

WATER PERMIT NO. 8960-3

Name of Applicant: **Thunder Ridge RE, LLC**

Address: **PO Box 188, Pipestone MN 56164**

Phone: **507-215-0482**

Amount of Water Claimed: **0.045 cfs**

Total Acres: **N/A**

Source of Water Supply: **Groundwater**

Water to be used for: **Commercial**

County: **Turner**

Type of Waste Disposal System:

Location: **Approx. 1 mile south of Dolton**

PRIORITY

Date Received: **06-10-25**

Application/License Fee: **\$100.00**

Corrected Application Received: **06-11-25**

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

Remarks: **Inspection by De Boer found system capable of diverting water at a higher rate than the 50 gpm authorized by WP No. 8068-3**

Diversion Point: **NE 1/4 NE 1/4 Sec 19-T100N-R55W**

Land to be Irrigated: **N/A**

Depth of Well: **272/306**

Well Driller: **Marion Well Drilling**

Remarks:

Type of Map: **aerial**

			19		

Reviewed and the Number Assigned on: **06-13-25**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8960-3

Date of first receipt of application June 10, 2025.

The Acting Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8960-3 to Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, 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. 8960-3 authorizes an additional 0.045 cubic feet of water per second (cfs) to what is currently authorized by Water Permit No. 8068-3, with no increase to the authorized annual volume. Water Permit No. 8068-3 appropriates up to 46 acre-feet of water annually at a maximum pump rate of 0.11 cfs from two wells (272 and 306 feet deep) completed into the Sioux Quartzite Aquifer located in the NE 1/4 NE 1/4 Section 19-T100N-R55W for commercial use in a swine confinement facility. An investigation of the Permit No. 8068-3 found the system capable of diverting 0.155 cfs from the two existing wells. This permit, and Water Permit No. 8068-3 authorize a combined total of 46 acre-feet of water annually at a maximum pump rate of 0.155 cfs for commercial use in the swine confinement facility. This site is located approximately one mile south of Dolton SD.
2. The water appropriated shall be used for the purpose of commercial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 8960-3 is September 2, 2025.
5. The date from which applicant may claim right is June 10, 2025.
6. 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 wells approved under this Permit and Water Permit No. 8068-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner must control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Water Permit No. 8960-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

(continued)

3. Water Permit No. 8960-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Sioux Quartzite Aquifer.
5. This Permit and Water Permit No. 8068-3, combined, appropriate up to 46 acre-feet of water annually.

WATER MANAGEMENT BOARD

By: _____

Mark Mayer, PE
Director of Office of Water
Department of Agriculture and Natural Resources

10/27/25
date



RECEIVED

JUN 10 2025

FORM 2: Application for uses other than irrigation
(type or print)

PAID

JUN 10 2025

Ck# 0000002750

Rec't#

Mail to:	No. <u>8960-3</u> Hydrologic Unit <u>10170102</u>	OFFICE OF WATER
SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182	Basin <u>Vermillion R</u>	
ph. (605) 773-3352	Newspaper <u>Turner Co New Era</u>	
	<u>Argus leader</u> (office use only)	

Application for Permit to Appropriate Water in South Dakota

Check use(s) of water:

☐
☐
☐

Municipal
Rural Water System
Domestic (over 18 gpm)

☐
☒
☐

Water Distribution System
Commercial
Industrial

☐
☐
☐

Recreational
Fish & Wildlife
Other

☐
☐

Institutional
Geothermal

Type of Application:
(check one)
☒
☐
☐

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

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

- Name to Appear on Water Permit Thunder Ridge RE, LLC
Mailing Address PO Box 188 Pipestone MN 56164
(Address) (City) (State) (Zip Code)
Phone 507-215-0482 Mobile _____ Email marty.rost@pipestone.com
- Amount of water claimed 0.045 *CFS or 20 **GPM and N/A ***AF or N/A Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply two wells (SOUX) auth. by 8068-3
- Location of point of diversion NE 1/4 NE 1/4 Sec 19-T100N-R55W County Turner
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No
If "Yes," where will water be used? N/A
(example - NW 1/4 section 12-T104N-R53W)
- County or counties where water will be used Turner
- Annual period during which water is to be used Jan 1 - Dec 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
inspection found capable of diverting water at a higher rate than the 50 gpm auth. by WP No. 8068-3. Application to increase maximum rate of diversion to 70 gpm total (35 gpm from each well).

I, _____

Name of Person

Manager

Title (if applicable)

, the applicant, certify under

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)

NOTE TO STAFF: Inspection/map on file - ready to license pending approval

RECEIVED

JUN 10 2025

OFFICE OF
WATER

Form 2A
(Complete applicable portions only)

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 _____ Have test holes been drilled? ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many 2 Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells: (see 8068-3)

c) Well Depth (required) _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

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

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

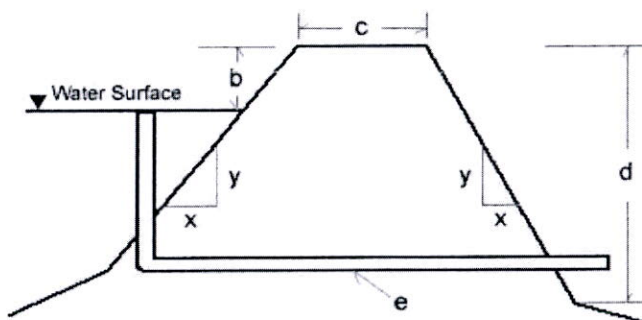
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



No. 8068-3



0 385 770 1,540 2,310 3,080 Feet

Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

SOUTH DAKOTA WATER WELL COMPLETION REPORT

8068-3

11-02

Location NE 1/4 NE 1/4 Sec 19 Twp 100 Rg 55

County

TURNER

North

Please mark well location with an "X"

Well completion Date

9-16-15

1 Mile

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

? 200 ft. from MANURE PIT (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ OtherIf other describe 500' PLASTIC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
	<u>5</u>	<u>0</u>	<u>286</u>	<u>10</u>

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT
<u>A.E.</u>	<u>30</u>		<u>5</u>	<u>345</u>

Describe grouting procedure PRESSURE GROUTING

SCREEN:

☒ Perforated pipe ☐ ManufacturedDiameter 5 inches Length 20 FeetMaterial PLASTICSlot Size 16 Set From 286 Feet to 306 Feet

Other information

BOTTOM OPEN

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? CHLORINELab sample sent to for water quality analysis ☐ No, Why Not?

Well Owner:

Business Name:

Address:

City, State, Zip:

THUNDER RIDGE27025 441 AveDOLTON S.D 57819

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>TOP SOIL</u>	<u>0</u>	<u>3</u>
<u>Yellow CLAY</u>	<u>3</u>	<u>17</u>
<u>Blue CLAY</u>	<u>17</u>	<u>62</u>
<u>Rock Layer</u>	<u>62</u>	<u>65</u>
<u>Blue CLAY</u>	<u>65</u>	<u>102</u>
<u>SAND FINE</u>	<u>102</u>	<u>125</u>
<u>Blue CLAY</u>	<u>125</u>	<u>161</u>
<u>MUDDY SAND</u>	<u>161</u>	<u>187</u>
<u>Blue CLAY</u>	<u>187</u>	<u>265</u>

STATIC WATER LEVEL

105 FEET - 265

If flowing: closed in pressure

GPM flow through

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

183 Ft. After 24 Hrs. pumped 30 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

MAILING ADDRESSP.O. Box 370PIPE STONE, MN 56164

This well was drilled under license #

And this report is true and accurate.

