

DO NOT LICENSE  
THIS IS A  
TEMPORARY  
WATER PERMIT

**WATER PERMIT NO. 8514-3**

Name of Applicant: **Tyler Childress**

Address: **47677 Slip Up Creek Rd, Sioux Falls SD 57104**

Phone: **605 212-4509**

Amount of Water Claimed: **0.044 cfs**

Total Acres: **4**

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

Water to be used for: **commercial use & irrigation**

County: **Minnehaha**

Type of Waste Disposal System:

Location: **1 mile north of Sioux Falls**

**PRIORITY**

Date Received: **5-10-21**

Application/License Fee: **\$ 300**

Corrected Application Received: **-**

Period of Annual Use: **January 1 – December 31**

Remarks: **Also used for fire protection**

Diversion Point: **SE 1/4 SE 1/4 Sec 23-T102N-R49W**

Land to be Irrigated: **SE 1/4 SE 1/4 Sec 23-T102N-R49W**

|  |  |  |    |   |  |
|--|--|--|----|---|--|
|  |  |  |    |   |  |
|  |  |  |    |   |  |
|  |  |  | 23 |   |  |
|  |  |  |    | ⊗ |  |

Depth of Well: **132 feet deep**

Well Driller: **Dave Putzke Well Drilling**

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **5-10-21**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: \_\_\_\_\_

**SOUTH DAKOTA**  
**TEMPORARY USE WATER PERMIT NO. 8514-3**

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Date of first receipt of application May 10, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Temporary Use Water Permit No. 8514-3 to Tyler Childress, 47677 Slip Up Creek Road, Sioux Falls SD 57104 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. Temporary Use Water Permit No. 8514-3 authorizes 0.044 cubic feet of water per second from one well completed into the Split Rock Creek Aquifer (142 feet deep) located in the SE 1/4 SE 1/4 Section 23-T102N-R49W for commercial use, fire suppression and aesthetic irrigation of 4 acres of an events center located in the area described above. This site is located approximately one mile north of Sioux Falls.
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: January 1 – December 31.
3. The date from which applicant may claim right is May 10, 2021.
4. The date of approval of Temporary Use Permit No. 8514-3 is July 26, 2021.
5. One-fifth of the construction is to be completed on or before January 26, 2024.
6. All construction is to be completed on or before July 26, 2026.
7. Water is to be put to beneficial use on or before July 26, 2030.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATIONS**

1. Existing future use permit holders have priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to existing future use permit reservations when the reserve water supplies are developed. The permit may be subject to cancellation when the water reserved by existing future use permit holders is put to beneficial use. The Chief Engineer must provide the permit holder six-month notice prior to cancellation of this temporary use permit.
2. The well approved under Water Permit No. 8514-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit 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.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

**WATER MANAGEMENT BOARD**

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

AUG 11 2021  
date



PAID

MAY 10 2021

Ck# 1187  
RECEIVED

MAY 10 2021

WATER RIGHTS  
PROGRAM

|                                                                                                             |                               |                                 |
|-------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
| Mail to:<br><br>DENR - Water Rights<br>523 E Capitol Ave<br>Pierre, SD 57501-3182<br><br>ph. (605) 773-3352 | (office use only)             |                                 |
|                                                                                                             | No. <u>8514-3</u>             | Hydrologic Unit <u>10170203</u> |
|                                                                                                             | Basin <u>Sioux River</u>      |                                 |
|                                                                                                             | Newspaper <u>Argus Leader</u> |                                 |

## Application For Permit To Appropriate Water Within The State Of South Dakota

## Check use(s) of water:

- |                                                 |                                                    |                                                                         |                                        |
|-------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------|
| <input type="checkbox"/> Municipal              | <input type="checkbox"/> Water Distribution System | <input type="checkbox"/> Recreational                                   | <input type="checkbox"/> Institutional |
| <input type="checkbox"/> Rural Water System     | <input checked="" type="checkbox"/> Commercial     | <input type="checkbox"/> Fish & Wildlife                                | <input type="checkbox"/> Geothermal    |
| <input type="checkbox"/> Domestic (over 18 gpm) | <input type="checkbox"/> Industrial                | <input checked="" type="checkbox"/> Other <u>irrigation of cropland</u> |                                        |

## Type of Application:

(check one)

- ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
- ☐ Place to Beneficial Use Water Reserved by Future Use Permit No. \_\_\_\_\_
- ☐ Amendment/Correction to Permit No. \_\_\_\_\_

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

also use for fire suppression - in case of emergency  
and use inside event center

tychill@hotmail.com

- Name to Appear on Water Permit Tyler Childress  
 Mailing Address 4767751<sup>st</sup> Up Creek Road Sioux Falls SD 57104  
 (Address) (City) (State) (Zip Code)  
 Phone 605-212-4505 Mobile \_\_\_\_\_ Email \_\_\_\_\_
- Amount of water claimed 0.044 \*CFS or 20 \*\*GPM and 4 acres \*\*\*AF or \_\_\_\_\_ Gallons  
 Flow rate and volume are both required. (\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*\*)Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply Well
- Location of point of diversion SE 1/4 SE 1/4 23 102 49 Mapleton Township County Minnehaha  
 (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 102-49  
 If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ No  
 If "Yes," where will water be used? \_\_\_\_\_  
 (example - NW1/4 section 12-T104N-R53W)
- County or counties where water will be used Minnehaha
- Annual period during which water is to be used Year-Round
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

The acres irrigated will be 4 acres within the legal description.

I, [Signature] Owner, the applicant, certify under  
 Name of Person Title (if applicable)

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

## Supplemental Information

(type or print)

**1. Well Information** (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☐ No Drilled by \_\_\_\_\_  
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) 132 Depth to Top of Water Bearing Material \_\_\_\_\_ Depth to Water from Surface \_\_\_\_\_

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

**2. Wastewater Disposal System Information**

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

b) System Capacity (gallons) 300 Year Constructed 2020

c) Connected to the City of X Sanitary System

**3. Dugout Information**

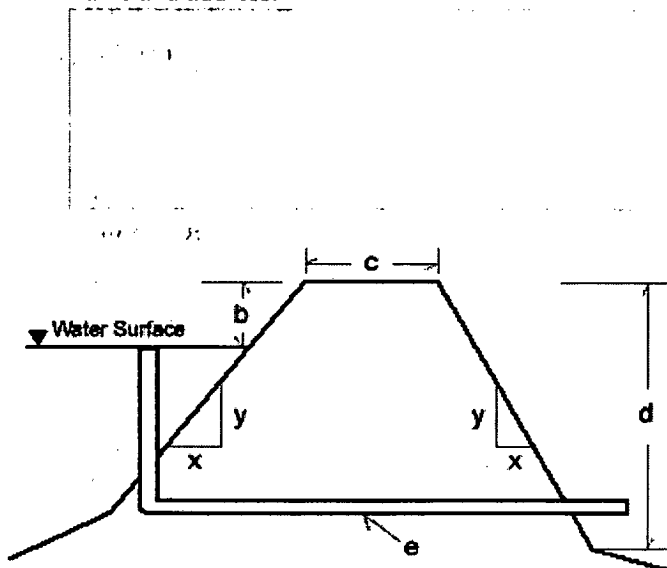
a) Surface Dimensions \_\_\_\_\_ Depth \_\_\_\_\_

b) Depth to water (ground surface to water level) \_\_\_\_\_

**4. Water Storage Dams**

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

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



b) Freeboard \_\_\_\_\_

c) Crest Width \_\_\_\_\_

Crest Length \_\_\_\_\_

d) Height \_\_\_\_\_

e) Primary Outlet Capacity \_\_\_\_\_

If pipe, diameter \_\_\_\_\_

f) Secondary Spillway Capacity \_\_\_\_\_

Spillway Width \_\_\_\_\_

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

Upstream \_\_\_\_\_

Downstream \_\_\_\_\_

h) Surface Area of Impoundment \_\_\_\_\_

i) Storage \_\_\_\_\_ Acre Feet

j) Drainage Area Above Dam \_\_\_\_\_ Acres

# SOUTH DAKOTA WATER WELL COMPLETION REPORT

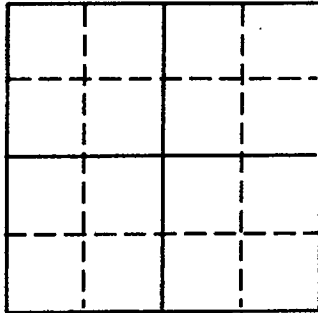
11-02

Location SE 1/4 SE 1/4 Sec 23 Twp 102 Rg 49

per AM 4/30/21

County Minnehaha North

Please mark well location with an "X"



Well completion Date

3-24-20

1 Mile

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

? 400 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       | DIAMETER        | FROM        | TO            | HOLE DIAMETER    |
|------------------|-----------------|-------------|---------------|------------------|
| <u>200</u> LB/FT | <u>6 1/4</u> IN | <u>0</u> FT | <u>142</u> FT | <u>10 1/2</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>Grout DR</u> | <u>10</u>    | <u>0</u> Lb/gal | <u>0</u> FT | <u>67</u> FT |
|                 |              | Lb/gal          | FT          | FT           |

Describe grouting procedure

**SCREEN:**

- ☐ Perforated pipe  
☒ Manufactured

Diameter 6 Inches Length 20 Feet

Material SS Screen Johnson

Slot Size 25 Set From 122 Feet to 142 Feet

Other information Manual packed

**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? 5 gallons of chlorine

Lab sample sent to for water quality analysis ☐ No, Why Not? Pumped - chlorine + pellets

Well Owner:

Tyler Chidress

Business Name:

Address:

2108 E Tamarac Dr

City, State, Zip:

Sioux Falls S.D 57103

**WELL LOG:**

| FORMATION          | DEPTH      |            |
|--------------------|------------|------------|
|                    | FROM       | TO         |
| <u>Top Soil</u>    | <u>0</u>   | <u>2</u>   |
| <u>Yellow Clay</u> | <u>2</u>   | <u>24</u>  |
| <u>Black Rock</u>  | <u>24</u>  | <u>67</u>  |
| <u>Sandstone</u>   | <u>67</u>  | <u>140</u> |
| <u>Granite</u>     | <u>140</u> | <u>142</u> |
|                    |            |            |
|                    |            |            |
|                    |            |            |
|                    |            |            |
|                    |            |            |

**STATIC WATER LEVEL**

38

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

100

Fl. After

24

Hrs. pumped

250

GPM

Fl. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

**REMARKS**

This well was drilled under license #

439

And this report is true and accurate.

