

WATER PERMIT NO. 2706-2

Name of Applicant: Nick Risse

Address: 23096 US Hwy 18, Tuthill SD 57574 Phone: 605 685-6032

Amount of Water Claimed: 4.44 cfs Total Acres: 320

Source of Water Supply: groundwater (2 wells)

Water to be used for: irrigation County: Bennett

Type of Waste Disposal System:

Location: 18 miles northeast of Martin

PRIORITY Date Received: 3-1-13 Application/License Fee: \$ 1350

Corrected Application Received: 3-11-13 Period of Annual Use: May 1 – October 31

Remarks:

Diversion Point: centers of the NE 1/4 and SE 1/4
Section 1-T37N-R35W

Land to be Irrigated: E 1/2 Sec 1-T37N-R35W

Depth of Well: 230 and 260 feet deep

Well Driller: Grosch Drilling

Remarks:

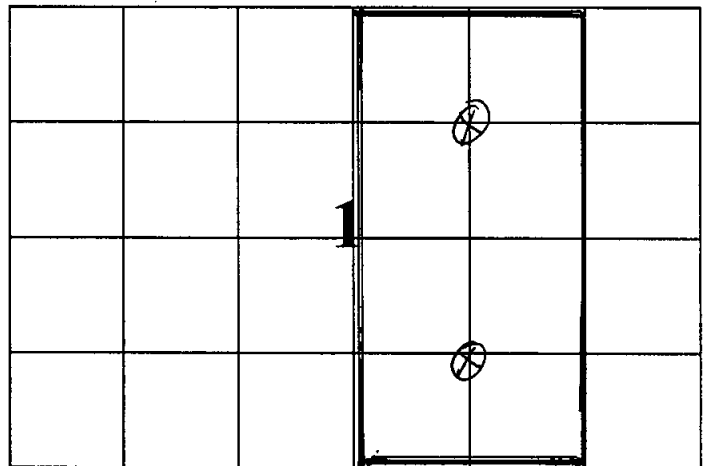
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 3-11-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota

(type or print)

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

(office use only)
No. 2706-3 Hydrologic Unit 10140203
Basin White River 605-685-6866
Newspaper Bennett Co. Box 610 Martin 57551
605-224-7301
Capital Journal Box 878 Pierre 57501

RECEIVED

MAR - 1 2013

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 Nick Risse

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

(name and complete address if different than above name)

Mailing Address 23096 US Hwy 18 Tuthill SD 57574
(Address) (City) (State) (Zip Code)

Home Phone 605-685-6032 Cell 685-5187 Email vikingsfans@golden.net

2. Amount of water claimed 4.44 *CFS or 2,000 **GPM ***AF Total Acreage 320
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Ogallala Aquifer center

4. Location of point of diversion 1 well in center NE 1/4 and 1 well in SE 1/4 of 1-37N-35W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Bennett

5. County or counties where water will be used Bennett

6. Annual period during which water is to be used May to October

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>1 NE 1/4 of 1-37N-35W</u>	<u>160</u>		
<u>1 SE 1/4 of 1-37N-35W</u>	<u>160</u>		

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

I, Nick Risse Nick Risse, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

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 Grosch Irrigation Co. Inc
(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 230 Depth to Top of Water Bearing Material 230 Depth to Water from Surface 40
- d) Distance to ²⁶⁰nearest existing domestic well:

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

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System _____

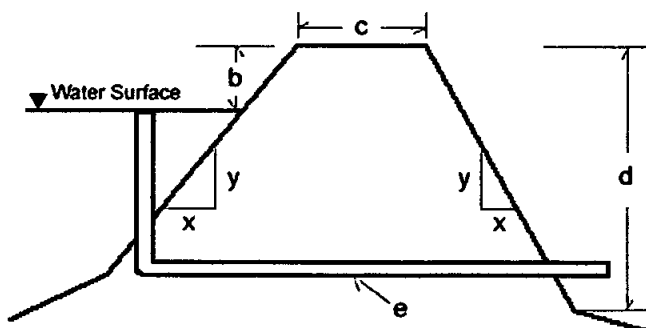
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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



- b) Freeboard _____
- c) Crest Width _____
- Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
- If pipe, diameter _____
- f) Secondary Spillway Capacity _____
- Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
- Upstream _____
- Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

SOUTH DAKOTA
WATER PERMIT NO. 2706-2

Date of first receipt of application March 1, 2013.

Date of return to applicant for corrections, amendments or changes March 5, 2013.

Date of receipt of corrected application March 11, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2706-2 to Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 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. 2706-2 appropriates 4.44 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (230 and 260 feet deep) located in the centers of the NE 1/4 and the SE 1/4 Section 1 for irrigation of 320 acres located in the E 1/2 Section 1; all in T37N-R35W.
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 March 1, 2013.
4. The date of approval of Permit No. 2706-2 is May 28, 2013.
5. One-fifth of the construction is to be completed on or before November 28, 2015.
6. All construction is to be completed on or before May 28, 2018.
7. Water is to be put to beneficial use on or before May 28, 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. 2706-2 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

JUN 21 2013

date



Sec 35
T038N
R35W

Sec 36
T038N
R35W

Sec 31
T038N
R34W

Sec 2
T037N
R35W

Sec 1
T037N
R35W

Sec 6
T037N
R34W

Sec 11
T037N
R35W

Sec 12
T037N
R35W

Sec 7
T037N
R34W



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

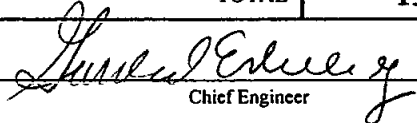
Date 3/4, 20 13

RECEIVED OF Nick Riise 23096 US Hwy 18 Tuthill SD 57574

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

Fee for Application for Permit No. <u>2706-2</u> to Appropriate Water, to construct and to put water to beneficial use	1150	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>2706-2</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	1350 00

No. 06213

By 
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

March 5, 2013

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Bennett County. In order to complete the application, the following is required.

- A map needs to be submitted that references a government section corner or quarter corner including section, township and range. For your use, I have enclosed a map with those designations. Please outline the 320 acres to be irrigated and mark the proposed well locations with an "X".
- Enclosed is the Form 2A, Supplemental Information. On Item No. 1 regarding the Well Information, please complete c) Well Depth with proposed well depth. Your well driller should be able to give you an estimate depth for your proposed well locations.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Karen Schlaak".

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

enclosures



**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. 2706-2, Nick Risse**

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. 2706-2, Nick Risse, 23096 US Hwy 18, Tuthill SD 57574.

The Chief Engineer is recommending APPROVAL of Application No. 2706-2 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 Water 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. 2706-2 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.

