

WATER PERMIT NO. 8833-3

Name of Applicant: **Jesse & Tanya Vandestroet**

Address: **302 Oak Street, Fairview SD57027** Phone: **605-310-6292**

Amount of Water Claimed: **No add'l** Total Acres: **10**

Source of Water Supply: **Groundwater**

Water to be used for: **Irrigation** County: **Clay**

Type of Waste Disposal System:

Location: **Approx. 9 miles southwest of Beresford SD**

PRIORITY Date Received: **02-07-24**

Application/License Fee: **\$500.00**

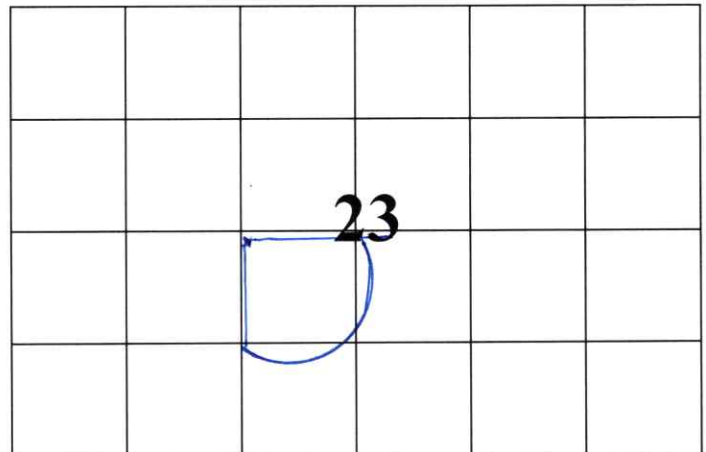
Corrected Application Received:

Period of Annual Use: **April 1 – October 31**

Remarks: **Keith DeJong inspection found applicant irrigating 10 more acres than authorized by Permit 6820A-3.**

Diversion Point: **Approx. center SW 1/4 Sec 23-T95N-R52W**

Land to be Irrigated: **E 1/2 SW 1/4, NW 1/4 SE 1/4 Sec 23-T95N-R52W**



Depth of Well:

Well Driller:

Remarks:

Type of Map: **aerial**

Reviewed and the Number Assigned on: **02-08-24**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8833-3

Date of first receipt of application February 7, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8833-3 to Jesse and Tanya Vandestroet, 302 Oak Street, Fairview SD 57027, 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. 8833-3 authorizes the irrigation of 10 additional acres to what was already authorized by Water Permit 6820A-3, with no increase to the rate of diversion. The water source for Water Permit No. 6820A-3 was originally identified as being the Lower Vermillion Missouri Aquifer. Additional study since the original application was reviewed and approved in 2005, identifies the water source as the Upper Vermillion Missouri: South Aquifer. This permit corrects the water appropriated under Permit No. 6820A-3 as from the Upper Vermillion Missouri: South Aquifer. Water Permit No. 6820A-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Upper Vermillion Missouri: South Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 23 for irrigation of 43 acres located in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23; all in T95N-R52W. An investigation of Permit 6820A-3 found 10 additional acres being irrigated in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23-T95N-R52W and a system only capable of diverting 1.39 cfs. This permit and Water Permit No. 6820A-3 authorize a combined total of 1.39 cfs from the well authorized by Permit No. 6820A-3 for irrigation of 53 acres in the area described above. This site is located approximately six miles south of Centerville 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 – October 31.
3. The date from which applicant may claim right is February 7, 2024.
4. The date of approval of Permit No. 8833-3 is April 29, 2024.
5. 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 Nos. 6820A-3 and 8833-3 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.
2. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit Nos. 6820A-3 and 8833-3, combined, authorize a maximum diversion rate of 1.39 cfs for the irrigation of 53 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

MAY 17 2024
date



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

PAID

FEB 07 2024

Ck# 2248
Rec'd# 217124

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8833-3</u> Hydrologic Unit <u>10170102</u> Basin <u>Vermillion</u> Newspaper <u>Plain Talk</u> <u>Daily Press & Dakotan</u> (office use only)
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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 Jesse & Tanya Vandestroet

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

Mailing Address 310 Thelma Ave 302 oak street Farmerville SD 57032
(Address) (City) (State) (Zip Code)

Phone _____ Mobile 605-310-6298 Email _____

2. Amount of water claimed N/A *CFS or _____ **GPM _____ ***AF _____ Total Acreage 10
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply groundwater, one existing well (authorized by 6820A-3)

4. Location of point of diversion approx center SW 1/4 in Sec 23 T95N-R52W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
County Clay

5. County or counties where water will be used Clay

6. Annual period during which water is to be used April 1 - October 31

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
E 1/2 SW 1/4 & NW 1/4 SE 1/4 (all in Sec 23 T95N-R52W)	10		

8. Give a description of the project. (Attach sheet if more space is needed)
additional acres to cover over development of Permit No. 6820A-3

RECEIVED

FEB 08 2024

OFFICE OF
WATER

I, Jesse Unn DeStroet 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.

2021-08

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

C. Works used to apply water to beneficial use:**Center Pivot:**

- 1) Make: Zimmatic
- 2) Overall length: 1,626 feet
- 3) Number of towers: 9
- 4) End gun: Yes, 80 feet
- 5) Capacity: 625 gpm

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: No
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: None

E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 2,590 feet north and 1,340 feet east of the southwest corner of Section 23-T95N-R52W (Latitude 43.03281, Longitude -96.95859– NE1/4 of the SW1/4).
- 2) The works are capable of diverting and conveying to the places of use 1.39 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: All in;

Section 23-T95N-R52WNE1/4SW1/4 37 acresSE1/4SW1/4 8 acresNW1/4SE1/4 8 acres

comprising a total of 53 acres of land and the license should be issued for 1.39 cfs.

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

F. Comments or other permit(s) associated with the project: The well log, pump and motor information was obtained from Heine Electric and Irrigation, Inc.

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

Date report completed: May 7, 2024

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 _____

c) Well Depth 100 Depth to Top of Water Bearing Material 25 Depth to Water from Surface 25

d) Distance to nearest existing domestic well:

On applicant's property NA On property owned by others >2400' S.W.

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)

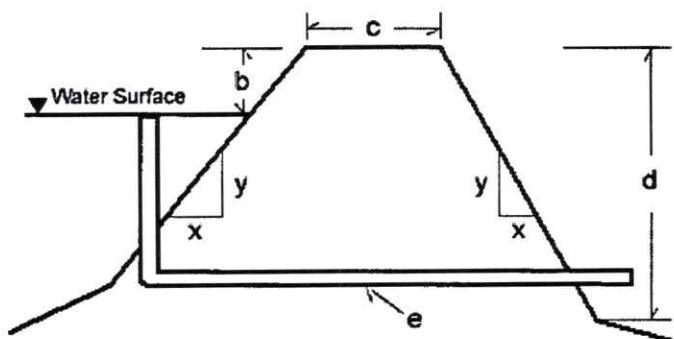
Upstream _____

Downstream _____

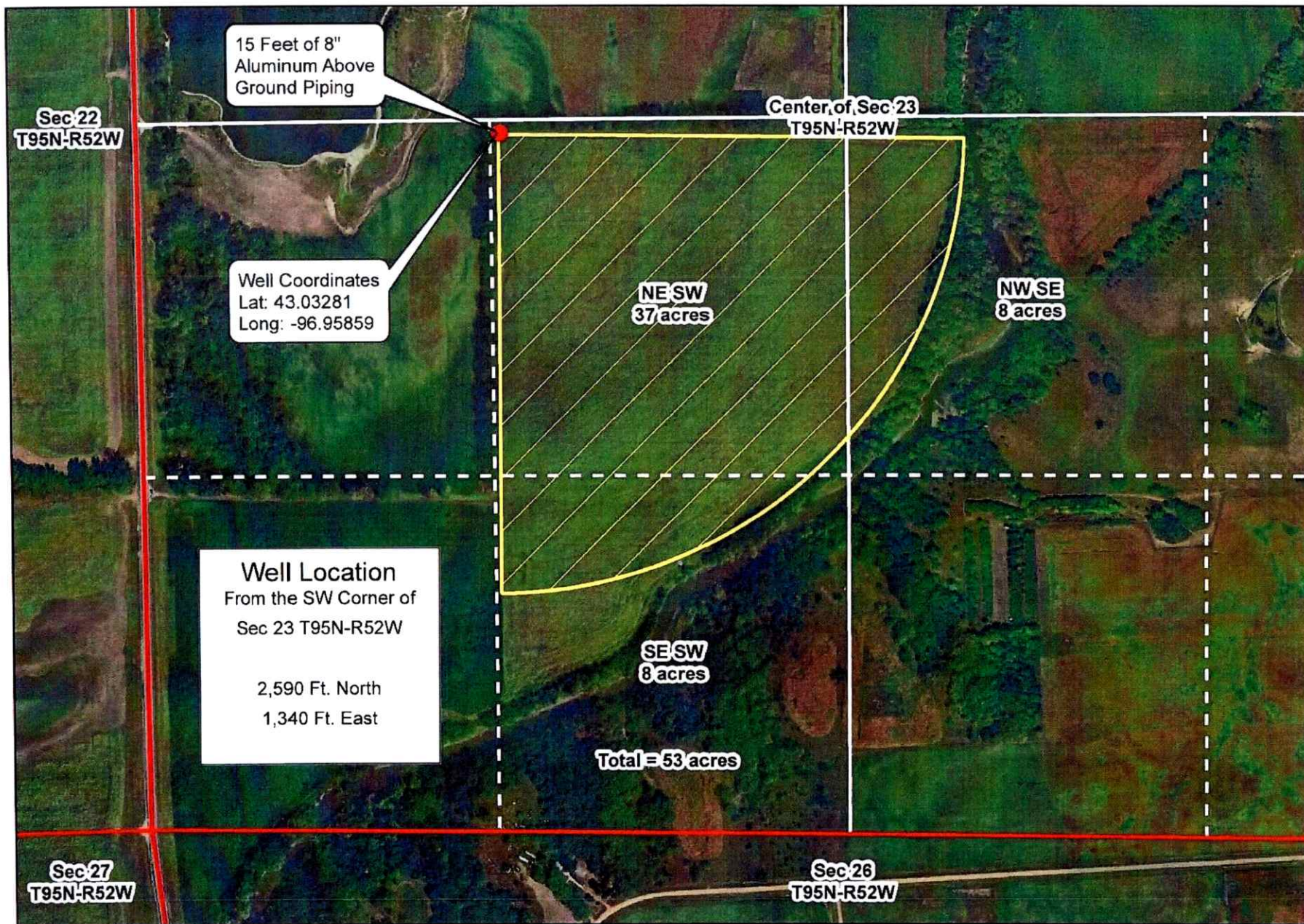
h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Water Permit No. 6820A-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
December 18, 2023