Drilling firm:

Dave Putzke well Drilling & repair

Signature of License Representative:

*[Signature]*

RECEIVED

Signature of Well Owner or Equitable Property Holder:

MAR 30 2020

WATER RIGHTS PROGRAM

Date:

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

523 E Capitol Ave.

Pierre SD 57501

Re: Application form

Tyler Childress <tychil@hotmail.com>

Thu 5/6/2021 3:53 PM

To: Gronlund, Eric <Eric.Gronlund@state.sd.us>

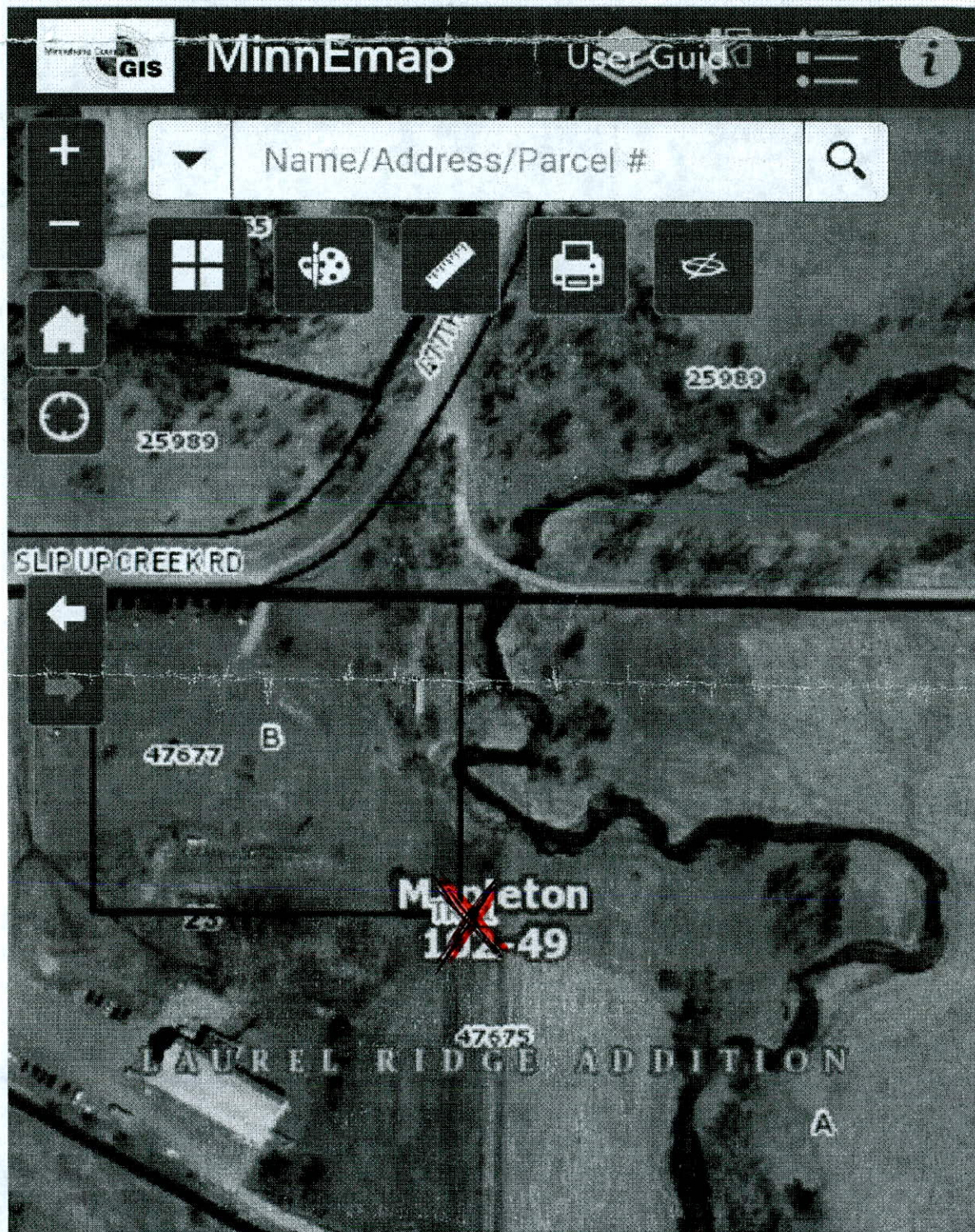
The TR1 marks the spot of the well.

3:52    31      75% 



gis.minnehahacounty.org/r

12



3:52



gis.minnehahacounty.org

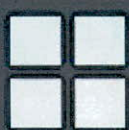


# MinnEmap

User



Name/Address/Parcel #



25989

SLIP UP CREEK RD

102N 49W  
Section: 10

102N 49W  
Section: 11

102N 49W  
Section: 12

102N  
Section:

102N  
Section:

102N 49W  
Section: 15

102N 49W  
Section: 14

102N 49W  
Section: 13

102N 49W  
Section: 22

102N 49W  
Section: 23

102N 49W  
Section: 24

102N 49W  
Section: 27

102N 49W  
Section: 26

102N 49W  
Section: 25

102N 49W  
Section: 34

102N 49W  
Section: 35

102N 49W  
Section: 36

# RECEIPT

## WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date May 10, 2021

RECEIVED OF Laurel Ridge Barn LLC 47677 Slip Up Creek Road Sioux Falls SD 57104

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

|                                                                                                                        |                  |
|------------------------------------------------------------------------------------------------------------------------|------------------|
| Fee for Application for Permit No. <u>8514-3</u> to Appropriate Water, to construct and to put water to beneficial use | \$ <u>100.00</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>8514-3</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>300.00</u> |

By Eric Gronlund  
Chief Engineer  
EM



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

May 4, 2021

Tyler Chidress  
2108 E Tamarac Dr  
Sioux Falls SD 57103

Dear Mr. Chidress:

I am writing in regard to a well completion report filed by Dave Putzke Well Drilling and Repair. The report shows a new well was completed for you in March 2020. The proposed use as marked on the report is Business. Based on this information, you may need a water permit for this water use.

1. According to state law, a water permit is needed for any water use except for reasonable, private domestic use. Examples of commercial uses that require a water rights permit are: truckstops; motels; restaurants; bars; clubs; tourist attractions; campgrounds or any other business operation.
2. Also, as a new well owner, you need to be aware of some of your responsibilities. Enclosed is a copy of "Well Owner Responsibilities". Please review these responsibilities to ensure you are complying with all of the requirements.

Enclosed are an application form and instruction sheet to apply for a water permit. The completed form with the application fee and map can be returned to: Water Rights Program, 523 E. Capitol, Pierre, SD 57501. Please respond by June 1, 2021.

If you believe your water use does not require a water permit or that you have an existing permit, or if help is needed completing the application forms, please contact Ron Duvall or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

*Karen Schlaak*

Karen Schlaak  
Water Rights Program  
[karen.schlaak@state.sd.us](mailto:karen.schlaak@state.sd.us)

enclosure

## Schlaak, Karen

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**From:** Gronlund, Eric  
**Sent:** Thursday, May 6, 2021 4:00 PM  
**To:** Schlaak, Karen  
**Subject:** Tyler Childress

Mr. Childress called regarding the letter he received in response to us getting well completion report.

He will use well for irrigation of grounds around their new event center ins Section 23 T102N-R49W.

Well will be used for irrigation of approximately 4 acres, very limited use inside event center and for fire suppression in the event of an emergency.

The normal irrigation rate is 20 gpm based on the zones in the underground sprinkler system. To meet fire code he had an additional pump capable of 300 gpm. I am only charging based on the 20 gpm (\$300)

The well completion report should be on file.

---

**From:** Tyler Childress <tychil@hotmail.com>  
**Sent:** Thursday, May 6, 2021 3:53 PM  
**To:** Gronlund, Eric <Eric.Gronlund@state.sd.us>  
**Subject:** Re: [EXT] Application form

The TR1 marks the spot of the well.



**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.**

July 1, 2021

Tyler Childress  
47677 Slip Up Creek Rd  
Sioux Falls SD 57104

Dear Mr. Childress:

Water Permit Application No. 8514-3 for commercial use, fire suppression and aesthetic irrigation has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Argus Leader printed at Sioux Falls SD (Ph # 605 331-2200). 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, 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.

NOTICE OF APPLICATION NO. 8514-3 to Appropriate Water

Notice is given that Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 0.044 cubic feet of water per second from one well completed into the Split Rock Creek Aquifer (142 feet deep) located in the SE 1/4 SE 1/4 Section 23-T102N-R49W for commercial use, fire suppression and aesthetic irrigation of 4 acres of an events center located in the area described above. This site is located approximately one mile north of Sioux Falls.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8514-3 with qualifications because 1) unappropriated water is available, 2 ) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 19, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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

Published once at the total approximate cost of\_

## Schlaak, Karen

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**From:** Schlaak, Karen  
**Sent:** Thursday, July 1, 2021 10:46 AM  
**To:** 'legals@argusleader.com'  
**Subject:** 8514-3, Tyler Childress  
**Attachments:** 8514-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on July 8, 2021.

Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104 (605 212-4509) 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

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**From:** Schlaak, Karen  
**Sent:** Thursday, July 1, 2021 12:45 PM  
**To:** tychil@hotmail.com  
**Subject:** Water Permit Application No. 8514-3  
**Attachments:** 1438.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>



# Argus Leader

P.O. Box 677349, Dallas, TX 75267-7349

RECEIVED

JUL 21 2021

WATER RIGHTS  
PROGRAM

WATER RIGHTS PROGRAM  
523 E CAPITOL JOE FOSS BLDG  
PIERRE, SD 57501

Account No.: SFA-078306

Ad No.: 0004819984

PO #:

Lines : 108

Ad Total: \$38.00

**This is not an invoice**

# of Affidavits 1

Account No.: SFA-078306  
Ad No.: 0004819984

## Argus Leader AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA

I being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Friday, July 16, 2021

Sworn to and subscribed before me this 16 day of July, 2021.

Legal Clerk

Notary Public, State of Wisconsin, County of Brown

My Commission expires

NANCY HEYRMAN  
Notary Public  
State of Wisconsin

NOTICE OF  
APPLICATION NO. 8514-3  
to Appropriate Water

Notice is given that Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 0.044 cubic feet of water per second from one well completed into the Split Rock Creek Aquifer (142 feet deep) located in the SE 1/4 SE 1/4 Section 23-T102N-R49W for commercial use, fire suppression and aesthetic irrigation of 4 acres of an events center located in the area described above. This site is located approximately one mile north of Sioux Falls.

Pursuant to SDCL 46-2A-2, the Chief Engineer is recommending APPROVAL of Application No. 8514-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the existing future use permit holders develop water reserved from their future use permits, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 26, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Published once at the total approximate cost of \$38.00.

4819984 July 16, 2021

RECEIVED  
JUL 21 2021  
WATER RIGHTS  
PROGRAM

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |                                                                                   |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------|
| <b>ACCOUNT NAME</b><br>Water Rights Program                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                  | <b>ACCOUNT #</b><br>207985                                                        | <b>PAGE #</b><br>1 of 1 |
| <b>INVOICE #</b><br>0003996914                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>BILLING PERIOD</b><br>Jul 1- Jul 31, 2021     | <b>PAYMENT DUE DATE</b><br>August 20, 2021                                        |                         |
| <b>PREPAY (Memo Info)</b><br>\$0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>UNAPPLIED (included in amt due)</b><br>\$0.00 | <b>TOTAL AMOUNT DUE</b><br>\$38.00                                                |                         |
| <b>BILLING ACCOUNT NAME AND ADDRESS</b><br><br>WATER RIGHTS PROGRAM<br>DEPT OF ENVIRON & NAT RESOURCE<br>523 E CAPITOL JOE FOSS BLDG<br>PIERRE, SD 57501<br>                                                                                                                                                                                                                                                       |                                                  | <b>BILLING INQUIRIES/ADDRESS CHANGES</b><br>1-877-736-7612 or smb@ccc.gannett.com |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  | <b>FEDERAL ID</b><br>47-2493274                                                   |                         |
| <b>Terms and Conditions:</b> Past due accounts are subject to interest at the rate of 18% per annum or the maximum legal rate (whichever is less). Advertiser claims for a credit related to rates incorrectly invoiced or paid must be submitted in writing to Publisher within 30 days of the invoice date or the claim will be waived. Any credit towards future advertising must be used within 30 days of issuance or the credit will be forfeited.<br><b>All funds payable in US dollars.</b> |                                                  |                                                                                   |                         |

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Contact abgspecial@gannett.com to sign-up for the convenience of having your invoice e-mailed to you. Once signed up you can also enjoy the convenience of making online payments. Previous account number reference if needed: 078306.

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**Package Advertising:**

| Start-End Date  | Description                   | PO Number | Package Cost |
|-----------------|-------------------------------|-----------|--------------|
| 7/16/21-7/16/21 | 0004819984 NOTICE OF APPLICAT |           | \$38.00      |

PLEASE DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

|                                             |                                   |                                            |                                   |                                     |                                     |                                    |
|---------------------------------------------|-----------------------------------|--------------------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|------------------------------------|
| <b>ACCOUNT NAME</b><br>Water Rights Program |                                   | <b>PAYMENT DUE DATE</b><br>August 20, 2021 |                                   | <b>AMOUNT PAID</b>                  |                                     |                                    |
| <b>ACCOUNT NUMBER</b><br>207985             |                                   | <b>INVOICE NUMBER</b><br>0003996914        |                                   |                                     |                                     |                                    |
| <b>CURRENT DUE</b><br>\$38.00               | <b>30 DAYS PAST DUE</b><br>\$0.00 | <b>60 DAYS PAST DUE</b><br>\$0.00          | <b>90 DAYS PAST DUE</b><br>\$0.00 | <b>120+ DAYS PAST DUE</b><br>\$0.00 | <b>UNAPPLIED PAYMENTS</b><br>\$0.00 | <b>TOTAL AMOUNT DUE</b><br>\$38.00 |

**REMITTANCE ADDRESS** (Include Account# & Invoice# on check)

The Argus Leader  
P.O. Box 677349  
Dallas, TX 75267-7349

**TO PAY WITH CREDIT CARD PLEASE FILL OUT BELOW:**

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Exp Date \_\_\_\_/\_\_\_\_/\_\_\_\_ CVV Code \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

00002079850000000000000039969140000380010853

August 23, 2021

PAYMENT REQUEST FORM

PAYEE: Argus Leader  
PO Box 677349  
Dallas, TX

FROM: DANR Water Rights Program  
523 E. Capitol Ave  
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Affidavit of Publication for Permit #8514-3

AMOUNT: \$38.00

**FUNDING SOURCE:**

**GENERAL:** X

**FEDERAL:**

**OTHER:**

**COMMENTS:**

**AUTHORIZATION:** *Eric Henderson 8/23/2021*

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

Instruction to Newspaper - Publish the Notice on July 16, 2021.

