

**WATER PERMIT NO. 8894-3**

Name of Applicant: **Nathan Skelley and Nicole Bell**

Address: **26650 465<sup>th</sup> Avenue, Hartford SD 57033**

Phone: **607-351-4354**

Amount of Water Claimed: **0.22 cfs**

Total Acres: **23**

Source of Water Supply: **Groundwater**

Water to be used for: **Irrigation**

County: **Minnehaha**

Type of Waste Disposal System:

Location: **Approx. 4 miles west of Sioux Falls**

**PRIORITY** Date Received: **08-20-24**

Application/License Fee: **\$700.00**

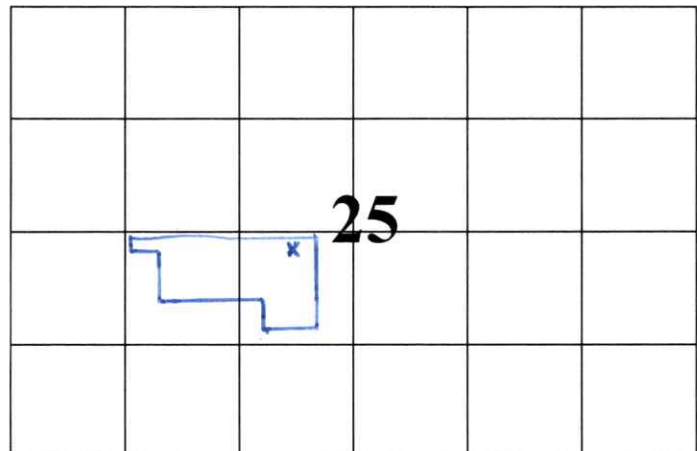
Corrected Application Received: **08-20-24**

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

Remarks:

Diversion Point: **NE 1/4 SW 1/4 Sec 25-T101N-  
R51W**

Land to be Irrigated: **N 1/2 SW 1/4 Sec 25-T101N-  
R51W**



Depth of Well: **200**

Well Driller:

Remarks:

Type of Map: **aerial**

Reviewed and the Number Assigned on: **08-21-24**

By: **Rachel Rodriguez**

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

**SOUTH DAKOTA**  
**WATER PERMIT NO. 8894-3**

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Date of first receipt of application August 20, 2024.

Date of return to applicant for corrections, amendments or changes August 21, 2024.

Date of receipt of corrected application September 16, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8894-3 to Nathan Skelley and Nicole Bell, 26650 465<sup>th</sup> Avenue, Hartford SD 57033, authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8894-3 appropriates 0.32 cubic feet of water per second (cfs) from one well completed into the Sioux Quartzite Aquifer (600 feet deep) located in the NE 1/4 SW 1/4 Section 25-T101N-R51W. Water from the well will be diverted into a dugout (approximately 6 acre-feet storage capacity) located in the NE 1/4 SW 1/4 Section 25 and then diverted from the dugout at a rate of 0.32 cfs for irrigation of 23 acres located in the N 1/2 SW 1/4 Section 25; all in T101N-R51W. The dugout will also capture incidental surface runoff which will also be used for irrigation of the described acreage. This site is located approximately four miles west of southwestern Sioux Falls SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is August 20, 2024.
4. The date of approval of Permit No. 8894-3 is December 3, 2024.
5. One-fifth of the construction is to be completed on or before June 3, 2027.
6. All construction is to be completed on or before December 3, 2029.
7. Water is to be put to beneficial use on or before December 3, 2033.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATIONS**

1. The well approved under Water Permit No. 8894-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. No diversion of water from the Sioux Quartzite Aquifer to the dugout may occur when the water level in the dugout is at or above the dugout's overflow elevation.
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

DEC 12 2024  
date



RECEIVED

AUG 20 2024

OFFICE OF  
WATER**FORM 2: Application for irrigation in South Dakota**  
(type or print)

|                                                                                                               |                                                   |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Mail to:<br><br>SD DANR, Water Rights<br>523 E Capitol Ave<br>Pierre, SD 57501-3182<br><br>ph. (605) 773-3352 | No. <u>8894-3</u> Hydrologic Unit <u>10170203</u> |
|                                                                                                               | Basin <u>Big Sioux</u>                            |
|                                                                                                               | Newspaper <u>Sioux Falls Argus Leader</u>         |
|                                                                                                               | (office use only)                                 |

**Application for Permit to Appropriate Water for Irrigation**

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. \_\_\_\_\_  
(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)  
Add a new well point to land.

1. Name to Appear on Irrigation Permit Nathan Skelley and Nicole Bell

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

Mailing Address 26650 465th Avenue Hartford SD 57033  
(Address) (City) (State) (Zip Code)

Phone 6073514354 Mobile 6073514354 Email nwskelley@gmail.com

2. Amount of water claimed 0.32 \*CFS or 100140 \*\*GPM \*\*\*AF Total Acreage 23  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*\*)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply On site (NE 1/4 SW 1/4)

4. Location of point of diversion Well located in: Lot 4A Wildflower Acres Addition SW 1/4 25 101 51 Wall Lake To  
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

0 wells currently in T101N R051W S25 per well completion reports map County Minnehaha

5. County or counties where water will be used Minnehaha

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

7. List below each forty-acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.  
(Attach sheet if more space is needed)

| Land Description                         | Acres | Land Description | Acres |
|------------------------------------------|-------|------------------|-------|
| Lot 4A Wildflower Acre Ad. SW 1/4 25 101 | 23    |                  |       |
| Wall Lake Township <u>N 1/2 SW 1/4</u>   |       |                  |       |
|                                          |       |                  |       |
|                                          |       |                  |       |

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

Reclaiming old farm site from use by prior owner. Need well access for field irrigation and landscape storage yard.

Field is already maintained and farm pond is already present. Water from on site well would be used to divert water for irrigation and/or maintenance of pond level and replenish water used from pond for irrigation. Land on site is being restored to natural grasses, tress, shrubs, and crop production.

I, Nathan Skelley, the applicant, certify under  
Name of Person Title (if applicable)

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

2021-08

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

## 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 Pending Permit  
(if yes, please provide copies of logs)b) If existing wells, how many 0 Provide copy of log(s), if available. Drilled by \_\_\_\_\_**For either existing or proposed wells:**c) Well Depth (required) 200 Depth to Top of Water Bearing Material \_\_\_\_\_ Depth to Water from Surface \_\_\_\_\_d) Distance to nearest domestic well on applicant's property unknown Property owned by others \_\_\_\_\_**2. Wastewater Disposal System Information**

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

b) System Capacity (gallons) \_\_\_\_\_ Year Constructed \_\_\_\_\_

c) Connected to the City of \_\_\_\_\_ Sanitary System

**3. Dugout Information**a) Surface Dimensions 400' x 100' Depth 10 ft averageb) Depth to water (ground surface to water level) varies ~ 6 AF storage**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 &amp; Y Slope (e.g. 3 to 1 is a typical slope)

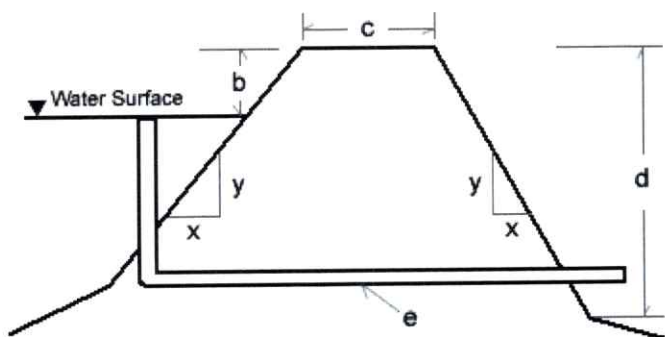
Upstream \_\_\_\_\_

Downstream \_\_\_\_\_

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

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

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



Nathan Skelley and Nicole Bell

Water Permit Application



X = Diversion Point

— = Permit Applicant's Land



26650 465<sup>th</sup> Avenue

Hartford, SD 57033



Google Maps:

<https://maps.app.goo.gl/YhYrDoAym5jgYLoDA>





Township: 101N 51W  
Section: 23  
QQ Sect: SESE

Township: 101N 51W  
Section: 26  
QQ Sect: NENE

Township: 101N 51W  
Section: 25  
QQ Sect: NWNW

Township: 101N 51W  
Section: 25  
QQ Sect: NENW

Township: 101N 51W  
Section: 25  
QQ Sect: NWNE

Township: 101N 51W  
Section: 26  
QQ Sect: SENE

Township: 101N 51W  
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Township: 101N 51W  
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101N 51W  
Section: 26

101N 51W  
Section: 25

Township: 101N 51W  
Section: 26  
QQ Sect: NESE

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QQ Sect: NWSW

Township: 101N 51W  
Section: 25  
QQ Sect: NESW

Township: 101N 51W  
Section: 25  
QQ Sect: NWSE

101N 51W

Township: 101N 51W  
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Township: 101N 51W  
Section: 25  
QQ Sect: SESW

Township: 101N 51W  
Section: 25  
QQ Sect: SWSE

Township: 101N 51W  
Section: 26  
QQ Sect: SESE

Township: 101N 51W  
Section: 35  
QQ Sect: NENE

Township: 101N 51W  
Section: 36  
QQ Sect: NWNW

Township: 101N 51W  
Section: 36  
QQ Sect: NENW

Township: 101N 51W  
Section: 36  
QQ Sect: NWNE

101N 51W  
Section: 35

101N 51W  
Section: 36

Township: 101N 51W  
Section: 35

Township: 101N 51W  
Section: 36

Township: 101N 51W  
Section: 36

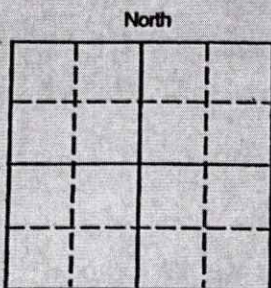
Township: 101N 51W  
Section: 36  
QQ Sect: SWNE

