

WATER PERMIT NO. 8668-3

Name of Applicant: **Marquardt Family Limited Partnership**

Address: **PO box 1040, Yankton SD 57078** Phone: **605 660-6970**

Amount of Water Claimed: **1.78** Total Acres: **115**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation** County: **Yankton**

Type of Waste Disposal System:

Location: **9 miles northwest of Yankton**

PRIORITY Date Received: **9-30-22**

Application/License Fee: **\$950**

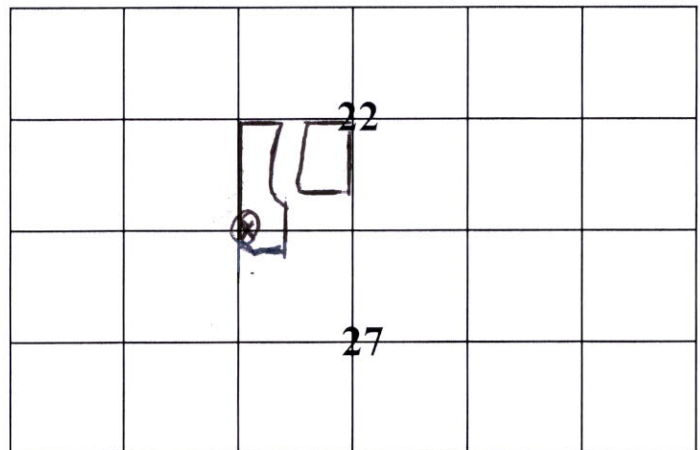
Corrected Application Received: **10-3-22**

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

Remarks: **Requesting diversion rate greater than statutory limit.**

Diversion Point: **SW 1/4 SW 1/4 Sec 22 or NW 1/4 NW 1/4 Sec 27; all in T95N-R56W**

Land to be Irrigated: **W 1/2 SW 1/4, NE 1/4 SW 1/4 Sec 22 and NW 1/4 NW 1/4 Sec 27; all in T95N-R56W**



Depth of Well: **160 feet deep**

Well Driller:

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **10-4-22**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8668-3**

Date of first receipt of application September 30, 2022.

Date of return to applicant for corrections, amendments or changes October 3, 2022.

Date of receipt of corrected application October 3, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8668-3 to Marquardt Family Limited Partnership, c/o Ralph Marquardt, PO Box 1040, Yankton SD 57078 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8668-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri:Scotland Aquifer (approximately 160 feet deep) located in either the SW 1/4 SW 1/4 Section 22 or the NW 1/4 NW 1/4 Section 27 for irrigation of 115 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 22 and NW 1/4 NW 1/4 Section 27; all in T95N-R56W. This site is located approximately 9 miles northwest of Yankton SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – October 31.
3. The date from which applicant may claim right is September 30, 2022.
4. The date of approval of Permit No. 8668-3 is December 19, 2022.
5. One-fifth of the construction is to be completed on or before June 19, 2025.
6. All construction is to be completed on or before December 19, 2027.
7. Water is to be put to beneficial use on or before December 19, 2031.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 8668-3 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. 8668-3 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. 8668-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 115 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

FEB 17 2023
date



Originally received
9/30/22

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8668-3</u>	(office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>Press & Dakotan</u>	

RECEIVED

OCT 03 2022

OFFICE OF
WATER

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.)

- Name to Appear on Irrigation Permit Margardt Family Limited Partnership
Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.
Mailing Address PO Box 1040 Yankton SD 57078
(Address) (City) (State) (Zip Code)
Phone 6056644900 Mobile 6056606970 Email daveh@margcompanies.com
- Amount of water claimed 1.78 *CFS or 700-800 **GPM N/A ***AF Total Acreage 115
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply New Well (SW 1/4 SW 1/4)
- Location of point of diversion 1 well in the SW 1/4 of Section 22-95-56 and
NW 1/4 of Section 27-95-56 (NW 1/4 NW 1/4) County Yankton
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
- County or counties where water will be used Yankton
- Annual period during which water is to be used Irrigation crop land (May - October)
- List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
SW 1/4 Sec 22-95-56 (Attach sheet if more space is needed) NW 1/4 Sec 27-95-56

Land Description	Acres	Land Description	Acres
SW 40 acres	25	NW 40 acres	15
NW 40 acres	35		
NE 40 acres	40		

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

Once a permit is granted, Sam Heine will drill a new well to irrigate approx 115 acres in this quarter. Use a standard above ground tower system OR a below ground drip system due to irregular size and top considerations. Farm ground.

I, Ralph Margardt General Partner, the applicant, certify under
Name of Person Title (if applicable)

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

Supplemental Information

(type or print)

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

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

For either Existing or Proposed Wells:

c) Well Depth (required) 160 Depth to Top of Water Bearing Material 100 Depth to Water from Surface 40d) Distance to nearest domestic well on applicant's property _____ Property owned by others 3000 feet**2. Wastewater Disposal System Information**a) Type of System (i.e. septic tank, drain field) not applicable

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Informationa) Surface Dimensions not applicable 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 _____

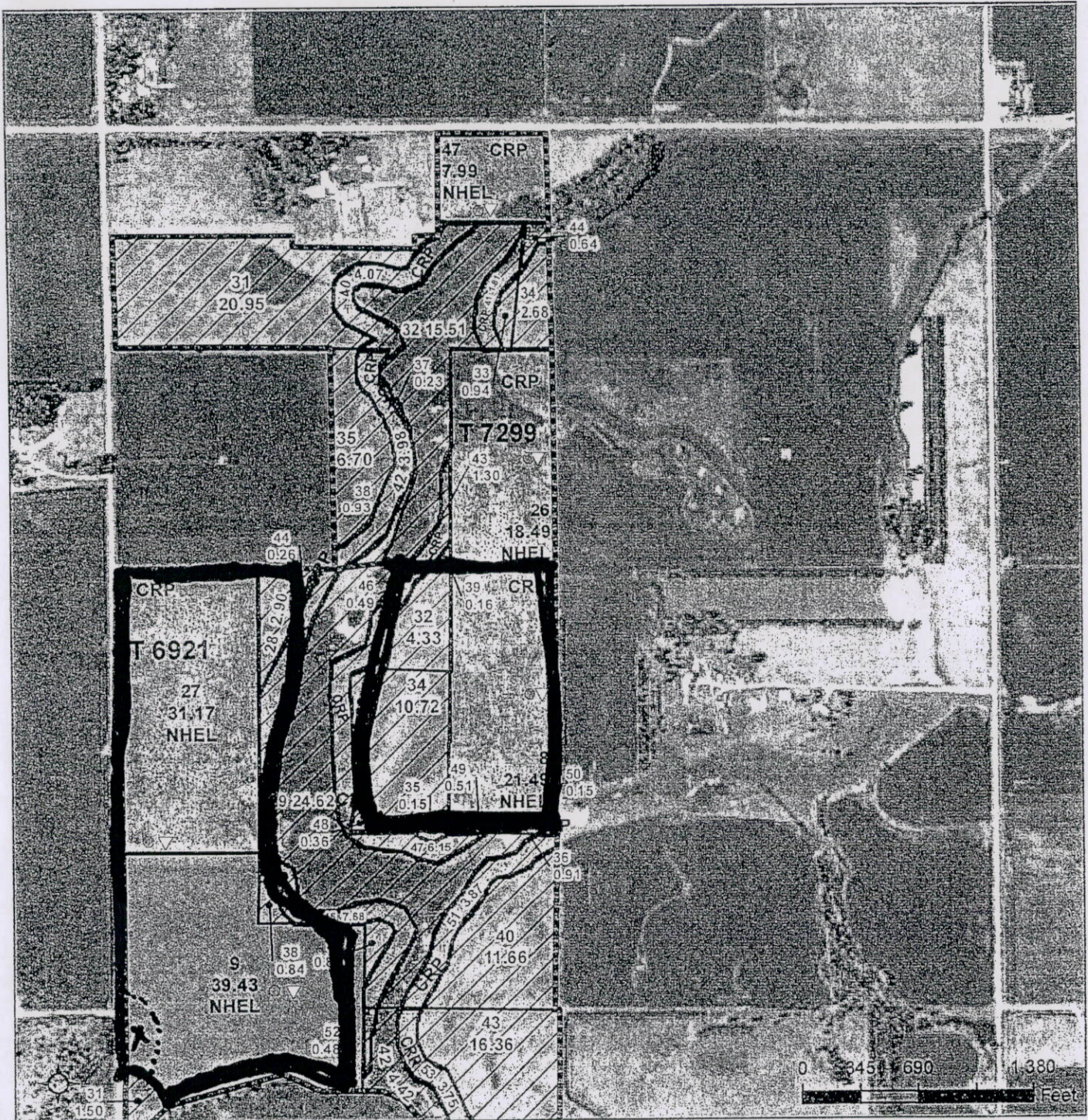
i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