Drilling firm:

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

RECEIVED

OCT 08 2015

Date:

523 E Capitol Ave.

Pierre SD 57501

WATER RIGHTS PROGRAM

Please return WHITE COPY to: DENR Water Rights

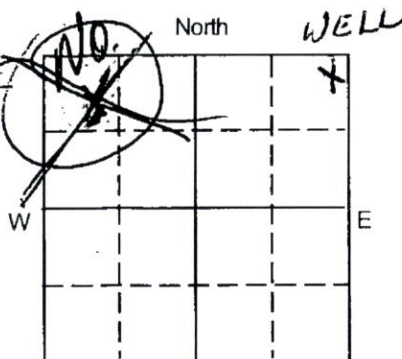
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 NE 1/4 Sec 19 Twp 100 Rg 55

County TURNER

Please mark well location with an "X"



Well completion Date

10-30-14

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

? 200 ft. from Lagoon Pst (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

ST ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>200 #</u>	<u>IN</u>	<u>0</u> FT	<u>272</u> FT	<u>10</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type A.F. No. of Sacks 22 Grout Weight Lb/gal From 5 Ft To 225 Ft

Describe grouting procedure Pump IN WITH GROUT PUMP TREMIE LINE

SCREEN:

☒ Perforated pipe ☐ Manufactured
Diameter 5 Inches Length 20 Feet
Material PLASTIC
Slot Size 16 Set From 252 Feet to 272 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? CHLORINE

Lab sample sent to for water quality analysis ☐ No, Why Not?

CUSTOMER SENT SAMPLE IN

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

Well Owner:

Business Name: THUNDER RIDGE

Address: 27025 441 AVE

City, State, Zip: DOLTON SD 57319

MARLING PO BOX 370

WELL LOG: PIPESTONE MN 56164 DEPTH

FORMATION	FROM	TO
<u>Yellow CLAY</u>	<u>0</u>	<u>26</u>
<u>Blue CLAY</u>	<u>26</u>	<u>147</u>
<u>Fine SAND</u>	<u>147</u>	<u>156</u>
<u>Blue CLAY</u>	<u>166</u>	<u>225</u>
<u>SANDY CLAY</u>	<u>225</u>	<u>250</u>
<u>HARD SAND</u>	<u>250</u>	<u>272</u>
<u>Rock Layer</u>	<u>272</u>	

STATIC WATER LEVEL

90' FEET

If flowing: closed in pressure

PSI

GPM flow through inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: PUMPED 24 HR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

183 Ft. After 24 Hrs. pumped 30 GPM

183 Ft. After 24 Hrs. pumped 30 GPM

If pump installed, pump rate: GPM

REMARKS

MARLING ADDRESS
NO PO BOX 370
PIPESTONE, MN. 56164

This well was drilled under license # 515

And this report is true and accurate.

Drilling firm: MARION WELL DRILLING

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date: 11-10-14

523 E Capitol Ave. Pierre SD 57501

RECEIVED

DEC 15 2014

WATER RIGHTS PROGRAM

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date June 10th, 2025

RECEIVED OF Thunder Ridge RE, LLC PO Box 188 Pipestone MN 56164

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

Fee for Application for Permit No. <u>8960-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>100.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	\$ _____
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>100.00</u>

By Mark Mayek
Chief Engineer



532518568

ANNUAL REPORT

Secretary of State
500 E. Capitol Ave
Pierre, SD 57501-5070
(605) 773-4845

2024
FILING YEAR

Domestic Limited Liability Company
SDCL 47-34A-211; 59-11-24, 24.1

Please Type or Print Clearly in Ink
Please submit one Original
Make payable to the SECRETARY OF STATE

Filing Fee: \$50

Total Fee: \$50

1. Business ID and Name:

DL040465
BUSINESS ID

Thunder Ridge RE, LLC
BUSINESS NAME

2. The jurisdiction under whose law it is formed **SOUTH DAKOTA**

3. The address of the principal executive office (business address):

Actual Street Address

**304 S. SPLITROCK BOULEVARD, STE 205
BRANDON, SD 57005**

Mailing Address

**304 S. SPLITROCK BOULEVARD, STE 205
BRANDON, SD 57005**

4. The South Dakota Registered Agent's Name:

South Dakota law permits the registered agent to be either (a) a noncommercial registered agent, or (b) a commercial registered agent.

(a) The South Dakota Noncommercial Registered Agent's name

Name **Jacob W Tiede**

Actual Street Address in this State

**304 SPLITROCK BLVD
BRANDON, SD 57005**

Mailing Address in this State

**304 SPLITROCK BLVD
BRANDON, SD 57005**

5. If the LLC is manager-managed, list the names and addresses of its Managers. SDCL 59-11-24. If the LLC is member-managed, this section may be left blank.

Name

Address

Justin Roelofs

1300 S Hwy 75, Pipestone, MN 56164

6. 43-2A-1. "Agricultural land" defined.

For purposes of this chapter, the term "agricultural land" means land capable of use in the production of agricultural crops, timber, livestock or livestock products, poultry or poultry products, milk or dairy products, or fruit and other horticultural products but does not include any royalty interest, any oil, gas, or other mineral interest, or any lease, right-of-way, option, or easement relating thereto, or any land zoned by a local governmental unit for a use other than and nonconforming with agricultural use

Does the entity own any Agricultural land? (Required)

Yes

If the answer is yes, please answer below

"Foreign Beneficial Owner" "Foreign entity" is registered outside of the United States or its territories or has more than ten percent ownership by a foreign government, foreign person, or any combination thereof. "Foreign Government" A Government or state- controlled enterprise of a government, other than the United States, its states, its territories, or its federally recognized Indian Tribes. "Foreign Person" A natural Person who is not a United States Citizen or a resident.

Does the entity have any foreign beneficial owners/interests?



No

If the answer is yes to the questions above, please provide the information below

Provide a legal description of the agricultural land or a description of the land's common location in the space provided below.

N/A

The total acreage of agricultural land held by the entity.

N/A

The Current use of the agricultural land. As defined in SDCL 43-2A-1.

Check all that apply:

N/A

7. Beneficial Owners (optional): A beneficial owner is a person who has or in some manner controls an equity security. Please consult an attorney for legal advice if you have any questions concerning this entry. Any question under this heading is considered a request for legal advice and the secretary of state's office is, by statute, not permitted, to provide legal advice.

No person may execute this report knowing it is false in any material respect. Any violation may be subject to a criminal penalty (SDCL 22-39-36).

08/20/2024

Dated

Email (Optional)

Jacob Tiede

Signature of an Authorized Person

Jacob Tiede

Printed Name

B0324-8719 08/20/2024 10:55AM Rec'd by SD SOS

Rodriguez, Rachel

From: Marty Rost <Marty.Rost@pipestone.com>
Sent: Wednesday, June 11, 2025 8:26 AM
To: Rodriguez, Rachel
Subject: RE: [EXT] Water Permit Application

Manger is Justin Roelofs.



Marty Rost
Environmental Management
Phone: 507-215-0482
Address: 1801 Forman Drive
Pipestone, MN 56164
marty.rost@pipestone.com

From: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Sent: Tuesday, June 10, 2025 3:43 PM
To: Marty Rost <Marty.Rost@pipestone.com>
Subject: Water Permit Application

This email came from outside the organization

Do not open attachments or click links unless you recognize the sender's email address and know the contents are safe.

- Pipestone IT Helpdesk

Good afternoon,

I am in receipt of the application for a water permit. I just want to clarify that 8068-3 is authorized for a total annual diversion of 46.0-acre feet of water, see attachment. An initial email sent to you indicated 80.

I cannot read the signature on the first page; would you please provide the name of the manager?

