

WATER PERMIT NO. 7662-3

Name of Applicant: **Daniel Schuurmans**

Address: **30434 412th Ave, Tyndall SD 57066** Phone: **605 464-1109**

Amount of Water Claimed: **2.67 cfs** Total Acres: **172 acres**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation** County: **Bon Homme**

Type of Waste Disposal System:

Location: **3 miles west of Tyndall**

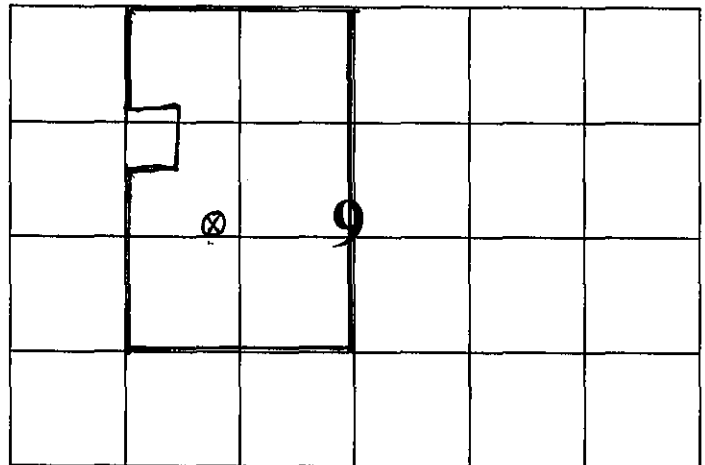
PRIORITY Date Received: **1-25-13** Application/License Fee: **\$ 1050**

Corrected Application Received: Period of Annual Use: **May 1 – Oct 31**

Remarks: **Requesting diversion rate greater than statutory limit**

Diversion Point: **SW 1/4 NW 1/4 Sec 9-T94N-**
R60W

Land to be Irrigated: **NW 1/4, N 1/2 SW 1/4 Sec 9-**
T94N-R60W



Depth of Well: **237 acres**

Well Driller: **Thein Well**

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **1-28-13**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota

(type or print)

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JAN 25 2013

WATER RIGHTS
PROGRAM

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7662-3</u>	(office use only) Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri River</u>	
	Newspaper <u>Tribune & Register Box 520 Tyndall 57066</u>	<u>605-665-7811</u>
	<u>Press Dakota 319 Walnut Yankton 57078</u>	

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.)

- Name to Appear on Irrigation Permit Daniel Schuurmans
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent
(name and complete address if different than above name)
Mailing Address 30434 4 1/2th Ave Tyndall SD 57066
(Address) (City) (State) (Zip Code)
Home Phone 589-3811 Cell 464-1109 Email SKrmans@hcinet.net
- Amount of water claimed 2.67 *CFS or 1200 **GPM ***AF Total Acreage 172
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply ground
- Location of point of diversion 1 well - SW 1/4 NW 1/4 section 9 - T 94-N
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
R 60-W County Bon Homme
- County or counties where water will be used Bon Homme
- Annual period during which water is to be used May 1 - Oct. 31
- 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
not sure how many acres of			
each 40 will be irrigated		NW 1/4 T-94N - R 60W	
sending map with		N 1/2 SW 1/4 See map for breakdown	
total field and showing		Irrigator, total Acres Irrigated	172.02

- Give a description of the project. (Attach sheet if more space is needed)
drilling irrigation well to irrigate land in section 9
(see attached map) Requesting diversion rate greater than Statutory Limit.

I, Daniel Schuurmans, 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. 7662-3

Date of first receipt of application January 25, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7662-3 to Daniel Schuurmans, 30434 412th Ave, Tyndall SD 57066 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. 7662-3 appropriates 2.67 cubic feet of water per second (cfs) from one well to be completed into the Niobrara Aquifer (237 feet deep) located in the SW 1/4 NW 1/4 Section 9 for irrigation of 172 acres located in the NW 1/4, N 1/2 SW 1/4 Section 9; all in T94N-R60W.
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 – October 31.
3. The date from which applicant may claim right is January 25, 2013.
4. The date of approval of Permit No. 7662-3 is April 15, 2013.
5. One-fifth of the construction is to be completed on or before October 15, 2015.
6. All construction is to be completed on or before April 15, 2018.
7. Water is to be put to beneficial use on or before April 15, 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 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. The well authorized by Permit No. 7662-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7662-3 authorizes a maximum diversion rate of 2.67 cfs for the irrigation of 172 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. 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

MAY 20 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 1 Have test holes been drilled ☒ Yes ☐ No Drilled by Thein Well
(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 237' Depth to Top of Water Bearing Material Depth to Water from Surface 117'

d) Distance to nearest existing domestic well:

On applicant's property 1/4 mile - (not in use) On property owned by others 1/2 mile

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)

