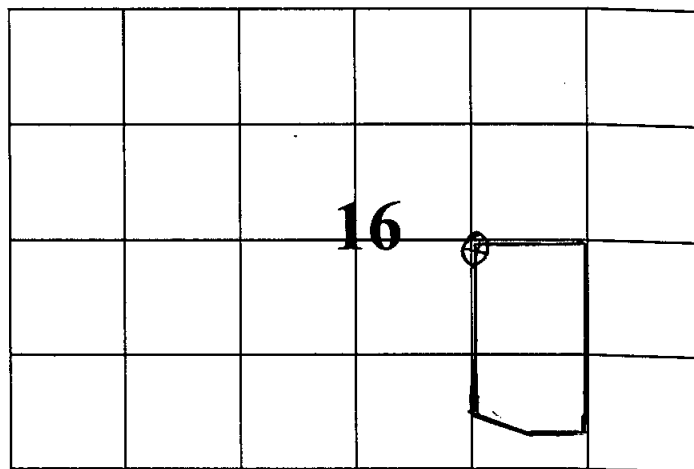
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **4-29-15**

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>8149-3</u> (office use only)
	Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Estelline Journal</u> <u>Watertown Public Opinion</u>

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Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 7489-3
(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit 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

2. Amount of water claimed 0.66 *CFS or 300 **GPM ***AF Total Acreage 65.4
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Sioux Aquifer (existing well)

4. Location of point of diversion 1 well in SE 80 NW sec. 16 T113 R 51 Est.
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
(NE 1/4 SE 1/4) County Hamlin

5. County or counties where water will be used Hamlin

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)

NE 1/4 SE 1/4 Land Description	Acres	Land Description	Acres
SE 80 NW sec 16 T113 R 51 Est. Twp	40		
SE 80 SE sec 16 T113 R 51 Est. Twp	25.4		
SE 1/4 SE 1/4			

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

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. 8149-3**

Date of first receipt of application April 28, 2015.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8149-3 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. 8149-3 authorizes irrigation of 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 permit appropriates 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.
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 April 28, 2015.
4. The date of approval of Permit No. 8149-3 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



7489-3

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

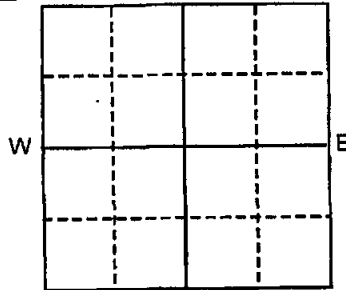
11-02

Location NE ¼ SE ¼ Sec 16 Twp 113 Rg 51

County 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	34.0 FT	17.50 IN
LB/FT	12.00 IN	49.0 FT	50.0 FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	7	Lb/gal	0.0 Ft	25.0 Ft
Red Flint	30	Lb/gal	25.0 Ft	50.0 Ft

Describe grouting procedure
Pressure Tremmie for grout

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 12.00 Inches Length 15.0 Feet
 Material Stainless Steel
 Slot Size 100 Set From 35.0 Feet to 50.0 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 Owner: Dale Williams

Business Name:

Address: 19151 465th Ave

City, State, Zip: Estelline SD 57234

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	4
Clay	4	10
Sand	10	15
Sand	15	50
On a Rock	50	52

STATIC WATER LEVEL 9.0 FEET

If flowing: closed in pressure PSI
GPM flow through Inch pipeControlled 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

 23 Ft. After 6 Hrs. pumped 1000 GPM
 Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

 Production Well #1
 44 35 40.1N
 96 57 07.9W
 Elev 1663

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This well was drilled under license # 463 and this report is true and accurate.

