

WATER PERMIT NO. 8322-3

Name of Applicant: Shaun Guthmiller

Address: 1700 St John St, Yankton SD 57078

Phone: 605 857-077-5221

Amount of Water Claimed: 1.11 cfs

Total Acres: 36

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Yankton

Type of Waste Disposal System:

Location: 1 miles east of Yankton

PRIORITY

Date Received: 8-16-17

Application/License Fee: \$ 700

Corrected Application Received: 12-7-17

Period of Annual Use: April 15- Sept 15

Remarks: Requesting diversion rate greater than statutory limit

Diversion Point: SW 1/4 SW 1/4 Sec 11-T93N-
R55E

Land to be Irrigated: SE 1/4 SE 1/4 Sec 10 and
SW 1/4 SW 1/4 Sec 11; all in T93N-R55W

Depth of Well: ¹²⁰
~~91~~ feet

Well Driller: Christensen Well Drilling

Remarks:

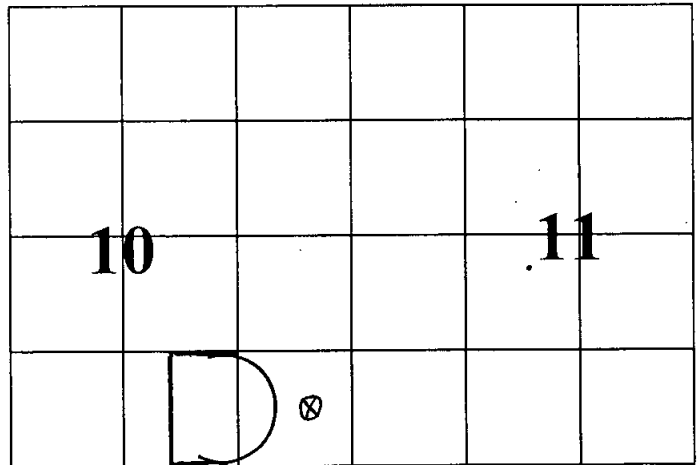
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-7-17

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 8322-3**

Date of first receipt of application August 16, 2017.

Date of return to applicant for corrections, amendments or changes August 16, 2017.

Date of receipt of corrected application December 7, 2017.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8322-3 to Shaun Guthmiller, 1700 John St, Yankton SD 57078 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. 8322-3 appropriates 1.11 cubic feet of water per second (cfs) from one well completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 11 for irrigation of 36 acres located in the SE 1/4 SE 1/4 Section 10 and SW 1/4 SW 1/4 Section 11; all in T93N-R55W which is approximately 1 mile east of Yankton SD.
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: April 15 through September 15.
3. The date from which applicant may claim right is December 7, 2017.
4. The date of approval of Permit No. 8322-3 is March 5, 2018.
5. One-fifth of the construction is to be completed on or before September 5, 2020.
6. All construction is to be completed on or before March 5, 2023.
7. Water is to be put to beneficial use on or before March 5, 2027.
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 Permit No. 8322-3 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. 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. 8322-3 authorizes a maximum diversion rate of 1.11 cfs for the irrigation of 36 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
3. 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

MAR 19 2018

date



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AUG 16 2017

WATER RIGHTS
PROGRAM

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8322-3</u> (office use only) Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri River</u>
	Newspaper <u>Press & Dakotan</u>

Application For Permit To Appropriate Water For IrrigationType 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 Shawn Guthmiller
 Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.
- Mailing Address 1700 John St Yankton SD 57078
 (Address) (City) (State) (Zip Code)
- Phone _____ Mobile 605-852-0725 Email shawn.guthmiller@gmail.com
2. Amount of water claimed 1.11 *CFS or 500 **GPM _____ ***AF Total Acreage 36 Acres
 (*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Well on East property line
4. Location of point of diversion SW 1/4 SW 1/4
 (example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
East side Sec 11 93N R55W County Yankton
5. County or counties where water will be used Yankton
6. Annual period during which water is to be used April 15 through Sept 15
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
West half section 11	36		
93N 55W			
SE 1/4 SE 1/4 Sec 10	22		
SW 1/4 SW 1/4 Sec 11	14		

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

Requesting diversion rate greater than statutory limit.

I, Shawn Guthmiller operator, the applicant, certify under
 Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

Supplemental Information

(type or print)

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1. Well Information

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

a) If new wells, how many 4 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Christenson well 1960's

For either Existing or Proposed Wells:

c) Well Depth (required) 100 ft Depth to Top of Water Bearing Material 20 ft Depth to Water from Surface 10

d) Distance to nearest domestic well on applicant's property — Property owned by others 1/4 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)

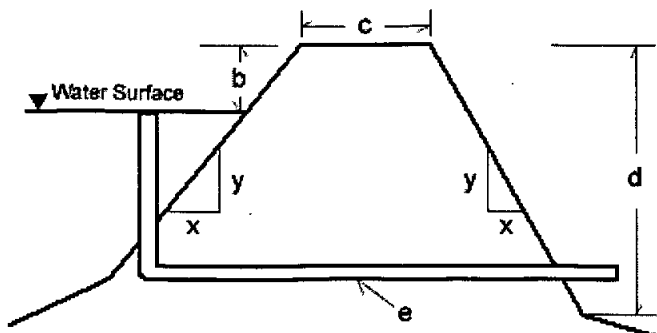
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

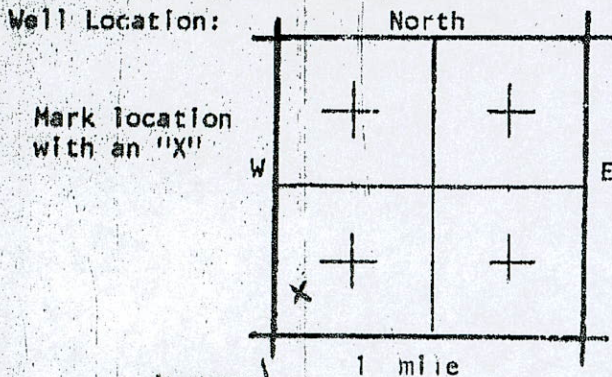


WELL DRILLERS REPORT
SOUTH DAKOTA WATER RIGHTS COMMISSION

4-78

Well Owner:
Name BILL CONKLING
Address 1216 DOUGLAS YANKTON S.D.

Water Level Information:
Static water level 15' below land surface
If flowing: closed in pressure _____ PSI
rate of flow _____ GPM
Controlled by:
☒ Valve ☐ Reducers ☐ Other
If other; specify _____



Well Test Data:
☒ Pumped INSTALLED 6" SUBMER-
☐ Bailed Describe: SINGLE PUMP TO TEST
☐ Other PUMP
Pumping Level Below Land Surface
31 ft. After 4 Hrs. pumped 250 GPM
" " " " " "
" " " " " "

Proposed Use:
☐ Domestic ☐ Municipal ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:
☐ Forward Rotary ☐ Bored ☐ Jetted
☒ Reverse Rotary ☐ Cable ☐ Other

Well Construction:
Diameter of Hole 20"
Depth 91'
Casing ☐ Steel ☐ Concrete

Well Log:

Formation	Depth	
	From	To
TOP SOIL	0	3
CLAY	3	8
FINE SAND WITH CLAY	8	30
SAND + GRAVEL	30	42
BLUE SILTY CLAY	42	80
SAND + GRAVEL	80	97
BLUE SILTY CLAY	97	108
BLUE SILTY CLAY	108	87
BLUE SILTY CLAY		
VERY COARSE GRAVEL	108	120

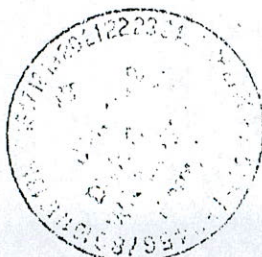
(Use Back if Necessary)

