

WATER PERMIT NO. 8482-3

Name of Applicant: Reid Bird

Address: 31605 473rd Ave, Elk Point SD 57025

Phone: 712 251-6343

Amount of Water Claimed: 1.56 cfs

Total Acres: 116 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Union

Type of Waste Disposal System:

Location: 9 miles northwest of Elk Point

PRIORITY

Date Received: 1-29-25

Application/License Fee: \$ 950

Corrected Application Received:

Period of Annual Use: April 1 – Sept 30

Remarks:

Diversion Point: center NE 1/4 Sec 9-T92N-R50W

Land to be Irrigated: NE 1/4 Sec 9-T92N-R50W

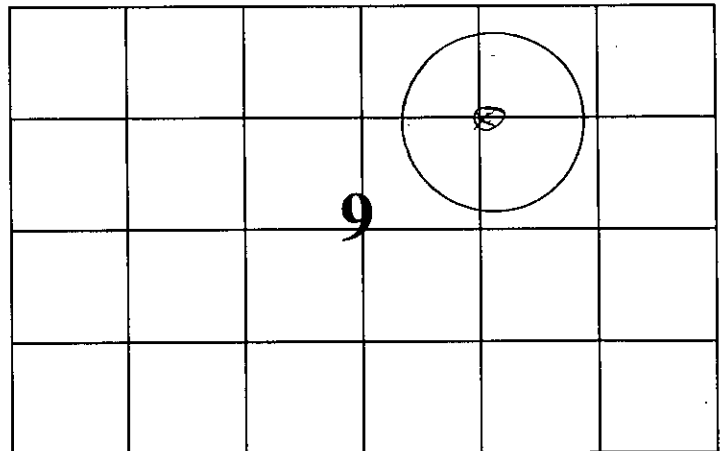
Depth of Well: 200 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:



Reviewed and the Number Assigned on: 1-29-21

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8482-3

Date of first receipt of application January 29, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8482-3 to Reid Bird, 31605 473rd Ave, Elk Point SD 57025 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. 8482-3 appropriates 1.56 cubic feet of water per second from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 200 feet deep) located in the center of the NE 1/4 Section 9 for irrigation of 116 acres located in the NE 1/4 Section 9; all in T92N-R50W. This site is located approximately 9 miles northwest of Elk Point 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 1 – September 30.
3. The date from which applicant may claim right is January 29, 2021.
4. The date of approval of Permit No. 8482-3 is May 10, 2021.
5. One-fifth of the construction is to be completed on or before November 10, 2023.
6. All construction is to be completed on or before May 10, 2026.
7. Water is to be put to beneficial use on or before May 10, 2030.
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 Water Permit No. 8482-3 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. The well authorized by Permit No. 8482-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

MAY 12 2021

date



FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8482-3</u>	(office use only) Hydrologic Unit <u>10170203</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Leader-Courier, Elk Point</u>	
	<u>Press & Dakotan, Yankton</u>	

PAID
JAN 29 2021
Ck# 21031

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 Reid Bird

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 31605 473rd Ave Elk Point ☒ SD ☒ 57025
(Address) (City) (State) (Zip Code)

Phone _____ Mobile 712-251-6343 Email _____

2. Amount of water claimed 156 *CFS or 700 **GPM ***AF Total Acreage 116
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Lower Missouri/Vermillion Aquifer

4. Location of point of diversion 1 well, Center, NE 1/4, Section 9, T92n R50w,
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
County Union ☒

5. County or counties where water will be used Union

6. Annual period during which water is to be used April 1-Sept 30

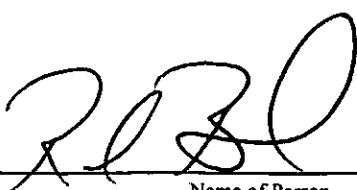
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
ne of ne of Section 9, T92n R50w	29		
nw of ne of Section 9, T92n R50w	29		
se of ne of Section 9, T92n R50w	29		
sw of ne of Section 9, T92n R50w	29		

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

Center pivot irrigation of the above listed property

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I, , 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)

1. Well Information (check one or both as applicable) ☐ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) 200 Depth to Top of Water Bearing Material 130 Depth to Water from Surface 100d) Distance to nearest domestic well on applicant's property 2500 Property owned by others 4000**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)

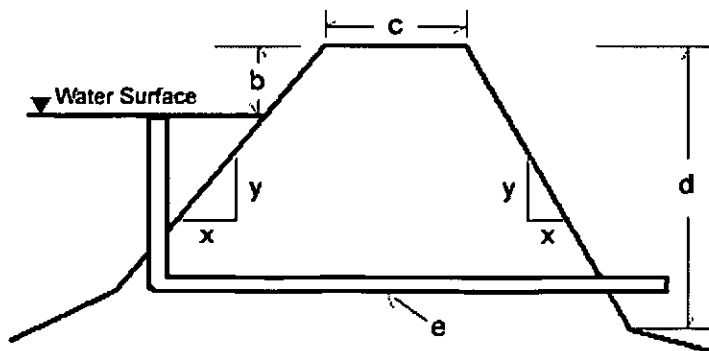
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



7909-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

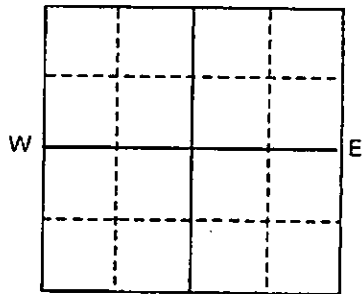
11-02

Location SW 1/4 NW 1/4 Sec 9 Twp 92N Rg 50W

County Union

North

Please mark well location with an "X"



Well Completion Date

07/24/13

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
	12.00	0.0	172.0	18.00
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type Bentonite No. of Sacks 32 44 Grout Weight Lb/gal From 0.0 Ft To 170.0 Ft
Lb/gal Ft Ft

Describe grouting procedure

per KB/RT

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12.00 Inches Length 20 / 20 Feet

Material Stainless steel

Slot Size .070/.050 Set From 172.0 Feet to 212.0 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? chlorinated

☐ No, Why Not?

Lab to which water quality sample sent for analysis

n/a

Well Owner: Scott Wagner

Business Name:

Address: 31633 172nd Ave

City, State, Zip: Elk Point SD 57025

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	4
Brown clay	4	21
Blue clay	21	130
Coal & sand, fine to medium	130	215
Coal & coarse sand	210	219

STATIC WATER LEVEL 102.0 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: well was not test pumped, no pumping data available.
☐ Bailed
☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 42 48.209
W 096 45.816

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

Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

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NOV - 7 2013

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Date:

Reid Bird 2021

Write a description for your map.

Legend

-  Bird
-  Bird Pivot

NE Corner,
Sect 9, T92N, R50W.