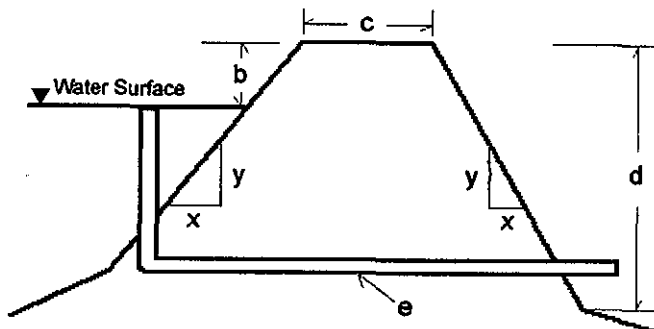
Upstream

Downstream

h) Surface Area of Impoundment

i) Storage Acre Feet

j) Drainage Area Above Dam Acres





Daniel Schuurmans
 United States Department of Agriculture
 Farm Service Agency

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JAN 25 2012

January 05, 2012

PLSS: 9_94N_60W
 Farm: 5827

Bon Homme County
 1:7,977



Wetland Determination Identifiers

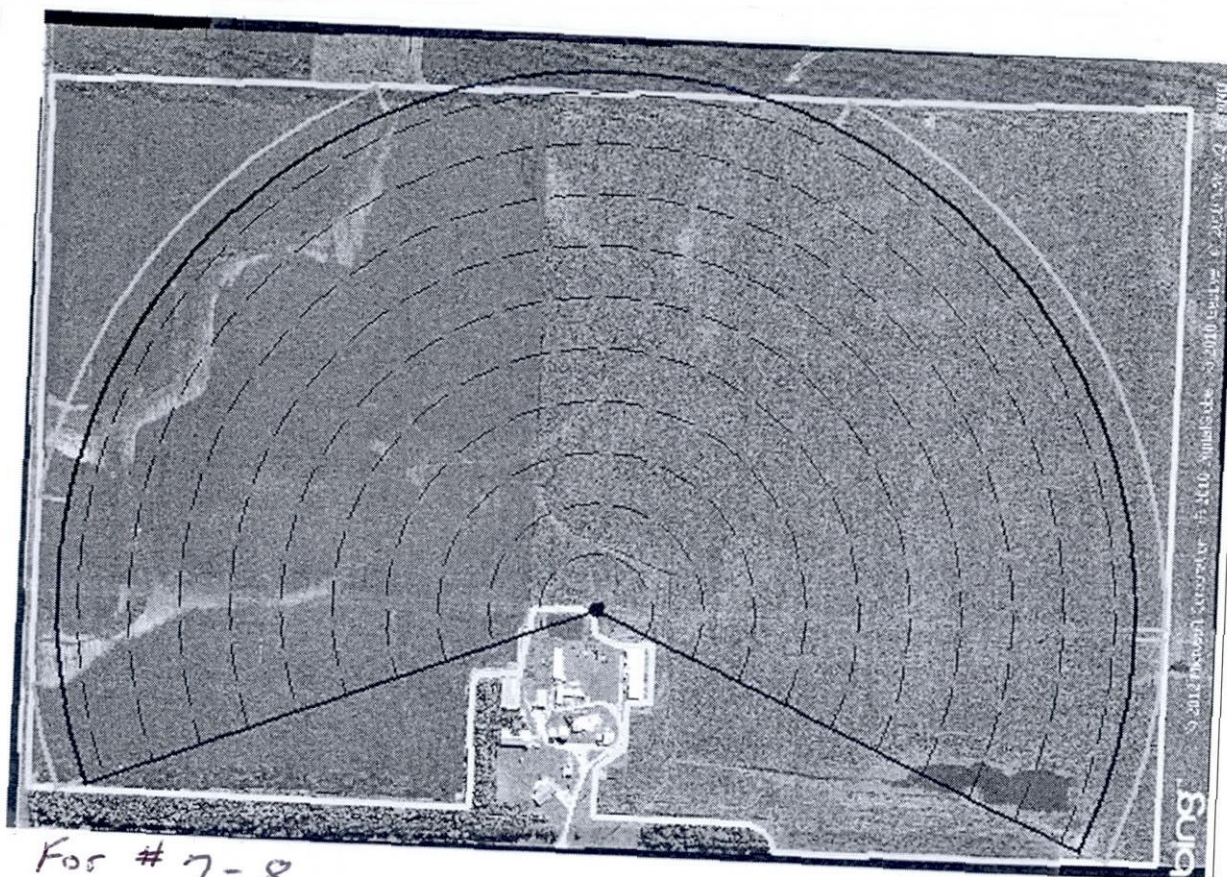
- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Common Land Units

//// Non Cropland

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

2010 Ortho-Photography - Not to Scale



Fos # 7-8

R'col
1/25/13
WR

long

Water Permit Application for Daniel Schuurmans
approx. acreage breakdown



Eric Gronlund
Eric Gronlund
Water Rights Program, DENR
approx. based on map provided
with application



THEIN WELL

P.O. BOX 778, 11355 HWY. 71 NE (ACROSS FROM RINGO LAKE)
SPICER, MINNESOTA 56288 • (320) 796-2111
www.theinwell.com • E-mail: theinwell@tds.net

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JAN 25 2013

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Well Log for Dan Schuurmans

Date: 12/14/12

Well Size:

Casing Length:

Screen Length:

Total Well Depth: 237' will be drilled to supply irrigator

SWL:

Geological Material	Color	Hardness or Formation	From	To
Top soil			0	2
Clay	Yellow		2	23
Clay	Blue		23	63
Sandy clay	Blue		63	177
Chalk			177	237
Sandstone w/clay seams			237	260

CLARA CITY, MN 56222 (320) 847-3207 • MONTICELLO, MN 55362 (763) 271-4200 • ROCHESTER, MN 55906 (507) 288-5554

MEMBER
NGWA

CERTIFIED MASTER WATER WELL CONTRACTOR
Equal Opportunity Employer

MEMBER
AWWA

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/28, 20 13

RECEIVED OF Daniel Schuurmans 30434 412th Ave Tyndall Sd 57066

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

Fee for Application for Permit No. <u>7662-3</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>7662-3</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. 06027

By

Daniel Schuurmans
Chief Engineer

KORANDA WELL COMPANY LLC
42719 307th St.
Tabor, SD 57063

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JAN 11 2013

WATER RIGHTS
PROGRAM

Ken Bukler
Dept. of Environment &
Natural Resources
Pierre, SD 57501
FAX 605-773-4068

Dear Ken:

I am writing to ask permission to pump
a testwell for irrigation. The property owner is
Ron Schuurmans, address: 30434 42th Ave.,
Tynndall, SD 57066. The legal location: SE 1/4 of
NW 1/4, Sec 9, T-94N, R-60W.

The testhole was drilled to 260 ft. I have been
asked to pump it 50 gpm from 180 ft.

Please let me know if we can do this. My
fax is 605-463-2244. My email address is:
Kidwe@heinet.net.

Thank you.

Sincerely,
Irene Koranda



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

January 11, 2013

Irene Koranda
Koranda Well Company, LLC
42719 307th St
Tabor, SD 57063

Dear Mrs. Koranda:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, Koranda Well Company, LLC is authorized to construct and pump a test well for Dan Schuurmans approximately 260 feet deep prior to approval of a water permit. The test well will be located in the SE ¼ NW ¼ Section 9, T94N-R60W. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application; and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit.

Very truly yours,



GARLAND ERBELE, Chief Engineer
Water Rights Program
(605) 773-3352

Cc: Dan Schuurmans
30434 412th Ave
Tyndall, SD 57066



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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JOE FOSS BUILDING
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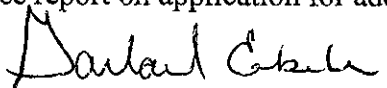
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7662-3, Daniel Schurmans**

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. 7662-3, Daniel Schuurmans, 30434 412th Avenue, Tyndall SD 57066.

The Chief Engineer is recommending APPROVAL of Application No. 7662-3 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. The well authorized by Permit No. 7662-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7662-3 authorizes a maximum diversion rate of 2.67 cfs for the irrigation of 172 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. 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
March 26, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7662-3
DANIEL SCHUURMANS
March 13, 2013

Water Permit Application No. 7662-3 proposes to appropriate water from one well to be completed into the Niobrara aquifer at a maximum diversion rate of 2.67 cubic feet of water per second (cfs). The well will be located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 9, in T94N-R60W and will be approximately 237 feet deep. This application proposes to irrigate 172 acres located in the NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 9, in T94N-R60W in Bon Homme County. The applicant is requesting a diversion rate greater than the statutory limit.

