

WATER PERMIT NO. 7590-3

Name of Applicant: Larry N Moulton

Address: 1023 160th Ave, Pipestone MN Phone: 56164

Amount of Water Claimed: 1.78 cfs Total Acres: 160

Source of Water Supply: groundwater (2 wells)

Water to be used for: irrigation County: Brookings

Type of Waste Disposal System:

Location: 1 mile south of Elkton

PRIORITY Date Received: 12-26-12 Application/License Fee: \$ 1050

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

Remarks: Cancelled Permit No. 4452-3 once covered these acres

Diversion Point: E 1/2 NE 1/4 Sec 29-T109N-
R47W

Land to be Irrigated: NE 1/4 Sec 29-T109N-R47W

Depth of Well: 40 feet deep

Well Driller: Steffl Drilling & Pump Inc.

Remarks:

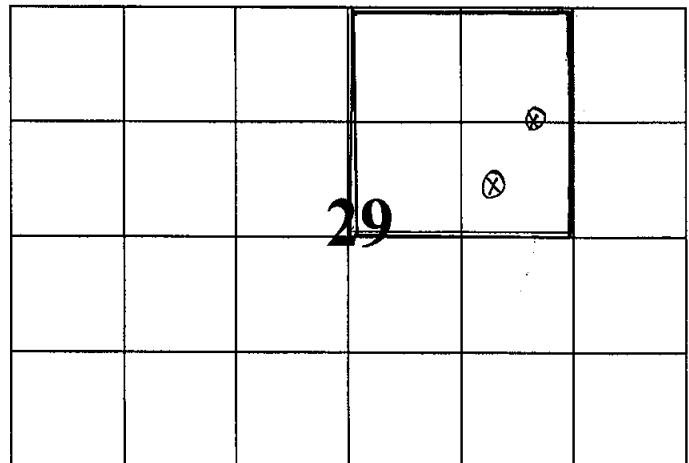
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-2-13

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

No. 7590-3 (office use only)
Hydrologic Unit 10170203
Basin Sour River
Newspaper Brookings Register
PO Box 177
57006-605-692-6271

RECEIVED
DEC 26 2012
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to Appear on Irrigation Permit Larry n moulton
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)

Mailing Address 1023 160th AV pipestone MN 56164
(Address) (City) (State) (Zip Code)

Home Phone 507 368 7311 Cell 605-695-0125 Email _____

2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 160A
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply well CE 1/2 NE 1/4 Sec 29 - T109 - R47W

4. Location of point of diversion 2 well well #1 100 W E side SE 1/4
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

of the NE 1/4 well #2 600 E side 1000 S E side County Brookings

5. County or counties where water will be used NE 1/4 Brookings

6. Annual period during which water is to be used May 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
<u>NE 1/4 of the NE 1/4 sec 29 T109-R47</u>	<u>40</u>		
<u>SE 1/4 of the NE 1/4 sec 29 T109-R47</u>	<u>40</u>		
<u>SW 1/4 of the NE 1/4 sec 29 T109-R47</u>	<u>40</u>		
<u>NW 1/4 of the NE 1/4 sec 29 T109-R47</u>	<u>40</u>		

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

I, Larry n moulton Larry n moulton 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. 7590-3**

Date of first receipt of application December 26, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7590-3 to Larry N Moulton, 1023 160th Ave, Pipestone MN 56164 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. 7590-3 appropriates 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (40 feet deep) located in the E 1/2 NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4 Section 29; all in T109N-R47W.
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 December 26, 2012.
4. The date of approval of Permit No. 7590-3 is March 11, 2013.
5. One-fifth of the construction is to be completed on or before September 11, 2015.
6. All construction is to be completed on or before March 11, 2018.
7. Water is to be put to beneficial use on or before March 11, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7590-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

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

APR 26 2013

_____ date



Supplemental Information

(type or print)

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

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

b) If existing wells, how many Provide copy of log(s), if available. Drilled by

c) Well Depth 40 Depth to Top of Water Bearing Material 3 Depth to Water from Surface 3

d) Distance to nearest existing domestic well:

On applicant's property None On property owned by others 2600 ft

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)