473rd Ave

xwell

Bird

21

Google Earth

© 2020 Google



1000 ft

93N 50W
Section: 32

93N 50W
Section: 33

93N 50W
Section: 34

92N 50W
Section: 05

92N 50W
Section: 04

92N 50W
Section: 03

92N 50W
Section: 08

92N 50W
Section: 09

92N 50W
Section: 10

92N 50W
Section: 17

92N 50W
Section: 16

92N 50W
Section: 15

92N 50W
Section: 20

92N 50W
Section: 21

92N 50W
Section: 22

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Environment and Natural Resources

Date January 29, 2021

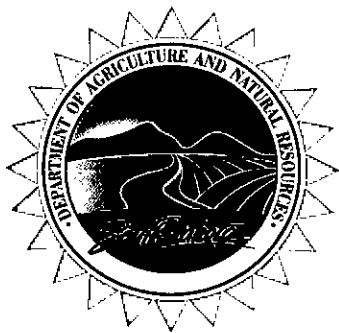
RECEIVED OF Reid/Collette Bird 31605 473rd Ave Elk Point SD 57025

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

Fee for Application for Permit No. <u>8482-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$750.00
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$
Fee to retain Future Use Permit No. _____ after period of seven years.	\$
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8482-3</u>	\$200.00
Fee for Filing Transfer Form _____	\$
Fee for _____	\$
Fee for Issuing New Well Driller's License No. _____	\$
Fee for Renewal of Well Driller's License No. _____	\$
Fee for Issuing Well Pump Installer's License No. _____	\$
Fee for Renewal of Well Pump Installer's License No. _____	\$
(Any Other Work Provided by Law)	
TOTAL	\$950.00

By Eric Gronlund
Chief Engineer

DM



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8482-3, Reid Bird**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8482-3, Reid Bird, 31605 473rd Ave, Elk Point SD 57025.

The Chief Engineer is recommending APPROVAL of Application No. 8482-3 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 Water Permit No. 8482-3 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. The well authorized by Permit No. 8482-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
April 19, 2021

**Report to the Chief Engineer on
Water Permit Application No. 8482-3**

Reid Bird
03 March 2021

Water Permit Application No. 8482-3 seeks to appropriate 1.56 cubic feet of water per second (cfs) from one well to be completed into the Lower Vermillion-Missouri aquifer (200 ft deep) located in the NE ¼ Section 9-T92N-R50W for irrigation of 116 acres. This site is located approximately 8 miles east and 1 mile north of Vermillion, South Dakota.

Aquifer: Lower Vermillion-Missouri (LVM)

Hydrogeologic characteristics

The Lower Vermillion-Missouri aquifer is a glacial aquifer composed of sand and gravel deposited in a bedrock channel during the Quaternary geologic period that extends from land surface to the bedrock below it [1]. It is hydrologically connected to the Upper Vermillion-Missouri aquifer and the Parker-Centerville aquifer on its northern boundary [1], the Dakota aquifer below it, and the Missouri: Elk Point aquifer to the south [1]. In general, the aquifer is transmissive, and is highly transmissive in the alluvium surrounding the Vermillion River [2]. On average, the aquifer is approximately 100 feet thick, but can be up to 170 feet thick in some locations [2]. Most of the Lower Vermillion-Missouri aquifer is buried and under confined conditions, but the areas of alluvium below the Vermillion river as well as surficial sand and gravel outwash is under unconfined conditions [3].

The applicant submitted a well completion report with this application, completed on 24 July 2013. The driller reported top soil from ground level to 4 feet below grade, clay from 4 to 130 feet below grade, coal and sand from 130 to 219 feet below grade and a static water level of 102 feet below grade at the time of drilling. The water level being above aquifer materials indicates the aquifer at the well location for this application is under confined conditions. The well completion report submitted is for Water Right No. 7909-3. A new well will be drilled for this application.

Boundary

In 2012 and 2013, 21 new applications to withdraw water from the Upper Vermillion-Missouri aquifer were submitted over a short period of time [4]. Due to insufficient information at the time in 2013, the Water Management Board deferred those applications for one year to allow for further study [5]. As part of that further study the Water Rights Program brought in the South Dakota Geological Survey (SDGS) Program to facilitate the collection of additional information on the aquifer primarily by the drilling of additional test holes and observation wells. Following the 2014 hearing on those applications, the Water Management Board stated in their Final Order [6]:

1. *The Board incorporates the Ken Buhler report dated February 1, 2014 as its Findings of Fact.*

2. *The Board finds that the Upper Vermillion Missouri aquifer should be divided into three management units as presented in the Buhler report; and hereby adopts this finding for purposes of these and future water permit applications.*

Buhler [7] mapped a southern boundary for the Upper Vermillion Missouri that was further south of the Upper Vermillion Missouri and Lower Vermillion Missouri boundary as mapped by Hedges, et al [1]. This southern boundary in Buhler [7] approximately corresponded with the south extent of the of the additional data collection that was done for further study of the aquifer. Of this boundary the Buhler [7] report, stated, "Although the southern boundary [of the Upper Vermillion-Missouri aquifer] has not been delineated at this time, data shows that it extends south several miles from the original border as it merges with or transitions into the Lower Vermillion Missouri aquifer." The Water Rights Program has interpreted the Water Management Board's 2014 order to mean that all the area mapped by Buhler [7] is part of the Upper Vermillion-Missouri aquifer, and has subsequently been issuing water rights/permits in the area where the Buhler [7] map of the Upper Vermillion-Missouri aquifer and the Hedges, et al. [1] map of the Lower Vermillion-Missouri aquifer overlap as Upper Vermillion-Missouri water rights/permits [8]. The SDGS's conclusions of the additional study were published in 2015 in Holmes and Filipovic [9]. Of the boundary between the Upper Vermillion Missouri and Lower Vermillion Missouri Holmes and Filipovic [9] stated, "Results of this investigation do not support a distinction between the Upper-Vermillion-Missouri and Lower-Vermillion-Missouri aquifers." However, the additional work done by the SDGS did not extend to the southern boundary of the Lower Vermillion Missouri aquifer. Therefore, further research and data acquisition are necessary to determine if the South management unit of the Upper Vermillion-Missouri aquifer should be merged with the Lower Vermillion-Missouri aquifer, if other management units should be added in the Lower Vermillion-Missouri aquifer, or some other way of dividing the aquifer for water management should be selected. Although the boundary between the Upper Vermillion Missouri and Lower Vermillion Missouri as adopted by the Board in 2014 is in need of further study, sufficient information is available to examine water availability and potential for unlawful impairment of existing water rights/permits for this application.