8894-3

State

## SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location 1/4 SW 1/4 Sec 25 Twp 101N Rg 51WCounty  
Minnehaha

Please mark well location with an "X"

Well completion Date  
10-31-24Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)  
300 ft from Septic tank (Identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Rotary

## CASING DATA:

If other describe

| DEPTH              | DIAMETER    | FROM        | TO            | HOLE DIAMETER |
|--------------------|-------------|-------------|---------------|---------------|
| <u>19.18</u> LB/FT | <u>6</u> IN | <u>0</u> FT | <u>209</u> FT | <u>10</u> IN  |
| LB/FT              | IN          | FT          | FT            | IN            |
| LB/FT              | IN          | FT          | FT            | IN            |

## GROUTING DATA:

AWM 11/01/2024

| Grout Type      | No. of Sacks | Grout Weight | From        | To            |
|-----------------|--------------|--------------|-------------|---------------|
| <u>Portland</u> |              | Lb/gal       | <u>0</u> FT | <u>209</u> FT |
|                 |              | Lb/gal       | FT          | FT            |

Describe grouting procedure 5 yds of Slurry Pumped w/ Drill Rig

## SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter \_\_\_\_\_ Inches Length \_\_\_\_\_ Feet

Material \_\_\_\_\_

Slot Size \_\_\_\_\_ Set From \_\_\_\_\_ Feet to \_\_\_\_\_ Feet

Other information \_\_\_\_\_

WAS A PACKER OR SEAL USED? ☐ Yes ☐ No

If so, what material? \_\_\_\_\_

Describe packer(s) and location \_\_\_\_\_

## DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? 5 gallons of ChlorineLab sample sent to for water quality analysis ☐ No, Why Not? PumpedWell Owner: Nathon SkelleyBusiness Name: SkelleyAddress: 26650 - 465th AveCity, State, Zip: Hartford S.D 57033

## WELL LOG:

## DEPTH

| FORMATION   | FROM | TO  |
|-------------|------|-----|
| TOP Soil    | 0    | 3   |
| Yellow clay | 3    | 41  |
| Blue clay   | 41   | 209 |
| Granite     | 209  | 600 |
|             |      |     |
|             |      |     |
|             |      |     |
|             |      |     |
|             |      |     |

STATIC WATER LEVEL 102 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: AIR☐ Bailed☐ Other

Pumping Level Below Land Surface

300 Ft. After 5 Hrs. pumped 55 GPM

\_\_\_\_\_ Ft. After \_\_\_\_\_ Hrs. pumped \_\_\_\_\_ GPM

If pump installed, pump rate: \_\_\_\_\_ GPM

## REMARKS

AIR  
Blew 50 gpm at 300'  
Pump well at 300' 55 gpm

This well was drilled under license # 439

And this report is true and accurate.

Drilling firm: Dave Putzka well Drilling & repair, IncSignature of License Representative: Dave Putzka

Signature of Well Owner or Equitable Property Holder: \_\_\_\_\_

Date: \_\_\_\_\_  
523 E Capitol Ave. Pierre SD 57501

Please return WHITE COPY to: DENR Water Rights

RECEIVED

NOV 01 2024

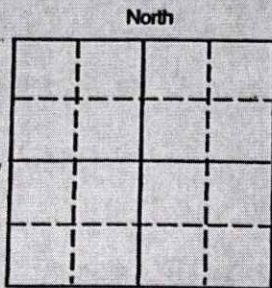
OFFICE OF  
WATER

8894-3

State

## SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location 1/4 SW 1/4 Sec 25 Twp 101N Rg 51WCounty  
Minnehaha

Please mark well location with an "X"

Well completion Date  
10-31-24Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)  
300 ft from Septic tank (Identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Rotary

## CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe

| DEPTH              | DIAMETER    | FROM        | TO            | HOLE DIAMETER |
|--------------------|-------------|-------------|---------------|---------------|
| <u>19.18</u> LB/FT | <u>6</u> IN | <u>0</u> FT | <u>209</u> FT | <u>10</u> IN  |
| LB/FT              | IN          | FT          | FT            | IN            |
| LB/FT              | IN          | FT          | FT            | IN            |

## GROUTING DATA:

AWM 11/01/2024

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

Describe grouting procedure 5 yds of Slurry Pumped w/ Drill Rig

## SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter \_\_\_\_\_ Inches Length \_\_\_\_\_ Feet

Material \_\_\_\_\_

Slot Size \_\_\_\_\_ Set From \_\_\_\_\_ Feet to \_\_\_\_\_ Feet

Other information \_\_\_\_\_

WAS A PACKER OR SEAL USED? ☐ Yes ☐ No

If so, what material? \_\_\_\_\_

Describe packer(s) and location \_\_\_\_\_

## DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? 5 gallons of Chlorine Pumped
☐ No, Why Not? \_\_\_\_\_  
 Lab sample sent to for water quality analysis \_\_\_\_\_

Well Owner:

Nathan Skelley

Business Name:

Skelley

Address:

26650 - 465th Ave

City, State, Zip:

Hartford S.D 57033

## WELL LOG:

## DEPTH

## FORMATION

## FROM

## TO

TOP Soil03Yellow clay341Blue clay41209Granite209600

## STATIC WATER LEVEL

102

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:

AIR☐ Bailed☐ Other

Pumping Level Below Land Surface

300

Ft. After

5

Hrs. pumped

55

GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

## REMARKS

AIRBlew 50 gpm at 300'  
Pump well at 300' 55 gpm

This well was drilled under license #

439

And this report is true and accurate.

Drilling firm:

Dave Putzka well Drilling & repair, Inc

Signature of License Representative:

Dave Putzka

Signature of Well Owner or Equitable Property Holder:

Date:

523 E Capitol Ave.

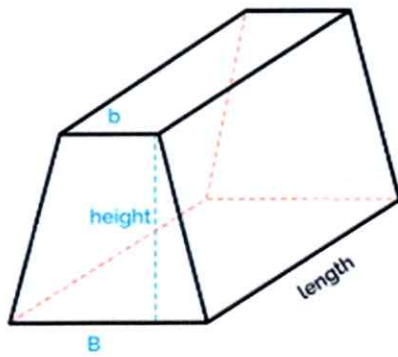
Pierre SD 57501

RECEIVED

NOV 01 2024

OFFICE OF  
WATER

Please return WHITE COPY to: DENR Water Rights



© Omni Calculator

Height ...

10 ft ▾

Length ...

400 ft ▾

Long base (B) ...

100 ft ▾

Short base (b) ...

25 ft ▾

Volume ...

250,000 cu ft ▾

# RECEIPT

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

Date August 21st, 2024

RECEIVED OF Nathan Skelley and Nicole Bell 26650 465<sup>th</sup> Avenue Hartford SD 57033

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

|                                                                                                                        |                  |
|------------------------------------------------------------------------------------------------------------------------|------------------|
| Fee for Application for Permit No. <u>8894-3</u> to Appropriate Water, to construct and to put water to beneficial use | \$ <u>500.00</u> |
| Fee for Application for Permit No. _____ to Appropriate Water for Future use                                           | \$ _____         |
| Fee to retain Future Use Permit No. _____ after period of seven years.                                                 | \$ _____         |
| Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8894-3</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>700.00</u> |

By Eric Gronlund  
Chief Engineer

SK

## Gronlund, Eric

---

**From:** Gronlund, Eric  
**Sent:** Friday, November 1, 2024 11:27 AM  
**To:** 'Nathan Skelley'  
**Cc:** Mathiowetz, Adam (DENR)  
**Subject:** RE: [EXT] Test hole complete

Nathan – received the well completion report.

The application in its current form requests to appropriate 0.32 cubic feet of water per second (144 gallons per minute) into the dugout with a storage capacity of 6 acre feet of water (about 2 million gallon). The application then is to authorize a pump rate of the same 0.32 cfs from the dugout to apply to the 23 acres. This pump rate is the limit in statute for this number of acres.

You can certainly request a greater pump rate from the well to the dugout. I suggest you confer with Putzke on the pump size (in gpm) he'd recommend to install in the well and request the application be amended accordingly. You are not bound by an pump rate that can be requested – you only can't waste water such as be pumping from the well when the dugout is already full and overflowing.

As for the pump rate from the dugout to the irrigated acres there is the ability to request greater than the statutory limit if the method of irrigation, time constraints on when irrigation can occur or type of soils so requires. If you want greater than the 0.32 cfs (144 gpm) you will need to provide justification on why the greater amount.

Will wait to hear back from you on the amounts requested prior to proceeding.

Eric

---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Friday, November 1, 2024 8:54 AM  
**To:** Gronlund, Eric <Eric.Gronlund@state.sd.us>  
**Cc:** Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>  
**Subject:** Re: [EXT] Test hole complete

Eric,

I hope you're having a great day! As requested, please find the attached drill log report attached to this email.

I believe the application should all be the same except for one point. I originally applied to be permitted for 100gpm, and I believe based on our acreage, we could be permitted for a higher amount. Is that correct? That was the only potential modification I could think of, but I don't remember that top amount allowed for our acreage size. Do I need to make that edit on the application or is that automatic based on our size? I'll do whatever you recommend for that part. Please let me know if you want me to do something.

Similarly, please let me know if you need anything else. Thank you both again!

Sincerely,  
-Skelley



Location

\_\_\_\_\_ 1/4 SW

County

Minnehaha

Sent from my iPhone.

On Oct 30, 2024, at 12:45 PM, Nathan Skelley <[nwskelley@gmail.com](mailto:nwskelley@gmail.com)> wrote:

Eric,

Thank you for the information. I asked Mark Putzke for a digital copy of the log. Everything should be the same on the application.

