

WATER PERMIT NO. 8625-3

Name of Applicant: Marty or Teresa Gilbertson

Address: 419 Park Lane, Vermillion SD 57069

Phone: 605 670-1693

Amount of Water Claimed: 1.78 cfs

Total Acres: 100

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Clay

Type of Waste Disposal System:

Location: 6 miles west of Vermillion

PRIORITY

Date Received: 3-21-22

Application/License Fee: \$ 950

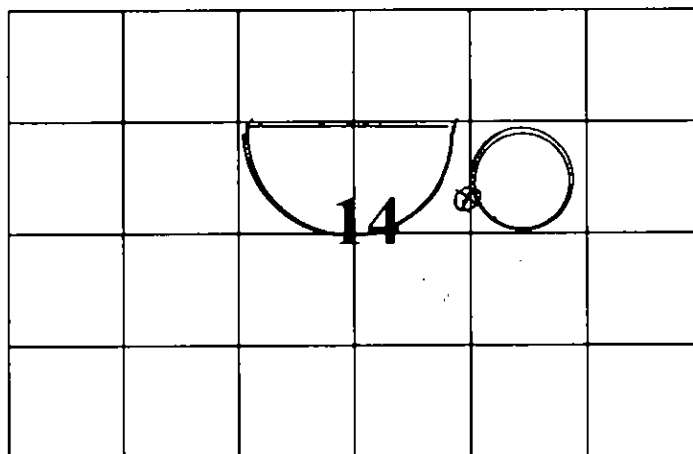
Corrected Application Received: 4-4-22

Period of Annual Use: Mar 1 – Nov 1

Remarks: Requesting diversion rate greater than statutory limit

Diversion Point: S 1/2 Sec 14-T92N-R53W

Land to be Irrigated: S 1/2 NE 1/4, SE 1/4 NW 1/4
Sec 14-T92N-R53W



Depth of Well: 140 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 4-4-22

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8625-3**

Date of first receipt of application March 21, 2022.

Date of return to applicant for corrections, amendments or changes March 23, 2022.

Date of receipt of corrected application April 4, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8625-3 to Marty or Teresa Gilbertson, 419 Park Lane, Vermillion SD 57069 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. 8625-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (approximately 140 feet deep) located in the S 1/2 NE 1/4 Section 14 for irrigation of 100 acres located in the S 1/2 NE 1/4, SE 1/4 NW 1/4 Section 14; all in T92N-R53W. This site is located approximately 6 miles west of Vermillion 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: March 1 – November 1.
3. The date from which applicant may claim right is March 21, 2022.
4. The date of approval of Permit No. 8625-3 is June 20, 2022.
5. One-fifth of the construction is to be completed on or before December 20, 2024.
6. All construction is to be completed on or before June 20, 2027.
7. Water is to be put to beneficial use on or before June 20, 2031.
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. 8625-3 are located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8625-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 8625-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 100 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

JUL 26 2022
date



FORM 2: Application for irrigation in South Dakota

(type or print)

MAR 21 2022

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8625-3</u>	(office use only) Hydrologic Unit <u>10170101</u>	WATER RIGHTS PROGRAM
	Basin <u>Missouri River</u>		
	Newspaper <u>Plain Talk</u>		
	<u>Press & Dakotan</u>		

PAID

MAR 21 2022

Ck# 5739

Rec't# _____

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 Marty or Teresa Gilbertson

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

Mailing Address 419 Park Lane Vermillion SD 57069
(Address) (City) (State) (Zip Code)Phone 605 Mobile 670-1693 Email marty.gilbertson1@gmail.com2. Amount of water claimed 1.78 *CFS or 900 **GPM ***AF Total Acreage 100
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable3. Source of water supply Well4. Location of point of diversion 1 well S 1/2 NE 1/4 Except Tract 1 Benson Addn
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)Sec 14, T14N-092-RNG 53 County Clay5. County or counties where water will be used Clay6. Annual period during which water is to be used March 1 thru NOV 17. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>S 1/2 NE 1/4 14-92-53</u>	<u>68.25</u>	<u>65 ac</u>	
<u>SE 1/4 NW 1/4 14-92-53</u>	<u>37.05</u>	<u>35 ac</u>	

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

well for crop Irrigation
Requesting diversion rate greater than statutory limit.

I, Marty Gilbertson, Owner, 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:

X c) Well Depth (required) 140' Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property _____ Property owned by others _____

