

WATER PERMIT NO. 8693-3

Name of Applicant: Matt & Lynn Dassow

Address: 15 Napoli Way Dr, Missouri City TX 77459

Phone: 337 936-8576

Amount of Water Claimed: 1.78 cfs

Total Acres: 120

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Clay

Type of Waste Disposal System:

Location: 1 mile east of Vermillion

PRIORITY

Date Received: 12-27-22

Application/License Fee: \$950

Corrected Application Received:

Period of Annual Use: May 1 – September 30

Remarks: Requesting diversion rate greater than statutory limit.

Diversion Point: SW 1/4 SE 1/4 Sec 16-T92N-
R51W

Land to be Irrigated: E 1/2 SW 1/4, W 1/2 SE 1/4
Sec 16-T92N-R51W

Depth of Well: approximately 250 feet

Well Driller: Heine Electric & Irrigation

Remarks:

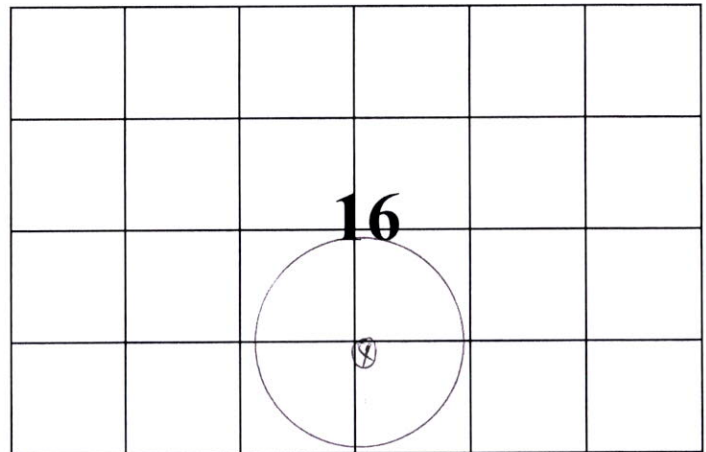
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-27-22

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 8693-3**

Date of first receipt of application December 27, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8693-3 to Matt and Lynn Dassow, 15 Napoli Way Dr, Missouri City, TX 77459 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. 8693-3 authorizes irrigation of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Lower Vermillion Missouri Aquifer (approximately 250 feet deep) located in the SW 1/4 SE 1/4 Section 16 for irrigation of 120 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 16; all in T92N-R51W. This site is located approximately 1 mile east 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: May 1 – September 30.
3. The date from which applicant may claim right is December 27, 2022.
4. The date of approval of Permit No. 8693-3 is March 20, 2023.
5. One-fifth of the construction is to be completed on or before September 20, 2025.
6. All construction is to be completed on or before March 20, 2028.
7. Water is to be put to beneficial use on or before March 20, 2032.
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. 8693-3 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. The well authorized by Permit No. 8693-3 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. 8693-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 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

APR 19 2023

date



DEC 27 2022

OFFICE OF
WATER

PAID

DEC 27 2022

Ck# 21538

Rec't#

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8693-3</u> (office use only) Hydrologic Unit <u>10170102</u> Basin <u>Vermillion River</u> Newspaper <u>Plain Talk 624-2695(Kri)</u> <u>Press & Dakotan 665-7811</u>
---	---

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 MATT & LYNN DASSOW

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

Mailing Address 15 Napoli Way Dr. Missouri City TX 77459
(Address) (City) (State) (Zip Code)Phone _____ Mobile (337) 936-9576 Email ML.DASSOW@GMAIL.COM2. Amount of water claimed 1.78*CFS or 800 **GPM ***AF Total Acreage 120
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply GROUND WATER (WELL)4. Location of point of diversion 1 WELL in SWSE T92N R51W S16
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)County CLAY5. County or counties where water will be used CLAY6. Annual period during which water is to be used MAY 1 - SEPTEMBER 307. 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
NESW T92N R51W S16	31		
NW SE T92N R51W S16	29		
SE SW T92N R51W S16	32		
SW SE T92N R51W S16	28		

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

1 well in SWSE T92N R51W S16 to supply water to a center pivot
Requesting div rate greater than statutory limitI, Lynn M Dassow Owner, the applicant, certify under
Name of Person Title (if applicable)

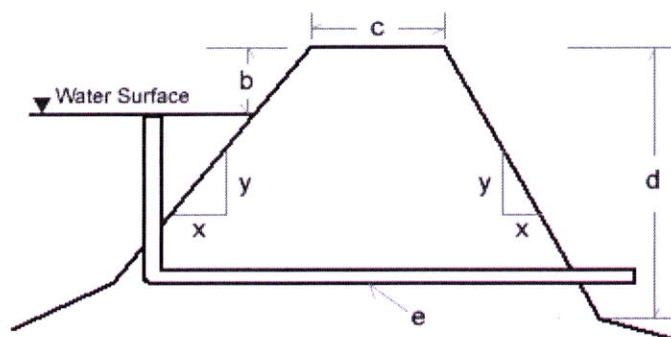
penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

(type or print)

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

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

c) Well Depth (required) ≈ 250 Depth to Top of Water Bearing Material ≈ 180 Depth to Water from Surface ≈ 120