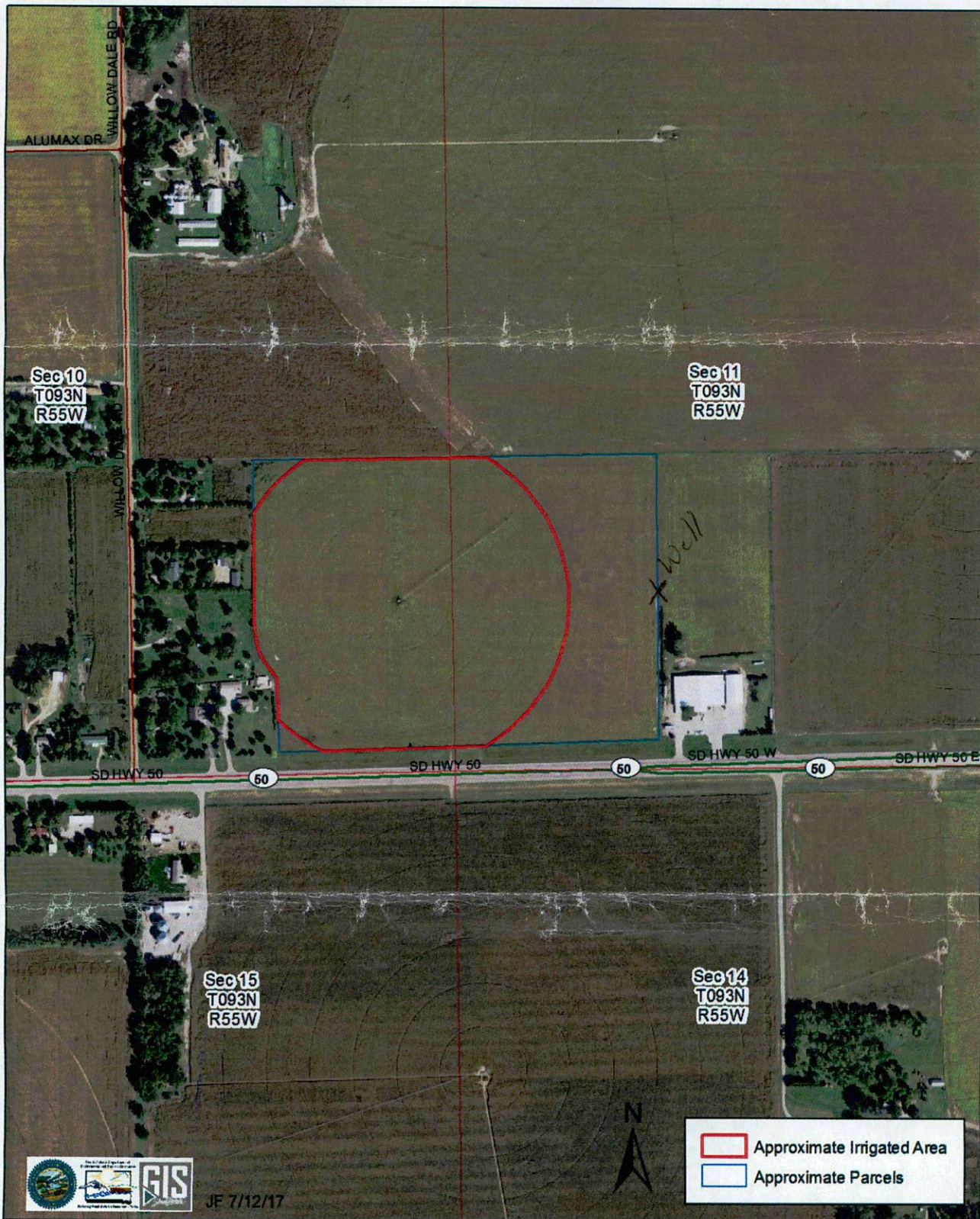
Was casing 91' casing NO
Was a 30' screen per YES
Description inspection of 4759-3 TRANSITE
Diameter 20" YES
Size 91' NO
Was well YES
Was well NO
Was water sample taken YES

Date Completed: JULY 81

Driller: CHRISTENSEN WELL CO. 444
Driller's or Firm's Name License NO.
RR#1 S. HWAY 15
Address HARTINGTON, NE 68739
William J. Christensen 12/17/81
Signed By Date

Remarks:





RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date December 7, 20 17

RECEIVED OF Shaun Guthmiller 1700 John St Yankton 57078

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

Fee for Application for Permit No. <u>8322-3</u> to Appropriate Water, to construct and to put water to beneficial use	350	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>8322-3</u>	100	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	350 00

No. **08383**

By

Jeanne Goodman

Chief Engineer

246

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date December 7, 2017

RECEIVED OF Ryan Guthmiller 1700 John StrYankton 57078

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

Fee for Application for Permit No. <u>8322-3</u> to Appropriate Water, to construct and to put water to beneficial use	250	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>8322-3</u>	100	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	350	00

No. 08384

By

Jeanne Goodman
Chief Engineer

2m

Diane Guthmiller
1700 John St
Yankton, SD 57078

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DEC 07 2017

**WATER RIGHTS
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December 1, 2017

Karen Schlaak
Water Rights Program
Dept. of Environment and Natural Resources
Joe Foss Building 523 East Capitol
Pierre, SD 57501-3182

Dear Ms. Schlaak:

Enclosed is the payment of \$700.00 for the application/license fee for irrigation of 36 acres.

Per your request, I would like to explain our situation. My father Donald L. Bingham owned the land, after his passing the estate granted (2016) the land to me, Diane Guthmiller. My sons, Shaun and Ryan Guthmiller farmed the land with my father and continue to farm the ground. The irrigation's installation was when my father was alive. The water is from a well owned by Daniel Conklin the landowner to the east. We asked to purchase the well but Dan wanted the area incase his business would expand (Conklin Distributing). We prefer to keep our water arrangement, Mr. Conklin has been extremely generous with the use of his well, and we manage and own the pump.

Thank you for your time.

Sincerely,


Diane Guthmiller



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

July 13, 2017

Diane Guthmiller
1700 John St
Yankton SD 57078

Ms. Guthmiller,

On July 10, 2017, the Department of Environment and Natural Resources (DENR) was contacted regarding observed overspray from an irrigation system just east of Yankton and located in the E ½ SE ¼ SE ¼ of Section 10 and in the W ½ SW ¼ SW ¼ Section 11, both in T93N, R55W. The Yankton County Register of Deeds was able to assist us in identifying you as the owner of these parcels. I have included a map showing the acreage in question.

Prior to contacting the Register of Deeds, I reviewed our databases that the DENR maintains for irrigation permits and was unable to find an irrigation permit for these parcels. Please contact us if you believe a water permit is in place for these acres or if this is not land that you own. If a permit is not in place and this is your land, enclosed are application forms to file for a permit to irrigate.

Water in South Dakota is property of the people of this state, and as such, the state water law requires a permit to use water anytime it is put to a beneficial use beyond the typical domestic use.

As far as the overspray issue, it is common for center pivots to have stops which are used to shut off the end gun when the pivot nears the edge of the field. Please take steps to ensure that the end gun stops are functioning properly so there is not direct overspray onto the road, right of way, or other property. Application of water to these areas is a waste of water.

Aerial imagery of the land shows that the irrigation system was installed between 2012 and 2014. We also do not have a record of the well being drilled for the irrigation system. Well drillers who drill wells in South Dakota are required to be licensed and to submit a water well completion report for every well they drill. If you have a copy of the water well completion report, or the name of the well driller, we would appreciate receiving any information that you have on the well.

If you don't believe this irrigation system is causing the overspray, or if you have any questions regarding needing to obtain a water permit, 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

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

August 16, 2017

Shaun Guthmiller
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

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

- The application/license fee for irrigation of 36 acres is \$700.00.

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

October 24, 2017

Shaun Guthmiller
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

On August 16, 2017, you submitted *an Application for Permit to Appropriate Water Within the State of South Dakota* for an existing irrigation system. A letter was sent requesting the application/license fee of \$700.00 for irrigation of the 36 acres.

As of today, we have not received the fee. Once the fee is received we will proceed with your application so a water permit is in place for this existing system prior to the 2018 irrigation season.

If you have any questions, please contact me.

Sincerely,

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

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8322-3, Shaun Guthmiller**

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. 8322-3, Shaun Guthmiller, Operator, 1700 John Street, Yankton SD 57078.

The Chief Engineer is recommending APPROVAL of Application No. 8322-3 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 Permit No. 8322-3 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. 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. 8322-3 authorizes a maximum diversion rate of 1.11 cfs for the irrigation of 36 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
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
February 9, 2018

REPORT TO THE CHIEF ENGINEER

Water Permit Application No. 8322-3

Shaun Guthmiller

February 5, 2018

Water Permit Application No. 8322-3 proposes to appropriate water for irrigation of 36 acres located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 11 and SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 10; T93N-R55W. These acres will be supplied using water from an existing irrigation well (120 feet deep) that was originally authorized under the now cancelled Water Right No. 4759-3 and is completed into the Elk Point management unit of the Missouri aquifer. The well that was authorized under Water Right No. 4759-3 currently has a pump installed that will produce 500 gallons per minute (1.11 cubic feet per second) and is located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 11 T93W-R55W.

This application is a result of an investigation into an overspray complaint where it was discovered that the irrigation system was unpermitted. The well is currently owned by Daniel Conklin, who held Water Right No. 4759-3, and the pump is owned by the applicant. Water Permit application 8322-3, if approved, will authorize a total maximum diversion rate of 1.11 cfs from one well for the irrigation of 36 acres in Yankton County, SD. The applicant is requesting a diversion rate greater than the statutory limit

AQUIFER: Missouri: Elk Point (M:EP)

HYDROGEOLOGY

The Elk Point management unit of the Missouri aquifer consists of unconsolidated glacial outwash deposits composed of materials ranging from fine sand to very coarse gravel (Niehus, 1994; Stephens, 1967). The Missouri: Elk Point aquifer in South Dakota is located in Yankton, Clay, and Union Counties, underlying the flood plains of the Missouri and Big Sioux Rivers. Hedges et al. (1982) estimated the areal extent of the aquifer to be 219,100 acres, with 3,287,100 acre-feet of recoverable water in storage. The movement of groundwater within the aquifer is generally from the northwest to the southeast, and towards the Missouri River (Stephens, 1967). The Missouri: Elk Point aquifer is hydraulically connected to the Lower Vermillion Missouri and Lower James Missouri aquifers, and the Missouri, Vermillion, and Big Sioux Rivers (Niehus, 1994; Stephens, 1967).