United States
Department of
Agriculture

Yankton County, South Dakota



Common Land Unit

- Non-Cropland
- Cropland

- CRP
- Tract Boundary
- PLSS

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Unless otherwise noted,
crops listed below are:

- Non-irrigated
- Intended for Grain
- Corn = Yellow
- Soybeans = Common
- Wheat - HRS or HRW
- Sunflowers = Oil or Non-oil

Producer Initial _____
Date _____

2021 Program Year

Map Created May 10, 2021

Farm 7473

22 -95N -56W

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

95N 56W
Section: 16

95N 56W
Section: 15

95N 56W
Section: 14

95N 56W
Section: 21

95N 56W
Section: 22

95N 56W
Section: 23

95N 56W
Section: 28

95N 56W
Section: 27

95N 56W
Section: 26



Location Information

Legal Location: NE NE NE NE SEC. 21, T. 095 N., R. 56 W.
County: YANKTON Location: 095N56W21AAAA
Latitude: 43.038759
Hydrologic Unit Code: 10160011 Longitude: - 97.458031
Land Owner: Ground Surface Elev. (ft.): 1285 T

Project Information

Project: YANKTON COUNTY STUDY
Drill Date: 08/08/1979 Geologist: G. JOHNSON
Company: SDGS Geologist's Log: X
Drilling Method: ROTARY Driller: T. CONNER
Test Hole Number: YN-14-79 Driller's Log:
Total Drill Hole Depth (ft.): 320.0

Geophysical Information

E-logs Available: YES

Lithologic Information

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1285.0 - 1284.0	0.0 - 1.0	TOPSOIL, BLACK
1284.0 - 1260.0	1.0 - 25.0	CLAY, BROWN, SILTY TO SLIGHTLY SANDY; WITH SCATTERED PEBBLES (OXIDIZED TILL)
1260.0 - 1248.0	25.0 - 37.0	CLAY, GRAY, SILTY TO SANDY; WITH PEBBLES (TILL)
1248.0 - 1243.0	37.0 - 42.0	CLAY, GRAY, VERY SILTY (TILL)
1243.0 - 1219.0	42.0 - 66.0	CLAY, GRAY, SILTY TO SANDY; WITH PEBBLES (TILL)
1219.0 - 1156.0	66.0 - 129.0	CLAY, MEDIUM- TO LIGHT-GRAY, SILTY, VERY SANDY; MORE GRAVEL THAN INTERVAL FROM 42 TO 66 FEET (TILL)
1156.0 - 1105.0	129.0 - 180.0	CLAY, GRAY, VERY GRAVELLY; WITH SAND AND SILT (TILL)
1105.0 - 1018.0	180.0 - 267.0	GRAVEL, MEDIUM, SANDY; SCATTERED COBBLES, CLAY LAYER FROM 188 TO 192 FEET (TILL)
1018.0 - 965.0	267.0 - 320.0	CLAY, LIGHT-GRAY; SLIGHTLY CALCAREOUS, GREASY LUSTER (CARLILE SHALE)

OXIDIZED CUTTINGS FROM ABOUT 70 FEET INDICATE A POSSIBLE SECOND TILL, ALTHOUGH NOT SEEN ON E-LOG.

Location Information

Legal Location: NE NE NE NE SEC. 28, T. 095 N., R. 56 W.
County: YANKTON Location: 095N56W28AAAA
Hydrologic Unit Code: 10160011 Latitude: 43.024268
Land Owner: Longitude: - 97.457881
Ground Surface Elev. (ft.): 1285 T

Project Information

Project: YANKTON COUNTY STUDY
Drill Date: 08/01/1979 Geologist: G. JOHNSON
Company: SDGS Geologist's Log: X
Drilling Method: ROTARY Driller: M. KOFFLER
Test Hole Number: YN-8-79 Driller's Log:
Total Drill Hole Depth (ft.): 80.0

Well Information

SDGS Well Name: YN-8-79 Aquifer: PLEISTOCENE SERIES
Water Rights Well: YA-79D Management Unit:
Other Well Name: Casing Top Elev. (ft.): 1287.7 T
Casing Type: PVC Casing Diameter (in.): 1.5
Screen Type: PVC, HM. Screen Length (ft.): 0.0
Total Casing and Screen (ft.): 74.2 Casing Stick-up (ft.): 2.70 T

Geophysical Information

E-logs Available: 258X YES

Notes

CIRCULATION LOST AT 80 FEET.

Lithologic Information

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1285.0 - 1283.0	0.0 - 2.0	TOPSOIL, BLACK, SANDY
1283.0 - 1274.0	2.0 - 11.0	CLAY, YELLOW-BROWN; WITH MEDIUM SAND (OXIDIZED TILL)
1274.0 - 1258.0	11.0 - 27.0	CLAY, BROWN-YELLOW, SANDY (OXIDIZED TILL)
1258.0 - 1227.0	27.0 - 58.0	SAND, MEDIUM; WITH FINE GRAVEL
1227.0 - 1205.0	58.0 - 80.0	GRAVEL, MEDIUM TO COARSE

25ft static

MARQUARDT FAMILY LIMITED PARTNERSHIP
PO BOX 1040
YANKTON, SOUTH DAKOTA 57078

September 26, 2022

Eric Gronlund
DENR-Water Rights
523 E. Capitol Ave.
Pierre, SD 57501-3182

Re: Irrigation Well Application

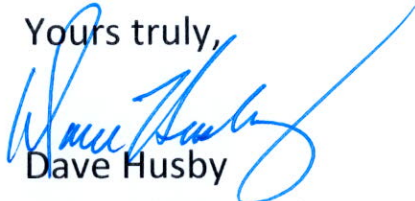
Eric.

Enclosed please find Form 2, FSA map, and associated well reports from adjacent property that Sam Heine printed for me. I have also enclosed a check in the amount of \$750 for the first 120 acres of land that may be irrigated under this application.

Sam informs me that wells drilled in this area have produced good results and it appears the area in which we are proposing to locate a well should provide good results for our irrigation needs.

Please let me know if you need any further information or if I may answer any questions for you or your staff. Thank you for your kind assistance and time in this matter.

Yours truly,



Dave Husby
General Counsel

Cc: Ralph Marquardt

Enclosures

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, October 3, 2022 10:05 AM
To: Dave Husby
Subject: Water Permit Application for Marquardt
Attachments: 4143.pdf

Mr. Husby,

We received the water permit application. The map submitted did not outline the area to be irrigated. On the attached map, please outline the 115 acres to be irrigated and mark the proposed well location with an "X".

The application requests 1000 gallons per minute (gpm). This amount is greater than the statutory limit of 1 cubic feet per second (cfs) per 70 acres. The application states $115 \text{ acres} / 70 = 739 \text{ gpm}$. It is possible to apply for a greater rate than 1 cfs per 70 acres. Usually, a typical low-pressure pivot can operate in the 700 to 800 gpm range so there is no need to justify a greater amount if it is not needed. I am unsure what a below ground drip system would require. If the system you intend to install requires 1,000 gpm, please indicate so, then we have a basis for proceeding with the higher amount.