**The Water Rights Program is responsible for payment.**

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NOTICE OF APPLICATION NO. 8514-3 to Appropriate Water

Notice is given that Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 0.044 cubic feet of water per second from one well completed into the Split Rock Creek Aquifer (142 feet deep) located in the SE 1/4 SE 1/4 Section 23-T102N-R49W for commercial use, fire suppression and aesthetic irrigation of 4 acres of an events center located in the area described above. This site is located approximately one mile north of Sioux Falls.

Pursuant to SDCL 46-2A-2, the Chief Engineer is recommending APPROVAL of Application No. 8514-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the existing future use permit holders develop water reserved from their future use permits, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 26, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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

Published once at the total approximate cost of\_

## Schlaak, Karen

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**From:** Schlaak, Karen  
**Sent:** Monday, July 12, 2021 10:50 AM  
**To:** Gannett Legals Public Notices 4  
**Subject:** RE: [EXT] 4807171 8514-3, Tyler Childress  
**Attachments:** 8514-3public.shortRD.docx

Since the original notice published on July 8, 2021 was incorrect, the notice needs to be republished.

Please publish the attached notice on July 16, 2021. **The Water Rights Program is responsible for payment.**  
If you have questions, please let me know.

Karen

---

**From:** Gannett Legals Public Notices 4 <ganlegpubnotices4@gannett.com>  
**Sent:** Tuesday, July 6, 2021 4:00 PM  
**To:** Schlaak, Karen <Karen.Schlaak@state.sd.us>  
**Subject:** RE: [EXT] 4807171 8514-3, Tyler Childress

Karen,

Per my previous email, the deadline for changes was Friday, July 2<sup>nd</sup>. I am unable to cancel or make changes as the pages went to print already. Please advise.

Thanks,

Sirona Bohland  
Public Notice Representative



Office: 844-254-5287

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**From:** Schlaak, Karen <Karen.Schlaak@state.sd.us>  
**Sent:** Tuesday, July 6, 2021 3:40 PM  
**To:** Gannett Legals Public Notices 4 <ganlegpubnotices4@gannett.com>  
**Subject:** RE: 4807171 8514-3, Tyler Childress

I just found out a correction needs to be made to this notice scheduled to be published July 8, 2021.

Attached is the correct notice.

Karen

---

**From:** Gannett Legals Public Notices 4 <ganlegpubnotices4@gannett.com>  
**Sent:** Thursday, July 1, 2021 11:52 AM

To: Schlaak, Karen <Karen.Schlaak@state.sd.us>  
Subject: RE: [EXT] 4807171 8514-3, Tyler Childress

Karen,

Please find attached your order confirmation and proof of the ad. **Please inform customer to call and make payment or this ad will not run.**

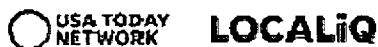
Your ad is set to run in:

· Argus Leader      July 8      \$35.67

The total cost shown above includes an affidavit, which will be mailed to you after the ad publishes. Please reply by 12 pm Friday, July 2 with changes for the ad. Your notice is scheduled to run per your request and will publish unless you advise otherwise. You will be able to receive an affidavit 7-10 business days after the last day of printing.

Thanks,

Sirona Bohland  
Public Notice Representative



Office: 844-254-5287

---

From: Schlaak, Karen <Karen.Schlaak@state.sd.us>  
Sent: Thursday, July 1, 2021 10:46 AM  
To: SFA-Legals mbx <allegals@gannett.com>  
Subject: 4807171 8514-3, Tyler Childress

Attached is a notice to be published on July 8, 2021.

Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104 (605 212-4509) 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>

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Pursuant to SDCL 46-2A-2, the Chief Engineer is recommending APPROVAL of Application No. 8514-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the existing future use permit holders develop water reserved from their future use permits, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

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The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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

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Sirona Bohland  
Public Notice Representative



Office: 844-254-5287

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

*Karen Schlaak*

DANR - Water Rights Program

(605) 773-3352

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





**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 8514-3, Tyler Childress**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8514-3, Tyler Childress, 47677 Slip Up Creek Rd, Sioux Falls SD 57104.

The Chief Engineer is recommending APPROVAL of Application No. 8514-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the existing future use permit holders develop water reserved from their future use permits, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Existing future use permit holders have priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to existing future use permit reservations when the reserve water supplies are developed. The permit may be subject to cancellation when the water reserved by existing future use permit holders is put to beneficial use. The Chief Engineer must provide the permit holder six-month notice prior to cancellation of this temporary use permit.
2. The well approved under Water Permit No. 8514-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit 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.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer  
June 30, 2021

Report to the Chief Engineer  
On Water Permit Application No. 8514-3

Tyler Childress

June 30, 2021

Water Permit Application No. 8514-3 proposes to divert water at a maximum instantaneous rate of 0.044 cubic feet per second (cfs) from one well completed into the Split Rock Creek aquifer (142 feet deep) in the SE ¼ SE ¼ of Section 23-T102N-R49W for commercial use, emergency fire suppression, and aesthetic irrigation of 4 acres at an events center in the area described above. The site is in Minnehaha County approximately one mile north of Sioux Falls, SD.

**AQUIFER:** Split Rock Creek (SRKC)

**HYDROGEOLOGY:**

The Cretaceous-aged, Split Rock Creek Formation underlies portions of Lake, Minnehaha, and Moody Counties in South Dakota (Hedges et al, 1982), and extends east into Minnesota near the Sioux Falls area (Lindgren, 1997). The Split Rock Creek Formation consists of embayment fill and other nearshore facies deposited along the irregular paleoshore of the Sioux Ridge, which hosts the highly fractured, Precambrian-aged, Sioux Quartzite (Tomhave, 1994; Pence, 1997). In Minnehaha County, there are three primary embayments: the Trent embayment in the northeastern corner of the county, the Herman Embayment in the northwestern corner, and the Brandon Embayment in the southeastern corner (Tomhave, 1994). The Split Rock Creek Formation may possibly be the lateral equivalent to all marine Cretaceous formations in eastern South Dakota, such as the Pierre Shale, Niobrara Formation, Carlile Shale, Codell Sandstone, and Greenhorn Limestone among others (Tomhave, 1994).

In Minnehaha County, the Split Rock Creek aquifer is a bedrock aquifer that is “composed predominately of 1 to 5 layers of fine to coarse well-sorted quartzose sand interbedded with 4 to 45 feet thick layers of siltstone, shale, and claystone of the Split Rock Creek Formation” (Lindgren and Niehus, 1992 and 1994). The thickness of the Split Rock Creek aquifer and depth to the top of the formation can vary depending on location and depositional conditions (Tomhave, 1994). On average, the Split Rock Creek aquifer has a thickness of 48 feet, and a documented maximum thickness of 222 feet (Lindgren and Niehus, 1992 and 1994). The depth to the top of the aquifer materials range from approximately 21 feet to 337 feet below the ground surface (Lindgren and Niehus, 1992 and 1994). The Split Rock Creek aquifer underlies approximately 145 square miles, or 92,800 acres, of Minnehaha County and is distributed in three hydrologically independent portions (as seen in Figure 1) (Lindgren and Niehus, 1992 and 1994). The well the applicant proposes to use for this application is in the largest portion of the aquifer which underlies approximately 115 square miles, or 73,600 acres, of Minnehaha County (as seen in Figure 1) (Lindgren and Niehus, 1992 and 1994). This portion is comprised of the Brandon embayment and is linked to the Herman Embayment through a buried channel deposit of the formation (Tomhave, 1994). Generally, the Split Rock Creek aquifer is under confined

conditions and the direction of groundwater movement in the aquifer is to the southeast (Lindgren and Niehus, 1992 and 1994).

Pence (1997) calculated transmissivity and storativity for the Split Rock Creek aquifer in the Sioux Falls-Brandon area using data from seven aquifer pumping tests and the Cooper-Jacob method in order to determine hydraulic conductivity. The transmissivity ranged from 610 square feet per day to 10,000 square feet per day, with storativity ranging from  $6.8 \times 10^{-5}$  to  $5.3 \times 10^{-3}$ , and the hydraulic conductivity ranged from 23 feet per day to 61 feet per day, with an average of 48 feet per day (Pence, 1997). These hydraulic conductivity values are reasonable for the materials that comprise the Split Rock Creek aquifer (Mathiowetz, 2019).

A water well completion report was submitted with Water Permit Application No. 8514-3 for an existing well (142 feet deep) completed into the Split Rock Creek aquifer in the SE ¼ SE ¼ of Section 23-T102N-R49W. The well completion report lists “Top Soil” from 0 to 2 feet below the ground surface, “Yellow Clay” from 2 to 24 feet, “Black Rock” from 24 to 67 feet, “Sandstone” from 67 to 140 feet, and “Granite” from 140 to 142 feet. The well was screened in sandstone from 122 to 142 feet below the ground surface and had a static water level of 38 feet below the ground surface at the time of completion (March 24, 2020) (Water Rights, 2021d). Based on the submitted well completion report and lithologic logs on file for nearby observation wells, the Split Rock Creek aquifer is confined at the well location the applicant proposes to use (SDGS, 2021; Water Rights, 2021b and 2021d).

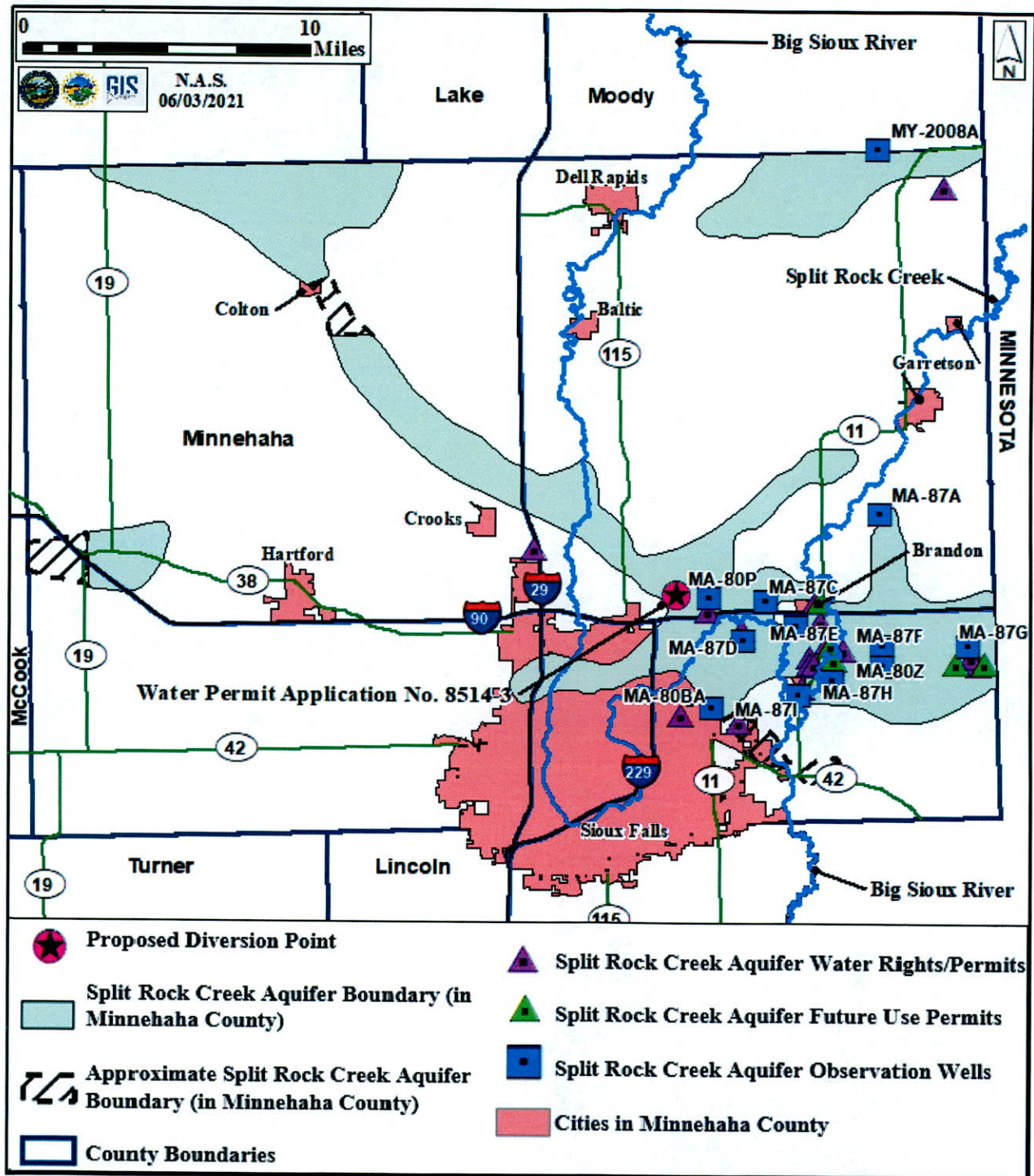
#### **South Dakota Codified Law (SDCL) 46-2A-9**