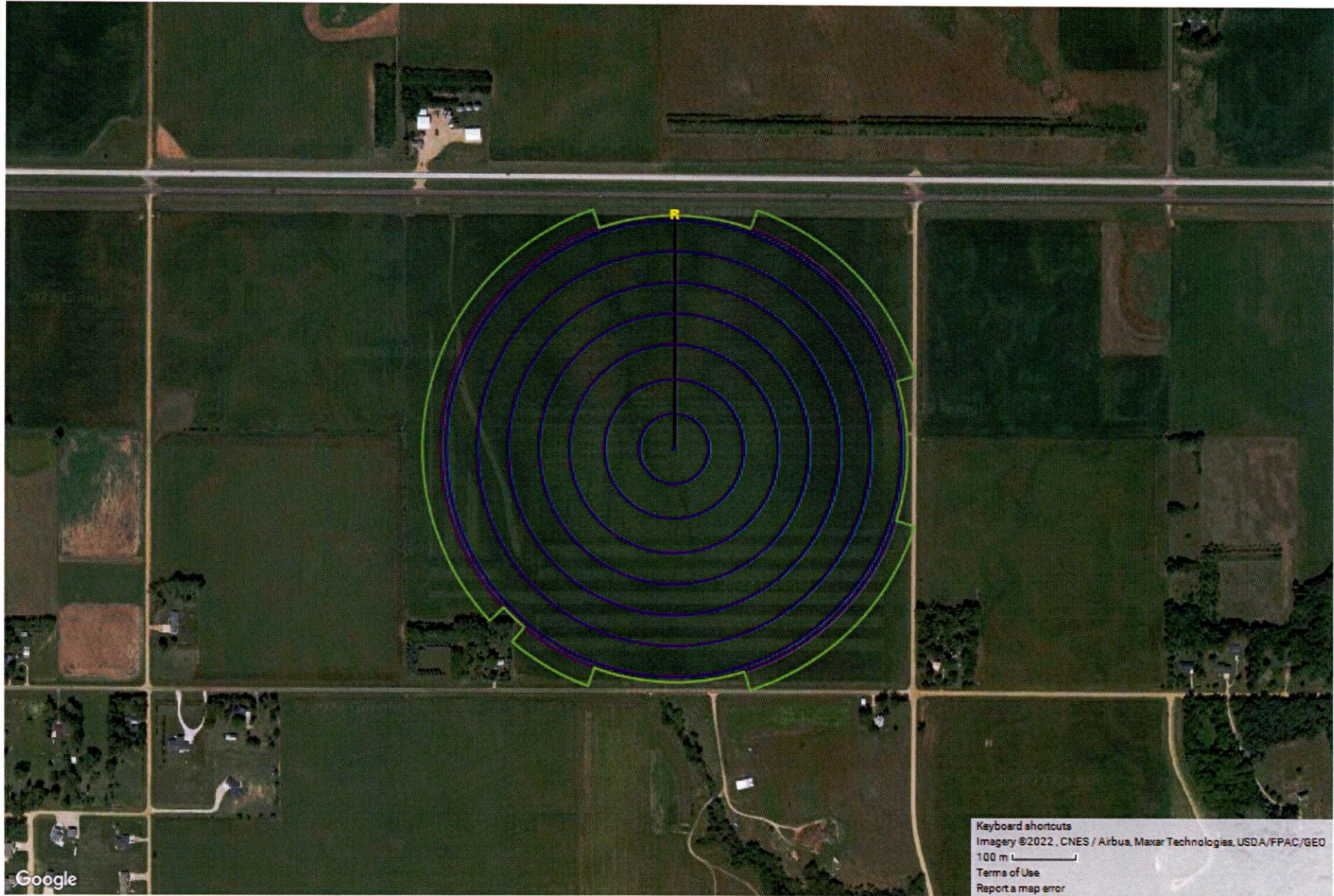




Project Name - Reid Bird - Dassow Farm

Version Name - Reid Bird - Dassow Farm_Version

Map Summary Report - Dassow Farm - 2022 Quote



HEINE ELECTRIC & IRRIGATION - 307 S. Robinson Ave, Hartington, NE, 68739-5139, United States

DASSOW FARM '22

SESE T92N R 51W S16

Legend

-  DASSOW FARM 2022
-  pivot
-  Untitled Path

DASSOW FARM 2022



Google Earth

318th St



Ufford Hills Country Market/Petting Zoo

1000 ft



N 18th

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location sw $\frac{1}{4}$ se $\frac{1}{4}$ Sec 15 Twp 92n Rg 51w

County

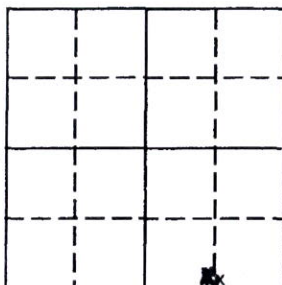
Clay

North

Please mark well
location with an "X"

W

E



1 Mile

Well Completion Date

9/25/2008

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

? 115.0 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Direct rotary (heat loops)

CASING DATA:

☐ Steel
 ☒ Plastic
 ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	0.75 IN	6.0 FT	180.0 FT	4.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
bent grout	6	9.5 Lb/gal	6.0 Ft	180.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie

SCREEN:

☐ Perforated pipe
 ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material NA

Slot Size _____ Set From _____ Feet to _____ 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 sample sent to for
water quality analysisWell Owner: Margaret Pettersen

Business Name:

Address: 4725 east Main StreetCity, State, Zip: Vermillion SD 57069

WELL LOG:

DEPTH

FORMATION	FROM	TO
clay, dk brown, silty, pebbly	0	35
clay, gray, silty, pebbly	35	115
Gravel, fine, sandy	115	180

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow _____ through _____

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in? NA

WELL TEST DATA:

☐ Pumped Describe: NA☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

3 heat loops

RECEIVED

FEB - 2 2009

WATER RIGHTS
PROGRAM

This well was drilled under license #

666

And this report is true and accurate.

Drilling firm: Hammond Wetmore Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

12/2/08

2-2-09

11-02

Date:

4/29/01

4-78

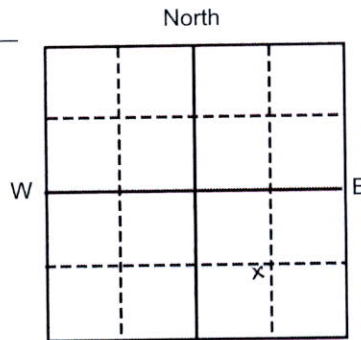
8-27-80
Date

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SE 1/4 Sec 16 Twp 92N Rg 51WCounty CLAY

Please mark well location with an "X"



Well Completion Date

11-10-2022

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
				<u>5.25</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	<u>6</u>	Lb/gal	<u>0</u> Ft	<u>260</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure _____

TREMMIE

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ 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 _____

TEST HOLE / NOT NECESSARYWell Owner: LYNN & MATT DASSON

Business Name: _____

Address: 15 NAPOLI WAY DriveCity, State, Zip: Missouri City TX 77459

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	3
BROWN SILTY CLAY	3	38
GREY SANDY CLAY	38	70
SAND & GRAVEL	70	74
GREY SANDY CLAY	74	115
SAND & GRAVEL	115	215
FINE GREY SAND	215	220
MEDIUM - COARSE GRAVEL	220	252
GREY CLAY	252	260

STATIC WATER LEVEL

FEET

If flowing: closed in pressure _____

PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____
☐ Bailed
☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

42.782508
-96.874466
This well was drilled under license # 810 and this report is true and accurate.Drilling firm: HEINE ELECTRIC & IRRIGATION

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 12/01/22

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Agriculture and Natural Resources

Date December 28, 2022

RECEIVED OF Reid/Collette Bird (for Matt/Lynn Dassow) 31605 473rd Ave., Elk Point SD 57025

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

Fee for Application for Permit No. <u>8693-3</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. <u>8693-3</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>950.00</u>

By

Eric Gronlund
Chief Engineer
vm



**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. 8693-3, Matt & Lynn Dassow**

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. 8693-3, Matt & Lynn Dassow, 15 Napoli Way Drive, Missouri City TX 77459.

The Chief Engineer is recommending APPROVAL of Application No. 8693-3 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. 8693-3 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. The well authorized by Permit No. 8693-3 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. 8693-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 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
February 24, 2023

Report to the Chief Engineer
On Water Permit Application No. 8693-3

Matt & Lynn Dassow

February 24th, 2023

Water Permit Application No. 8693-3 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Lower Vermillion Missouri aquifer (approximately 250 feet deep) located in the SW ¼ SE ¼ Section 16 for irrigation of 120 acres located in the E ½ SW ¼, W ½ SE ¼ Section 16; all in T92N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. The site of interest is located approximately 1 mile east of Vermillion, SD in Clay County.

AQUIFER: Lower Vermillion Missouri (LVM)

HYDROGEOLOGY:

The Lower Vermillion Missouri aquifer, referred as the LVM aquifer for the remainder of this report, is a buried glacial outwash that was deposited by meltwater streams beyond the margin of active glacial ice (Stephens, 1967). The LVM aquifer materials range in size from a coarse sand to a coarse gravel (Niehus, 1994). The LVM aquifer is primarily confined but can be locally found under unconfined conditions in the flood plain of the Vermillion River (Niehus, 1994; Stephens, 1967). The LVM aquifer has an average thickness of about 100 feet in Clay County (Stephens, 1967). Table 1 shows the information related to the areal extent of the LVM aquifer. The area utilized for this report is approximately 106,000 acres (Mathiowetz, 2018).

Table 1. Estimated areal extent for the historic LVM aquifer boundary (Hedges and others, 1982), the portion of the UVM:S aquifer that overlies the historic LVM aquifer boundary (Buhler, 2014). The current LVM aquifer boundary (Mathiowetz, 2018), and the unconfined portion of the LVM aquifer along the Vermillion River (modified from Jensen, 2000; modified from Stonesifer, 2013).