Thank you,

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



Dewell, Amanda

From: Dewell, Amanda
Sent: Monday, June 2, 2025 10:41 AM
To: Marty Rost
Subject: Thunder Ridge Water Permit App
Attachments: Nonirrigation Application_ThunderRidge RE LLC.pdf

Marty,

Thunder Ridge RE LLC's permit 8068-3 authorizes the appropriation of up to 80.65 acre-feet of water at a maximum pump rate of 0.11 cfs (50 gpm). Since the wells each produce approx. 35 gpm and are run simultaneously (70 gpm total), additionally permitting is required to bring the system into compliance prior to licensing.

For your convenience I have attached a partially completed application with the highlighted portions requiring your attention. The fee for this application would be \$100, with the licensing and inspection fee is waived since the inspection has already been completed.

The \$100 fee can be paid by calling our Fiscal Office and submitting payment over the phone (605-773-5559) or by mailing a check (payable to SD Water Rights) to:

DANR – Water Rights Program
523 E Capitol Ave
Pierre SD 57501

Please let me know if you have any questions or concerns. Thank you,

Amanda Dewell

DANR - Water Rights Program
Permitting Administrator
Main Phone: 605 773-3352
Website: danr.sd.gov



*This should be 46
I did not see the final
Qualification. Volume
was not identified
in the body of
the permit.* **AD**



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF ACTING CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8960-3, Thunder Ridge RE, LLC.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Acting Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8960-3, Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164.

The Acting Chief Engineer is recommending APPROVAL of Application No. 8960-3 because 1) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 2) the proposed use is a beneficial use and 3) 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 wells approved under this Permit and Water Permit No. 8068-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner must control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Water Permit No. 8960-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.
3. Water Permit No. 8960-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Sioux Quartzite Aquifer.
5. This Permit and Water Permit No. 8068-3, combined, appropriate up to 46 acre-feet of water annually.

See report on application for additional information.

Mark Mayer, PE
Director of Office of Water
August 7, 2025

Report to the Chief Engineer
On Water Permit Application No. 8960-3
Thunder Ridge RE, LLC

August 7, 2025

Water Permit Application No. 8960-3 proposes to appropriate an additional 0.045 cubic feet of water per second (cfs) to what is currently authorized by Water Permit No. 8068-3 with no increase to the authorized annual volume. Water Permit No. 8068-3 appropriates up to 46 acre-feet of water annually at a maximum instantaneous diversion rate of 0.11 cfs from two wells (272 and 306 feet deep) completed into the Sioux Quartzite aquifer located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 19-T100N-R55W for commercial use in a swine confinement facility. A licensing investigation found the system capable of diverting 0.155 cfs from the two existing wells. If approved, Water Permit Application No. 8960-3 and Water Permit No. 8068-3 will collectively authorize a total of 46 acre-feet of water annually at a maximum instantaneous diversion rate of 0.155 cfs for commercial use in a swine confinement facility. The site of interest is located in Turner County approximately one mile south of Dolton, SD.

AQUIFER: Sioux Quartzite (SOUX)

HYDROGEOLOGY:

The Precambrian-aged Sioux Quartzite is a sedimentary formation composed of pink and reddish to tan, siliceous, fine- to coarse-grained, iron-stained orthoquartzite with minor metamorphosed conglomerate and mudstone layers (Martin et al., 2004). The fine grains of quartz sand are cemented to a non-porous quartzite by silica (Baldwin, 1949). In some exposures and quarries, it has been noted that the silica cement is not present on the Sioux Quartzite. In such cases one can rub off the sand grains but rarely one can find patches where all the cement is gone, and the sand is loose. The absence of cement is likely due to weathering processes, which have locally removed the silica cement; in some cases, it may be due to non-deposition of the cement (Baldwin, 1949).

The Sioux Quartzite underlies portions of southeastern South Dakota, southwestern Minnesota, and northwestern Iowa (Baldwin, 1949). Figure 1 shows the approximate extent of the Sioux Quartzite in southeastern South Dakota (modified from McCormick, 2010). The depth to the Sioux Quartzite can vary significantly over short distances as shown by mapping of the exposed Precambrian surface completed 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 limited to 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 and faults), 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 low primary porosity indicates 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 completed the Sioux Quartzite aquifer are typically completed into a thickness of 200 feet or less, while instances of 400 feet exist (Water Rights, 2025d). The Sioux Quartzite is a minor aquifer that is utilized in northern Turner County, in addition to other southeastern counties in South Dakota as seen in Figure 1 (Lindgren and Hansen, 1990). Reiterations of the hydrogeology from the water well completion reports are displayed in Table 1 (Water Rights, 2025c and 2025d). The water-bearing sand layer on well #1 (Table 1) indicates there is likely low cementation at that existing well site (Water Rights, 2025d). Based on the well completion reports on file, the Sioux Quartzite aquifer is confined at each of the existing wells proposed to be used by this application (Water Rights, 2025c and 2025d). The depth to the top of the Sioux Quartzite shown on these logs agrees with many of the lithologic logs (SDGS, 2025) and well completion reports (Water Rights, 2025d) within approximately five miles of the existing well sites. Typically, wells completed into the Sioux Quartzite aquifer 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. Regardless, any well completed into the Sioux Quartzite aquifer likely behaves in a manner closer to a confined aquifer well due to water movement in the aquifer being only through secondary porosity which is highly variable.

Table 1. Water well completion reports on file for the existing wells proposed to be used by this application and authorized by Water Permit No. 8068-3 (Water Rights, 2025c and 2025d)

Well 1: Formation Log	From (feet)	To (feet)	Well 2: Formation Log	From (feet)	To (feet)
Top Soil	0	3	Yellow Clay	0	26
Yellow Clay	3	17	Blue Clay	26	147
Blue Clay	17	62	Fine Sand	147	166
Rock Layer	62	65	Blue Clay	166	225
Blue Clay	65	102	Sandy Clay	225	250
Sand fine	102	125	Hard Sand	250	272
Blue Clay	125	161	Rock Layer	272	
Muddy Sand	161	187			
Blue Clay	187	265			
Sand	265	306			
Date of Well Completion	09/16/2015		Date of Well Completion	10/30/2014	
Screened Interval (feet)	286	306	Screened Interval (feet)	252	272
Estimated Static Water Level (at well completion)	105		Estimated Static Water Level (at well completion)	90	