The southern boundary of the Lower Vermillion-Missouri aquifer coincides with the edge of the alluvium deposited by the Missouri River [3]. Newer information available indicates that the bedrock valley below the Lower Vermillion-Missouri aquifer is different than understood by Hedges, et al. [1] [3]. Stonesifer [3] recalculated the area of the Lower Vermillion-Missouri aquifer using the northern boundary interpreted by Hedges, et al. [1] and the other boundaries were based on the First Occurrence of Aquifer Materials maps provided by the Geological Survey Program [10] [11]. Figure 1 (see page 3) shows the area of the Lower Vermillion-Missouri aquifer, the portion of the Upper Vermillion-Missouri: South aquifer management unit overlapping previous interpretations of the Lower Vermillion-Missouri aquifer, and Water Rights Program observation wells completed into the Lower Vermillion-Missouri aquifer. Based on Stonesifer's analysis, the Lower Vermillion-Missouri aquifer extends over 123,900 acres in Clay and Lincoln counties [3]. Approximately 22,350 acres of the aquifer is under unconfined conditions [3], with the rest being under confined conditions. Excluding the area of overlap between the Stonesifer [3] boundary and the Buhler [7] boundary of the Upper Vermillion-Missouri aquifer, the area of the Lower Vermillion-Missouri aquifer is approximately 106,000 acres and the unconfined area of the Lower Vermillion-Missouri aquifer is approximately 12,000 acres.

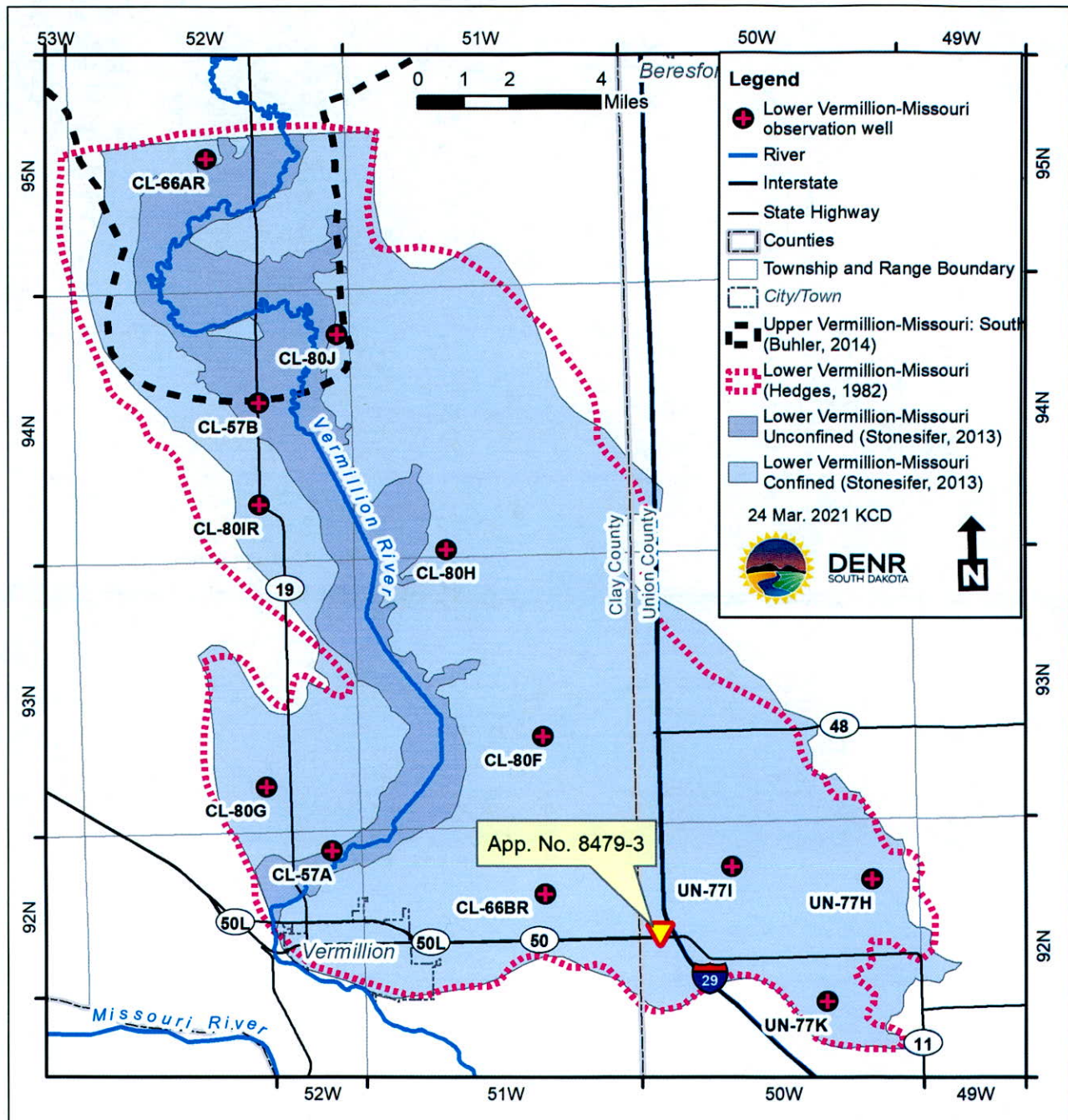


Figure 1: The various interpretations of the Lower Vermillion-Missouri boundary [1] [3] and the Buhler [7] delineation of the Upper Vermillion-Missouri: South aquifer management unit, as well as current Lower Vermillion-Missouri observation wells [12].

Applicable South Dakota Codified Law

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued 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 assess the availability

of water and possibility of developing this application without unlawful impairment of existing rights only.

Pursuant to SDCL 46-6-3.1, 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 the water to the groundwater source. An exception allows water distribution systems to withdraw from groundwater sources older or stratigraphically lower than the Greenhorn Formation regardless of the results of a hydrologic budget. The applicant's proposed use is not a water distribution system as defined in SDCL 46-1-6(17), and the Lower Vermillion-Missouri aquifer is not older or stratigraphically lower than the Greenhorn Formation. Therefore, it is necessary to find that recharge exceeds withdrawals to approve this application.

Availability of water

Hydrologic budget

As of the Water Management Board hearing incorporating the Buhler report as its findings of fact, new water permit applications in the area of overlap have been advertised as belonging to the Upper Vermillion-Missouri: South aquifer management unit [4]. Since the Upper and Lower Vermillion-Missouri aquifers both are sand and gravel outwashes at the same depth and in the same bedrock valley [7], they should not occupy the same space, for water management purposes. If they did, it would be possible to double-count or under-count a water permit and recharge area while analyzing the hydrologic budget. In the area of overlap, there are 11 water rights/permits advertised (and therefore entered into the Water Rights database) as being in the Upper Vermillion-Missouri aquifer and there are 29 water rights/permits advertised as being in the Lower Vermillion-Missouri aquifer [1] [4] [7]. The estimate of withdrawals from the aquifer is largely based on the irrigation withdrawals reported. The best estimate of recharge available uses the northern boundary delineated by Hedges, et al. [1] [3]. Two hydrologic budgets will be analyzed, the first using northern boundary delineated by Hedges, et al. [1], which will be called the Stonesifer [3] area because of the other aquifer boundaries redrawn in his report, and the second area, which is smaller because it excludes the area and water rights/permits depicted as belonging to the Upper Vermillion-Missouri aquifer by the Buhler [7] report.