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date February 7, 2024

RECEIVED OF Jesse/Tanya Vandestroet 302 Oak Street Fairview SD 57027

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

Fee for Application for Permit No. <u>8833-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>500.00</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>500.00</u>

By Eric Gronlund
Chief Engineer vm



6820A-3

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 18, 2024

Jesse & Tanya Vanderstroet
310 Thelma Ave
Harrisburg SD 57032

Dear Mr. & Ms. Vanderstroet:

Permit No. 6820A-3 authorizes reinstatement of Permit No. 6820-3 for the irrigation of 43 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$ & NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T95N, R52W.

A recent inspection was conducted by staff engineer, Keith DeJong, for the purpose of licensing the irrigation system for Permit No. 6820A-3. The inspection found an additional 10 acres had been developed for irrigation under the corner pivot for Permit No. 6820A-3. (see enclosed map)

Due to the over development of the irrigation systems, permitting for the additional acres is required. Please find also enclosed, a partially completed irrigation permit application for the over developed acres, with no addition to the rate of diversion. Fees for this new application will be \$500.00. The inspection and licensing fee of \$200.00 will be waived, as it has already been paid. Checks can be made payable to the SD Water Rights Program.

Sincerely,

Amanda Dewell
Water Rights Program
Amanda.Dewell@state.sd.us

enclosure



**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. 8833-3, Jesse and Tanya Vandestroet**

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. 8833-3, Jesse and Tanya Vandestroet, 302 Oak Street, Fairview SD 57027.

The Chief Engineer is recommending APPROVAL of Application No. 8833-3 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 Nos. 6820A-3 and 8833-3 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.
2. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit Nos. 6569-3 and 8833-3, combined, authorize a maximum diversion rate of 1.39 cfs for the irrigation of 53 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
April 8, 2024

Report to the Chief Engineer
On Water Permit Application No. 8832-3 & 8833-3

Jesse & Tanya Vandestroet

April 2nd, 2024

Water Right No. 6812-3 authorizes 1.78 cubic feet of water per second (cfs) from one existing well completed into the Upper Vermillion Missouri aquifer (180 feet deep) located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 10 for irrigation of 66 acres located in the W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 10; all in T95N-R52W. The water source for Water Right No. 6812-3 was originally identified as being the Upper Vermillion Missouri aquifer. Additional study since approval of Water Right No. 6812-3 has resulted in delineation of management units for the Upper Vermillion Missouri aquifer. This notice identifies the management unit for Water Right No. 6812-3 as being the South management unit of the Upper Vermillion Missouri aquifer. Water Permit No. 7995-3 authorizes irrigation of 25 acres in the S $\frac{1}{2}$ SE $\frac{1}{4}$ Section 10-T95N-R52W using water from the existing well authorized by Water Right No. 6812-3. An investigation of Water Permit No. 7995-3 found an additional 32 acres being irrigated and a storage reservoir has been constructed at the site. This application proposes to irrigate an additional 32 acres located in the SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Section 10-T95N-R52W from the existing well authorized by Water Right No. 6812-3 and add the storage reservoir in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 10-T95N-R52W. This application, if approved, and Water Right No. 6812-3 and Water Permit No. 7995-3 will authorize a combined total of 1.78 cfs for irrigation and 123 acres. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The site is located approximately 4 miles south of Centerville, SD in Clay County.

Water Permit Application No. 8833-3 proposes to irrigate an additional 10 acres. The water source for Water Permit No. 6820A-3 was originally identified as being the Lower Vermillion Missouri aquifer. Additional study since the original application was reviewed and approved in 2005 identifies the water source as Upper Vermillion Missouri: South aquifer. Water Permit No. 6820A-3 authorizes 1.56 cfs from one existing well completed into the Upper Vermillion Missouri: South aquifer (100 feet deep) located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 23 for irrigation of 43 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23; all in T95N-R52W. An investigation of Permit 6820A-3 found 10 additional acres being irrigated in the E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23-R95N-R52W and a system only capable of diverting 1.39 cfs. This application, if approved, and Water Permit No. 6820A-3 will authorize a total of 1.39 cfs from the well authorized by Water Permit No. 6820A-3 for irrigation of 53 acres in the area described above. 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 south of Centerville, SD in Clay County.

AQUIFER: Upper Vermillion Missouri: South (UVM:S)

HYDROGEOLOGY:

The Southern management unit of the Upper Vermillion Missouri aquifer, referred to as the UVM:S aquifer for the remainder of this report, is a Quaternary aged glacial outwash that has

materials ranging in size from a fine sand to a medium-pebble gravel (Lindgren & Hansen, 1990). The UVM:S aquifer is primarily confined but can be found under unconfined conditions in areas where the UVM:S aquifer is hydrologically connected to the Parker-Centerville aquifer (Holmes & Filipovic, 2015). The UVM:S aquifer is overlain by a till layer with a range of thickness up to 160 feet thick (Holmes & Filipovic, 2015). From 2013 to 2014, the SD DENR-Geological Survey completed a study to further understand the geologic and hydrologic conditions of the entire Upper Vermillion Missouri aquifer (Holmes & Filipovic, 2015). From this study and a report written by Water Rights staff engineer Buhler (2014), the Water Management Board, in a meeting held on March 6th, 2014, adopted three management units (North, South, and West) that divided the Upper Vermillion Missouri aquifer for the purposes of water management (Water Rights, 2014). The UVM:S aquifer is hydrologically connected to the other portions of the Upper Vermillion Missouri aquifer, the Parker-Centerville aquifer, and the Lower Vermillion Missouri aquifer (Buhler, 2014; Mathiowetz, 2018; Niehus, 1997; Holmes & Filipovic, 2015). Hedges and others (1982) delineated a boundary between the Upper Vermillion Missouri aquifer and Lower Vermillion Missouri aquifer with portions of each boundary being modified by Buhler (2014) and Mathiowetz (2018) in response to additional study of the Upper Vermillion Missouri aquifer, as shown on Figure 1. Figure 1 also shows the estimated areal extent of the UVM:S aquifer, the area utilized for this report is approximately 78,820 acres (Buhler, 2014).

Water well completion reports were not submitted with the applications. However, Water Right No. 6812-3 and Water Permit No. 6820A-3 have water well completion reports on file that can be used for Application Nos. 8832-3 & 8833-3 respectively (Water Rights, 2024c). The water well for Water Right No. 6812-3 was completed on December 21st, 2007 (Water Rights, 2024c). The top of aquifer material is 55 feet below ground surface, the static water level is 58 feet below ground surface, and a saturated aquifer thickness of 122 feet at the time of completion (Water Rights, 2024c). The UVM:S aquifer is expected to be unconfined at the diversion point for Water Right No. 6812-3 based on its well completion report, however the data of other nearby well completion reports and observation wells indicate the UVM:S is under confined conditions in close proximity to the well the applicant proposes to use (Water Rights, 2023a, 2023b, and 2024c). The water well for Water Permit No. 6820A-3 was completed on May 27th, 2014 (Water Rights, 2024c). The static water level was not listed on the well completion report, so nearby well completion reports and observation wells were used to get an approximation of static water level (Water Rights, 2023b and 2024c). The top of aquifer bearing material is 16 feet below ground surface, the static water level is expected to be approximately 15 feet below ground surface, and a saturated aquifer thickness of approximately 34 feet at the time of completion (Water Rights, 2024c). The UVM:S aquifer is expected to be confined at the diversion point for Water Permit No. 6820A-3 based on its well completion report and the data of other nearby well completion reports and observation wells (Water Rights, 2023a, 2023b, and 2024c).