Let me know if you have questions.

Karen Schlaak

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



Schlaak, Karen

From: Dave Husby <Daveh@marqcompanies.com>
Sent: Monday, October 3, 2022 3:51 PM
To: Schlaak, Karen
Subject: [EXT] Water Permit Application
Attachments: Scanned Document_20221003_163930.pdf

Karen. I have attached an FSA map (it scanned better than the one I got from you) showing the 115 acres we would potentially irrigate (2 pieces surrounded by dark lines). I have also included an "X" in the lower left hand corner of the property in the approximate area where we might include a well (subject to confirmation of a specific final location). We recently obtained an NRCS wetland determination that included most of this as a farmable wetland with no serious restrictions. No wetland was identified.

The utilization of 700-800 gpm is acceptable. I am not aware of any special water amount that would be different with a drip irrigation system.

Thanks for your request for explanation.

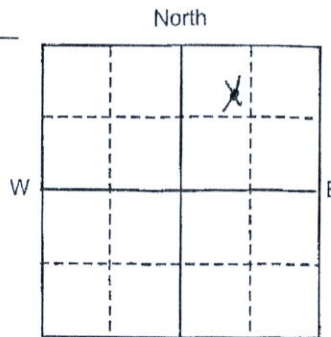
From: sharpcopier@1officesolution.com <sharpcopier@1officesolution.com>
Sent: Monday, October 3, 2022 3:40 PM
To: Dave Husby <Daveh@marqcompanies.com>
Subject: Scanned image from Sharp Copier

11-02

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location NW 1/4 NE 1/4 Sec 28 Twp 95N Rg 56WCounty Hamlin

Please mark well location with an "X"



Well Completion Date

10-10-17

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

6000 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Straight Rotary

CASING DATA:

☐ Steel
☒ Plastic
☐ Other

PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER

200 LB/FT 4 IN 0 FT 126 FT 10 IN

LB/FT IN FT FT IN

LB/FT IN FT FT IN

GROUTING DATA:

Grout Type No. of Sacks Grout Weight From To

Cement 12 Lb/gal 0 Ft 40 Ft

Lb/gal Ft Ft

Describe grouting procedure

pump down w/ grout pump

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 4 Inches Length 20 Feet

Material POC

Slot Size .010 Set From 126 Feet to 146 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes
☒ No

Describe packer(s) and location

DISINFECTION:

Was well disinfected upon completion?

☒ Yes, How? Chlorine

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner:

Greg Toest

Business Name:

Address:

City, State, Zip:

30193 437 AveNutan, SD 57067

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>brown top soil</u>	<u>0</u>	<u>8</u>
<u>brown clay</u>	<u>8</u>	<u>15</u>
<u>coarse gravel</u>	<u>15</u>	<u>26</u>
<u>grey clay</u>	<u>26</u>	<u>122</u>
<u>coarse gravel</u>	<u>122</u>	<u>135</u>
<u>gravel + ROCKS</u>	<u>135</u>	<u>150</u>

STATIC WATER LEVEL

39

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:pumped w/ submersible pump☐ Bailed☐ Other

Pumping Level Below Land Surface

39 Ft. After 1 Hrs. pumped 25 GPM39 Ft. After 2 Hrs. pumped 25 GPM

If pump installed, pump rate:

10

GPM

REMARKS

Lower James Missouri: Scotland AmThis well was drilled under license # 444 and this report is true and accurate.

Drilling firm:

Chelton Wells System

Signature of License Representative:

Andy W. Chelton

Signature of Well Owner or Equitable Property Holder:

RECEIVED

JAN 24 2018

Date:

12-20-17

WATER RIGHTS PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

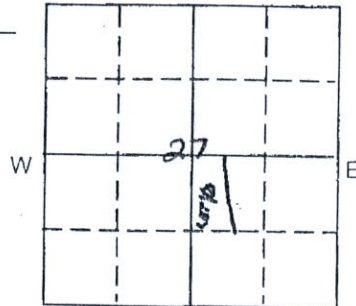
11-02

Location NW 1/4 SE 1/4 Sec 27 Twp 95 Rg 56

County YANKTON LOT 10 North

311 BEAVER BEACH RD LOT 10

Please mark well location with an "X"



Well completion Date 8-10-13

1 Mile

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

? 100 ft. from SEPTIC TANK (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>200#</u>	<u>5 IN</u>	<u>0 FT</u>	<u>103 FT</u>	<u>IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>DF</u>		<u>Lb/gal</u>	<u>78 FT</u>	<u>0 FT</u>
		<u>Lb/gal</u>	<u>FT</u>	<u>FT</u>

Describe grouting procedure

PRESSURE ALONG HOLE

SCREEN:

☐ Perforated pipe ☐ Manufactured
Diameter 5 Inches Length 20 Feet
Material PLASTIC
Slot Size 16 Set From 103 Feet to 123 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 analysis

STATE H-61411 LAB

Please return **WHITE COPY** to: DENR Water Rights

Well Owner: Eugene KONKEN

Business Name:

Address: 1807 WOODLAND LOOP

City, State, Zip: YANKTON SD 57028

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>YELLOW CLAY</u>	<u>0</u>	<u>23</u>
<u>BLUE SAND CLAY</u>	<u>23</u>	<u>78</u>
<u>SAND WITH CLAY STRIPS</u>	<u>78</u>	<u>96</u>
<u>SAND COURSE</u>	<u>96</u>	<u>123</u>

STATIC WATER LEVEL 65 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: POMPE WITH SUB
☐ Bailed POMP
☐ Other

Pumping Level Below Land Surface

80 Ft. After 24 Hrs. pumped 15 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: 15 GPM

REMARKS

RECEIVED

AUG 12 2013

WATER RIGHTS PROGRAM

This well was drilled under license # _____

And this report is true and accurate.

Drilling firm: MARION Well DRILLING

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

Eugene KONKEN

Date: 8-10-13

523 E Capitol Ave. Pierre SD 57501

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location nw $\frac{1}{4}$ nw $\frac{1}{4}$ Sec 26 Twp 95N Rg 56W

County

Yankton

North

Please mark well
location with an "X"

W

E

Well Completion Date

12/10/2006

1 Mile

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

? 180.0 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary;

CASING DATA:

☐ Steel
 ☒ Plastic
 ☐ Other

If other describe

PIPEWEIGHT LB/FT	DIAMETER IN	FROM FT	TO FT	HOLE DIAMETER IN
	5.00	6.0	120.0	9.00

LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight Lb/gal	From Ft	To Ft
Bent grt	16	9.5	6.0	116.0

Describe grouting procedure
tremie

SCREEN:

☐ Perforated pipe
 ☒ Manufactured
 Diameter 5.00 Inches Length 20.0 FeetMaterial pvcSlot Size .016 Set From 120.0 Feet to 140.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes
 ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Hth tablets
☐ No, Why Not?
 Lab sample sent to for
water quality analysis

State Health lab

Well Owner: Scott Sandal

Business Name:

Address: 43813 301st StreetCity, State, Zip: Utica SD 57067

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Clay, Yellow brown, Silty, pebbly	0	27
Clay, gray, pebbly Till	27	115
Sand, gray, medium to fine,	115	143

STATIC WATER LEVEL 97.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

99.0 Ft. After 5.0 Hrs. pumped 25.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: 16.0 GPM

REMARKS

RECEIVED

FEB 01 2007

WATER RIGHTS
PROGRAMThis 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: 12/31/06

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date September 30, 2022

RECEIVED OF Marquardt Family Limited Partnership PO Box 1040 Yankton SD 57078

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

Fee for Application for Permit No. <u>8668-3</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>8668-3</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 Erin 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. 8668-3, Marquardt Family Limited Partnership**

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. 8668-3, Marquardt Family Limited Partnership, c/o Ralph Marquardt, PO Box 1040, Yankton SD 57078.