Pursuant to SDCL 46-2A-9, “A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the diversion point can be developed without unlawful impairment of existing rights, and that the proposed use is a beneficial use and in the public interest.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing water rights within the Split Rock Creek aquifer.

#### **WATER AVAILABILITY:**

Water Permit Application No. 8514-3 proposes to appropriate water from the Split Rock Creek 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 Greenhorn Formation is Cretaceous aged and there are younger (stratigraphically higher) and older (stratigraphically lower) formations within the Cretaceous Age. The Split Rock Creek Formation does vary in age from younger than to older than the Greenhorn Formation (Fahrenbach et al, 2010). At the applicant’s well site for this application, the Split Rock Creek Formation is generally younger, stratigraphically higher, than

the Greenhorn Formation (Water Rights, 2021d). Therefore, the average annual recharge and average annual withdrawal rates to and from the Split Rock Creek aquifer must be considered.



**Figure 1.** Map of the approximate Split Rock Creek aquifer in Minnehaha County delineated by Lindgren and Niehus (1992 and 1994), the location of the existing well Water Permit Application No. 8514-3 requests to use, and the Split Rock Creek aquifer water rights/permits and observation wells (Water Rights, 2021b and 2021c)

## **HYDROLOGIC BUDGET:**

### **Recharge**

Recharge to the Split Rock Creek aquifer is primarily through the infiltration of precipitation that falls on Sioux Quartzite outcrops then subsequently moves through fractures in the quartzite into the Split Rock Creek aquifer (Lindgren and Niehus, 1992). Additional recharge to the aquifer may occur through downward leakage from overlying differentiated Cretaceous aquifers where they are present (Lindgren, 1997), from overlying glacial aquifers that are in direct contact with the Split Rock Creek aquifer where it is near the ground surface, and in areas where the Split Rock Creek aquifer is separated by only siltstones from the Big Sioux aquifer (Pence, 1997).

Pence (1997) states:

“The data indicate that if production wells in the aquifer are located, designed, and constructed properly, the aquifer has an overall potential to yield in excess of 5 million gallons per day. After production wells are installed in the aquifer and have been pumped for an extended period of time, a better prediction can be made on the potential long term yield of the aquifer.”

A potential total yield from wells completed into an aquifer is not the same as an average recharge rate to the aquifer. However, it can be useful in determining a general sense of the scale of the average annual recharge rate and setting an upper limit to the likely average annual recharge (Mathiowetz, 2019). A yield of 5 million gallons per day is approximately 5,600 acre-feet per year.

For confined glacial-origin aquifers, Hedges and others (1985) recommended recharge rates of 0.15 to 0.60 inches per year for use by management and development programs. While the Split Rock Creek aquifer is not glacial in origin, it is generally buried and confined; thus, Hedges and others' (1985) range is useful in providing a general scale of recharge to this portion of the Split Rock Creek aquifer that could be expected. In Minnehaha County, the estimated range of average annual recharge based on the aquifer's areal extent of 73,600 acres determined by Lindgren and Niehus (1992 and 1994) is approximately 920 to 3,680 acre-feet per year using the Hedges and others (1985) recharge rate estimate and recognizing the estimates are for glacial origin aquifers and not a bedrock aquifer like the Split Rock Creek aquifer.

A numerical flow model completed by Putnam (1998) analyzed the inflow rates to the Split Rock Creek aquifer within a study area that conforms to the shape of the Brandon embayment. The general approach to calibration of the model representing the Split Rock Creek aquifer was to simulate a period approximating average conditions prior to significant pumping stresses with a steady-state simulation followed by transient simulations of changing hydrologic stresses (Putnam, 1998). The hypothetical average annual inflow rate to the Split Rock Creek aquifer was 2.5 cfs (1,810 acre-feet per year) under steady state conditions. During model runs, if an additional 4 cfs withdrawal rate from the aquifer was added, the hypothetical average inflow rate increased to 5.9 cfs (4,271 acre-feet per year) (Putnam, 1998). Putnam (1998) noted that when the withdrawals were increased by 6 cfs over the original steady state calculations the model showed complete

dewatering of an adjacent aquifer; “Thirty grid blocks, which represent the Brandon aquifer in the area where a hydraulic connection to the Split Rock Creek aquifer exists, went dry in the simulation with additional pumping of 6 ft<sup>3</sup>/s.”

Neither Pence (1997) nor Hedges and others (1985) have a direct recharge rate estimate for the Split Rock Creek aquifer. Based on the information available in these reports regarding aquifer pumping tests, the well yields indicated in Pence (1997), and comments regarding recharge to buried and confined glacial aquifers (Hedges et al, 1985), it is reasonable to estimate the average annual recharge rate to the Split Rock Creek aquifer in Minnehaha County ranges from approximately 1,000 to 5,600 acre-feet per year. This range is supported by the hypothetical average recharge rates, 1,810 and 4,271 acre-feet per year used and calculated by Putnam (1998) for a numerical model of the aquifer.

### Discharge

Discharge from the Split Rock Creek aquifer is primarily through well withdrawals, and to the Big Sioux and Brandon aquifers (Lindgren and Niehus, 1992; Water Rights, 2021c).

Collectively, there are 16 water rights/permits authorized to appropriate water from the Split Rock Creek aquifer (Water Rights, 2021c). Additionally, there are three future use permits (Nos. 4929-3, 5444-3, and 6697-3) reserving 885 acre-feet of water from the Split Rock Creek aquifer (Table 1) (Water Rights, 2021c).

**Table 1.** Future use permits reserving water in the Split Rock Creek aquifer (Water Rights, 2021c)

| Permit No. | Name                             | Priority Date | Reserved Volume<br>(acre-feet/year) |
|------------|----------------------------------|---------------|-------------------------------------|
| 4929-3     | Corson Village Sanitary District | 10/04/1982    | 0                                   |
| 5444-3     | City of Valley Springs           | 05/02/1990    | 188                                 |
| 6697-3     | City of Brandon                  | 01/27/2006    | 697                                 |

There has been little development of the Split Rock Creek aquifer for irrigation use (Water Rights, 2021a and 2021c). In 1990, less than one acre-foot of water was pumped under cancelled Permit No. 5372-3. Additionally, cancelled Permit No. 5773-3 was authorized for irrigation use; however, the permit was never developed, and no irrigation occurred. Therefore, the quantity of water withdrawn for irrigation use from the Split Rock Creek aquifer is estimated to be negligible to the hydrologic budget.

Table 2 summarizes the 16 non-irrigation water rights/permits authorized to appropriate water from the Split Rock Creek aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The amount of water that can be 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. Overall, the average annual withdrawal rate for the 16 aquifer non-irrigation water rights/permits is approximately 5,001 acre-feet per year (Table 2) (Water Rights, 2021c). It is worth noting Water Permit No. 6894-3 is authorized to withdraw from a different portion of the aquifer rather than the main body (Brandon embayment)

where the existing well the applicant proposes to use is located. Therefore, the average annual withdrawal rate for the remaining 15 aquifer non-irrigation water rights/permits (with diversion points within the Brandon embayment) is approximately 4,856 acre-feet per year (Table 2) (Water Rights, 2021c).

**Table 2.** Non-irrigation water rights/permits that are authorized to appropriate water from the Split Rock Creek aquifer (Water Rights, 2021c)

| Permit No.                                                                                                                              | Name                                  | Priority Date | Status | Use Type(s)   | Authorized Diversion Rate (cfs) | Authorized Volume (acre-feet/year) | Estimated Annual Use (acre-feet/year) |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------|--------|---------------|---------------------------------|------------------------------------|---------------------------------------|
| 1138-3                                                                                                                                  | City of Valley Springs                | 11/20/1964    | LC     | MUN           | 0.33                            |                                    | 143.4                                 |
| 2113-3                                                                                                                                  | City of Valley Springs                | 09/18/1974    | LC     | MUN           | 0.33                            |                                    | 143.4                                 |
| 4964-3                                                                                                                                  | Childrens Home Society                | 06/03/1983    | LC     | GEO, INS, REC | 0.06                            |                                    | 26.1                                  |
| 4974A-3                                                                                                                                 | Pinelake Hills Homeowners Association | 08/26/1986    | LC     | SHD           | 0.3                             |                                    | 130.3                                 |
| 5507-3                                                                                                                                  | City of Brandon                       | 01/28/1991    | LC     | MUN           | 0.05                            |                                    | 21.7                                  |
| 5596-3                                                                                                                                  | Northern States Power Company         | 10/03/1991    | LC     | IND           | 1.11                            |                                    | 482.2                                 |
| 5752-3                                                                                                                                  | Brandon Wood Preserving               | 03/01/1993    | LC     | COM           | 0.19                            |                                    | 82.5                                  |
| 5861-3                                                                                                                                  | Northern States Power Company         | 04/13/1995    | LC     | IND           | 1.11                            |                                    | 482.2                                 |
| 5865-3                                                                                                                                  | Allied Oil & Supply Inc               | 04/17/1995    | LC     | DOM           | 0.11                            |                                    | 47.8                                  |
| 5868-3                                                                                                                                  | City of Brandon                       | 06/08/1995    | LC     | MUN           | 1.91                            |                                    | 829.7                                 |
| 6115-3                                                                                                                                  | Dan Brenner                           | 11/16/1998    | LC     | COM           | 0.011                           |                                    | 4.8                                   |
| 6156-3                                                                                                                                  | City of Brandon                       | 11/04/1999    | LC     | MUN           | 4.44                            | 968                                | 968                                   |
| 6469-3                                                                                                                                  | Michael D Coughlin                    | 02/12/2004    | LC     | COM           | 0.1                             |                                    | 43.4                                  |
| 6894-3                                                                                                                                  | Moody County Dairy LP                 | 09/11/2007    | LC     | COM           | 0.333                           |                                    | 144.7                                 |
| 7181-3                                                                                                                                  | City of Brandon                       | 01/21/2010    | LC     | MUN           | N/A                             |                                    | 0*                                    |
| 8151-3                                                                                                                                  | City of Brandon                       | 01/27/2006    | PE     | MUN           | 3.34                            | 1,451                              | 1,451                                 |
| <b>TOTAL:</b>                                                                                                                           |                                       |               |        |               | <b>13.724</b>                   | <b>2,419</b>                       | <b>5,001</b>                          |
| *Authorizes connection of Corson Village Sanitary District to City of Brandon                                                           |                                       |               |        |               |                                 |                                    |                                       |
| LC: Licensed Water Right; PE: Water Permit; MA: Minnehaha County;                                                                       |                                       |               |        |               |                                 |                                    |                                       |
| MUN: Municipal; GEO: Geothermal; INS: Institutional; REC: Recreation; SHD: Suburban Housing Development; COM: Commercial; DOM: Domestic |                                       |               |        |               |                                 |                                    |                                       |

As development of the Split Rock Creek aquifer has increased over time, most of the appropriations have been made by the City of Brandon (Water Rights, 2021c). Although there are several other rights/permits appropriating water from Split Rock Creek aquifer, historically the average annual use has been less than the maximum volume that is authorized to be pumped (Water Rights, 2021c and 2021f). The withdrawals that are annually reported from the Split Rock Creek aquifer by the City of Brandon are shown in Table 3 (Water Rights, 2021c and 2021f).