Jeanne Goodman, Chief Engineer
May 9, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2706-2
NICK RISSE
APRIL 2, 2013

Water Permit Application No. 2706-2 proposes to appropriate water from two wells to be completed into the Ogallala aquifer at a maximum diversion rate of 4.44 cubic feet of water per second (cfs). The wells will be located in the centers of the NE ¼ and the SE 1/4 of Section 1, in T37N-R35W and are expected to be 230 and 260 feet deep. This application proposes to irrigate 320 acres located in the E ½ of Section 1, in T37N-R35W in Bennett County.

AQUIFER: Ogallala aquifer (OGLL)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Ogallala Formation is a component of the High Plains aquifer and consists of poorly sorted, generally unconsolidated clay, silt, sand, gravel and pure quartz sandstone (Kolm, 1983). The Ogallala Formation is hydraulically connected to the Arikaree and Sand Hills Formations, which are components of the High Plains aquifer as well (Kolm, 1983). The aquifer is unconfined in the area of this application. The proposed well sites are located in eastern Bennett County approximately eight and one half miles west of the Todd and Bennett county line. The Ogallala aquifer underlies approximately 1,140,360 acres, and contains an estimated 19,929,600 acre-feet of recoverable water in storage in South Dakota (Allen and others, 1985). The Ogallala aquifer underlies approximately 280,960 acres in Bennett County and contains approximately 280,960 acre-feet of recoverable water in storage in the county (Allen and others, 1985). The saturated thickness in the Ogallala aquifer varies significantly due to the undulating erosion surface between the Arikaree and Ogallala aquifers (Kolm, 1983). The saturated thickness in the area of this application is estimated to range from 200 to 400 feet (Kolm, 1983). There was not a test hole log submitted with this application, but nearby well sites report an average saturated thickness of approximately 208 feet as shown in Table 1 (Water Rights, 2013a). The static water level at the well site locations can be estimated at 25 feet below ground based on a ground surface elevation of 2,953 feet (Water Rights, 2013a).

Well Log Identification	Saturated Thickness (ft)
Observation Well BT-76A	200
Observation Well BT-76B	113
Observation Well BT-78H	235
Observation Well BT-78J	215
Observation Well BT-77B	251
Observation Well BT-77A	235

Table 1. Reported saturated thickness for nearby wells (Water Rights, 2013a).

Based on the proposed well depths and estimated aquifer material at these locations, there is a possibility that the wells would penetrate the underlying Arikaree aquifer. Pursuant to Well Construction Standard 74:02:04:34.01, "No well may be constructed to allow production from more than one aquifer unless approved by the chief engineer or the water management board". Therefore, the applicant is pursuing the Ogallala aquifer.

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 Ogallala aquifer.

WATER AVAILABILITY:

This application proposes to appropriate water from the Ogallala aquifer. If these applications are approved, it is likely that the actual water use will be less than 640 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." If the source of the water is older or lower than the greenhorn formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a public water system is not involved and the aquifer is not older or lower than the greenhorn formation therefore withdrawal/recharge issue must be considered.

Recharge versus Discharge:

Recharge:

Recharge to the aquifer occurs through precipitation and direct infiltration through soils (Kolm, 1983). The average annual recharge rate to the High Plains aquifer in South Dakota is estimated to be 7 to 10 percent of the average annual precipitation, which amounts to 1.3 to 1.8 in/yr (Gutentag and others, 1984). Given the area of the Ogallala aquifer of 1,140,360 acres, the average annual recharge to the aquifer is estimated to be between 123,539 and 171,054 ac-ft/yr. Based on the estimated recharge rate, the recharge in Bennett County alone is expected to range from approximately 82,160 to 113,760 ac-ft/yr. This recharge and water in storage is not necessarily available at all locations within the aquifer. These values are merely stating that the aquifer is a vast resource.

Discharge:

Discharge from the Ogallala aquifer is by evapotranspiration, discharge to streams and springs, 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 Ogallala aquifer (Water Rights, 2013b), and there are currently 158 South Dakota water rights/permits appropriating water from the Ogallala aquifer (Water Rights, 2013c). In addition, there are three future use permits reserving 3,970.42 ac-ft/yr of water from the aquifer. The distribution of these appropriations and their types are shown in Table 2. The Pine Ridge and Rosebud Indian Reservations also withdraw water from the Ogallala aquifer for irrigation purposes in the surrounding area.

Water Rights/Permits	Number
Domestic	1
Fish & Wildlife Propagation	1
Institutional	2
Irrigation	129
Municipal	20
Rural Water System	5
Future Use Permits	Number
City of Burke	1
City of Gregory	1
City of Winner	1

Table 2. Water rights/permits from the Ogallala aquifer (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.
3. Future use permits can be fully developed.

The City of Burke reserves approximately 930 ac-ft/yr, the City of Gregory reserves approximately 652 ac-ft/yr and the City of Winner reserves approximately 2,389 ac-ft/yr. The expected water use for non-irrigation purposes, including that for future use, from the Ogallala aquifer is less than 12,853 ac-ft/yr based on current water appropriations. Non-irrigation appropriations in Bennett County accounts for less than 14 ac-ft/yr of this based on current water appropriations.

The annual reported water use from the Ogallala aquifer for irrigation purposes is displayed in Table 3. The average annual use due to irrigation over the period of record is 17,718.35 ac-ft/yr. The average annual use for irrigation in Bennett County over the period of record is approximately 6,908 ac-ft/yr. The amount of water usage from domestic wells is not significant to the hydrologic budget.

YEAR	NO. OF PERMITS	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
2011	116	52856.7	15294.73
2010	115	52529.7	21261.58
2009	116	53095.7	22130.45
2008	116	53095.7	24498.85
2007	114	52681.7	24051.2
2006	111	52953.7	25733.32
2005	108	52537.8	20131.74
2004	107	51877.8	23939.9
2003	105	51408.8	22085.21
2002	105	52218.8	24176.59
2001	110	54653.6	18121.82
2000	111	54686.8	16141.74
1999	110	54366.8	13733.72
1998	109	54106.8	13777.34
1997	111	55610.2	18707
1996	110	55713.2	21222.84
1995	107	54719.2	14276.9
1994	108	54664.2	16699.41
1993	105	53357.5	11099.9
1992	107	54197.5	11985.8
1991	108	56438.8	16049.54
1990	107	57288.4	16511.6
1989	104	56839.4	27261.5
1988	103	57456.1	16154.4
1987	104	59472.95	12347.9
1986	105	59270.95	12952.6
1985	108	56382.05	18536.5
1984	109	68087.95	13273.4
1983	101	66508.65	10175.49
1982	93	62475.95	9217.41
MIN	93	51408.80	9217.41
MAX	116	68087.95	27261.50
AVE	108.1	55718.45	17718.35

Table 3. Irrigation from the Ogallala aquifer (Water Rights, 1982-2011).