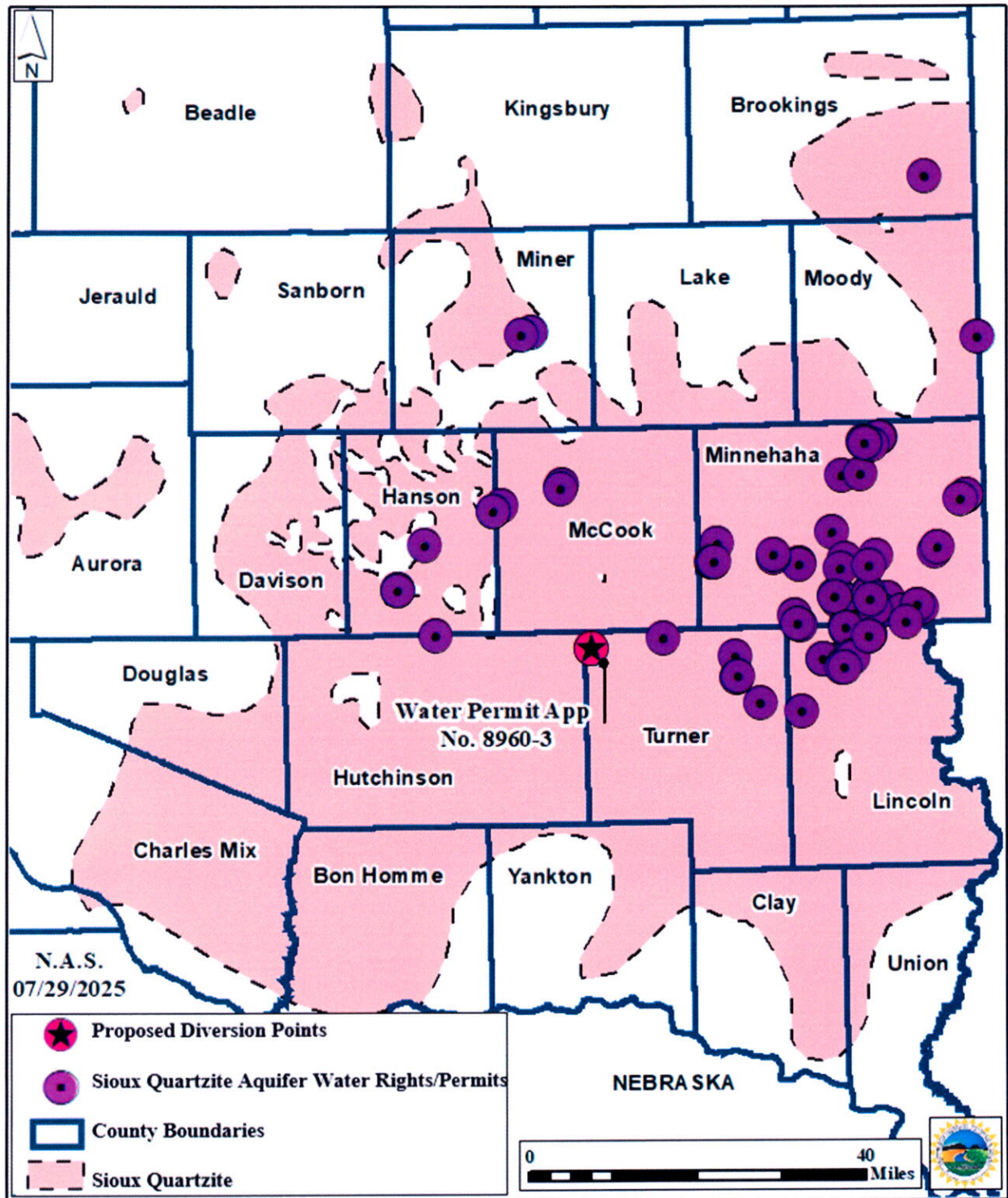


Figure 1. Approximate extent of the Sioux Quartzite in southeastern South Dakota (modified from: McCormick, 2010) with Sioux Quartzite aquifer water rights/permits (Water Rights, 2025c)

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

Pursuant to SDCL 46-2A-9, “A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the diversion point can be developed without unlawful impairment of existing 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.

WATER AVAILABILITY:

Water Permit Application No. 8960-3 proposes to appropriate water from the Sioux Quartzite aquifer. The probability of unappropriated water being available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Sioux Quartzite aquifer is older than and stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010); however, the applicant’s proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Sioux Quartzite aquifer must be considered. This application is not requesting an increase in the volume of water annually appropriated beyond what is already authorized by Water Permit No. 8068-3 (46 acre-feet/year); only an increase to the maximum instantaneous diversion rate. Even though the annual appropriation volume is not increasing, a discussion of water availability is included primarily for the information of the Chief Engineer and the Water Management Board.

OBSERVATION WELL DATA:

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

Observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The DANR-Water Rights Program does not maintain or monitor any observation wells completed into the Sioux Quartzite aquifer at this time (Water Rights, 2025b). However, it is possible to consider water levels measured in wells completed into the Sioux Quartzite aquifer to determine general long-term trends of water levels in the area (Water Rights, 2025d).

There are many (over thirty) domestic and appropriative wells, on file with the Water Rights Program within approximately five miles of the applicant's existing well sites (Water Rights, 2025c and 2025d). However, only seven of the wells were identified as being completed into the Sioux Quartzite aquifer, two of which are maintained by the applicant (Table 2) (Water Rights, 2025c and 2025d). Elevations listed on Table 2 are based on the best currently available information and likely have an error of +/- 20 ft (NGVD29).

Table 2. Well completion reports used to examine historic water levels in the Sioux Quartzite aquifer (Water Rights, 2025d)

Name (Permit No.)	Year Drilled	Distance (mi.) & Direction from App.	Approx. Ground Surface Elev (ft NGVD 29)	Estimated Potentiometric Surface (ft NGVD 29)	Approx. Elev. of the Top of the Sioux Quartzite (ft NGVD 29)
Brian Schmidt	1981	4.7 NE	1,456	1,357	1,146
TM Rural Water District	2013	3.1 NE	1,382	1,321	912
Thunder Ridge (8068-3)	2014	0	1,431	1,326	1,166
Nick Ortman	2014	2.7 NE	1,425	1,315	1,170
Thunder Ridge (8068-3)	2015	0	1,431	1,341	1,181
Nick Ortman	2018	4.4 NE	1,441	1,326	1,147
Brad Schroeder	2018	3.5 NE	1,411	1,361	996

Water levels in the Sioux Quartzite aquifer across southeastern South Dakota show a broad correlation with long-term precipitation patterns (Lindgren and Niehus, 1992). However, there are too few wells within approximately five miles the applicant's wells, as well as a somewhat unequal spread across time (such as, no wells completed into the Sioux Quartzite aquifer between 1981 and 2013 within five mile radius) and spatial variability (all wells in Table 2 are located to the northeast), to provide a relatively detailed analysis of the generalized water level trend locally and if that trend is possibly linked to long-term precipitation patterns or localized pumping. Regardless, water levels in the Sioux Quartzite aquifer 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 and confined Dolton and Pleistocene Series: Unknown aquifers that can be in direct contact with the Sioux Quartzite aquifer (Water Rights, 2025c and 2025e). Furthermore, Sioux Quartzite aquifer 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 Dolton and Pleistocene Series: Unknown aquifers, and the more regionalized trend of the water levels in the Sioux Quartzite aquifer following precipitation patterns, it is clear the Sioux Quartzite aquifer does regularly receive recharge.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Sioux Quartzite aquifer is primarily through the infiltration of precipitation where the Sioux Quartzite is at or near the ground surface and overlain by permeable materials, streamflow losses where the stream crosses 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 aquifer (Lindgren and Niehus, 1992). A recharge rate to the Sioux Quartzite aquifer has not been 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 aquifer 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.

Discharge

Discharge from the Sioux Quartzite aquifer is primarily through leakage to hydrologically connected aquifers and surface water features where the potentiometric surface of the Sioux Quartzite aquifer is higher than in the hydrologically connected aquifer or surface water feature and through well withdrawals (Lindgren and Niehus, 1992; Water Rights, 2025d).

Currently, there are 71 water rights/permits authorized to appropriate water from the Sioux Quartzite aquifer, plus one future use permit reserving water from the Sioux Quartzite aquifer (Water Rights, 2025c). The future use permit (No. 8903-3 for City of Dell Rapids) reserves 2,092 acre-feet of water annually from the Sioux Quartzite aquifer (Water Rights, 2025c). For the purpose of estimating average annual withdrawals, the future use permit is assumed to be fully developable for a total of 2,092 acre-feet per year.

There are 59 non-irrigation water rights/permits authorized to appropriate water from the Sioux Quartzite aquifer (Water Rights, 2025c). Table 3 lists six of the non-irrigation water rights/permits that involve quarry dewatering and Table 4 lists their respective reported water use (Water Rights, 2025c and 2025f). The reported data indicates the six water rights/permits involving quarry dewatering typically use less than full time pumping at their respective maximum permitted diversion rates or volumes (Water Rights, 2025c and 2025f). The reported withdrawal data was updated from the previous technical report completed for Water Permit Application No. 8894-3 by Mathiowetz (2024) (Water Rights, 2025f).