Sent from my iPhone

On Oct 30, 2024, at 10:58 AM, Gronlund, Eric <[Eric.Gronlund@state.sd.us](mailto:Eric.Gronlund@state.sd.us)> wrote:

Nathan – as long as nothing else has changed on your water permit application, once we get the completion report, Water Rights will proceed with reviewing the application for the purpose making a recommendation. Once a recommendation is made we'll proceed to public notice. If there are questions or concerns on our part with recommending favorably we will contact you to discuss.

Once you get the completion report, please scan and email to us. When well completion reports come in to our office through regular mail, they don't immediately go to Adam and I. So emailing it to us insures we get it and can proceed with the application.

Every fall day in South Dakota is a great day – it's hunting season!!!

Eric

---

**From:** Nathan Skelley <[nwskelley@gmail.com](mailto:nwskelley@gmail.com)>  
**Sent:** Wednesday, October 30, 2024 9:26 AM  
**To:** Mathiowetz, Adam (DENR) <[Adam.Mathiowetz@state.sd.us](mailto:Adam.Mathiowetz@state.sd.us)>  
**Cc:** Gronlund, Eric <[Eric.Gronlund@state.sd.us](mailto:Eric.Gronlund@state.sd.us)>  
**Subject:** [EXT] Test hole complete

Adam and Eric,

Good morning! I hope this message finds you well! I got a call from Dave Putzke this morning saying they finished the well on our property in Hartford, SD. They said they have 55GPM in the quartzite. They are supposed to be sending you and me a copy of the well log. I'm glad they were able to get this completed so quickly.

What would be the next steps or what do you need from me to progress with the permit process now? I really appreciate your help and guidance with this process. Thank you both!

I hope you both are having a great day and look forward to hearing from you. Take care!

Sincerely,

## Gronlund, Eric

---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Friday, November 1, 2024 3:22 PM  
**To:** Gronlund, Eric  
**Cc:** Mathiowetz, Adam (DENR)  
**Subject:** Re: [EXT] Test hole complete

Eric,

Thank you for the clarification! We are great with that current numbers then on the application.

Dave said the pumps get a lot more expensive over 100gpm. For our needs, we would not need to pump over 144gpm. Therefore, if we are permitted to that 144gpm amount, we should be good in the current form.

Thank you again! Have a great weekend!

-Nathan

Sent from my iPhone.

On Nov 1, 2024, at 11:27 AM, Gronlund, Eric <Eric.Gronlund@state.sd.us> wrote:

Nathan – received the well completion report.

The application in its current form requests to appropriate 0.32 cubic feet of water per second (144 gallons per minute) into the dugout with a storage capacity of 6 acre feet of water (about 2 million gallon). The application then is to authorize a pump rate of the same 0.32 cfs from the dugout to apply to the 23 acres. This pump rate is the limit in statute for this number of acres.

You can certainly request a greater pump rate from the well to the dugout. I suggest you confer with Putzke on the pump size (in gpm) he'd recommend to install in the well and request the application be amended accordingly. You are not bound by an pump rate that can be requested – you only can't waste water such as be pumping from the well when the dugout is already full and overflowing.

As for the pump rate from the dugout to the irrigated acres there is the ability to request greater than the statutory limit if the method of irrigation, time constraints on when irrigation can occur or type of soils so requires. If you want greater than the 0.32 cfs (144 gpm) you will need to provide justification on why the greater amount.

Will wait to hear back from you on the amounts requested prior to proceeding.

Eric

---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Friday, November 1, 2024 8:54 AM  
**To:** Gronlund, Eric <Eric.Gronlund@state.sd.us>

**Cc:** Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>

**Subject:** Re: [EXT] Test hole complete

Eric,

I hope you're having a great day! As requested, please find the attached drill log report attached to this email.

I believe the application should all be the same except for one point. I originally applied to be permitted for 100gpm, and I believe based on our acreage, we could be permitted for a higher amount. Is that correct? That was the only potential modification I could think of, but I don't remember that top amount allowed for our acreage size. Do I need to make that edit on the application or is that automatic based on our size? I'll do whatever you recommend for that part. Please let me know if you want me to do something.

Similarly, please let me know if you need anything else. Thank you both again!

Sincerely,

-Skelley

<image001.jpg>

Sent from my iPhone.

On Oct 30, 2024, at 12:45 PM, Nathan Skelley <nwskelley@gmail.com> wrote:

Eric,

Thank you for the information. I asked Mark Putzke for a digital copy of the log. Everything should be the same on the application.

Sent from my iPhone

On Oct 30, 2024, at 10:58 AM, Gronlund, Eric  
<Eric.Gronlund@state.sd.us> wrote:

Nathan – as long as nothing else has changed on your water permit application, once we get the completion report, Water Rights will proceed with reviewing the application for the purpose making a recommendation. Once a recommendation is made we'll proceed to public notice. If there are questions or concerns on our part with recommending favorably we will contact you to discuss.

Once you get the completion report, please scan and email to us. When well completion reports come in to our office through regular mail, they don't immediately go to Adam and I. So emailing it to us insures we get it and can proceed with the application.

Every fall day in South Dakota is a great day – it's hunting season!!!

Eric

---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Wednesday, October 30, 2024 9:26 AM  
**To:** Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>  
**Cc:** Gronlund, Eric <Eric.Gronlund@state.sd.us>  
**Subject:** [EXT] Test hole complete

Adam and Eric,

Good morning! I hope this message finds you well! I got a call from Dave Putzke this morning saying they finished the well on our property in Hartford, SD. They said they have 55GPM in the quartzite. They are supposed to be sending you and me a copy of the well log. I'm glad they were able to get this completed so quickly.

What would be the next steps or what do you need from me to progress with the permit process now? I really appreciate your help and guidance with this process. Thank you both!

I hope you both are having a great day and look forward to hearing from you. Take care!

Sincerely,  
-Nathan Skelley  
Cell: 607-351-4354  
Sent from my iPhone.

**Mathiowetz, Adam (DENR)**

---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Friday, November 1, 2024 8:54 AM  
**To:** Gronlund, Eric  
**Cc:** Mathiowetz, Adam (DENR)  
**Subject:** Re: [EXT] Test hole complete

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I hope you're having a great day! As requested, please find the attached drill log report attached to this email.

I believe the application should all be the same except for one point. I originally applied to be permitted for 100gpm, and I believe based on our acreage, we could be permitted for a higher amount. Is that correct? That was the only potential modification I could think of, but I don't remember that top amount allowed for our acreage size. Do I need to make that edit on the application or is that automatic based on our size? I'll do whatever you recommend for that part. Please let me know if you want me to do something.

Similarly, please let me know if you need anything else. Thank you both again!

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Once you get the completion report, please scan and email to us. When well completion reports come in to our office through regular mail, they don't immediately go to Adam and I. So emailing it to us insures we get it and can proceed with the application.

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Eric

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**Sent:** Wednesday, October 30, 2024 9:26 AM  
**To:** Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>  
**Cc:** Gronlund, Eric <Eric.Gronlund@state.sd.us>  
**Subject:** [EXT] Test hole complete

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What would be the next steps or what do you need from me to progress with the permit process now? I really appreciate your help and guidance with this process. Thank you both!

I hope you both are having a great day and look forward to hearing from you. Take care!

## Duvall, Ron

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**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Wednesday, August 28, 2024 12:09 PM  
**To:** Duvall, Ron  
**Subject:** Re: [EXT] Water Permit Application for Irrigation

Ron,

Thank you very much for your time and assistance with this process. I really appreciate your help and clarification! Attached are my replies to your questions:

- **Is the pond water diverted to immediately to the south of the proposed well site? I assume so, but would like confirmation.**
- Yes, this is correct.
- **If it is a pond to the south, is it primarily a dugout or a dam?**
- This is a dugout.
- **Secondly, is the dam/pond catching surface runoff as well as water from the well?**
- Yes, although I have not visualized this runoff during rain or thunderstorms, I would assume our field and the land to the west provides some runoff into the pond.
- **The storage capacity of the pond also needs to be identified. I estimate the surface area at about  $\frac{3}{4}$  acre from the imagery I am looking at. If you can provide the maximum depth, it is possible to do a rough calculation for the storage capacity by multiplying the surface area  $\frac{3}{4}$  acre X depth in feet X 0.4. For example,  $\frac{3}{4}$  acres surface area X 6 feet deep X 0.4 = 1.8 acre-feet of stored water.**
- The maximum depth at the northernmost point can get to 20 feet deep. The majority of the pond is probably around 10 feet based on my depth measurements. There is a significant amount of depth variability based on the time of year and weather.
- **You are applying for 100 gallons per minute. Is that the rate from the well to the pond or the rate from the pond to the irrigated acres? Ultimately, we need to know two pump rates, the pump rate from the well and the rate from the pond to the irrigated acres**
- In my initial study and information gathering for the permit, I thought 100 gallons per minute was the maximum I could apply for in this process based on my area. I now understand that I may be able to apply for slightly more based on my land area. The rate would be the same for both measurements. Based on my calculations, I believe I can apply for closer to 140 gallons per minute. If my math is correct, I would appreciate increasing that number if that is possible. Thank you for your clarification on this point.

I hope this information helps, Ron. Please let me know if I can answer any other questions or if I can help with anything else. I really appreciate your help with this process. My cell phone is 607-351-4354.