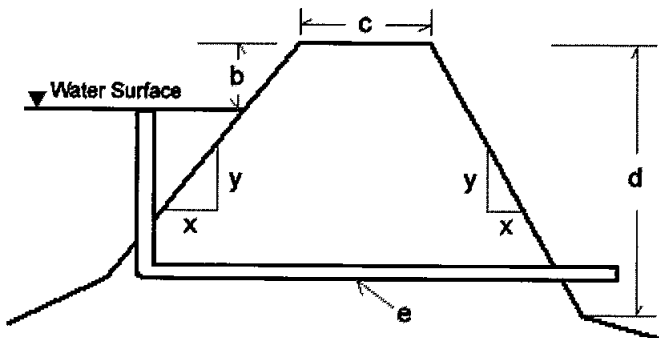
Upstream

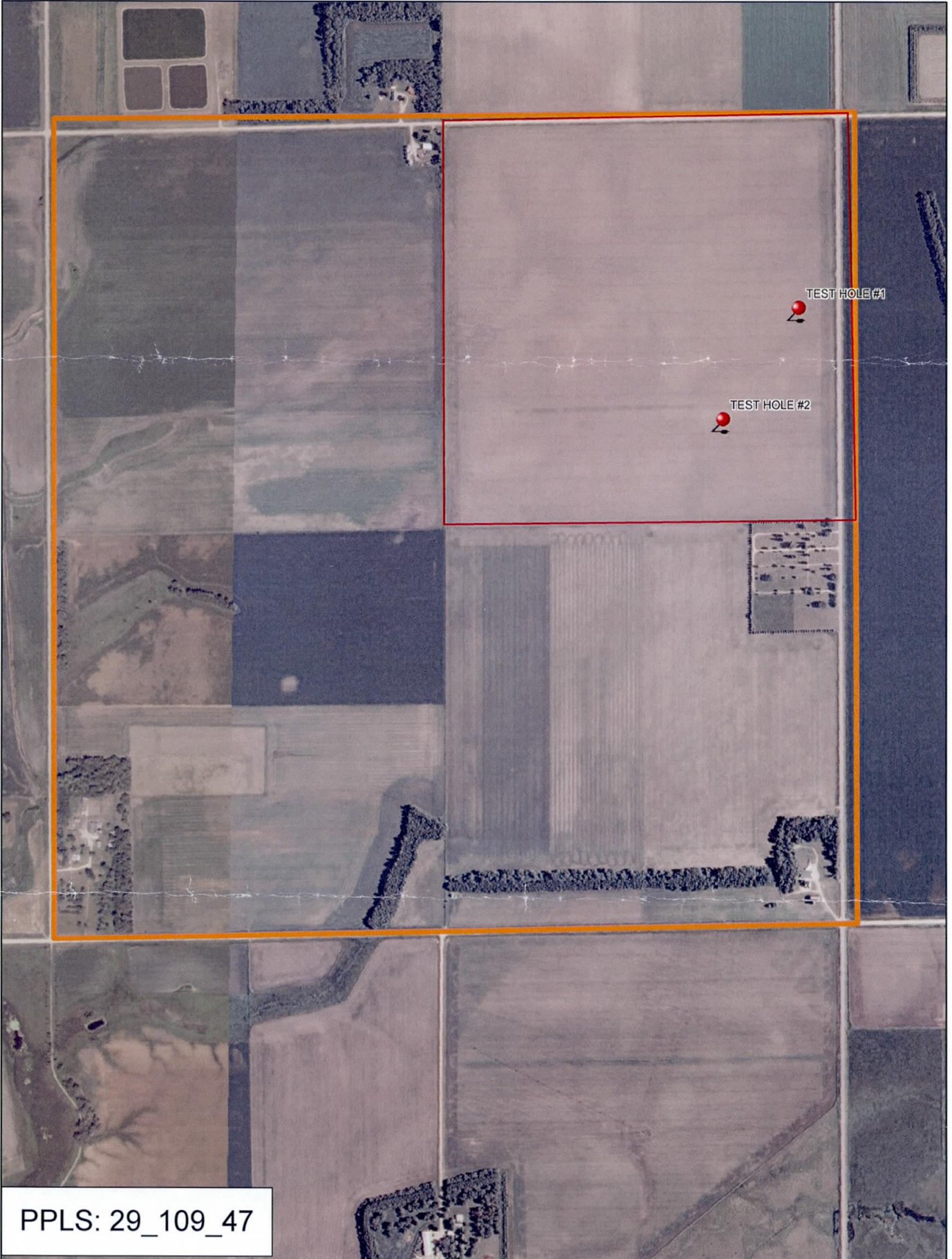
Downstream

h) Surface Area of Impoundment

i) Storage Acre Feet

j) Drainage Area Above Dam Acres



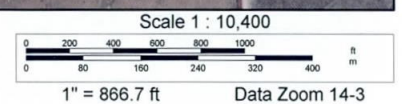


PPLS: 29_109_47

Data use subject to license.