Water Right No. 8345-3 limits the annual water use for Water Right Nos. 5784-3 and 8345-3 to a collective volume of 1,105 acre-feet per year (Water Rights, 2025c). The reported average from 2018 through 2024 is approximately 510.4 acre-feet per year (Water Rights, 2025f). Since the period of reporting under both Water Right Nos. 5784-3 and 8345-3 has only been occurring for the last seven years, the permitted volume, 1,105 acre-feet per year, will be used for the estimated average annual withdrawal rate for these rights (Water Rights, 2025c and 2025f). 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 ((Water Rights, 2025c and 2025f). Therefore, the reported use under Water Right No. 6070-3 is likely to be reflective of the collective use under both Water Right Nos. 4493-3 and 6070-3 (Kilts, 2020). Additionally, the reported use for both Water Right Nos. 4493-3 and 6070-3 is likely an overestimation based on the reporting style (reporter provided a range) by the permit holder (Water Rights, 2025f).

Table 3. Water rights/permits from the Sioux Quartzite aquifer that include quarry dewatering (Water Rights, 2025c and 2025f)

Permit No.	Name	County	Status	Use	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet/year)	Estimated Average Annual Withdrawal Rate (acre-feet/year)	Priority Date
4493-3	Spencer Quarries	HS	LC	COM	1.8	N/A	1,452	01/01/1935
6070-3			LC	COM	3.1	N/A		03/30/2000
5400-3	LG Everist Inc	MA	LC	IND	12.25	N/A	2,165	01/01/1915
5784-3			LC	COM	3.33	Limited by 8345-3	1,105	08/06/1993
8345-3			LC	IND	6.69	1,105		08/06/1993
8458-3	Knife River	MA	PE	IND	2	1,452	1,452	10/23/2020
TOTAL:							6,174	
LC: Licensed Water Right; PE: Water Permit; HS: Hansen; MA: Minnehaha; COM: Commercial; IND: Industrial								

Table 4. Reported use for Sioux Quartzite aquifer water rights/permits involving quarry dewatering (Water Rights, 2025c and 2025f)

Year	5400-3	5784-3 & 8345-3*	6070-3	8458-3
2003	1,984	3	2,240	
2004	1,801	0.08	2,240	
2005	1,790	28	2,240	
2006	2,073	28	2,240	
2007	2,100	66	1,680	
2008	2,115	70	1,680	
2009	1,872	63	1,680	
2010	2,357	132	1,690	
2011	2,270	113	1,680	
2012	1,854	10	1,111	
2013	1,641	10	1,120	
2014	1,786	0	1,120	
2015	1,705	0	1,120	
2016	2,109	1	1,120	
2017	2,048	0	1,120	
2018	2,767	513	1,120	
2019	3,463	423	1,135	
2020	2,766	484	1,120	
2021	2,214	643	1,120	32.79
2022	2,161	511	1,120	56.5
2023	2,249	576	1,120	82.3
2024	2,496	422	1,120	104.8
AVG:	2,165	186	1,452	69
*Reports combined pumpage with 5784-3				

In addition to the water rights/permits involving quarry dewatering that are required to report annual withdrawal rates, an additional twelve non-irrigation water rights/permits are required to report annual withdrawal rates as well. Table 5 summarizes these permits and their respective reported water use (Water Rights, 2025c and 2025f). Water Right No. 6552A-3 is the only water right/permit on Table 5 with more than ten years of reporting data on file, which provides a more reasonable average through the wet/dry climatic cycle to be used for estimating average annual withdrawals (Water Rights, 2025f). The column showing the annual volume minus the reported average withdrawal rates show these users are withdrawing less than their authorized annual volume (such as, Water Right No. 8426-3) for each of the water rights/permits with less than ten years of reported withdrawals (Water Rights, 2025c and 2025f). Therefore, 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 which results in an estimated average annual withdrawal of 777 acre-feet per year.

Table 5. Summary of reported withdrawals for non-quarry dewatering, non-irrigation water rights/permits (Water Rights, 2025f)

Permit No.	Status	Priority Date	Years Reporting	Average Annual Reported Withdrawal Rate (acre-feet/year)	Authorized Annual Volume (acre-feet/year)	Annual Volume Minus Avg Reported (acre-feet/year)	Estimated Average Annual Withdrawal Rate (acre-feet/year)
6552A-3	LC	11/15/2004	11	7.4	N/A	n/a	7.4
8068-3	PE	12/15/2014	8	35.3	46	10.7	46
8186-3	PE	10/14/2015	9	23.7	55	31.3	55
8243-3	LC	10/17/2016	8	25.5	46.03	20.5	46.03
8289-3	LC	06/15/2017	8	16.8	36.3	19.5	36.3
8290-3	LC	06/15/2017	8	18	64.5	46.5	64.5
8301-3	LC	07/24/2017	8	27.8	56.45	28.6	56.45
8344-3	LC	04/03/2018	7	1.5	4.6	3.1	4.6
8424-3	LC	02/03/2020	5	28.4	62	33.6	62
8426-3	LC	03/23/2020	4	180.9	300	119.2	300
8437-3	LC	08/19/2020	4	10.5	18.4	7.9	18.4
8629-3	LC	08/19/2022	3	1.7	80	78.3	80
LC: Licensed Water Right; PE: Water Permit						TOTAL:	777

The estimated annual use for the remaining 41 non-irrigation water rights/permits was determined by their permitted maximum diversion rate or annual volume is summarized in Table 6. Historically, average water use by non-irrigation appropriations limited by an instantaneous diversion rate have been assumed to be pumping 60% of full time at the respective permitted diversion rate. Water rights/permits limited by an annual volume are assumed to withdraw their entire respective annual volume limitation. This is a standard method used by the DANR-Water Rights Program for estimating annual withdrawals by non-irrigation appropriations from an aquifer and is likely an overestimation of average annual withdrawals (Water Rights, 2025c). Fifteen of the sixteen municipal water rights were identified as being connected to a rural water system and likely maintain their wells for standby purposes, in accordance with ARSD 74:02:01:37.02 (Drinking Water Program, 2025; Water Rights, 2025c); as such, the average annual water use for these water rights has been estimated to be zero acre-feet per year on Table

6. Overall, the estimated average annual withdrawal rate from the Sioux Quartzite aquifer by the non-irrigation water rights/permits (not required to report) is approximately 2,419 acre-feet per year (Table 6) (Water Rights, 2025c).

Table 5. Estimated annual use for the non-irrigation water rights/permits (not required to report) authorized to divert water from the Sioux Quartzite aquifer (Drinking Water Program, 2025; Water Rights, 2025c)

	No. of Permits	Estimated Average Annual Withdrawal Rate (acre-feet/year)
Limited by Diversion Rate (cfs)	41	2,419*
Limited by Annual Volume (acre-feet/year)	0	0
*Omits withdrawal rate for RWS connection		

Currently, there are twelve irrigation water rights/permits authorized to appropriate water from the Sioux Quartzite aquifer (Water Rights, 2025c). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire since 1979. Table 6 lists the Sioux Quartzite aquifer water rights/permits and the average annual reported withdrawal rate from the rights/permits required to report (Water Rights, 2025 and 2025c). Water Right Nos. 6451-3 and 6553-3 are not required to report and Water Permit Nos. 8547-3 and 8894-3 are still within their construction periods. Collectively, these four water rights/permits authorize the irrigation of 41.4 acres (Water Rights, 2025c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for the fluctuation in wet and dry cycles from year to year, an application rate of one foot of water per acre per year will be used to estimate the annual withdrawal rate for this irrigation water right. Therefore, Water Right Nos. 6451-3 and 6553-3 and Water Permit Nos. 8547-3 and 8894-3 are estimated to withdraw approximately 41.4 acre-feet per year (Water Rights, 2025c). That value is likely an overestimation as Water Right No. 6451-3 is only authorized to use water when the City of Sioux Falls has implemented water restrictions (Water Rights, 2025c).