Hydrologically, the Elk Point management unit can be found under both confined and unconfined conditions. Near the edge of the floodplain, the Missouri: Elk Point is overlain by relatively impermeable glacial till (Niehus, 1994; Stephens, 1967). The well log for the existing well shows that at this location, the aquifer is under confined conditions and is directly overlain by 21 feet of clay followed by alternating units of sand and gravel, and clay (Water Rights, 2018b). At the time of completion in July 1981, the static water level in this well was 15 feet below ground surface.

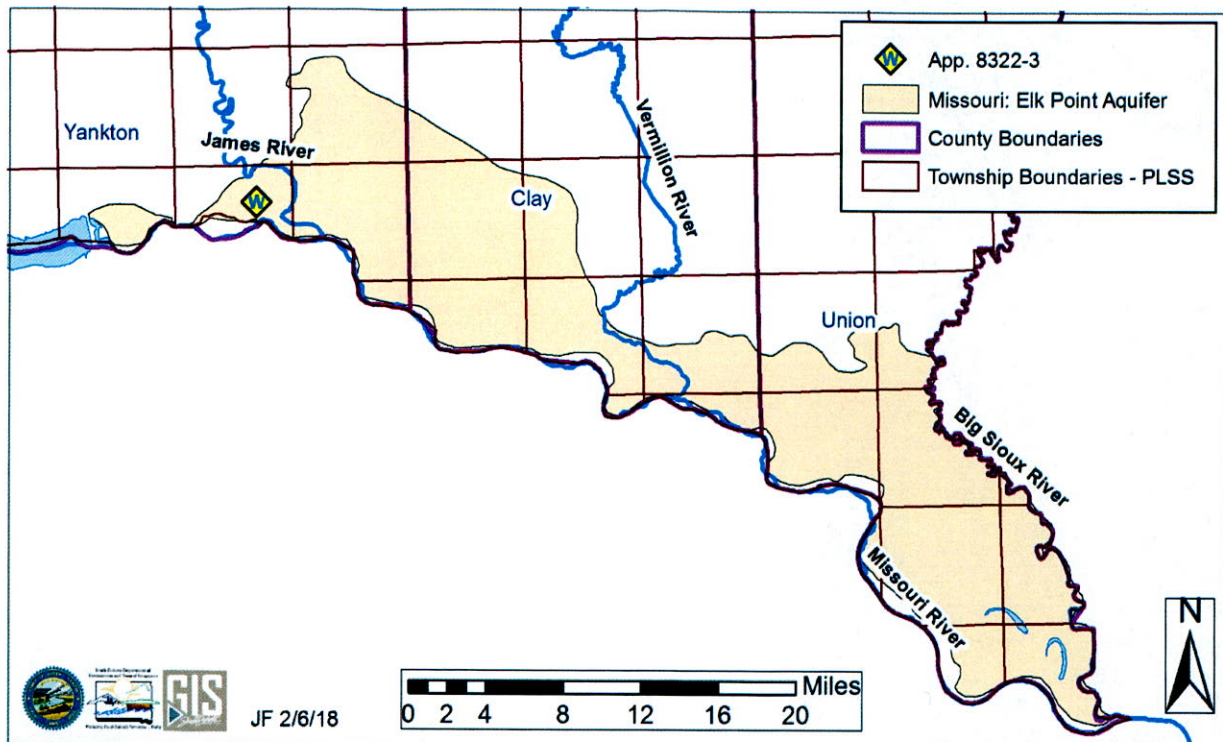


Figure 1. Map showing the location of the proposed diversion and Missouri: Elk Point aquifer boundaries as shown from Hedges et al. (1982).

South Dakota Codified Law 46-2A-9

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

WATER AVAILABILITY

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable 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 than or stratigraphically lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not take into consideration the balance of aquifer recharge and withdrawal. Here, the water source is not older or lower than the Greenhorn Formation and a water distribution system is not involved. Therefore, the balance of withdrawal and recharge must be considered.

Hydrologic Budget

Recharge

Recharge to the Missouri: Elk Point aquifer occurs through infiltration of precipitation, inflow from the Lower Vermillion-Missouri aquifer, leakage from the Dakota aquifer, and inflow from

surface water (Bugliosi, 1986; Niehus, 1994; Stephens, 1967). From analysis of data from 20 observation wells, Hedges et al. (1985) estimated the recharge to the unconfined portions of the Missouri: Elk Point aquifer to be 3.8 inches per year. The areal extent of the Missouri: Elk Point aquifer is 219,100 acres (Hedges et al, 1982), resulting in an estimated recharge to the aquifer of approximately 69,382 ac-ft/yr. By using observation well data, the data represents both withdrawals from and recharge to the aquifer, as they occur simultaneously. When the recharge is greater than discharge, this method produces a lower than actual recharge rate. The same holds true when discharge is greater than recharge, the calculated discharge rate is lower than the actual discharge rate.

The wells for the Lewis and Clark Rural Water System induce recharge from the Missouri River, and Stonesifer (2013) estimated that this amount is at least 50% of their total pumpage. Assuming all of their wells are similar in location with regards to the Missouri River, and the Lewis and Clark RWS uses their full appropriation (current permits and reserved future uses), the Missouri: Elk Point aquifer would gain at least 22,582 ac-ft/yr through induced recharge. Other water rights/permits within the Missouri: Elk Point aquifer may also induce recharge from the Missouri, Vermillion, James, or Big Sioux Rivers, although this amount has not been quantified.

Combining the estimated recharge of Hedges et al (1985), and the induced recharge for the current appropriations of the Lewis and Clark Rural Water System, the estimated average annual recharge to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr.

Discharge

Discharge from the Missouri: Elk Point aquifer occurs through well withdrawals, evapotranspiration from areas where the aquifer is near the land surface, and outflow to the Missouri and Big Sioux Rivers (Bugliosi, 1986; Niehus, 1994; Stephens, 1967). Currently, there are 614 Water Rights/Permits appropriating water from the Missouri: Elk Point aquifer (Water Rights, 2018a). Table 1 shows a summary of non-irrigation Water Rights/Permits with their appropriation and estimated annual expected use. The amount of water that can be expected to be withdrawn can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually, water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and future use permits will be fully developed.

Table 1: Summary and expected use of non-irrigation water rights/permits including future use permits (Water Rights, 2018a)

Use Type	No. of Water Rights/Permits	Appropriation (ac-ft)	Appropriation (cfs)	Expected Use (ac-ft)
RWS	4	45,165		45,165.00
SHD	2		0.199	86.50
REC	1	393.3		393.30
COM	10	637	1.539	1,305.96
DOM	2		2.780	1,208.38
IRR*	1	2		2
FWP	4		9.430	4,098.94
IND	5		0.878	381.64
MUN	12	9,111	11.662	14,180.12
Total	41	55,308	26.49	66,821.04
RWS = Rural Water Supply, SHD = Suburban Housing Development, REC = Recreation, COM = Commercial, DOM = Domestic, IRR*=Irrigation (not required to submit irrigation questionnaire), FWP = Fish & Wildlife Propagation, IND = Industrial, MUN =Municipal				

Several of the non-irrigation water rights/permits are required to report their annual water use from the Missouri: Elk Point aquifer. Two of these are recent permits and their systems are considered to be in development. The remaining water rights/permits and their reported water usage from 2006 to 2016 are shown in Table 2.

Table 2: Reported annual water use in acre-feet from non-irrigation water rights/permits for the years 2006 to 2016 (Water Rights, 2018a)

	Clay RWS	Lewis & Clark RWS	City of Vermillion
	5998A-3, 7388-3	6736-3, 7207-3	147-3, 6236-3
2006	170		1,252
2007	217		1,344
2008	213		1,199
2009	215		1,140
2010	183		1,071
2011	137	92	1,127
2012	525	3,836	1,317
2013	301	9,368	1,183
2014	307	11,532	1,121
2015	278	15,591	1,161
2016	231	17,091	1,175
Max	525	17,091	1,344
Min	137	92	1,071
Average	252.5	9,585	1,190

The reported usage for these non-irrigation permits shows that the usage for the City of Vermillion has remained steady over these years. Water Right 147-3 has a diversion rate of 2.66 cfs and Water Right 6236-3 is limited to an annual volume of 1,161 ac-ft. Combined, these two water rights are estimated to use 2,315 ac-ft/yr, however the average actual reported usage is 1,190 ac-ft/yr. The Clay RWS added Water Permit 7388-3 to their system in 2012, so the expected usage from their permits is greater than the average shown. The Lewis & Clark RWS is still under development and the usage will continue to grow. Using the average actual reported use from the City of Vermillion, instead of the appropriated amount, reduces the expected use from non-irrigation water rights/permits by 1,125 ac-ft/yr to 65,696.84 ac-ft/yr.