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Date:

Date:

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/2, 20 13

RECEIVED OF Larry N Moulton 1023 160th Ave Pipestone MN 56164

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

Fee for Application for Permit No. <u>7590-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7590-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1050 00

No. 05835

By

Richard E. Enck
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7590-3, Larry N Moulton**

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. 7590-3, Larry N Moulton, 1023 160th Avenue, Pipestone MN 56164.

The Chief Engineer is recommending APPROVAL of Application No. 7590-3 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 wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7590-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
February 14, 2013

REPORT TO THE CHIEF ENGINEER

WATER PERMIT APPLICATION NO. 7590-3

Larry Moulton

February 6, 2013

Water Permit Application No. 7590-3 proposes to appropriate up to 320 acre-feet per year (ac-ft/yr) at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from two wells to be completed into the Aurora management unit of the Big Sioux aquifer. The wells are expected to be approximately 40 feet deep and are to be located in the E½ NE¼ of Section 29 to irrigate 160 acres located in the NE¼ of Section 29, all in T109N-R47W in Brookings County.

Note that Water Permit No. 4452-3 previously covered the acres proposed by this water permit application. The permit was cancelled pursuant to ARSD 74:02:01:37.

AQUIFER: Aurora management unit of the Big Sioux aquifer (BS: A)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Big Sioux is an alluvium mantled outwash consisting of silt and fine to coarse sand and gravel that is generally under unconfined conditions near the Big Sioux River and can be confined elsewhere (Hamilton, 1989). The Aurora management unit of the Big Sioux aquifer underlies an estimated 83,000 acres in Brookings and Moody Counties in South Dakota and Lincoln and Pipestone Counties in Minnesota (Buhler, 2012).

The aquifer is hydraulically connected to the Big Sioux River and water in the aquifer generally moves from north to south and locally towards the Big Sioux River (Hamilton, 1989). In the center of T109N-R47W, groundwater flow in the aquifer divides: west-northwest in the northern portion and southwest in the southern portion, essentially creating subunits of the Aurora management unit. The southern subunit, in which the proposed well sites are located, underlies an estimated 20,000 acres (Buhler, 2012).

In Brookings and Kingsbury Counties, the top of the Big Sioux: Aurora aquifer is encountered from ground surface to 212 feet below ground surface, the aquifer is 30 feet thick on average, and depth to water in the aquifer ranges from ground surface to 320 feet below ground surface. In the area of the proposed well sites, the aquifer is expected to be encountered five feet below ground surface, 40 thick, and have a static water level of ten feet below ground surface (Hamilton, 1989). From the well logs submitted with the application, aquifer materials were found between 3 and 37 feet below ground surface in the area of the proposed well sites.

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 and existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate 320 ac-ft/yr from the Big Sioux: Aurora aquifer. If this application is approved, the actual water use will be less than the appropriation. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.”

Hydrologic Budget:*Recharge:*

Recharge to the Big Sioux: Aurora 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 during wet years (Hamilton, 1989).

Hedges and others (1985) estimated recharge of various management units of the Big Sioux aquifer using several methods and state that “recharge rates calculated using observation well data and computer models are generally in accord” and “management programs using these values should be acceptable.” Therefore, recharge to the Big Sioux aquifer is estimated to range from 2.7 to 6.9 inches per year (in/yr). Koch (1980) estimated recharge to the aquifer to be 6.57 in/yr. An estimate of the recharge rate of the Aurora management unit alone, which is based on observation well analysis, is estimated to be 5.0 in/yr (Hedges and others, 1985).

Using recharge rate of the Aurora management unit by Hedges and others (1985), 5.0 in/yr, and the area of the subunit estimated by Buhler (2012), 20,000 acres, recharge to the southern subunit of the Big Sioux: Aurora aquifer is estimated to be 8,300 ac-ft/yr.

Discharge:

Discharge from the aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface, outflow to streams during dry years, and well withdrawals. There are a total of 11 water rights and five water permits appropriating water and one future use permit reserving water from this southern subunit of the Big Sioux: Aurora aquifer in South Dakota, shown in Table 1 (Water Rights, 2013b).