Water Permit No. 8898-3 is authorized for irrigation and institutional uses and has an authorized annual volume limitation; therefore, the estimated use for Water Permit No. 8898-3 will be the annual volume limitation of 57 acre-feet per year, as indicated on Table 6 (Water Rights, 2025c). In total, the estimated use for the water rights/permits having reported withdrawal rates, and those not required to report/in their construction period, or limited by an annual volume, is approximately 318.5 acre-feet per year.

Table 6. Reported historic irrigation use from Sioux Quartzite aquifer by each respective water right/permit (Water Rights, 2025a)

Permit No.	Name	County	Status	Authorized Acres	Average Report (ac-ft/yr)	Years of IRR Reporting Data	Priority Date
5365-3	Willow Wood Apartments	MA	LC	1.5	1.21	6 (1990 to 1995)	01/31/1990
6451-3	Bluffs Townhomes Association	MA	LC	3	N/A	Not reporting	10/15/2003
6553-3	Prairie Hills Covenant Church	MA	LC	4	N/A	Not reporting	12/13/2004
6618-3	GL Management Inc	MA	LC	71	83.35	19	04/18/2005
6910-3	Woodlawn Cemetary	MA	LC	80	4.05	16	11/15/2007
7415-3	Bakker Crossing Golf Course	LN	LC	95	107.1	11	09/04/2012
7805-3	Sioux Falls Park & Recreation	MA	LC	8	4.02	11	03/01/2013
8446-3	BH BAR LLC	MA	PE	3.5	2.03	3	09/21/2020
8445-3	GL Management Inc	MA	PE	71	18.29	3	09/11/2020
8547-3	L&E Holdings LLC	MA	PE	11.39	see text	2	09/03/2021
8898-3	Good Sam Society - Founders Crossing	MA	PE	28.5	57*	0	08/09/2024
8894-3	Nathan Skelley & Nichole Bell	MA	PE	23	see text	0	08/20/2024
*Assumed annual volume limitation			TOTAL:	400	277.1		
LC: Licensed Water Right; PE: Water Permit; LN: Lincoln; MA: Minnehaha							

There are domestic wells completed into the Sioux Quartzite aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2025d). Due to their relatively low diversion rates, withdrawals from domestic wells are generally not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the Sioux Quartzite aquifer is the uppermost aquifer available; it is likely some domestic users may have transitioned to rural water. Therefore, the quantity of water withdrawn by domestic wells is estimated to be negligible to the hydrologic budget for the Sioux Quartzite aquifer.

Hydrologic Budget Summary

No estimated average annual recharge rate to the Sioux Quartzite aquifer has been quantified. The estimated average annual withdrawal rate from the Sioux Quartzite aquifer is approximately 11,780.5 acre-feet per year (future use: 2,092 acre-feet/year non-irrigation (reporting): 6,951 acre-feet/year; non-irrigation (non-reporting): 2,419 acre-feet/year; irrigation: 318.5 acre-feet/year; Water Permit Application No. 8960-3 (if approved): zero acre-feet/year, full volume appropriation accounted for under Water Permit No. 8068-3). Analysis of reported static water levels in well completion reports (Water Rights, 2025d) 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:

Currently, there are 71 water rights/permits authorized to appropriate water from the Sioux Quartzite aquifer (Water Rights, 2025c). The closest water right/permit to the existing wells is Water Right No. 5466-3, which is held by the Town of Monroe. The diversion point for Water Right No. 5466-3 is located approximately 8.6 miles northeast of the existing wells proposed to be used for this application (Water Rights, 2025c).

There are domestic wells on file with the DANR-Water Rights Program that are completed into the Sioux Quartzite aquifer, with the closest domestic well on file (not held by the applicant) located approximately 2.7 miles northeast of the existing wells proposed to be used (Water Rights, 2025d). There could potentially be other domestic wells completed into the Sioux Quartzite aquifer near the wells the applicant proposes to use that are not on file with the DANR-Water Rights Program. The location of the domestic wells in the well completion report database maintained by the Water Rights Program is based on the location listed by the driller on the well completion report.

The Sioux Quartzite aquifer is confined at the existing well sites based on the well completion reports on file (Water Rights, 2025c and 2025d). Since the Sioux Quartzite aquifer is confined at the existing well sites, drawdown can extend some distance but the exact drawdown behavior of a well cannot be known without an aquifer performance test.

The existing wells authorized by Water Permit No. 8068-3 and proposed to be used by this application are completed into approximately 20 to 40 feet of saturated thickness respectively (Water Rights, 2025c and 2025d). Within approximately five miles of the existing well sites, the Sioux Quartzite aquifer has a saturated aquifer thickness ranging from approximately 5 to 100 feet based on well completion reports on file (Water Rights, 2025d). A saturated aquifer thickness of 5 feet would not allow for enough thickness for a pump to be placed 20 feet below the top of the aquifer. It is likely there was more fractured Sioux Quartzite below the five feet the well was completed into. However, the five feet of penetration and well screen into the Sioux Quartzite were likely sufficient to obtain the needed production from that particular domestic well. Regardless, to be considered an adequate well with less than 20 feet of saturated thickness, the inlet of the pump would need to be placed as near as practical to the bottom of the saturated aquifer to qualify as an adequate well under ARSD 74:02:04:20(6).

While the best information available indicates that there is a reasonable probability average annual recharge exceeds average annual withdrawals in the aquifer, conditions could occur where withdrawals in the aquifer exceed recharge for a period of time. Situations may occur where pumping from a thicker fractured part of this aquifer could cause drawdown impacting adequate wells in a thinner part of the aquifer. Under such conditions an unlawful impairment of senior water rights/permits or adequate domestic wells may occur. Therefore, the applicant should control their water withdrawals, so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights. In Turner County, there are no substantiated complaints on file with the DANR-Water Rights Program regarding well interference for adequate wells completed into the Sioux Quartzite aquifer (Water Rights, 2025e).

In Minnehaha County, a complaint was filed in 2018 regarding potential well interference starting in the late 1980's and continuing until 1998 when the Soo Dell Park-A-Home, initially served by Water Right No. 5944-3, was hooked into the City of Sioux Falls public 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 aquifer wells authorized by 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 reduced water rates from the City of Sioux Falls. The complaint was not substantiated (Water Rights, 2025e). Additionally, a complaint was filed in 2021 regarding potential well interference caused by the pumping authorized by Water Permit No. 8426-3. However, the person submitting the complaint did not provide enough information regarding their own well to determine if there was any well interference or unlawful impairment between the two wells (Water Rights, 2025e).

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“A well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs.”

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Sioux Quartzite aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), and the distance between the applicant's existing well sites and other Sioux Quartzite aquifer wells on file with the Water Rights Program, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment to existing water right/permit holders or domestic users with adequate wells. Additionally, the wells proposed to be used are existing wells that have been in place and are presumed to have been in use since approximately 2014 and 2015 respectively without any reported well interference complaints on file with the DANR-Water Rights Program (Water Rights, 2025d and 2025e). Therefore, there is a reasonable probability that any interference from the existing wells will not impose unlawful impairments to existing users with adequate wells.