Delineation	Estimated Areal Extent (acres)
Historic Lower Vermillion Missouri Aquifer (modified from Hedges and others, 1982)	124,000
Upper Vermillion Missouri: South Aquifer (UVM:S) (modified from Buhler, 2014) - Portion that overlies LVM aquifer boundary estimated by Hedges and others, 1982.	18,000
Current Lower Vermillion Missouri Aquifer* (Mathiowetz, 2018)	106,000
Unconfined Portion of Lower Vermillion Missouri Aquifer - not enclosed in UVM:S (Buhler, 2014) (modified from Jensen, 2000; modified from Stonesifer, 2013)	12,000
*Estimated by subtracting UVM:S aquifer boundary (Buhler, 2014) from historic boundary (Hedges and others, 1982)	

The LVM aquifer is hydrologically connected to the Upper Vermillion Missouri: South (UVM:S) aquifer to the north, the Missouri: Elk Point aquifer to the south, the underlying Dakota aquifer, and the Vermillion River (Buhler, 2014; Mathiowetz, 2018; Niehus, 1994; Stephens, 1967). Hedges and others (1982) delineated a boundary between the Upper Vermillion Missouri aquifer and LVM 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.

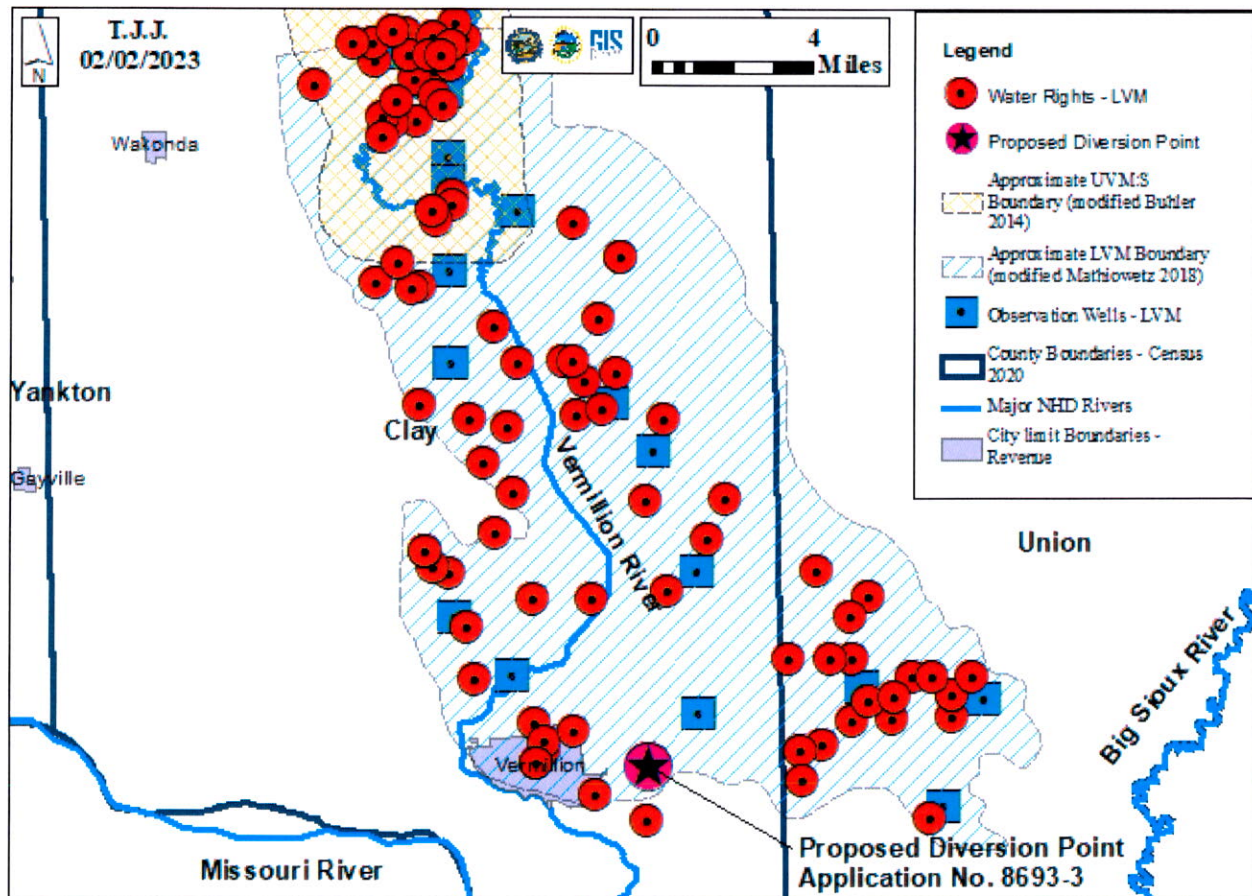


Figure 1. Map of the approximate LVM aquifer boundary delineated by Hedges and others (1982) with a portion of the UVM:S and LVM aquifer boundary estimated by Buhler (2014) and Mathiowetz (2018) respectively, and the location of proposed diversion point for Water Permit Application No. 8693-3, and LVM aquifer water rights/permits and observation wells (Water Rights, 2023b and 2023c). Note a number of water rights/permits considered to be appropriating water from the Upper Vermillion Missouri: South for the purposes of water management have not been formally reassigned so they still show up in Water Rights' databases (and therefore this map) as LVM permits.

A test hole and several domestic well completion reports were submitted with the application. The test hole was completed into the LVM aquifer on November 10th, 2022, and is located at or near the diversion point for this application (Water Rights, 2023b). The geology on the test hole completion report lists "Topsoil" 0 to 3 feet below ground surface, "Brown Silty Clay" 3 to 38 feet, "Grey Sandy Clay" 38 to 70 feet, "Sand & Gravel" 70 to 74 feet, "Grey Sandy Clay" 74 to 115 feet, "Sand & Gravel" 115 to 215 feet, "Fine Grey Sand" 215 to 220 feet, "Medium Coarse

Gravel” 220 to 252 feet, and “Grey Clay” 252 to 260 feet (Water Right, 2023e). A nearby domestic well completion report, located 0.5 miles northwest of the test hole, lists a static water level of 120 feet below ground surface at the time of well completion, January 29th, 1978 (Water Right, 2023e). Based on the geological data from the test hole and domestic completion reports near the proposed diversion point, the LVM aquifer is expected to be buried unconfined at the diversion point (SDGS, 2023; Water Rights, 2023b and 2023d). In general, the LVM aquifer is found under confined conditions outside of the Vermillion River flood plain where this application is located (Water Rights, 2023 b and 2023d).

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 §§ 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 LVM aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8693-3 proposes to appropriate water from the LVM 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 LVM 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 LVM aquifer must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the LVM aquifer is received primarily through infiltration of precipitation where the aquifer is at or near land surface, groundwater inflow from the Upper Vermillion Missouri: South aquifer, seepage from Vermillion River, and leakage from the underlying Dakota aquifer (Niehus, 1994; Stephens, 1967). Using observation well analysis Hedges and others (1985) estimated a recharge rate of 3.8 inches per year for unconfined portion of the LVM aquifer. However, Stonesifer (2013) recalculated the recharge rate to be an estimated 4.58 inches per year by using the same method but with additional observation well data. The unconfined area for this

primarily confined aquifer is approximately 12,000 acres (Table 1; modified from Jensen, 2000; modified from Stonesifer, 2013). Therefore, the estimated average annual recharge rate for the unconfined portion of the LVM aquifer is approximately 4,580 acre-feet/year (based on Stonesifer, 2013 and modified from Jensen, 2000).

It is assumed that the confined portion of the LVM aquifer recharges at a similar rate and is hydrologically similar to the confined portion of the Upper Vermillion Missouri aquifer. Using regional flow-net analysis, Hedges and others (1985) estimated the recharge rate of the, primarily confined, Upper Vermillion Missouri aquifer to be approximately 0.25 inches per year. The confined portion of the LVM aquifer is approximately 94,000 acres, this was found by subtracting the unconfined area from the current total area on Table 1. Using the Hedges and others (1985) confined recharge rate multiplied by the confined portion areal extent, the average annual recharge rate for the confined portion of the LVM aquifer is approximately 1,960 acre-feet per year. Combining average annual recharge rate for both the confined and unconfined portions of the LVM aquifer (within the LVM aquifer within Hedges and others (1982) historical aquifer boundary minus Buhler (2014) delineation of the UVM:S aquifer boundary), the average annual recharge rate is approximately 6,540 acre-feet per year.