In addition, there are many domestic wells on record with the SD DENR-Water Rights Program that appear to be completed into the southern subunit of the Big Sioux: Aurora aquifer (Water Rights, 2013c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer. Consider also that many of these domestic wells are no longer in use due to users connecting to local rural water systems.

The City of Elkton is now connected to a rural water system. Water Right No. 4038-3 is maintained as a standby source but is no longer expected to withdraw from the southern subunit of the Big Sioux: Aurora aquifer and is therefore excluded from this hydrologic budget (Water Rights, 2013b).

Table 1: Water rights/permits appropriating from and future use permit reserving from the southeastern subunit of the Big Sioux: Aurora aquifer (Water Rights, 2013b)

Permit No.	Name	Priority Date	Status	Type	CFS	Acres	Ac-ft/yr
2574-3	Lowell Christensen	02/23/1976	LC	IRR	1.31	92	
3185-3	Witte Ag Partnership #1	10/29/1976	LC	IRR	1.41	99	
3496-3	Minnie Van Dyke	12/28/1976	LC	IRR	0.52	37	
4038-3	City of Elkton	01/01/1920	LC	MUN	0.72	0	
4295-3A	Alice Moulton	06/26/1978	LC	IRR	1.34	136	
4332-3	Alice Moulton	10/10/1978	LC	IRR	1.34	125	
4523-3	James Stuefen	04/04/1980	LC	IRR	1	71	
4726-3	Witte Ag Partnership #1	04/09/1981	LC	IRR	1.56	115	
4763-3	Mary Ellen McGill Trust	05/06/1981	LC	IRR	2.44	234	
5558A-3	Larry Olson	05/31/1991	LC	IRR	1.78	268	
5804-3	Heartland HBI	02/18/1994	LC	IRR	1.78	177	
7178-3	Jos Family Farms	01/13/2010	PE	IRR	4.44	400	
7219-3	Elkton School District	11/06/2010	PE	IRR	0.178	2.3	
7228-3	Jos Family Farms	01/20/2011	PE	IRR	1.71	120	
7317-3	Jos Family Farms	01/31/2012	PE	IRR	1.78	180	
7392-3	Lincoln Pipestone Rural Water	08/08/2012	PE	RWS	2.67	0	614
7393-3	Lincoln Pipestone Rural Water	08/08/2012	FU	RWS	0	0	614

LC = Water Right, PE = Water Permit, FU = Future Use Permit, IRR = Irrigation, MUN = Municipal, RWS = Rural Water System

Aside from domestic wells, the Lincoln Pipestone Rural Water System is the only user of the southern subunit of the Big Sioux: Aurora in Minnesota with combined permitted withdrawal of 683 million gallons per year, the equivalent of 2,096 ac-ft/yr. The average withdrawals from this well field equals 1,366 ac-ft/yr. However, this rural water system is still developing. Therefore, full development of the well field is assumed for this hydrologic budget (Buhler, 2012).

The amount of water that can be expected to be withdrawn by the non-irrigation use water rights/permits can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually, and future use permits can be fully developed. Therefore, the total annual withdrawal from the southern subunit of the Big Sioux: Aurora aquifer by non-irrigation use is expected to be less than a total of 1,228 ac-ft/yr (Water Rights, 2013b).

The irrigation development of the southern subunit of the Big Sioux: Aurora aquifer over the period of record, 1979 to 2011, has remained fairly constant. However, in recent years, development has increased slightly. The annual withdrawal from the Big Sioux: Aurora aquifer fluctuates, as shown in Figure 1. This is probably mostly dependent on annual growing season climatic conditions. Over the period of record, the average pumpage reported equals 611 ac-ft/yr. The maximum and minimum pumpage reported was 1,323 and 132 ac-ft/yr, respectively (Water Rights, 1980-2011). Since 2011, one water permit was approved appropriating up to 240 ac-ft/yr, this water permit application was submitted proposing up to 320 ac-ft/yr, and another water permit application was submitted proposing up to 120 ac-ft/yr (Water Rights, 2013b). The full use of these approved or proposed appropriations is assumed for this hydrologic budget.