AQUIFER: Niobrara aquifer (NBRR)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Niobrara aquifer is made up of nearly horizontal layers of calcareous shale, chalk, and chalky limestone (Jorgensen, 1971). In the upper portion of the aquifer where it underlies glacial drift, the Niobrara may have been eroded by sub-areal erosion and glacial activity (Hedges and others, 1982). The Niobrara aquifer directly underlies the glacial drift in the central, south central and southeastern part of South Dakota (Hedges and other, 1982). Fractures and solution cavities could control the water production from the Niobrara, which could be controlled by flexures and faults (Hedges and others, 1982). The Niobrara aquifer directly underlies and is hydraulically connected to the Choteau: Tyndall aquifer at this location. The Niobrara aquifer is hydraulically connected to the Codell Sandstone aquifer and the "Tyndall-Scotland aquifer" as well (Jorgensen, 1971; Hedges and others, 1982). The aquifer is primarily under artesian conditions, and may be under artesian conditions in the area of this application. The proposed well site is located in central Bon Homme County approximately seven and one half miles east of Choteau Creek. The Niobrara aquifer underlies approximately 29,079 square miles in South Dakota and approximately 470 square miles of Bon Homme County, but there is currently no estimate for the amount of recoverable water in storage (Hedges and others, 1982). There was not a test hole log submitted with this application. The aquifer is approximately 25 to 50 feet thick at this location (Jorgensen, 1971).

SDCL 46-2A-9

In accordance with SDCL 46-2A-9, a permit may be issued to appropriate water only if there is 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 review the availability of unappropriated water and existing rights within the Niobrara aquifer.

WATER AVAILABILITY:

This application proposes to appropriate water from the Niobrara aquifer. If this application is approved, it is likely that the actual water use will be less than 344 acre-feet per year (ac-ft/yr). The probability of unappropriated water available from the aquifer can be evaluated using SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water

withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.”

Hydrologic Budget:

Recharge to the aquifer occurs through subsurface inflow and by percolation through the overlying till, outwash and shale deposits (Jorgensen, 1971). Discharge from the Niobrara aquifer is by evapotranspiration, discharge to springs in the Missouri River valley, and withdrawal from wells. There are a number of completion reports on file with the SD DENR-Water Rights Program for domestic use wells completed into the Niobrara aquifer (Water Rights, 2013b) and there are currently 66 water rights/permits appropriating water from the Niobrara aquifer in South Dakota (Water Rights, 2013c). The distribution of these appropriations and their types are shown in Table 1.

Water Rights/Permits	Number
Commercial	8
Geothermal	1
Groundwater	1
Industrial	1
Institutional	5
Irrigation	39
Municipal	11

Table 1. Water rights/permits from the Niobrara aquifer in South Dakota (Water Rights, 2013c).

The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming:

1. Water rights/permits limited by an annual volume will pump the entire volume appropriated.
2. Water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time.

The expected water use for non-irrigation purposes from the Niobrara aquifer is less than 2,600 ac-ft/yr based on current water appropriations. Nine of the eleven municipal uses noted exist for back up purposes because they are currently using rural water systems (Kittay, 2013).

The annual reported water use from the Niobrara aquifer for irrigation purposes is displayed in Table 2. The average annual use due to irrigation over the period of record is 979 ac-ft/yr.

YEAR	NO. OF PERMITS	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
2011	24	8465.6	947.24
2010	23	7825.6	418.41
2009	24	8476.6	356.21
2008	23	7387.6	1453.04
2007	23	7387.6	1313.12
2006	23	6975.6	1402.34
2005	22	6457.6	1085.11
2004	21	6793	1124.64
2003	22	6801	1350.01
2002	19	6025	1473.08
2001	19	5649	654.25
2000	19	5649	884.53
1999	20	6073	597.56
1998	20	6073	728.39
1997	21	7033	693
1996	21	7033	1132.44
1995	19	7597	731.15
1994	17	7107	902.1
1993	20	8197.2	201.3
1992	20	8219.2	803
1991	20	8802.2	1358.1
1990	19	8322.2	1214.5
1989	21	9512.2	1730.6
1988	20	9583.2	2172.1
1987	21	10063.2	933
1986	22	10543.2	784
1985	21	10156	720
1984	22	11116	517
1983	21	10033.2	854.5
1982	18	9088	1031.49
1981	24	11499	1374
1980	21	10699	851
1979	20	10219	505
MIN	17	5649.0	201.3
MAX	24	11499.0	2172.1
AVE	20.91	8207.94	978.67

Table 2. Irrigation from the Niobrara aquifer in South Dakota (Water Rights, 1979-2011).

In order for recharge to meet discharge in the Niobrara aquifer, the average annual recharge to the aquifer would need to be approximately 0.002 in/yr for the area of the entire aquifer and approximately 0.14 in/yr for the area of Bon Homme County. This is a reasonable recharge rate. As stated by Hedges and others, "The Niobrara Formation, Codell Sandstone, Inyan Kara Group, and Madison Group have such high storage and low use that it is unlikely that use is approaching or exceeding recharge. Furthermore, there is no evidence of significant head loss in any of these aquifers over the years that would suggest that use is exceeding recharge," (1985). Therefore, unappropriated water is available from the Niobrara aquifer. Specifically, unappropriated water is available for the appropriation proposed by this application.

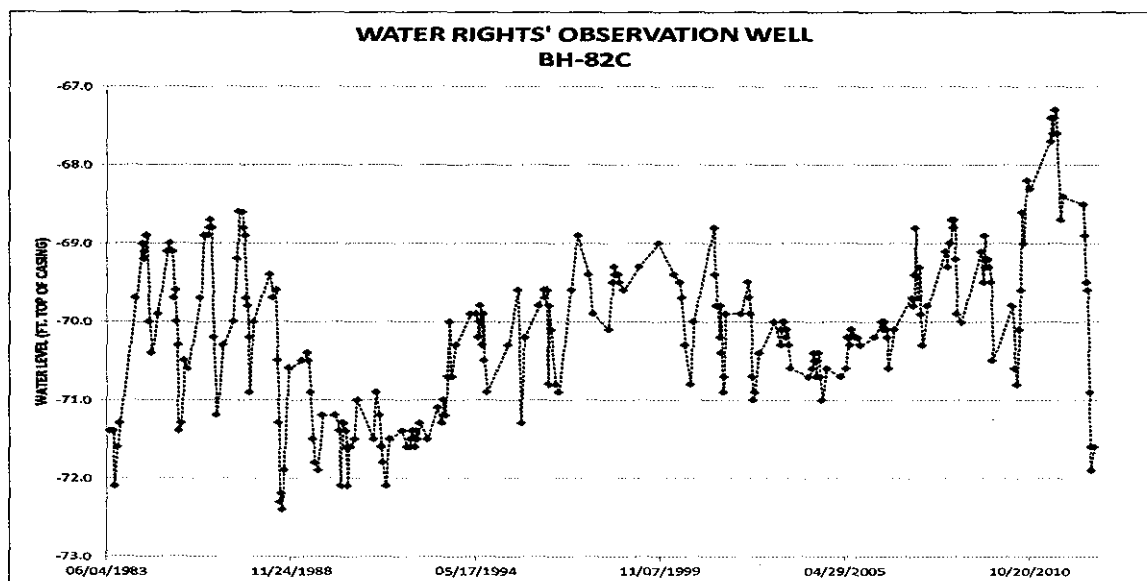


Figure 2. Hydrograph for SD DENR-Water Rights' Observation Well BH-82C completed into the Niobrara aquifer approximately four and one half miles southeast of the well site proposed by Application No. 7662-3 (Water Rights, 2013a).