Recharge

Recharge to the Lower Vermillion-Missouri aquifer is by infiltration from precipitation and surface water when the hydraulic head of the surface water is higher than the hydraulic head of the Lower Vermillion-Missouri aquifer, and by groundwater inflow from adjacent aquifers including the Dakota aquifer below, when hydraulic head of the adjacent aquifers is higher than the hydraulic head in the Lower Vermillion-Missouri aquifer [3]. Stonesifer [3] estimated the average annual recharge rate to the unconfined portion of the aquifer is 4.58 inches per year. Applied over the 22,350 acres of unconfined area within the Stonesifer [3] boundaries of the aquifer, the recharge to the unconfined portion of the aquifer is approximately 8,500 ac-ft/yr [3]. Some recharge to the confined area of the aquifer is also likely to occur, since the Lower Vermillion-Missouri aquifer is in hydraulic contact with several other aquifers and the till confining the aquifer is likely to be somewhat permeable. Hedges, et al. [13] recommended estimating a recharge rate between 0.15 to 0.6 inches per acre for buried confined aquifers. Applying that over the 101,550 acres of confined area within the Stonesifer [3] boundaries, that

would provide approximately 1,269 to 5,077 ac-ft/yr of recharge in addition to the recharge from the unconfined area, for a total estimated recharge of approximately 9,800 to 13,600 ac-ft/yr within the Stonesifer [3] boundaries.

The estimate of recharge excluding the area of overlap with the Buhler [7] Upper Vermillion-Missouri aquifer, assumes recharge can be scaled down by assuming the average recharge Stonesifer estimated over the larger area is accurate to the smaller area. Following the same methods as above, the recharge rate is approximately 5,755 to 9,280 ac-ft/yr.

Discharge from the Stonesifer [3] area

Discharge from the Lower Vermillion-Missouri aquifer is likely by evapotranspiration where the hydraulic head of the aquifer is near land surface and the aquifer materials are sufficiently permeable, by groundwater outflow to adjacent aquifers when the hydraulic head of the Lower Vermillion-Missouri aquifer is higher than the hydraulic head of the adjacent aquifers, discharge to surface water features when the hydraulic head of the aquifer is higher than the surface water features, and by artificial withdrawals from domestic and appropriative wells. Due to the prevalence of water distribution systems and low withdrawal rate of domestic wells, withdrawals due to reasonable domestic use are negligible for the hydrologic budgets.

Within the Stoneisfer [3] area, there are 85 water rights/permits advertised as being completed into the Lower Vermillion-Missouri aquifer, 11 water rights/permits advertised as being completed into the Upper Vermillion-Missouri: South aquifer management unit that lie within the boundaries of the recharge area for this hydrologic budget, and 13 water rights/permits advertised as being completed into the Missouri: Elk Point aquifer management unit that are within the boundaries used for this hydrologic budget [4]. Since the Missouri: Elk Point and Upper Vermillion-Missouri: South aquifer management units are indistinguishable aquifer materials at the boundaries of the Lower Vermillion-Missouri aquifer [14], water rights/permits advertised as being in those aquifers, but lie within the boundaries used for the hydrologic budget, will be counted towards the withdrawals from the aquifer, for a total of 109 water rights/permits in the hydrologic budget. Of the 109 water rights/permits in the hydrologic budget, 100 are for irrigation, three are for municipal use, two for commercial use, two for institutional use, and two for rural water system use [4]. Future Use Permit No. 6237-3, held by the City of Vermillion, overlies the boundary of the recharge area for this application and was advertised as withdrawing from the Missouri: Elk Point aquifer [4]. If developed, this permit could potentially withdraw from inside the boundaries delineated for the hydrologic budget. The amount of water reserved for that permit is 1,900 ac-ft/yr [4].

Figure 2 shows the irrigation reported by the 100 irrigation water rights/permits within the boundaries of the hydrologic budget over the period of record (1979-2019) [15]. The average irrigation reported over the period of record was approximately 1,985 ac-ft/yr [15]. Following the drought of 2012, numerous new irrigation permits were approved, and the number of licensed/permitted acres increased from 9,751.1 acres at the end of 2012 to 12,737.76 acres at the time this report was written, a 31% increase from the number of permitted acres in 2012 [4]. The withdrawals from those additional acres may not be reflected by the average over the period of record. The new acres as of 2012 are conservatively assumed to irrigate 1 acre-ft per acre, for a total of 2,987 ac-ft/yr in addition to the average reported irrigation, so the total estimated withdrawal due to irrigation is 4,972 ac-ft/yr.

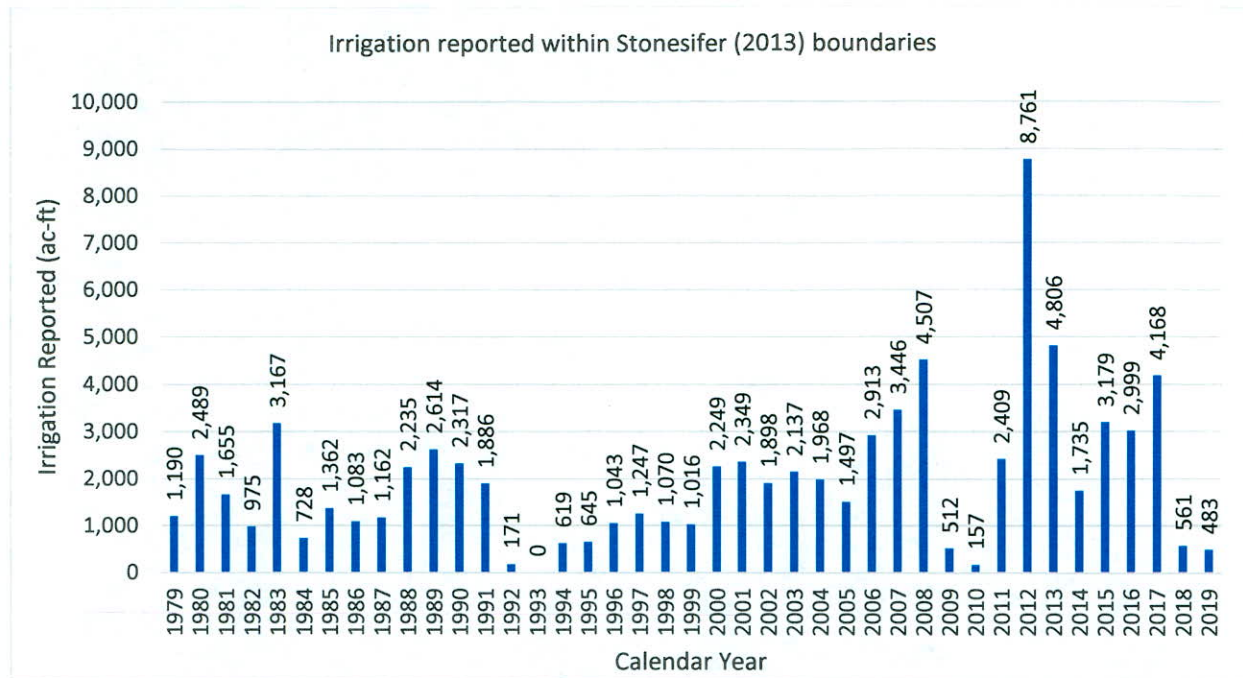


Figure 2: Irrigation reported within the Stonesifer [3] boundaries [15]

Table 1 shows a summary of the non-irrigation withdrawals in the hydrologic budget and their estimated withdrawal [4] [16]. The City of Vermillion has been reporting all its withdrawals since at least 2003, and the Clay Rural Water System has been reporting all its withdrawals since 1998 [16]. Non-irrigation reports from 2000 through 2002 are unavailable [16]. Water Permit Nos. 8222-3 and 8257-3 have been reporting their withdrawals since 2016 and 2017, respectively, but the withdrawals reported are so low compared to their annual volume limit it appears unlikely they have fully developed their permits, so the annual volume limit is used for the hydrologic budget. All other non-irrigation water rights/permits are assumed to withdraw at their maximum licensed/permitted withdrawal rate 60% of the time [4]. The total estimated withdrawal for non-irrigation use is approximately 1,872 ac-ft/yr.