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

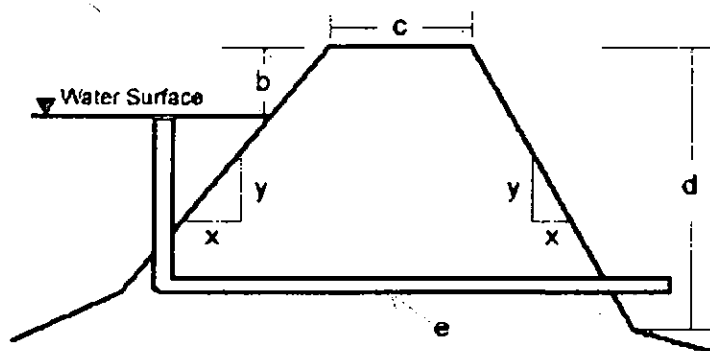
Upstream _____

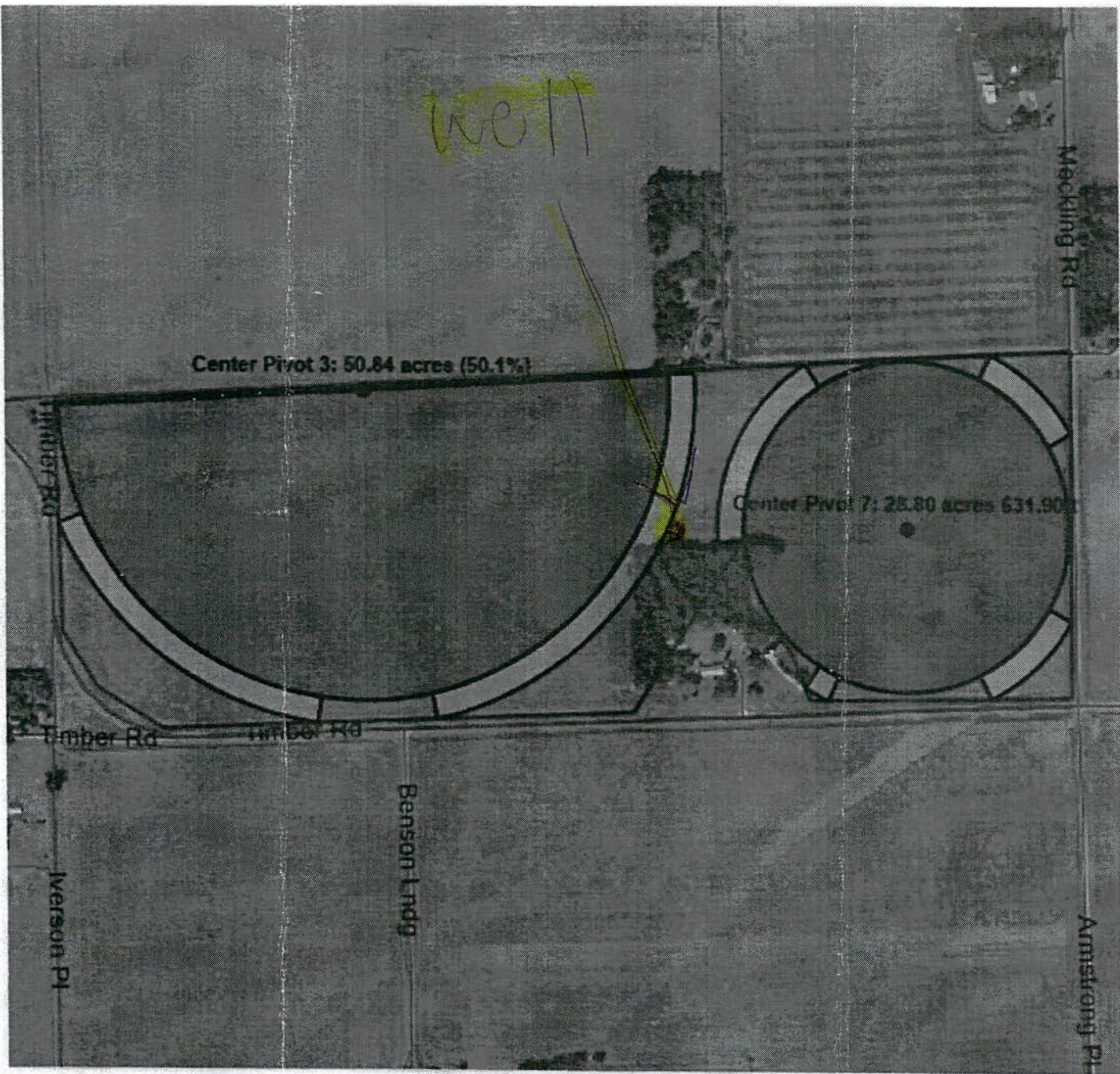
Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





92N 53W
Section: 10

92N 53W
Section: 11

92N 53W
Section: 12

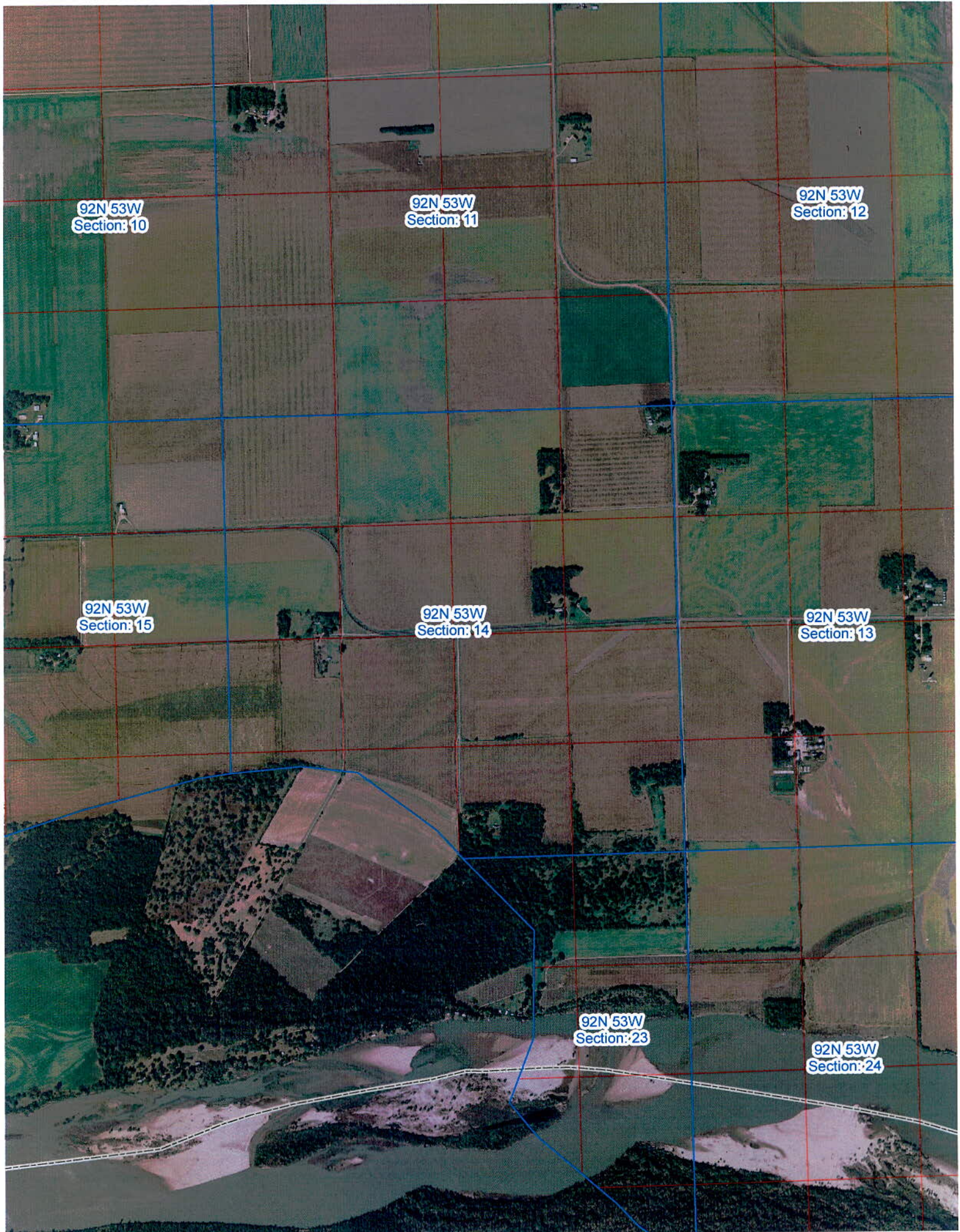
92N 53W
Section: 15

92N 53W
Section: 14

92N 53W
Section: 13

92N 53W
Section: 23

92N 53W
Section: 24





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

March 23, 2022

RECEIVED

APR 04 2022

WATER RIGHTS
PROGRAM

PAID

APR 4 2022

Ck# 5707

Rec't# _____

Marty or Teresa Gilbertson
419 Park Lane
Vermillion SD 57069

Dear Mr. & Mrs. Gilbertson:

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

- On Form 2A, Supplemental Information. Please complete No. 1. Well Information. Item c) Well Depth is required.
- We received your check for \$750.00. A \$200.00 license fee is also required at this time. Please submit.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

enclosure

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date March 21, 2022

RECEIVED OF Marty/Teresa Gilbertson 419 Park Lane Vermillion SD 57069

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

Fee for Application for Permit No. <u>8625-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>750.00</u>
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. _____	\$ _____
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	\$ <u>750.00</u>

By Eric Gronlund
Chief Engineer
vm

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date April 4, 2022

RECEIVED OF Marty/Teresa Gilbertson 419 Park Lane Vermillion SD 57069

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	\$ _____
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>8625-3</u>	\$ <u>200.00</u>
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	\$ <u>200.00</u>