Comparison of the estimated average annual withdrawal from the Ogallala aquifer with the estimated average annual recharge for the aquifer indicates that the average annual withdrawals from the aquifer do not exceed the average annual recharge to the aquifer. The Ogallala aquifer in South Dakota is a vast resource, and the average irrigation use in Bennett County through 2011 is less than nine percent of the minimum estimated annual recharge in Bennett County. When considering the entire aquifer, in South Dakota the average annual irrigation use in combination with non-irrigation use and future uses accounts for 30,692 ac-ft/yr, which is less than 10 percent of the minimum estimated average annual recharge to the aquifer in South Dakota. Therefore, unappropriated water is available from the Ogallala aquifer. Specifically, unappropriated water is available for the appropriation proposed by this application. Again, this is not to say that all of the recharge is available at any given point in the aquifer, but that the aquifer is a vast resource.

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 to the aquifer”.

The SD DENR-Water Rights Program monitors 77 observation wells completed into the Ogallala aquifer with four of these wells located within four miles of the proposed well sites. Hydrographs for these wells are shown in Figures 1, 2, 3, and 4.

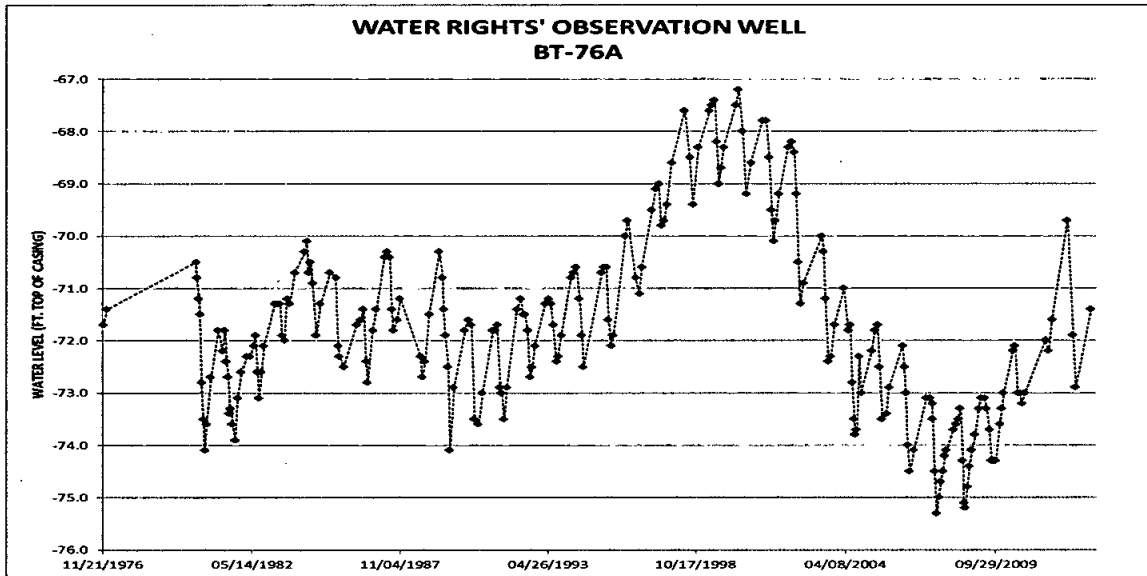


Figure 1. Hydrograph for SD DENR-Water Rights' Observation Well BT-76A completed into the Ogallala aquifer less than two and one half miles east of the well sites proposed by Application No. 2706-2 (Water Rights, 2013a).

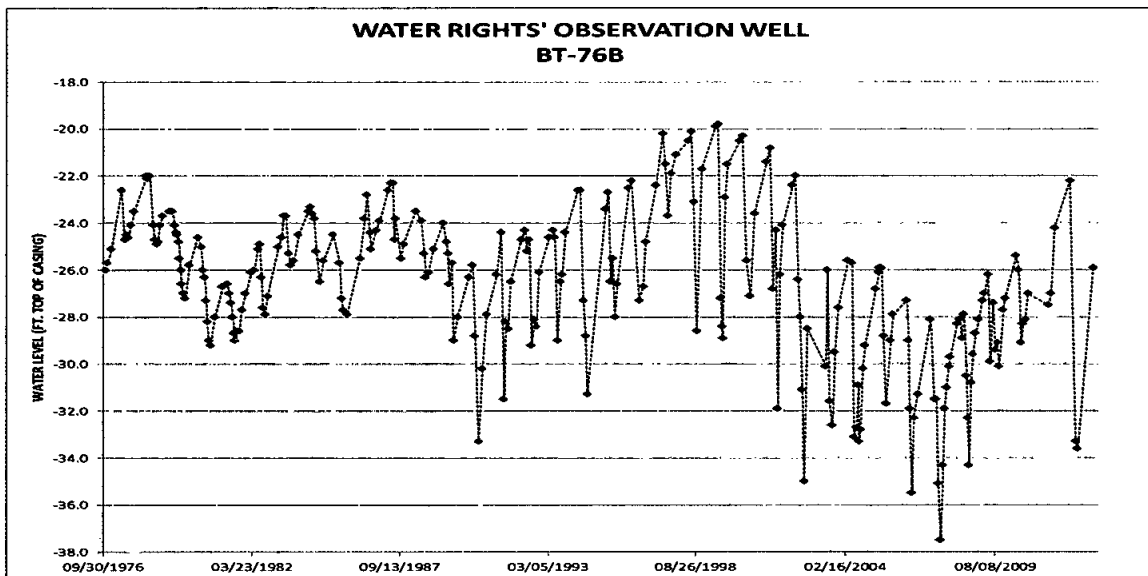


Figure 2. Hydrograph for SD DENR-Water Rights' Observation Well BT-76B completed into the Ogallala aquifer approximately three and one half miles southeast of the well sites proposed by Application No. 2706-2 (Water Rights, 2013a).