Table 1: Non-irrigation withdrawals estimated within the Stonesifer [3] boundaries [4] [16].

Permit	Name/Business	Priority	Status	Aquifer	Use Type	Method	Max. CFS	Volume Limit	Est. Use (ac-ft/yr)
143-3	City of Vermillion	1956-01-21	License	M:EP	MUN	Average Report	1.780	1,289.5	1,220.5
147-3		1935-01-01	License	M:EP	MUN		2.660	1,927.0	
6236-3		2000-11-06	License	M:EP	MUN		2.600	1,161.0	
3905-3	Clay Rural Water System Inc	1977-04-21	License	LVM	RWS	Average Report	2.000	1,448.9	605.1
5979-3		1997-01-31	License	LVM	RWS		2.000	307.0	
6397-3	SD Dept of Transportation	2003-02-18	License	LVM	INS	Est. 60%	0.033	23.9	14.3
8222-3	Southeast Farmers Coop	2016-05-12	Permit	LVM	COM	Volume	0.167	18.4	18.4
8257-3	Thein Well Co Inc	2016-12-27	Permit	LVM	COM	Volume	0.089	1.0	1.0
1870-3	USD Facilities Mgmt	1971-01-28	License	LVM	INS	Est. 60%	0.030	21.7	13.0
Total							11.359	6,198.5	1,872.4
M:EP – Missouri: Elk Point; LVM – Lower Vermillion-Missouri; COM – Commercial; INS – Institutional; MUN – Municipal; RWS – Rural Water System									

There are two pending applications. Water Permit Application No. 8484-3, which seeks to irrigate up to 120 acres. Following the same method as other new irrigation permits, it is

estimated to withdraw 120 ac-ft/yr. The other pending application, No. 8479-3, seeks to appropriate 1.84 ac-ft/yr.

Discharge excluding the Buhler [7] Upper Vermillion-Missouri area

Analysis of the withdrawals excluding the Buhler [7] Upper Vermillion-Missouri area is identical to the Stonesifer [3] area, except there are fewer water rights/permits analyzed. This analysis still includes all water rights/permits advertised as being in the Missouri: Elk Point aquifer management unit but are within the recharge area. There is a total of 69 water rights/permits within this area, including 62 irrigation water rights/permits, 3 municipal water rights/permits, 2 commercial water rights/permits, and 2 institutional water rights/permits. The pending applications in the Stonesifer [3] area are also in this area.

The only non-irrigation withdrawals estimated above that are excluded in this set of boundaries are the withdrawals for Clay Rural Water System, Inc. Therefore, non-irrigation withdrawals in this set of boundaries are approximately 1,267 ac-ft/yr.

Irrigation withdrawals reported over the period of record in the smaller area are shown in Figure 5 below. The average reported irrigation over the period of record in this area (1979 – 2019) was approximately 1,567 ac-ft/yr. As before in the Stonesifer [3] area, the average over the period of record may not accurately reflect withdrawals, since the number of permitted acres in this area increased by 29% from the 6,479.1 acres licensed/permitted in 2012. Using a conservative estimate of 1 acre-foot per new acre permitted/licensed, the additional irrigation estimated is 1,864.6 acre-feet per year, for a total estimated irrigation withdrawal of approximately 3,431 ac-ft/yr in this area.

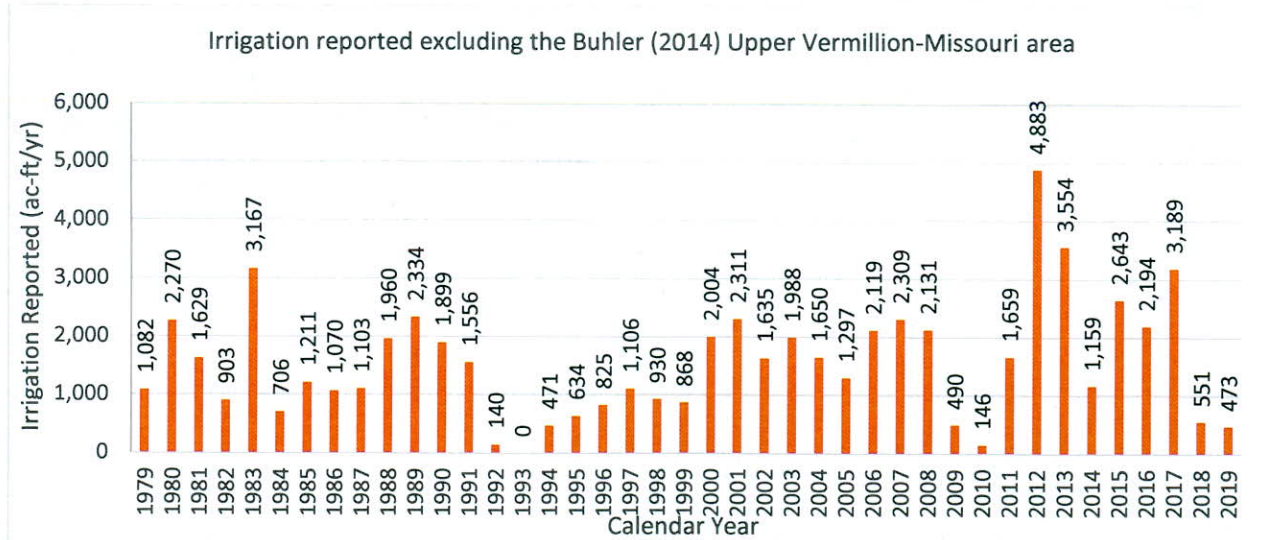


Figure 3: Irrigation reported excluding the Buhler [7] Upper Vermillion-Missouri area [15]. Note that the vertical scale in this figure is different than the one in Figure 2.