By Eric Gronlund
Chief Engineer

me



**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. 8625-3**

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. 8625-3, Marty and Teresa Gilbertson, 419 Park Lane, Vermillion SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 8625-3 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 8625-3 are located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8622-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 8625-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 100 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
June 2, 2022

Report to the Chief Engineer
On Water Permit Application No. 8625-3
Marty or Teresa Gilbertson

May 15, 2022

Water Permit Application No. 8625-3 proposes to appropriate water at a maximum instantaneous diversion rate of 1.78 cubic feet per second (cfs) from one well to be completed into the Missouri: Elk Point aquifer (approximately 140 feet deep) located in the S $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 14 for the irrigation of 100 acres located in the S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 14; all in T92N-R53W. The site is located in Clay County approximately six miles west of Vermillion SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

AQUIFER: Missouri: Elk Point (M: EP)

HYDROGEOLOGY:

The Missouri: Elk Point aquifer is a glacial deposit comprised of unconsolidated materials that consist of fine sand to very coarse gravel (Niehus, 1994; Stephens, 1967). The Missouri: Elk Point aquifer underlies Clay, Union, and Yankton counties in South Dakota (Hedges et al., 1982). The Missouri: Elk Point aquifer underlies approximately 219,000 acres and contained approximately 3,287,100 acre-feet (ac-ft) of recoverable water in storage (Hedges et al., 1982). The approximate areal extent of the Missouri: Elk Point aquifer is displayed in Figure 1 along with the location of the diversion point. The Missouri: Elk Point aquifer is hydraulically connected to the Lower James Missouri and the Lower Vermillion Missouri aquifers, as well as the Big Sioux, Missouri, James, and Vermillion Rivers (Niehus, 1994, Stephens, 1967).

No well completion report or test hole log was submitted with Water Permit Application No. 8625-3. Well completion reports on file with the DANR-Water Rights Program for wells completed into the Missouri: Elk Point aquifer within approximately two miles of the proposed diversion point for this application have a saturated thickness ranging from approximately 20 to 60 feet, with the depth to the top of aquifer materials ranging from approximately land surface to 70 feet below land surface, and static water levels at well completion varying from approximately 12 to 24 feet below land surface (SDGS, 2022; Water Rights, 2022b and 2022d). The Missouri: Elk Point aquifer is expected to be unconfined at the proposed diversion point based on lithologic logs on file for nearby observation wells and well completion reports for nearby wells (SDGS, 2022; Water Rights 2022b and 2022d).

South Dakota Codified Law (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, "A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the diversion point can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by SDCL 46-2-9 and 46-2-11." This report will address the

availability of unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the Missouri: Elk Point aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8625-3 proposes to appropriate water from the Missouri: Elk Point aquifer for irrigation. The probability of unappropriated water being available from the 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. However, an application may be approved for a water distribution system for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge.” The Missouri: Elk Point aquifer is not older than or stratigraphically lower than the Greenhorn Formation (Fahrenbach et al, 2010), and the applicant’s proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Missouri: Elk Point aquifer must be considered.

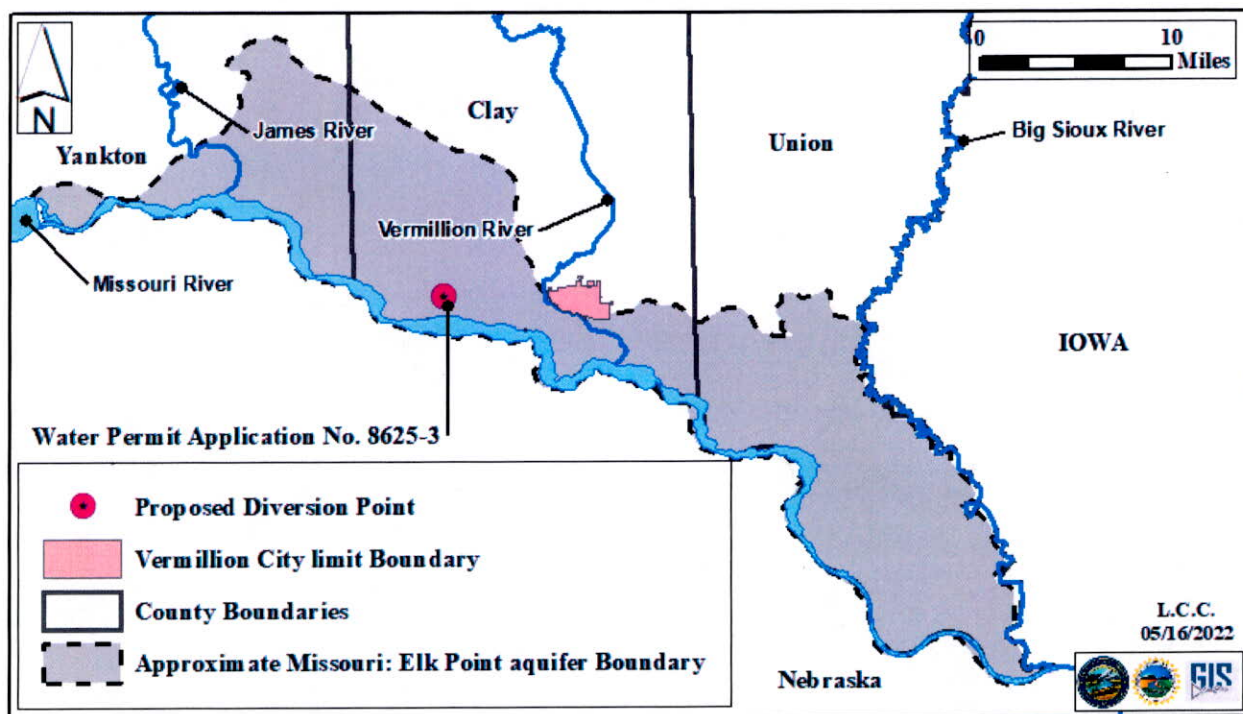


Figure 1: The approximate areal extent of the Missouri: Elk Point aquifer including the proposed diversion point location of Water Permit Application No. 8625-3 (Hedges et al., 1982; Water Rights, 2022b and 2022c).

HYDROLOGIC BUDGET:

Recharge

Recharge to the Missouri: Elk Point aquifer is primarily through infiltration of precipitation, seepage from the Big Sioux, James, Missouri, and Vermillion Rivers, and inflow of groundwater from the Lower James Missouri and Lower Vermillion Missouri aquifers (Bugliosi, 1986; Niehus, 1994). The recharge rate to the Missouri: Elk Point aquifer was estimated by Hedges and others (1985). The average annual recharge rate that was estimated for the Missouri: Elk Point aquifer was 3.8 inches per year (Hedges et al., 1985). The estimated areal extent of the Missouri: Elk Point aquifer is 219,100 acres (Hedges et al., 1985). Therefore, the estimated average annual recharge to the Missouri: Elk Point aquifer is approximately 69,382 ac-ft/yr. An older study of the Missouri: Elk Point aquifer noted that withdrawals from the aquifer will bring an influx of recharge from the Missouri River (Stephens, 1967). Stonesifer (2013) estimated that the Missouri River contributed approximately 22,582 ac-ft/yr as a result of pumping from the Lewis and Clark RWS. This additional recharge to the aquifer results in an increase of the total estimated annual recharge of the Missouri: Elk Point aquifer to approximately 92,000 ac-ft/yr. It should be noted that other wells (domestic and appropriative) are in close vicinity to the Missouri River that can induce recharge from the river, the amount of that induced recharge has not been estimated.