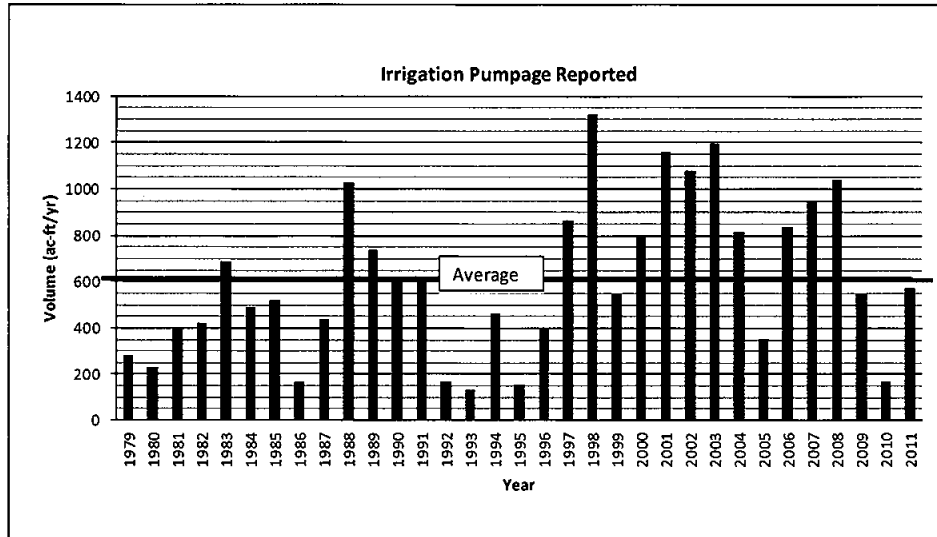


Figure 1: Historic irrigation water use from the southern subunit of the Big Sioux: Aurora aquifer (Water Rights, 1980-2011)

Hydrologic Budget:

The average annual withdrawal is estimated to be 4,650 ac-ft/yr, which is much less than the estimated annual recharge of 8,300 ac-ft/yr. Therefore, there is a reasonable probability that unappropriated water is available from the southern subunit of the Big Sioux: Aurora aquifer for the proposed appropriation of 320 ac-ft/yr.

Observation Well Data:

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

The SD DENR-Water Rights Program monitors 15 observation wells completed into the Big Sioux: Aurora aquifer; only one of these is located within the southern subunit. This observation well, BG-78H, is located approximately two miles south of the proposed well sites. The hydrograph of this well is shown in Figure 2 (Water Rights, 2013a).

The observation well data documents cyclic conditions of water levels, recharging during wet years and declining during dry years. Note that the water level in this observation well declined recently, likely due to the recent dry year; however, these levels are not abnormally low for the aquifer over the period of record. The hydrograph also shows the effects of nearby pumping on the aquifer. This data documents that, at the current level of development, temporal well withdrawal is masked by climatic conditions. Therefore, recharge to and natural discharge from the aquifer greatly exceeds well withdrawal, indicating that unappropriated water is available from the southern subunit of the Big Sioux: Aurora aquifer to support the proposed appropriation of 320 ac-ft/yr.

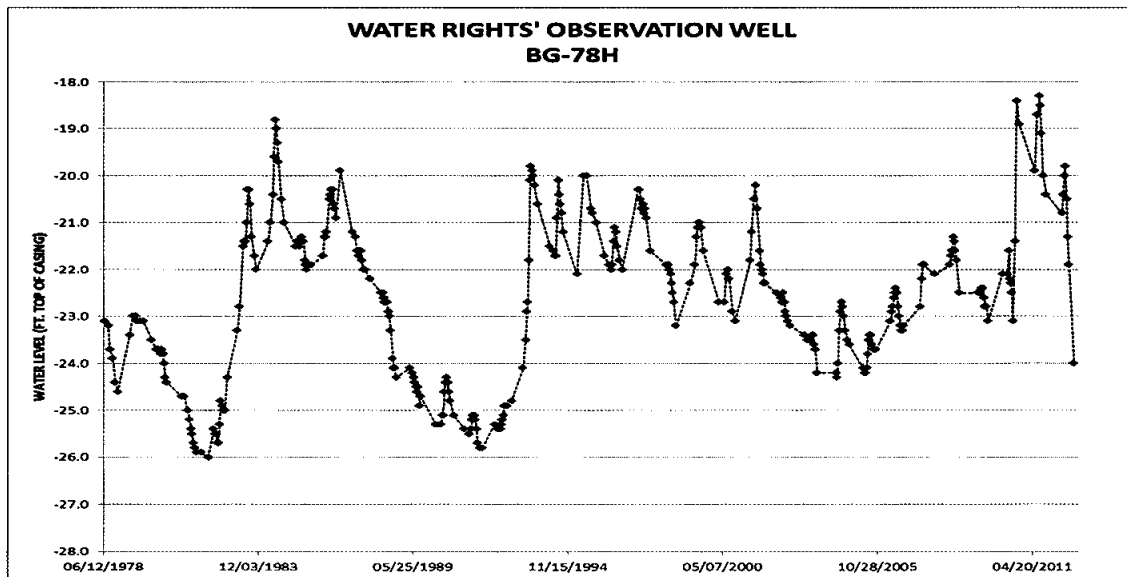


Figure 2: Hydrograph for observation well BG-78H (Water Rights, 2013a)