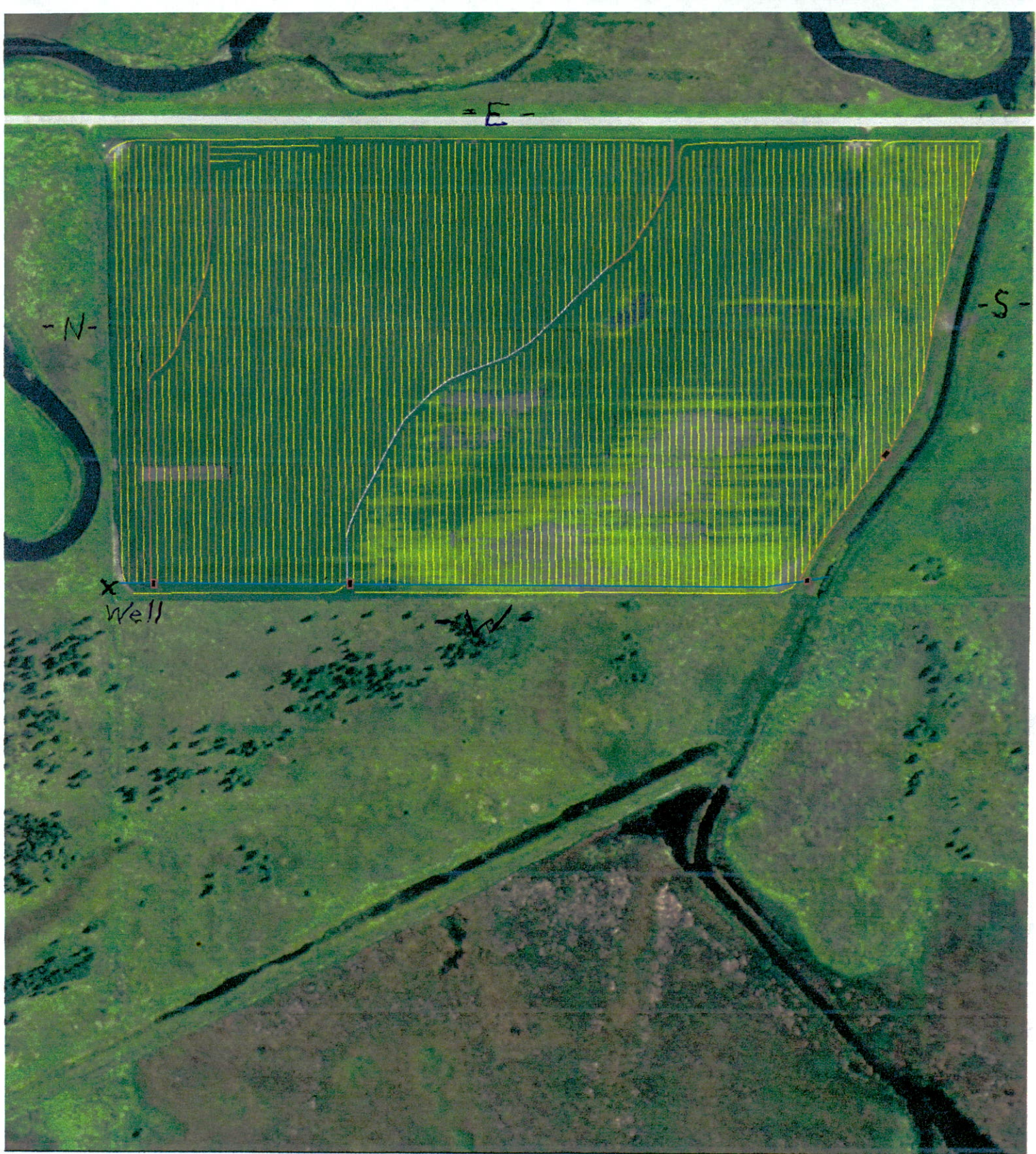
Drilling firm: Steffi Drilling & Pump Inc / Kris Van Heuveln

Signature of License Representative

Signature of Well Owner or Equitable Property Holder:

Dale Williams

Date: 2-14-2013



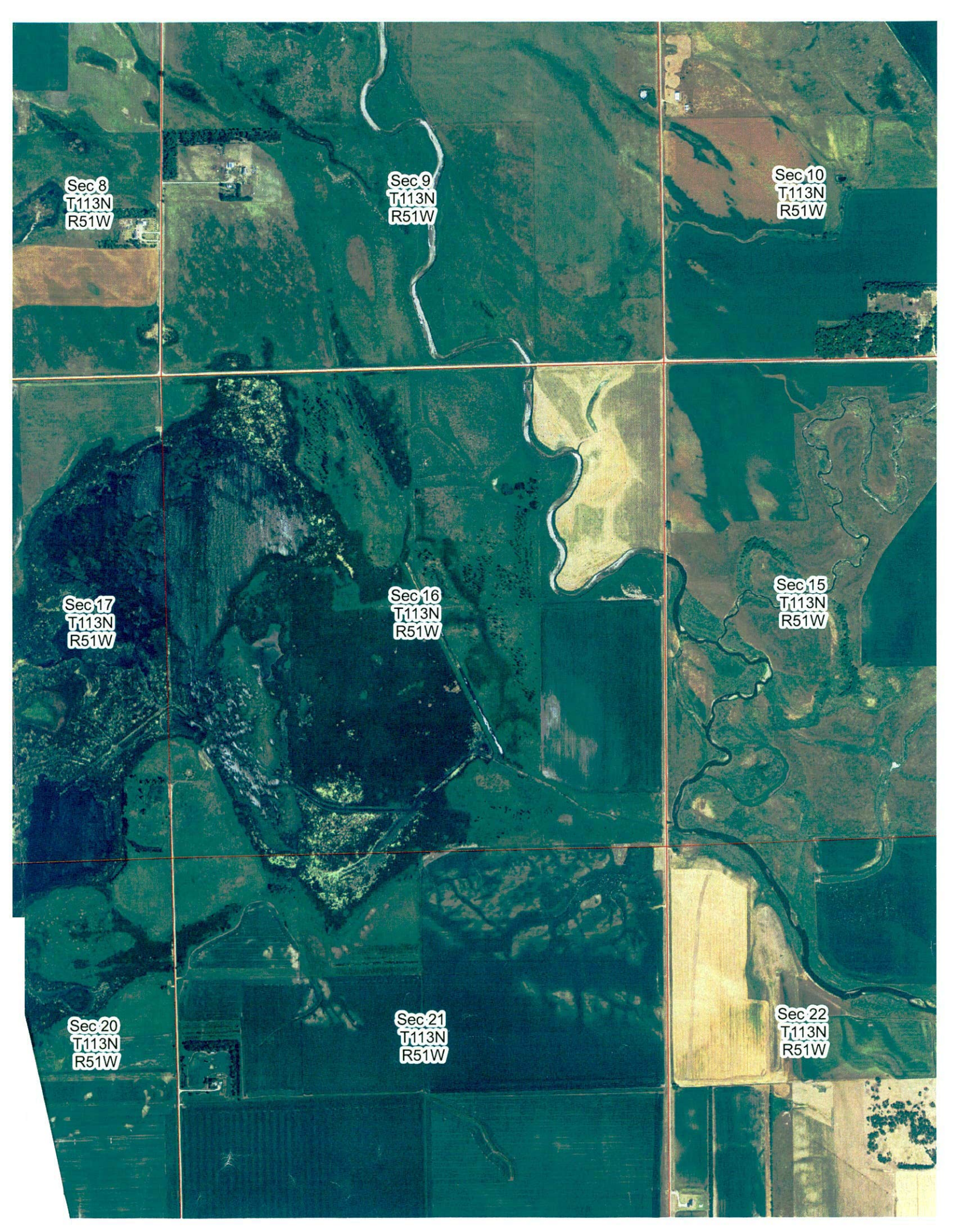
SE 80 Sec. 16 This will be sub Irrigated by
pumping water into tile that is 2 to 3' under ground.

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An aerial photograph of a river valley, likely the Missouri River, showing a winding river channel and surrounding agricultural and natural land. The image is divided into a grid of sections, with labels for sections 8, 9, 10, 15, 16, 17, 20, 21, and 22. The river is prominent, with several meanders and oxbow-like features. The surrounding land is a mix of green fields, brownish soil, and some wooded areas. The labels are placed in white boxes with black text.