The observation well data shows the aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years. The water level data shows that over the period of record, in general, discharge has not exceeded recharge. The observation well data shows that at the current level of development, climatic conditions greatly mask the temporal effects of well withdrawals. Therefore, recharge to and natural discharge from the Niobrara aquifer significantly exceeds pumping. Recognizing that natural discharge from the aquifer can be captured for pumping. The hydrographs document that there is unappropriated water available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

The proposed well site is located in central Bon Homme County approximately seven and one half miles east of Choteau Creek. The nearest water right/permit is Water Right No. 6577-3, for Douglas Bochman, located more than two and three quarter miles southwest of the proposed well site.

Observation well BH-82C is located less than one mile of Water Right No. 4779-3, and the hydrograph, shown in Figure 2, reports minimal drawdown at this distance due to pumping. Figure 3 shows the nearby existing water rights located in the Niobrara aquifer. The locations of the existing water rights/permits were determined using the best data reasonably available.

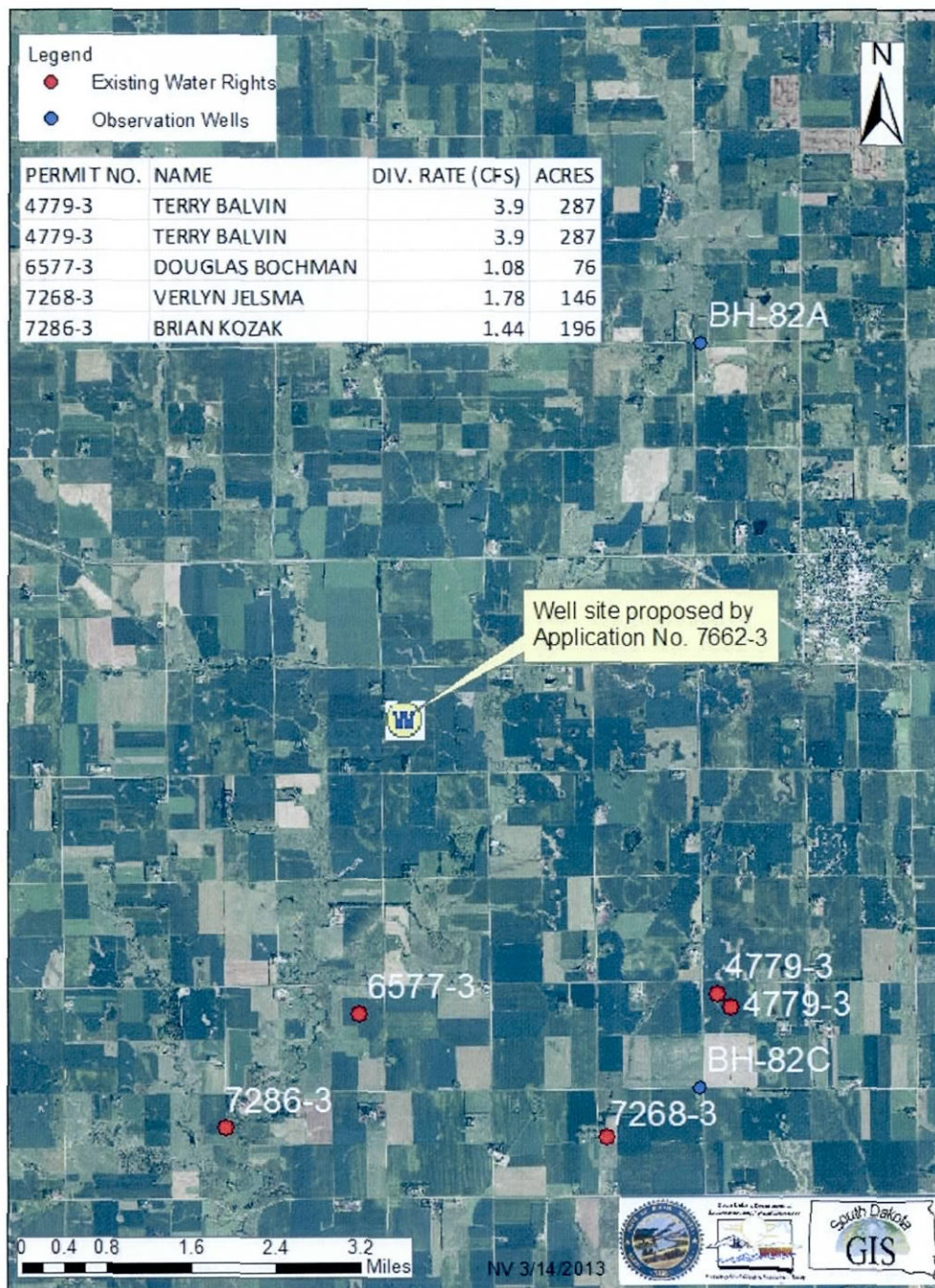


Figure 3. Existing water rights/permits located within close proximity to the well site proposed by Application No. 7662-3 (Water Rights, 2013c).

Based on the observation well data and the distance between wells, drawdown is not expected to be significant nor likely to cause adverse impacts to existing water rights. The precise drawdown cannot be quantified without aquifer testing. This is especially the case with the extent of terrain covered by the Niobrara because the aquifer characteristics are unpredictable and drawdown is site specific. With that in mind, this permit should adhere to and include the standard permit qualification which applies to most groundwater permits/rights stating that:

“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”.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, the Water Management Board has defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs”

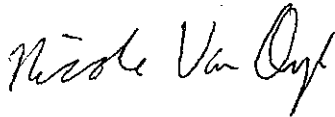
In reality, the assurance of reasonable domestic use provided by SDCL 46-6-6.1 and ARSD 74:02:04:20(7) generally ensures not only that interference will not be adverse to domestic well users but also in existing appropriative rights (i.e. in most cases, the protection afforded to adequate domestic wells by water law, would lead to enforcement of the “standard permit qualification” before there is a reduction of needed water supplies to appropriative rights). Although drawdown is expected to be minimal, as shown by the observation well hydrographs, some drawdown will occur. Depending on the extent of drawdown, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute and rule, there is a reasonable probability that any well interference from these proposed applications will not be adverse to adequate domestic wells.

SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or “the equivalent thereof”. The statute provides that the Water Management Board may allow a greater diversion if the method of irrigation so requires. Water Permit Application No. 7662-3 proposes to divert at a rate of 1.09 cfs per 70 acres to a large pivot irrigation system that will make a partial rotation.

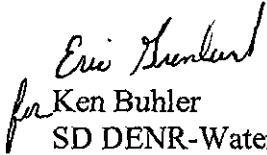
CONCLUSIONS:

1. This application proposes to appropriate water for irrigation from the Niobrara aquifer.
2. There is a reasonable probability that unappropriated water is available from the Niobrara aquifer to supply this proposed appropriation.
3. The Niobrara aquifer may be under artesian conditions in this area, but drawdown from pumping is not expected to be significant.
4. There is a reasonable probability that the well proposed by this application will not adversely impact existing water rights or domestic wells.



Nicole Van Dyk
SD DENR-Water Rights Program

Approved by


for Ken Buhler

SD DENR-Water Rights Program

REFERENCES:

- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Jorgensen, D.G., 1971, Geology and Water Resources of Bon Homme County, South Dakota, Bulletin 21, Part II: Water Resources, SD DENR, SDGS, Vermillion, SD, 57069.
- Kittay, R., 2013, Personal Communication. SD DENR-Drinking Water Program, Joe Foss Bldg, Pierre, SD, 19 March, 2013.
- Water Rights, 1979-2011, Irrigation Questionnaire Summaries 1979-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Affidavit of Publication

APR - 8 2013

State of South Dakota }
County of Bon Homme } SS

WATER RIGHTS PROGRAM

Rebecca Tyer Being first duly sworn says that the **Tyndall Tribune & Register** is a legal weekly newspaper for publication of legal and other official notices as required by Chapter 298 of the Session Laws of South Dakota, 1939; that it has bona fide paid circulation of more than two hundred copies weekly; that it is published in English language in the City of Tyndall, Bon Homme County, South Dakota, and has been admitted to the United States mail under second class mailing privilege for more than one year prior to the first publication of the notice herein mentioned, and that it is printed in an office maintained at the place of publication at Tyndall, South Dakota, and that deponent is the publisher in charge of the advertising department of said newspaper; that the advertisement headed

Notice of Application

7662-3 - Schuurmans

a printed copy of which is hereto attached, was printed and published in said newspaper for one successive weeks, upon the following dates:

<u>April 3</u>2013.....	20.....
.....20.....	20.....
.....20.....	20.....
.....20.....	20.....

That the full amount of the fee charged for the publication of said notice, \$25.30....., inures to the benefit of the publisher of said newspaper, that no agreement or understanding for the division thereof has been made with any other person, and that no part has been agreed to be paid to any person whomsoever.

Rebecca Tyer
Subscribed and sworn to before me this
3rd day of April, 2013.
Peggy Schell
Notary Public, South Dakota
My Commission Expires 12-24-2015

NOTICE OF APPLICATION

NO. 7662-3 to Appropriate Water

Notice is given that Daniel Schuurmans, 30434 412th Ave, Tyndall, SD 57066, has filed an application for a water permit to appropriate 2.67 cubic feet of water per second from one well to be completed into the Niobrara Aquifer (237 feet deep) located in the SW 1/4 NW 1/4 Section 9, for irrigation of 172 acres located in the NW 1/4, N 1/2 SW 1/4 Section 9, all in T94N-R60W. The applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7662-3 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 April 15, 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. Firmer, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$25.30

(April 3)

RECEIVED

APR - 8 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

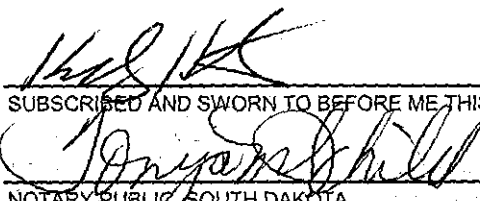
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Application No. 7662-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 3rd DAY OF April 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$25.82 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND 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.

PUBLISHED ON: 4/3/2013

FILED ON: 4/3/2013


SUBSCRIBED AND SWORN TO BEFORE ME THIS 3rd DAY OF April 2013
NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 8/19/2015

4-3
NOTICE OF APPLICATION
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Published once at the total approximate cost of \$25.82.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 27, 2013

Tribune & Register
PO Box 520
Tyndall SD 57066

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7662-3 to Appropriate Water. Please publish the notice once on April 3, 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 Daniel Schuurmans, 30434 412th Ave, Tyndall SD 57066 (Ph # 605-589-3811).

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

March 27, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

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Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

March 27, 2013

Daniel Schuurmans
30434 412th Ave
Tyndall SD 57066

Dear Mr. Schuurmans:

Water Permit Application No. 7662-3 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 Tribune & Register printed at Tyndall SD (Ph # 605-589-3242) and the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). 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 April 3, 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. 7662-3 to Appropriate Water

Notice is given that Daniel Schuurmans, 30434 412th Ave, Tyndall SD 57066 has filed an application for a water permit to appropriate 2.67 cubic feet of water per second from one well to be completed into the Niobrara Aquifer (237 feet deep) located in the SW 1/4 NW 1/4 Section 9 for irrigation of 172 acres located in the NW 1/4, N 1/2 SW 1/4 Section 9; all in T94N-R60W. The applicant is requesting a diversion rate greater than the statutory limit.

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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

MAY 20 2013

Daniel Schuurmans
30434 412th Ave
Tyndall SD 57066

Dear Mr. Schuurmans:

Enclosed is Water Permit No. 7662-3 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

NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 10-20-13TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181FROM: Daniel Schuurmans
(name)30434 412th Ave
(address)Tyndall SD 57066
(city, state, zip)605-464-1109
(phone)

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.

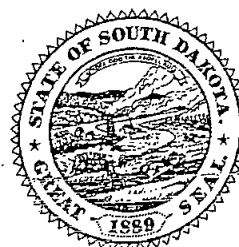
Water Permit No. 7662-3 states that the water use system is to be constructed by April 15 2018, and water is to be put to beneficial use by April 15 2022.
(date) (date)

The water use system was completed on Well was completed on June 5th 2013
Pivot was completed on July 15 2013
(date)

Applying the water to beneficial use was completed on July 16-2013
(date)

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

[Signature]
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

November 6, 2013

7662-3

Daniel Schuurmans
30434 412th Ave
Tyndall SD 57066

Dear Mr. Schuurmans:

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 as authorized under Water Permit No. 7662-3. Also received were the 2013 irrigation questionnaires for both of your water permits.