Sincerely,  
-Nathan Skelley

--

Phone: 607-351-4354

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Water Rights Program - DANR  
Conversation File Documentation

NAME OF PERSON OR FILE: Application No. 8894-3, Nathan Skelley & Nicole Bell

ADDRESS: 26650 465<sup>th</sup> Avenue, Sioux Falls SD      COUNTY: Minnehaha County

DATE: September 16, 2024      TELEPHONE: 1 607 3514354

RE: Intended water source for Application No. 8894-3

Adam Mathiowetz and myself had a phone call with Dr. Nathan Skelley regarding the timeframes for obtaining a water permit and the proposed water source intended under Water Permit Application No. 8894-3. Based on previous communication between Dr. Skelley and Adam, while the intended water source is believed to be the Sioux Quartzite that could not be confirmed until a test hole or test well is completed to identify the material encountered. This led Dr. Skelley to request permission to construct a test well. In his discussion with Putzke Well Drilling he learned it may be until the spring before the test well is drilled.

Water Rights permits by water source so the correct water source needs to be known to review and public notice the application.

We discussed the timeframe for review of the application. Waiting until the test well is drilled in approximately March could mean not having the water permit in place until June or early July. This is assuming a favorable recommendation and no petitions in opposition are received.

Dr. Skelley requested the application be processed as being from the Sioux Quartzite prior to the test well being drilled in order to proceed with review of the application. However, if once the test well is drilled the water source is determined to not be the Sioux Quartzite will result in starting over from scratch by filing another application for the correct water source. This will include a new filing fee and the timeframe for processing the application.

Dr. Skelley fully understood that if the test well is completed into an aquifer other than the Sioux Quartzite that he will need to file a new application and pay the filing fee as well as there being additional time for review of the application.

NAME:   
Eric Gronlund

## Mathiowetz, Adam (DENR)

---

**From:** Mathiowetz, Adam (DENR)  
**Sent:** Friday, September 13, 2024 9:48 AM  
**To:** Nathan Skelley  
**Cc:** Gronlund, Eric  
**Subject:** RE: [EXT] Test hole and test well info  
**Attachments:** Testwell-Skelley 09-13-2024.pdf

Nathan,

Attached is a scan of the test well permission letter. A couple is also in the mail to you and to Dave Putzke.

In terms of what needs to be done with the application, our program administrator Eric Gronlund will be better able to answer the question. I have CC'ed him on this email for your convenience.



**Adam Mathiowetz, PE**  
**Engineer, Water Rights Program**  
Department of Agriculture and Natural Resources  
523 E. Capitol Ave. Pierre SD, 57501  
605.773.3352  
[danr.sd.gov](http://danr.sd.gov)

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Friday, September 13, 2024 9:03 AM  
**To:** Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>  
**Subject:** Re: [EXT] Test hole and test well info

Adam,

I hope this message finds you well! We just had a great meeting this morning with Dave Putzke. He said he and his son can get all of the geology details you need from the drilling process.

I would like to request permission to drill the production well. These are the responses to your questions in the previous email:

1. The approximate depth is 250 feet per Dave. He said at that point he anticipates hitting the granite and it's hard to predict beyond that.
2. Dave agreed with the location on the application. It will be the same spot as the X on the map I sent in.
3. That state of the drilling will be South Dakota.

Please let me know if you need any other information. Dave said it may be the spring time before they can get to drilling this. He said he'll see if they can get to it before then and let us know. I would take any advice or recommendations on what you think I should do with the permit application in the meantime. Thank you again for all of your time and assistance with this! I really appreciate it.

Sincerely,  
-Nathan Skelley

Sent from my iPhone.

On Sep 9, 2024, at 4:10 PM, Mathiowetz, Adam (DENR) <[Adam.Mathiowetz@state.sd.us](mailto:Adam.Mathiowetz@state.sd.us)> wrote:

Nathan,

Per our Sept. 9, 2024 call, here is the details we would need regarding geology for a test hole at your location. If your driller has any questions, please have them call me.

1. Location of test hole
2. Depth of individual formations
3. Color of any formation (clay, sand, gravel, sandstone, granite/quartzite)
4. Size of unconsolidated sand and gravel (fine/medium/coarse or well screen slot size)
5. Secondary comments on sand regarding roundness or sharpness of individual grains
6. If there is sand/gravel and clay mixed together, specific notation of which is the predominant component

As I stated, no permission is required to drill a test hole. However, if you wish to drill the production well instead of a just a test hole, you do need to request permission. The following information is needed for that permission. This information needs to be emailed to me. The permission is a simple letter and is usually completed within a day.

1. Approximate depth
2. Legal location or approximate gps coordinates (or just mentioned at the site in your current application
3. State which driller will be drilling the test well

I was incorrect regarding the necessary timeline for sending in geologic information (i.e. test hole information) to retain your current priority date, August 20, 2024. Per SDCL 46-2A-15 (<https://sdlegislature.gov/Statutes/46-2A-15>), you have 60 days from the time the application is "returned" to file the "...corrections, amendments or changes..." and still maintain your original priority date (08/20/2024). If the information is filed with us after the 60 day period, it would be treated as a new application with a priority date of the filing of the geologic information. Sixty days from today is November 7, 2024.

<image001.png>

**Adam Mathiowetz, PE**  
**Engineer, Water Rights Program**  
Department of Agriculture and Natural Resources  
523 E. Capitol Ave. Pierre SD, 57501  
605.773.3352  
[danr.sd.gov](http://danr.sd.gov)



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

September 13, 2024

Nathan Skelly  
26650 465<sup>th</sup> Ave  
Hartford, SD 57033

Mr. Skelley:

As requested by email on September 13, 2024 pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to have Dave Putzke Well Drilling, Inc. construct a test well prior to approval of a water permit. The test well will be located in the SW ¼ Sec. 25-T101N-R51W in Minnehaha County. The well will be approximately 250 feet deep. The target aquifer is the Sioux Quartzite aquifer. However, shallower aquifers may be encountered and used. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes or test wells that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used in excess of domestic use as defined by South Dakota Codified Law 46-1-6(7) or for uses other than domestic use. All test or permanent wells to be constructed under this test well permission must be constructed using the methods described in Administrative Rule of South Dakota (ARSD) 74:02:04:28. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit. If you have questions regarding permitting, please call Amanda Dewell at (605) 773-3352.

Sincerely,

Eric Gronlund, Chief Engineer  
Water Rights Program  
(605)773-3352

CC: Dave Putzke Well Drilling, Inc

## Rodriguez, Rachel

---

**From:** Rodriguez, Rachel  
**Sent:** Wednesday, August 21, 2024 3:08 PM  
**To:** Nathan Skelley  
**Subject:** RE: [EXT] Water Permit Application - Nathan Skelley

I have processed your application, and it is now with a senior engineer who will review it and assign to a junior engineer to write a report. They have 60 days to complete the report which puts us into October. I will contact you around mid-October regarding the public notice process.

Thank you,

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



---

**From:** Nathan Skelley <nwskelley@gmail.com>  
**Sent:** Wednesday, August 21, 2024 9:41 AM  
**To:** Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>  
**Subject:** Re: [EXT] Water Permit Application - Nathan Skelley

Rachel,

Oh I see—I'm sorry for the confusion. I looked up the reports on my parcel to see if anyone had one in my area that I could talk to and no one has a well around me.

Thank you again for your help with this! Please let me know if I can help with anything else.

Sincerely,  
-Skelley  
Sent from my iPhone.

On Aug 21, 2024, at 9:38 AM, Rodriguez, Rachel <[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)> wrote:

You mentioned well completion reports on your application which is why I thought you had one.

Thank you,

Rachel Rodriguez  
DANR | Program Assistant  
[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)

<image001.png>

**From:** Nathan Skelley <[nwskelley@gmail.com](mailto:nwskelley@gmail.com)>  
**Sent:** Wednesday, August 21, 2024 9:36 AM  
**To:** Rodriguez, Rachel <[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)>  
**Subject:** Re: [EXT] Water Permit Application - Nathan Skelley

Rachel,

Good morning! I don't have a completion report—don't I get that after the well is installed? I thought I had to get your permit first before getting the well installed. Thank you!

-Skelley  
Sent from my iPhone.

On Aug 21, 2024, at 9:34 AM, Rodriguez, Rachel <[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)> wrote:

Good Morning Nathan,

If you have a copy of the well completion report, would you please send me a copy?

Thank you,

Rachel Rodriguez  
DANR | Program Assistant  
[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)  
<image001.png>

**From:** Nathan Skelley <[nwskelley@gmail.com](mailto:nwskelley@gmail.com)>  
**Sent:** Tuesday, August 20, 2024 10:09 AM  
**To:** Rodriguez, Rachel <[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)>  
**Subject:** [EXT] Water Permit Application - Nathan Skelley

Rachel,

Thank you very much for your time and assistance with this application. My wife and I really appreciate your help.

Attached is my application and the images of our proposed well site. I will call the finance office now. Please let me know if you need any other information. Thank you again for your time and assistance!

Sincerely,  
-Nathan Skelley

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Cell Phone: 607-351-4354

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**DEPARTMENT of AGRICULTURE  
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danr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 8894-3, Nathan Skelley and Nicole Bell**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8894-3, Nathan Skelley and Nicole Bell, 26650 465th Avenue, Hartford SD 57033.

The Chief Engineer is recommending APPROVAL of Application No. 8894-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 8894-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. No diversion of water from the Sioux Quartzite Aquifer to the dugout may occur when the water level in the dugout is at or above the dugout's overflow elevation.
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  
November 13, 2024

REPORT TO THE CHIEF ENGINEER  
ON  
WATER PERMIT APPLICATION NO. 8894-3  
FOR  
NATHAN SKELLEY AND NICOLE BELL  
NOVEMBER 14, 2024

Application No. 8894-3 proposes to appropriate water at a maximum instantaneous diversion rate of 0.32 cubic feet of water per second (cfs) from one well (600 ft deep) completed into the Sioux Quartzite aquifer. The well is located in the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 25-T101N-R51W. Water from the well will be diverted into a dugout (approximately 6 acre-feet [ac-ft] of storage capacity) located in the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 25 and then diverted from the dugout at a rate of 0.32 cfs for the irrigation of 23 acres located in the N  $\frac{1}{2}$  SW  $\frac{1}{4}$  Section 25; all in T101N-R51W. The dugout will also capture incidental surface runoff which will also be used for irrigation of the described acreage. This site is located approximately four miles west of southwestern Sioux Falls, SD.