The Chief Engineer is recommending APPROVAL of Application No. 8668-3 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. 8668-3 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. 8668-3 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. 8668-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 115 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
November 30, 2022

**Report to the Chief Engineer on
Water Permit application No. 8668-3**

Ralph Marquardt
21st November 2022

Water Permit Application No. 8668-3 seeks to appropriate water at a maximum diversion rate of 1.78 cubic feet per second (cfs) from one well to be completed into the Lower James Missouri: Scotland aquifer (160 feet deep) located in either the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22 or NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 27 for irrigation of 115 acres located in the W $\frac{1}{2}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22 and NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 27; all in T95N-R56W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately nine miles northwest of Yankton, SD.

Aquifer: Lower James-Missouri: Scotland (LJM:S)

Hydrogeologic Characteristics

The Lower James-Missouri: Scotland aquifer management unit is a sand and gravel outwash underlying approximately 72,800 acres of Bon Homme, Hutchinson, and Yankton Counties that was deposited in the Quaternary Period (Hedges et al, 1982). It has a strong hydrologic connection to the main body of the Lower James-Missouri aquifer to the northeast and the Choteau: Tyndall aquifer management unit to the west and may have some hydrologic contact with the Codell Sandstone aquifer where the Lower James-Missouri: Scotland aquifer management unit contacts the underlying and adjacent portions of the Codell Sandstone aquifer (Christensen, 1974; Bugliosi, 1983).

The applicant submitted four well completion reports that are nearby the proposed well site, with the closest being completed on October 10th, 2017. The driller reported encountering clay from 8 to 15 feet below grade, coarse gravel from 15 to 26 feet below grade, gray clay from 26 to 122 feet below grade, coarse gravel from 122 to 135 feet below grade, and gravel with rocks from 135 to 150 feet below grade. The driller placed screen from 126 to 146 feet below grade. The saturated aquifer thickness of the well was 28 feet, with the depth to the top of aquifer material of 122 feet below grade, and a static water level of 39 feet below grade at the time of completion (Water Rights, 2022d). The elevation of aquifer materials encountered are consistent with nearby DNR observation wells completed into the Lower James-Missouri: Scotland aquifer management unit (Water Rights, 2022b). The Lower James-Missouri Scotland aquifer management unit is under buried, confined conditions.

Applicable South Dakota Codified Law (SDCL)

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

Pursuant to SDCL 46-6-3.1, no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source. An exception provides that the Water Management Board is not required to consider the balance of recharge and withdrawals if the application is for a water distribution system and the groundwater source is older or stratigraphically lower than the Greenhorn Formation. This application is not for a water distribution system and the Lower James-Missouri: Scotland aquifer management unit is younger and stratigraphically higher than the Greenhorn Formation. Therefore, the Water Management Board is required to find that average annual recharge exceeds average annual withdrawals to approve this application.

Availability of Water

Hydrologic Budget

Recharge

Recharge to the Lower James-Missouri: Scotland aquifer management unit is by infiltration of precipitation and possibly by groundwater inflow from bedrock and glacial aquifers when they are in contact with the aquifer management unit and the hydraulic head is higher than the hydraulic head in the Lower James-Missouri: Scotland aquifer management unit. Hedges et al (1985) used a flow-net analysis to estimate an average annual recharge to the entire Lower James-Missouri aquifer to be approximately 1.5 inches per year. The validity of a flow-net analysis depends on the validity of its assumptions. Hedges et al (1985) also recommended using a recharge rate ranging between 0.15 and 0.60 inches per year for buried, confined aquifers for water management purposes. By applying the various recharge rates over the estimated area of the aquifer (72,800 acres), the total average annual recharge can be estimated. Using the recharge rate from the flow-net analysis, the estimated average annual recharge could be as much as 9,100 acre-feet per year (ac-ft/yr). Using the more conservative recommended values, the average annual recharge to the Lower James-Missouri: Scotland aquifer management unit could range between 910 ac-ft/yr and 3,640 ac-ft/yr.

Discharge

Discharge from the Lower James-Missouri: Scotland aquifer management unit is likely by groundwater outflow to bedrock and glacial aquifers where they contact the Scotland management unit and the hydraulic head in the other aquifers is lower than the hydraulic head of the Lower James-Missouri: Scotland aquifer management unit, by evapotranspiration where the aquifer is at or near land surface, and by domestic and appropriative well withdrawals. There are 18 water rights/permits authorized to withdraw from the Lower James-Missouri: Scotland aquifer management unit and two pending applications. Of those authorized, 21 are for irrigation, including the two pending applications, and one is for livestock watering use in an animal feeding operation (Water Rights, 2022c). Assuming the one water right authorized for livestock watering use in a livestock feeding operation pumps at its maximum withdrawal rate 60% of the time, it is estimated to withdraw approximately 48 ac-ft/yr. Figure 1 shows the reported irrigation withdrawals from the Lower James-Missouri: Scotland aquifer management unit (Water Rights, 2022a).

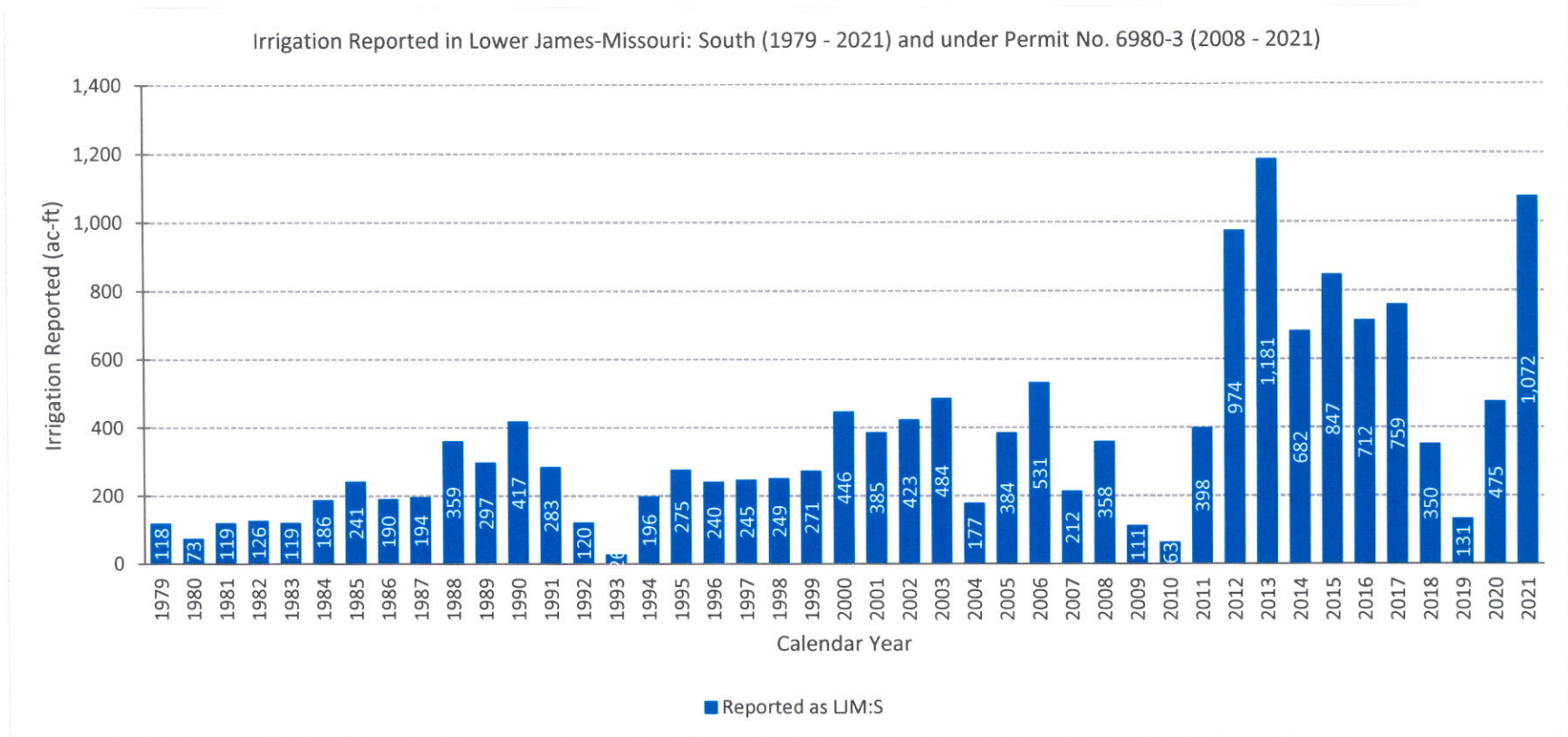


Figure 1: Irrigation reported in Lower James-Missouri: Scotland aquifer management unit from 1979 - 2021 (Water Rights, 2022a)