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,

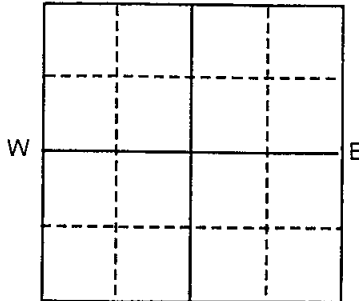
Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location NW ¼ SW ¼ Sec 9 Twp 94N Rg 60W

County Bon Homme

North

Please mark well
location with an "X"

Well Completion Date

June 4, 2013

← 1 Mile →

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	6.00 IN	0.0 FT	185.0 FT	9.75 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	17	Lb/gal	0.0 Ft	180.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information open hole

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? chlorinated☐ No, Why Not?Lab to which water
quality sample sent for analysis

n/a

Well Owner: Dan Schuurmans

Business Name:

Address: 30434 412th Ave

City, State, Zip: Tyndall SD 57066

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Yellow clay	2	23
Blue clay	23	63
Blue sandy clay	63	177
Chalk	177	237
Sandstone w/clay seams	237	260

STATIC WATER LEVEL 115.0 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

117.0 Ft. After 5.0 Hrs. pumped 250.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 42 58.411
W 97 56.812

RECEIVED

OCT - 7 2013

WATER RIGHTS
PROGRAMThis well was drilled under license # 475 and this
report is true and accurate.

Drilling firm: Thein Well Co., Inc.

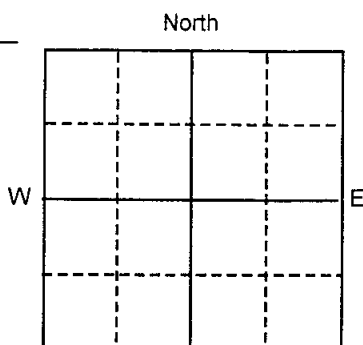
Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 10-1-13

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NW 1/4 SW 1/4 Sec 9 Twp 94N Rg 60WCounty Bon HommePlease mark well
location with an "X"

Well Completion Date

June 5, 2013

1 Mile

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

50.0 ft. from septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	175.0 FT	17.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	32	Lb/gal	0.0 Ft	106.0 Ft
Neat cement	46	Lb/gal	106.0 Ft	175.0 Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information open hole

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? chlorinated
☐ No, Why Not?
Lab to which water
quality sample sent for analysis
n/aWell Owner: Dan Schuurmans

Business Name:

Address: 30434 412th AveCity, State, Zip: Tyndall SD 57066

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Yellow clay	2	23
Blue clay	23	63
Blue sandy clay	63	173
Chalk	173	237
Sandstone w/clay seams	237	265

STATIC WATER LEVEL 117.0 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

164.0 Ft. After 6.5 Hrs. pumped 325.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 42 58.441

W 97 56.846

RECEIVED

OCT - 7 2013

WATER RIGHTS
PROGRAMThis well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 10-1-13

SOUTH DAKOTA WELL REHABILITATION REPORT

7662-3 SD EForm - 1623LD V1

11-02

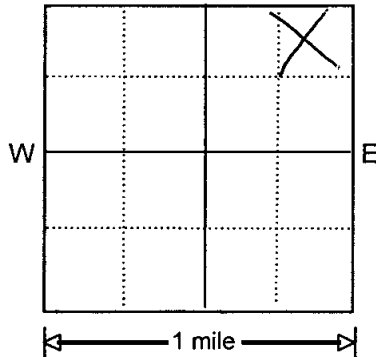
Location NW 1/4 SW 1/4 Sec 9 Twp 94N Rg 60W

Well owner:

County BON HOMME

North

Please mark well location with an "X"



Name DAN SCHUURMAN

Address 30434 412TH AVE.

City, State, Zip TYNDALL SD 57066

Describe original construction if possible.
(Attach original log if available)

GPS N42 58.411 W97 56.812

SEE ATTACHED WELL LOG - well logs on file.

Rehabilitation Completion Date 03-20-14

PROPOSED USE:

- ☐ Domestic ☐ Municipal ☐ Stock
☒ Irrigation ☐ Industrial

Description of condition of well before rehabilitation:

DRILLED ORIGINAL WELL THROUGH NIOBRARA FORMATION, WENT INTO CODELL FORMATION 23'

Description of rehabilitation work completed:

REMOVED PUMP, MEASURED WELL, GROUTED OFF CODELL FORMATION FROM 260' TO 237'

Recasing information: Material N/A Diameter Inches Depth Feet

Describe screen or perforations N/A Screen Location From N/A To
From To

Grout: ☒ YES Describe grouting procedure and grout:
☐ NO

PRESSURE GROUT

RECEIVED

APR 11 2014

WATER RIGHTS PROGRAM

Well Test Data: Specific capacity 6.0 Static water level 115'
If a flowing well GPM Shut in PSI

This well rehabilitation was completed under license # 475 and this report is true and accurate.

Drilling firm: THEIN WELL CO.

Signature of Licensed Representative:

Signature of Well Owner:

Date: 3-31-14

SOUTH DAKOTA WELL REHABILITATION REPORT

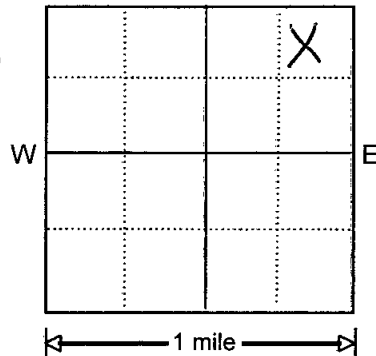
11-02

Location NW 1/4 SW 1/4 Sec 9 Twp 94N Rg 60W

Well owner:

County BON HOMME

North

Please mark well
location with an "X"Name DAN SCHUURMANAddress 30434 412TH AVE.City, State, Zip TYNDALL SD 57066Describe original construction if possible.
(Attach original log if available)GPS N42 58.444 W97 56.846

SEE ATTACHED WELL LOG - Well Logs on file

Rehabilitation Completion Date 03-21-14

PROPOSED USE:

- ☐ Domestic ☐ Municipal ☐ Stock
☒ Irrigation ☐ Industrial

Description of condition of well before rehabilitation:

DRILLED ORIGINAL WELL THROUGH NIOBRARA FORMATION, WENT INTO CODELL FORMATION 23'

Description of rehabilitation work completed:

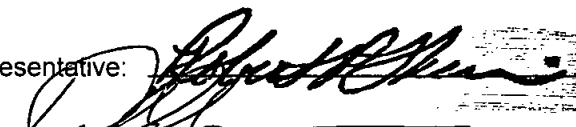
REMOVED PUMP, MEASURED WELL, GROUTED OFF CODELL FORMATION FROM 265' TO 237'