Sec 8
T113N
R51W

Sec 9
T113N
R51W

Sec 10
T113N
R51W

Sec 17
T113N
R51W

Sec 16
T113N
R51W

Sec 15
T113N
R51W

Sec 20
T113N
R51W

Sec 21
T113N
R51W

Sec 22
T113N
R51W

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 4/28, 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>8149-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8149-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law) TOTAL	950	00

No. 07362

By Jeanne 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. 8149-3, 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. 8149-3, Dale G Williams, 19151 465th Avenue, Estelline SD 57234.

The Chief Engineer is recommending APPROVAL of Application No. 8149-3 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, it is 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.

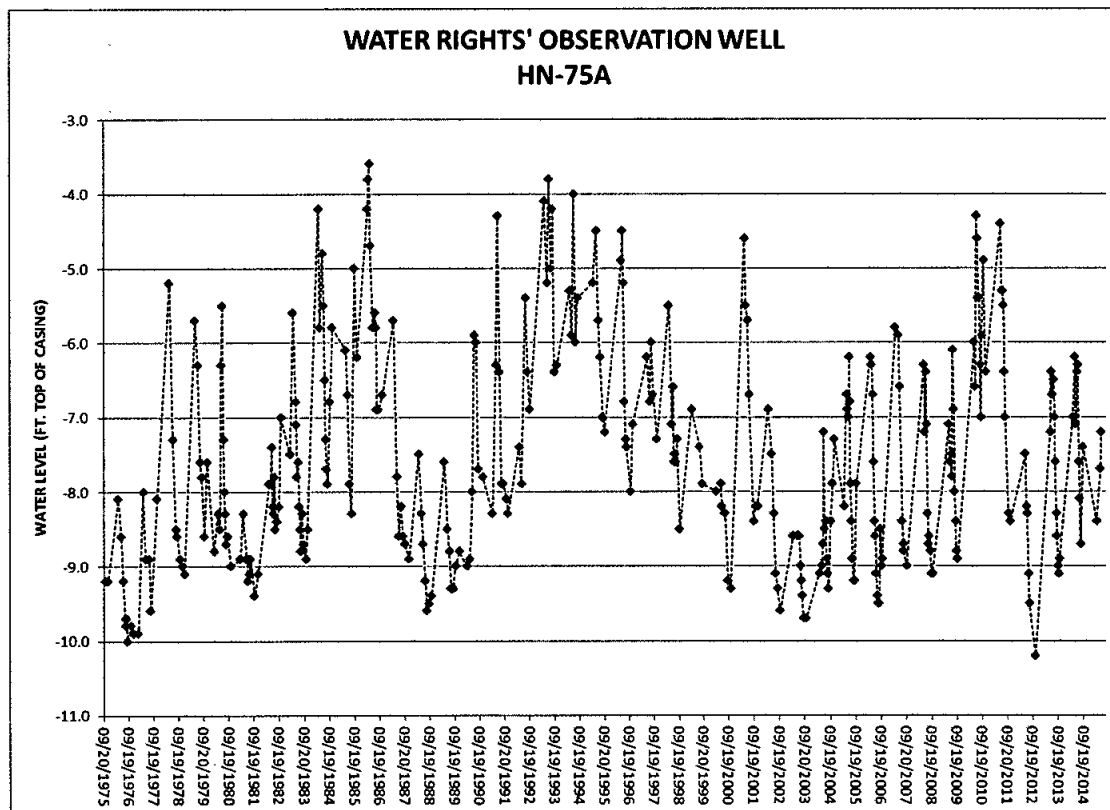


Figure 1: Historic water levels in Observation Well HN-75A (Water Rights, 2015a).