The average irrigation use reported over the entire period of record (1979 – 2021) is 361 ac-ft/yr (Water Rights, 2022a). However, due to changes in farming practices and an increase in the number of permits from 10 to 16 from 2012 to 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 irrigation reported as withdrawing from the Lower James-Missouri: Scotland aquifer management unit over the last 10 years of record (2012 – 2021) is 718 ac-ft/yr (Water Rights, 2022a). Water Permit, No. 8571-3, is new enough that its withdrawals are not reflected in the record of irrigation reported. Water Permit No. 8571-3 is authorized to irrigate 121 acres (Water Rights, 2022c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for fluctuations 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 annual withdrawal rate for this irrigation permit. If Water Permit No. 8571-3 irrigates one foot per acre per year, it will withdraw 121 ac-ft/yr. The true average annual withdrawal under Water Permit No. 8571-3 is likely to be less, based on Water Rights Staff experience. The 121 ac-ft/yr value will be used to estimate withdrawals under Water Permit No. 8571-3 until the withdrawals are reflected in the irrigation questionnaire summaries. There is also Water Permit No. 8648-3 which was approved on November 7th, 2022. Water Permit No. 8648-3 authorizes irrigation of 281 acres (Water Rights, 2022c). However, Water Permit No. 8648-3 has been reporting withdrawals since 2008 as Water Permit No. 6980-3. Water Permit No. 6980-3 is authorized to irrigate 271 acres from the Lesterville aquifer and had an annual average irrigation report of 77 ac-ft/yr. If the applicant were to irrigate at the same rate with the 281 acres, then the annual average irrigation report would be 80 ac-ft/yr (Drennon, 2022). Water Permit Application No. 8667-3 proposes to irrigate 110 acres, assuming one foot per acre per year is irrigated, the annual average irrigation is expected to be 110 ac-ft/yr. Finally, Water Permit Application No. 8668-3 plans to irrigate 115 acres, assuming one foot per acre per year is irrigated, the annual average irrigation is expected to be 115 ac-ft/yr.

There are domestic wells completed into the Lower James-Missouri: Scotland aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2022d). 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 Lower James-Missouri: Scotland aquifer is present; 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 Lower James-Missouri: Scotland aquifer.

Summary of Hydrologic Budget

Average annual recharge to the Lower James-Missouri: Scotland aquifer management unit ranges from 910 ac-ft/yr to 3,640 ac-ft/yr using the method recommended by Hedges et al (1985) and could be as great as 9,100 ac-ft/yr. Table 1 summarizes average annual withdrawals from the aquifer management unit below, including estimated average annual withdrawals for this application (Water Rights, 2022c and 2022a). The total estimated average annual withdrawal from the Lower James-Missouri: Scotland aquifer management unit is 1,192 ac-ft/yr. However, the true average annual withdrawal for new and pending permits is likely to be less, based on

Water Rights Staff experience. Based on the hydrologic budget, there is reasonable probability unappropriated water is available for this application.

Table 1: Summary of appropriative withdrawals from the aquifer management unit (Water Rights, 2022c and 2022a)

Water Uses	Number	Est. Avg. Annual Use (ac-ft/yr)
Irrigation, Reporting	16	718
Irrigation, too new to report	2	201
Irrigation, pending application	1	110
Non-irrigation	1	48
Irrigation, this application	1	115
Total	21	1,192

Observation Wells

Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires the Water Management Board to rely upon the record of observation wells, in addition to other information, in order to determine that recharge will exceed withdrawals in an aquifer to approve an application.

The Water Rights Program monitors 18 observation wells, completed into the Lower James-Missouri: Scotland aquifer management unit. The nearest Lower James-Missouri: Scotland observation wells to this application are YA-79D located approximately 0.1 miles west, YA-80J located approximately 1.3 miles southwest, and YA-79F located approximately 1.4 miles northwest (Water Rights, 2022b). Figures 2 through 4 shows observation well water levels for Observation Wells YA-79D, YA-80J, and YA-79F respectively (Water Rights, 2022b). The locations of these observation wells are shown in Figure 5. 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. The data from Figures 2 through 4 ranges from stable to rising trends over their periods of record. The majority of the observation wells in the Lower James Missouri: Scotland appear to have stable water levels, with a few wells that are on a slight rise or slight decline in hydraulic head. Figures 2 through 4 match up with the typical trend of the hydraulic head of the aquifer. In general, water levels rise during periods of higher-than-average precipitation and decline during periods of lower-than-average precipitation. Seasonal withdrawals are also reflected for summer water levels, as periodic dips in water level occurs in each hydrograph. Water levels in wells completed into confined aquifers are not necessarily reflections of available water, but of the hydraulic head in the aquifer. Water level fluctuations in this aquifer are dominated by the influence of climate, meaning water is naturally discharging from the aquifer. The Water Management Board considers recharge to and natural discharge from an aquifer to be available for capture. Therefore, based on observation well record, there is reasonable probability unappropriated water is available for this application.

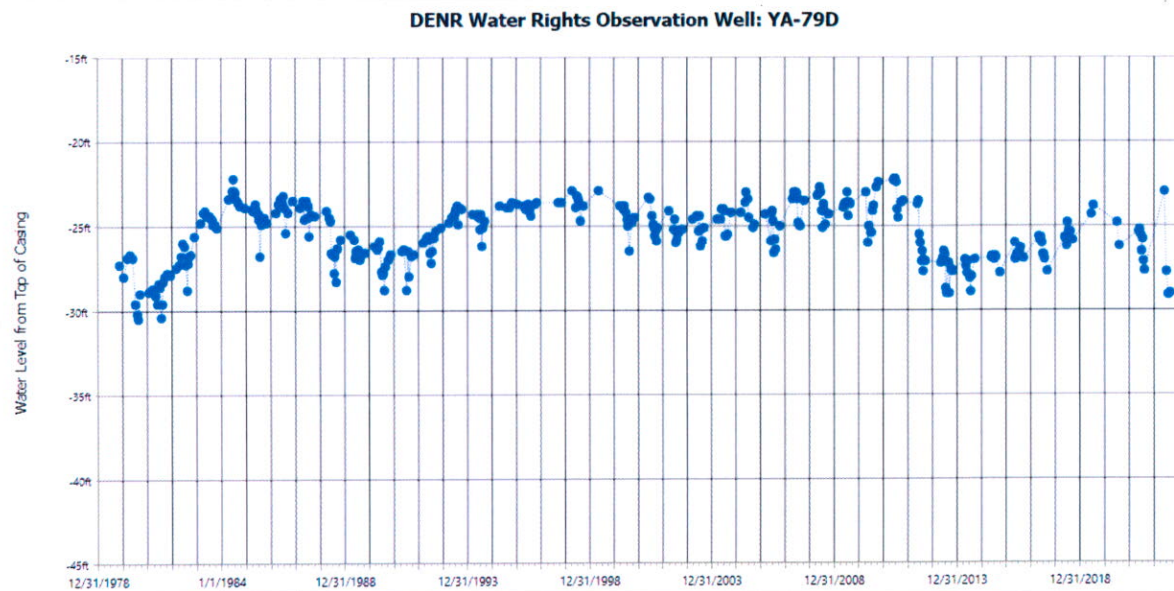


Figure 2: Hydrograph for observation well YA-79D (Water Rights, 2022b)