Discharge

Discharge from the Missouri: Elk Point aquifer is primarily through evapotranspiration where the aquifer is at or near land surface, leakage to the Dakota aquifer, outflow to the Big Sioux, James, Missouri, and Vermillion Rivers, and well withdrawals (Bugliosi, 1986; Niehus, 1994). Currently, there are 623 water rights/permits authorized to appropriate water from the Missouri: Elk Point aquifer, plus three pending applications - Water Permit Application Nos. 8627-3 and 8630-3, and 8631-3 propose irrigation of 154 acres, combined (Water Rights, 2022c). There are five future use permits reserving water from the Missouri: Elk Point aquifer presently and the amount of future use permits has not changed since the report by Hansen (2021) was completed. For the purpose of estimating the average annual withdrawal rate from the Missouri: Elk Point aquifer, the five future use permits are assumed to be fully developable for a total of 14,900 ac-ft/yr (Water Rights, 2022c).

The estimated average annual use for non-irrigation water rights/permits within the Missouri: Elk Point aquifer was estimated by Hansen (2021) to be approximately 48,361 ac-ft/yr. It should be noted that Water Permit Nos. 5998A-3 and 7388-3, held by Clay Rural Water System Inc., are included in this average annual use estimate as a result 5998A-3 being authorized for turf, domestic, irrigation, and domestic use and 7388-3 being authorized for rural water system use (Hansen, 2021).

The estimated average annual use for irrigation water rights/permits from the Missouri: Elk Point aquifer from 1979 to 2020 is approximately 19,031 ac-ft/yr (Hansen, 2021). There has been no additional data compiled for the Missouri: Elk Point aquifer since what was analyzed by Hansen (2021) since compilation of the 2021 irrigation questionnaires is not yet completed. It should be noted that this estimate for irrigation use for the Missouri: Elk Point aquifer may not be fully

representative of the of the current development of the aquifer due to an increase in the number of permits and permitted acreage that began in 2006.

The current average annual irrigation use for the Missouri: Elk Point aquifer was estimated by Hansen (2021) and developed by Farmer (2021). The application rate for the Missouri: Elk Point aquifer was estimated to be approximately 0.343 ft/yr for crop irrigation and 0.97 ft/yr for turf irrigation per permitted acre (Farmer, 2021). These application rates for the Missouri: Elk Point aquifer were based on previous irrigation questionnaire data submitted to the SD DNR-Water Rights Program (Water Rights, 2022a). There are currently 587 irrigation water rights/permits for the Missouri: Elk Point aquifer authorizing irrigation of 80,849.54 crop acres and 744.6 turf acres (Water Rights, 2022c). Applying the crop application rates estimated by Farmer (2021), the average annual crop irrigation uses for the Missouri: Elk Point aquifer is approximately 27,731 ac-ft/yr. The estimated annual turf irrigation for the Missouri: Elk Point aquifer is shown in Table 1. Average annual irrigation use from the Missouri: Elk Point aquifer is approximately 28,476 ac-ft/yr.

Table 1: Estimated annual water use for turf irrigation within the Missouri: Elk Point aquifer (Farmer, 2021; Water Rights, 2022c).

Permit No.	Name	Status	County	Acres	Estimated Use (ac-ft/yr)
1294-3	Recreation Dev Assn Inc	LC	Union	102	98.9
2011-3	TR Golf LLC	LC	Union	95	92.2
5786-3	Dakota Dunes Golf Course	LC	Union	173	167.8
5935-3	Ted Waitt	LC	Union	1	1
5936-3	Applied Engineering Inc	LC	Yankton	1.8	1.7
5998A-3	Clay Rural Water System Inc	PE	Union	300	N/A*
8010-3	Ryan Rusher	LC	Yankton	2.5	2.4
8029-3	Dakota Dunes Comm Improvement District	PE	Union	17.8	17.3
8040-3	Heine Electric & Irrigation Inc	LC	Clay	1	1
8354-3	TR Golf LLC	PE	Union	30	29.1
8407-3	Gayville-Volin School District 63-1	LC	Yankton	4.5	4.4
8530-3	National Field Archery Association Foundation	LC	Yankton	16	15.5
LC: Licensed Water Right; PE: Permitted Water Right;			TOTAL:	744.6	431.3
* Accounted for within non-irrigation section					

There are domestic wells completed into the Missouri: Elk Point aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2022d). Withdrawals from domestic wells on an average annual basis are not considered to be a significant portion of the hydrologic budget due to their relatively low diversion rates. Additionally, with the development of rural water systems in areas where the Missouri: Elk Point aquifer is the uppermost aquifer available; it is likely some domestic users may have transitioned to rural water. Therefore, the quantity of water withdrawn by domestic wells is estimated to be negligible to the hydrologic budget for the Missouri: Elk Point aquifer.

Hydrologic Budget Summary

The average annual withdrawal rate from the Missouri: Elk Point aquifer totals approximately 91,500 ac-ft/yr (crop irrigation: 27,731 ac-ft/yr; turf irrigation: 431.3 non-irrigation: 48,361 ac-ft/yr; future use: 14,900 ac-ft/yr; pending applications: 52.8 ac-ft/yr; Water Permit Application No. 8625-3 (if approved) (assuming an application rate of 0.343 ft/ac): 24.3 ac-ft/yr) (Water Rights 2022a and 2022c). There is another pending application, Application No. 8614-3 for Lewis & Clark Regional Water System, that proposes to appropriate 6,882 ac-ft/yr. The application is currently deferred pending completion of a study by the SD DNR-Geological Survey regarding the induced recharge from the Missouri River pertaining specifically to development of the Lewis & Clark Regional Water System project. The study is expected to be completed in fall 2022. The estimated average annual recharge rate to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr. Overall, the estimated average annual recharge to the Missouri: Elk Point aquifer is greater than the estimated average annual withdrawal rate from the aquifer. Therefore, there is a reasonable probability that unappropriated water is available for the appropriation proposed by this permit application.

OBSERVATION WELL DATA:

Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires that the Water Management Board shall rely upon 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 average annual recharge of the aquifer.

The DNR-Water Rights Program monitors 36 observation wells completed into the Missouri: Elk Point aquifer (Water Rights, 2022b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. There is one observation well (CI-80B) within approximately two miles of the proposed diversion point. The hydrograph for this observation well is displayed in Figure 2 (Water Rights, 2022b).