CONCLUSIONS:

1. Water Permit Application No. 8960-3 proposes to appropriate an additional 0.045 cfs to what is currently authorized by Water Permit No. 8068-3 with no increase to the authorized annual volume. Water Permit No. 8068-3 appropriates up to 46 acre-feet of water annually at a maximum instantaneous diversion rate of 0.11 cfs from two wells (272 and 306 feet deep) completed into the Sioux Quartzite aquifer for commercial use in a swine confinement facility. A licensing investigation found the system capable of diverting 0.155 cfs from the two existing wells.
2. If approved, Water Permit Application No. 8960-3 and Water Permit No. 8068-3 will collectively authorize a total of 46 acre-feet of water annually at a maximum instantaneous diversion rate of 0.155 cfs for commercial use in a swine confinement facility. The site of interest is located in Turner County approximately one mile south of Dolton, SD.
3. 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.
4. There is a reasonable probability that pumping this proposed diversion will not unlawfully impair existing domestic water users and water rights with adequate wells.

Nakaila Steen

Nakaila Steen
Natural Resources Engineer III
SD DANR - Water Rights Program

Reviewed by:

Adam Mathiowetz

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

References

- Baldwin, B. 1949. A Preliminary Report on Sioux Quartzite. South Dakota Geological Survey Report of Investigations No. 63. SDDANR Geological Survey. Vermillion, South Dakota.
- Drinking Water Program, 2025. Drinking Water System Information. SD DANR – Drinking Water Program Online Database. Accessed July 31, 2025.
<<http://danr.sd.gov/des/dw/sysinfomap.aspx>>

- Fahrenbach, M.D., Steece, F. V., McCormick, K. A., McGillivray, G.L., Schulz, L.D. and Redden, J.A. 2010. South Dakota Stratigraphic Correlation Chart. South Dakota Geological Survey. Vermilion, SD. Gries, J.P. 1983. Geometry and Stratigraphic Relations of the Sioux Quartzite. Proceedings of the South Dakota Academy of Science, V. 62, p 64-74.
- Kilts, W.K. 2020. Report to the Chief Engineer Water Permit Application No. 8426-3 Dakota Line Dairy. SD DANR-Water Rights Program. Pierre, South Dakota.
- Lindgren, R.J. and Hansen, D.S., 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey and South Dakota Geological Survey. Huron, SD.
- Lindgren, R.J. and Niehus, C.A. 1992. Water Resources of Minnehaha County, South Dakota. Water-Resources Investigations Report 91-4101. U.S. Geological Survey. Huron, SD.
- Martin, J.E., Sawyer, J.F., Fahrenbach, M.D., Tomhave, D.W., and Schulz, L.D. 2004. Geologic Map of South Dakota. General Map. 10. SD DANR Geological Survey. Vermillion, SD.
- Mathiowetz, A., 2024. Report to the Chief Engineer Water Permit Application No. 8894-3. Nathan Skelly and Nichole Bell. SD DANR-Water Rights Program. Pierre, South Dakota.
- McCormick, K.A. 2010. Elevation Contour Map of the Precambrian Surface of South Dakota. South Dakota Geological Survey General Map 11 Sioux Ridge inset, scale 1:160,000. SD DANR Geological Survey. Vermillion, South Dakota.
- SDGS, 2025. South Dakota Geological Survey Lithologic Logs Database. Accessed July 30, 2025. <http://cf.sddanr.net/lithdb/>.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DANR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2025a. "1979-2023 Irrigation Summaries by Aquifer", SD DANR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights, 2025b. Observation Well Data, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2025c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2025d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2025e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2025f. "2003-2024 Non-Irrigation Yearly Reports", SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

August 13, 2025

Thunder Ridge RE, LLC.
c/o Marty Rost
PO Box 188
Pipestone MN 56164

Dear Mr. Rost:

Water Permit Application No. 8960-3 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the New Era printed at Parker SD (Ph # 605 297-4419) and the Argus Leader printed at Sioux Falls (see attachment for contact number). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Acting Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Acting 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. 8960-3 to Appropriate Water

Notice is given that Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, has filed an application for a water permit to appropriate an additional 0.045 cubic feet of water per second (cfs) to what is currently authorized by Water Permit No. 8068-3, with no increase to the authorized annual volume. Water Permit No. 8068-3 appropriates up to 46 acre-feet of water annually at a maximum pump rate of 0.11 cfs from two wells (272 and 306 feet deep) completed into the Sioux Quartzite Aquifer located in the NE 1/4 NE 1/4 Section 19-T100N-R55W for commercial use in a swine confinement facility. An investigation of the permit found the system capable of diverting 0.155 cfs from the two existing wells. This application, if approved, and Water Permit No. 8068-3 will authorize a combined total of 46 acre-feet of water annually at a maximum pump rate of 0.155 cfs for commercial use in the swine confinement facility. This site is located approximately one mile south of Dolton SD.

Pursuant to SDCL 46-2A-2, the Acting Chief Engineer recommends APPROVAL of Application No. 8960-3 with qualifications because 1) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 2) the proposed use is a beneficial use and 3) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board. The Acting 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 Acting Chief Engineer. A petition opposing the application shall be filed on a form provided by the Acting Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Acting Chief Engineer. The Acting 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 Acting 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 September 2, 2025.

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 Acting Chief Engineer. The comment shall be filed on a form provided by the Acting Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Acting 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 September 2, 2025.

If the applicant does not contest the recommendation of the Acting Chief Engineer and no petition to oppose the application is received, the Acting 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.

Rodriguez, Rachel

From: Gannett Legals Public Notices 4 <ganlegpubnotices4@gannett.com>
Sent: Tuesday, August 12, 2025 9:42 AM
To: Rodriguez, Rachel
Cc: Marty Rost
Subject: RE: [EXT] 11573443 8960-3 Thunder Ridge LLC -Public Notice
Attachments: 11573443.pdf

Good Morning,

Please find your order confirmation and proof of ad attached.

Your ad is set to run in the Argus Leader on August 21. The order cost is \$65.80 which includes an affidavit, that will be mailed to you 7-10 business days after the last day of the ad printing.

Your notice is scheduled to run per your request and will publish unless you reply to this email requesting changes or to cancel.

Our invoicing is done on a monthly basis.

You will receive an invoice for this ad after the close of the month.

All orders are subject to a non-refundable 3.99% service fee. As an incentive for customers, we provide a discount off the order cost equal to the 3.99% service fee if you pay by ACH. Pay by ACH and Save! Final order cost provided at time of payment and via a receipt.

Thank you!

Brittany Grady
Public Notice Representative



Office: 844-254-5287

From: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Sent: Monday, August 11, 2025 10:10 AM
To: SFA-Legals mbx <allegals@gannett.com>
Subject: 11573443 8960-3 Thunder Ridge LLC -Public Notice

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

Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, 507-215-0482, marty.rost@pipestone.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,



Order Confirmation
Not an Invoice

Account Number:	1550069
Customer Name:	Thunder Ridge Re Llc
Customer Address:	Thunder Ridge Re Llc Po Box 188 Pipestone MN 56164-0188
Contact Name:	Marty Rost
Contact Phone:	
Contact Email:	marty.rost@pipestone.com
PO Number:	

Date:	08/12/2025
Order Number:	11573443
Prepayment Amount:	\$ 0.00

Column Count:	1.0000
Line Count:	186.0000
Height in Inches:	20.4900

Print

Product	#Insertions	Start - End	Category
SFA SiouxFalls Argus Leader	1	08/21/2025 - 08/21/2025	Public Notices
SFA argusleader.com	1	08/21/2025 - 08/21/2025	Public Notices

As an incentive for customers, we provide a discount off the total order cost equal to the 3.99% service fee if you pay with Cash/Check/ACH. Pay by Cash/Check/ACH and save!