EXISTING WATER RIGHTS:

If approved, the proposed wells will be located near other wells that obtain water from the same aquifer. Water Right No. 3185-3 and Water Permit No. 7219-3 are located within one mile of the proposed well sites (Water Rights, 2013b). There are several domestic wells on record with the SD DENR-Water Rights Program within one mile of the proposed well sites that appear to be completed into the Big Sioux: Aurora aquifer (Water Rights, 2013c).

The water table conditions of the aquifer in this area dictate that drawdown due to pumping would probably not be significant far from the proposed well sites. Considering that the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur, a nearby adequate well defined by ARSD 74:02:20(7), which states that the pump intake must be set 20 feet below the top of the aquifer or, if the aquifer is less than 20 feet thick, as near to the bottom of the aquifer as is practical, is not expected to be adversely or unlawfully impaired.

Observation well BG-78H, whose hydrograph is shown in Figure 2, is located near several water rights/permits. As previously discussed, the hydrograph for this observation well documents pumping; however, these effects are minimal relative to climatic conditions (Water Rights, 2013a). Therefore, there is a reasonable probability that any well interference from the proposed appropriation will not cause a significant impact to nearby existing users.

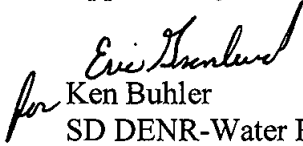
CONCLUSIONS:

1. The application proposes to appropriate 320 ac-ft/yr for irrigation. However, the actual water use will likely be less than the appropriation.
2. There is a reasonable probability that unappropriated water is available from the southern subunit of the Big Sioux: Aurora aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the proposed wells will not adversely or unlawfully impair existing nearby wells.



Joseph R Stonesifer
SD DENR-Water Rights Program

Approved by



for Ken Buhler

SD DENR-Water Rights Program

REFERENCES:

Buhler, K. 2012. Report on Water Permit Application Nos. 7392-3 and 7393-3 for Lincoln Pipestone Rural Water: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Hamilton, L.J. 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 88-4185, 82 p.

Hedges, L.S., Allen, J., and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 7: Ground Water Recharge. South Dakota DENR-Geological Survey, Vermillion, SD.

Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations 80-100, 46 p.

Water Rights. 1980-2011. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

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

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

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

RECEIVED

MAR - 6 2013

10/

Affidavit of Publication

State of South Dakota

ss

WATER RIGHTS
PROGRAM

County of Brookings

Chaylee Duis of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

Leg#402 Notice of App - Larry Moulton

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

February 28, 2013

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

twenty-two dollars and twenty-one cents \$22.21



1st

day of

March

2013

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires August 3, 2017.

Legal 402, 1x, 2/28
NOTICE OF APPLICA-
TION NO. 7590-3 to
Appropriate Water

Notice is given that Larry N. Moulton, 1023 160th Ave, Pipestone MN 56164 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux: Aurora Aquifer (40 feet deep) located in the E 1/2 NE 1/4 Section 29 for irrigation of the 160 acres located in the NE 1/4 Section 29; all in T109N-R47W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7590-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre, SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 11, 2013.

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

Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environmental and Natural Resources. Published once at the total approximate cost of \$22.21.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 20, 2013

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7590-3 to Appropriate Water. Please publish the notice once on February 28, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Larry N Moulton, 1023 160th Ave., Pipestone MN 56164 (Ph # 507-368-7311).