The hydrograph for the observation well displays generally stable water levels over its period of record, following the general trends of the aquifer and the Missouri River. The hydrograph for the Missouri: Elk Point aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. Additionally, the water levels in the observation well displays the amount of recharge to and natural discharge from the aquifer greatly exceeds pumping with the aquifer returning to pre-pumping conditions between irrigation seasons. This recovery of the aquifer indicates that climatic conditions and therefore, the effects of recharge to and natural discharges from the aquifer govern the long-term fluctuations of waters levels in the aquifer rather than the impacts of pumping from the Missouri: Elk Point aquifer. Some Missouri: Elk Point aquifer wells show a declining trend in water level over their respective periods of records. Generally, these wells are in close proximity to the Missouri River. This downward trend is due to the entrenchment of the Missouri River channel below Gavins Point Dam in Yankton. This entrenchment has lowered the water level of the river and thus of the hydrologically connected aquifer and is easily noticed in the observation wells near the river

(Goodman, 2007). However, this lowering of the water level in the aquifer is not a sign of over appropriation of the aquifer. The observation well data and how it reacts to climatic conditions does not show any long-term effects from pumping. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

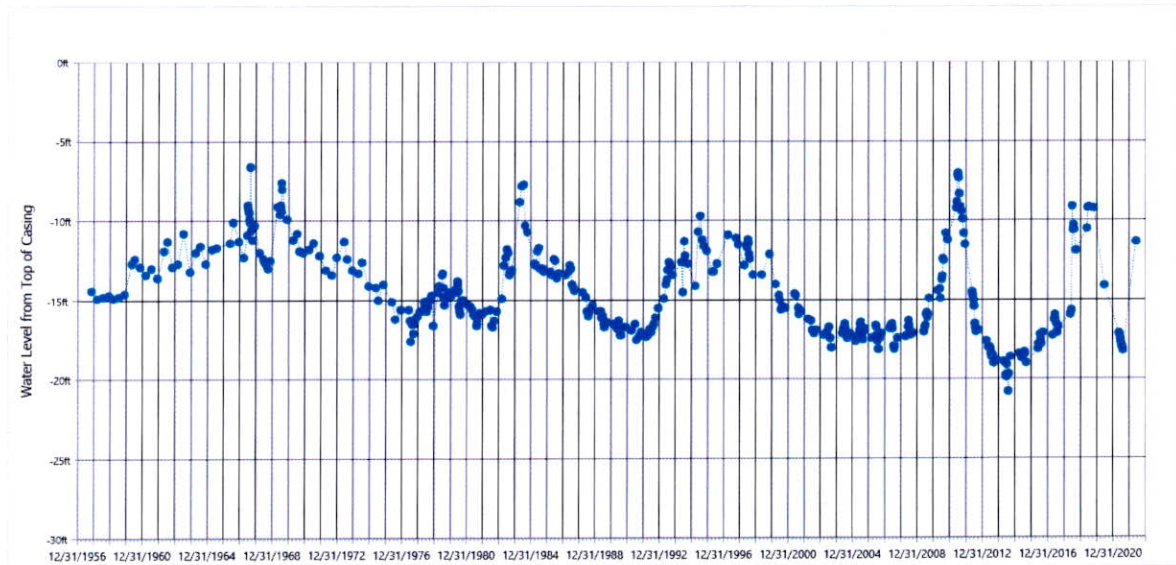


Figure 2: Hydrograph of the Missouri: Elk Point aquifer observation well CL-80B, located approximately 1.8 miles northwest of the proposed diversion point (Water Rights, 2022b).

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 626 water rights/permits authorized to appropriate water from the Missouri: Elk Point aquifer, including 5 future use permits appropriating water from the aquifer (Water Rights, 2022c). There are 12 water rights/permits authorized to appropriate water from the Missouri: Elk Point aquifer within approximately two miles of the proposed diversion point (Water Rights, 2022c). The 12 water rights/permits are shown in Figure 4 and identified in Table 2. The nearest water right/permit (not held by the applicant) to the proposed diversion point completed into the Missouri: Elk Point aquifer is Water Right No. 7987-3 located approximately 0.9 miles southwest of the proposed diversion point.

There are domestic wells on file with the DANR-Water Rights Program that are completed into the Missouri: Elk Point aquifer, with the closest domestic well on file (not held by the applicant) approximately 1.3 miles west of the proposed diversion point (Water Rights, 2022d). There could potentially be other domestic wells completed into the Missouri: Elk Point aquifer near the proposed diversion point that are not on file with the DANR-Water Rights Program.

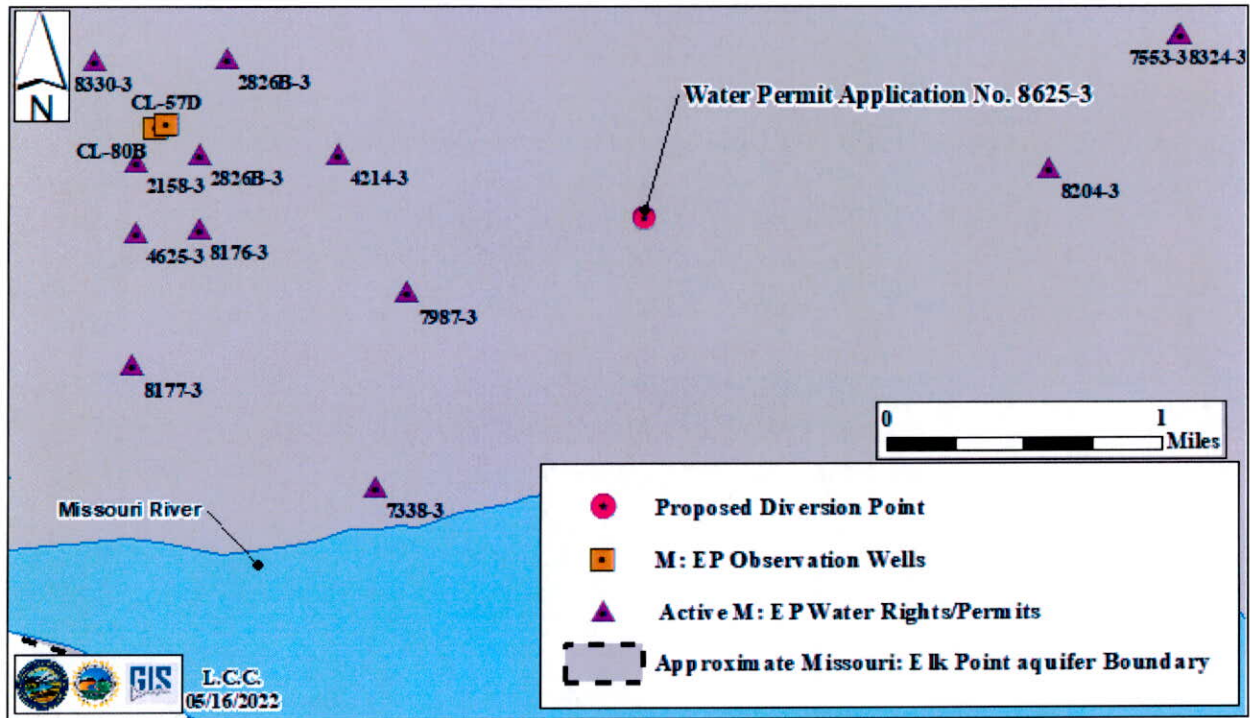


Figure 4: The site location of Water Right Permit Application No. 8625-3, nearby observation wells, and nearby water rights/permits completed into the Missouri: Elk Point aquifer (Water Rights, 2022b and 2022c).