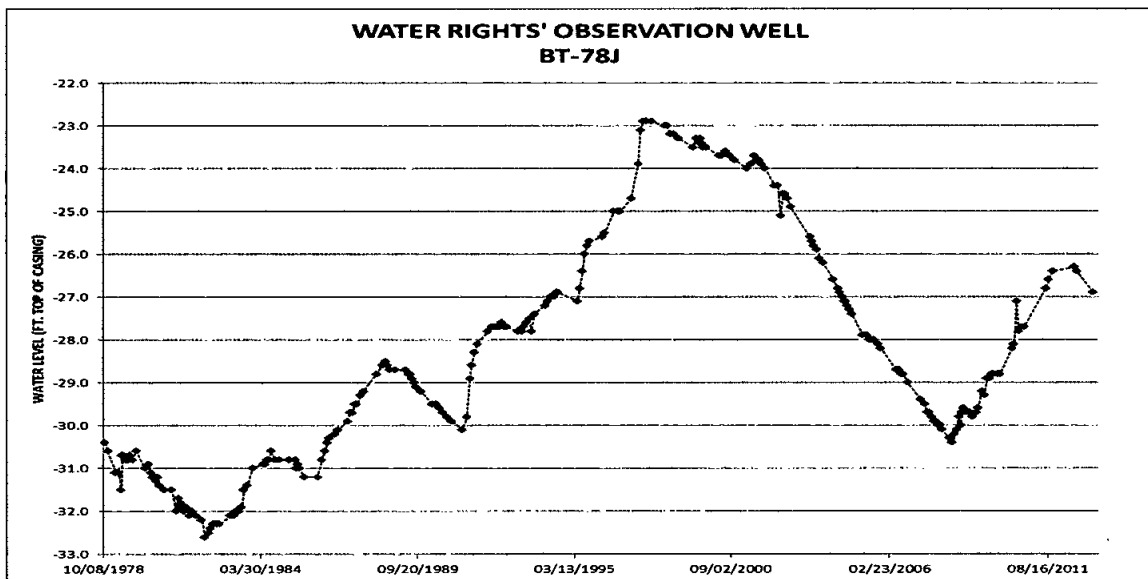


Figure 3. Hydrograph for SD DENR-Water Rights' Observation Well BT-78J completed into the Ogallala aquifer approximately three and one quarter miles southeast of the well site proposed by Application No. 2706-2 (Water Rights, 2013a).

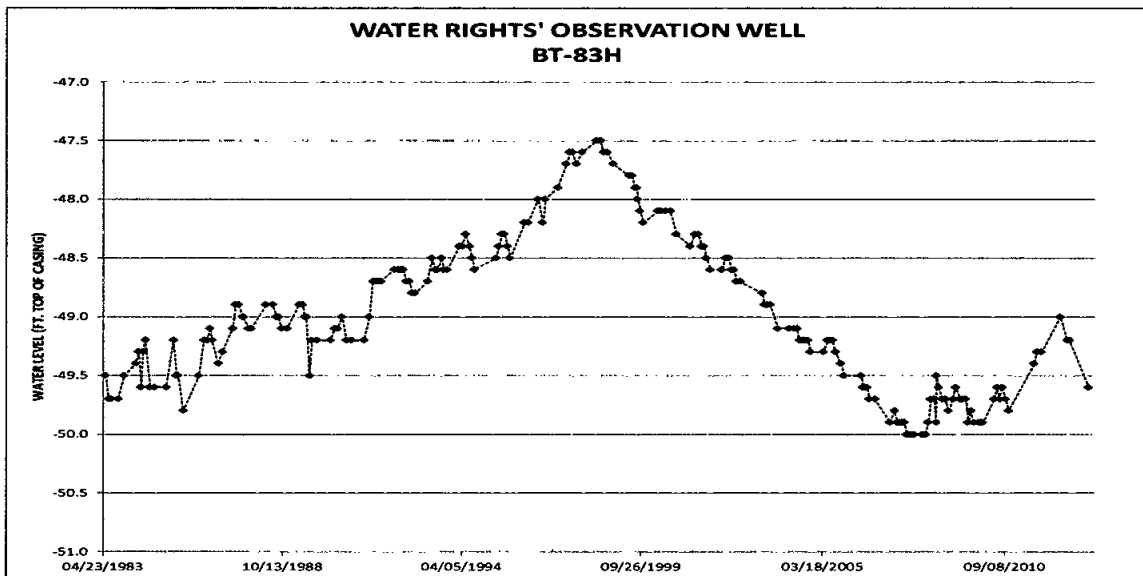


Figure 4. Hydrograph for SD DENR-Water Rights' Observation Well BT-83H completed into the Ogallala aquifer approximately three and one half miles south of the well sites proposed by Application No. 2706-2 (Water Rights, 2013a).

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. Observation Well BT-76B shows the effects due to pumping, but these are not significant due to the saturated thickness of the aquifer at this location. 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 Ogallala aquifer significantly exceeds pumping. Recognizing that natural discharge from the aquifer can be captured for pumping. The hydrograph documents that there is unappropriated water available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

The proposed well sites are located in eastern Bennett County approximately eight and one half miles west of the Todd and Bennett county line. The nearest water right/permit is Water Right No. 2502-2, for Paul or Mary Ann Fanning, located more than two miles southeast of the proposed well sites. Based on the observation well data and the amount of saturated aquifer material, drawdown is not expected to be significant nor likely to cause adverse impacts to existing water rights or domestic wells.

Observation well BT-76B is located within 400 feet of Water Right No. 2111-2, and the hydrograph, shown in Figure 2, reports a range of approximately 4 to 11 feet of drawdown over the period of record, at this distance due to pumping. With more than 200 feet of saturated thickness at the proposed well sites, this amount of drawdown is not significant. Given the amount of aquifer material in this area, the water should be appropriated in accordance with SDCL 46-1-4, which states that water resources of the state should "be put to beneficial use to the fullest extent of which they are capable".

Figure 5 shows the nearby existing water rights located in the Ogallala aquifer. The locations of the existing water rights/permits were determined using the best data reasonably available.