There are a number of domestic wells on file that withdraw water from the Missouri: Elk Point aquifer, however the magnitude of their withdrawals is small, and since the introduction of rural water systems, many of these wells may no longer be in use (Water Rights, 2018b). The annual quantity of water withdrawn for domestic uses is considered to not be significant to the hydrologic budget of the aquifer.

Irrigation data from 2016 shows that there were 566 water rights/permits that were permitted for irrigation (Water Rights, 2018d). These water rights/permits appropriated 190,934.28 acre-ft of water in 2016, however the actual usage is much less. Stonesifer (2013) analyzed the irrigation data from 1979 to 2012, and determined that from 1979 to 2006, the appropriated amount of water in the Missouri: Elk Point aquifer remained steady. After 2006, the total appropriation increased due to a number of factors. Stonesifer developed a method to estimate the average annual use from irrigation even as the numbers of water rights/permits were increasing. Using the period of 1979 to 2006, and calculating the pumpage and the appropriations for each year, a ratio of pumpage to the appropriation was developed. This ratio showed that 13.7% of the appropriated amount of water for irrigation was the average annual usage for irrigation. This method works well for estimating usage only when the appropriation per permitted acre remains constant, however in 1978, the appropriation that was permitted per acre was reduced from 3 ac-ft to 2 ac-ft for new permits. Over the years as new permits have been issued and older permits are canceled, the average appropriation per permitted acre has gradually decreased from 3 ac-ft in 1977, to 2.38 ac-ft in 2016.

Modifying Stonesifer's method (2013), the total number of acres permitted for irrigation was looked at for each year. Data from the irrigation questionnaires was updated to reflect permits that have had their identified aquifer changed. Water rights/permits Nos. 2925-3, 3070-3, 3109-3, and 3399-3 were previously identified as being in other aquifers. Prior to being identified as M:EP, the irrigation questionnaires were submitted under other aquifers; this data was added to this analysis. Water rights/permits Nos. 1434-3, 2550-3, 4246-3, 4651-3, 4896-3, and 5524-3 were all identified at one point as being in the M:EP, however they are no longer identified as M:EP and were removed from this analysis. Figure 2 shows the acres permitted for irrigation from 1979 to 2016 and the yearly total reported pumpage for the irrigation permits.

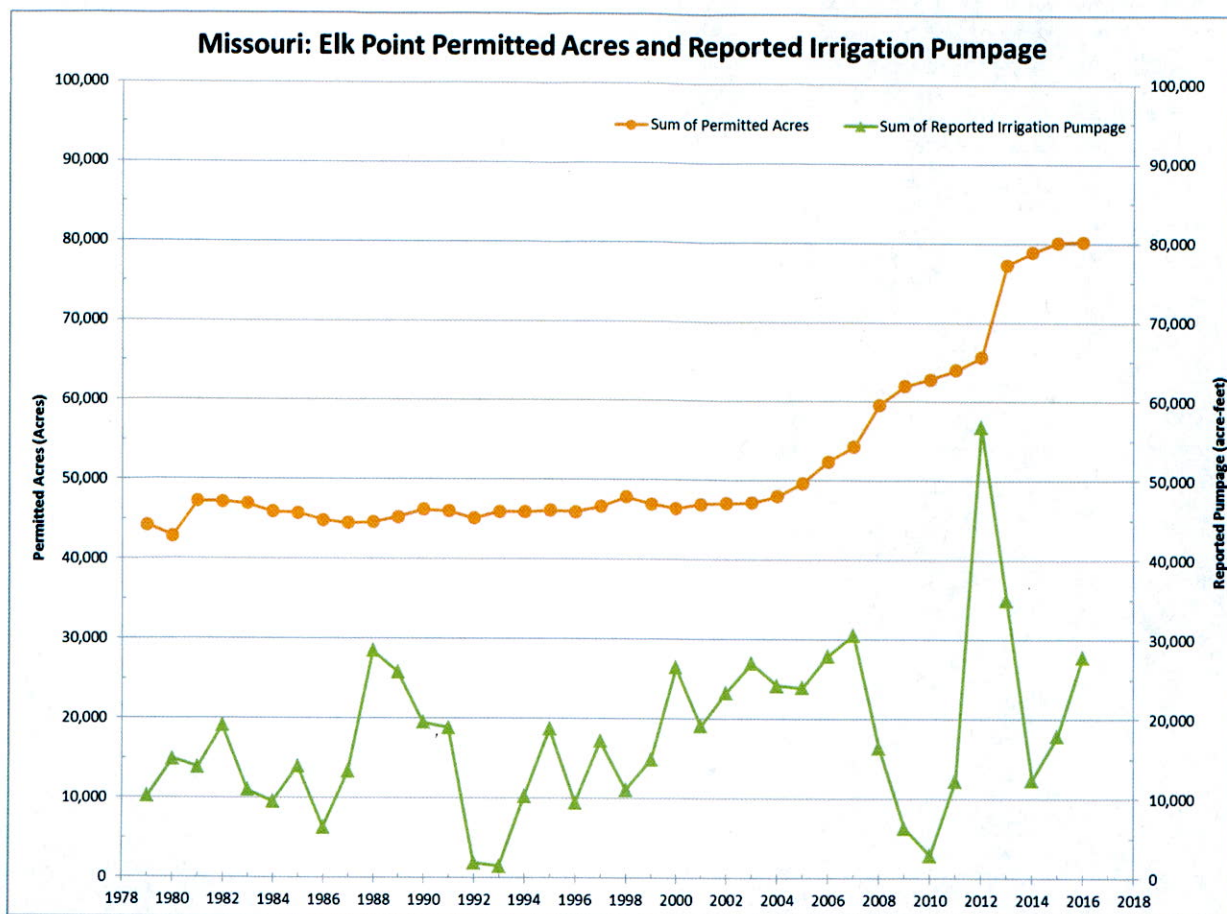


Figure 2: Acres permitted for irrigation and reported irrigation pumpage (Water Rights 2018a, Water Rights 2018d)

The period from 1979 to 2005 was fairly steady in terms of permitted acres for irrigation. The average from 1979 to 2005 is 46,273 acres. Over this time period, the average reported irrigation pumpage was 16,072 acre-ft and results in an average application rate on all acres permitted for irrigation of 0.35 ft (a little less than 4.2 inches). Using all of the available years of irrigation questionnaires, 1979 to 2016, the averages are 52,298 permitted acres and 17,905 ac-ft of pumpage, resulting in an average application rate of 0.34 ft (4.1 inches).

In 2016, there was a total of 80,279.54 acres permitted for irrigation. Between the 2016 irrigation season and January 2018, a total of 7 permits for irrigation have been approved with a total of 676 permitted acres. The total permitted acres for irrigation is 80,995.54 acres. Applying the average application rate of 0.35 ft on the permitted acres results in an estimated average annual use for irrigation purposes of 28,348 acre-feet per year.

Hydrologic Budget

The estimated withdrawals from the Missouri: Elk Point aquifer are 65,696.84 ac-ft/yr from non-irrigation users, and 28,348 ac-ft/yr from irrigation. Including an estimated 12.6 ac-ft/yr from this application, the estimated average annual withdrawal from the Missouri: Elk Point aquifer is 94,057.44 ac-ft/yr.

The estimated annual recharge to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr. This estimated annual recharge does not include the recharge induced by well withdrawals aside from Lewis and Clark RWS; the actual recharge is likely to be greater than 92,000 ac-ft/yr. The estimated annual withdrawals equate to roughly three percent of the available water in storage. Due to the relatively small development of this large resource and the ability to induce recharge to the aquifer from nearby bodies of surface water, there is a reasonable probability there is unappropriated water available from the Missouri: Elk Point aquifer for the proposed appropriation.

Observation Well Data

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on the record of observation well measurements, in addition to other data, to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated annual recharge.

The Water Rights Program monitors 37 observation wells completed in the Missouri: Elk Point aquifer (Water Rights, 2018c). The nearest observation well is YA-57D, located approximately 1.7 miles east-northeast of the well location. As shown in Figure 3, the location of this application is within eight miles of several other observation wells. By using these other observation wells in this analysis, an idea of how the water table reacts to local pumping and regional climatic conditions can be obtained. The other nearby observation wells that were analyzed include YA-79H (2.8 miles), YA-78J (3.9 miles), YA-57E (6.2 miles), YA-80JA (6.2 miles), YA-78F (7.1 miles), and YA-80KA (7.5 miles).