**AQUIFER: Sioux Quartzite (SOUX)**

**Aquifer Characteristics:**

The Sioux Quartzite is a Precambrian aged fine to coarse grained ortho-quartzite primarily composed of pink and red colored quartz sand cemented into a nonporous quartzite by silica (Baldwin, 1949; Martin et al., 2004). The Sioux Quartzite underlies portions of southeastern South Dakota, southwestern Minnesota, and northwestern Iowa (Tomhave, 1994; Southwick, 1984). Figure 1 shows the approximate extent of the Sioux Quartzite in southeastern South Dakota. The depth to the Sioux Quartzite can vary significantly over short distances as shown by mapping of the Precambrian surface done by McCormick (2010). The craggy and uneven surface of the Sioux Quartzite is a likely product of pre-glacial streams incising irregular valleys on the quartzite surface (Baldwin, 1949).

There is very limited or no primary porosity for most of the Sioux Quartzite, except in areas where the silica cement is not present due to weathering or non-deposition (Baldwin, 1949). In areas where there is secondary porosity and permeability features (e.g., fractures), water can be transmitted through secondary porosity and the Sioux Quartzite can be considered an aquifer. Any aquifer characteristics are site specific and highly variable due to the unpredictable and uneven nature of the fractures, faults, and joints that comprise secondary porosity. Determination of whether the Sioux Quartzite aquifer is a confined or unconfined aquifer is complicated, since the fractured nature of the quartzite and very low primary porosity means the portion of the quartzite overlaying a fracture can be the low permeability formation isolating the groundwater from the atmosphere. Therefore, a well completed into the Sioux Quartzite aquifer is likely to behave in a manner more consistent with a confined aquifer even if the aquifer meets or is more similar to the definition of an unconfined aquifer.

The Sioux Quartzite has an estimated thickness ranging from less than 1,000 feet (Gries, 1983) to 3,000 feet (Baldwin, 1949). However, wells penetrating the Sioux Quartzite typically penetrate to a maximum depth of 200 feet or less. There are instances where 400 feet of Sioux Quartzite is penetrated like the well to be used for this application (Water Rights, 2024e; Lindgren and Niehus,

1992). The Sioux Quartzite is likely hydrologically connected to overlying and adjacent aquifers and surface water features in direct contact with the quartzite. However, the extent of the hydrologic connections likely varies geographically and is not well understood (Lindgren and Niehus, 1992).

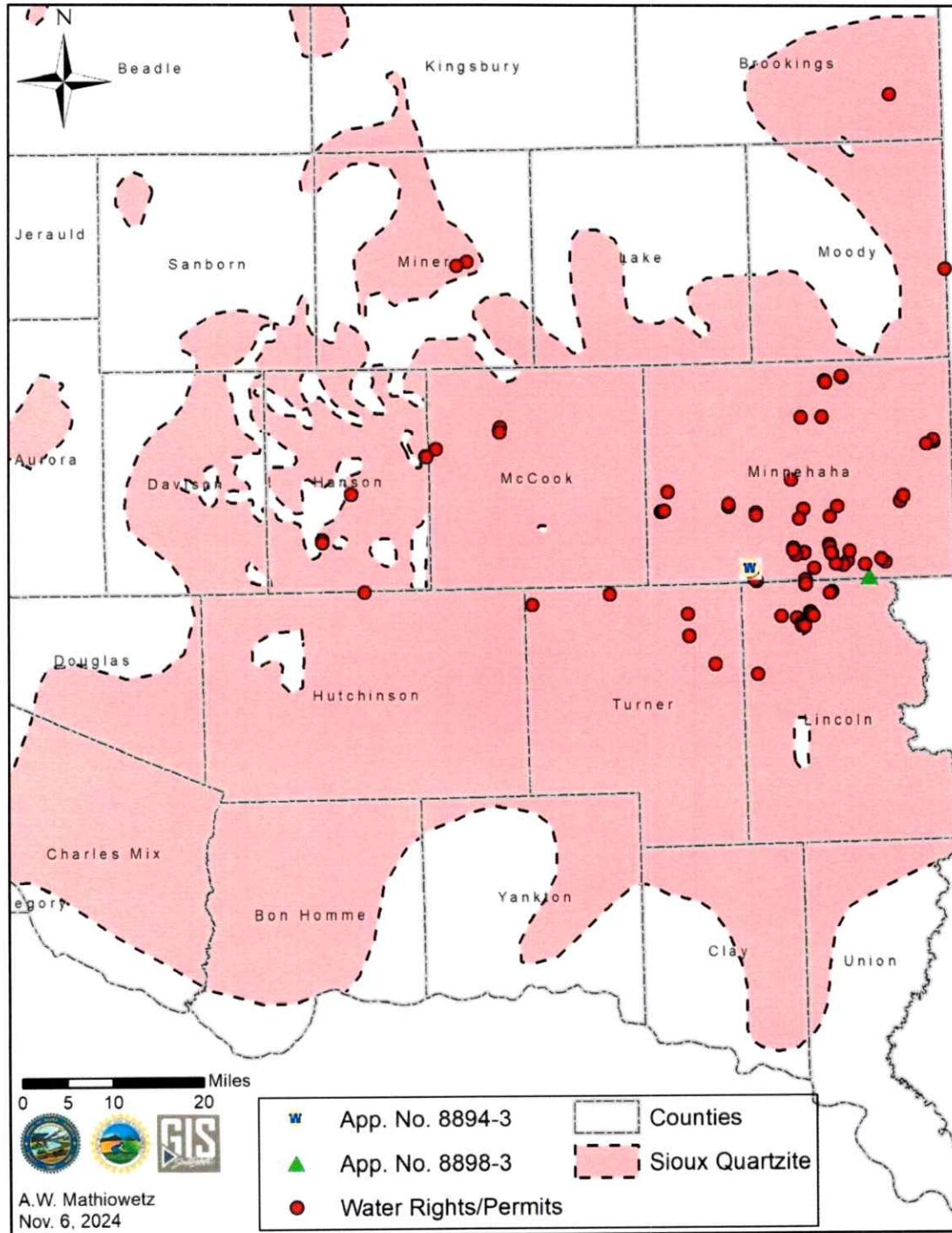


Figure 1- Approximate extent of the Sioux Quartzite in southeastern South Dakota (modified from: McCormick, 2010) with Sioux Quartzite water rights/permits (Water Rights, 2024d)

The well completion report for the well to be used for this application identifies 209 feet of top soil and clay above the Sioux Quartzite. The well was then drilled to a total depth of 600 feet for a penetration of 391 feet of Sioux Quartzite. The static water level at the time of well completion, October 2024, was 102 feet below top of casing. The depth to the top of the Sioux Quartzite agrees with a majority of the lithologic logs (SDGS, 2024) and well completion reports (Water Rights, 2024e) within approximately one mile of the well site. The well for this application is confined. Typically, wells completed into the Sioux Quartzite behave in a confined manner. Even if the static water level was below the top of the Sioux Quartzite formation, technically making the aquifer unconfined, any well completed into the Sioux Quartzite is likely to behave in a manner closer to a confined aquifer well due to water movement in the aquifer being only within secondary porosity that is highly variable.

**APPLICABLE SOUTH DAKOTA CODIFIED LAW (SDCL):**

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

This application proposes to appropriate water from the Sioux Quartzite aquifer. The probability of unappropriated water 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 a Cretaceous aged Formation. The Sioux Quartzite is a Pre-Cambrian aged formation and thus older than the Greenhorn Formation (Fahrenbach et al, 2010). However, the applicant is not a water distribution system. Therefore, the balance between recharge to and withdrawals from the Sioux Quartzite aquifer must be considered for this application.

**Observation Well Data:**

Administrative Rule of South Dakota Section 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 Water Rights Program does not maintain

any observation wells completed into the Sioux Quartzite aquifer (Water Rights, 2024c). However, it is possible to consider water levels measured in wells completed into the Sioux Quartzite to determine general long-term trends of water levels in the area (Water Rights, 2024d).

There is a total of 17 domestic or appropriative wells, including the applicant's well, on file with the Water Rights Program within approximately 3 miles of the applicant's well site (Water Rights, 2024d and 2024e). Only five of the wells are clearly completed into the Sioux Quartzite and one well that is very likely completed into the Sioux Quartzite. Table 1 shows a summary of the six wells completed into or likely completed into the Sioux Quartzite. Elevations in the table are based on the best available information and have a likely error of +/- 20 ft. The data in Table one is the name and associated permit no. on file for the well completion report, year the well was drilled, the direction and distance from the applicant's well and the feet from NGVD29 datum of the approximate surface elevation, top of the Sioux Quartzite, and static water level (potentiometric surface) in the well at the time of completion.

Sioux Quartzite water levels across southeastern South Dakota show a correlation with long-term precipitation patterns (Lindgren and Niehus, 1992). However, there are too few wells in very close proximity to the applicant's well, approximately three miles, as well as a relatively equal spread across time, no wells between 1998 and 2020 for example, to provide a relatively detailed analysis of the generalized water level trend locally and if that trend is likely linked to long-term precipitation patterns or localized pumping. Regardless, water levels in the Sioux Quartzite wells tend to be very similar to directly hydrologically connected aquifers (adjacent or overlying). In this area, it appears the water levels are generally similar to the water levels of the buried-confined Wall Lake aquifer that can be in direct contact with the Sioux Quartzite (Water Rights, 2024c and 2024e). Furthermore, Sioux Quartzite wells across southeastern South Dakota have water levels that follow the general climatic cycle of South Dakota with higher water levels during periods of greater precipitation and lower water levels during periods of lesser precipitation. Considering the apparent local connection to the Wall Lake aquifer, and the more regionalized trend of the water levels in the Sioux Quartzite following precipitation patterns, it is clear the Sioux Quartzite does regularly receive recharge.