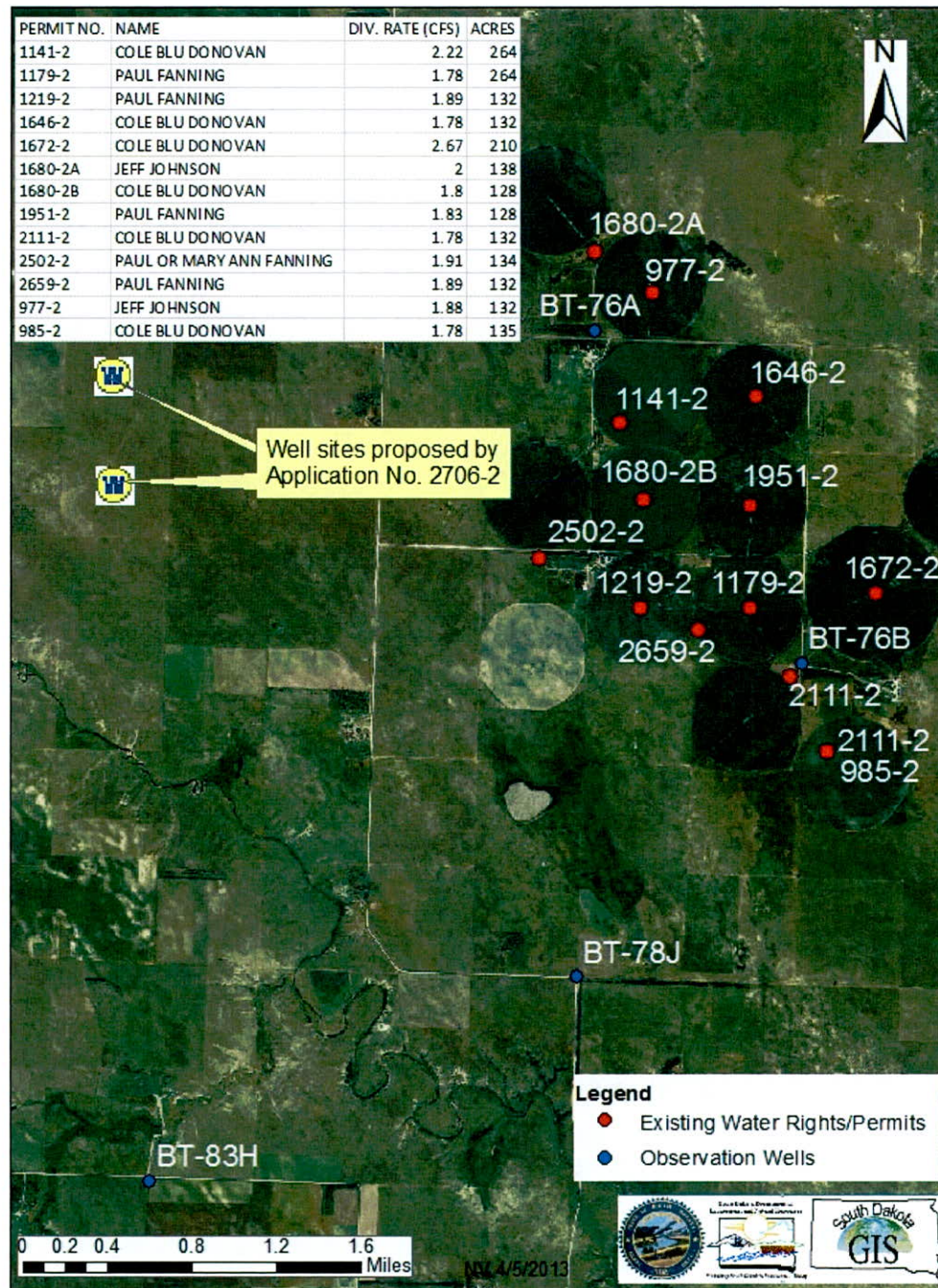


Figure 5. Existing water rights/permits located within close proximity to the well site proposed by Application No. 2706-2 (Water Rights, 2013c).

CONCLUSIONS:

1. This application proposes to appropriate water for irrigation from the Ogallala aquifer.
2. There is a reasonable probability that unappropriated water is available from the Ogallala aquifer to supply this proposed appropriation.
3. The Ogallala aquifer is unconfined in this area, and drawdown from pumping is not expected to be significant relative to the saturated thickness in the area.
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



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1985, Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota, Tasks 3A.B.C. & 4A.B.: Groundwater Resources Inventory, US Army Corps of Engineers Contract DAWC 45-82-c-015, SD DENR-Geological Survey, Vermillion SD
- Filipovic, D., 2011, Hydrogeologic Assessment of the High Plains Aquifer in Bennett County, South Dakota: SD DENR Geological Survey Open-File Report 92-UR, 30 p.
- Gutentag, E.D., Heimes, F.J., Krothe, N.C., Luckey, R.R., and Weeks, J.B., 1984, Geohydrology of the High Plains Aquifer in Parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming: U.S. Geological Survey Professional Paper 1400-B, 61 p.
- Kolm, K.E., and Case, H.L.III, 1983, A Two-Dimensional, Finite-Difference Model of the High Plains Aquifer in Southern South Dakota: U.S. Geological Survey Water-Resources Investigations Report 83-4175, 34 p.
- Water Rights, 1982-2011, Irrigation Questionnaire Summaries 1982-2011, 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.

MAY 21 2013

WATER RIGHTS
PROGRAM

Affidavit of Publication

State of South Dakota

County of Bennett

Jill Potter, being, first duly sworn, on oath, says: That he/she is an employee of Huether Publishing, Inc., and that the **Bennett County Booster** is, and during all the times hereinafter mentioned was, a weekly legal newspaper as defined in the SDCL 17-2-2.1 through the 17-2-2.4 inclusive; that said newspaper has been published within the said county of Bennett and State of South Dakota, for at least one year prior to the first publication of the attached public notice, and that the printed copy of which, taken from the paper in which the same was published, and which is hereto attached and made a part of this affidavit, was published in said newspaper for 1 successive week(s) to wit:

May 15, 2013

That the full amount of the fee charged for the publication of the attached public notice, **\$27.20**, insures to the sole benefit of the publisher or publishers; 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:

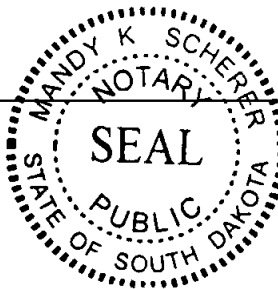
Signed: *Jill Potter*

Subscribed and sworn to before me this 15th day of May, 2013.

Mandy K Scherer

Notary Public

My Commission Expires
December 9, 2015



RECEIVED

MAY 23 2013

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Hughes) SS

I, Marylin Baker

certify that the attached printed Notice was
taken

from the Capital Journal

printed and published in Pierre

County of Hughes and

state of South Dakota. The notice was
published

in the newspaper on the following date:

May 15, 2013

Cost of Printing \$28.77

Marylin Baker
(Signature)

Bookkeeper
(Title)

5-21-13
(Date Signed)

SD Public Notice
NOTICE OF APPLICATION NO. 2706-2 to Appropriate Water
Notice is given that Nick Rise, 23096 US Hwy 16, Tuhill SD 57574 has filed an application for a water permit to appropriate 4.44 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (230 and 260 feet deep) located in the centers of the NE 1/4 and the SE 1/4 Section 1 for irrigation of 320 acres located in the E 1/2 Section 1: all in T37N-R55W.
Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2706-2 because 1) unappropriated water is available, 2) existing rights will not be unreasonably impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-22, 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:

SD Public Notice
In "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3552)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 28, 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 \$28.77.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

May 9, 2013

Bennett County Booster II
PO Box 610
Martin SD 57551

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2706-2 to Appropriate Water. Please publish the notice once on May 15, 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 Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 (Ph # 605-685-6032).