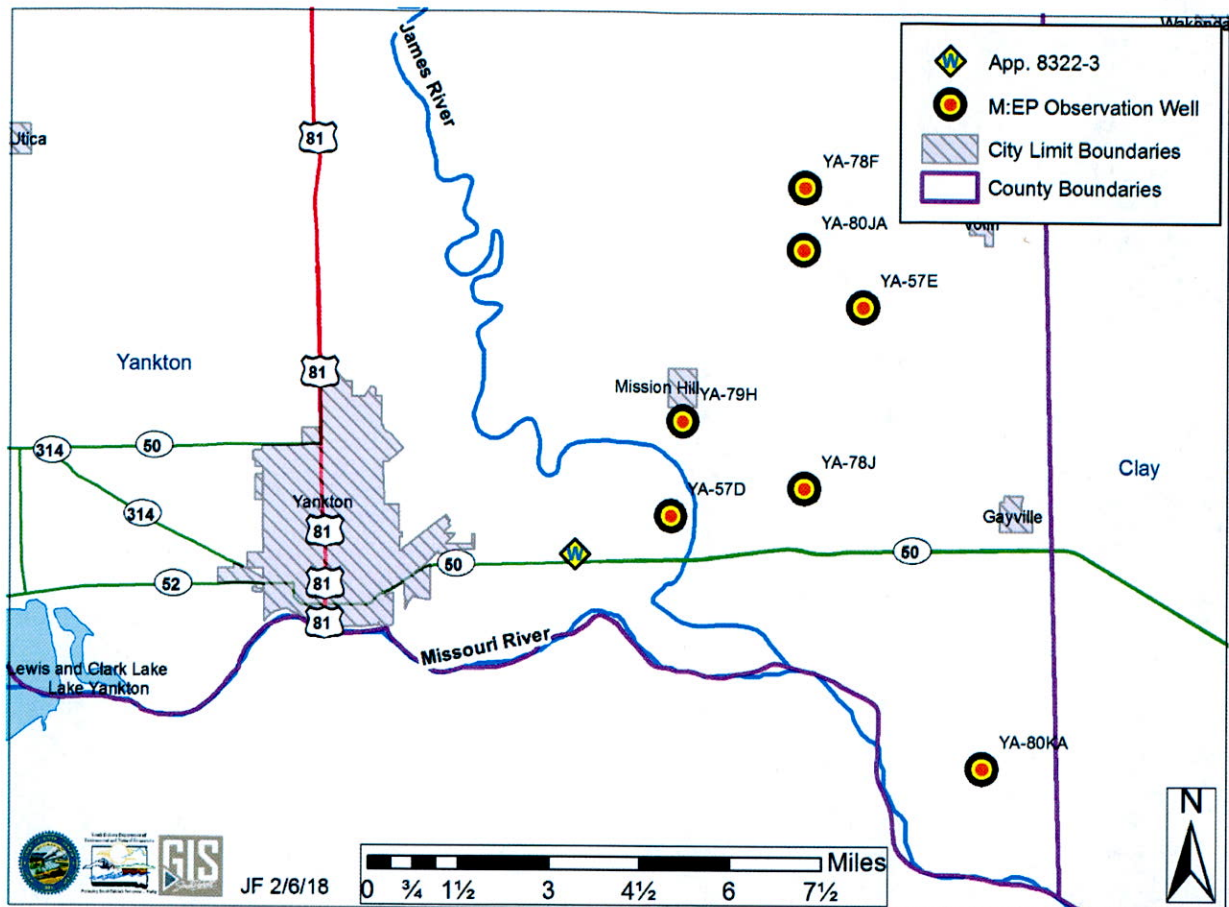


Figure 3. Map showing the location of nearby observation wells in the Missouri: Elk Point aquifer (Water Rights, 2018a; Water Rights, 2018c)

The hydrographs for the observation wells in Figure 3 are shown in Figure 4. These observation well hydrographs are representative of the Missouri: Elk Point aquifer. The hydrographs show that the aquifer responds well to hydrologic conditions, recharging during wetter periods and declining during drier periods. The hydrographs of the Missouri River (Figure 5 and 6) generally show the same peaks, rising periods, and declining periods as the hydrographs of the Missouri: Elk Point aquifer, indicating that the aquifer is hydraulically connected to the Missouri River. Observation wells YA-57E, YA-78J, and YA-79H are under confined conditions, and the four others shown are under water table conditions. Figure 5 is the hydrograph of the Missouri River at Sioux City, Iowa, approximately 40 miles downstream from the USGS stream gage Missouri River near Maskell, Nebraska (Figure 6), which is approximately 22 miles downstream from Yankton, SD. There are slight differences between these hydrographs as the confluences of the Vermillion and Big Sioux Rivers are located between these gages. Due to the availability of information, Figure 5 shows discharge, whereas Figure 6 shows gage height. The peaks on these hydrographs generally do not correspond with local precipitation events, as in the case of the peak in 2011, which was generated from the effects of snowmelt and rainfall far upstream and the controlled release of water from upstream dams. The observation well measurements show that the effects from pumping are temporal, and that the aquifer generally returns to pre-pumping conditions.

There is a downward trend in these observation wells due to the construction of the Gavins Point Dam in Yankton, SD. The Missouri River is entrenching below the dam, lowering the water surface elevation of the river (Goodman, 2007; Iles, 1979). Entrenchment of the Missouri River does not reflect the availability of water, and the downward trend does not show that the Missouri: Elk Point aquifer is over appropriated. The observation well data indicates that there is a reasonable probability that there is unappropriated water available from the Missouri: Elk Point aquifer.

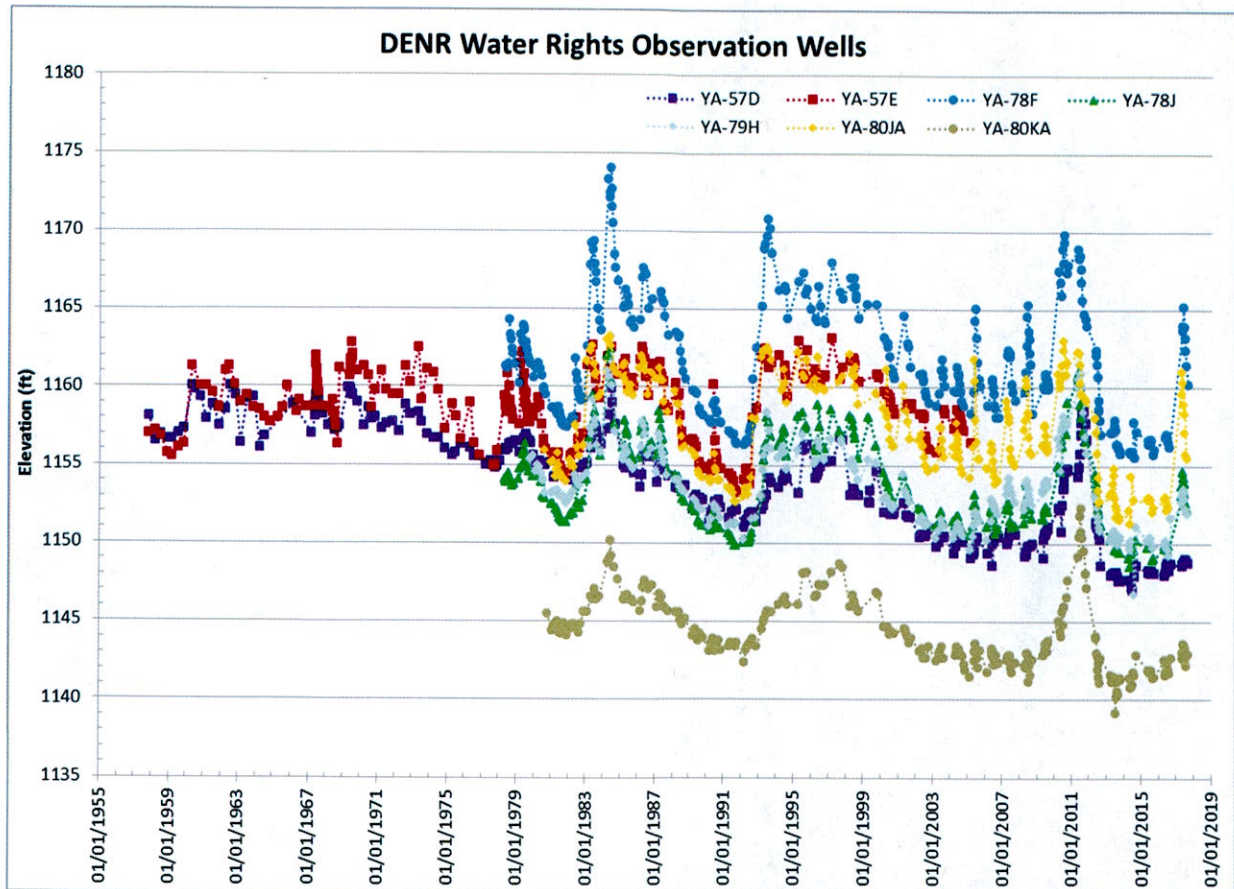


Figure 4: Hydrographs for Observation Wells YA-57D, YA-79H, YA-78J, YA-57E, YA-80JA, YA-78F and YA-80KA (Water Rights, 2018c)