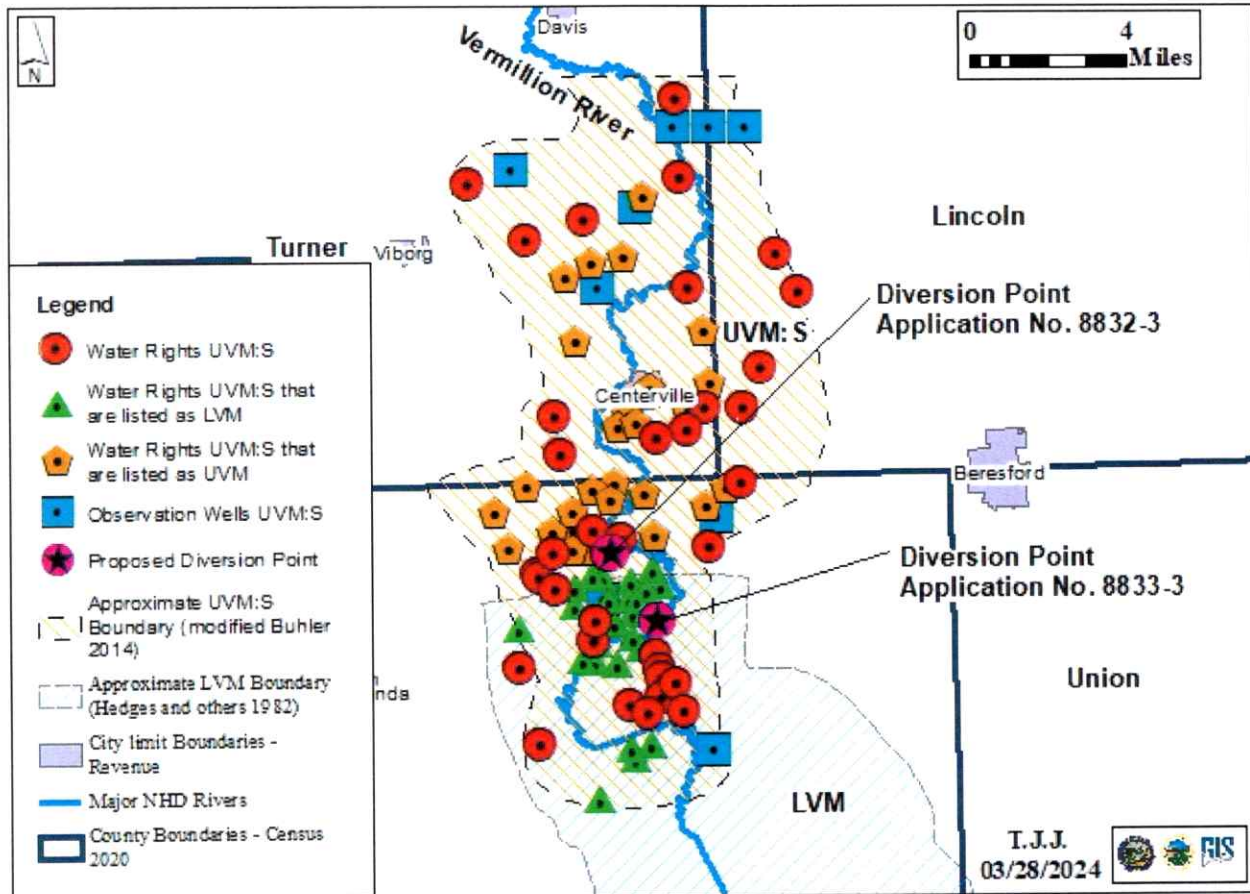


Figure 1. Map of the approximate UVM:S and LVM aquifer boundary delineated by Hedges and others (1982) with a portion of the UVM:S aquifer boundary modified by Buhler (2014), and the location of diversion points for Water Permit Applications Nos. 8832-3 & 8833-3, and UVM:S aquifer observation wells and Water Rights (Water Rights, 2024a and 2024b).

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 unappropriated water is available for the applicant’s proposed use, the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, the proposed use is a beneficial use, and the permit is 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 uses and water rights within the UVM:S aquifer.

WATER AVAILABILITY:

Water Permit Applications Nos. 8832-3 & 8833-3 proposes to appropriate water from the UVM:S aquifer. 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. An application may be approved, however, 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 for use by water distribution systems.” The UVM:S aquifer is not older than or stratigraphically lower than the Greenhorn Formation, 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 UVM:S aquifer must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the UVM:S aquifer is received primarily through infiltration of precipitation where the aquifer is at or near land surface. Additional recharge occurs where there is direct contact between the Upper Vermillion Missouri aquifer and Parker-Centerville aquifer (Lindgren & Hansen, 1990; Niehus, 1997; Holmes & Filipovic, 2015).

Using regional flow net analysis, Hedges and others (1985) estimated a recharge rate of 0.25 inches per year (in/yr) for the unconfined portion of the UVM aquifer. However, it should be noted that the entire UVM aquifer was analyzed as it was still considered one aquifer at the time. Using the current areal extent, from Buhler’s report (2014), and Hedges and others (1985) estimated recharge rate, the estimated recharge rate of the UVM:S aquifer should be 1,642 acre-feet per year; keeping in mind that this estimate is likely lower than the actual rate based on Holmes & Filipovic (2015) investigation and Buhler’s (2014) report.

Hedges and others (1985) estimated a recharge rate range of 0.15 to 0.6 in/yr to buried-confined aquifers for use by management and development programs. Using Buhler’s (2014) aquifer area, that is an estimated average annual recharge rate range of approximately 985 to 3,941 ac-ft/yr. Based on the Holmes & Filipovic (2015) investigation and Buhler’s (2014) report, recharge is likely greater than the upper extent of that range.

2014 Flow Net Analysis

From Buhler’s (2014) analysis of the estimated groundwater outflow, recharge of the UVM:S aquifer exceeds withdrawals by a minimum estimate of 5,637 acre-feet per year. However, this recharge could be higher considering that another larger cross-section of the UVM:S aquifer shows recharge exceeding withdrawals by an estimated 8,223 acre-feet per year (Buhler, 2014). Several Permits have been approved by the Water Management Board since Buhler’s analysis and will need to be considered in the withdrawals section (Water Rights, 2024b).

Discharge

Discharge from the UVM:S aquifer primarily occurs through well withdrawals, subsurface outflow to other glacial aquifers, and evapotranspiration in areas where the aquifer is at or near land surface (Lindgren & Hansen, 1990).

There are 97 water rights/permits authorized to appropriate water from the UVM:S aquifer (Water Rights, 2024b). Of these 97 water rights/permits, 31 are listed under UVM aquifer and 27 are listed under LVM aquifer in the water rights database, even though they are completed into the UVM:S aquifer, the other 39 water rights/permits are properly listed under the UVM:S aquifer. Since Buhler's (2014) flow net analysis will be used as a basis for determining a rough estimate of the aquifer's recharge rate in excess of withdrawals, any water rights/permits that were approved at the time of the analysis will already be accounted for. So, the withdrawal rate of water rights/permits approved after the analysis will contribute to the average annual withdrawal rate of the UVM:S aquifer compared to the estimated average annual outflow from the aquifer.

The estimated average annual withdrawal rate of the UVM:S aquifer water rights/permits approved since completion of Buhler's analysis is an estimated 2,350 acre-feet/year, as shown on Table 1. The withdrawal rate was found by summing the acreage of the 43 water rights/permits approved (shown on Table 1) since the completion of Buhler's (2014) report, then multiplying the total acreage by 0.5 feet/acre which is the annual average application rate per permitted acre in the UVM:S (Buhler, 2014). Applying the same rate to Water Permit Application's Nos. 8832-3 & 8833-3 requested acres provides a total approximate withdrawal rate of 21 acre-feet/year.

There are domestic wells completed into the UVM:S aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2024c). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the UVM:S 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 UVM:S aquifer.