Balance of hydrologic budget

The estimated recharge to the Lower Vermillion-Missouri aquifer using the boundaries delineated by Stonesifer ranges from 9,800 to 13,600 ac-ft/yr. The City of Vermillion has reserved 1,900 ac-ft/yr in a future use permit on the boundary of the aquifer. The estimated

withdrawal due to irrigation in the Stonesifer area is 4,972 ac-ft/yr. The total estimated withdrawal for non-irrigation use in the Stonesifer area is 1,872 ac-ft/yr. The total estimated withdrawal or water reserved from this aquifer in the Stonesifer area is 8,744 ac-ft/yr. This is likely to be a high estimate due to the conservative nature of the irrigation withdrawal estimation method. The two pending applications are estimated to withdraw a total of 121.84 ac-ft/yr. This application may withdraw up to 232 ac-ft/yr, but it is unlikely to withdraw that amount every year since irrigation water rights/permits typically withdraw less than their permitted amount. Therefore, based on the hydrologic budget, there is reasonable probability unappropriated water is available for this application.

In the smaller area which excludes the Buhler [7] Upper Vermillion-Missouri area, the recharge is estimated to range between 5,755 to 9,280 ac-ft/yr. The estimated withdrawal due to non-irrigation water rights/permits currently withdrawing from the smaller aquifer area is 1,267 ac-ft/yr. The estimated withdrawal due to irrigation water rights currently withdrawing from the smaller aquifer area is 3,431 ac-ft/yr. The water reserved for the City of Vermillion and for the pending applications are also in this area, so together they add another estimated 2,021.84 ac-ft/yr. With the 232 ac-ft/yr maximum withdrawal for this application, there is reasonable probability unappropriated water is available for this application.

Observation wells

Administrative Rule of South Dakota 74:02:05:07 requires the Water Management Board to rely upon the record of observation wells, among other information, to determine the availability of water for an application. The Water Rights Program maintains 12 observation wells completed into the Lower Vermillion-Missouri aquifer [12]. The nearest Lower Vermillion-Missouri observation well is UN-77I, located approximately 0.8 miles west of the well for this application [12]. Figure 4 shows water level elevations for Observation Well UN-77I [12]. This observation well is representative of the water levels in glacial outwash and alluvium at this location. Water levels in these wells tend to rise during periods of high rainfall and decline during periods of low rainfall, indicating that water levels in this area are governed more by the influence of climate than by pumping. Therefore, recharge to and natural discharge from the aquifer exceed withdrawals. Recharge to and natural discharge from an aquifer can be captured for pumping. Therefore, based on observation well levels, there is reasonable probability unappropriated water is available for this application.

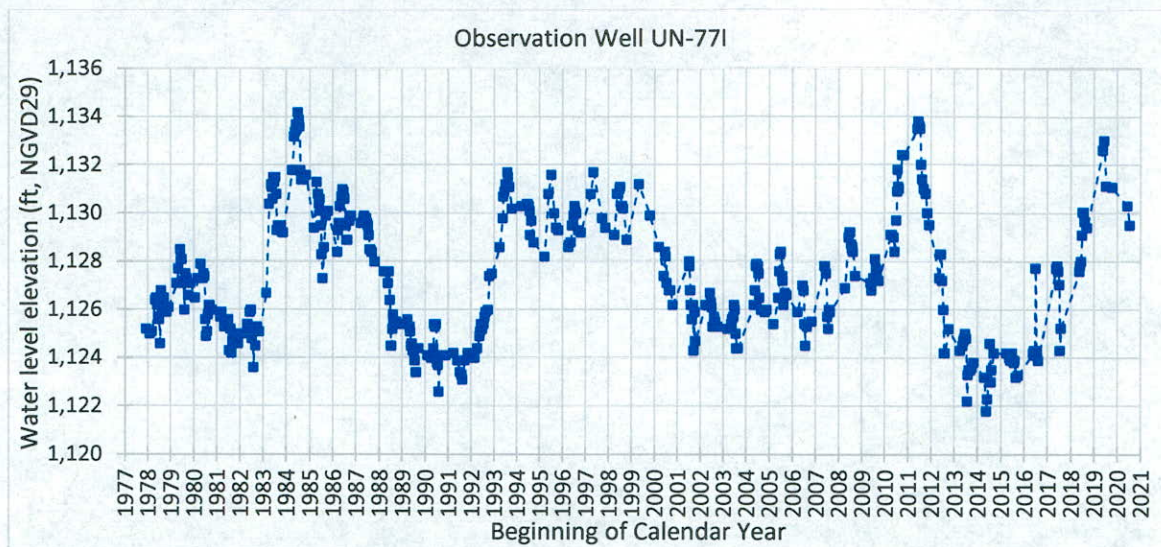


Figure 4: Water level elevations for Observation Well UN-77I [12]

Possibility of unlawful impairment on existing water rights

The Water Rights Program has historically interpreted an unlawful impairment of existing water rights to occur if a junior water right/permit causes a nearby adequate well with a senior water right/permit to become unable to withdraw at the rate it is entitled to or, if a domestic well is impacted, the junior water right/permit causes the adequate domestic well to be unable to withdraw at the rate needed to supply reasonable domestic use of water. Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) defines an adequate well 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

Figure 5 (see page 10) shows nearby water rights/permits and observation wells near to this application and Table 2 (see page 11) describes the water rights/permits shown [4] [12]. The nearest water right/permit to this application is Water Right No. 4393-3, located approximately 0.5 miles south of this application [4]. The nearest domestic well on file with the Water Rights Program that is likely to be completed into the same aquifer materials may be as near as 0.3 miles southeast of the proposed well [17]. There is no record of well interference on adequate wells completed into the Lower Vermillion-Missouri aquifer in Clay and Union counties [18]. Given the transmissive nature of the aquifer, lack of well interference documented and distance to nearby water rights/permits, there is reasonable probability this application can be developed without unlawful impairment of existing water rights/permits or adequate domestic wells.