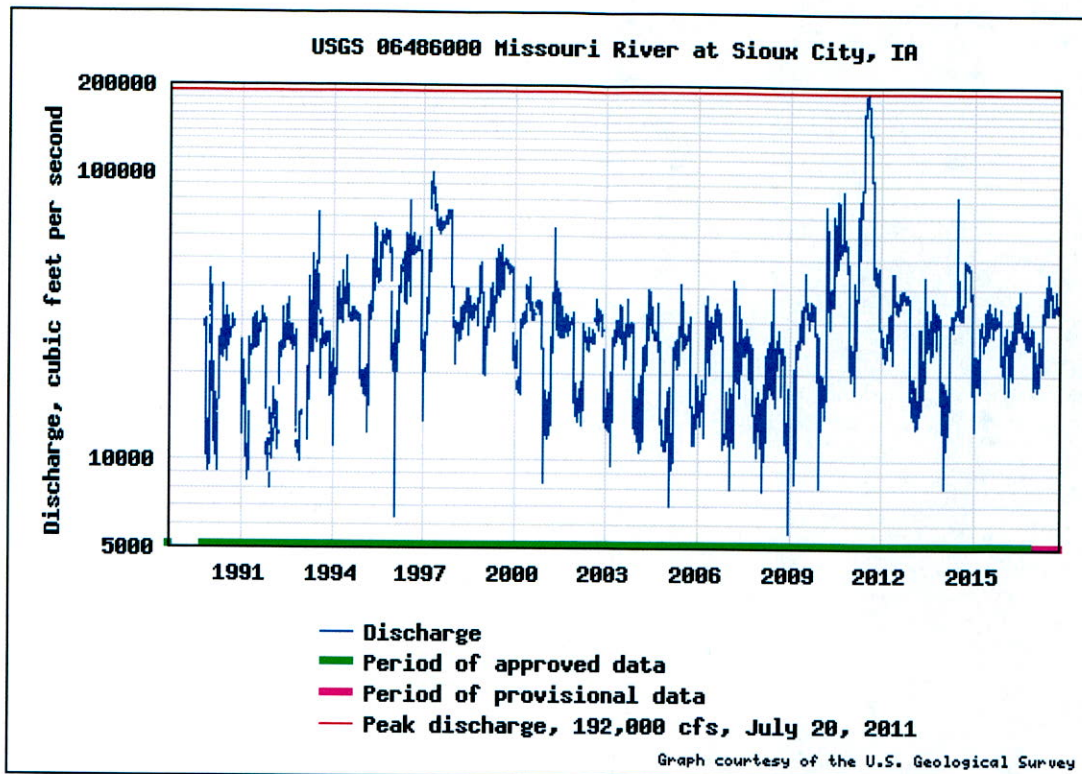


Figure 5: Hydrograph for USGS Stream Gage 06486000 Missouri River at Sioux City, IA (USGS, 2017)

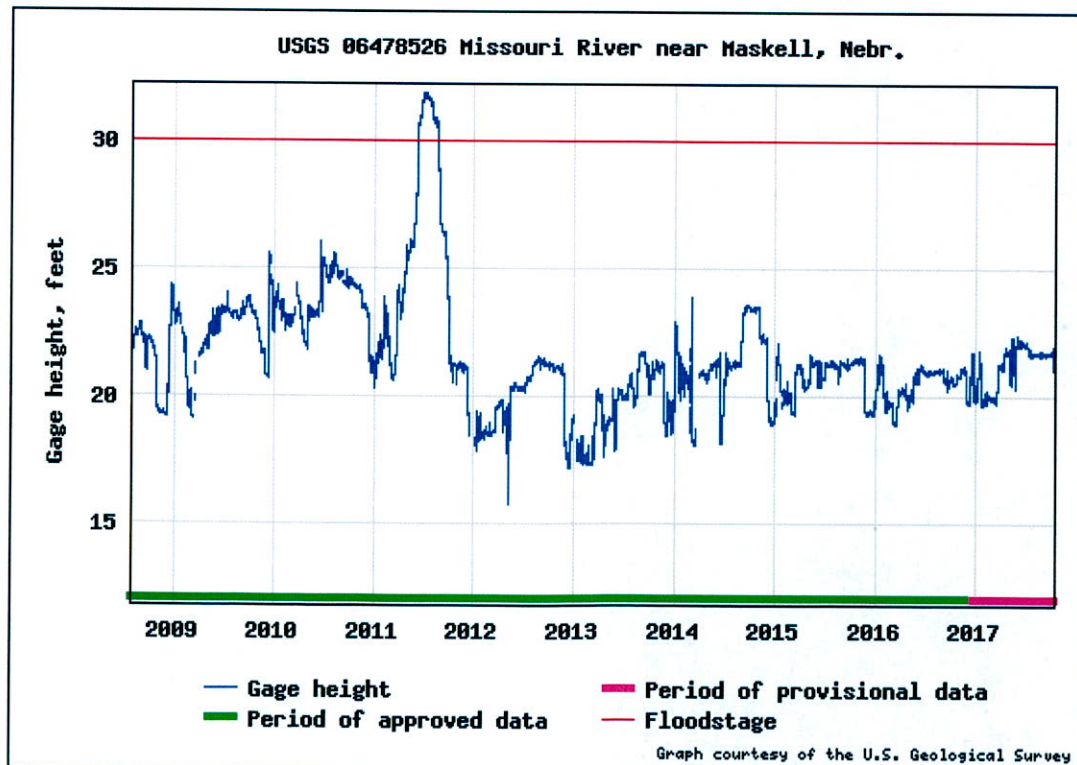


Figure 6: Hydrograph for USGS Stream Gage 06478526 Missouri River near Maskell, NE (USGS, 2017)

EXISTING WATER RIGHTS

There are 610 water rights/permits appropriating water and 4 future use permits reserving water from the Missouri: Elk Point area along with 2 deferred applications and 1 pending application (Water Rights, 2018a). The location of the diversion points for water rights/permits authorized to withdraw water from the Missouri: Elk Point aquifer in the vicinity of this application are shown in Figure 7. The areas reserved for the future use permits within the map boundaries are also shown.

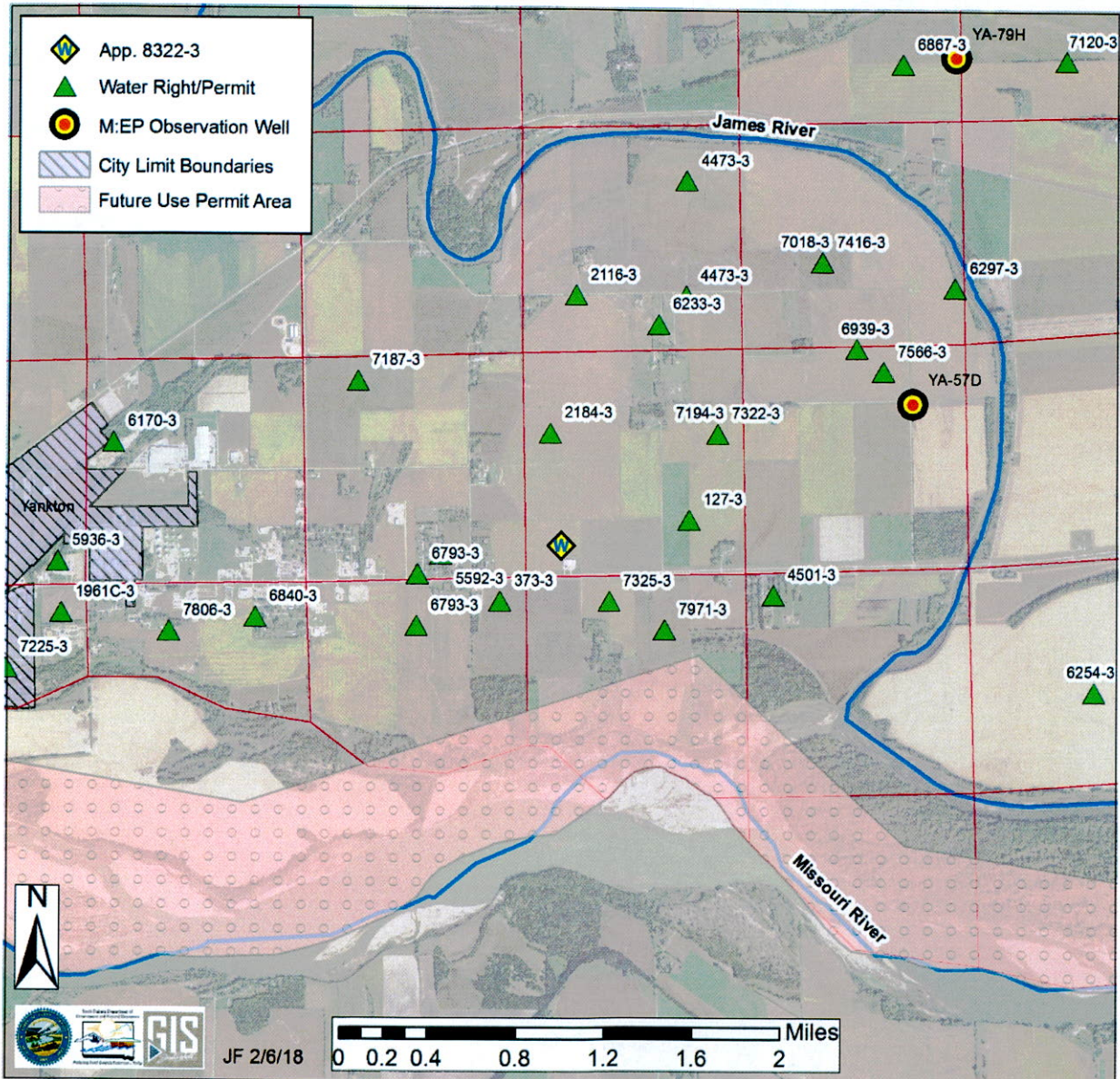


Figure 7: Map of the vicinity of Application No. 8322-3 including Missouri: Elk Point aquifer water rights/permits and future use areas (Water Rights, 2018a)

Drawdown from well withdrawals within the Missouri: Elk Point aquifer is generally not significant at distances far from the pumping well. Examination of the hydrographs of observation wells completed into the Missouri: Elk Point aquifer show no signs of being significantly impacted by drawdown caused by pumping, despite usually being located within a mile of several irrigation wells. Even though there is a large number of high capacity wells in the Missouri: Elk Point aquifer, there has not been a history of well interference. This application, if approved, is not expected to adversely impact nearby adequate wells.