Recasing information: Material N/A Diameter _____ Inches Depth _____ FeetDescribe screen or perforations N/A Screen Location From N/A To _____
From _____ To _____Grout: ☒ YES Describe grouting
 ☐ NO procedure and grout:

PRESSURE GROUT

RECEIVED

APR 11 2014

WATER RIGHTS
PROGRAMWell Test Data: Specific capacity 6.5 Static water level 117'
If a flowing well _____ GPM Shut in _____ PSIThis well rehabilitation was completed under license # 475 and this report is true and accurate.Drilling firm: THEIN WELL CO.Signature of Licensed Representative: Signature of Well Owner: Date: 3-31-14



7662-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 20, 2017

NOTICE

TO: DANIEL SCHUURMANS, 30434 412TH AVE, TYNDALL, SD 57006
FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2016 Irrigation Questionnaire(s)

Our records indicate your 2016 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 6454-3 & 7662-3. The request for the Questionnaire was dated October 21, 2016. The Water Management Board has directed that owners of water permits who have not submitted the 2016 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) 6454-3 & 7662-3 qualification:

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

The hearing will be held at **Wednesday, March 1, 2017 at 11:00 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) 6454-3 & 7662-3 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 1, 2017** 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: <http://denr.sd.gov/iq.aspx>

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.



7662-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 6, 2017

6454-3
7662-3

Daniel Schuurmans
30434 412th Ave
Tyndall SD 57066

Dear Mr. Schuurmans:

I am writing to acknowledge receipt of your 2016 irrigation questionnaires.

You may disregard the January 20, 2017, "Notice" concerning reporting requirements for Water Permit Nos. 6454-3 and 7662-3. 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
email: genny.mcmath@state.sd.us



7662-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

November 5, 2018

6454-3
7662-3

Daniel Schuurmans
31180 416th Ave
Springfield SD 57062

Dear Mr. Schuurmans:

Enclosed is a "Notice" dated October 30, 2018 concerning the 2018 irrigation questionnaires.

The notice was originally mailed to 30434 412th Ave., Tyndall SD. The post office notified us that your address has changed and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

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

enclosures

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 7662-3**

I have this day, May 29, 2020, made a thorough examination of the water use system constructed by Daniel Schuurmans, 30434 412th Avenue, Tyndall, SD 57066, holder of Permit No. 7622-3, bearing the priority of January 25, 2013 authorizing the diversion of 2.67 cu. ft. per second of the waters of groundwater (Niobrara Aquifer) for the irrigation of 172 acres, in Bon Homme County.

Inspection contact: Daniel Schuurmans

A. Works used to divert the water:

Well Information:

North Well

- 1) Well Drilling Firm: Thein Well Co., Inc.
- 2) No. of Wells: 1
- 3) Depth: 237 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 12 inches
- 2) Length: 175 feet
- 3) Type: PVC

Screen:

- 1) None
- 2) Static water level: 117 feet

Pump:

- 1) Make: Franklin
- 2) Model: 350-D253ABB
- 3) Capacity: 350 GPM

Motor:

- 1) Make: Franklin
- 2) Model No.: 6F25463
- 3) Horsepower rating: 25 hp

South Well

- 1) Well Drilling Firm: Thein Well Co., Inc.
- 2) No. of Wells: 1
- 3) Depth: 237 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 6 inches
- 2) Length: 185 feet
- 3) Type: PVC

Screen:

- 1) None
- 2) Static water level: 115 feet

Pump:

- 1) Make: Grundfos
- 2) Model: 300S400-10
- 3) Capacity: 300 GPM

Motor:

- 1) Make: Franklin
- 2) Model No.: 6F40463
- 3) Horsepower rating: 40 hp

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

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 860 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make: Zimmatic
- 2) Overall length: 1,880 feet
- 3) Number of towers: 10
- 4) End gun: Yes
- 5) Capacity: 650 GPM

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: No
2) Irrigation Questionnaires checked to determine if irrigation began by the end of construction period: Yes
3) Exceptions to compliance are: Two wells instead of one well.

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows:
The north well is 1,080 feet east and 2,760 feet south of the northwest corner of Section 9-T94N-R60W (Latitude 42.97358, Longitude -97.94699 – NW1/4 of the SW1/4).
The south well is 1,110 feet east and 2,790 feet south of the northwest corner of Section 9-T94N-R60W (Latitude 42.97348, Longitude -97.94688 – NW1/4 of the SW1/4).
2. The works are capable of diverting and conveying to the place of use 1.45 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows: All in Section 9-T94N-R60W

<u>NW1/4NW1/4</u>	<u>29 acres</u>	<u>NE1/4NW1/4</u>	<u>24 acres</u>
<u>SW1/4NW1/4</u>	<u>20 acres</u>	<u>SE1/4NW1/4</u>	<u>40 acres</u>
<u>NW1/4SW1/4</u>	<u>27 acres</u>	<u>NE1/4SW1/4</u>	<u>25 acres</u>

comprising a total of 165 acres of land and the license should be issued for 1.45 cfs.

3. All structures, wells and lands on map Yes

- F. Comments or other permit(s) associated with the project:** This water right was issued for one well. Two wells were installed at the site to get the amount of water needed to operate the irrigation system. Initially both wells were drilled through the Niobrara formation and into the Codell formation. Later, the pumps were removed, and the wells were grouted to the bottom of the Niobrara formation. Rehabilitation reports were submitted to DENR for each well and the reports are in the project file.

Keith DeJong

Keith DeJong
Water Rights Inspector
DENR, Water Rights Program

Date report completed: June 3, 2020

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Daniel Schuurmans

ADDRESS: 30434 412th Avenue, Tyndall, SD 57066 DATE: 06-08-2020

COUNTY: Bon Homme TELEPHONE: #

GENERAL DESCRIPTION OF AUTHORIZED PROJECT:

The permit holder is authorized to the irrigation 172 acres in the W ½ Sec 9 T94N-R60W at a diversion rated of 2.67 cfs from a single well constructed into the Niobrara Aquifer. The inspection found an irrigation system capable of irrigation 165 acres in the W ½ Sec 9 T94N-R60W from two wells constructed into the Niobrara Aquifer at a combined diversion rate of 1.45 cfs.