Discharge

Discharge from the LVM aquifer in South Dakota primarily occurs through well withdrawals, seepage to surface water features, and evapotranspiration in areas where the aquifer is at or near land surface. There are 91 water rights/permits authorized to appropriate water from the LVM aquifer within the historical aquifer boundary delineated by Hedges and others (1982) (Water Rights, 2023c). However, 61 water rights/permits are in both the LVM aquifer boundary delineated by Hedges and others (1982) and the Upper Vermillion Missouri: South aquifer boundary delineated by Buhler (2014). Of the 61 water rights/permits, 29 are currently withdrawing water from the Upper Vermillion Missouri: South aquifer and are still labeled as withdrawing water from the LVM aquifer. Therefore, by excluding the 29 water rights/permits that are withdrawing from the Upper Vermillion Missouri: South aquifer from the 91 water rights/permits, there are 62 water rights/permits authorized to appropriate water from the LVM aquifer within the current aquifer boundary delineated by Mathiowetz (2018). There are no future use permits reserving water from the LVM aquifer (Water Rights, 2023c).

Table 2 summarizes the 7 non-irrigation water rights/permits authorized to appropriate water from the LVM aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The data on Table 2 is broken up into two sets of water rights/permits 1) those that are located in the historic aquifer boundary by Hedges and others (1982) but not in the Upper Vermillion Missouri: South aquifer boundary delineated by Buhler (2014) and 2) water rights/permits that are located within both boundaries. The amount of water withdrawn was estimated by assuming the non-irrigation water rights/permits limited by an annual volume will withdraw their entire appropriated volume every year. It is estimated that the non-irrigation water rights/permits limited only by a diversion rate will pump at their maximum permitted diversion rate for 60 percent of the time. This is a standard method used by the DANR-Water Rights Program for estimating average annual withdrawals by non-irrigation

appropriations limited solely by diversion rate. Overall, the estimated average annual withdrawal rate for the LVM aquifer non-irrigation water rights/permits within the historic aquifer boundary (Hedges and others, 1982) is approximately 1,224.4 acre-feet/year, and approximately 48.6 acre-feet/year excluding water rights/permits that are in the Upper Vermillion Missouri: South delineation by Buhler (2014) (Table 2) (Water Rights, 2023c).

Table 2. Estimated average annual use for non-irrigation water rights/permits authorized to appropriate water from the LVM aquifer within the historic aquifer boundary by Hedges and others (1982) but not the UVM:S aquifer delineation by Buhler (2014), and non-irrigation water rights within aquifer boundary delineated by Hedges and others (1982) and Buhler's (2014) UVM:S boundary (Water Rights, 2023c).

Permit No.	Name	Uses	Status	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet)	Estimated Use (acre-feet/year)
1870-3	USD FACILITIES MGMT	INS	LC	0.03	NA	13.0
6397-3	SD DEPT OF TRANSPORTATION	INS	LC	0.033	NA	14.3
8222-3	SOUTHEAST FARMERS COOP	COM	PE	0.167	18.4	18.4
8257-3	THEIN WELL CO INC	COM	PE	0.089	1	1
8479-3	KNIFE RIVER	IND	PE	0.133	1.84	1.84
					Total:	48.6
3905-3*	CLAY RURAL WATER SYSTEM INC	RWS	LC	2	NA	868.8
5979-3*	CLAY RURAL WATER SYSTEM INC	RWS	LC	2	307	307
					Total:	1175.8
*Within aquifer boundary delineated by Hedges and others (1982) and Buhler's (2014) UVM:S boundary						
LC Licensed Water Right, PE Water Permit, INS Institutional, COM Commercial, RWS Rural Water System						

There are 84 irrigation water rights/permits appropriating water from the LVM aquifer within Hedges and others (1982) historical aquifer boundary (Water Rights, 2023c). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire since 1979. However, due to changes in farming practices and an increase in the number of permits from 43 in 2006 to 71 in 2013, the average over the entire period of record may not be an accurate reflection of average annual irrigation withdrawal at the present time. The average annual withdrawal rate for the LVM aquifer within Hedges and others (1982) historical boundary for irrigation water rights/permits that have reported over the past ten years of record (2012 to 2021) is approximately 3,015 acre-feet per year (Table 3) (Water Rights, 2023a).

There are 55 irrigation water rights/permits appropriating water from the LVM aquifer within Hedges and others (1982) historical aquifer boundary excluding rights/permits within delineation UVM:S aquifer by Buhler (2014) (Water Rights, 2023c). However, due to changes in farming practices and an increase in the number of permits from 27 in 2006 to 45 in 2013, the average over the entire period of record may not be an accurate reflection of actual average annual withdrawal at the present time. The average annual withdrawal rate for the LVM aquifer

irrigation water rights/permits that have reported over the past ten years of record (2012 to 2021) is approximately 1,866 acre-feet per year (Table 3) (Water Rights, 2023a).

Application No. 8693-3 is requesting to irrigate 120 acres (Water Rights, 2023c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for fluctuation in wet and dry cycles from year to year, the one foot of water per acre per year application rate will be used to somewhat overestimate the average annual withdrawal rate for this irrigation water permit application. Therefore, the estimated average annual withdrawal rate for Application No. 8693-3 is approximately 120 acre-feet per year.

There were four water permits approved in 2022 (Nos. 8632-3, 8589-3, 8641-3, and 8672-3) and two other pending applications in 2023 (Nos. 8680-3 and 8692-3) that were not included in the irrigation questionnaire compilation and need to be accounted for. The new permits are authorized to irrigate 492 acres, while the pending applications, not including this application, propose to irrigate 190 acres. All together a total of 682 acres are planned to be irrigated (Water Rights, 2023c). Assuming one foot of water per acre per year, the withdrawal rate for these six water permits/applications is approximately 682 acre-feet per year. The average annual withdrawal rate for irrigation appropriations from 2012 to 2021 combined with 2022 permits and new applications, including this one, within Hedges and others (1982) historical aquifer boundary, is approximately 3,817 acre-feet per year (Table 3) (Water Rights, 2023a). The average annual withdrawal rate for irrigation appropriations from 2012 to 2021 combined with 2022 permits and new applications, including this one, within Hedges and others (1982) historical aquifer boundary excluding rights/permits within delineation UVM:S aquifer by Buhler (2014), is approximately 2,668 acre-feet per year (Table 3) (Water Rights, 2023a).

There are domestic wells completed into the LVM aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2023d). 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 LVM 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 LVM aquifer.

Hydrologic Budget Summary

The average annual recharge rate for the unconfined portion LVM aquifer is approximately 4,580 acre-feet/year. The average annual recharge rate for the confined portion LVM aquifer is approximately 1,960 acre-feet/year. Combining average annual recharge rate both the confined and unconfined portions of the LVM aquifer, the average annual recharge rate is approximately 6,540 acre-feet per year.

The average annual withdrawal rate from the LVM aquifer within Hedges and others (1982) historical aquifer boundary (the non-irrigation appropriations (1,224 acre-feet/year); the average annual withdrawal rate for irrigation appropriations from 2012 to 2021, 2022 water permits, and new applications, including this one, (3,817 acre-feet/year)) is approximately 5,041 acre-feet per year (Water Rights, 2023a).

The average annual withdrawal rate from the LVM aquifer within Hedges and others (1982) historical aquifer boundary excluding rights/permits within delineation UVM:S aquifer by Buhler (2014) (the non-irrigation appropriations (49 acre-feet/year); the average annual withdrawal rate for irrigation appropriations from 2012 to 2021, 2023 water permits, and new applications, including this one, (2,668 acre-feet/year)) is approximately 2,717 acre-feet per year (Water Rights, 2023a).