Table 1. List of estimated average annual withdrawal rates of water right/permits from the UVM:S aquifer that were approved at or after the March 6th, 2014, Water Management Board meeting, water right/permits with a priority date before the meeting date but not included in Buhler's analysis are accounted for in this table also (Buhler, 2014; Water Rights, 2024b)

Permit No.	Name	Priority Date	Status	Use	Acres	Estimated Use (acre-feet/year)
6811A-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	115	57.5
6820A-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	43	21.5
7383-3	Metabank	07/20/2012	PE	IRR	25	12.5
7384-3	Nicholas & Courtney Blake	07/20/2012	PE	IRR	80	40
7441-3	Jason or Alicia Knutson	09/26/2012	PE	IRR	140	70
7442-3	Leah Johnson	09/26/2012	PE	IRR	40	20
7466-3	Bethel Hagen Trust	10/18/2012	LC	IRR	152	76
7467-3	Cleland Hagen Trust	10/18/2012	PE	IRR	152	76
7600-3	Micheal D Stevens	12/28/2012	PE	IRR	180	90
7601-3	Micheal D Stevens	12/28/2012	PE	IRR	132	66
7603-3	Micheal D Stevens	12/28/2012	PE	IRR	120	60
7690-3	Tim or Dave Ostrem	12/20/2013	PE	IRR	160	80
7693-3	Metabank	02/06/2013	PE	IRR	27.7	13.85
7900-3	Leon Thompson	09/11/2013	PE	IRR	136	68
7919-3	Larry & Marlene Erickson	10/23/2013	PE	IRR	83.83	41.92
7945-3	Brad R or Linda R Trudeau	01/17/2014	PE	IRR	60	30
7947-3	Leon, Holly, & Jordan Rozeboom	01/23/2014	PE	IRR	133.44	66.72
7948-3	Majestic Farms LLP	01/23/2014	PE	IRR	55.02	27.51
7949-3	Jesse & Tanya Vandestroet	01/23/2014	PE	IRR	100.9	50.45
7964-3	Paul, Mike, & John Shubeck	02/12/2014	PE	IRR	128	64
7976-3	Vasgaard Properties	02/27/2014	LC	IRR	142	71
7990-3	Robert P Walsh	04/02/2014	PE	IRR	240	120
7993-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	53	26.5
7994-3	Metabank	04/10/2014	PE	IRR	72	36
7995-3	Jesse & Tanya Vandestroet	04/10/2014	PE	IRR	25	12.5
8007-3	Louis Latendresse	04/18/2014	PE	IRR	150	75
8070-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	96	48
8071-3	Hansen Irrigated Farms LLC	01/07/2015	PE	IRR	51	25.5
8072-3	Jesse & Tanya Vandestroet	01/07/2015	PE	IRR	40	20
8469-3	Double A Farms LLC	03/15/2021	PE	IRR	114	57
8470-3	Nicholas Blake	03/22/2021	PE	IRR	160	80
8492-3	Tim or Kari Ostrem	02/19/2021	PE	IRR	180	90
8542-3	Tyler Anderson	08/09/2021	PE	IRR	103	51.5
8588-3	T & D Farms	02/03/2022	PE	IRR	160	80
8598-3	Tim Wellenstein	02/24/2022	PE	IRR	126	63
8599-3	Farron Pratt & Michelle Pratt	02/24/2022	PE	IRR	17.5	8.75
8619-3	Tim or Kari Ostrem	03/09/2022	PE	IRR	300	150
8685-3	Joe Schumacher	11/28/2022	PE	IRR	160	80
8686-3	Smit Family Trust	12/20/2022	PE	IRR	120	60
8689-3	Richard P Hybertson	03/06/2023	PE	IRR	97	48.5
8690-3	Richard P Hybertson	03/06/2023	PE	IRR	72	36
8695-3	William H Hansen	12/28/2022	PE	IRR	72.03	36.02
8790-3	William D/Judy Knutson	08/16/2023	PE	IRR	86	43
<i>PE: Water Permit, LC: Water Right License, IRR: Irrigation</i>				TOTAL:	4,700	2,350

Hydrologic Budget Summary

The recharge rate of the UVM:S, based on Buhler's (2014) analysis, is estimated to exceed withdrawals from the UVM:S by an estimated 5,637 to 8,223 acre-feet per year at the time of Buhler's (2014) analysis. Any water rights/permits listed as withdrawals from the Upper Vermillion Missouri aquifer or Lower Vermillion Missouri aquifer which are within the extent of the UVM:S aquifer were included in Buhler's (2014) analysis.

Since previous water rights/permits are already accounted for in Buhler's (2014) recharge rate in excess of withdrawals analysis, only the water rights/permits approved at or after the March 6th, 2014, Water Management Board meeting need to be considered. The estimated average annual withdrawal rate for those water rights/permits from the UVM:S aquifer is approximately 2,350 acre-feet per year. If Water Permit Application Nos. 8832-3 & 8833-3 are approved, the estimated proposed withdrawal is 21 acre-feet per year. Therefore, there is a reasonable probability that unappropriated water is available to supply the proposed appropriations.

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 DANR-Water Rights Program monitors nine observation wells completed into the UVM:S aquifer as shown on Figure 1 (Water Rights, 2024a). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The three closest observation wells to the diversion points are CL-66AR (approximately 1.2 miles south from 8832-3; approximately 1.5 miles northwest from 8833-3), CL-80K (approximately 2.9 miles northeast from 8832-3; approximately 3 miles northeast from 8833-3), and CL-80J (approximately 5.8 miles southeast from 8832-3; approximately 3.6 miles southeast from 8833-3) (Water Rights, 2024a). The water level elevations for these observation wells are displayed in Figure 2 (Water Rights, 2024a). The data shown on Figure 2 shares a similar trend with most of the observation wells in the UVM:S aquifer.

Water Level of Selected Observation Wells

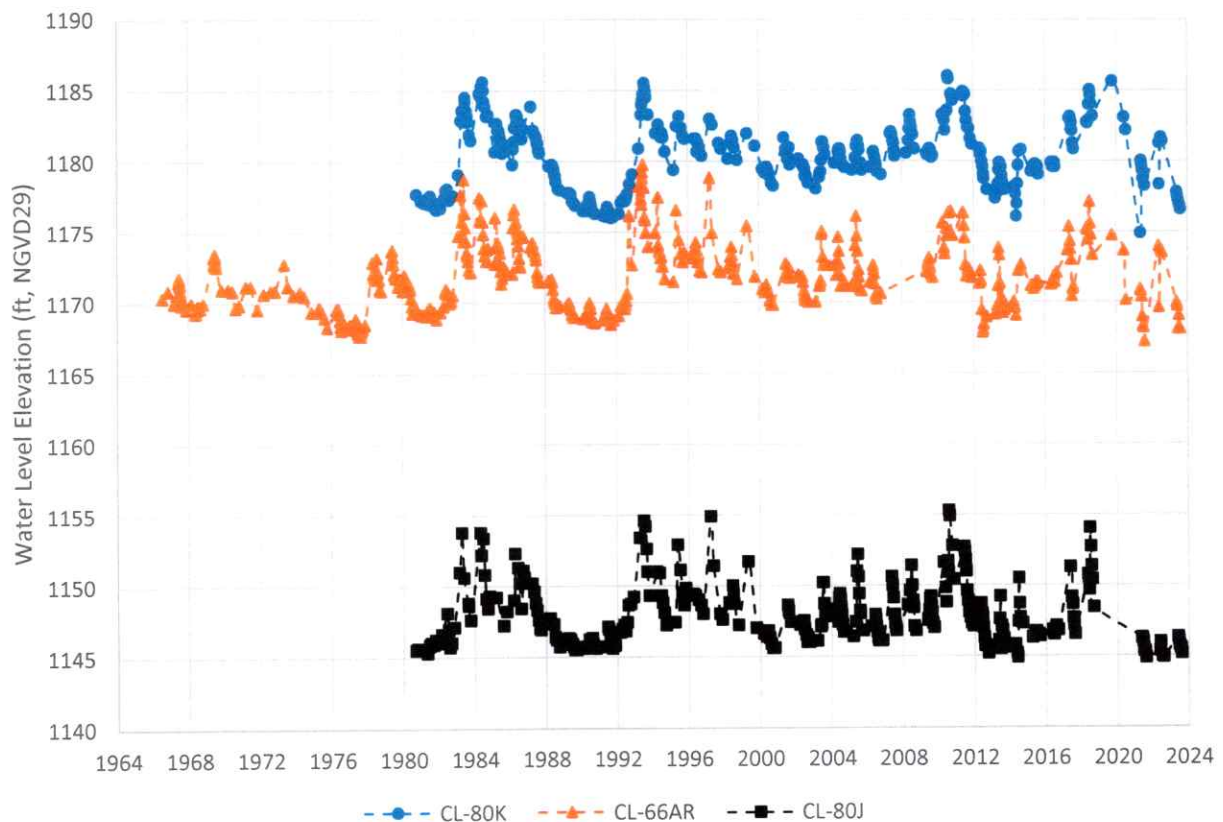


Figure 2. A graph showing the elevation of water levels of observation wells CL-66AR, CL-80K, and CL-80J (Water Rights, 2024a)

Currently all of observation wells in the UVM:S aquifer have a stable trend in the water level, as seen in Figure 2. The water level for the UVM:S aquifer observation wells 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 wells display that the amount of recharge to and natural discharge from the aquifer greatly exceeds pumping with the aquifer water levels returning to pre-pumping conditions between irrigation seasons. Aquifer recovery 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 UVM:S aquifer. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well water levels demonstrate unappropriated water is available for the proposed appropriations.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:**Water Permit Application No. 8832-3**

Water rights/permits in the general vicinity of the well site for Application No. 8832-3 are shown in Figure 3 and summarized in Table 2. The closest water right/permit to the diversion point for this application is Water Right No. 5319-3 which is held by Larry Erickson. The diversion point for Water Right No. 5319-3 is located approximately 0.4 miles west of the existing diversion point for this application (Water Rights, 2024b). There are domestic wells on file with the DANR-Water Rights Program that are completed into the UVM:S aquifer, with the closest domestic well on file (not held by the applicant) less than 0.1 mile southwest of the diversion point based on the legal description provided by the well driller on the well completion report (Water Rights, 2024c). There could potentially be other domestic wells completed into the UVM:S aquifer near the diversion point that are not on file with the DANR-Water Rights Program.