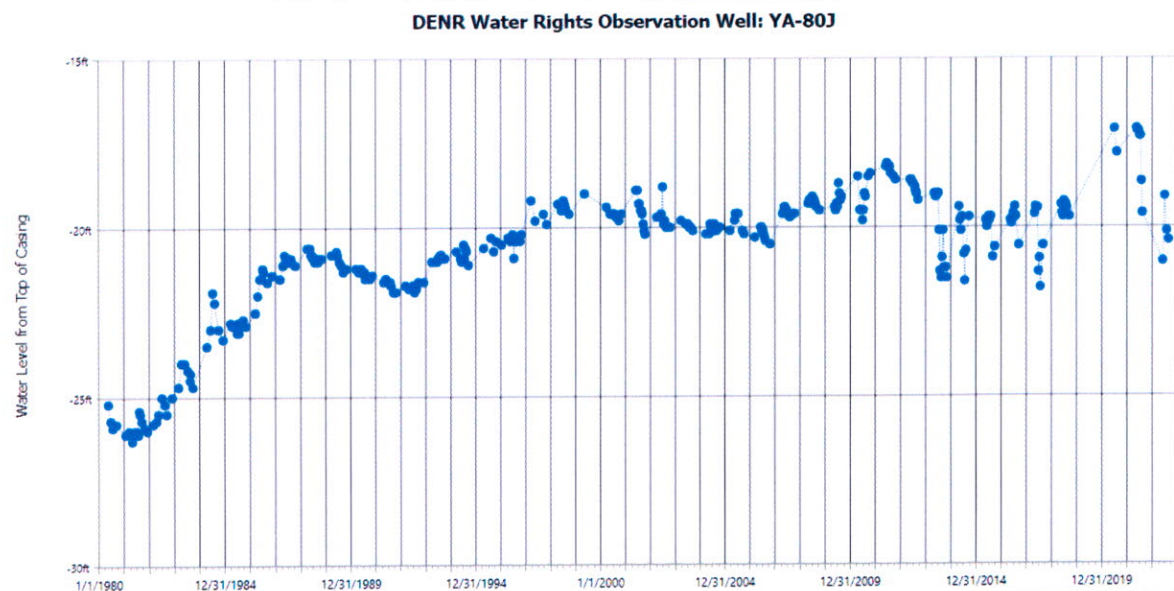


Figure 3: Hydrograph for observation well YA-80J (Water Rights, 2022b)

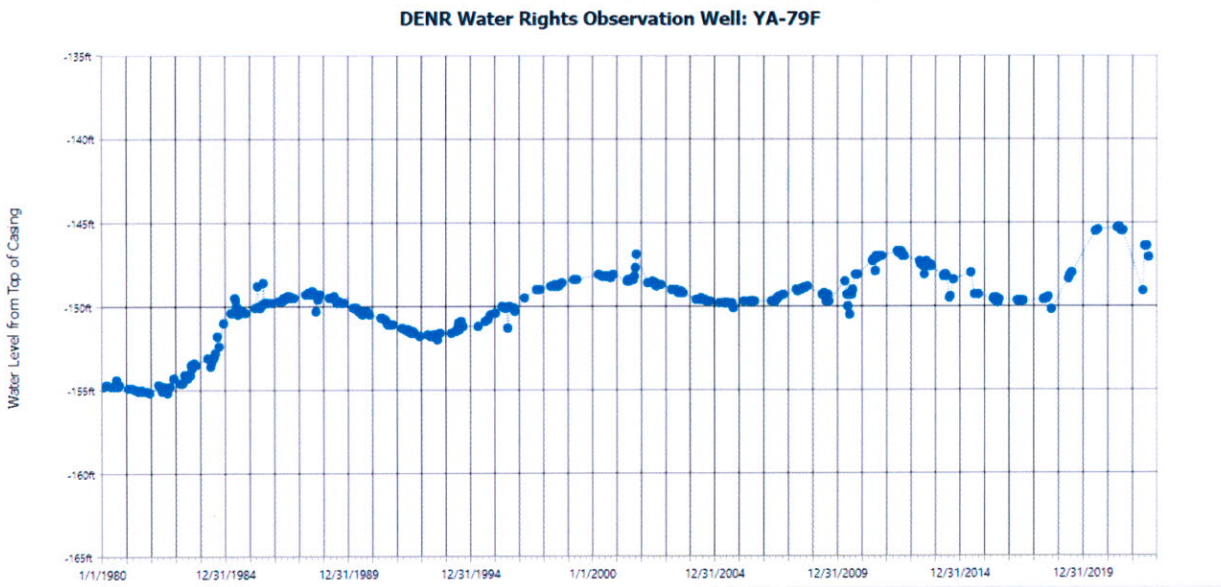


Figure 4: Hydrograph for observation well YA-79F (Water Rights, 2022b)