Collectively, the average annual recharge rate for both the confined and unconfined portions of the LVM aquifer is greater than the average annual withdrawal rate from the LVM aquifer within Hedges and others (1982) historical aquifer boundary as well as Buhler (2014) and Mathiowetz (2018) boundary delineated portions of the UVM:S and LVM aquifers. Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the LVM aquifer for the proposed appropriation.

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 ten observation wells completed into the LVM aquifer with two additional observation wells (CL-80J and CL-66AR) that are within both the historic aquifer boundary delineated by Hedges and others (1982) and Upper Vermillion Missouri: South aquifer boundary as defined by Buhler (2014), with observation wells in the area of this application shown on Figure 4 (Water Rights, 2023b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The two closest observation wells to the diversion point are CL-66BR (approximately 1.8 miles northeast) and CL-57A (approximately 4.1 miles northwest) (Water Rights, 2023b). The hydrographs for these observation wells are displayed in Figures 2 & 3 respectively (Water Rights, 2023b). The data points utilized to construct the hydrographs are measurements of the static water level in the

observation wells from the top of the well casing. It is worth noting the hydrograph titles display DENR Water Rights Observation Well on the hydrographs when the titles should display DANR Water Rights Observation Well on hydrographs.

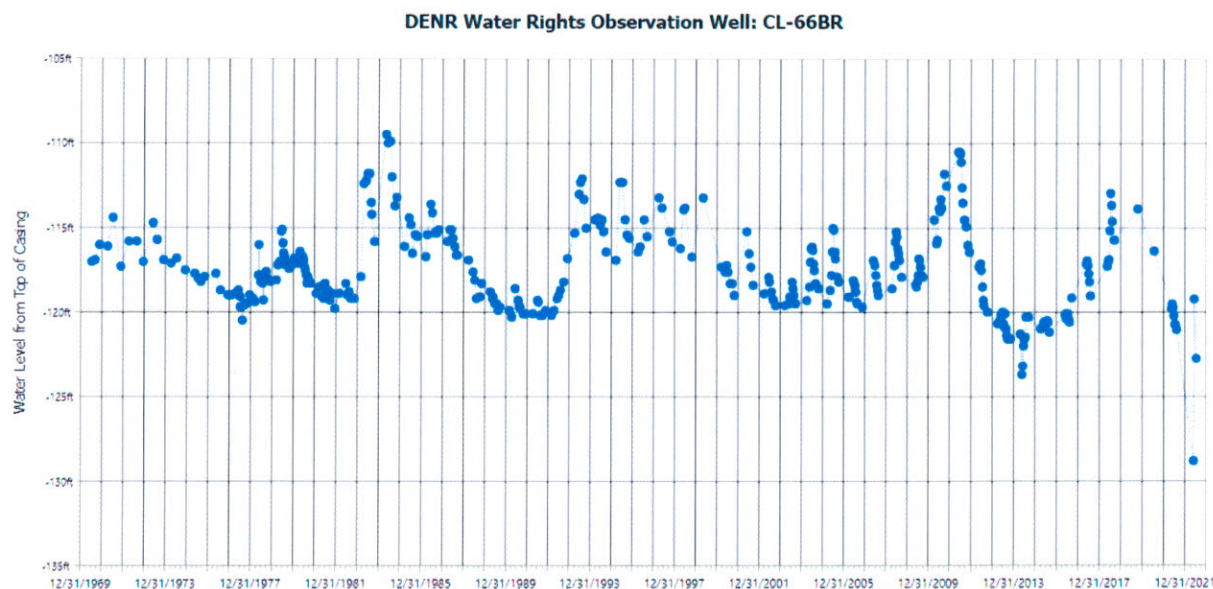


Figure 2. Hydrograph for observation well CL-66BR (Water Rights, 2023b)

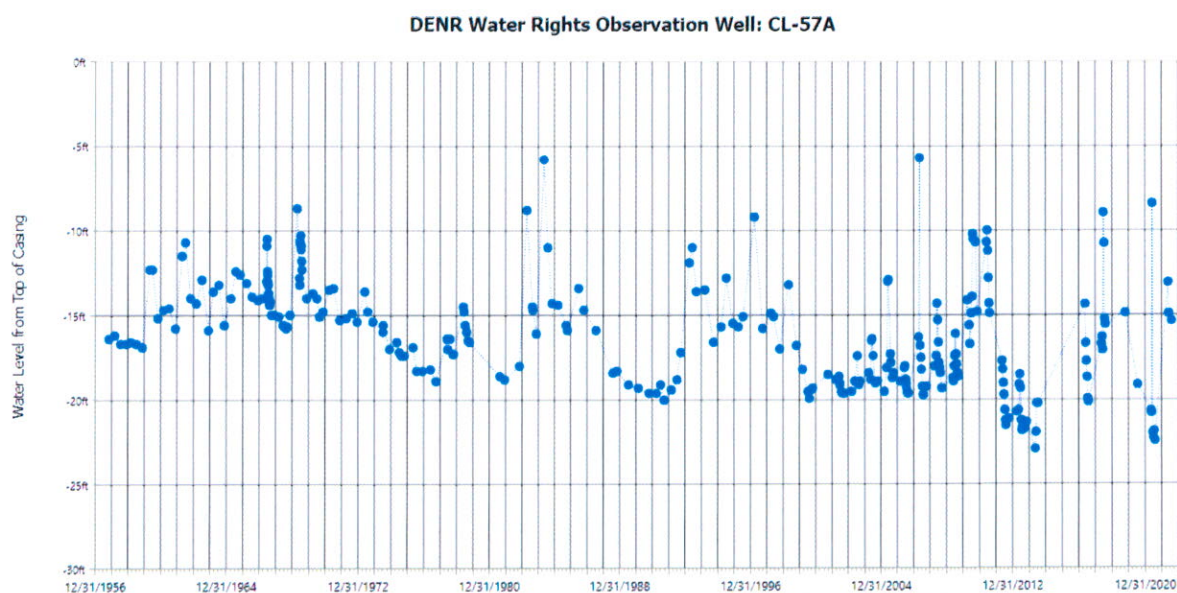


Figure 3. Hydrograph for observation well CL-57A (Water Rights, 2023b)

A majority of the observation wells in the LVM aquifer have a stable trend in the water level. The data shown on Figures 2 and 3 share a similar trend with most of the other observation wells in the LVM aquifer. The hydrographs for the LVM 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 LVM aquifer. 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.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, 62 water rights/permits are authorized to appropriate water from the LVM aquifer, partially shown on Figure 4, within the historic boundary of the aquifer mapped by Hedges and others (1982) excluding the area of the UVM:S as delineated by Buhler (2014) (Water Rights, 2023c). Table 4 lists nearby water rights/permits that are shown on Figure 4. The closest water right/permit to the diversion point for this application is Water Right No. 671-3 which is held by Francis J. Heine. The diversion point for Water Right No. 671-3 is located approximately 1.3 miles south of the proposed diversion point for this application (Water Rights, 2023c).