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

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

February 20, 2013

Larry N Moulton
1023 160th Ave
Pipestone MN 56164

Dear Mr. Moulton:

Water Permit Application No. 7590-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Instruction to Newspaper - Publish the Notice on February 28, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7590-3 to Appropriate Water

Notice is given that Larry N Moulton, 1023 160th Ave, Pipestone MN 56164 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (40 feet deep) located in the E 1/2 NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4 Section 29; all in T109N-R47W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7590-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 11, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

APR 26 2013

Larry N Moulton
1023 160th Ave
Pipestone MN 56164

Dear Mr. Moulton:

Enclosed is Water Permit No. 7590-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

JUL 30 2014

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date

7/22/14

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Larry n moulton
(name)1023 160th AV
(address)pipestone, mn 56164
(city, state, zip)507-368-7311 (home)
(phone)
605-695-0125 (cell)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 7590-3 states that the water use system is to be constructed by

March 11, 2018
(date)

, and water is to be put to beneficial use by March 11, 2022
(date)

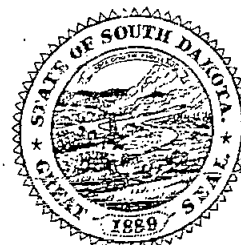
The water use system was completed on

7-22-14
(date)

Applying the water to beneficial use was completed on

7-23-14
(date)

You may schedule an investigation so that the water license may be issued.

Larry n moulton
(signature)



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



July 30, 2014

7590-3

Larry Moulton
1023 160th Ave
Pipestone MN 56164

Dear Mr. Moulton:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7590-3

I have this day, May 11, 2021, made a thorough examination of the water use system constructed by Larry Moulton, 1023 160th Ave, Pipestone, MN 56164 of Permit No. 7590-3, bearing the priority of Dec 26, 2012 authorizing the diversion of 1.78 cu. ft. per second of the waters of the Big Sioux: Aurora Aquifer for irrigation purposes, in Brookings County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Steffl Drilling & Pump, Inc
- 2) No. of Wells 2
- 3) Depth(s) 37 & 37 feet
- 4) Well logs are available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 28 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless
- 2) Length 9 feet
- 3) Static water level 9 feet

Pump:

- 1) Make NA
- 2) Model Submersible
- 3) Size NA
- 4) Capacity 600 (2 wells) GPM

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

- 1) Type PVC
- 2) Size NA inches
- 3) Length NA feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1300 feet

- 3) Number of towers 7
- 4) End gun Y
- 5) Capacity 600 GPM (Source: Farmers Impl/Irrigation)

Chemigation Equipment: 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: From the NE corner of Sec 29 T109N-R47W (NORTH WELL) 1320 ft S & 360 ft W (SE ¼ NE ¼, Sec 29) Lat 44.22164 Long -96.48721 (SOUTH WELL) 2040 ft S & 900 ft W (SE ¼ NE ¼, Sec 29) Lat 44. 21963 Long -96.48921

2. The works are capable of diverting and conveying to the place of use 1.34 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 in Sec 29-T109N-R47W

NW1/4 NE 1/4 - 35 ac

NE 1/4 NE 1/4 - 35 ac

SE 1/4 NE 1/4 - 35 ac

SW 1/4 NE 1/4 - 35 ac

comprising a total of 140 acres of land and the license should be issued for 1.34 cfs