**Table 3.** Water use reported from the Split Rock Creek aquifer (Water Rights, 2021c and 2021f)

| <b>Year</b>                                                                | <b>Permit No(s).</b> | <b>Annual Appropriation<br/>(acre-feet/year)</b> | <b>Reported Use<br/>(acre-feet/year)</b> |
|----------------------------------------------------------------------------|----------------------|--------------------------------------------------|------------------------------------------|
| 1998                                                                       | 6027-3 (IL)          | 968                                              | 0                                        |
| 1999                                                                       | 6027-3 (IL)          | 968                                              | 43                                       |
| 2003                                                                       | 6027-3 (IL), 6156-3  | 968                                              | 837                                      |
| 2004                                                                       | 6027-3 (IL), 6156-3  | 968                                              | 858                                      |
| 2005                                                                       | 6156-3               | 968                                              | 854                                      |
| 2006                                                                       | 6156-3               | 968                                              | 940                                      |
| 2007                                                                       | 6156-3               | 968                                              | 871                                      |
| 2008                                                                       | 6156-3               | 968                                              | 872                                      |
| 2009                                                                       | 6156-3               | 968                                              | 813                                      |
| 2010                                                                       | 6156-3               | 968                                              | 943                                      |
| 2011                                                                       | 6156-3               | 968                                              | 836                                      |
| 2012                                                                       | 6156-3               | 968                                              | 1,080                                    |
| 2013                                                                       | 6156-3               | 968                                              | 884                                      |
| 2014                                                                       | 6156-3               | 968                                              | 849                                      |
| 2015                                                                       | 6156-3, 8151-3       | 2,419                                            | 912                                      |
| 2016                                                                       | 6156-3, 8151-3       | 2,419                                            | 926                                      |
| 2017                                                                       | 6156-3, 8151-3       | 2,419                                            | 984                                      |
| 2018                                                                       | 6156-3, 8151-3       | 2,419                                            | 781                                      |
| 2019                                                                       | 6156-3, 8151-3       | 2,419                                            | 738                                      |
| 2020                                                                       | 6156-3, 8151-3       | 2,419                                            | 915                                      |
| <b>Min</b>                                                                 |                      | <b>968</b>                                       | <b>0</b>                                 |
| <b>Max</b>                                                                 |                      | <b>2,419</b>                                     | <b>1,080</b>                             |
| <b>Avg</b>                                                                 |                      | <b>1,403</b>                                     | <b>797</b>                               |
| <b>IL: Incorporated Water License</b>                                      |                      |                                                  |                                          |
| No scanned reports on file with DANR-Water Rights Program for 2000 to 2002 |                      |                                                  |                                          |

There are domestic wells completed into the Split Rock Creek aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2021d). 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 Split Rock Creek 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 Split Rock Creek aquifer.

### **Hydrologic Budget Summary**

In Minnehaha County, the average annual recharge rate to the Split Rock Creek aquifer is estimated to range from approximately 1,000 to 5,600 acre-feet per year. The average annual withdrawal rate from the Split Rock Creek aquifer (including future use reservations) totals approximately 5,741 acre-feet per year. If approved, Water Permit Application No. 8514-3 is expected to pump approximately 8 acre-feet per year, assuming the applicant will apply two acre-feet of water per authorized acre per year. Based on the hydrologic budget, there is not a reasonable probability unappropriated water is available for this proposed appropriation.

### **Temporary Use Permits**

There are three future use permits (Nos. 4929-3, 5444-3, and 6697-3) reserving 885 acre-feet of water from the Split Rock Creek aquifer (Water Rights, 2021c). Two water permit applications (Nos. 6894-3 and 7181-3) have been approved following the approval of these future use permits (Water Rights, 2021c). However, the diversion points for Water Right No. 6894-3 are not located within the Brandon embayment, and Water Right No. 7181-3 authorizes the connection of Corson Village Sanitary District to the City of Brandon's municipal water system and no additional water is appropriated (Water Rights, 2021c).

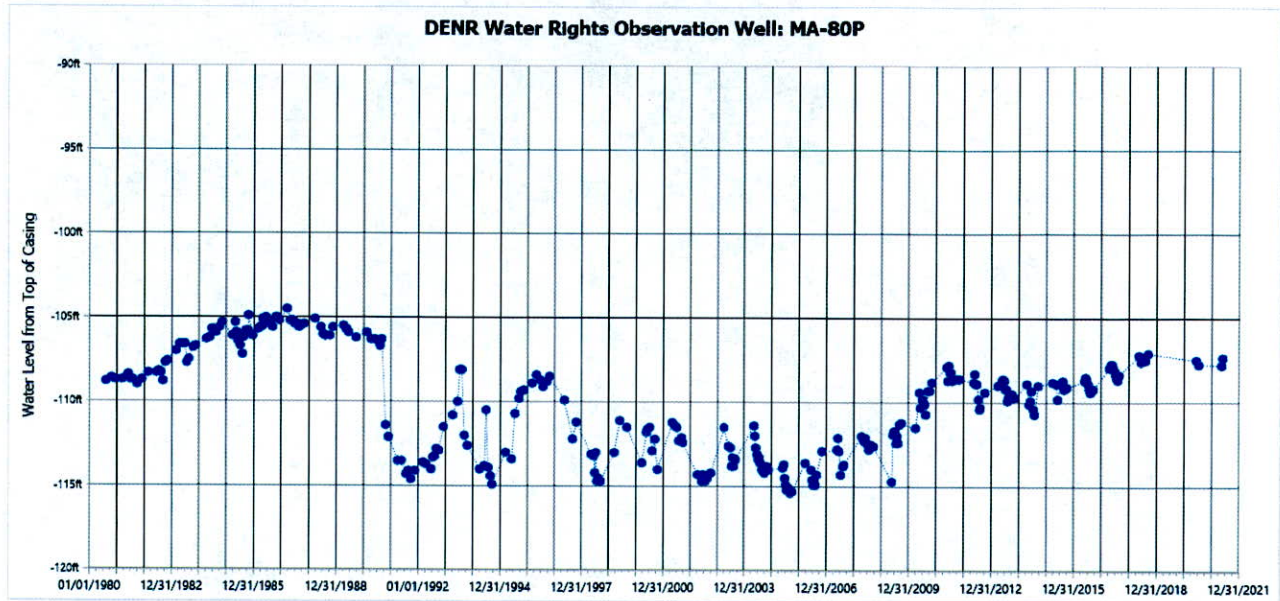
Although the hydrologic budget analysis of the Split Rock Creek aquifer indicates average annual withdrawals exceed average annual recharge to the aquifer, Water Permit Application No. 8514-3 may be approved pursuant to SDCL 46-5-39. SDCL 46-5-39 allows the Water Management Board to authorize a temporary appropriation of water from the unused portion of a future use permit. However, SDCL 46-5-40 states that the temporary use permits would be effective only until such time as the future use holder wants to use the water covered by the temporary use permit. The holder of the temporary use permit would then be given six months of notice and the permit would be cancelled at the end of the six-month period. There is sufficient water reserved by future use permits to support this proposed appropriation under SDCL 46-5-39 and 46-5-40.

## **OBSERVATION WELL DATA:**

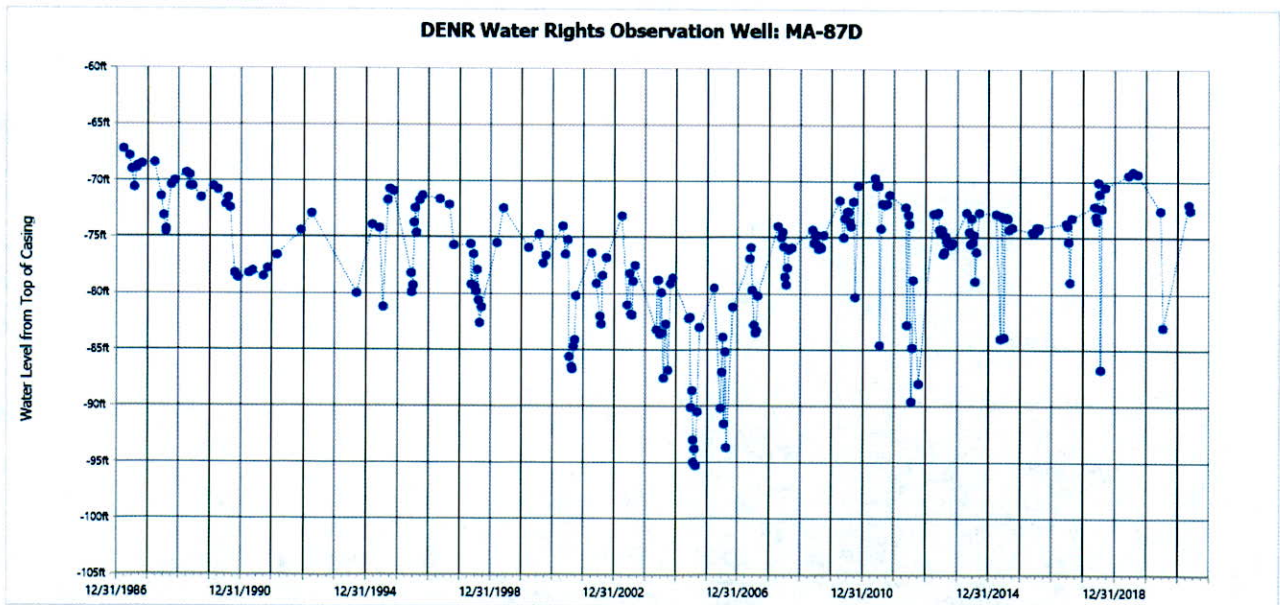
Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DANR-Water Rights Program monitors 12 observation wells completed into the Split Rock Creek aquifer, with 11 of these observation wells being completed into the Brandon embayment (Water Rights, 2021b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The observation wells completed into the Brandon embayment are MA-80P (approximately 1.1 miles east), MA-87D (approximately 2.8 miles southeast), MA-87C (approximately 3.1 miles east), MA-80BA (approximately 4.2 miles southeast), and MA-87E (approximately 4.3 miles southeast), MA-87I (approximately 5.6 miles southeast), MA-87H (approximately 6.3 miles southeast), MA-87F (approximately 7.4 miles southeast), MA-80Z (approximately 7.7 miles southeast), MA-87A (approximately 7.7 miles northeast), and MA-87G (approximately 10.4 miles southeast) (as shown in Figure 1). The hydrographs for these observation wells are displayed in Figures 2 to 12 (Water Rights, 2021b). 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.