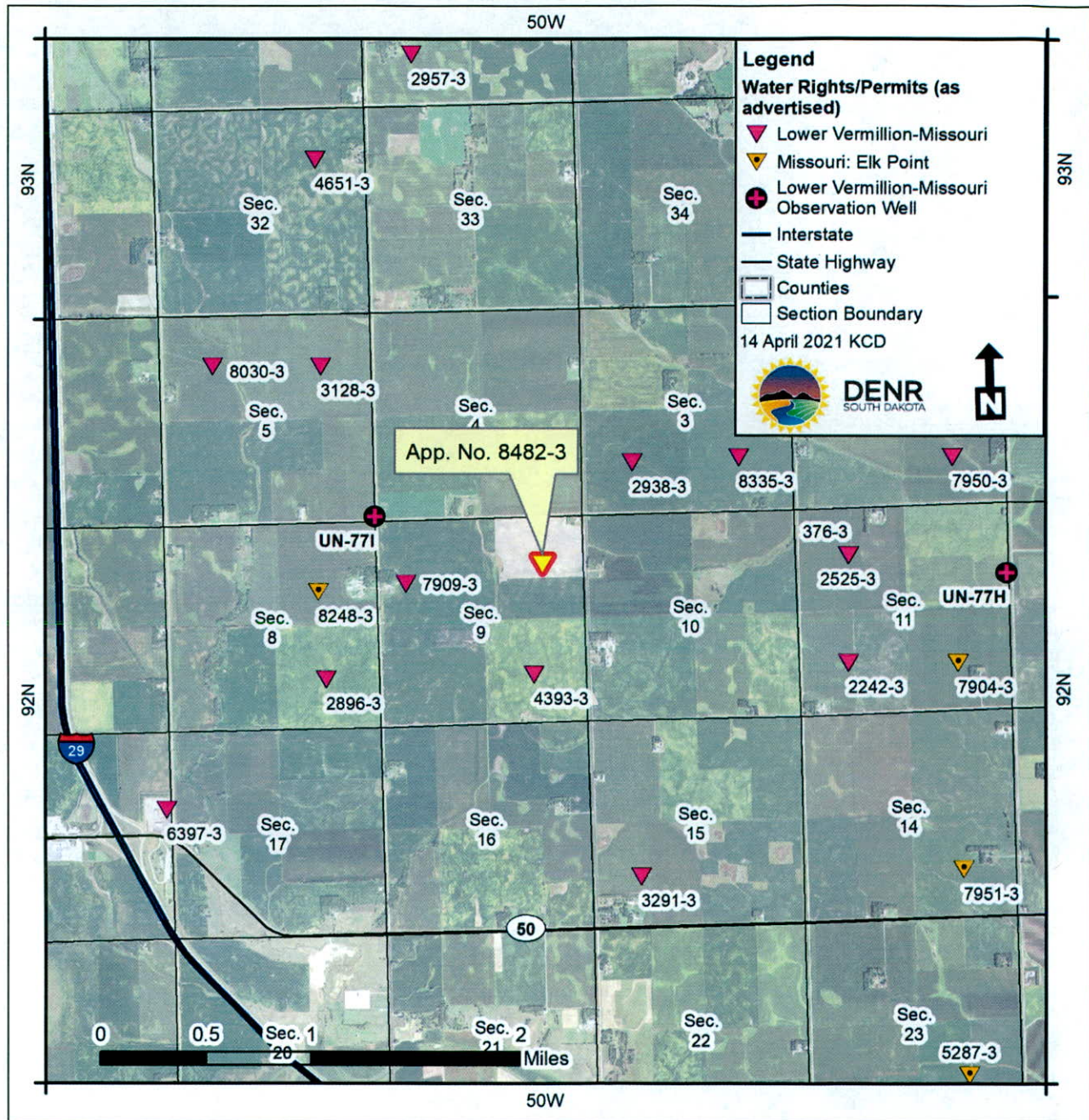


Figure 5: Nearby water rights/permits and observation wells to this application [4] [12]

Report on Water Permit Application No. 8482-3

Table 2: Water rights/permits in Figure 5 [4].

Permit	Name/Business	Priority	Status	Aquifer	Use Type	Max. CFS	Acres
376-3	Virginia Quam	1956-12-26	License	LVM	Irrigation	2.280	160
2242-3	Gerald B Hanson	1975-04-03	License	LVM	Irrigation	1.950	136
2525-3	Virginia Quam	1976-02-04	License	LVM	Irrigation	1.940	136
2896-3	Lyle Wagner	1976-08-17	License	LVM	Irrigation	2.230	265
2938-3	Maxine Bird	1976-09-07	License	LVM	Irrigation	1.940	136
2957-3	Norman & Ione Ronell	1976-09-09	License	LVM	Irrigation	1.940	136
3128-3	Eric R Abraham	1976-10-14	License	LVM	Irrigation	1.850	130
3291-3	Rocky Quam	1976-11-15	License	LVM	Irrigation	3.880	272
4393-3	Lyle A Wagner	1979-03-01	License	LVM	Irrigation	1.710	120
4651-3	Donald R Abraham	1981-02-20	License	LVM	Irrigation	1.720	121
5287-3	Craig S McInerney	1989-03-13	License	M:EP	Irrigation	2.220	208
6397-3	SD Dept of Transportation	2003-02-18	License	LVM	Institutional	0.033	0
7904-3	Craig S McInerney	2013-09-23	Permit	M:EP	Irrigation	1.780	160
7909-3	Scott Wagner	2013-09-16	License	LVM	Irrigation	1.890	157
7950-3	Luverne Hanson	2014-01-24	Permit	LVM	Irrigation	1.780	150
7951-3	Allen Pace	2014-01-24	Permit	M:EP	Irrigation	1.780	150
8030-3	Reid Bird	2014-06-16	Permit	LVM	Irrigation	1.780	140
8248-3	Larry Donnelly	2015-01-20	License	M:EP	Irrigation	1.780	268
8335-3	Dakota Eastern Inc	2018-03-01	Permit	LVM	Irrigation	1.840	158
LVM – Lower Vermillion-Missouri, M:EP – Missouri: Elk Point							

Conclusions

1. Water Permit Application No. 8482-3 seeks to appropriate 1.56 cfs from one well to be completed into the Lower Vermillion-Missouri aquifer located in the NE ¼ Section 9-T92N-R50W for irrigation of 116 acres.
2. Based on the hydrologic budgets and observation well analysis, there is reasonable probability there is unappropriated water available for this application.
3. There is reasonable probability this application can be developed without unlawful impairment of existing water rights/permits or adequate domestic wells.

Kimberly Drennon

Kimberly Drennon, E.I.
Natural Resources Engineer II – DENR Water Rights Program

References

- [1] L. S. Hedges, S. L. Burch, D. L. Iles, R. A. Barari and R. A. Schoon, "Evaluation of ground-water resources eastern South Dakota and upper Big Sioux River, South Dakota and Iowa, Tasks 1-4," U.S. Army Corps of Engineers, Omaha, Nebraska, 1982.
- [2] C. M. Christensen and J. C. Stephens, "Geology and Hydrology of Clay County, South Dakota Part II Water Resources," SD DENR Geological Survey Program, Vermillion, South Dakota, 1967.
- [3] J. R. Stonesifer, "Report to the Chief Engineer on Water Permit Application No. 7918-3," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2013.
- [4] SD Water Rights, "Water right/permit files," Pierre, South Dakota, 2020.
- [5] SD Water Management Board, "Findings of Facts, Conclusions of Law, and Final Decision on the Matter of Water Permit Application Nos. 7441-3 etc.," SD Water Rights, Joe Foss Bldg., Pierre, South Dakota, 2013.
- [6] SD Water Management Board, "Final Order on the Matter of Water Permit Application Nos. 7441-3 etc.," SD Water Rights, Joe Foss Bldg., Pierre, South Dakota, 2014.
- [7] K. A. Buhler, "Report to the Chief Engineer on 21 Water Permit Applications from the Upper Vermillion Missouri aquifer," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2014.
- [8] E. Gronlund, Interviewee, *Chief Engineer, Water Rights Program*. [Interview]. 5 April 2021.
- [9] S. L. Holmes and D. Filipovic, "Hydrogeologic investigation of the Upper-Vermillion-Missouri aquifer," SD DENR Geological Survey Program, Vermillion, South Dakota, 2015.
- [10] A. R. Jensen, "First Occurrence of Aquifer Materials in Clay County, South Dakota," SD Geological Survey Program, Vermillion, South Dakota, 2003.
- [11] K. A. McCormick, "First occurrence of aquifer materials in Union County, South Dakota," SD Geological Survey Program, Vermillion, South Dakota, 2004.
- [12] SD Water Rights, "Observation wells," Pierre, South Dakota, 2020.
- [13] L. S. Hedges, J. Allen and D. E. Holly, "Evaluation of ground-water resources eastern South Dakota and upper Big Sioux River - South Dakota and Iowa: Task 7: Ground water recharge," U.S. Army Corps of Engineers, Omaha, Nebraska, 1985.