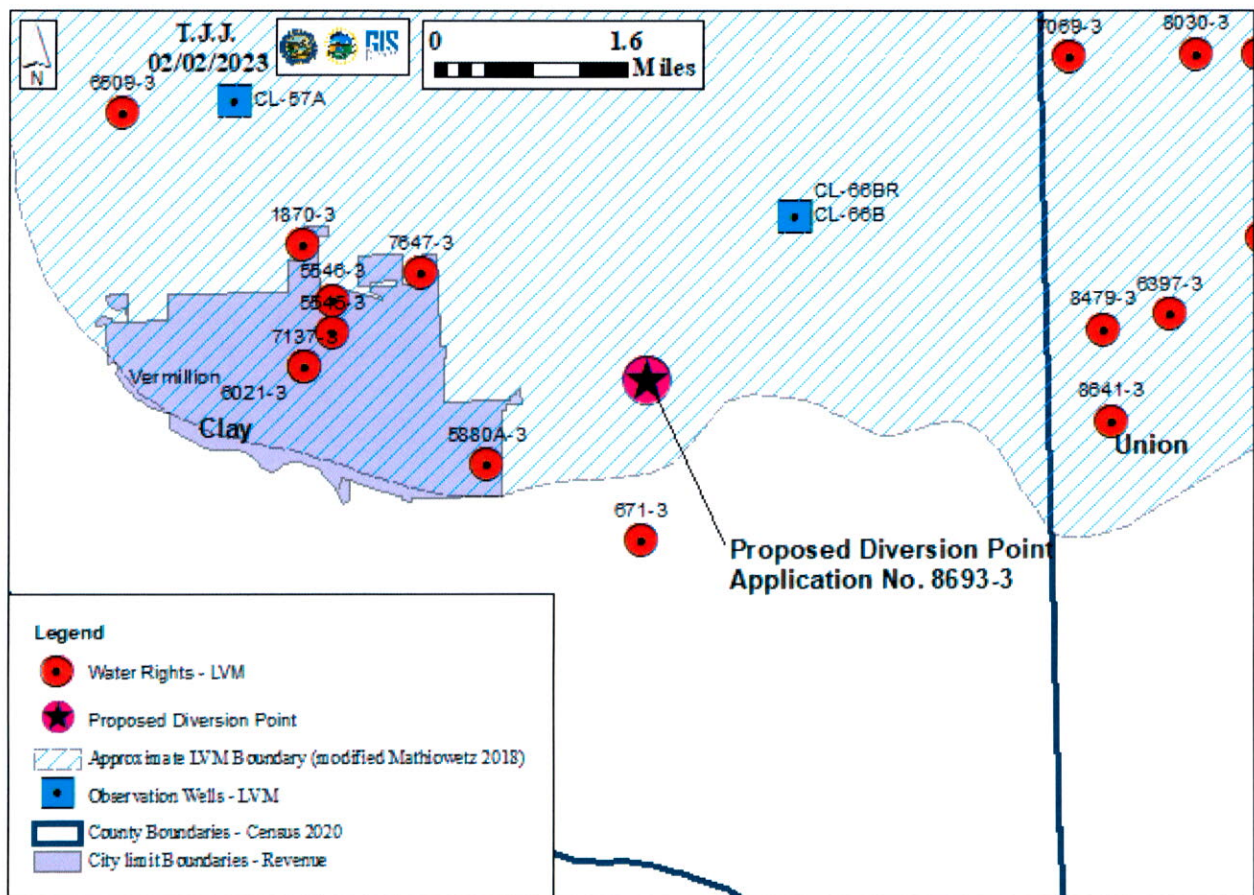


Figure 4. Map of the proposed diversion point for Water Permit Application No. 8693-3 and nearby LVM aquifer water rights/permits and observation wells (Water Rights, 2023b and 2023c).

Table 4. Water right/permits in Figure 4 (Water Rights, 2023c)

Permit	Name/Business	Priority	Status	Use Type	CFS	Acres
671-3	Francis J Heine	11/06/1959	License	Irrigation	3.4	244
1870-3	USD Facilities Management	01/28/1971	License	Irrigation	0.03	0
5546-3	USD Facilities Management	02/04/1976	License	Irrigation	0.443	31
5880A-3	City of Vermillion	08/25/1995	License	Irrigation	0.86	73
6021-3	USD Facilities Management	01/01/1910	License	Irrigation	0.11	8
6397-3	SD Dept. of Transportation	02/18/2003	License	Institutional	0.033	0
6509-3	Patti Bancroft	05/17/2004	License	Irrigation	0.22	23
7069-3	Kelly O'Connor	09/15/2008	License	Irrigation	5.33	405
7137-3	USD Facilities Management	05/21/2009	Permit	Irrigation	0.56	31
7647-3	Heikes Family Farms LLC	01/17/2013	Permit	Irrigation	0.18	30
8030-3	Reid Brid	06/16/2014	Permit	Irrigation	1.78	140
8479-3	Knife River	01/15/2021	Permit	Industrial	0.133	0
8641-3	Derrick Skogsberg	06/24/2022	Permit	Irrigation	1.78	160

There are domestic wells on file with the DANR-Water Rights Program that are completed into the LVM aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.14 miles southeast of the diversion point (Water Rights, 2023d). There could potentially be other domestic wells completed into the LVM aquifer near the diversion point that are not on file with the DANR-Water Rights Program.

The LVM aquifer is primarily under confined conditions, but it can be found to be locally unconfined near the Vermillion River. Based on well completion reports near the proposed diversion point for this application, it is expected to be under buried unconfined conditions but other nearby wells are confined. The confined condition of the aquifer is likely to be predominant in this area. 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 LVM 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)), history of irrigation in the area without any recent complaints of well interference (Water Rights, 2023e), 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. 8693-3 would authorize a maximum instantaneous diversion rate of 1.04 cfs from one well for the irrigation per 70 acres. The applicant did not provide a reason for the exceedance, but it appears to be due to a combination of the center pivot size and type of soils being irrigated. The pivot is smaller than a normal, quarter-sized pivot; however, smaller pivots often use a proportionally greater diversion rate to operate properly than their size would indicate is needed. In addition, the sprinkler nozzle size on the pivot may be larger to effectively apply water to the soils in the area which are sandy and require a greater application rate due to the high porosity/infiltration rate.

CONCLUSIONS:

1. Water Permit Application No. 8693-3 proposes to appropriate 1.78 cfs of water for irrigation of 120 acres from one proposed well to be completed into the LVM aquifer. The site of interest is located approximately 1 mile east of Vermillion, SD.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the LVM aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the diversion by Water Permit Application No. 8693-3 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 likely due to the sprinkler nozzle size of the center pivot and the sandy soils near the proposed well location.. 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



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.
- Hedges, L.S., Allen, J., Holly, D.E., 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; United States Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bed rock Topography and Distribution, Task 2: Extent of Aquifers, Task 3 Ground-Water Storage, Task 4: Computerized Data Base. United States Army Corps of Engineers Contract DACW 45-80-C-0185.
- Jensen, A.R., 2000. First Occurrence of Aquifer Materials in Clay County, South Dakota. SD DANR-Geological Survey Aquifer Materials Map 1. Vermillion, SD.
- Mathiowetz, A. 2018. Report to the Chief Engineer on Water Permit Application 8335-3. Natural Resource Engineer IV, SD DANR – Water Rights Program, Joe Foss Bldg. Pierre, SD.
- Niehus, C.A., 1994. Water Resources of Lincoln and Union Counties, South Dakota. U.S. Geological Survey Water-Resources Investigations Report 93-4195. U.S. Geological Survey. Rapid City, SD.
- SDGS, 2023. South Dakota Geological Survey Lithologic Logs Database. Accessed January 5, 2023. <http://cf.sddanr.net/lithdb/>.
- Steen, N. 2022. Report to the Chief Engineer on Water Permit Application 8641-3. SD DANR – Water Rights Program, Joe Foss Bldg. Pierre, SD.