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

May 9, 2013

Capital Journal
PO Box 878
Pierre SD 57501

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2706-2 to Appropriate Water. Please publish the notice once on May 15, 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 Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 (Ph # 605-685-6032).

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.

May 9, 2013

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

Water Permit Application No. 2706-2 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 Bennett County Booster II printed at Martin SD (Ph # 605-685-6866) and the Capital Journal printed at Pierre SD (Ph # 605-224-7301). 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 May 15, 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. 2706-2 to Appropriate Water

Notice is given that Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 has filed an application for a water permit to appropriate 4.44 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (230 and 260 feet deep) located in the centers of the NE 1/4 and the SE 1/4 Section 1 for irrigation of 320 acres located in the E 1/2 Section 1; all in T37N-R35W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2706-2 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 May 28, 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

JUN 21 2013

Nick Riise
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

Enclosed is Water Permit No. 2706-2 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

2706-2

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit No. 2706-2, Nick Risse

ADDRESS: 23096 US Hwy 18, Tuthill SD COUNTY: Bennett

DATE: July 19, 2013 TELEPHONE:

RE: Acres to be irrigated

Mr. Risse called the Water Rights Program regarding the acres to be irrigated under No. 2706-2. The permit appropriates water to irrigate the E ½ Section 1, T37N, R35W. Mr. Risse indicated that one of the pivots will be shifted by 100 – 200 feet in order to not encounter an existing stock tank. By doing so, five to ten acres will be irrigated outside the defined quarter section but no additional acres will be irrigated.

I told him that SDCL 46-5-30.5 allows for unpermitted acreage developed for irrigation to be allowed as long as no additional acres are developed and the adjusted acres are contiguous to the permitted acres. I told him that this is something that will be handled during licensing and an application for a change of acres does not need to be filed at this time.

NAME: Eric Hualund

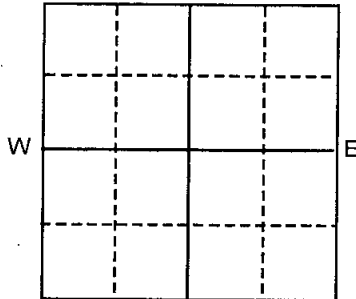
2706-2

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ SE ¼ Sec 1 Twp 37 Rg 35County BENNETT

North

Please mark well
location with an "X".

Well Completion Date

October 3, 2013

← 1 Mile →

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

PROPOSED USE:

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

METHOD OF DRILLING:

REVERSE ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
20.0 LB/FT	16.00 IN	1.0 FT	49.0 FT	28.00 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
CEMENT	50	15.5 Lb/gal	20.0 Ft	0.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
PUMPED TREMIE PIPE

SCREEN:

☒ Perforated pipe ☐ Manufactured
Diameter 16.00 InchesLength 200.0 FeetMaterial PVCSlot Size .080 Set From 49.0 Feet to 249.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? HTH
☐ No, Why Not? _____
Lab to which water
quality sample sent for analysisWell Owner: NICK RISSE

Business Name: _____

Address: 23096 US HWY 281City, State, Zip: TUTHILL SD 57574

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
fine - med sand / med - coarse sand	2	130
clay	130	132
med - coarse sand / fine - med sand	132	176
sand w/ clay	176	208
fine - med sand	208	224
sand w/ clay - silt	224	246
red rock	246	260

STATIC WATER LEVEL 75.0 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

124.0 Ft. After 2.0 Hrs. pumped 1,250.0 GPM110.0 Ft. After 2.0 Hrs. pumped 1,000.0 GPMIf pump installed, pump rate: 900.0 GPM

REMARKS

This well was drilled under license # 189 and this report is true and accurate.Drilling firm: GROSCH IRRIGATION CO., INC.

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

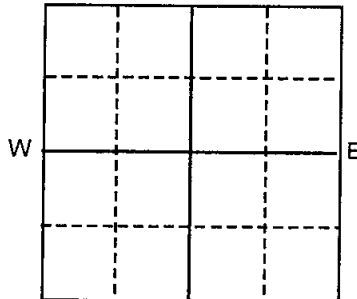
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE ¼ NE ¼ Sec 1 Twp 37 Rg 35

County BENNETT

North

Please mark well
location with an "X"

Well Completion Date

October 1, 2013

← 1 Mile →

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

PROPOSED USE:

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

METHOD OF DRILLING:

REVERSE ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
20.0 LB/FT	16.00 IN	1.0 FT	60.0 FT	28.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
CEMENT	50	15.5 Lb/gal	20.0 Ft	0.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
PUMPED TREMIE PIPE

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 16.00 Inches Length 160.0 Feet

Material PVC

Slot Size .080 Set From 60.0 Feet to 220.0 Feet

Other Information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? HTH

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

Well Owner: NICK RISSE

Business Name:

Address: 23096 US HWY 281

City, State, Zip: TUTHILL SD 57574

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
sand w/ clay	2	24
fine-med sand / med - coarse sand	24	78
sand w/ gravel	78	90
fine-med sand / med - coarse sand	90	164
fine - med sand	164	212
red rock	212	220

STATIC WATER LEVEL 76.0 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

124.0 Ft. After 2.0 Hrs. pumped 1,250.0 GPM

112.0 Ft. After 2.0 Hrs. pumped 1,000.0 GPM

If pump installed, pump rate: 900.0 GPM

REMARKS

This well was drilled under license # 189 and this report is true and accurate.

Drilling firm: GROSCH IRRIGATION CO., INC.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:



2706-2

**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 16, 2015

NOTICE

TO: NICK RISSE, 23096 US HWY 18, TUTHILL, SD 57574

FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2014 Irrigation Questionnaire(s)

Our records indicate your 2014 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 2706-2. The request for the Questionnaire was dated October 17, 2014. The Water Management Board has directed that owners of water permits who have not submitted the 2014 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) 2706-2 qualification:

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

The hearing will be held at **10:00 am, March 4, 2015** 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) 2706-2 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 4, 2015** 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.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 17, 2015

2706-2

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

I am writing to acknowledge receipt of your 2014 irrigation questionnaire.