- [14] SD Geological Survey, "Lithologic logs," Vermillion, South Dakota, 2020.
- [15] SD Water Rights, "Irrigation summaries," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, SD, 2020.
- [16] SD Water Rights, "Non-irrigation yearly reports," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2020.
- [17] SD Water Rights, "Well completion reports," Pierre, South Dakota, 2021.
- [18] SD Water Rights, "County Files," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, SD, 2021.

- [14] SD Geological Survey, "Lithologic logs," Vermillion, South Dakota, 2020.
- [15] SD Water Rights, "Irrigation summaries," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, SD, 2020.
- [16] SD Water Rights, "Non-irrigation yearly reports," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2020.
- [17] SD Water Rights, "Well completion reports," Pierre, South Dakota, 2021.
- [18] SD Water Rights, "County Files," SD DENR Water Rights Program, Joe Foss Bldg., Pierre, SD, 2021.

AFFIDAVIT OF PUBLICATION

State of South Dakota)

:SS

County of Union)

Bruce L. Odson,

the publisher of the Leader-Courier, deposes and says that

The Leader-Courier

is a legal weekly newspaper of a general circulation, printed and published in Elk Point, County of Union, State of South Dakota, and has been such legal newspaper during the time hereinafter mentioned, and that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

Notice of Application No. 8482-3

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in

each week for 1 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two hundred paid copies weekly, and had been published in the said County of Union for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Elk Point, the said place of publication; that the first publication of said notice in said newspaper was

on Thursday, the 29 day of April, 2021

and that the succeeding publications were

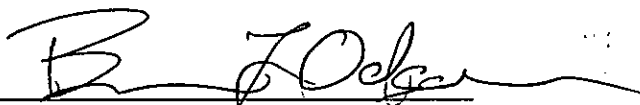
on Thursday, the _____ day of _____, _____

on Thursday, the _____ day of _____, _____

on Thursday, the _____ day of _____, _____

that the fees for the printing and publishing of said notice and advertisement in said newspaper as aforesaid were

\$ 25.51, that the full amount of the fee charged insures to the benefit of the publisher of the said newspaper, that no agreement or understanding for the division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.



Subscribed and sworn to before me

this 29 day of April, 2021

My commission expires 7-12-23

SUSAN ODSON
NOTARY PUBLIC
SOUTH DAKOTA



Notary Public

NOTICE OF APPLICATION NO. 8482-3 TO APPROPRIATE WATER

Notice is given that Reid Bird, 31605 473rd Ave, Elk Point SD 57025 has filed an application for a water permit to appropriate 1.56 cubic feet of water per second from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 200 feet deep) located in the center of the NE 1/4 Section 9 for irrigation of 116 acres located in the NE 1/4 Section 9; all in T92N-R50W. This site is located approximately 9 miles northwest of Elk Point SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8482-3 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 Ron Duvall 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 ap-

plicant 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 10, 2021.

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. Publish April 29, 2021
Published once at the total approximate cost of \$25.51
17-7-83

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MAY 03 2021

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

MAY 03 2021

WATER RIGHTS
PROGRAM

REID BIRD
31605 473RD AVENUE
ELK POINT SD 57025

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

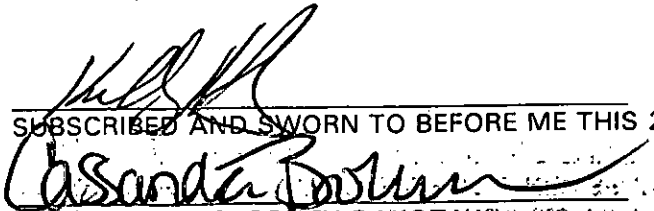
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
4+29 NOTICE OF APPLICATIO

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 29th DAY OF April, 2021
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT: \$24.01 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: 04/29/2021

FILED ON: 04/29/2021

SUBSCRIBED AND SWORN TO BEFORE ME THIS 29th DAY OF April, 2021


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026
RECORDED FOR THE WATER RIGHTS
PROGRAM

Ad text : 4 + 29

NOTICE OF APPLICATION
NO. 8482-3 to Appropriate Water

RECEIVED

MAY 03 2021

WATER RIGHTS
PROGRAM

Notice is given that Reid Bird, 31605 473rd Ave, Elk Point SD 57025 has filed an application for a water permit to appropriate 1.56 cubic feet of water per second from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 200 feet deep) located in the center of the NE 1/4 Section 9 for irrigation of 116 acres located in the NE 1/4 Section 9; all in T92N-R50W. This site is located approximately 9 miles northwest of Elk Point SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8482-3 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 Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

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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.

Published once at the total approximate cost of \$24.01

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 19, 2021 2:59 PM
To: G5 (leader1@iw.net)
Subject: 8482-3, Reid Bird
Attachments: 8482-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on April 29, 2021 in the Leader-Courier.

Reid Bird, 31605 473rd Ave, Elk Point SD 57025 (712 251-6343) 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
DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, April 19, 2021 2:58 PM
To: Jackie Lammers (jackie.lammers@yankton.net)
Subject: 8482-3, Reid Bird
Attachments: 8482-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on April 29, 2021.

Reid Bird, 31605 473rd Ave, Elk Point SD 57025 (712 251-6343) has been notified to contact you to authorize publication and arrange for payment.

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

Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

April 20, 2021

Reid Bird
31605 473rd Ave
Elk Point SD 57025

Dear Mr. Bird:

Water Permit Application No. 8482-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Leader-Courier printed at Elk Point SD (Ph # 605 356-2632) and the Press & Dakotan printed at Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers 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 newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have 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,

Karen Schlaak

Karen Schlaak
Water Rights Program
(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. 8482-3 to Appropriate Water

Notice is given that Reid Bird, 31605 473rd Ave, Elk Point SD 57025 has filed an application for a water permit to appropriate 1.56 cubic feet of water per second from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 200 feet deep) located in the center of the NE 1/4 Section 9 for irrigation of 116 acres located in the NE 1/4 Section 9; all in T92N-R50W. This site is located approximately 9 miles northwest of Elk Point SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8482-3 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 Ron Duvall 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 May 10, 2021.

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Published once at the total approximate cost of_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAY 12 2021

Reid Bird
31605 473rd Ave
Elk Point SD 57025

Dear Mr. Bird:

Enclosed is Water Permit No. 8482-3 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,

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

enclosures