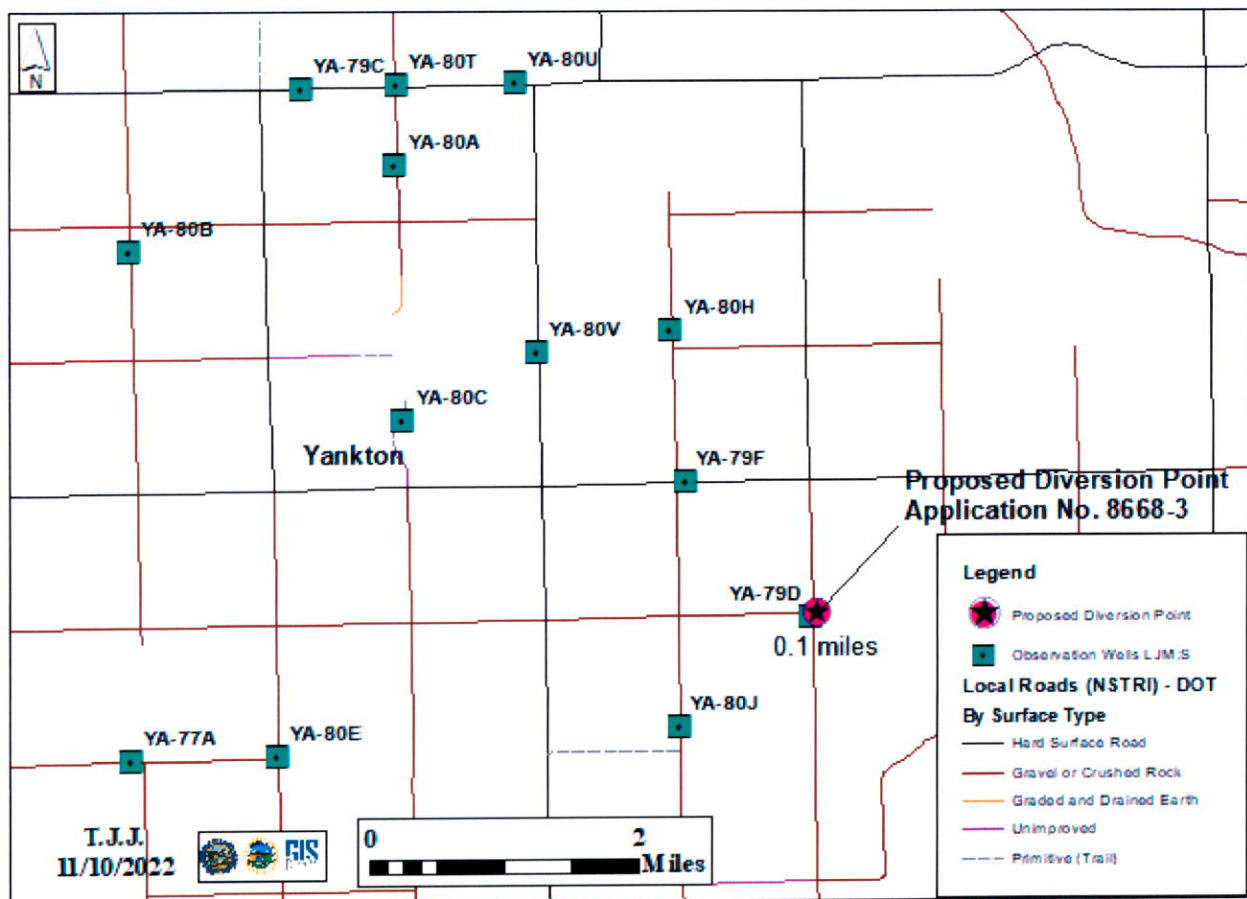


Figure 5: The Lower James Missouri: Scotland aquifer nearby observation wells (Water Rights, 2022b and 2022c), and the location of proposed diversion point for Water Permit Application No. 8668-3.

Possibility of Unlawful Impairment of Existing Water Rights

The nearest water right/permit to this application in the same aquifer is Water Right No. 3514-3, shown on Figure 6, located approximately 0.4 miles northwest of this application and is held by Larry Rupiper (Water Rights, 2022c). The nearest domestic well on file with the Water Rights Program that is likely to be in the same aquifer is located approximately 0.4 miles west of this application (Water Rights, 2022d).

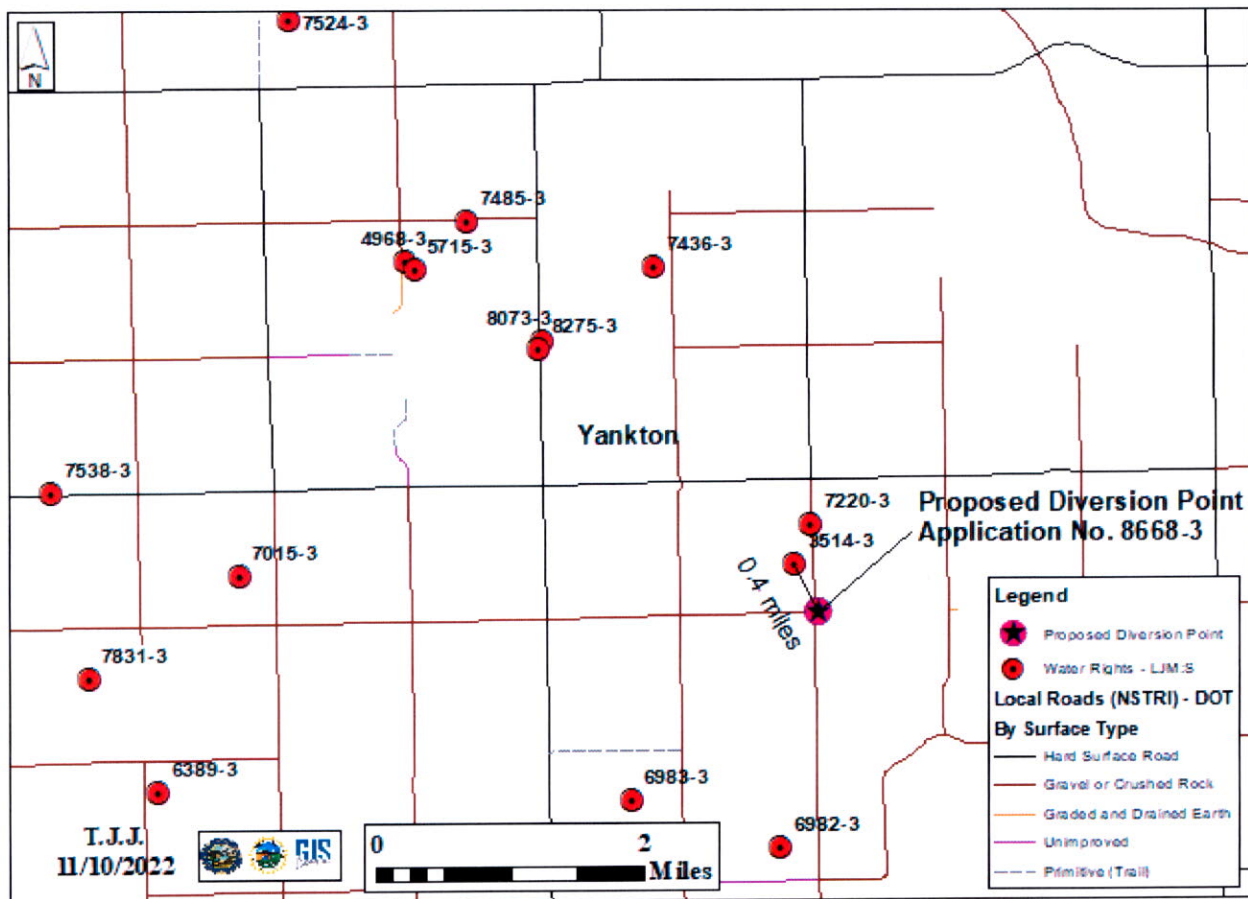


Figure 6: The Lower James Missouri: Scotland aquifer nearby water rights/permits wells (Water Rights, 2022b and 2022c), and the location of proposed diversion point for Water Permit Application No. 8668-3.

The Lower James Missouri: Scotland aquifer management unit is under buried, confined conditions and the well location was found to be under confined conditions. In an unconfined aquifer, drawdown created by pumping does not extend far from the pumped well. However, 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 Lower James Missouri: Scotland aquifer at their location. There are no complaints on file with the Water Rights Program in Yankton County regarding adversely impacted domestic wells in this aquifer (Water Rights, 2022e). Therefore, based on the lack of complaints, the nearest well completion report to the site has a saturated thickness of 28 feet, and 83 feet of artesian head pressure, there is reasonable probability this application can be developed without unlawful impairment of existing rights. However, out of an abundance of caution, a qualification should be added to the permit requiring the applicant to control their withdrawals such that senior water rights/permits holders and all domestic wells with adequate wells can access needed water.

SDCL 46-5-6 Diversion Rate Limit

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cfs for every 70 acres, or “the equivalent thereof.” The statute does provide that the Water Management Board may allow a greater diversion rate if the method of irrigation or soil types so require. Water Permit Application No. 8668-3 proposes to divert up to 1.78 cfs for the irrigation 115 acres or the equivalent of 1.08 cfs per 70 acres. The application indicated that a possible proposed method of irrigation is by center pivot. Center pivots generally require a certain diversion rate for operation, so when center pivot irrigation system is not making a full turn or consists of a shorter span than a full quarter, the one cfs for every 70 acres rate is sometimes exceeded. This reason has historically been accepted as an allowed exceedance due to the method of irrigation.

Conclusions

1. Water Permit Application No. 8668-3 seeks to appropriate 1.78 cfs from one well to be completed into the Lower James Missouri: Scotland aquifer located in either SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22 or NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 27 for irrigation of 115 acres located in the W $\frac{1}{2}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22 and NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 27; all in T95N-R56W.

2. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.
3. Based on the hydrologic budget and observation well analysis, there is reasonable probability unappropriated water is available for this application.
4. There is reasonable probability this application can be developed without unlawful impairment of existing water rights.