An adequate well has been defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) as:

“a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet”

In the past, the Water Management Board has recognized that to place water to the maximum beneficial use, a certain amount of drawdown may occur. With no history of well interference complaints from users in the Missouri: Elk Point aquifer, adequate wells are not expected to be adversely impacted if this proposed appropriation is approved.

South Dakota Codified Law 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cfs for every 70 acres, or “the equivalent thereof.” The statute does provide that: “The Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires. However, no annual volume may be greater than three acre-feet per acre delivered to the land.” Water Permit Application No. 8322-3 proposes to divert water at a maximum rate of 1.11 cfs for the irrigation of 36 acres or an equivalent rate of 2.16 cfs per 70 acres. The applicant did not provide a reason for the excess diversion rate. The system is a center pivot that makes a full rotation and it is assumed that the requested diversion rate is necessary for the center pivot to operate.

CONCLUSIONS

1. Water Permit Application No. 8322-3 proposes to irrigate 36 acres at a maximum diversion rate of 1.11 cfs from an existing well completed into the Missouri: Elk Point aquifer in Yankton County.
2. Unappropriated water is available from the Missouri: Elk Point aquifer to supply the proposed application.
3. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer.

4. This is a new appropriation from a previously permitted irrigation well, and there is a reasonable probability that the diversion proposed by this application will not adversely impact adequate wells for existing water rights and domestic uses.


John Farmer
SD DENR – Water Rights Program

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Water Rights. 2018b. Well Completion Report Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2018c, "Observation Well Database", SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2018d. Irrigation Questionnaire Database. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

February 12, 2018

Daniel Conkling
500 Linn Street
Yankton SD 57078

Dear Mr. Conkling:

Please find enclosed the staff report, recommendation and public notice for a water right permit application filed by Shaun Guthmiller for irrigation just east of Yankton. This is for an existing irrigation system that was found to not have a water right permit in place. The letter accompanying the application indicates that you are the owner of the well that is used for this irrigation. It is our understanding that you allow the Guthmiller's use of the well. Therefore, DENR wanted to make you aware of the pending application.

Please feel free to contact me if you have any questions.

Sincerely,

Eric Gronlund

Water Rights Program, DENR

605 773-3352

Eric.gronlund@state.sd.us

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.**

February 12, 2018

Shaun Guthmiller, Operator
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

Water Permit Application No. 8322-2 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 Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper 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.

NOTICE OF APPLICATION NO. 8322-3 to Appropriate Water

Notice is given that Shaun Guthmiller, Operator, 1700 John St, Yankton SD 57078 has filed an application for a water permit to appropriate 1.11 cubic feet of water per second (cfs) from one well completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 11 for irrigation of 36 acres located in the SE 1/4 SE 1/4 Section 10 and SW 1/4 SW 1/4 Section 11; all in T93N-R55W which is approximately 1 mile east of Yankton SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8322-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 5, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, February 12, 2018 1:18 PM
To: 'Tera Schmidt'
Subject: 8322-3, Shaun Guthmiller
Attachments: 8322-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on February 22, 2018.

Shaun Guthmiller, Operator, 1700 John St, Yankton SD 57078 (605 857-0775) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

FEB 28 2018

WATER RIGHTS
PROGRAM

SHAUN GUTHMILLER
1700 JOHN ST
YANKTON SD 57078

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

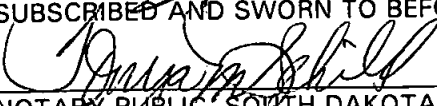
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
2+22 NOTICE OF APPLICATION

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 22nd DAY OF February, 2018
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$27.21 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: 02/22/2018

FILED ON: 02/22/2018


SUBSCRIBED AND SWORN TO BEFORE ME THIS 22nd DAY OF February, 2018


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 08/19/2021

Ad text : 2 + 22

NOTICE OF APPLICATION NO. 8322-3 to Appropriate Water

Notice is given that Shaun Guthmiller, Operator, 1700 John St, Yankton SD 57078 has filed an application for a water permit to appropriate 1.11 cubic feet of water per second (cfs) from one well completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 11 for irrigation of 36 acres located in the SE 1/4 SE 1/4 Section 10 and SW 1/4 SW 1/4 Section 11; all in T93N-R55W which is approximately 1 mile east of Yankton SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8322-3 with qualifications 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. The Chief Engineers recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352) and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 5, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$27.21.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 19 2018

Shaun Guthmiller
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

Enclosed is Water Permit No. 8322-3 authorizing construction of the 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,

A handwritten signature in black ink, reading "Jeanne Goodman". The signature is fluid and cursive, with the first name "Jeanne" being more prominent than the last name "Goodman".

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



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 23, 2020

NOTICE

TO: SHAUN GUTHMILLER, 1700 JOHN ST, YANKTON, SD 57078

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

SUBJECT: Reporting Requirement for 2019 Irrigation Questionnaire(s)

Our records indicate your 2019 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8322-3. The request for the Questionnaire was dated October 18, 2019. The Water Management Board has directed that owners of water permits who have not submitted the 2019 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) 8322-3 qualification:

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

The hearing will be held at **Wednesday, February 26, 2020 at 8:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

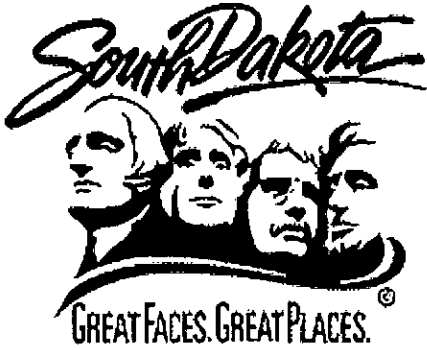
1. Suspend or cancel Permit No(s) 8322-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

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 **February 26, 2020** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://denr.sd.gov/iq> using this password: NPETVY**

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.

8322-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 30, 2020

8322-3

Shaun Guthmiller
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

I am writing to acknowledge receipt of your 2019 irrigation questionnaire.

You may disregard the January 23, 2020, "Notice" concerning reporting requirements for Water Permit No. 8322-3. 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

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 8322-3**

I have this day, July 23, 2021, made a thorough examination of the water use system constructed by Shaun Guthmiller, 1700 John Street, Yankton, SD 57078, holder of Permit No. 8322-3, bearing the priority of August 16, 2017 authorizing the diversion of 1.11 cu. ft. per second of the waters of groundwater (Missouri: Elk Point Aquifer) for the irrigation of 36 acres located in Yankton County.

Inspection contact: Shaun Guthmiller

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Christensen Well Company
- 2) No. of Wells: 1
- 3) Depth(s): 120 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 12 inches
- 2) Length: 91 feet
- 3) Type: Transite

Screen:

- 1) Diameter: 12 inches
- 2) Length: 30 feet
- 3) Type: Transite
- 4) Static water level: 15 feet

Pump:

- 1) Make: Unknown
- 2) Model: Unknown
- 3) Capacity: 500 GPM (pivot nozzle flow rate)

Motor:

- 1) Make: Unknown
- 2) Model No.: Unknown
- 3) Horsepower rating: Unknown hp

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

- 1) Type: PVC
- 2) Size: 8 inches
- 3) Length: 1,070 feet

C. Works used to apply water to beneficial use:

Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 596 feet
- 3) Number of towers: 3
- 4) End gun: Yes
- 5) Capacity: 500 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 permit owner started irrigation by the end of construction period: Yes
 3) Exceptions to compliance are: The system irrigates one acre in the NE1/4 of the SE1/4 of Sec. 10.

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows:
The well is 870 feet east and 720 feet north of the southwest corner of Section 11-T93N-R55W (Latitude 42.88194, Longitude -97.31514 – SW1/4 of the SW1/4).
 2. The works are capable of diverting and conveying to the place of use 1.11 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:

Section 10-T93N-R55W
SE1/4SE1/4 20 acres
NE1/4SE1/4 1 acre

Section 11-T93N-R55W
SW1/4SW1/4 11 acres

comprising a total of 32 acres of land and the license should be issued for 1.11 cfs.

3. All structures, wells and lands on map: Yes

F. Comments or other permit(s) associated with the project: The well is owned by Daniel Conklin and the irrigated field is owned by the Guthmiller's. The pivot system irrigates one acre in the NE1/4 of the SE1/4 of Section 10-T93N-R55W that was not noted in the water permit. This land is adjacent to the permitted land and is owned by Lyons Farms Inc. but is farmed by the Guthmiller's.