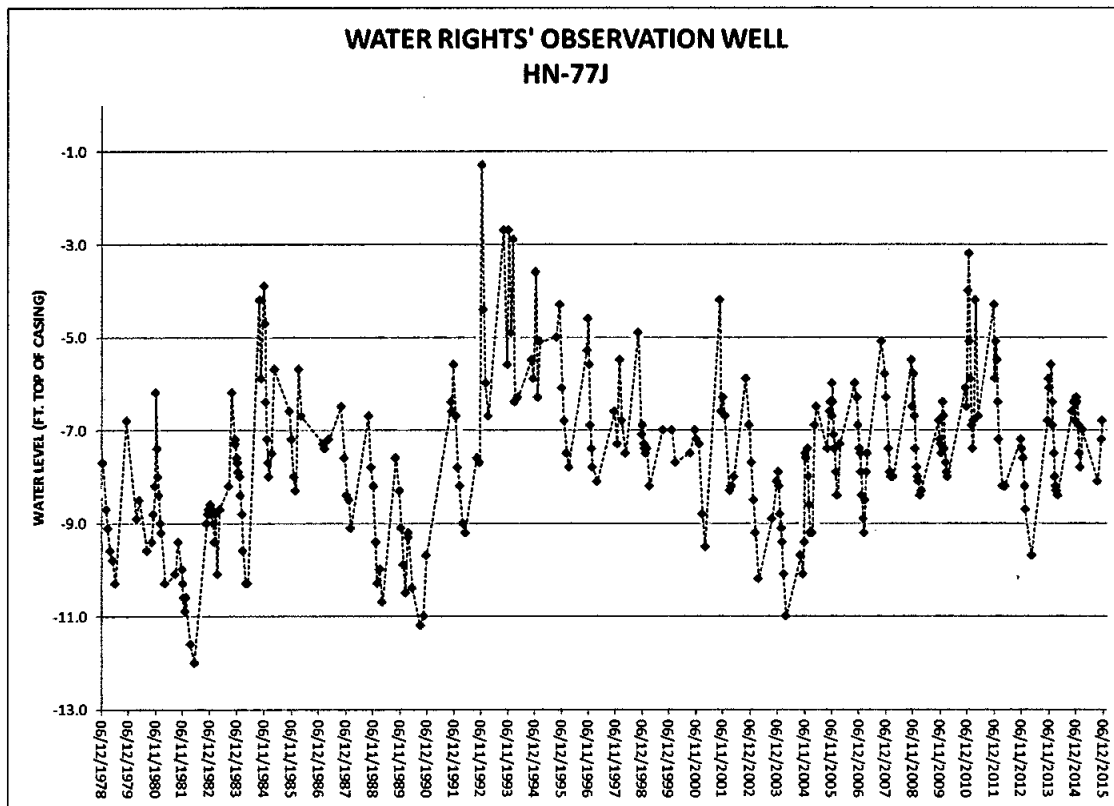


Figure 2: Historic water levels in Observation Well HN-77J (Water Rights, 2015a).

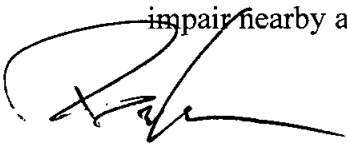
EXISTING WATER RIGHTS:

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:

- Hamilton, L.J. 1989. Water Resources of Brookings and Kingsbury Counties, South Dakota. Water-Resources Investigations Report 88-4185, 82 p. USGS, Huron, South Dakota.
- Hansen, H.S. 1988. Appraisal of the Water Resources of the Big Sioux Aquifer, Moody County, South Dakota. Water-Resources Investigations Report 87-4057. USGS, Huron, South Dakota.
- Holan, J. 2015. SD DENR-Drinking Water Program, Joe Foss Bldg., Pierre, South Dakota. Personal Communication. June 11, 2015
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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.

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. Pimer, Secretary, Department of Environment and Natural Resources.

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

RECEIVED

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 NE 1/4 SE 1/4 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 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. Pimer, 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



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.

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.

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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

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.

Instruction to Newspaper - Publish the Notice on July 15, 2015. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION 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 two wells completed in the Big Sioux:Brookings Aquifer located in the NE 1/4 SE 1/4 Section 16 for irrigation of 152 acres located in the NE 1/4 Section 21; all in T113N-R52W. This application proposes to appropriate an additional 0.66 cfs from the two existing wells to irrigate 65.4 new acres located in the E 1/2 SE 1/4 Section 16; all in 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.

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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 once at the total approximate cost of_____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

8149-3



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.