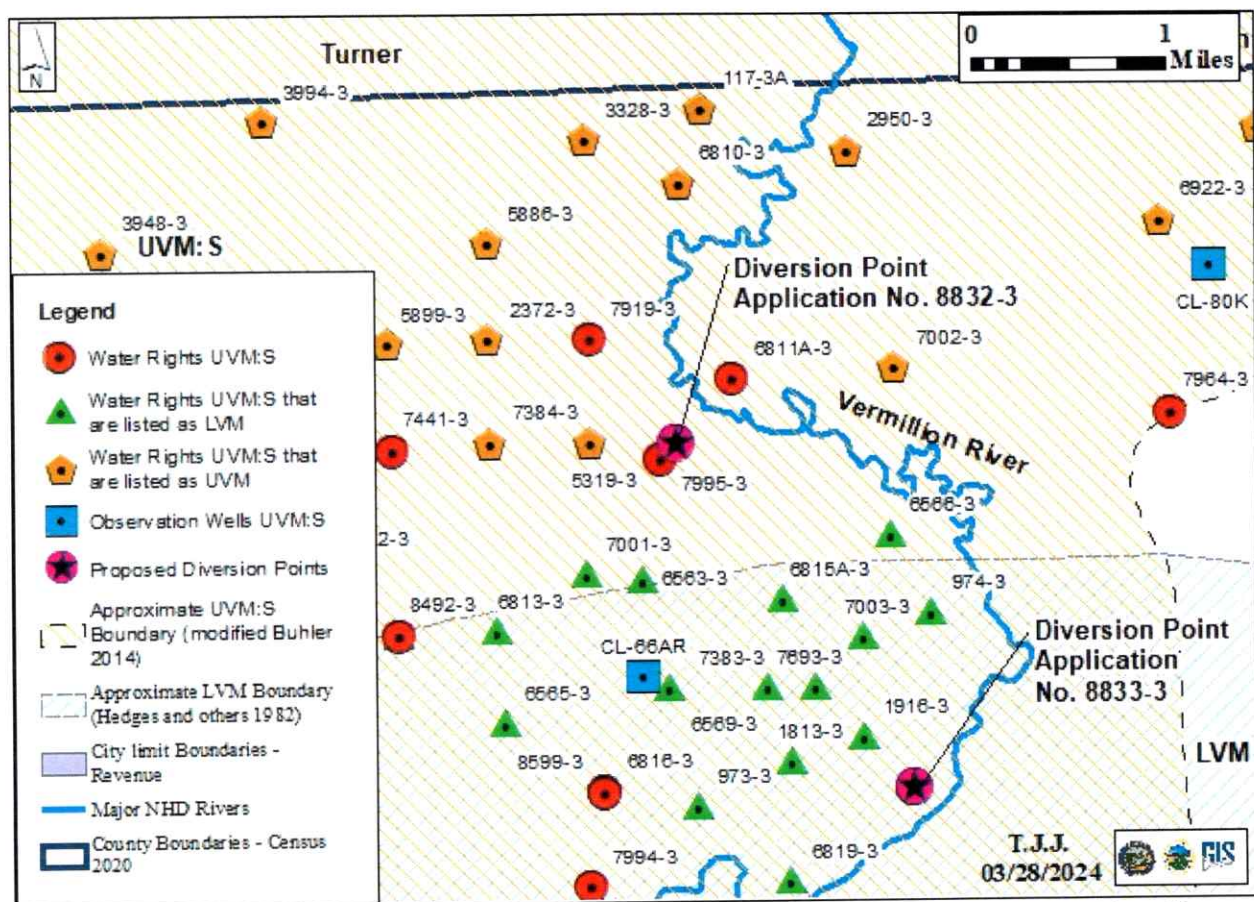


Figure 3. Map of the existing diversion point for Water Permit Application No. 8832-3, nearby UVM:S aquifer water rights/permits including UVM:S water rights/permits listed as UVM or LVM, and observation wells within 2 miles of the diversion point (Water Rights, 2024a and 2024b).

Table 2. List of water rights/permits within approximately 1 mile of the diversion point shown in Figure 3 (Water Rights, 2024b).

Permit	Name/Business	Priority	Status	Use Type	CFS	Acres
2372-3	Larry Erickson	10/07/1975	License	Irrigation	1.76	123
5319-3	Larry Erickson	04/13/1989	License	Irrigation	1.89	132
6563-3	Run Farms Real Estate LLC	04/22/1968	License	Irrigation	1.78	242.5
6811A-3	Jesse & Tanya Vandesroet	04/10/2014	License	Irrigation	1.78	67
7001-3	Rus Farms Real Estate LLC	03/14/2008	License	Irrigation	1.78	170
7384-3	Nicholas & Courtney Blake	07/20/2012	License	Irrigation	1.67	67
7919-3	Larry & Marlene Erickson	10/23/2013	Permit	Irrigation	1.83	83.83
7995-3	Jesse & Tanya Vandesroet	04/10/2014	Permit	Irrigation	0	25

Based on the well completion report submitted with this application, the UVM:S aquifer is expected to be under unconfined conditions at the well site. In a unconfined aquifer, drawdown from a pumping well typically doesn't extend far from the pumped well. However, other nearby wells completed into the UVM:S are confined (Water Rights, 2024c). 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."

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, "general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable..." (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the UVM:S aquifer at their location. When considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), the history of irrigation in the area without any complaints of well interference (Water Rights, 2024d), and the saturated aquifer thickness near the diversion point, any drawdown created from the diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. 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. 8832-3 would authorize a maximum instantaneous diversion rate of 1.78 cfs from one well for the irrigation of 123 acres. The map and application submitted by the applicant indicates the center pivot is likely only doing a partial rotation, along with a windshield wiper pivot. A center pivot typically requires a certain diversion rate, 1.78 cfs in this case, to operate properly regardless of swinging a partial or full circle, so the statutory rate limit might be exceeded when a pivot is not completing a full circle. This reasoning has been accepted by the Water Rights Program and the Water Management Board in the past.

CONCLUSIONS:

1. Water Permit Application No. 8832-3 proposes to irrigate an additional 32 acres from the existing well authorized by Water Right No. 6812-3 and add the storage reservoir. The site of interest is located approximately 4 miles south of Centerville, SD.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the UVM:S aquifer to supply the proposed appropriations by Water Permit Application No. 8832-3 .
3. There is a reasonable probability that the diversion by Water Permit Application No. 8832-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic uses.
4. The applicant is requesting a diversion rate greater than statutory limit of 1 cfs per 70 acres for Application No. 8832-3 to accommodate a center pivot doing a partial rotation, along with a windshield wiper pivot. This is reasonable and has been accepted by the Water Management Board and the Water Rights Program in the past.

Water Permit Application No. 8833-3

Water rights/permits in the general vicinity of the well site for Application No. 8833-3 are shown in Figure 4 and summarized in Table 3. The closest water right/permit to the diversion point for this application is Water Right No. 1916-3 which is held by Troy & Sheila Gust. The diversion point for Water Right No. 1916-3 is located approximately 0.3 miles northwest of the existing diversion point for Application No. 8833-3 (Water Rights, 2024b). There are domestic wells on file with the DNR-Water Rights Program that are completed into the UVM:S aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.7 miles west of the diversion point based on the legal description provided by the well driller on the well completion report (Water Rights, 2024c). There could potentially be other domestic wells completed into the

UVM:S aquifer near the diversion point that are not on file with the DANR-Water Rights Program.