Table 2: Water rights/permits from the Missouri: Elk point aquifer within approximately two miles of the diversion point (Water Rights, 2022c).

Permit No.	Name	Status	Use	Rate (cfs)	Acres
2158-3	D A Olson & Sons	LC	IRR	2.67	187
2826B-3	Brook Bye	LC	IRR	1.73	171
4214-3	D A Olson & Sons	LC	IRR	1.67	169
4625-3	D A Olson & Sons	LC	IRR	0.36	25
7338-3	Nicholas W Olson	PE	IRR	0.6	47.7
7553-3	John Freeburg	LC	IRR	1.55	128
7987-3	Nicholas W Olson	PE	IRR	1.78	102
8176-3	Calvin & Mary Hanson	LC	IRR	1.113	31
8177-3	D A Olson & Sons	LC	IRR	1.23	62
8204-3	Douglas G Bye	LC	IRR	1.56	133
8324-3	John Freeburg	PE	IRR	0	34
8330-3	Scott And Jeanne Jepsen	LC	IRR	3.56	287

IRR: Irrigation; LC: Licensed Water Permit; PE: Permitted Water Permit

The Missouri: Elk Point aquifer is generally under unconfined conditions in Clay County (SDGS, 2022; Water Rights, 2022d). The diversion point is expected to be under unconfined

conditions based on water levels and lithologic logs on file for the nearby observation wells (Water Rights, 2022d). Observation well data (see Figure 2) documents minimal drawdown from withdrawals of existing wells near the proposed diversion point. Therefore, pumping from the diversion point is not expected to significantly lower water levels within the aquifer. Drawdown created by pumping a well generally does not extend far from the pumped well in an unconfined aquifer. The exact drawdown behavior cannot be known without an aquifer performance test. In Clay County, there have been no complaints submitted to the DANR-Water Rights Program regarding potential well interference for adequate wells completed into the Missouri: Elk Point aquifer (Water Rights, 2022e).

Within approximately 2 miles of the proposed diversion point for this application, the Missouri: Elk Point aquifer has a saturated aquifer thickness ranging from approximately 20 to 60 feet, with the depth to the top of aquifer materials ranging from approximately land surface to 70 feet below land surface, and static water levels at well completion varying from approximately 12 to 24 feet below land surface (SDGS, 2022; Water Rights 2022b and 2022d). This would allow for sufficient saturated thickness for a pump to be placed 20 feet below the top of the aquifer; which is required for the well to be considered adequate under ARSD 74:02:04:20(6).

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

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

Any drawdown created from pumping this diversion point is not expected to cause unlawful impairment on existing water right/permit holders or domestic users with adequate wells considering the location of the diversion point, the saturated thickness, and the lack of complaints for adequate wells completed into the Missouri: Elk Point aquifer. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments on existing users with adequate wells.

SDCL 46-5-6:

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of 1.0 cfs per 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...”

If approved, Water Permit Application No. 8625-3 would authorize a maximum instantaneous diversion rate of 1.78 cfs from one well for the irrigation of 100 acres or the equivalent of 1.246

cfs per 70 acres. The applicant did not specifically state a reason for exceedance. The proposed system layout is one smaller than $\frac{1}{4}$ section pivot and one approximately full sized $\frac{1}{4}$ section pivot making a $\frac{1}{2}$ circle rotation. Typically, irrigation systems require a standard flow rate and pressure to operate properly. These flow rates and pressures do not go down because the pivot is making a partial rotation. This reason for the requested exceedance has been accepted by the Water Management Board and the Water Rights Program in the past.

CONCLUSIONS:

1. Water Permit Application No. 8625-3 proposes to appropriate water at a maximum instantaneous diversion rate of 1.78 cfs from one well to be completed into the Missouri: Elk Point aquifer. The site is located in Clay County approximately six miles west of Vermillion SD.
2. There is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer for this proposed appropriation based on the hydrological budget and observation well data.
3. There is a reasonable probability this diversion will not unlawfully impair adequate wells authorized by existing water rights or domestic use wells.
4. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres likely to the smaller pivot diameter and a separate pivot making a partial rotation. This are acceptable reasons for the request.



Lindsey Cederberg
Natural Resources Engineer I
SD DANR - Water Rights Program



Adam Mathiowetz, PE
Natural Resources Engineer IV
SD DANR -Water Rights Program

References

- Bugliosi, E.F. 1986. Water Resources of Yankton County, South Dakota. Water Resources Investigations Report 84-4241. U.S. Geological Survey, Huron, SD.
- Fahrenbach, M.D., Steece, F.V., Sawyer, J.F., McCormick, K.A., McGillivray, G.L., Schulz, L.D., and Redden, J.A. 2010. South Dakota Stratigraphic Correlation Chart. Oil and Gas Investigations 3. SD DANR-Geological Survey, Vermillion, SD.
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- Water Rights, 2022b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Friday, June 3, 2022 9:23 AM
To: marty.gilbertson1@gmail.com
Subject: Water Permit Application No. 8625-3
Attachments: 3531.pdf

Attached is a copy of the report, chief engineer recommendation and information regarding the public notice for your water permit application. As stated in the letter, please contact the paper(s) as soon as possible to authorize publication and arrange for payment. This information is being mailed to you today.

Karen Schlaak

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



AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

JUN 15 2022

OFFICE OF
WATER

MARTY OR TERESA GILBERTSON
419 PARK LANE
VERMILLION SD 57069

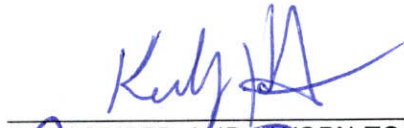
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

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
6 + 10 NOTICE OF APPLICATIO

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 10th DAY OF June, 2022
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$40.48 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: 06/10/2022

FILED ON: 06/10/2022



SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF June, 2022



NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026

NOTICE OF APPLICATION NO. 8625-3 to Appropriate Water

Notice is given that Marty or Teresa Gilbertson, 419 Park Lane, Vermillion SD 57069 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri/Elk Point Aquifer (approximately 140 feet deep) located in the S 1/2 NE 1/4 Section 14 for irrigation of 100 acres located in the S 1/2 NE 1/4, SE 1/4 NW 1/4 Section 14; all in T92N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 6 miles west of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8625-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineers recommendation with qualifications, the application, and staff report are available at <https://danr.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 this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by June 20, 2022.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by June 20, 2022.

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 \$40.48 and can be viewed free of charge at www.sdpublicnotices.com.

RECEIVED

JUN 14 2022

OFFICE OF
WATER

AFFIDAVIT OF PUBLICATION

PLAIN TALK

THERESA GILBERTSON
419 PARK LANE
VERMILLION SD 57069

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

GARY WOOD, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE PUBLISHER OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL DAILY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF
THE OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN
THIS AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION NO.