8149-3



**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. 8149-3

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. 8149-3, bearing the priority of April 28, 2015 authorizing the diversion of an additional 0.66 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:

- 1) Well Drilling Firm: Steffl Drilling & Pump Inc
- 2) No. of Wells 1
- 3) Depth 50 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 35 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless steel
- 2) Length 15 feet
- 3) Static water level 9 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: buried drain tile

Chemigation Equipment: none

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

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 LOCATON
2. From the SE corner of Sec 16 T113N R51W, 2620 ft N & 1315 ft W, Lat 44.59452 Long -96.95087 (NE ¼ SE ¼).
3. 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 as follows:

All land located in Section 16 T113N R51W

SE ¼ SE ¼ – 25.4 acres

NE ¼ SE ¼ – 40.0 acres

comprising a total of 65.4 acres of land and the license should be issued for 0.66 cfs.

4. All structures, wells and lands on map Y

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 NW corner of the field delivers water to one (1) standpipe (big white 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 a well authorized by Water Permit 7489-3.

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.



Handwritten signature of Darrell W DeBoer.

Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: April 29, 2022

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE ¼ SE ¼ Sec 16 Twp 113 Rg 51

Well Owner: Dale Williams

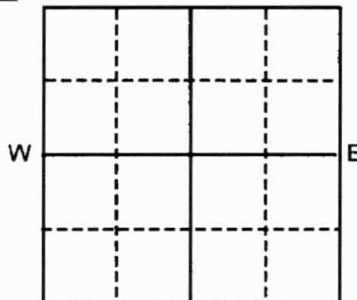
Business Name:

Address: 19151 465th Ave

City, State, Zip: Estelline SD 57234

County 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	34.0 FT	17.50 IN
LB/FT	12.00 IN	49.0 FT	50.0 FT	
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	7	Lb/gal	0.0 Ft	25.0 Ft
Red Flint	30	Lb/gal	25.0 Ft	50.0 Ft

Describe grouting procedure
Pressure Tremmie for grout

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 15.0 Feet

Material Stainless Steel

Slot Size 100 Set From 35.0 Feet to 50.0 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? ChlorineLab to which water
quality sample sent for analysis ☐ No, Why Not?

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	4
Clay	4	10
Sand	10	15
Sand	15	50
On a Rock	50	52

STATIC WATER LEVEL 9.0 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

23 Ft. After 6 Hrs. pumped 1000 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

Production Well #1

44 35 40.1N

96 57 07.9W

Elev 1663

RECEIVED
APR 18 2013
WATER RIGHTS
PROGRAMThis well was drilled under license # 463 and this
report is true and accurate.