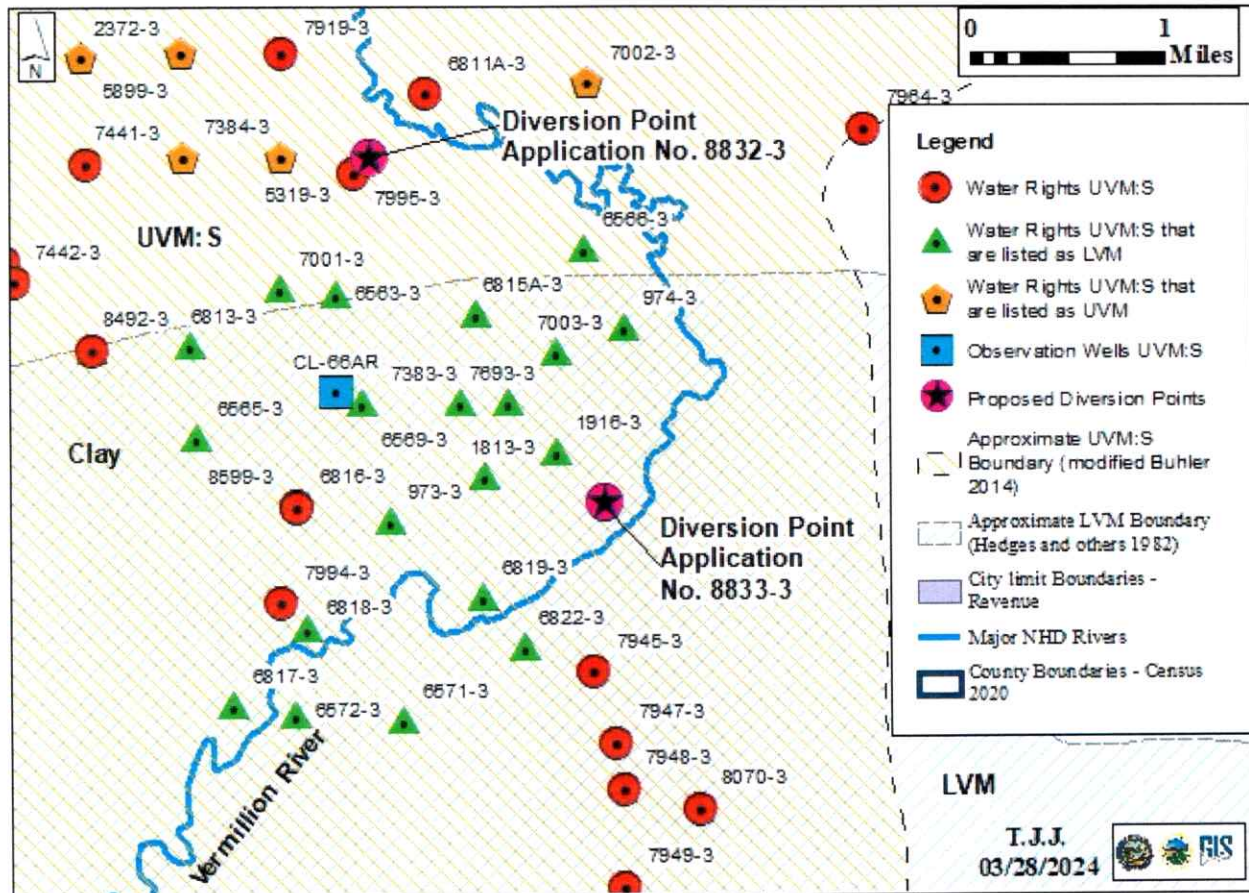


Figure 4. Map of the existing diversion point for Water Permit Application No. 8833-3, nearby UVM:S aquifer water rights/permits including UVM:S water rights/permits listed as UVM or LVM, and observation wells within 2 miles of the diversion point (Water Rights, 2024a and 2024b).

Table 3. List of water rights/permits within approximately 1 mile of the diversion point shown in Figure 4 (Water Rights, 2024b).

Permit	Name/Business	Priority	Status	Use Type	CFS	Acres
973-3	Nicholas & Courtney Blake	07/02/1956	License	Irrigation	1.78	131
974-3	Hansen Ventures LLC	07/02/1956	License	Irrigation	1.67	140
1813-3	Hansen Ventures LLC	03/22/1971	License	Irrigation	2.06	144
1916-3	Troy & Sheila Gust	12/21/1971	License	Irrigation	1.33	169
6815A-3	Run Farms Real Estate LLC	01/04/2005	License	Irrigation	1.78	264.5
6819-3	Hansen Ventures LLC	02/20/2007	License	Irrigation	1.39	102
6822-3	Hansen Properties	02/20/2007	Permit	Irrigation	1.11	36
7003-3	Hansen Ventures LLC	01/04/2005	License	Irrigation	0.67	31
7383-3	Hansen Ventures LLC	07/20/2012	Permit	Irrigation	0.56	25
7693-3	Hansen Ventures LLC	02/06/2013	Permit	Irrigation	0.67	27.7
7945-3	Brad R or Linda R Trudeau	01/17/2014	License	Irrigation	1.78	57

Based on the well completion reports near the diversion point for this application, the UVM:S aquifer is expected to be under confined conditions at the well site. In a confined aquifer, drawdown from a pumping well can extend some distance from the well. 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.”

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the UVM:S aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), the history of irrigation in the area without any complaints of well interference (Water Rights, 2024d), and the saturated aquifer thickness near the diversion point, any drawdown created from the diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. 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. 8833-3 would authorize a maximum instantaneous diversion rate of 1.39 cfs from one well for the irrigation of 53 acres, or equivalent of 1.84 cfs per 70 acres. The map and application submitted by the applicant indicates the corner pivot is doing a quarter rotation. A center pivot typically requires a certain diversion rate to operate

properly regardless of swinging a partial or full circle, so the statutory rate limit might be exceeded when a pivot is not completing a full circle. This reasoning has been accepted by the Water Rights Program and the Water Management Board in the past.

CONCLUSIONS:

1. Water Permit Application No. 8833-3 proposes to irrigate an additional 10 acres from the existing well authorized by Water Right No. 6820A-3. The site of interest is located approximately 6 miles south of Centerville, SD.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the UVM:S aquifer to supply the proposed appropriations by Water Permit Application No. 8833-3.
3. There is a reasonable probability that the diversion by Water Permit Application No. 8833-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic uses.
4. The applicant is requesting a diversion rate greater than statutory limit of 1 cfs per 70 acres to accommodate a corner pivot doing a quarter rotation. This is reasonable and has been accepted by the Water Management Board and the Water Rights Program in the past.



Tyler Jensen
Natural Resources Engineer I
SD DANR - Water Rights Program

Reviewed by:



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

References

- Buhler, K. A. 2014. Report to the Chief Engineer on 21 Water Permit Applications from the Upper Vermillion Missouri Aquifer. SD DANR – Water Rights Program, Joe Foss Bldg. Pierre, SD.
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- Water Rights, 2024a. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024b. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024c. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024d. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**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 11, 2024

Jesse & Tanya Vandestroet
302 Oak Street
Fairview SD 57037

Dear Mr. & Mrs. Vandestroet:

Water Permit Application Nos. 8832-3 and 8833-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. The notices have been sent to the Plain Talk printed in Vermillion SD (Ph # 605 624-2695) and the Daily Press & Dakotan printed in Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers and authorize publication of these notices. For your information, a copy of the notices, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notices 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 Notices 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 notices. 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 applications.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
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. 8833-3 to Appropriate Water and correct Water Source for Water Permit No. 6820A-3

Notice is given that Jesse & Tanya Vandestroet, 302 Oak Street, Fairview SD 57027 has filed an application for a water permit to appropriate 10 additional acres. The water source for Water Permit No. 6820A-3 was originally identified as being the Lower Vermillion Missouri aquifer. Additional study since the original application was reviewed and approved in 2005 identifies the water source as the Upper Vermillion Missouri South Aquifer. This notice serves to correct that water appropriated under Permit No. 6820A-3 is from the Upper Vermillion Missouri South Aquifer. Water Permit No. 6820A-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Upper Vermillion Missouri South Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 23 for irrigation of 43 acres located in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23; all in T95N-R52W. An investigation of Permit 6820A-3 found 10 additional acres being irrigated in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23-T95N-R52W and a system only capable of diverting 1.39 cfs. This application, if approved, and Water Permit No. 6820A-3 will authorize a total of 1.39 cfs from the well covered by No. 6820A-3 for irrigation of 53 acres in the area described above. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately six miles south of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8833-3 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.

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 April 29, 2024.

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 April 29, 2024.

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_

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, April 11, 2024 9:28 AM
To: Kelly Kronaizl
Subject: 8833-3 Jesse & Tanya Vandestroet - Public Notice
Attachments: 8833-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on April 19, 2024, in the Plain Talk and Daily Press & Dakotan.