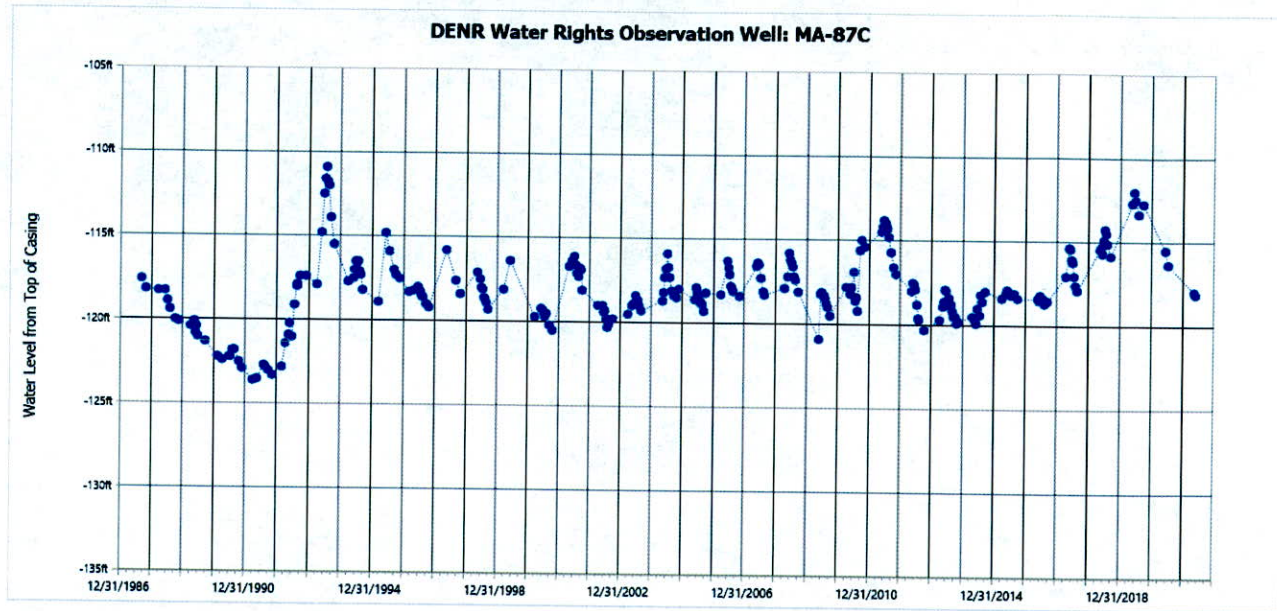
The water level data shown in the hydrographs are representative of the water level in the Brandon embayment of the Split Rock Creek aquifer. The hydrographs for the observation wells display slightly decreasing to stable water levels (MA-87C shows a slight upward trend) over their respective periods of record (Water Rights, 2021b). The hydrographs for the Split Rock Creek aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. However, the effects of climate on the overall changes in water level are not as apparent as would be expected for an aquifer that has unappropriated water available. The downward trend displayed on majority of the Split Rock Creek aquifer observation well hydrographs indicates one of two possibilities. Either the average annual withdrawal rate from the aquifer is approximately equal to or greater than the average annual recharge rate to the aquifer, or the drawdown created by development of more recent water rights has caused a change in the equilibrium of the water level and the water levels are still approaching that new equilibrium. The water level equilibrating to increased withdrawals over extended periods of time has been well documented for the Dakota aquifer (Steen, 2020). The only way to determine which is occurring is to wait for more water level and water use data to become available. It is worth noting, the observation well hydrographs do not reflect the use of the volume of water currently reserved by Split Rock Creek aquifer future use permits. The observation wells have shown a rise in water level corresponding with recent wet years. Based on the observation well data, there may not be a reasonable probability that unappropriated water is available for this proposed appropriation. This agrees with the hydrologic budget analysis.



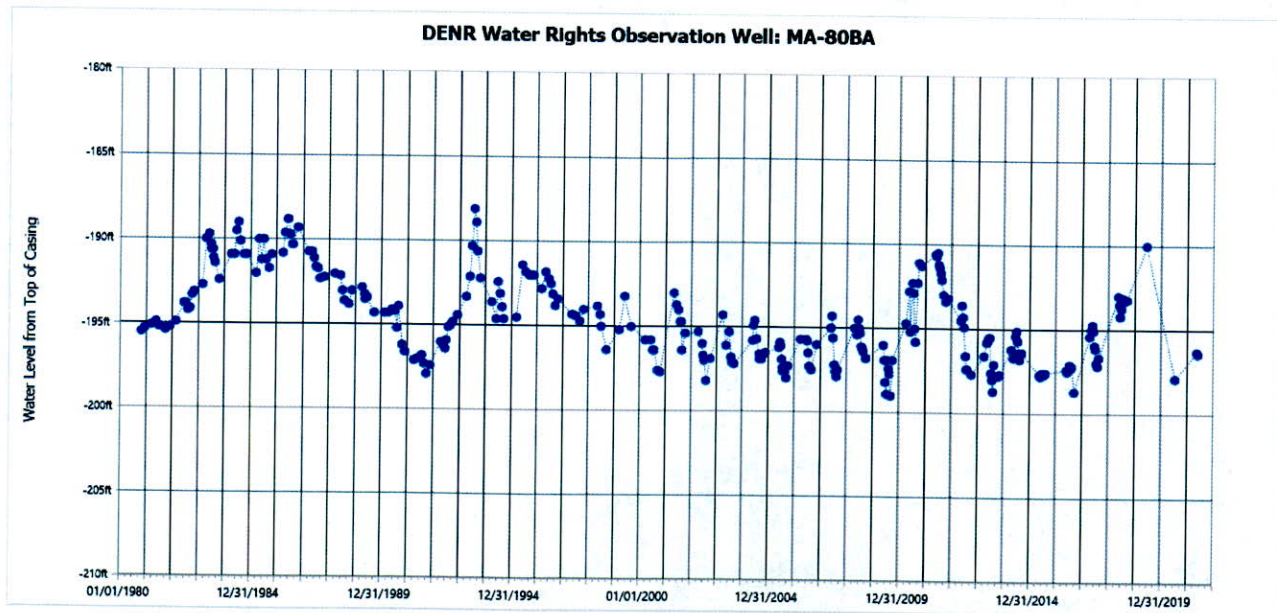
**Figure 2.** Hydrograph for observation well MA-80P (Water Rights, 2021b)



**Figure 3.** Hydrograph for observation well MA-87D (Water Rights, 2021b)



**Figure 4.** Hydrograph for observation well MA-87C (Water Rights, 2021a)



**Figure 5.** Hydrograph for observation well MA-80BA (Water Rights, 2021b)

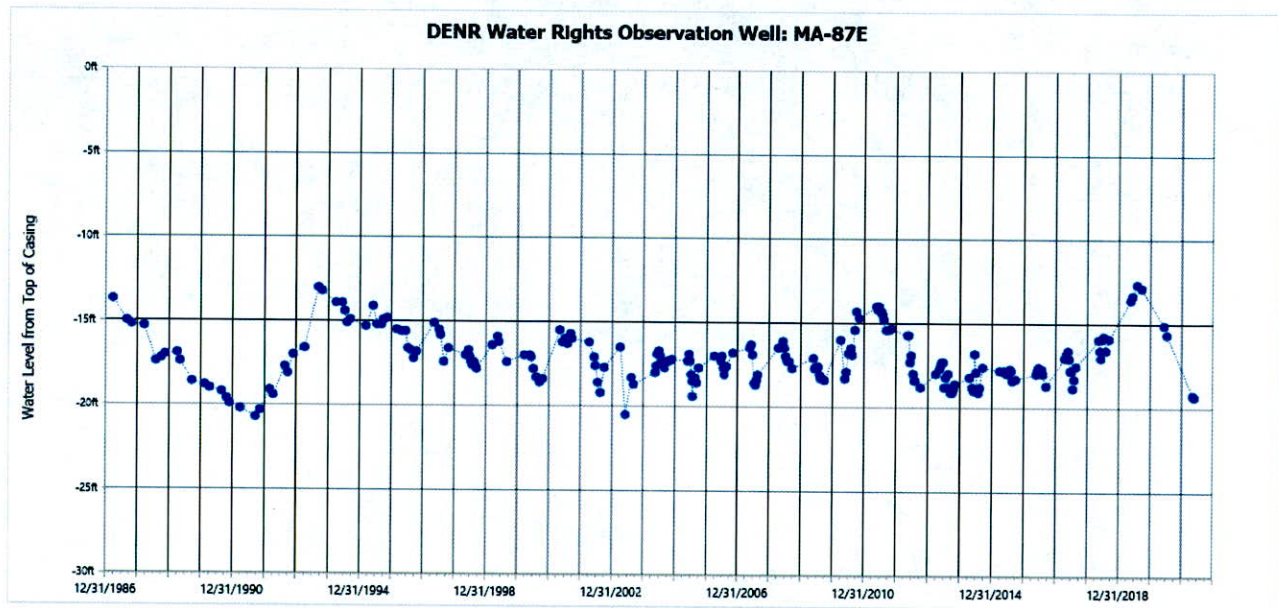


Figure 6. Hydrograph for observation well MA-87E (Water Rights, 2021b)