- Stephens, J.C., 1967. Geology and Water Resources of Clay Counties, South Dakota Part II: Water Resources. Bulletin 19. SD DANR-Geological Survey, Vermillion, SD.
- Stonesifer, J. R. 2013. Report to the Chief Engineer on Water Permit Application 7918-3. SD DANR – Water Rights Program, Joe Foss Bldg. Pierre, SD.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2023a. "1979-2021 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights, 2023b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2023c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2023d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2023e. 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.**

March 1, 2023

Matt & Lynn Dassow
15 Napoli Way Dr.
Missouri City TX 77459

Dear Mr. & Mrs. Dassow:

Water Permit Application No. 8693-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605 624-2695) and the Press & Dakotan printed at Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publisher has 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. 8693-3 to Appropriate Water

Notice is given that Matt & Lynn Dassow, 15 Napoli Way Dr, Missouri City TX 77459 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 Lower Vermillion Missouri Aquifer (approximately 250 feet deep) located in the SW 1/4 SE 1/4 Section 16 for irrigation of 120 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 16; all in T92N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 1 mile east of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8693-3 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 March 20, 2023.

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 March 20, 2023.

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_

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, February 28, 2023 1:36 PM
To: Cassandra Brockmoller
Subject: 8693-3, Matt & Lynn Dassow
Attachments: 8693-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 10, 2023.

Matt & Lynn Dassow, 15 Napoli Way Dr, Missouri City TX 77459 (337 936-9576) 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: Tuesday, February 28, 2023 1:35 PM
To: Kelly Kronaizl
Subject: 8693-3, Matt & Lynn Dassow
Attachments: 8693-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 10, 2023.

Matt & Lynn Dassow, 15 Napoli Way Dr, Missouri City TX 77459 (337 936-9576) 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>



AFFIDAVIT OF PUBLICATION

PLAIN TALK

MATT / LYNN DASSOW
15 NAPOLI WAY DR
MISSOURI CITY TX 77459

RECEIVED

MAR 15 2023

OFFICE OF
WATER

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

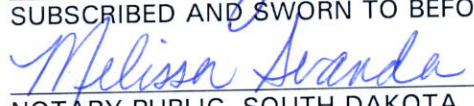
BETH RYE, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE ADVERTISING DIRECTOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF
THE OFFICIAL 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 10th DAY OF March, 2023
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$40.96 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: 03/10/2023

FILED ON: 03/10/2023


SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF March, 2023


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/30/2024



Ad text : NOTICE OF APPLICATION NO. 8693-3 to Appropriate Water

Notice is given that Matt & Lynn Dassow, 15 Napoli Way Dr, Missouri City TX 77459 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 Lower Vermillion Missouri Aquifer (approximately 250 feet deep) located in the SW 1/4 SE 1/4 Section 16 for irrigation of 120 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 16; all in T92N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 1 mile east of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8693-3 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 March 20, 2023.

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 March 20, 2023.

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 \$40.96 and can be viewed free of charge at www.sdpublicnotices.com

Published March 10, 2023.

Ad text : NOTICE OF APPLICATION
NO. 8693-3 to Appropriate Water

Notice is given that Matt & Lynn Dassow, 15 Napoli Way Dr, Missouri City TX 77459 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 Lower Vermillion Missouri Aquifer (approximately 250 feet deep) located in the SW 1/4 SE 1/4 Section 16 for irrigation of 120 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 Section 16; all in T92N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 1 mile east of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8693-3 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 March 20, 2023.

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 March 20, 2023.

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 \$40.96 and can be viewed free of charge at www.sdpublicnotices.com.

Published March 10, 2023.

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, February 28, 2023 1:40 PM
To: mldassow@gmail.com
Subject: Water Permit Application No. 8693-3
Attachments: 0096.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>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

APR 19 2023

Matt and Lynn Dassow
15 Napoli Way Dr.
Missouri City TX 77459

Dear Mr. and Mrs. Dassow:

Enclosed is Water Permit No. 8693-3 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



**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
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.: 8693-3

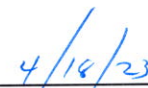
Name of Applicant: Matt & Lynn Dassow

Date of Posting: 3/6/2023

Date of Removal: 4/19/2023



Ron Duvall, Water Rights Permitting Administrator

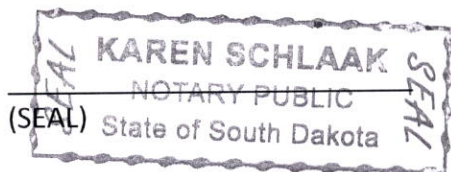


Date

Subscribed and sworn to before me, a notary public, this 18th day of April, 20 23.



Notary Public - South Dakota
My commission expires:

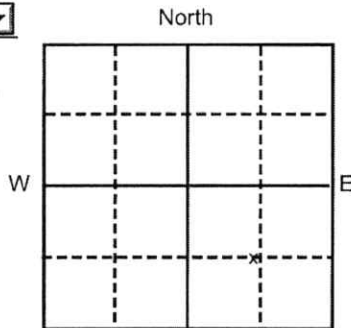


8693-3

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 16 Twp 92N Rg 51WCounty CLAYPlease mark well
location with an "X"

Well Completion Date

May 22, 2023

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>16</u> IN	<u>0</u> FT	<u>200</u> FT	<u>22</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Groutwell DF	<u>58</u>	Lb/gal	<u>0</u> Ft	<u>190</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Tremmie

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 16 Inches Length 52 FeetMaterial PVCSlot Size .050 Set From 200 Feet to 252 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? HTH Tablets☐ No, Why Not? _____Lab to which water
quality sample sent for analysisWell Owner: Matt & Lynn Dassow

Business Name: _____

Address: 15 Napoli Way DriveCity, State, Zip: Missouri City ☒ TX ☒ 77459

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	3
Brown Silty Clay	3	38
Gray Sandy Clay	38	70
Sand & Gravel	70	74
Grey Sandy Clay	74	115
Sand & Gravel	115	215
Fine Grey Sand	215	220
Medium-Coarse Gravel	220	252

STATIC WATER LEVEL 116 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed☐ Other

Pumping Level Below Land Surface

120 Ft. After 1 Hrs. pumped 800 GPM122.5 Ft. After 1.5 Hrs. pumped 1000 GPMIf pump installed, pump rate: 800 GPM

REMARKS

42.782508

-96.874456

Elevation: 1236

RECEIVED

JUL 06 2023

OFFICE OF
WATERThis well was drilled under license # 810 and this
report is true and accurate.Drilling firm: Heine Electric & Irrigation, Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 7-6-23



8693-3

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

August 8, 2023

8693-3

Matt & Lynn Dassow
15 Napoli Way Dr
Missouri City TX 77459

Dear Mr. & Ms. Dassow:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your water use system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Amanda Dewell
Water Rights Program
(605) 773-3352
email: Amanda.Dewell@state.sd.us

AUG 02 2023

OFFICE OF
WATERNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 7/28/2023TO: Water Rights Program, DANR
523 E. Capitol
Pierre, SD 57501-3181FROM: Lynn Dassow
(name)
15 Napoli Way Dr.
(address)
Missouri City, TX 77459 (331) 936-9576
(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.

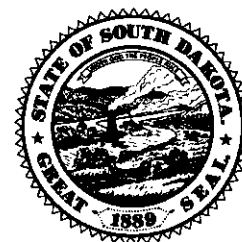
Water Permit No. 8693-3 states that the water use system is to be constructed by 3/20/2028, and water is to be put to beneficial use by 3/20/2032.
(date) (date)

The water use system was completed on 7/27/2023.
(date)

Applying the water to beneficial use was completed on 7/28/2023.
(date)

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

Lynn Dassow
(signature)



**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 8693-3**

I have this day, January 6, 2025, made a thorough examination of the water use systems owned by Matt and Lynn Dassow, 15 Napoli Way Dr., Missouri City, TX 77459, holders of Permit No. 8693-3, bearing the priority date of December 27, 2022. This permit authorizes the diversion of 1.78 cu. ft. per second of the waters of groundwater (Lower Vermillion Missouri Aquifer) authorizing the irrigation of 120 acres located in Clay County.