Jesse & Tanya Vandestroet, 302 Oak Street, Fairview SD 57027, 605-310-6292 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 Ave, Pierre SD 57501.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



AFFIDAVIT OF PUBLICATION

PLAIN TALK

JESSE / TANYA VANDESTROET
302 OAK STREET
FAIRVIEW SD 57027

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

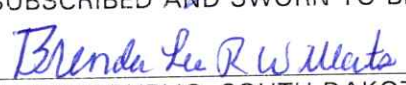
BETH RYE, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE ADVERTISING DIRECTOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF
THE OFFICIAL 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 19th DAY OF April, 2024
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$49.60 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: 04/19/2024

FILED ON: 04/19/24


SUBSCRIBED AND SWORN TO BEFORE ME THIS 19th DAY OF April, 2024


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 12/15/2029



RECEIVED

APR 24 2024

OFFICE OF
WATER

NOTICE OF APPLICATION NO. 8833-3 to Appropriate Water and correct Water Source for Water Permit No. 6820A-3

Notice is given that Jesse & Tanya Vandestroet, 302 Oak Street, Fairview SD 57027 has filed an application for a water permit to appropriate 10 additional acres. The water source for Water Permit No. 6820A-3 was originally identified as being the Lower Vermillion Missouri aquifer. Additional study since the original application was reviewed and approved in 2005 identifies the water source as the Upper Vermillion Missouri South Aquifer. This notice serves to correct that water appropriated under Permit No. 6820A-3 is from the Upper Vermillion Missouri South Aquifer. Water Permit No. 6820A-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Upper Vermillion Missouri South Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 23 for irrigation of 43 acres located in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23; all in T95N-R52W. An investigation of Permit 6820A-3 found 10 additional acres being irrigated in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23-T95N-R52W and a system only capable of diverting 1.39 cfs. This application, if approved, and Water Permit No. 6820A-3 will authorize a total of 1.39 cfs from the well covered by No. 6820A-3 for irrigation of 53 acres in the area described above. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately six miles south of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8833-3 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.

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 April 29, 2024.

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 April 29, 2024.

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.

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APR 24 2024

OFFICE OF
WATER

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Published April 19, 2024.

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APR 24 2024

**OFFICE OF
WATER**

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

APR 22 2024

OFFICE OF
WATER

JESSE / TANYA VANDESTROET
302 OAK STREET
FAIRVIEW SD 57027

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
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NOTICE OF APPLICATION NO. 8833-3 to Appropriate Water and correct Water Source for Water Permit No. 6820A-3

Notice is given that Jesse & Tanya Vandestroet, 302 Oak Street, Fairview SD 57027 has filed an application for a water permit to appropriate 10 additional acres. The water source for Water Permit No. 6820A-3 was originally identified as being the Lower Vermillion Missouri aquifer. Additional study since the original application was reviewed and approved in 2005 identifies the water source as the Upper Vermillion Missouri South Aquifer. This notice serves to correct that water appropriated under Permit No. 6820A-3 is from the Upper Vermillion Missouri South Aquifer. Water Permit No. 6820A-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Upper Vermillion Missouri South Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 23 for irrigation of 43 acres located in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23; all in T95N-R52W. An investigation of Permit 6820A-3 found 10 additional acres being irrigated in the E 1/2 SW 1/4, NW 1/4 SE 1/4 Section 23-T95N-R52W and a system only capable of diverting 1.39 cfs. This application, if approved, and Water Permit No. 6820A-3 will authorize a total of 1.39 cfs from the well covered by No. 6820A-3 for irrigation of 53 acres in the area described above. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately six miles south of Centerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8833-3 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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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.

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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 \$49.60 and can be viewed free of charge at
www.sdpublicnotices.com

Published April 19, 2024.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAY 17 2024

Jesse & Tanya Van De Stroet
302 Oak St
Fairview SD 57027

6820A-3
8833-3

Dear Mr. & Ms. Van De Stroet:

Enclosed is Water License No. 8833-3. 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

NOTE: The applicable portions of Water Permit No. 6820A-3 have been incorporated into this license.

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8833-3

(1) Jesse & Tanya Van De Stroet, 302 Oak St, Fairview SD 57027, made Application No. 8833-3, February 7, 2024, for a water permit to add 10 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$ & NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T95N-R52W, Clay County, with no increase to the rate of diversion, to what is already authorized for irrigation under Permit No. 6820A-3. Permit No. 8833-3, with a priority date of February 7, 2024, was approved April 29, 2024.

Water Permit No. 6820A-3 appropriates 1.56 cubic feet of water per second from groundwater, one well (Upper Vermillion Missouri: South Aquifer), for the irrigation of 43 acres located within the E $\frac{1}{2}$ SW $\frac{1}{4}$ & NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, T95N-R52W. The applicable portions of Permit No. 6820A-3 have been incorporated into this license.

(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 is entitled to divert 1.39 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 2,590 ft N & 1,340 ft E of the SW corner Section 23, T95N, R52W (NE $\frac{1}{4}$ SW $\frac{1}{4}$)
(Latitude 43.03281 & Longitude -96.95859)

(3) The amount of 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 – October 31.

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

Section 23, T95N-R52W
NW $\frac{1}{4}$ SE $\frac{1}{4}$ 8 acres
NE $\frac{1}{4}$ SW $\frac{1}{4}$ 37 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ 8 acres
TOTAL: 53 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Jesse & Tanya Van De Stroet, the holders and/or owners of Water Right No. 8833-3 are issued a license to appropriate water, the right to use 1.39 cubic feet of water per second from groundwater, one well (Upper Vermillion Missouri: South Aquifer), with priority dates of January 23, 2014, for 1.39 cfs & 43 acres and February 7, 2024, for 10 acres, 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. 8833-3 and subject to the following qualifications:

1. The well approved under Water Permit No. 6820A-3 and Water Right No. 8833-3 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 adequate wells having prior water rights.

continued

2. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit Nos. 6820A-3 & 8833-3, combined, authorize a maximum diversion rate of 1.39 cfs for irrigation of 53 acres with an annual volume not to exceed 2 acre-feet of water per acre per year. *(The applicable portions of Permit No. 6820A-3 have been incorporated into Water Right No. 8833-3.)*
3. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

MAY 17 2024

date



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 6820A-3

I have this day, December 18, 2023, made a thorough examination of the water use systems owned by Jesse and Tanya Vandestroet, 310 Thelma Avenue, Harrisburg, SD 57032, holders of Permit No. 6820A-3, bearing the priority date of January 23, 2014. This permit reinstated Water Permit No. 6820-3. Water Permit No. 6820-3 appropriated 1.56 cubic feet of water per second (cfs) from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 100 feet deep) located in the approximate center of the SW1/4 of Section 23 to irrigate 43 acres located in the E1/2 of the SW1/4, and the NW1/4 of the SE1/4 of Section 23, all in T95N-R52W. The permit was approved May 14, 2007, and the project was to be completed May 14, 2012, with water being put to beneficial use by May 14, 2016. This permit reinstated Water Permit No. 6820-3 since the project was not completed. This permit authorized the well to be located in NE1/4 of the SW1/4 of Section 23-T95N-R52W and the water source is the South Management Unit of the Upper Vermillion: Missouri Aquifer, located in Clay County.

Inspection contacts: Jesse Vandestroet and Larry Erickson

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Hammond-Wetmore Drilling, LLC
- 2) No. of Wells: 1
- 3) Depth(s): 50 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 25 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 25 feet
- 3) Type: PVC
- 4) Static water level: Unknown feet

Pump:

- 1) Make: Grundfos
- 2) Model: 625S300-2AA
- 3) Capacity: 625 gpm

Motor:

- 1) Make: Grundfos
- 2) Model No.: Unknown
- 3) Horsepower rating: 30 hp

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

- 1) Type: Aluminum Size: 8 inches Length: 15 feet

C. Works used to apply water to beneficial use:**Center Pivot:**

- 1) Make: Zimmatic
- 2) Overall length: 1,626 feet
- 3) Number of towers: 9
- 4) End gun: Yes, 80 feet
- 5) Capacity: 625 gpm

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: No
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: None

E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 2,590 feet north and 1,340 feet east of the southwest corner of Section 23-T95N-R52W (Latitude 43.03281, Longitude -96.95859– NE1/4 of the SW1/4).
- 2) The works are capable of diverting and conveying to the places of use 1.39 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: All in;

Section 23-T95N-R52WNE1/4SW1/4 37 acresSE1/4SW1/4 8 acresNW1/4SE1/4 8 acres

comprising a total of 53 acres of land and the license should be issued for 1.39 cfs.