You may disregard the January 16, 2015, "Notice" concerning reporting requirements for Water Permit No. 2706-2. 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

Permit No. 2706-2
Todd County

Report of Examination of Works and/or Application of Water to Beneficial Use

To: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, November 23, 2015 made a thorough examination of the water system used by Nick Risse, 23096 US Hwy 18, Tuthill, SD 57574, holder of Water Permit No. 2706-2, bearing the priority date of March 1, 2013. Water Permit No. 2706-2 authorizes the diversion of 4.44 cubic feet per second (cfs) or 1,992 gallons per minute (gpm) from two wells completed into the Ogallala aquifer for the purpose of irrigating 320 acres in Todd County as follows: 40 acres in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, 40 acres in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, 40 acres in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, 40 acres in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, 40 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, 40 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, 40 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, and 40 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, all in T37N-R35W.

I have the following conditions to report for the system in question:

- 1) Works used to divert water:
Two submersible pumps, manufactured by Grosch.
- 2) Works used to transport water to a place of use:
Underground and above ground pipes, 8 inch diameter.
- 3) Works used to apply water to beneficial use:
Two Valley Pivots.

The system is in the following condition: well maintained. The wells associated with Water Permit No. 2706-2 are located in the approximately centers of the NE $\frac{1}{4}$ and SE $\frac{1}{4}$ of Section 1, T37N-R35W. The exact locations of the wells are as follows:

- 1) **1,300 feet south and 1,300 feet west of the northeast corner of Section 1, T37N-R35W. Lat 43.21147N Lon 101.40033W. (North Well)**
- 2) **1,300 feet north and 1,300 feet west of the southeast corner of Section 1, T37N-R35W. Lat 43.20413N Lon 101.40040W. (South Well)**

The lands irrigated by the fore mentioned well are as follows:

- 1) 35 acres in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 2) 35 acres in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 3) 35 acres in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 4) 35 acres in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 5) 35 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 6) 35 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 7) 35 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, T37N-R35W.
 - 8) 35 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, T37N-R35W.
- For a total of 280 acres.**

License should be issued for the developed diversion rates of: **4.0 cfs or 1,800 gpm.**
Applicable permit qualifications have been complied with: **Yes**

Exceptions to compliance are: **None**
Date Report Completed: **December 3, 2015**

A handwritten signature in black ink, appearing to read 'Bracken Capen', with a stylized, sweeping flourish extending from the end of the name.

Bracken Capen
Natural Resources Engineer
DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR WATER PERMIT NO. 2706-2

DATE OF INVESTIGATION:	November 23, 2015
NAME & ADDRESS OF PERMIT HOLDER	Nick Risse 23096 US Hwy 18 Tuthill, SD 57574
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Nick Risse
DIVERSION POINT LEGAL LOCATIONS	1,300 feet south and 1,300 feet west of the northeast corner of Section 1, T37N-R35W. Lat 43.21147N Lon 101.40033W. 1,300 feet north and 1,300 feet west of the southeast corner of Section 1, T37N-R35W. Lat 43.20413N Lon 101.40040W.

WELL INFORMATION:

- 1) Well Drilling Firm:
Grosch Irrigation Co., Inc.
- 2) Number of Wells: **2**
- 3) Depth: **220 feet (North Well), 249 feet
(South Well)**
- 4) Well Logs Available: **Yes**
- 5) Comment:

Pumps

- 1) Make: **Grosch**
- 2) Model:
- 3) Size:
- 4) Capacity: **900 gpm (2.0 cfs)**

Casing

- 1) Diameter: **16 inches**
- 2) Length: **60 feet, 49 feet**
- 3) Type: **Plastic**

Screen

- 1) Type: **Perforated Pipe**
- 2) Length: **160 feet, 200 feet**
- 3) Static Water Level: **76 feet, 75 feet**

Motor

- 1) Make: **North American Electric**
- 2) Model No: **NAE-VHS-75-4-PWS (x2)**
- 3) Power: **75 hp (x2)**

System Type

- 1) Make: **Valley Pivot**
- 2) Overall length: **1,300 feet**
- 3) Number of Towers: **8 towers**
- 4) Distance Between Towers:
- 5) End Gun: **Yes**
- 6) Pressure:
- 7) Capacity: **900 gpm**

CHEMIGATION EQUIPMENT: Yes (x2)

- 1) Mainline Check Valve: **Yes**
- 2) Low Pressure Drain: **Yes**
- 3) Inspection Port/Air Relief: **Yes**
- 4) Discharge 20 Feet Away: **No**
- 5) Injection Line Check Valve or Positive
Displacement Pump: **Injection line
check valve**
- 6) Injection Check Valve: **Yes**
- 7) Properly Installed: **Yes, except the 20
foot hoses on discharge.**

PERMIT QUALIFICATIONS:

- 1) Special qualifications to permit being abided by: **N/A**
- 2) All structures, wells, and lands on map: **Yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by end of
construction period: **Yes, irrigated from 2014 to present.**

RECEIVED

DEC - 4 2015

WATER RIGHTS
PROGRAM**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date 12/1/2015

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

FROM: Nicholas Risse

(name)

23096 us Hwy 18

(address)

Tuthill ☒ SD ☒ 57574

(city, state, zip)

(605) 685-6032

(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. 2706-2 states that the water use system is to be constructed by 8/30/2013, and water is to be put to beneficial use by 5/1/2014.

(date)

(date)

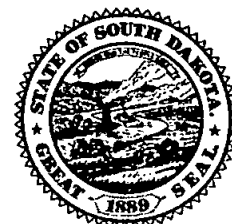
The water use system was completed on 10/1/2013.

(date)

Applying the water to beneficial use was completed on 5/1/2014.

(date)

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



Sec 35
T038N
R35W

Sec 36
T038N
R35W

Sec 31
T038N
R34W

35 36
2 1

Water Permit No. 2706-2

Bennett

Sec 2
T037N
R35W

Sec 1
T037N
R35W

NW 1/4 NE 1/4
Section 1
35 Acres

NE 1/4 NE 1/4
Section 1
35 Acres

North Well

SW 1/4 NE 1/4
Section 1
35 Acres

SE 1/4 NE 1/4
Section 1
35 Acres

Sec 6
T037N
R34W

NW 1/4 SE 1/4
Section 1
35 Acres

NE 1/4 SE 1/4
Section 1
35 Acres

South Well

SW 1/4 SE 1/4
Section 1
35 Acres

SE 1/4 SE 1/4
Section 1
35 Acres

Sec 11
T037N

Sec 12
T037N
R35W

Sec 7
T037N
R34W

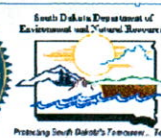
Legend

-  Irrigated_Acres
-  Section Boundaries - PLSS
-  Water Rights/Permits



0 0.075 0.15 0.3 Miles

Prepared by Bracken Capen
Natural Resources Engineer
DENR, Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

FEB 01 2016

2706-2

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

Enclosed is your Water License No. 2706-2. This is the final water right document completing your process of obtaining a water right. Included with the license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by your water right, 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.