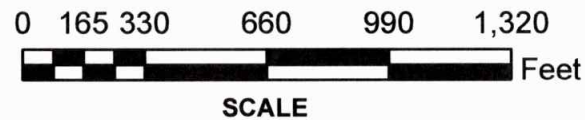
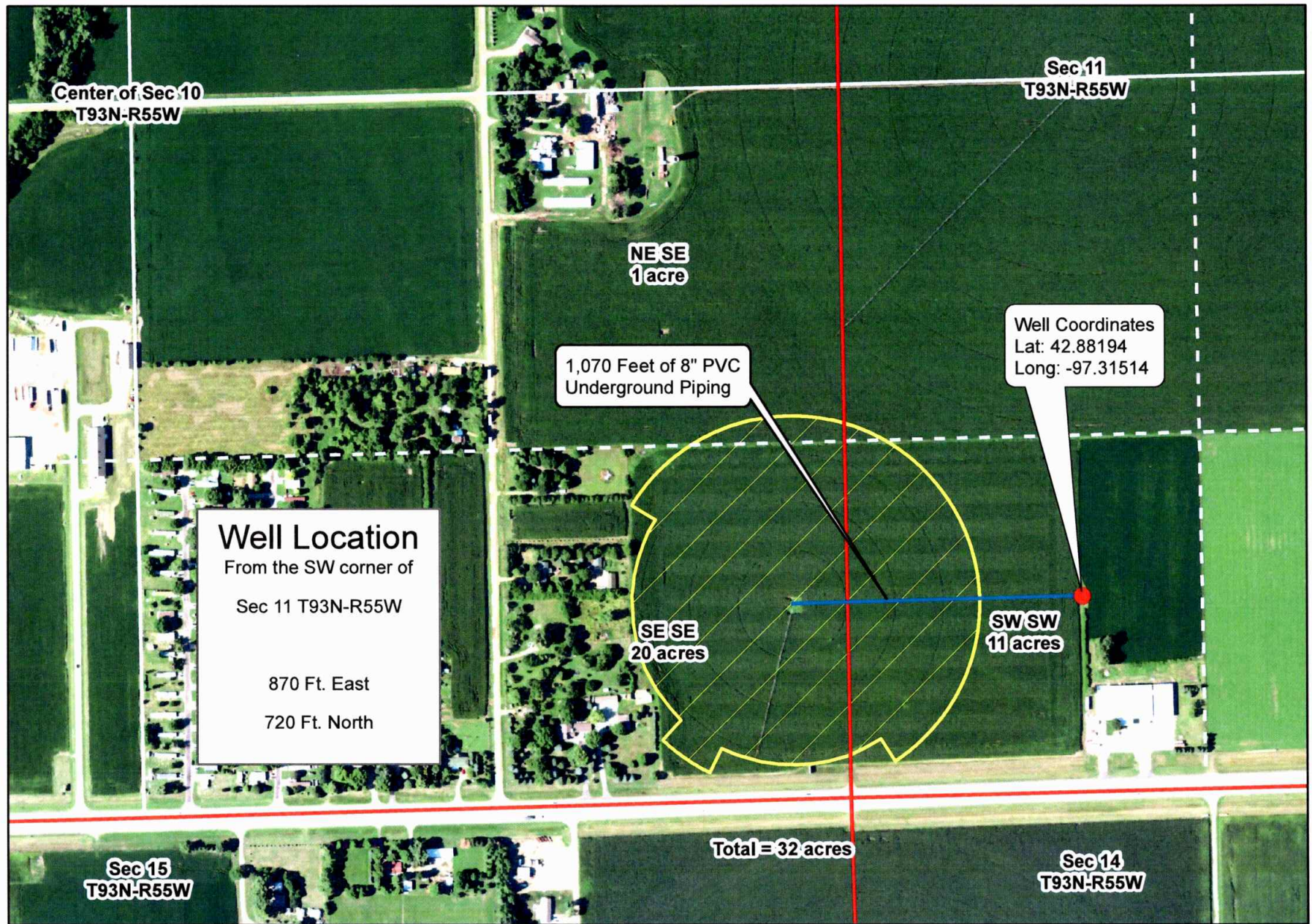
I could not obtain any information about either the pump or motor that are in the well. It is a submersible unit that was probably purchased by Shaun Guthmiller's grandfather and installed in Daniel Conklin's well. This pump replaced the original pump and motor that was in the well. Shaun's grandfather has been gone for about five years, and no records could be found regarding the pump or motor. The original well driller did not have any records either, so the replacement pump and motor probably were not installed by Christensen Well Company. Thus, this report only indicates the flow rate that the pivot system is nozzled for.

Keith DeJong

Keith DeJong
 Water Rights Inspector
 DANR, Water Rights Program

Date report completed: August 30, 2021

Water Right No. 8322-3



Keith DeJong
Keith DeJong, PE
Staff Engineer
August 30, 2021

8322-3

Form 10

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

Date 7-23/2021

MAIL TO: PMB 2020
DANR - Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3182

Ph: (605) 773-3352

FROM: Shaun Guthmiller
(name)

1700 John Street
(address)

Yankton SD 57078 605-857-0775
(city) (state) (zip) (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. 8322-3 states that the water use system is to be constructed by

March 5, 2023, and water is to be put to beneficial use by March 5, 2027.
(date) (date)

The water use system was completed on May, 2018.
(date)

Applying the water to beneficial use was completed on May, 2018.
(date)

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

[Signature]
(signature)



Licensing of Acreage Outside of Permitted Area

NAME: Shaun Guthmuller

ADDRESS: 1700 St John St. Yankton SD 57078

DATE: 8-31-2021 COUNTY: Yankton

AUTHORITY

Pursuant to SDCL 46-5-30.5, acreage developed for irrigation outside of the area described on the permit may be licensed provided the following conditions are met:

NO INCREASE IN PERMITTED ACREAGE OR WATER APPROPRIATED:

The acreage developed for irrigation is 32 acres as compared to 36 acres authorized by the permit.

UNPERMITTED ACREAGE:

- **Contiguous to Permitted Acreage**

The 1 additional acre is located NE ¼ SE ¼ of Section 10 which is adjacent to the authorized acres located in the SE ¼ SE ¼ of Section 10 and the SW ¼ SW ¼ of Section 11: all in T93N-R53W.

- **Owned by Same Property Owner**

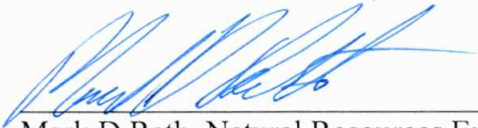
All the property is owned by Diane Guthmuller.

- **Developed Prior to Expiration of Construction Period**

yes

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the 1 acre area be included in the water license.



Mark D Rath, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant to SDCL 46-5-30.5 that:

This acreage change does not impair existing water rights and the overall project, as developed, is consistent with the original application. Licensing of the unpermitted acreage may occur without application or publication pursuant to SDCL 46-2A-4.



Eric Gronlund, Chief Engineer
Water Rights Program



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

AUG 3 1 2021

8322-3

Shaun Guthmiller
1700 John St
Yankton SD 57078

Dear Mr. Guthmiller:

Enclosed is Water License No. 8322-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 8322-3

(1) Shaun Guthmiller, 1700 John St., Yankton SD 57078 made Application No. 8322-3, August 16, 2017 for a water permit to divert 1.11 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 8322-3, with a priority date of December 7, 2017 was approved March 5, 2018 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 5, 2023 and for the application to beneficial use of said water on or before March 5, 2027.

The Permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use" on July 23, 2021. The "Notice" stated the water use system was completed and the water placed to beneficial use in May 2018.

An investigation conducted for licensing purposes found one acre had been developed outside of the permitted area. Pursuant to SDCL 46-5-30.5, 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 construction of the water supply system and is entitled to divert 1.11 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 870'E and 720'N of the SW corner of Section 11, T93N, R55W (SW $\frac{1}{4}$ SW $\frac{1}{4}$)
Latitude 42.88194, Longitude -97.31514

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

Section 10, T93N, R55W		Section 11, T93N, R55W	
SE $\frac{1}{4}$ SE $\frac{1}{4}$	20 acres	SW $\frac{1}{4}$ SW $\frac{1}{4}$	11 acres
NE $\frac{1}{4}$ SE $\frac{1}{4}$	1 acre		
Total 32 acres			

(4) Pursuant to South Dakota Water Law 46-5-30.1 Shaun Guthmiller, 1700 John St., Yankton SD 57078 the holder and/or owner of Water Right No. 8322-3 is issued a license to appropriate water, the right to use 1.11 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of December 7, 2017 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8322-3 and subject to the following qualifications:

- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

- 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, Water Right No. 8322-3 authorizes a maximum diversion rate of 1.11 cfs for the irrigation of **32 acres** with an annual volume not to exceed 2 acre feet of water per acre per year. *The acreage was reduced to reflect the number of acres developed for irrigation.*
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

AUG 31 2021

date