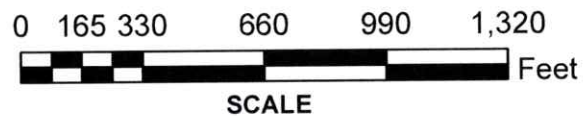
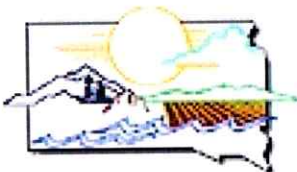
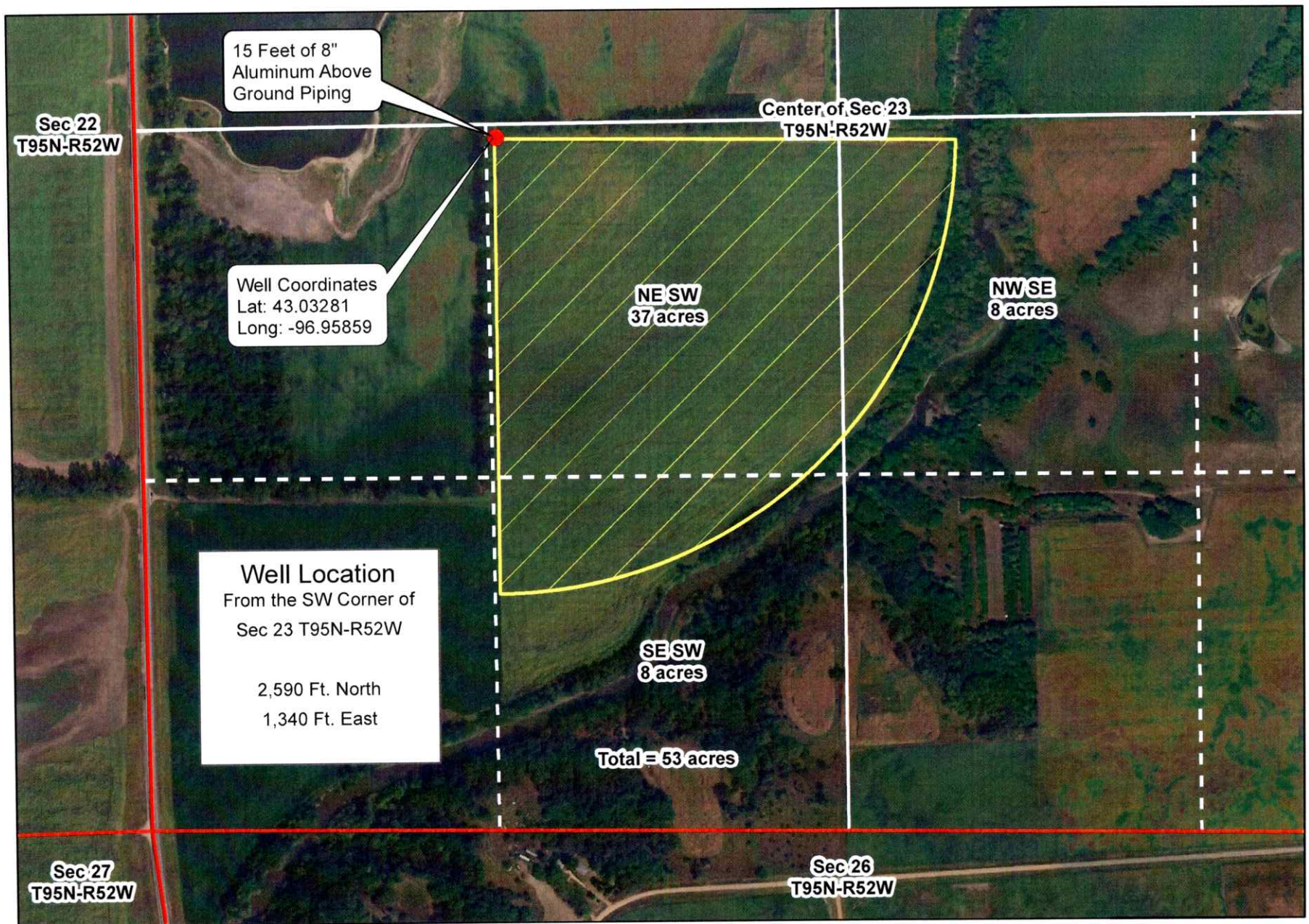
- 3) All structures, wells and lands on map: Yes

F. Comments or other permit(s) associated with the project: The well log, pump and motor information was obtained from Heine Electric and Irrigation, Inc.

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

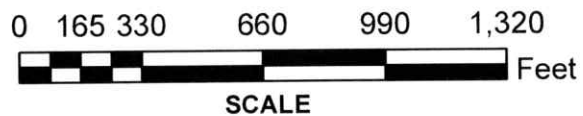
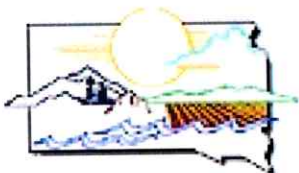
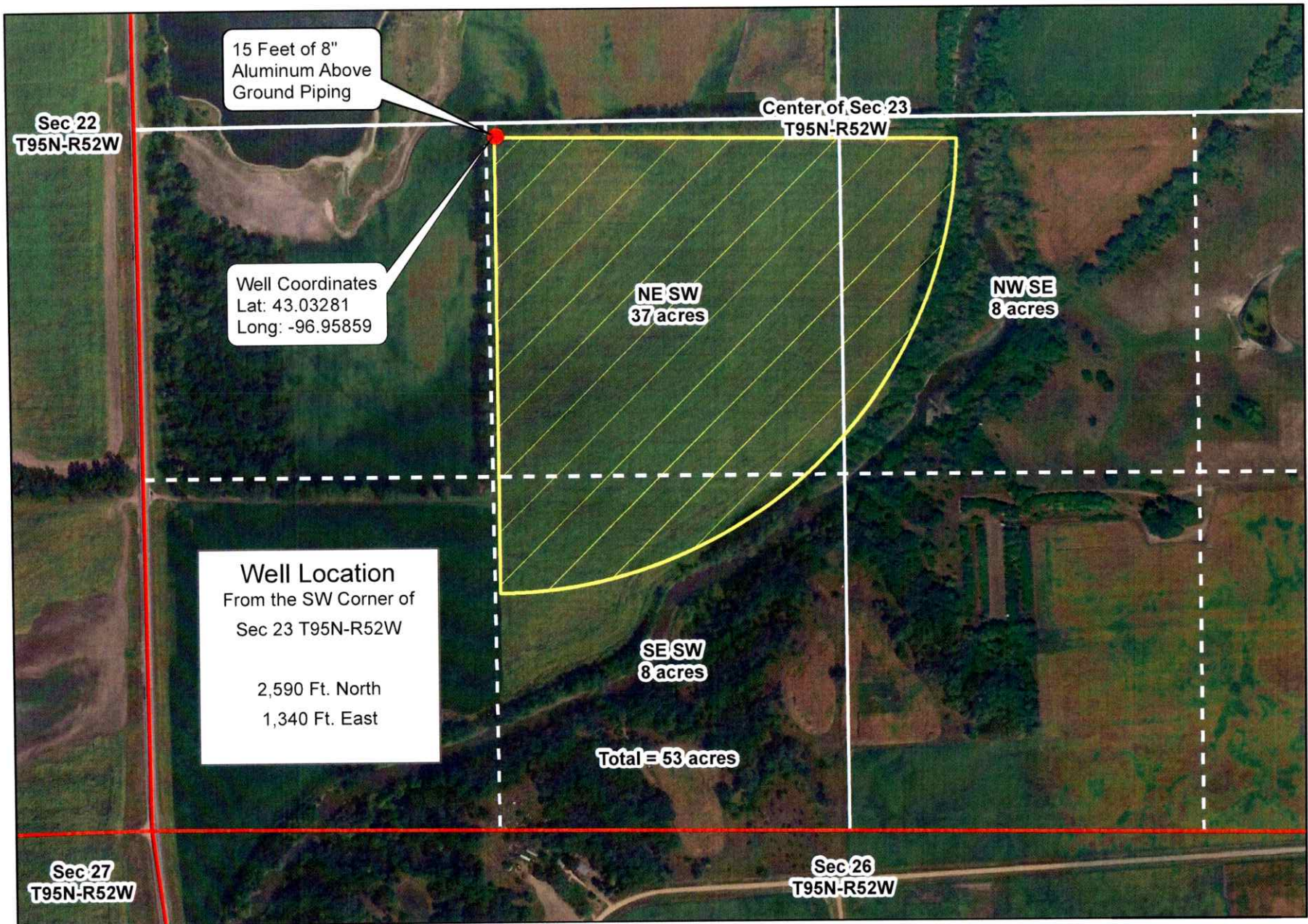
Date report completed: May 7, 2024

Water Permit No. 6820A-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
December 18, 2023

Water Permit No. 6820A-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
December 18, 2023



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8833-3

Name of Applicant: Jesse & Tanya Vandestroet

Date of Posting: 4/15/2024

Date of Removal: 5/17/2024



Ron Duvall, Engineer III

5/17/2024

Date

Subscribed and sworn to before me, a notary public, this 17th day of May, 2024.



Notary Public - South Dakota
My commission expires: **Rachel Rodriguez**
My Commission Expires
May 16, 2029

(SEAL)





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

December 30th, 2025

8833-3

Jesse & Tanya Vandestroet
302 Oak Street
Fairview, SD 5727

Dear Jesse & Tanya:

I am writing to you today in response to the 2025 Irrigation Questionnaire information submitted to us online for Water Right No. 8833-3.

Water Right No. 8833-3(copy enclosed) authorized diversion of 1.39 cubic feet of water per second (625 gpm) from ground water, one well (Upper Vermillion Missouri: South Aquifer). For the use of irrigation purposes of 53 acres located within E1/2 SW1/4 & NW1/4 SE1/4, Section 23, T95N, R52W.

On this year's questionnaire you reported the irrigation of 70 acres. If an additional 17 acres has been developed for irrigation, additional permitting would be required.

Please contact me to either revise your 2025 Irrigation Questionnaire or discuss additional permitting.

Sincerely,

Shannon Konst

Shannon Konst
Water Rights Program
Shannon.konst@state.sd.us
(605) 773-3352

enclosure