In regard to the equipment used for applying chemicals and/or fertilizer through your irrigation system, the staff engineer found the system did not have a hose to allow for discharge at least 20 feet from the water source. Enclosed is a copy of Water Management Board rules dealing with chemigation. "Appendix A" shows the minimum requirements for the equipment. If after reading through the rules you have questions concerning placement of the equipment, please contact Ron Duvall with our program at 605 773-3352.

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

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 2706-2**

(1) Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 made Application No. 2706-2, March 1, 2013 for a water permit to divert 4.44 cubic feet of water per second from ground water – two wells (Ogallala Aquifer), Todd County, South Dakota for irrigation purposes. Permit No. 2706-2, with a priority date of March 1, 2013 was approved May 28, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 28, 2018 and for the application to beneficial use of said water on or before May 28, 2022.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" indicating the water use system was completed in October, 2013 and the water placed to beneficial use in May, 2014.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 4.00 cubic feet of water per second for beneficial use. The location of the diversion points are:

- 1,300 feet south and 1,300 feet west of the NE corner of Section 1, T37N, R35W (approximate center of the NE $\frac{1}{4}$);
- 1,300 feet north and 1,300 feet west of the SE corner of Section 1, T37N, R35W (approximate center of the SE $\frac{1}{4}$).

(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:

T37N, R35W Section 1	NW $\frac{1}{4}$ NE $\frac{1}{4}$	35 acres	NW $\frac{1}{4}$ SE $\frac{1}{4}$	35 acres
	NE $\frac{1}{4}$ NE $\frac{1}{4}$	35 acres	NE $\frac{1}{4}$ SE $\frac{1}{4}$	35 acres
	SE $\frac{1}{4}$ NE $\frac{1}{4}$	35 acres	SE $\frac{1}{4}$ SE $\frac{1}{4}$	35 acres
	SW $\frac{1}{4}$ NE $\frac{1}{4}$	35 acres	SW $\frac{1}{4}$ SE $\frac{1}{4}$	35 acres

Total 280 acres

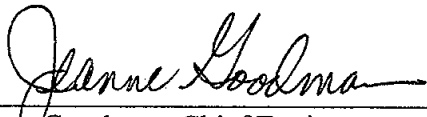
(4) Pursuant to South Dakota Water Law 46-5-30.1 Nick Risse, 23096 US Hwy 18, Tuthill SD 57574 the holder and/or owner of Water Right No. 2706-2 is issued a license to appropriate water, the right to use 4.00 cubic feet of water per second from ground water – two wells (Ogallala Aquifer) with a priority date of March 1, 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. 2706-2 and subject to the following qualifications:

- 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.

continued

- The wells authorized by Permit No. 2706-2 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. ***Both wells were completed by Grosch Irrigation Co. Inc. in October, 2013. Copies of the well logs are on file with the Water Rights Program.***
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

FEB 01 2016

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

2706-2

July 19, 2017

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

On July 19, 2017, a staff member from the Department of Environment and Natural Resources (DENR) observed overspray from the irrigation system located in the NE 1/4 Sec 1-T37N-R35W onto the adjacent east/west road (see attached photo). This irrigation system is covered by Water Right No. 2706-2.

It is common for center pivots to have stops which are used to shut off the end gun when the pivot nears a road. Please take steps to insure end gun stops are functioning properly so there is not direct overspray on to the road.

A water right holder is not allowed to waste water or operate an irrigation system in violation of state water law, which includes end gun overspray upon lands, including roadways, not authorized by the water right. Application of water to a roadway or unauthorized lands is a waste and unreasonable use of water pursuant to SDCL 46-1-4.

If you don't believe this irrigation system is causing the overspray, or if you have any questions, please contact me at (605) 773-3352 or by email at eric.gronlund@state.sd.us.

Thank you for your cooperation,

Eric Gronlund
Water Rights Program, DENR
605 773-3352

enclosure

Overspray Report

Date and Time of Picture: July 19, 2017 7:43 AM (Mountain)

County: Bennett

Water Right/Permit No.: 2706-2

Reported By: Rapid City Water Rights Program Seasonal Well Technician



Irrigation Overspray Documentation

Date: 7/19/2017 **Time:** 7:43 am MTN

Take a picture with your tablet; try to show road and end of pivot.

Direction facing in picture: N ☒ E W S NW SW NE SE

Location (gps from tablet): 43.215, -101.400

Location (nearest intersection & direction and distance): Highway 18 and 237 Ave, 1 mile west
Can also take a screenshot of your map by pressing (at the same time) power and volume up and can then attach screenshot to e-mail of picture (make sure your blue dot shows up in the correct location)

Windy: ☒ Yes ☐ No

Notes: GPS and location description match. Based on picture location and direction, the pivot is located in the NE ¼ Sec. 1-T37N-R35W (see map) this matches to Water Right No. 2706-2.





2706-2

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 26, 2018

NOTICE

TO: NICK RISSE, 23096 US HWY 18, TUTHILL, SD 57574

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2017 Irrigation Questionnaire(s)

Our records indicate your 2017 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 2706-2. The request for the Questionnaire was dated October 20, 2017. The Water Management Board has directed that owners of water permits who have not submitted the 2017 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) 2706-2 qualification:

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

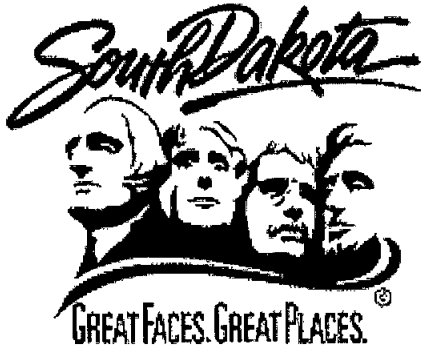
The hearing will be held at **Wednesday, March 7, 2018 at 10:00 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant 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) 2706-2 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 7, 2018** 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.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 7, 2018

2706-2

Nick Risse
23096 US Hwy 18
Tuthill SD 57574

Dear Mr. Risse:

I am writing to acknowledge receipt of your 2017 irrigation questionnaire.

You may disregard the January 26, 2018, "Notice" concerning reporting requirements for Water Right No. 2706-2. 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,

A handwritten signature in black ink that reads 'Genny McMath'.

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