Table 1– Data points used to examine historic water levels in the Sioux Quartzite (Water Rights, 2024e)

| Name<br>(Permit No.)        | Year<br>Drilled | Distance (mi.)<br>& Direction<br>from App. | Approx. Ground<br>Surface Elev.<br>(ft NGVD29) | Estimated<br>Potentiometric<br>Surface<br>(ft NGVD29) | Approx. Elev. Of<br>the Top of the<br>Sioux Quartzite<br>(ft NGVD29) |
|-----------------------------|-----------------|--------------------------------------------|------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|
| William Roemling            | 1979            | 2.1 NW                                     | 1,574                                          | 1,541                                                 | 1,514                                                                |
| Lynwood Ellen               | 1981            | 2.5W                                       | 1,575                                          | 1,415                                                 | 1,376                                                                |
| Wild Water West<br>(8659-3) | 1990            | 1.2 SE                                     | 1,495                                          | 1,320                                                 | 1,335                                                                |
| Karen Haibeck               | 1998            | 2.5 W                                      | 1,551                                          | 1,394                                                 | 1,352                                                                |
| Blue Haven Barn<br>(8446-3) | 2020            | 1.5 SE                                     | 1,496                                          | 1,404                                                 | 1,319                                                                |
| Nathan Skelley<br>(8894-3)  | 2024            | n/a                                        | 1,542                                          | 1,440                                                 | 1,333                                                                |

## **Hydrologic Budget:**

### *Discharge*

Discharge from the Sioux Quartzite is through leakage to hydrologically connected aquifers and surface water features where the potentiometric surface of the Sioux Quartzite is higher than in the connected aquifer or surface water feature and through well withdrawals. Currently, there are 69 water rights/permits authorized to withdraw water from the Sioux Quartzite of which 59 are for non-irrigation purposes (Water Rights, 2022d). There are also two other pending applications. Water Permit Application No. 8898-3 proposes to appropriate up to 57 ac-ft/yr. Future Use Permit Application No. 8903-3 proposes to reserve 2,092 ac-ft/yr. This application proposes to irrigate 23 acres. Because this application is for turf irrigation, it is assumed average annual withdrawal, if approved, will be the full appropriation of 2 feet of water per acre for a total of 46 ac-ft/yr.

In general, the amount of water withdrawn for domestic uses is not a significant portion of the hydrologic budget for an aquifer. This is due to the relatively low diversion rate of domestic wells and the development of rural water systems, especially in southeastern South Dakota. This means some of the domestic wells completed into the Sioux Quartzite may no longer be in use. Therefore, the hydrologic budget will only consider appropriative usage from the aquifer.

There are six water rights/permits that include or are for quarry dewatering. These water rights/permits are listed in Table 2. Reported water use, for those permits required to report, is shown in Table 3. The reported data shows these water rights/permits typically use less than full time pumping at their respective maximum permitted diversion rates or their respective permitted volumes. Water Right No. 8345-3 limits the annual use for both Water Right No. 5784-3 and itself to a combined total annual volume of 1,105 ac-ft/yr. The reported average from 2018 through 2023 is 525.1 ac-ft/yr. Since the period of reporting is only 5 years, the liberal estimate of the permitted volume, 1,105 ac-ft/yr, will be used for the hydrologic budget in this report (Water Rights, 2024f).

Water Right No. 4493-3 is not required to report annual use. However, it is for the same quarry as Water Right No. 6070-3. Water Right No. 6070-3 reports their annual use based on water discharge from the quarry (Kilts, 2020). Therefore, the reported use under Water Right No. 6070-3 is likely to be reflective of the use under both Water Right Nos. 4493-3 and 6070-3 (Kilts, 2020).

The average annual reported use by Water Right No. 5400-3 across the period of record, 2003-2023, is approximately 26.4 percent of the volume that would be pumped if the quarry was constantly dewatered at the maximum permitted diversion rate, 8,874 ac-ft/yr (Water Rights, 2022f). It should be noted, in general, reported pumping under Water Right No. 5400-3 has been increasing over the period of record. The average reported pumpage across the last 10 years, 2014-2023, is 2,515 ac-ft, and across the last 5 years, 2019-2023, is 2,565 ac-ft. To be prudent and use a reasonable average through a wet and dry cycle, the average across the last 10 years will be used for the estimated average annual withdrawal. Water Permit No. 8458-3 is assumed to pump their maximum permitted annual volume of 1,452 ac-ft/yr, since it was approved in early 2021 and only has three years of reported pumpage. Therefore, the estimated average annual use by quarry dewatering water rights/permits is 6,541 ac-ft/yr.

Table 2- Water rights/permits from the Sioux Quartzite that include quarry dewatering (modified from: Kilts, 2020; Water Rights, 2024d and 2024f)

| Permit No. | Name            | County | Status | Use | CFS   | Annual Volume Limit (ac-ft/yr) | Est. Avg. Withdrawal (ac-ft/yr) |
|------------|-----------------|--------|--------|-----|-------|--------------------------------|---------------------------------|
| 4493-3     | SPENCER         | HS     | LC     | COM | 1.8   | n/a                            | 1,469                           |
| 6070-3     | QUARRIES INC    |        | LC     | COM | 3.1   | n/a                            |                                 |
| 5400-3     | L G EVERIST INC | MA     | LC     | IND | 12.25 | n/a                            | 2,515                           |
| 5784-3     |                 |        | LC     | COM | 3.33  | limited by 8345-3              | 1,105                           |
| 8345-3     |                 |        | LC     | IND | 3.36  | 1,105                          |                                 |
| 8458-3     | KNIFE RIVER     | MA     | PE     | IND | 2     | 1,452                          | 1,452                           |

HS= Hansen, MA= Minnehaha, LC= Water Right, PE= Water Permit, COM= Commercial, IND= Industrial

Table 3- Reported use for Sioux Quartzite permits for quarry dewatering (modified from: Kilts, 2020; Water Rights, 2024f)

| Year                       | 5400-3       | 5784-3 & 8345-3* | 6070-3       | 8458-3**   |
|----------------------------|--------------|------------------|--------------|------------|
| 2023                       | 2,249        | 575.8            | 1,120        | 82.3       |
| 2022                       | 2,161        | 511.2            | 1,120        | 56.5       |
| 2021                       | 2,214        | 643.0            | 1,120        | 32.79      |
| 2020                       | 2,766        | 484.3            | 1,120        | n/a        |
| 2019                       | 3,436        | 423              | 1,135        | n/a        |
| 2018                       | 2,767        | 513              | 1,120        | n/a        |
| 2017                       | 2,664        | 0                | 1,120        | n/a        |
| 2016                       | 2,557        | 1                | 1,120        | n/a        |
| 2015                       | 2,114        | 0                | 1,248        | n/a        |
| 2014                       | 2,222        | 0                | 1,120        | n/a        |
| 2013                       | 2,027        | 10               | 1,120        | n/a        |
| 2012                       | 2,309        | 10               | 1,111        | n/a        |
| 2011                       | 2,692        | 113              | 1,680        | n/a        |
| 2010                       | 2,752        | 132              | 1,690        | n/a        |
| 2009                       | 2,355        | 63               | 1,680        | n/a        |
| 2008                       | 2,115        | 70               | 1,680        | n/a        |
| 2007                       | 2,100        | 66               | 1,680        | n/a        |
| 2006                       | 2,101        | 0                | 2,190        | n/a        |
| 2005                       | 1,790        | 28               | 2,240        | n/a        |
| 2004                       | 1,801        | 640              | 2,190        | n/a        |
| 2003                       | 1,984        | 3                | 2,240        | n/a        |
| <b>Average (acre-feet)</b> | <b>2,342</b> | <b>204</b>       | <b>1,469</b> | <b>n/a</b> |

\*8345-3 issued in 2018 and reports combined pumpage with 5784-3

\*\* Water Permit No. 8458-3 was approved in January 2021

Other non-irrigation water rights/permits limited by an annual volume are assumed to use the entire volume. Non-irrigation water rights/permits limited only by a diversion rate are assumed to pump at their maximum permitted diversion rate for 60 percent of the time. This is the standard method used by the Water Rights Program to somewhat overestimate average annual withdrawals. All of the municipalities that have Sioux Quartzite water rights/permits are connected to rural water and

maintain their wells for standby/emergency purposes (Mathiowetz, 2021). Therefore, there is no use assumed under the 16 municipal water rights. The water rights/permits limited only by diversion rate, except Water Right No. 6552A-3 as discussed later are estimated to withdraw on average 2,345 ac-ft/yr.

A summary of the reported average withdrawals for the non-quarry dewatering, non-irrigation water rights/permits required to report annual withdrawals is shown in Table 4. The reported average annual withdrawal is 393.4 ac-ft/yr. It should be noted Water Right No. 8629-3 has yet to report withdrawals. However, only Water Right No. 6552A-3 has a sufficiently long period of record, 10+ years, to allow for a reasonable average through a wet/dry cycle to be used for estimation of average annual withdrawals. The column showing the permitted volume minus the reported average withdrawal clearly shows these users are withdrawing less than their permitted volume, particularly Water Right No. 8426-3, for each of the water rights/permits with less than 10 years of reported withdrawals. However, the most reasonable method to estimate average annual withdrawals would be to use the average reported for 6552A-3 and the permitted volume for the rest. Consequently, that is an estimated average annual withdrawal of 781.5 ac-ft/yr.