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 10TH DAY OF JUNE, 2022,
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$40.64 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: 06/10/2022

FILED ON: 06/10/2022


SUBSCRIBED AND SWORN TO BEFORE ME THIS 10TH DAY OF JUNE, 2022


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026

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Published once at the total approximate cost of \$40.64 and can be viewed free of charge at www.sdpublicnotices.com

Published June 10, 2022.

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, June 2, 2022 4:42 PM
To: Kelly Kronaizl
Subject: 8625-3, Marty or Teresa Gilbertson
Attachments: 8625-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on June 10, 2022.

Marty or Teresa Gilbertson, 419 Park Lane, Vermillion SD 57069 (605 670-1693) 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: Thursday, June 2, 2022 4:43 PM
To: Cassandra Brockmoller (cassandra@yankton.net)
Subject: 8625-3, Marty or Teresa Gilbertson
Attachments: 8625-3public.short_final.docx; FORM8.FRM.doc

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Karen Schlaak

DANR - Water Rights Program
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**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.**

June 3, 2022

Marty or Teresa Gilbertson
419 Park Lane
Vermillion SD 57069

Dear Mr. & Mrs. Gilbertson:

Water Permit Application No. 8625-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion (Ph # 605 624-2695) and the Press & Dakotan printed at Yankton (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. 8625-3 to Appropriate Water

Notice is given that Marty or Teresa Gilbertson, 419 Park Lane, Vermillion SD 57069 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (approximately 140 feet deep) located in the S 1/2 NE 1/4 Section 14 for irrigation of 100 acres located in the S 1/2 NE 1/4, SE 1/4 NW 1/4 Section 14; all in T92N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 6 miles west of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8625-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.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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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

JUL 26 2022

Marty or Teresa Gilbertson
419 Park Lane
Vermillion SD 57069

Dear Mr. & Mrs. Gilbertson:

Enclosed is Water Permit No. 8625-3 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

8625-3

SD EForm - 1621LD V1

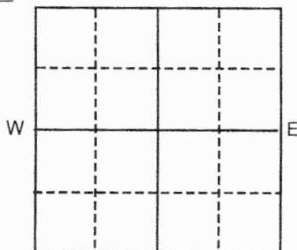
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 14 Twp 92 Rg 53County Clay

North

Please mark well location with an "X"



Well Completion Date

6-07-22

1 Mile

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

1000 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Straight Mud Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	14 IN	0 FT	20 FT	20 IN
LB/FT	12 IN	20 FT	60 FT	17.5 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	25	Lb/gal	0 Ft	60 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 12 Inches Length 40 Feet
Material PVCSlot Size .050 Set From 60 Feet to 100 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?

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: Marty Gilbertson

Business Name:

Address: 419 Park LaneCity, State, Zip: Vermillion ☒ SD ☒ 57069

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Topsoil	0	3
Silty Brown Clay	3	12
Sand	12	20
Silty Sand	20	30
Sand	30	60
Fine To Med Sand	60	100

STATIC WATER LEVEL 22 FEETIf flowing: closed in pressure PSIGPM flow 400 through 6" Inch pipeControlled by ☐ Valve ☐ Reducers ☐ OtherReduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

56 Ft. After 12 Hrs. pumped 425 GPM Ft. After Hrs. pumped GPMIf pump installed, pump rate: 400 GPM

REMARKS

42°47'19.25" N

97°04'06.16" W

This well was drilled under license # 773 and this report is true and accurate.Drilling firm: Quality Well Service LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 12-2-22

RECEIVED

DEC 05 2022

OFFICE OF
WATER

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8625-3

I have this day, August 22, 2023, made a thorough examination of the water use systems owned by Marty or Teresa Gilbertson, 419 Park Lane, Vermillion, SD 57069, holders of Permit No. 8625-3, bearing the priority date of March 21, 2022. This permit authorizes the diversion of 1.78 cu. ft. per second of the waters of groundwater (Missouri: Elk Point Aquifer) authorizing the irrigation of 100 acres located in Clay County.
Inspection contacts: Marty Gilbertson

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Quality Well Service LLC
- 2) No. of Wells: 1
- 3) Depth(s): 100 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 14 inches
- 2) Length: 20 feet
- 3) Type: Plastic
- 4) Diameter: 12 inches
- 5) Length: 40 feet
- 6) Type: Plastic

Screen:

- 1) Diameter: 12 inches
- 2) Length: 40 feet
- 3) Type: PVC
- 4) Static water level: 22 feet

Pump:

- 1) Make: Custom Pipe & Fabrication Inc. (Borer Wholesale)
- 2) Model No.: 9RKL0
- 3) Capacity: 400 GPM

Motor:

- 1) Make: US Motors
- 2) Model No.: FZ75
- 3) Horsepower rating: 25 hp

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

- 1) Type: PVC Size: 8 inches Length: 1,250 feet to the west pivot
- 2) Type: PVC Size: 8 inches Length: 970 feet to the ease pivot

C. Works used to apply water to beneficial use:

West Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 1,191 feet
- 3) Number of towers: 9
- 4) End gun: Yes
- 5) Capacity: 400 gpm

East Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 632 feet
- 3) Number of towers: 5
- 4) End gun: Yes
- 5) Capacity: 400 gpm

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Began Irrigating in 2022
- 3) Exceptions to compliance are: None

E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 1,890 feet south and 1,650 feet west of the northeast corner of Section 14-T92N-R53W (Latitude 42.78851, Longitude -97.06804- SW1/4 of the NE1/4).
- 2) The works are capable of diverting and conveying to the places of use 0.89 cu. ft. per second of water from the well which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows:

Section 14-T92N-R53W

SE1/4NW1/4 32 acres

SW1/4NE1/4 27 acres

SE1/4NE1/4 33 acres

comprising a total of 92 acres of land and the license should be issued for 0.89 cfs.