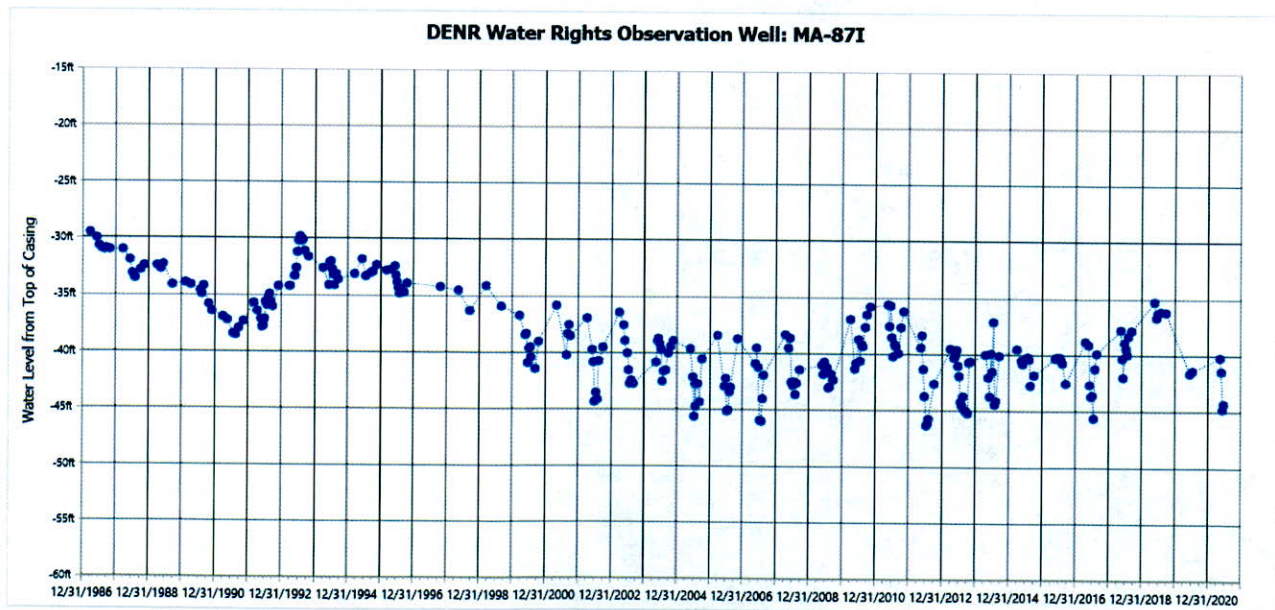
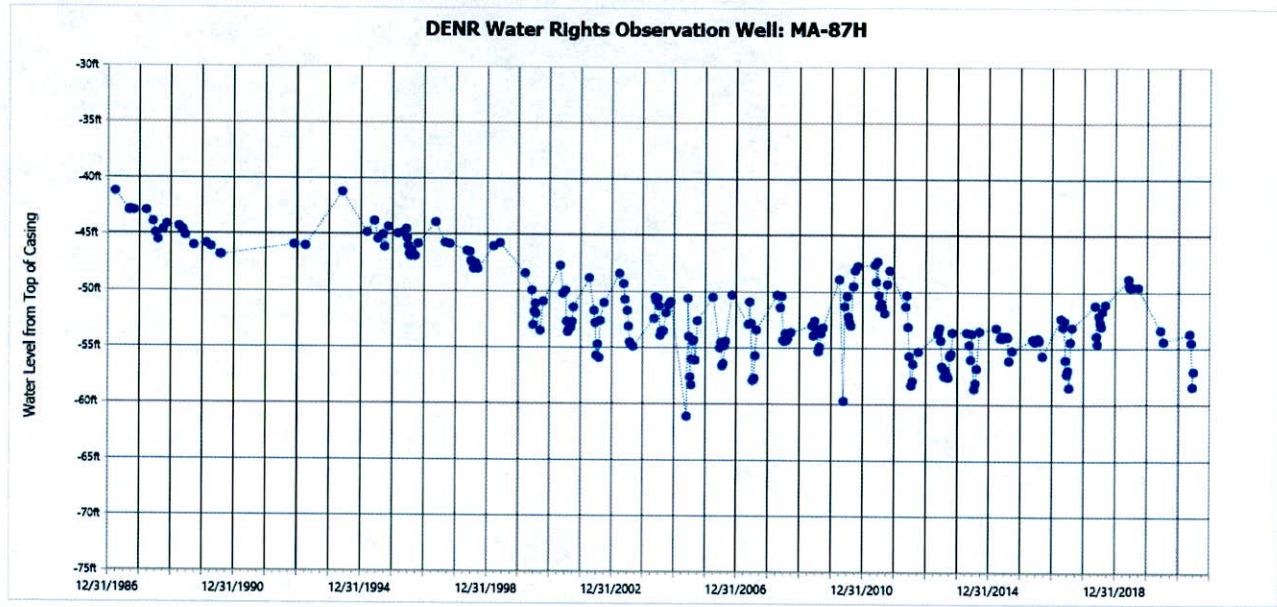
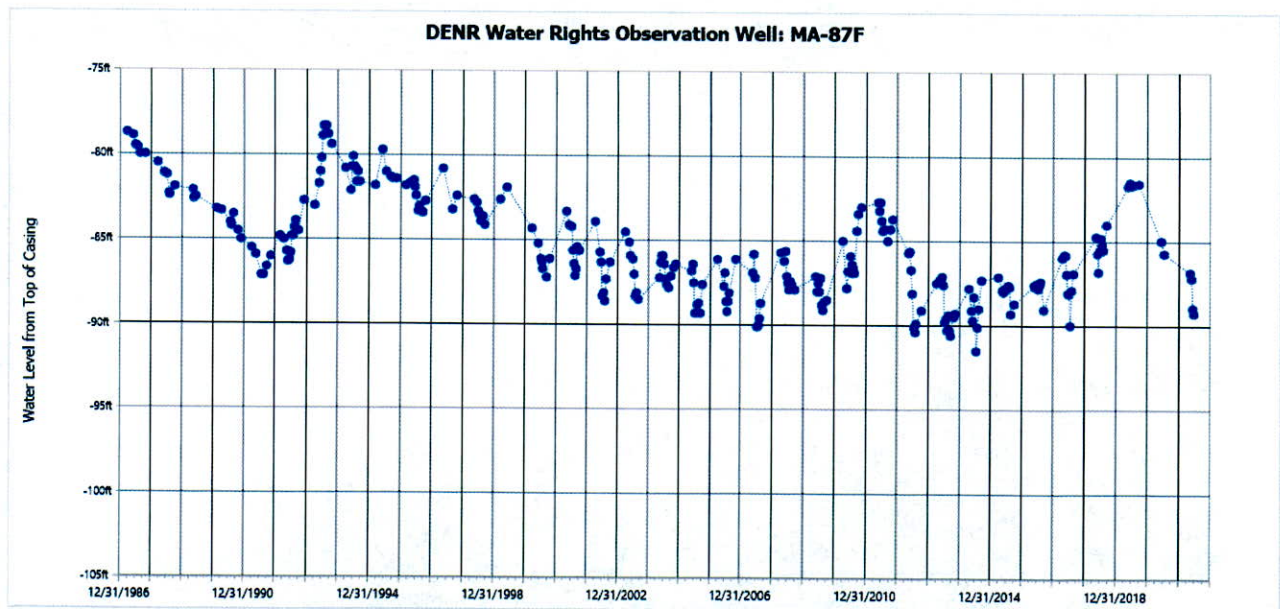


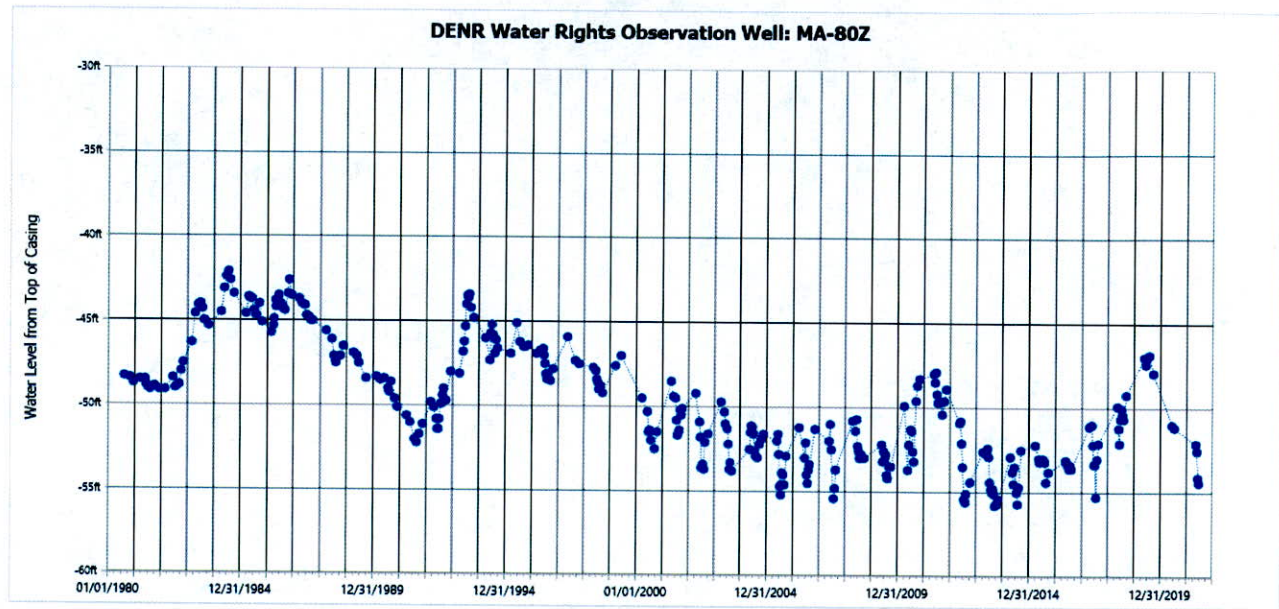
Figure 7. Hydrograph for observation well MA-87I (Water Rights, 2021b)



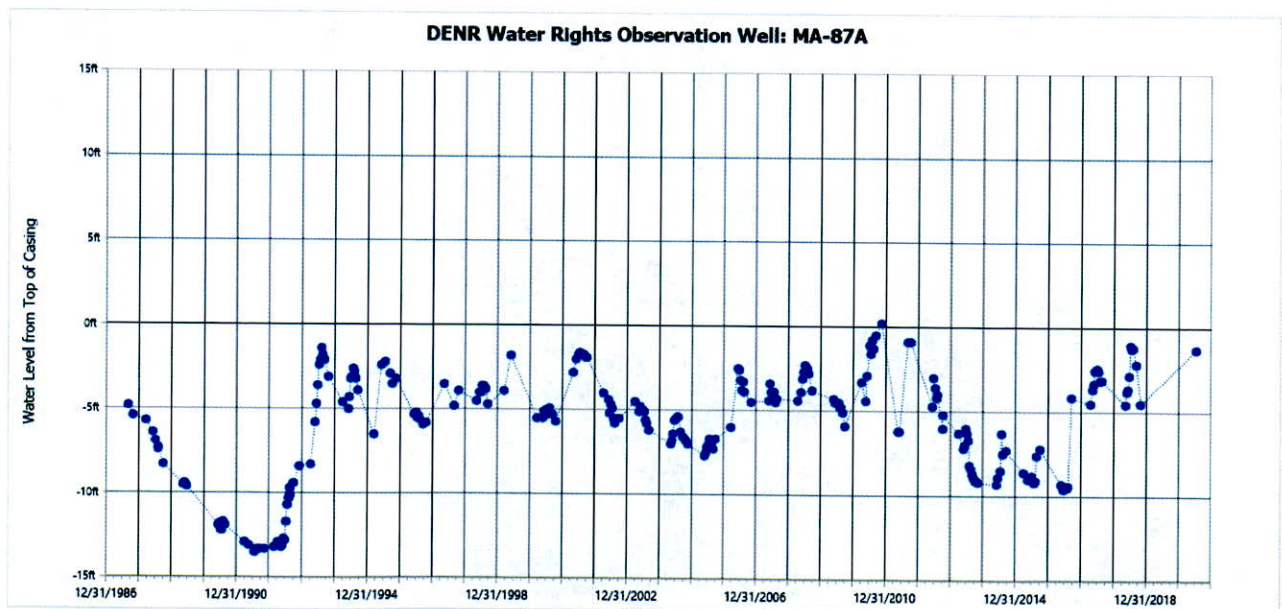
**Figure 8.** Hydrograph for observation well MA-87H (Water Rights, 2021b)



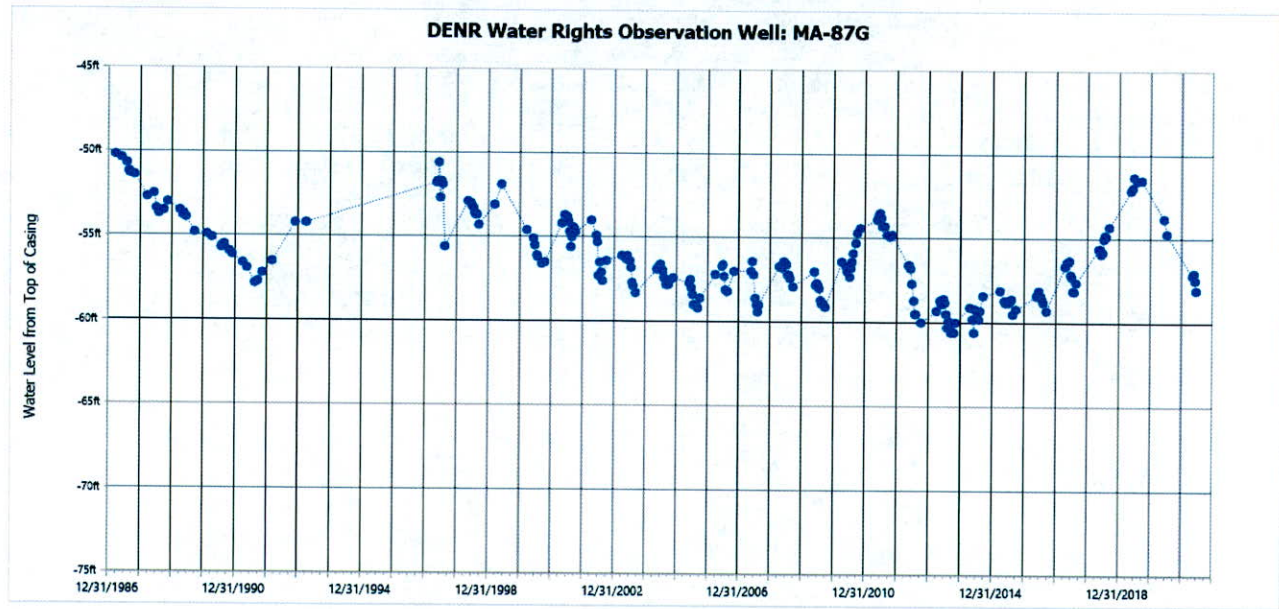
**Figure 9.** Hydrograph for observation well MA-87F (Water Rights, 2021b)



**Figure 10.** Hydrograph for observation well MA-80Z (Water Rights, 2021b)



**Figure 11.** Hydrograph for observation well MA-87A (Water Rights, 2021b)



**Figure 12.** Hydrograph for observation well MA-87G (Water Rights, 2021b)

### **POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:**

Collectively, there are 16 water rights/permits authorized to appropriate water from the Split Rock Creek aquifer, plus three future use permits reserving water from the Split Rock Creek aquifer (Water Rights, 2021c). The closest water right/permit to well the applicant proposes to use is Water Right No. 5865-3, which is held by Allied Oil & Supply Inc. The diversion point for Water Right No. 5865-3 is located approximately 1.2 miles southeast of the well the applicant proposes to use for this application (Figure 13) (Table 4) (Water Rights, 2021c).