Table 4- Summary of reported withdrawals for non-quarry dewatering, non-irrigation water rights/permits (Water Rights, 2024f)

| Permit No.                          | Status | Years Reporting                          |           | Avg. Withdrawal (ac-ft/yr) | Permitted Vol. (ac-ft/yr)              | Permitted Minus Avg. Reported (ac-ft/yr) | Est. Avg. Annual Withdrawal (ac-ft/yr) |
|-------------------------------------|--------|------------------------------------------|-----------|----------------------------|----------------------------------------|------------------------------------------|----------------------------------------|
| 6552A-3                             | LC     | 11                                       | 2013-2023 | 7.7                        | n/a                                    | n/a                                      | 7.7                                    |
| 8068-3                              | PE     | 7                                        | 2017-2023 | 35.5                       | 46                                     | 10.5                                     | 46                                     |
| 8186-3                              | PE     | 8                                        | 2016-2023 | 24.2                       | 55                                     | 30.9                                     | 55                                     |
| 8243-3                              | LC     | 7                                        | 2017-2023 | 25.7                       | 46.03                                  | 20.3                                     | 46.03                                  |
| 8289-3                              | LC     | 7                                        | 2017-2023 | 20.1                       | 36.3                                   | 16.2                                     | 36.3                                   |
| 8290-3                              | LC     | 7                                        | 2017-2023 | 21.2                       | 64.5                                   | 43.3                                     | 64.5                                   |
| 8301-3                              | PE     | 7                                        | 2017-2023 | 32.7                       | 61                                     | 28.3                                     | 61                                     |
| 8344-3                              | LC     | 6                                        | 2018-2023 | 1.7                        | 4.6                                    | 2.9                                      | 4.6                                    |
| 8424-3                              | LC     | 4                                        | 2020-2023 | 35.6                       | 62                                     | 26.4                                     | 62                                     |
| 8426-3                              | LC     | 3                                        | 2021-2023 | 175.6                      | 300                                    | 124.4                                    | 300                                    |
| 8437-3                              | LC     | 3                                        | 2021-2023 | 13.6                       | 18.4                                   | 4.8                                      | 18.4                                   |
| 8629-3                              | LC     | 2                                        | 2022-2023 | 0                          | 80                                     | 80                                       | 80                                     |
| LC= Water Right<br>PE= Water Permit |        |                                          |           | <b>393.4</b>               | <b>Reported Avg. Annual Withdrawal</b> |                                          |                                        |
|                                     |        | <b>Total Est. Avg. Annual Withdrawal</b> |           |                            |                                        |                                          | <b>781.5</b>                           |

There are currently 10 water rights/permits authorized to withdraw water from the Sioux Quartzite aquifer for irrigation purposes (Water Rights, 2024d). A summary of the annual irrigation questionnaire data for these water rights/permits is shown in Table 5. Water Right Nos. 6451-3 and 6553-3 do not have a qualification to report annual irrigation use (Water Rights, 2024d). Water Right Nos. 6451-3 and 6553-3 are estimated to use less than their respective permitted volumes of 2 feet of water per acre for a combined estimated average annual use of less than 14 ac-ft/yr. That value is likely very high given that Water Right No. 6451-3 is qualified to only use water when the City of Sioux Falls has implemented water restrictions.

Water Right No. 5365-3 has not been required to submit irrigation applications since 1995. This is due to the user having well issues and eventually being hooked up to city water. Water Permit Nos. 8445-3 and 8446-3 have only 1 year of reported data and are assumed to pump their full permitted volumes, 142 ac-ft/yr and 7 ac-ft/yr, respectively, until sufficient data is available to calculate an average pumping that is likely reflective of full development for each permit. Water Permit No. 8547-3 was approved in December 2021. It is assumed to pump the full permitted volume, 22.78 ac-ft/yr, until sufficient data is available to calculate average pumping that is likely reflective of full development for the permit. The estimated average annual withdrawals were calculated using the above-mentioned values for those specific permits and the average reported withdrawals for the other permits for a total of 370.78 ac-ft/yr.

Table 5- Summary of irrigation water rights/permits and reported irrigation use from the Sioux Quartzite (Water Rights, 2024b)

| PERMIT NO.                                                    | NAME                                  | COUNTY | STATUS | ACRES         | AVG. REPORTED USE (ac-ft/yr) | YEARS OF CONSTRUCTED SYSTEM DATA |
|---------------------------------------------------------------|---------------------------------------|--------|--------|---------------|------------------------------|----------------------------------|
| 5365-3                                                        | WILLOW WOOD APARTMENTS                | MA     | LC     | 1.5           | 1.2                          | 6 (1990-1995)                    |
| 6451-3                                                        | BLUFFS TOWNHOMES ASSOCIATION          | MA     | LC     | 3             | no data                      | not reporting                    |
| 6553-3                                                        | PRAIRIE HILLS COVENANT CHURCH         | MA     | LC     | 4             | no data                      | not reporting                    |
| 6618-3                                                        | WILLOW RUN GOLF LLC                   | MA     | LC     | 71            | 82.9                         | 18                               |
| 6910-3                                                        | WOODLAWN CEMETERY                     | MA     | LC     | 80            | 5.2                          | 14                               |
| 7415-3                                                        | BAKKER CROSSING GOLF COURSE           | LN     | LC     | 95            | 105.7                        | 11                               |
| 7805-3                                                        | CITY OF SIOUX FALLS PARK & RECREATION | MA     | LC     | 8             | 4.0                          | 11                               |
| 8445-3                                                        | G L MANAGEMENT LLC                    | MA     | PE     | 71            | 19.31                        | 3                                |
| 8446-3                                                        | BLUE BARN LLC                         | MA     | PE     | 3.5           | 1.55                         | 3                                |
| 8547-3                                                        | L & E HOLDINGS LLC                    | MA     | PE     | 11.39         | 0                            | 2 (not constructed)              |
| <b>Total</b>                                                  |                                       |        |        | <b>348.39</b> | <b>219.86</b>                |                                  |
| MA= Minnehaha, LN= Lincoln, LC= Water Right, PE= Water Permit |                                       |        |        |               |                              |                                  |

Table 6 shows the estimated average annual use from the Sioux Quartzite. The current estimated use is 9,858 ac-ft/yr. If the three pending applications including this application are approved, the estimated average annual use from the Sioux Quartzite would be 12,053 ac-ft/yr.

Table 6- Estimated average annual withdrawals from the Sioux Quartzite aquifer

| <b>Estimated Use by Type</b>             | <b>Estimated Avg. Annual Withdrawal (ac-ft/yr)</b> |
|------------------------------------------|----------------------------------------------------|
| Quarry Dewatering                        | 6,448                                              |
| Non-Quarry Reported Use                  | 693.83                                             |
| Non-Irrigation Limited by Diversion Rate | 2,345                                              |
| Irrigation                               | 370.78                                             |
| <b>Current Use</b>                       | <b>9,858</b>                                       |
| App No. 8894-3                           | 46                                                 |
| App. No. 8898-3                          | 57                                                 |
| Future Use App. No. 8903-3               | 2,092                                              |
| <b>Total Use</b>                         | <b>12,052.61</b>                                   |

Recharge to the Sioux Quartzite is predominantly through the infiltration of precipitation where the Sioux Quartzite is at land surface or near land surface and overlain by permeable materials, streamflow losses where the stream flows across outcrops with secondary porosity features, and leakage from overlying and adjacent aquifers where a hydrologically connected aquifer has a higher potentiometric head than the Sioux Quartzite (Lindgren and Niehus, 1992). A recharge rate to the Sioux Quartzite has yet to be quantified. Furthermore, and as previously stated, aquifer characteristics including recharge are site specific due to the unpredictable and uneven nature of secondary porosity features. Therefore, there is no reasonable estimate of average annual recharge to the Sioux Quartzite available. However, analysis of reported static water levels in well completion reports, suggest that withdrawals from the aquifer do not exceed the average annual recharge to the aquifer on a regional basis.

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

The nearest Sioux Quartzite appropriative water rights/permits are Water Right No. 5659-3, 1.2 miles southeast, and Water Permit No. 8446-3, 1.5 miles southeast (Water Rights, 2024d). The nearest domestic well on file completed into the Sioux Quartzite is located approximately 2.1 miles northwest (Water Rights, 2024e). The location of well completion reports is based on the location provided by the well driller when the completion report is submitted. Not all wells have a well completion report filed with the Water Rights Program.

Based on the static water levels of nearby wells (see Table 1), a well completed into the Sioux Quartzite is likely to be under confined conditions. The Water Management Board has defined an adequate well in Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) as:

a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to

be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet.

In the past the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. To protect domestic users, 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.

For most aquifers, the placement of the pump intake 20 feet below the top of the aquifer is sufficient for domestic wells. However, for wells completed into the Sioux Quartzite, 20 feet of saturated thickness may not be sufficient for a dependable water supply. This is due to the low primary porosity of the Sioux Quartzite and the unpredictable occurrence of secondary porosity. Thus, wells that meet the definition of an adequate well and therefore should be protected by the definition of an adversely impacted domestic well may not yield sufficient water for a well owner’s needs while still being adequate under the rule. Pump placement concerning water yield is found in ARSD 74:02:04:60. The rule requires the depth of the pump placement be determined by dividing the specific capacity of the well into the required yield and adding at minimum 10 additional feet. Regardless of the pump placement calculated using ARSD 74:02:04:60, the well is not an adequate well unless it meets or exceeds the requirements found in ARSD 74:02:04:20(6). However, having 20 feet of saturated aquifer above the inlet to the pump, and adequate well per ARSD 74:02:04:20(6) may not be reliable for water delivery.