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

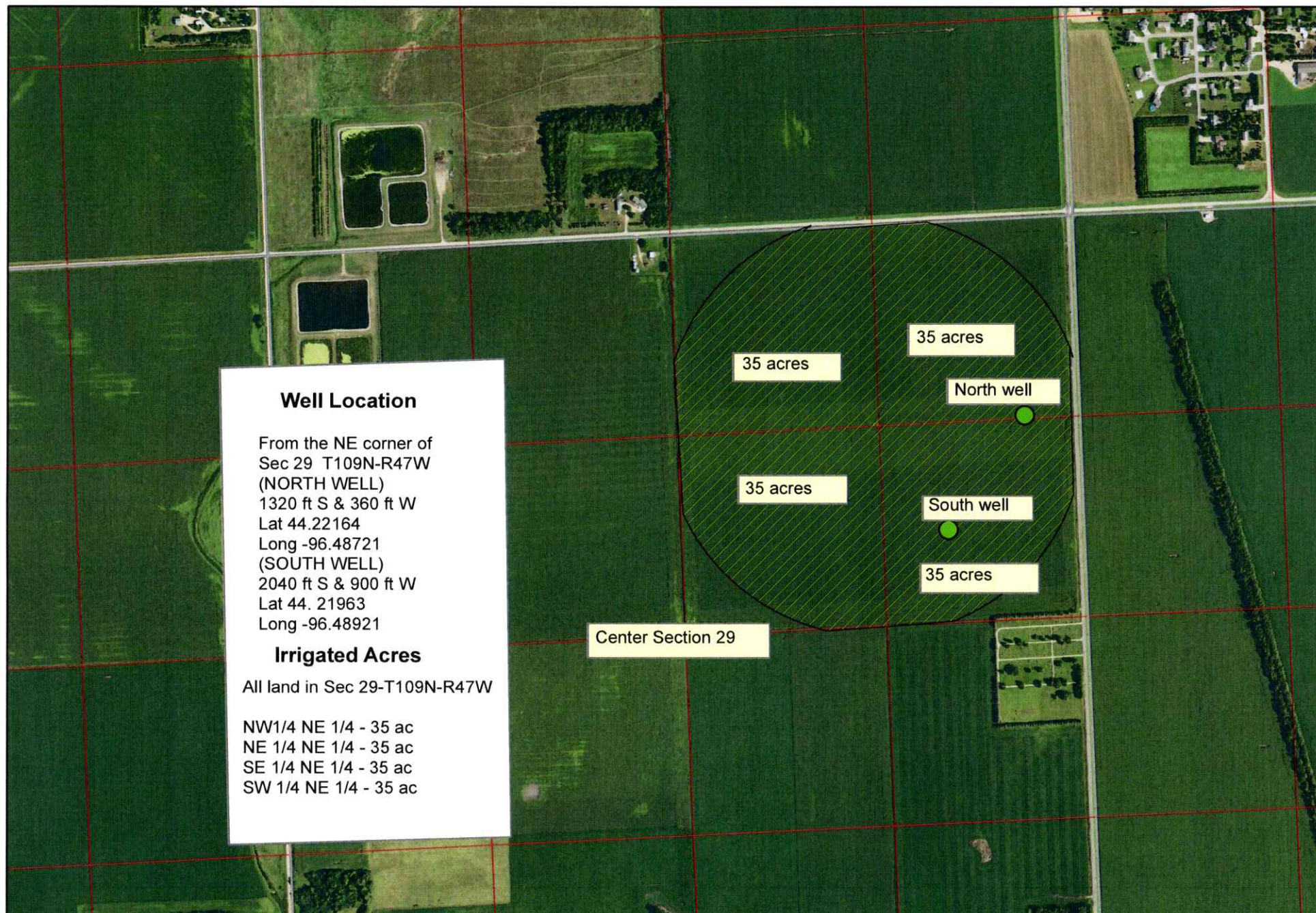
F. Comments or other permit(s) associated with the project:

Note the new operator is Larry Moulton, Jr. with a cell phone number of 605/695-0125.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: May 13, 2021



0 0.1 0.2 0.4 0.6 0.8 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAY 17 2021

7590-3

Larry N Moulton
1023 160th Ave
Pipestone MN 56164

Dear Mr. Moulton:

Enclosed is Water License No. 7590-3. 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. 7590-3

(1) Larry N Moulton, 1023 160th Ave, Pipestone MN 56164 made Application No. 7590-3, December 26, 2012 for a water permit to divert 1.78 cubic feet of water per second from ground water, two wells (Big Sioux Aurora Aquifer), Brookings County, South Dakota for irrigation purposes. Permit No. 7590-3, with a priority date of December 26, 2012 was approved March 11, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 11, 2018 and for the application to beneficial use of water on or before March 11, 2022.

The Permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use" on July 30, 2014. The "Notice" stated the water use system was completed on July 22, 2014 and the water placed to beneficial use on July 23, 2014.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 1.34 cubic feet of water per second for beneficial use. The location of the diversion points are as follows:

North well: 1,320'S & 360'W of the NE corner of Section 29, T109N, R47W (SE ¼ NE ¼ Sec 29)
Latitude 44.22164, Longitude -96.48721

South well: 2040'S & 900'W of the NE corner of Section 29, T109N, R47W (SE ¼, NE ¼, Sec 29)
Latitude 44.21963, Longitude -96.48921

(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 29, T109N, R47W	NW ¼ NE ¼	35 acres
	NE ¼ NE ¼	35 acres
	SE ¼ NE ¼	35 acres
	SW ¼ NE ¼	35 acres
	Total	140 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Larry N Moulton, 1023 160th Ave, Pipestone MN 56164 the holder and/or owner of Water Right No. 7590-3 is issued a license to appropriate water, the right to use 1.34 cubic feet of water per second from ground water, two wells (Big Sioux Aurora Aquifer) with a priority date of December 26, 2012 from the locations 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. 7590-3 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.

continued

- The wells authorized by Permit No. 7590-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *The wells were drilled in August and September, 2013 by Steffl Drilling and Pump Inc. Copies of the well completion reports are on file with this Program.*
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

MAY 17 2021
date