There are domestic wells on file with the DANR-Water Rights Program that are completed into the Split Rock Creek aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.2 miles southwest of the well the applicant proposes to use (Water Rights, 2021d). There could potentially be other domestic wells completed into the Split Rock Creek aquifer near the well the applicant proposes to use that are not on file with the DANR-Water Rights Program.

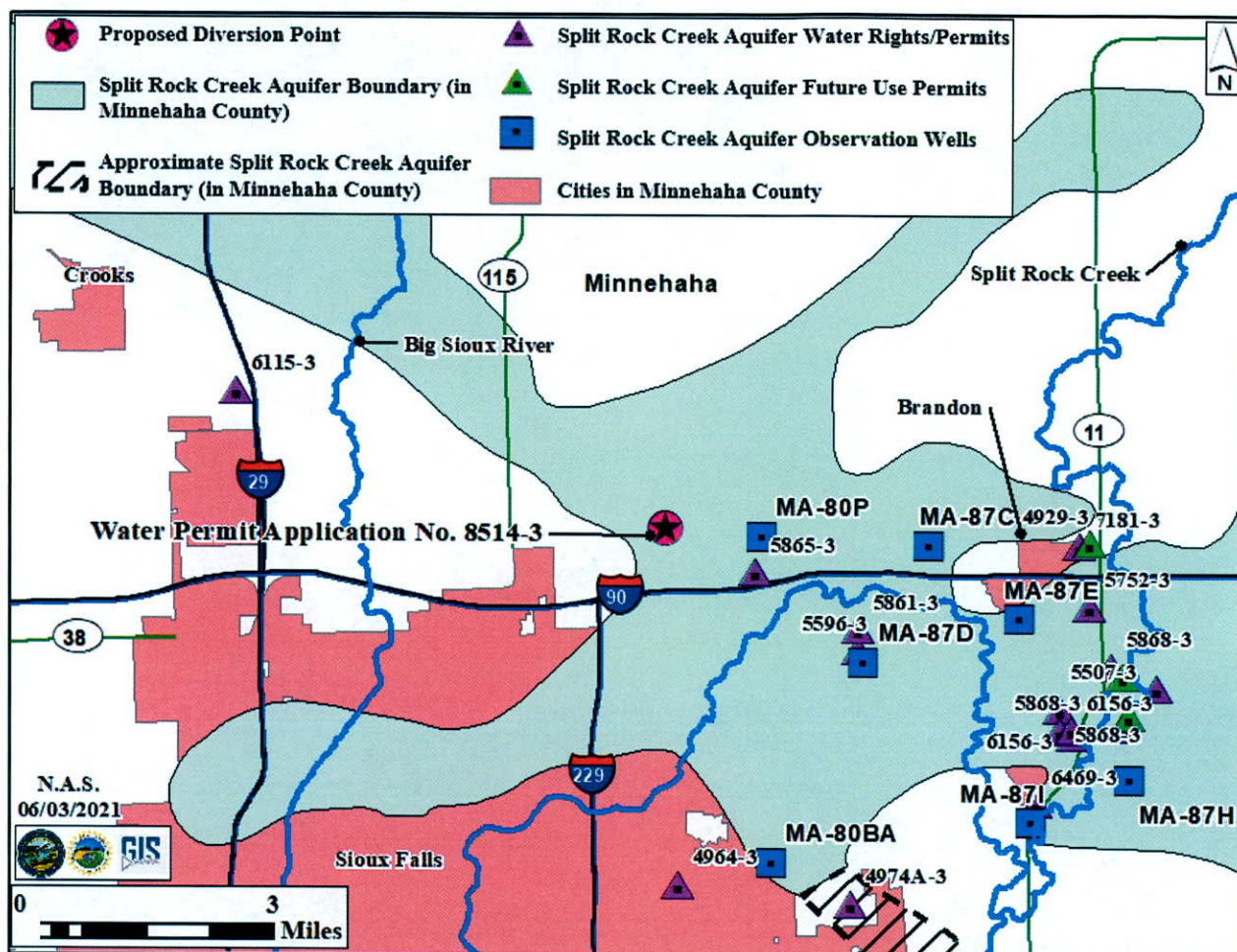


Figure 13. Location of the well the applicant proposes to use for Water Permit Application No. 8514-3 with the Split Rock Creek aquifer water rights/permits and observation wells within approximately five miles (Water Rights, 2021b and 2021c)

Table 4. Water rights/permits authorized to withdraw water from the Split Rock Creek aquifer within approximately five miles of the existing well, as shown in Figure 13 (Water Rights, 2021c)

| Permit No. | Name                                  | Status | Use           | Authorized Diversion Rate (cfs) | Annual Volume (acre-feet/year) |
|------------|---------------------------------------|--------|---------------|---------------------------------|--------------------------------|
| 4964-3     | Childrens Home Society                | LC     | GEO, INS, REC | 0.06                            |                                |
| 4974A-3    | Pinelake Hills Homeowners Association | LC     | SHD           | 0.3                             |                                |
| 5507-3     | City of Brandon                       | LC     | MUN           | 0.05                            |                                |
| 5596-3     | Northern States Power Company         | LC     | IND           | 1.11                            |                                |
| 5752-3     | Brandon Wood Preserving               | LC     | COM           | 0.19                            |                                |
| 5861-3     | Northern States Power Company         | LC     | IND           | 1.11                            |                                |
| 5865-3     | Allied Oil & Supply Inc               | LC     | DOM           | 0.11                            |                                |
| 5868-3     | City of Brandon                       | LC     | MUN           | 1.91                            |                                |
| 6115-3     | Dan Brenner                           | LC     | COM           | 0.011                           |                                |
| 6156-3     | City of Brandon                       | LC     | MUN           | 4.44                            | 968                            |
| 6469-3     | Michael D Coughlin                    | LC     | COM           | 0.1                             |                                |
| 7181-3     | City of Brandon                       | LC     | MUN           | N/A                             |                                |
| 8151-3     | City of Brandon                       | PE     | MUN           | 3.34                            | 1,451                          |

LC: Licensed Water Right; PE: Water Permit; MUN: Municipal; GEO: Geothermal;  
INS: Institutional; REC: Recreation; SHD: Suburban Housing Development; COM: Commercial; DOM: Domestic

In Minnehaha County, the Split Rock Creek aquifer is primarily confined with some variation in depth to the top of the aquifer and saturated aquifer thickness (Lindgren and Niehus, 1992; SDGS, 2021; Tomhave, 1994; Water Rights, 2021a and 2021c). Based on the submitted well completion report and lithologic logs on file for nearby observation wells, the Split Rock Creek aquifer is confined at the well location the applicant proposes to use (SDGS, 2021; Water Rights, 2021b and 2021d). Drawdown created by pumping a well generally does not extend far from the pumped well in an unconfined aquifer; however, in a confined aquifer, drawdown from pumping could extend a distance from the diversion point. The exact drawdown behavior of a well cannot be known without an aquifer performance test. However, observation wells completed into the Split Rock Creek aquifer in Minnehaha County near permitted/licensed diversion points can provide some insight on how the aquifer responds to pumping.

Observation well MA-87D (approximately 2.8 miles southeast of existing well) has two high-yield wells within approximately one half of it (Water Rights, 2021b and 2021c). The drawdown from pumping can be seen on the hydrograph for MA-87D, along with the aquifer returning to pre-pumping conditions between seasons (Figure 3) (Water Rights, 2021b). The lithologic log on file for MA-87D noted the well was drilled 234 feet deep, has a casing stickup height of 2.7 feet, with the top of aquifer is expected to be approximately 165 feet below the top of well casing (SDGS, 2021). The lowest recorded static water level on the hydrograph is approximately 95 feet below the top of well casing, which indicates there was still approximately 67 feet of artesian head pressure in MA-87D even during drier periods when high-yield wells are expected to be pumping more water (Water Rights, 2021b).

Based on the submitted well completion report, the Split Rock Creek aquifer has a saturated aquifer thickness of approximately 104 feet, and the depth to the top of aquifer materials is approximately 24 feet below the ground surface at the applicant's well site (Water Rights, 2021d). This would allow for enough thickness for a pump inlet to be placed 20 feet below the top of the aquifer, which is required for the well to be considered adequate under ARSD 74:02:04:20(6). Any drawdown because of the proposed diversion is not expected to unlawfully impair nearby adequate wells. In Minnehaha County, there have been no complaints filed with the DANR-Water Rights Program regarding well interference for adequate wells completed into the Split Rock Creek aquifer (Water Rights, 2021e). Within the county, there has been one complaint filed with the DANR-Water Rights Program regarding well interference in a Sioux Quartzite well between the City of Sioux Falls and a neighboring trailer court (Water Rights, 2021e). After investigation, there was no information that indicated development of the City of Sioux Falls wells adversely impacted the neighboring trailer court's Sioux Quartzite well. The existing well for this application is approximately 1.75 miles east of that well complaint location (Water Rights, 2021c).

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 Split Rock Creek aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), the saturated aquifer thickness of the Split Rock Creek aquifer in Minnehaha County, the artesian head pressure in observation wells completed into the Split Rock Creek aquifer near the existing well, and the lack of well interference complaints for adequate wells completed into the Split Rock Creek aquifer in Minnehaha County, any drawdown created from the proposed 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 completed into the Split Rock Creek aquifer.

## **CONCLUSIONS:**

1. Water Permit Application No. 8514-3 proposes to divert water at a maximum instantaneous rate of 0.044 cfs from one well completed into the Split Rock Creek aquifer for commercial use, emergency fire suppression, and aesthetic irrigation of 4 acres at an events center. The site is in Minnehaha County approximately one mile north of Sioux Falls, SD.
2. The Split Rock Creek aquifer is heavily appropriated.
3. The Split Rock Creek aquifer is a viable aquifer at the applicant’s well site and is generally found under confined conditions.
4. Based on the hydrologic budget, there is not a reasonable probability unappropriated water is available for this proposed appropriation.

5. The downward trend displayed on majority of the Split Rock Creek aquifer observation well hydrographs indicate either the average annual withdrawal rate from the aquifer is approximately equal to or greater than the average annual recharge rate to the aquifer, or the drawdown created by development of more recent water rights has caused a change in the equilibrium of the water level and the water levels are still approaching that new equilibrium.
6. Based on the observation well data, there may not be a reasonable probability that unappropriated water is available for this proposed appropriation.
7. Water is available from the Split Rock Creek aquifer through a temporary use permit issued pursuant to SDCL 46-5-39.
8. Pursuant to SDCL 46-5-40, a temporary use permit would be effective only until such time as the future use holder wants to use the reserved water.
9. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8514-3 will not unlawfully impair adequate wells completed into the Split Rock Creek aquifer for existing water right/permit holders and domestic users.

*Nakaila Steen*

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Natural Resources Engineer I  
SD DANR - Water Rights Program

Reviewed by:

*Adam Mathiowetz*  
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Natural Resources Engineer III  
SD DANR - Water Rights Program

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- Water Rights, 2021d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2021e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2021f. "1994 – 1999, 2003- 2019 Non-Irrigation Yearly Reports", 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

AUG 11 2021

Tyler Childress  
47677 Slip Up Creek Rd  
Sioux Falls SD 57104

Dear Mr. Childress:

Enclosed is Temporary Use Water Permit No. 8514-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit. This is a temporary water permit and subject to development of water reserved by existing future use permits.

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 temporary permit can be reissued as developed.

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

8514-3

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

Date 8-13-21

TO: Water Rights Program, DANR  
523 E. Capitol  
Pierre, SD 57501-3181

RECEIVED

AUG 17 2021

WATER RIGHTS  
PROGRAM

FROM:

Tyler Childress

(name)

47677 Slip Up Creek Road

(address)

Sioux Falls, SD 57104

(city, state, zip)

605-212-4509

(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. 8514-3 states that the water use system is to be constructed by

8-13-21

(date)

, and water is to be put to beneficial use by

8-13-21

(date)

The water use system was completed on

8-13-21

(date)

Applying the water to beneficial use was completed on

8-13-21

(date)

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



(signature)