Inspection contacts: Lynn Dassow and Reid Bird

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Heine Electric & Irrigation, Inc.
- 2) No. of Wells: 1
- 3) Depth(s): 252 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 200 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 52 feet
- 3) Type: PVC
- 4) Static water level: 116 feet

Pump:

- 1) Make: Wilo
- 2) Model: SPI10.1200-2CC
- 3) Capacity: 800 gpm

Motor:

- 1) Make: Wilo
- 2) Model No.: Unknown
- 3) Horsepower rating: 60 hp

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

- 1) Type: Aluminum Size: 8 inches Length: 20 feet

C. Works used to apply water to beneficial use:

Center Pivot:

- 1) Make: Valley
- 2) Overall length: 1,198 feet
- 3) Number of towers: 7
- 4) End gun: Yes Range: 101 feet
- 5) Capacity: 800 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: 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 1,260 feet north and 2,610 feet west of the southeast corner of Section 16-T92N-R51W (Latitude 42.78259, Longitude -96.87537 – SW1/4 of the SE1/4).
2) The works are capable of diverting and conveying to the places of use 1.78 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:

<u>Section 16-T92N-R51W</u>	
<u>NE1/4SW1/4</u>	<u>25 acres</u>
<u>SE1/4SW1/4</u>	<u>30 acres</u>
<u>NW1/4SE1/4</u>	<u>29 acres</u>
<u>SW1/4SE1/4</u>	<u>33 acres</u>

comprising a total of 117 acres of land and the license should be issued for 1.78 cfs.

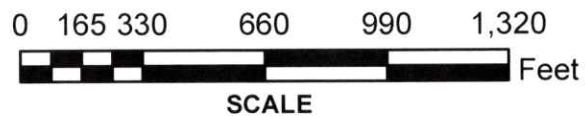
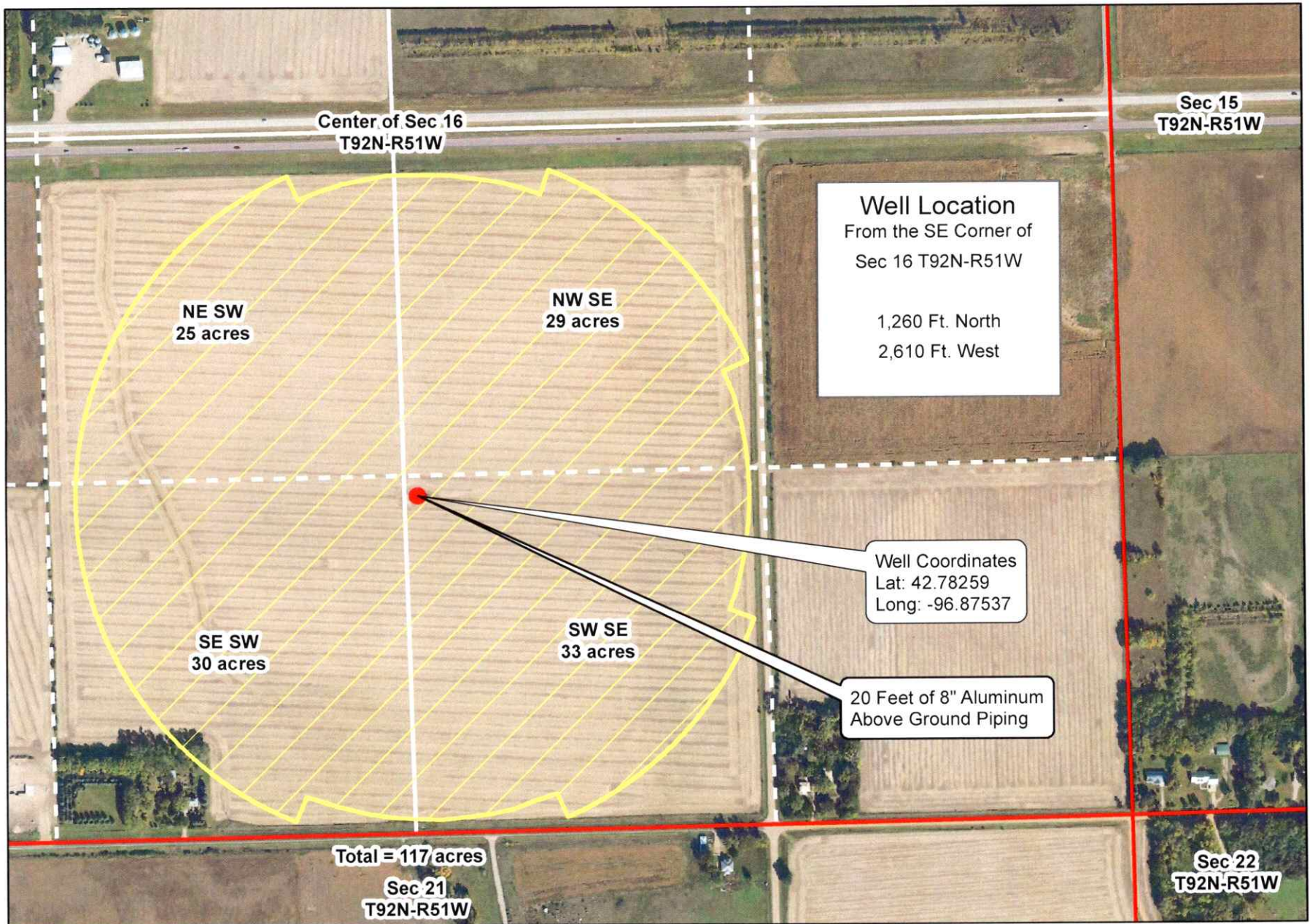
- 3) All structures, wells and lands on map: Yes

F. Comments or other permit(s) associated with the project: The 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: March 24, 2025

Water Permit No. 8693-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
January 6, 2025



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 02 2025

Matt and Lynn Dassow
31765 468th Ave
Burbank, SD 57010

No. 8693-3

Dear Mr. and Mrs. Dassow:

Enclosed is Water License No. 8693-3. 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,

Mark Mayer, PE
Director of Office of Water
(605) 773-3352

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8693-3**

(1) Matt and Lynn Dassow, 31765 468th Ave, Burbank, SD 57010, made Application No. 8693-3, December 27, 2022, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (Lower Vermillion Missouri Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 8693-3, with a priority date of December 27, 2022, was approved March 20, 2023, and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before March 20, 2028, and for the application to beneficial use of water on or before March 20, 2032.

The permit holders submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on August 2, 2023. The Notice stated the diversion system was completed on July 27, 2023 and the water was placed to beneficial use on July 28, 2023.

(2) It is certified that the permit holder 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 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,230 feet N and 2,610 feet W from the SE corner of Section 16, T92N, R51W (SW $\frac{1}{4}$ SE $\frac{1}{4}$)
(Latitude 42.78259 and Longitude -96.87537)

(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: May 1 – September 30.

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

Section 16, T92N, R51W
NE $\frac{1}{4}$ SW $\frac{1}{4}$ - 25 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 30 acres
NW $\frac{1}{4}$ SE $\frac{1}{4}$ - 29 acres
SW $\frac{1}{4}$ SE $\frac{1}{4}$ - 33 acres
Total – 117 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Matt and Lynn Dassow, the holders and/or owner of Water Right No. 8693-3 are issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, one well (Lower Vermillion Missouri Aquifer), with a priority date of December 27, 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. 8693-3 and subject to the following qualifications:

1. The well approved under Water Permit No. 8693-3 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. The well authorized by Permit No. 8693-3 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 drilled in 2023 by Heine Electric & Irrigation Inc. 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 method of irrigation, time constraints, or type of soils so requires, Permit No. 8693-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 acres with an annual volume not to exceed 2 acre-feet of water per acre per year. *(The number of acres authorized for irrigation under Water Right 8693-3 was reduced to 117, based on the system as constructed.)*
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

Mark Mayer

Mark Mayer, PE
Director of Office of Water

6/2/25

date