South Dakota Codified Law (SDCL) 46-6-6.1 does not necessarily protect artesian head pressure as a means of delivery, and the Water Management Board has recognized in the past to place water to maximum beneficial use, a certain amount of drawdown may occur. The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use of water issue for Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills (Water Rights, 1995). The Water Management Board adopted Findings of Facts and Conclusions of Law that noted 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 an adverse impact it would also be in conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to lower their pumps to accommodate for deeper water levels.

In Minnehaha County, a complaint was filed in 2018 regarding well interference that occurred starting in the late 1980’s and continued until 1998 when the Soo Dell Park-A-Home, provided water under Water Right No. 5944-3, was hooked into the City of Sioux Falls water system. The complaint stated that the construction and use of the City of Sioux Falls Big Sioux: Sioux Falls aquifer wells were affecting the Sioux Quartzite wells authorized under Water Right No. 5944-3.

No complaint was filed during the years of the alleged interference. The 2018 complaint was primarily regarding whether Water Right No. 5944-3 was unlawfully impaired during the 1990's and was eligible to receive more preferential water rates from the city. The complaint was not substantiated (Water Rights, 2024a). Also, a complaint was filed in 2021 regarding possible well interference caused by pumping under Water Permit No. 8426-3. However, the complainant did not provide enough information regarding their own well to determine if there was any well interference or unlawful impairment of their well (Water Rights, 2024a). When considering the statute (SDCL 46-6-6.1), rule (ARSD 74:02:04:20(7)), and the distance between the applicant's well site and other Sioux Quartzite wells on file with the Water Rights Program, there is a reasonable probability this proposed diversion will not unlawfully impair existing users with adequate wells.

#### CONCLUSIONS:

1. Application No. 8894-3 proposes to appropriate water at a maximum instantaneous diversion rate of 0.32 cubic feet of water per second (cfs) from one well (600 ft deep) completed into the Sioux Quartzite. The well is located in the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 25-T101N-R51W. Water from the well will be diverted into a dugout (approximately 6 acre-feet [ac-ft] of storage capacity) located in the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 25 and then diverted from the dugout at a rate of 0.32 cfs for the irrigation of 23 acres located in the N  $\frac{1}{2}$  SW  $\frac{1}{4}$  Section 25; all in T101N-R51W. The dugout will also capture incidental surface runoff which will also be used for irrigation of the described acreage. This site is located approximately four miles west of southwestern Sioux Falls, SD.
2. Based on review of available hydrologic budget information and historical well water level data, there is a reasonable probability unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability that pumping this proposed diversion will not unlawfully impair existing domestic water users and water rights with adequate wells.



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SD DANR-Water Rights Program

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

November 15, 2024

Nathan Skelley and Nicole Bell  
26650 465<sup>th</sup> Avenue  
Hartford SD 57033

Dear Mr. Skelley & Ms. Bell:

Water Permit Application No. 8894-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Argus Leader printed in Sioux Falls SD (requires prepayment). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

*Rachel Rodriguez*

Rachel Rodriguez  
Water Rights Program  
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

NOTICE OF APPLICATION NO. 8894-3 to Appropriate Water

Notice is given that Nathan Skelley and Nicole Bell, 26650 465<sup>th</sup> Avenue, Hartford SD 57033, have filed an application for a water permit to appropriate 0.32 cubic feet of water per second (cfs) from one well completed into the Sioux Quartzite Aquifer (600 feet deep) located in the NE 1/4 SW 1/4 Section 25-T101N-R51W. Water from the well will be diverted into a dugout (approximately 6 acre-feet storage capacity) located in the NE 1/4 SW 1/4 Section 25 and then diverted from the dugout at a rate of 0.32 cfs for irrigation of 23 acres located in the N 1/2 SW 1/4 Section 25; all in T101N-R51W. The dugout will also capture incidental surface runoff which will also be used for irrigation of the described acreage. This site is located approximately four miles west of southwestern Sioux Falls SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8894-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by December 3, 2024.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by December 3, 2024.

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

Published once at the total approximate cost of \_

## Rodriguez, Rachel

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**From:** Rodriguez, Rachel  
**Sent:** Friday, November 15, 2024 8:15 AM  
**To:** [legals@argusleader.com](mailto:legals@argusleader.com)  
**Subject:** 8894-3 Skelley & Bell - Public Notice  
**Attachments:** 8894-3 public.short\_final.docx; FORM8.FRM.doc

Attached is a notice to be published on November 21, 2024.

Nathan Skelley and Nicole Bell, 26650 465th Avenue, Hartford SD 57033, 607-351-4354, [nwskelley@gmail.com](mailto:nwskelley@gmail.com) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol Ave, Pierre SD 57501.

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

Thank you,

Rachel Rodriguez  
DANR | Program Assistant  
[Rachel.Rodriguez@state.sd.us](mailto:Rachel.Rodriguez@state.sd.us)



**AFFIDAVIT OF PUBLICATION**

Rachel Rodriguez  
Nathan Skelley and Nicole Bell  
Nathan Skelley and Nicole Bell  
523 E Capitol AVE  
Pierre SD 57501-3182

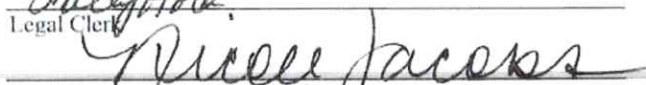
STATE OF WISCONSIN, COUNTY OF BROWN

The Argus Leader, a daily newspaper published in the city of Sioux Falls, Minnehaha County, State of South Dakota, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

11/21/2024

and that the fees charged are legal.  
Sworn to and subscribed before on 11/21/2024

  
Legal Clerk

  
Notary, State of WI, County of Brown

8-21-24

My commission expires

|                   |          |              |
|-------------------|----------|--------------|
| Publication Cost: | \$58.43  |              |
| Tax Amount:       | \$0.00   |              |
| Payment Cost:     | \$58.43  |              |
| Order No:         | 10777963 | # of Copies: |
| Customer No:      | 1498037  | 1            |
| PO #:             |          |              |

**THIS IS NOT AN INVOICE!**

*Please do not use this form for payment remittance.*

NICOLE JACOBS  
Notary Public  
State of Wisconsin

NOTICE OF  
APPLICATION NO. 8894-3

to

Appropriate Water

Notice is given that Nathan Skelley and Nicole Bell, 26650 465th Avenue, Hartford SD 57033, have filed an application for a water permit to appropriate 0.32 cubic feet of water per second (cfs) from one well completed into the Sioux Quartzite Aquifer (600 feet deep) located in the NE 1/4 SW 1/4 Section 25-T101N-R51W. Water from the well will be diverted into a dugout (approximately 6 acre-feet storage capacity) located in the NE 1/4 SW 1/4 Section 25 and then diverted from the dugout at a rate of 0.32 cfs for irrigation of 23 acres located in the N 1/2 SW 1/4 Section 25; all in T101N-R51W. The dugout will also capture incidental surface runoff which will also be used for irrigation of the described acreage. This site is located approximately four miles west of southwestern Sioux Falls SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8894-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at

<https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call

(605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by December 3, 2024.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at

<https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by December 3, 2024.

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

Published once at the total approximate cost of 58.43.  
November 21, 2024 10777963

## Rodriguez, Rachel

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**From:** Rodriguez, Rachel  
**Sent:** Friday, November 15, 2024 8:18 AM  
**To:** Nathan Skelley  
**Subject:** 8894-3 Skelley & Bell - Public Notice  
**Attachments:** 8894-3 Rec.pdf; 8894-3 Ltr.pdf; 8894-3 PubNotice.pdf

Good morning,

Attached is a copy of the report, chief engineer's recommendation, and information regarding the public notice for your water permit application. You should receive an email from the newspaper regarding payment using their online portal. This information is also being mailed to you today.

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

Thank you,

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





**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

DEC 12 2024

Nathan Skelley and Nicole Bell  
26650 465th Avenue  
Hartford SD 57033

Dear Mr. Skelley and Ms. Bell:

Enclosed is Water Permit No. 8894-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Eric Gronlund, Chief Engineer  
Water Rights Program  
(605) 773-3352

enclosures



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA       )  
                                              ) SS  
COUNTY OF HUGHES            )

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

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

**Application No.:** 8894-3

**Name of Applicant:** Nathan Skelley and Nicole Bell

**Date of Posting:** 11/18/2024

**Date of Removal:** 12/12/2024

  
\_\_\_\_\_  
Ron Duvall, Engineer III

12/12/2024  
\_\_\_\_\_  
Date

Subscribed and sworn to before me, a notary public, this 12<sup>th</sup> day of Dec, 20 24.

  
\_\_\_\_\_  
Notary Public - South Dakota  
My commission expires May 16, 2029



(SEAL)



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

July 1, 2026

8894-3

Nathan Skelley  
26650 465<sup>th</sup> Avenue  
Hartford, SD 57033

Dear Mr. Skelley

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

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

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

Sincerely,

*Shannon Konst*

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



**DEPARTMENT of AGRICULTURE  
and NATURAL RESOURCES**

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

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

TO: Water Rights Program, DANR  
523 E. Capitol Ave.  
Pierre, SD 57501-3182  
or via email to DANRmail@state.sd.us

Date June 25, 2026

FROM: Nathan Skelley 607-351-4354  
(name) (phone)  
26650 465th Avenue NWSkelley@gmail.com  
(address) (email)  
Hartford, SD 57033  
(city, state, zip)

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. 8894-3 states that the water use system is to be constructed by

December 3, 2029 , and water is to be put to beneficial use by December 3, 2033 .  
(date) (date)

The water use system was completed on May 30, 2025  
(date)

Applying the water to beneficial use was completed on May 19, 2026  
(date)

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

**RECEIVED**

**JUN 25 2026**

**OFFICE OF  
WATER**