- 3) All structures, wells and lands on map: Yes

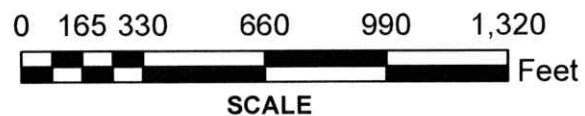
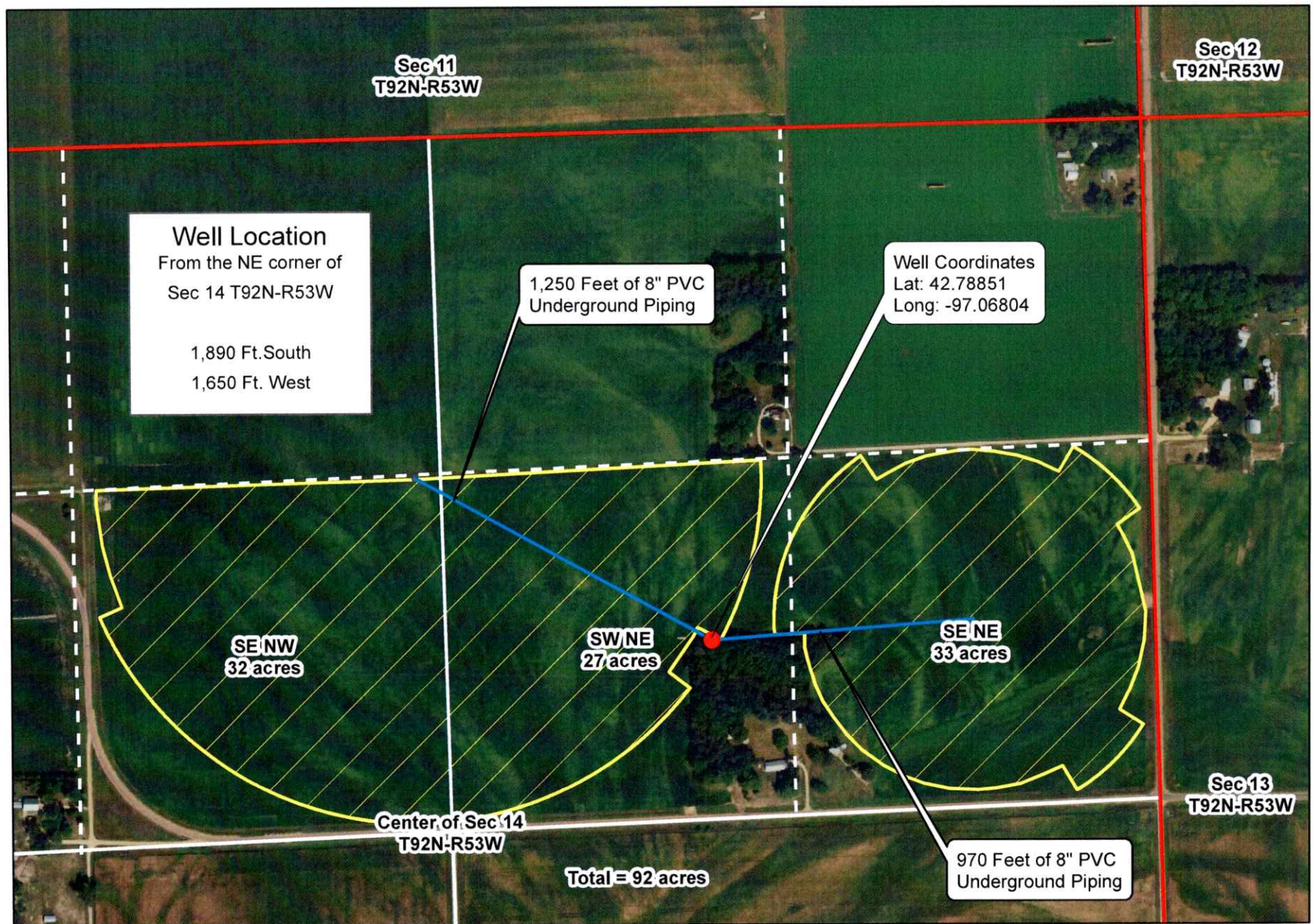
F. Comments or other permit(s) associated with the project: None.

Keith DeJong

Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: August 23, 2023

Water Permit No. 8625-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
August 23, 2023

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

Date 8-22-23

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

Phone: (605) 773-3352

FROM: Marty Gilberston
(name)

419 Park Lane
(address)

Vermillion SD 57069 605-670-1693
(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. 8625-3 states that the water use system is to be constructed by

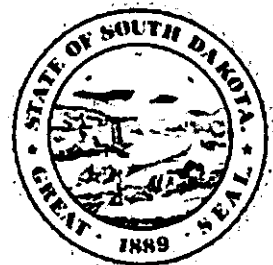
June 20, 2027, and water is to be put to beneficial use by June 20, 2031.
(date) (date)

The water use system was completed on June, 2022.
(date)

Applying the water to beneficial use was completed on June, 2022.
(date)

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

Marty Gilberston
(signature)



STATE OF SOUTH DAKOTA

WATER LICENSE NO. 8625-3

(1) Marty & Teresa Gilbertson; 419 Park Lane, Vermillion SD 57069, made Application No. 8625-3, March 21, 2022, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (Missouri: Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 8625-3, with a priority date of March 21, 2022, was approved June 20, 2022, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 20, 2027, and for the application to beneficial use of water on or before June 20, 2031.

The permit holders submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on August 22, 2023. The Notice stated the diversion system was completed in June 2022 and the water was placed to beneficial use in June 2022.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and are entitled to divert 0.89 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,890 ft S & 1,650 ft W of the NE corner of Section 14, T92N, R53W (SW $\frac{1}{4}$ NE $\frac{1}{4}$)
(Latitude 42.78851 Longitude -97.06804)

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

Section 14, T92N, R53W	
SE $\frac{1}{4}$ NW $\frac{1}{4}$	32.0 acres
SW $\frac{1}{4}$ NE $\frac{1}{4}$	27.0 acres
SE $\frac{1}{4}$ NE $\frac{1}{4}$	33.0 acres
TOTAL: 92.0 acres	

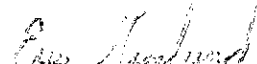
(4) Pursuant to South Dakota Water Law 46-5-30.1 Marty & Teresa Gilbertson, the holders and/or owners of Water Right No. 8625-3 are issued a license to appropriate water, the right to use 0.89 cubic feet of water per second from groundwater, one well (Missouri: Elk Point Aquifer), with a priority date of March 21, 2022, 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. 8625-3 and subject to the following qualifications:

1. The well approved under Water Permit No. 8625-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

continued

2. The well authorized by Permit No. 8625-3 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. *(The well was completed by Quality Well Service LLC in 2022. A copy of the well completion report is on file with the Water Rights Program.)*
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the methods of irrigation, time constraints, or type of soils so requires, Water Permit No. 8625-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 100 acres with an annual volume not to exceed 2 acre feet of water per year. *(Water Right No. 8625-3 authorizes a maximum diversion rate of 0.89 cfs for the irrigation of 92 acres with an annual volume not to exceed 2 acre feet of water per year, based on the system as it was developed.)*
4. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.


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

AUG 28 2023
date





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

AUG 28 2023

Marty & Teresa Gilbertson
419 Park Lane
Vermillion SD 57069

8625-3

Dear Mr. & Ms. Gilbertson:

Enclosed is Water License No. 8625-3. 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.

So 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



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

January 14, 2025

NOTICE

TO: MARTY OR TERESA GILBERTSON, 419 PARK LN, VERMILLION, SD 57069

FROM: Ron Duvall, Engineer III
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2024 Irrigation Questionnaire(s)

Our records indicate your 2024 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8625-3. The request for the Questionnaire was dated October 23, 2024. The Water Management Board has directed owners of water permits who have not submitted the 2024 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) 8625-3 qualification:

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

The hearing will be held on **Wednesday, March 5, 2025, at 9:30 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) 8625-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 5, 2025**, 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 Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: JLAARP**

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 17, 2025

8625-3

Mark & Teresa Gilbertson
419 Park Lane
Vermillion SD 57069

Dear Mr. & Ms. Gilbertson:

I am writing to acknowledge the receipt of your 2024 irrigation questionnaire(s).

You may disregard the January 14, 2025, "Notice" concerning the reporting requirements for Water Permit No(s). 8625-3. The information was received prior to the March 5, 2025, Water Management Board meeting and the above listed permit number(s) have been removed from the agenda.

If you have any questions or concerns, please contact me.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us