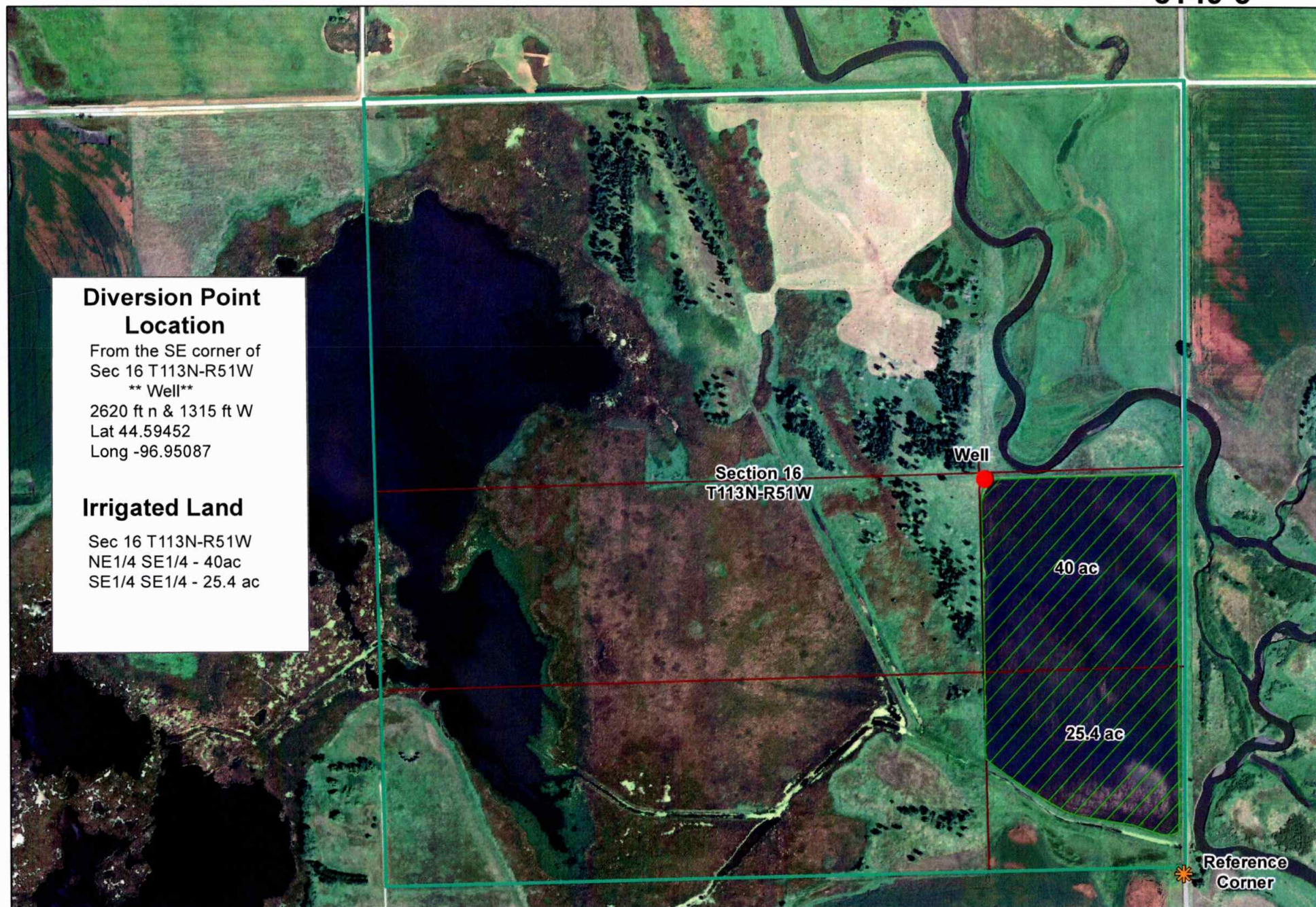
Drilling firm: Steffl Drilling & Pump Inc / Kris Van Heuveln

Signature of License Representative

Signature of Well Owner or Equitable Property Holder:

Dale H. Williams

Date: 2-14-2013



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 16 2022

8149-3

Dale G Williams
19151 465th Ave
Estelline SD 57234

Dear Mr. Williams:

Enclosed is Water License No. 8149-3. 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

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8149-3**

(1) Dale G Williams, 19151 465th Ave., Estelline SD 57234 made Application No. 8149-3, April 28, 2015, for a water permit to divert 0.66 cubic feet of water per second from ground water, one existing well (Big Sioux Brookings Aquifer), Hamlin County, South Dakota for irrigation purposes. Permit No. 8149-3, with a priority date of April 28, 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.

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

- 2,620'N & 1,315'W of the SE corner of Section 16, T113N, R51W (NE ¼ SE ¼)
Latitude 44.59452, Longitude -96.95087

The above well is authorized under Water Right No. 7489-3 for diversion of 1.78 cfs to irrigate 134 acres in the NE ¼ Section 21, T113N, R51W.

(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 16, T113N, R51W	SE ¼ SE ¼	25.4 acres
	NE ¼ SE ¼	40.0 acres
	Total	65.4 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Dale G Williams, 19151 465th Ave., Estelline SD 57234 the holder and/or owner of Water Right No. 8149-3 is issued a license to appropriate water, the right to use 0.66 cubic feet of water per second from ground water, one well (Big Sioux Brookings Aquifer) with a priority date of April 28, 2015, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8149-3 and subject to the following qualifications:

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



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

MAY 16 2022

date