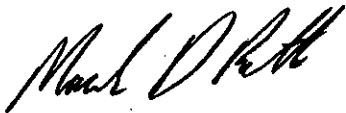
AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**
Yes
- **If irrigation, no new land is irrigated**
Yes
- **Review of Existing Diversions**
Yes

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Mark D. Rath, Natural Resources Engineer
Water Rights Program

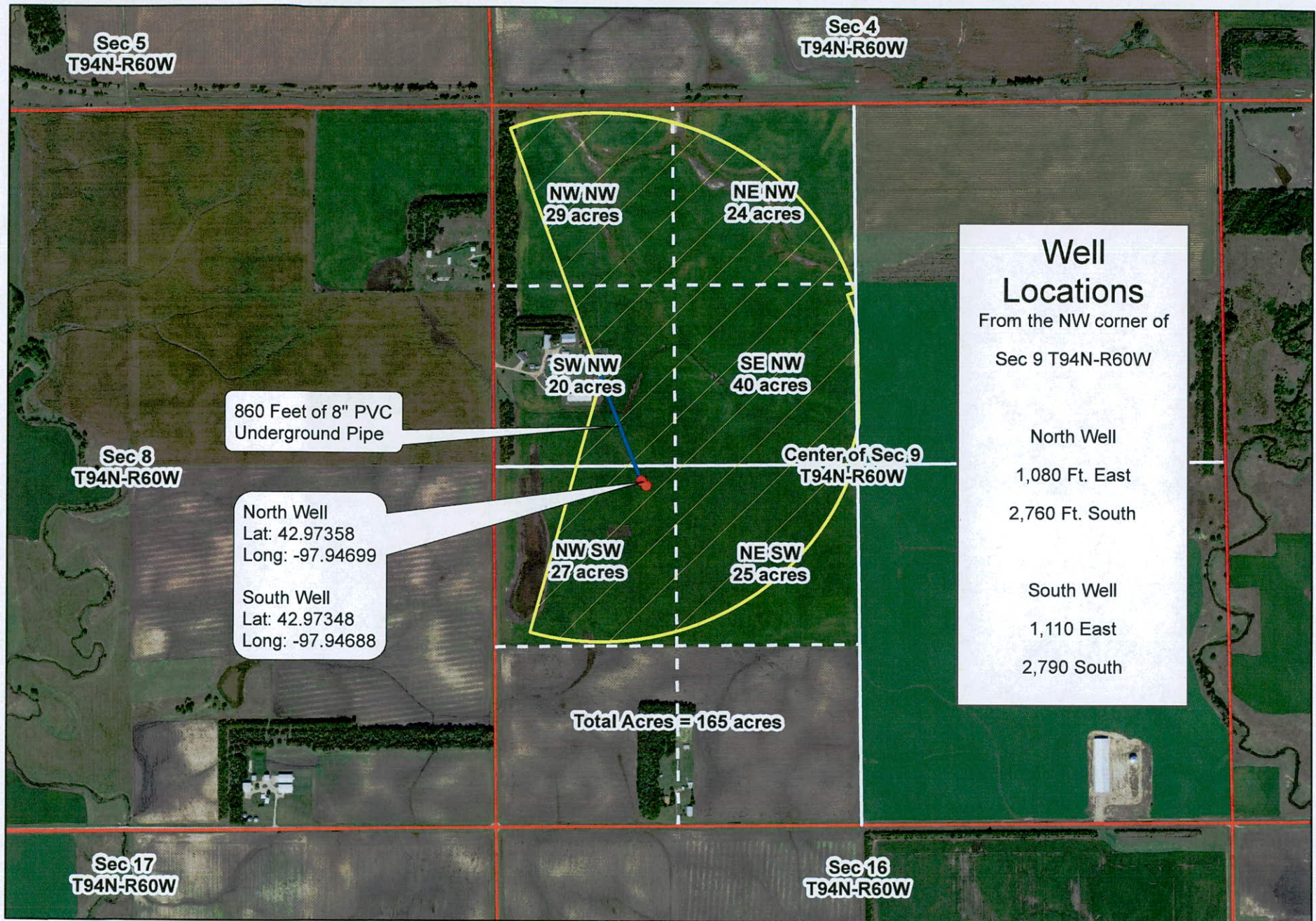
The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Eric Gronlund, Chief Engineer
Water Rights Program

Water Right No. 7662-3



0 330 660 1,320 1,980 2,640
Feet
SCALE



Keith DeJong
Keith DeJong, PE
Staff Engineer
June 3, 2020

7662-3



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

6454-3
7662-3

JUN 15 2020

Daniel Schuurmans
30434 412th Ave
Tyndall SD 57066

Dear Mr. Schuurmans:

Enclosed are Water License Nos. 6454-3 and 7662-3. These are the final water right documents completing your process of obtaining Water Rights. Included with each license is a map prepared by the staff engineer who conducted the field investigations.

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 Licenses, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

A handwritten signature in cursive script, reading "Eric Gronlund". The signature is written in dark ink and is positioned above the printed name and title.

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

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7662-3

(1) Daniel Schuurmans, 30434 412th Ave., Tyndall SD 57066 made Application No. 7662-3, January 25, 2013 for a water permit to divert 2.67 cubic feet of water per second from ground water, one well (Niobrara Aquifer), Bon Homme County, South Dakota for irrigation purposes. Permit No. 7662-3, with a priority date of January 25, 2013 was approved April 15, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 15, 2018 and for the application to beneficial use of water on or before April 15, 2022.

An investigation conducted for licensing purposes found an additional diversion point developed for irrigation under Water Permit No. 7662-3. Pursuant to SDCL 46-5-13.1 and ARSD 74:02:01:14.01, the Chief Engineer made a finding that existing water rights will not be impaired and the overall project, as developed, is consistent with the original application.

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

- **North well:** 1,080'E and 2,760'S of the NW corner of Section 9, T94N, R60W (NW ¼ SW ¼)
Latitude 42.97358, Longitude -97.94699
- **South well:** 1,110'E and 2,790'S of the NW corner of Section 9, T94N, R60W (NW ¼ SW ¼)
(Latitude 42.97348, Longitude -97.94688)

(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:

T94N, R60W Section 9	NW ¼ NW ¼	29 acres	NW ¼ SW ¼	27 acres
	NE ¼ NW ¼	24 acres	NE ¼ SW ¼	25 acres
	SW ¼ NW ¼	20 acres		
	SE ¼ NW ¼	40 acres	Total 165 acres	

(4) Pursuant to South Dakota Water Law 46-5-30.1 Daniel Schuurmans, 30434 412th Ave., Tyndall SD 57066 the holder and/or owner of Water Right No. 7662-3 is issued a license to appropriate water, the right to use 1.45 cubic feet of water per second from ground water, two wells (Niobrara Aquifer) with a priority date of January 25, 2013 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. 7662-3 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 well authorized by Permit No. 7662-3 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 original well and the additional well authorized at the time of licensing were both drilled by Thein Well Company, Inc. Copies of the well completion reports are on file with the Water Rights Program.***
- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, No. 7662-3 authorized a maximum diversion rate of 2.67 cfs for the irrigation of 172 acres with an annual volume not to exceed 2 acre feet of water per acre per year. ***The investigation found the system capable of 1.45 cfs irrigating 165 acres making this qualification no longer applicable.***
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

JUN 15 2020

Eric Gronlund

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

date