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



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

References

- C. M. Christensen, "Geology and water resources of Bon Homme County, South Dakota; Part I: Geology," SD DANR Geological Survey Program, Vermillion, South Dakota, 1974. Bulletin 21 (Part 1).
- Drennon, K., September 23, 2022. "Report to the Chief Engineer on Water Permit Application No. 8648-3". SD-DANR Water Rights Program, Joe Foss Bldg, Pierre, SD.
- E. F. Bugliosi, "Major aquifers in Yankton County, South Dakota," SD DENR Geological Survey Program, Vermillion, South Dakota, 1983. Information Pamphlet No. 28.
- L. S. Hedges, S. L. Burch, D. L. Iles, R. A. Barari and R. A. Schoon, "Evaluation of ground-water resources eastern South Dakota and upper Big Sioux River, South Dakota and Iowa, Tasks 1-4," U.S. Army Corps of Engineers, Omaha, Nebraska, 1982.
- L. S. Hedges, J. Allen and D. E. Holly, "Evaluation of ground-water resources eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa; Task 7: Ground Water Recharge," U.S. Army Corps of Engineers, Omaha, Nebraska, 1985.
- SDGS, 2022. South Dakota Geological Survey Lithologic Logs Database. Accessed October 31, 2022. <http://cf.sddanr.net/lithdb/>.
- 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, 2021a. "1979-2022 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights, 2022b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2022e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, November 30, 2022 8:34 AM
To: Dave Husby
Subject: Water Permit Application No. 8668-3
Attachments: 4483.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 as soon as possible to authorize publication and arrange for payment. This information is being mailed to you today.

Karen Schlaak

DANR - Water Rights Program

(605) 773-3352

Website: <https://danr.sd.gov>



AFFIDAVIT OF PUBLICATION

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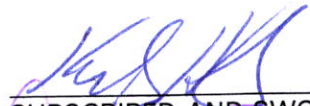
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

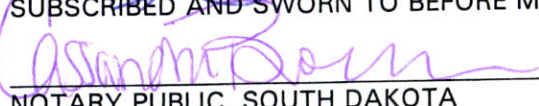
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND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

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 8th DAY OF December, 2022
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$41.92 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: 12/08/2022

FILED ON: 12/08/2022


SUBSCRIBED AND SWORN TO BEFORE ME THIS 8th DAY OF December, 2022


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

Ad text : NOTICE OF APPLICATION
NO. 8668-3 to Appropriate Water

Notice is given that Marquardt Family Limited Partnership, c/o Ralph Marquardt, PO Box 1040, Yankton SD 57078 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 James Missouri:Scotland Aquifer (approximately 160 feet deep) located in either the SW 1/4 SW 1/4 Section 22 or the NW 1/4 NW 1/4 Section 27 for irrigation of 115 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 22 and NW 1/4 NW 1/4 Section 27; all in T95N-R56W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 9 miles northwest of Yankton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8668-3 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 December 19, 2022.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by December 19, 2022.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of \$41.92 and can be viewed free of charge at www.sdpublicnotices.com.

Published December 8, 2022.

NOTICE OF APPLICATION
NO. 8668-3 to Appropriate Water

Notice is given that Marquardt Family Limited Partnership, c/o Ralph Marquardt, PO Box 1040, Yankton SD 57078 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 James Missouri:Scotland Aquifer (approximately 160 feet deep) located in either the SW 1/4 SW 1/4 Section 22 or the NW 1/4 NW 1/4 Section 27 for irrigation of 115 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 22 and NW 1/4 NW 1/4 Section 27; all in T95N-R56W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately 9 miles northwest of Yankton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8668-3 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 December 19, 2022.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by December 19, 2022.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of \$41.92 and can be viewed free of charge at www.sd-publicnotices.com.

Published December 8, 2022.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, November 30, 2022 8:31 AM
To: Cassandra Brockmoller (cassandra@yankton.net)
Subject: 8668-3, Marquardt Family Limited Partnership
Attachments: 8668-3public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on December 8, 2022.

Dave Husby, PO Box 1040, Yankton SD 57078 (605 660-6970) 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>



NOTICE OF APPLICATION NO. 8668-3 to Appropriate Water

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Published once at the total approximate cost of_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

November 30, 2022

Marquardt Family Limited Partnership
c/o Ralph Marquardt
PO Box 1040
Yankton SD 57078

Dear Mr. Marquardt:

Water Permit Application No. 8668-3 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 Press & Dakota printed at Yankton SD (Ph # 605 665-7811). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

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.

emailed: Dave Husby

Schlaak, Karen

From: Schlaak, Karen
Sent: Friday, February 17, 2023 8:24 AM
To: Dave Husby
Subject: Marquardt Family Limited Partnership Water Permits and Licenses
Attachments: 0008.pdf

Attached are copies of Water Permit No. 8668-3, Water Permit and License Nos. 8648-3 and 8649-3 as approved.

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

FEB 17 2023

Marquardt Family Limited Partnership
c/o Ralph Marquardt
PO Box 1040
Yankton SD 57078

Dear Mr. Marquardt:

Enclosed is Water Permit No. 8668-3 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

email: Dave Husby



**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**

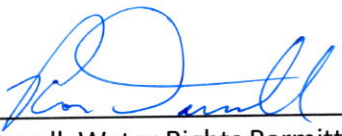
Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the 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.: 8668-3

Name of Applicant: Marquardt Family Limited Partnership, c/o Ralph Marquardt

Date of Posting: 12/5/2022

Date of Removal: 2/17/2023

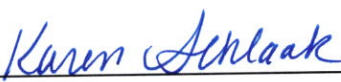


Ron Duvall, Water Rights Permitting Administrator

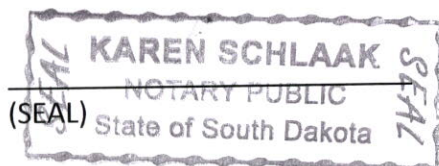
2/17/23

Date

Subscribed and sworn to before me, a notary public, this 17th day of February, 2023.



Notary Public - South Dakota
My commission expires: 4/1/2025



8668-3

SD EForm - 1621LD V1

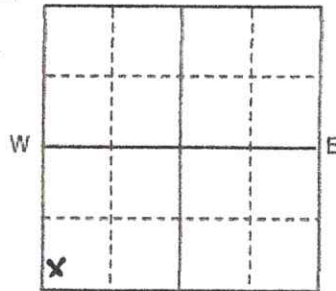
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SW 1/4 Sec 22 Twp 95N Rg 56W Well Owner: Marguandt Family Limited PartnershipCounty Yankton

North

Please mark well location with an "X"



Well Completion Date

MAY 13, 2024

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:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>12</u> IN	<u>0</u> FT	<u>20</u> FT	<u>20</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 40</u>		lb/gal	<u>0</u> Ft	<u>20</u> Ft
		lb/gal	Ft	Ft

Describe grouting procedure

Pump with tremie pipe

SCREEN:

☐ Perforated pipe ☐ Manufactured
 Diameter 12 Inches Length 20 Feet
 Material PVC
 Slot Size 50 Set From 20 Feet to 40 Feet

Other information

Johnson SS .060 Slot - 40 - 60 ft.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? Chlorine Tablets
☐ No, Why Not?
 Lab to which water quality sample sent for analysis

Business Name:

Address: P.O. Box 1040City, State, Zip: Yankton SD 57078

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2
BROWN CLAY	2	30
MED. SAND	30	40
GRAVEL/COURSE/ROCKS	40	60

STATIC WATER LEVEL

16

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

20 Ft. After 2 Hrs. pumped 800 GPM24 Ft. After 6 Hrs. pumped 1250 GPM

If pump installed, pump rate: _____ GPM

REMARKS

60 HP FRANKLIN MOTOR
GRUDFOS SP800S600
This well was drilled under license # 805 and this report is true and accurate.Drilling firm SAM WELL COMPANY

Signature of license Representative:

RECEIVED

Signature of Well Owner or Equitable Property Holder: MAR 18 2024OFFICE OF
WATERDate: 5/15/2024