Total Cash Order Confirmation Amount Due	\$65.80
Tax Amount	\$0.00
Service Fee 3.99%	\$2.63
Cash/Check/ACH Discount	-\$2.63
Payment Amount by Cash/Check/ACH	\$65.80
Payment Amount by Credit Card	\$68.43

Order Confirmation Amount	\$65.80
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Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, August 11, 2025 10:09 AM
To: New Century Press
Subject: 8960-3 Thunder Ridge LLC -Public Notice
Attachments: 8960-3 public.short_final.docx; FORM8.FRM.doc

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

Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, 507-215-0482, marty.rost@pipestone.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



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, August 11, 2025 10:10 AM
To: legals@argusleader.com
Subject: 8960-3 Thunder Ridge LLC -Public Notice
Attachments: 8960-3 public.short_final.docx; FORM8.FRM.doc

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

Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, 507-215-0482, marty.rost@pipestone.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



AFFIDAVIT OF PUBLICATION

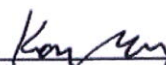
Thunder Ridge Re Llc
Po Box 188
Pipestone MN 56164-0188

STATE OF WISCONSIN, COUNTY OF BROWN

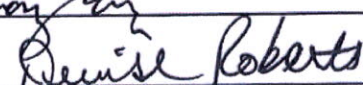
The Argus Leader, a daily newspaper published in the city of Sioux Falls, Minnehaha County, State of South Dakota, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

08/21/2025

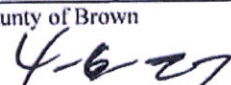
and that the fees charged are legal.
Sworn to and subscribed before on 08/21/2025



Legal Clerk



Notary, State of WI, County of Brown

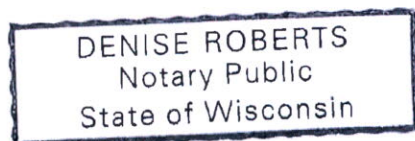


My commission expires

Publication Cost:	\$65.80	
Tax Amount:	\$0.00	
Payment Cost:	\$65.80	
Order No:	11573443	# of Copies:
Customer No:	1550069	0
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.



**NOTICE OF APPLICATION
NO. 8960-3 to
Appropriate Water**

Notice is given that Thunder Ridge RE, LLC., PO Box 188, Pipestone MN 56164, has filed an application for a water permit to appropriate an additional 0.045 cubic feet of water per second (cfs) to what is currently authorized by Water Permit No. 8068-3, with no increase to the authorized annual volume. Water Permit No. 8068-3 appropriates up to 46 acre-feet of water annually at a maximum pump rate of 0.11 cfs from two wells (272 and 306 feet deep) completed into the Sioux Quartzite Aquifer located in the NE 1/4 NE 1/4 Section 19-T100N-R55W for commercial use in a swine confinement facility. An investigation of the permit found the system capable of diverting 0.155 cfs from the two existing wells. This application, if approved, and Water Permit No. 8068-3 will authorize a combined total of 46 acre-feet of water annually at a maximum pump rate of 0.155 cfs for commercial use in the swine confinement facility. This site is located approximately one mile south of Dolton SD.

Pursuant to SDCL 46-2A-2, the Acting Chief Engineer recommends APPROVAL of Application No. 8960-3 with qualifications because 1) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 2) the proposed use is a beneficial use and 3) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board. The Acting Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

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opposing the application shall be filed on a form provided by the Acting Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Acting Chief Engineer. The Acting 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 Acting 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 September 2, 2025.

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Published on August 21, 2025 at the total approximate cost of \$65.80 and may be viewed free of charge at www.sdpublicnotices.com.

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF TURNER

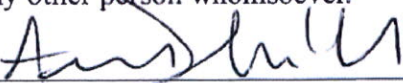
I, Amber Miller of New Century Press, publisher of The New Era, which is a weekly newspaper of general circulation, Printed and published in the City of Parker, in said County of Turner., and has been such legal newspaper during the times here in after mentioned; that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice here unto attached, and has during all of said publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, the affiant, is the Office Assistant of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed:

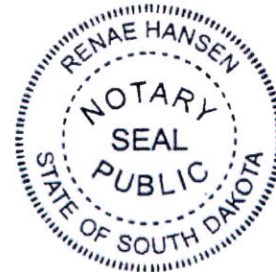
N0821-8 Notice No. 8960-3

Once printed copy of hereto attached, is printed and published in the said newspaper for one week, to wit:

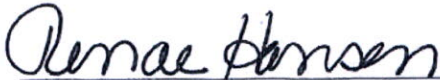
On Thursday, the 21st day of August, 2025

That \$49.96 being the full amount of the fees for publication of the attached notices insure solely for the benefits of the publishers of the said newspaper, that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid To any other person whomsoever.





Subscribed and sworn to before me this 22nd day of August, 2025



Notary Public, State of South Dakota
My Commission Expires June 6, 2031

Publication Fee...\$49.96
Notary Fee...\$
Total \$49.96

**NOTICE OF APPLICATION NO.
8960-3 to Appropriate Water**

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The petition shall include a

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

Any interested person may file a comment on the application with the Acting Chief Engineer. The comment shall be filed on a form provided by the Acting Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Acting 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 September 2, 2025.

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Published once at the total approximate cost of \$49.96 and may be viewed free of charge at www.sdpublicnotices.com.

(N0821-B)

Duvall, Ron

From: DANRnoreply <DANRnoreply@state.sd.us>
Sent: Tuesday, September 2, 2025 10:41 AM
To: Duvall, Ron; Dewell, Amanda
Subject: [EXT] Comment on No. 8960-3, Thunder Ridge RE, LLC.

Please use caution in opening any attachments or clicking on any links.

This message was received from an external mail system, but has been made to appear as though originating from an internal State email address. If you are not expecting this message or are concerned about its content, please forward it to the reportspam@state.sd.us mailbox.

Comment On:
No. 8960-3, Thunder Ridge RE, LLC.

Comment Deadline Date:
09/02/2025

Date Comment Filed:
09/02/2025 10:40:41

Commenter Info:
Jay Gilbertson, East Dakota WDD
132B Airport Avenue
Brookings SD, 57006

Comment:
See attached .pdf file.

Attachment:
/Comment Attachments/EDWDD Thunder Ridge WR Comments.pdf

RECEIVED

SEP 02 2025

OFFICE OF
WATER



September 2, 2025

Mark Mayer, Acting Chief Engineer
SD DANR Water Rights Program
523 East Capitol Avenue
Pierre, South Dakota 57501-3182

RECEIVED
SEP 02 2025
OFFICE OF
WATER

Dear Mr. Mayer:

On behalf of the East Dakota Water Development District, I wish to offer comments on Water Permit Application No. 8960-3. I have reservations about the information presented in the Report to the Chief Engineer on this matter, which is presented as the foundation for the formal Recommendation you have issued. Specifically, I question the assertion that there is a “reasonable probability that there is unappropriated water available for the applicants’s proposed use..” [I raised these same basic issues earlier this year with regard to Water Permit 8903-3, a future use request by the City of Dell Rapids.]

1. In the section of the report dealing with **Observation Well Data** (second paragraph, page 4 of 14), it states that, “*The DANR-Water Rights Program does not maintain or monitor any observation wells completed in the Sioux Quartzite aquifer at this time (Water Rights, 2025b). 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, 2025d).*”

In place of a series of consecutive measurements from observation wells in the Sioux Quartzite aquifer, the report presents, as Table 2, a single water level measurement, as reported in the well completion record, for seven wells in the general vicinity of the proposed activity. The earliest data point was collected in 1981, and the final level reported in 2018. No additional water-level information is presented from any of the wells. Determination of water-level trends implicitly requires a series of observations over time at the same location. A single measurement only defines the conditions that existed at the point in time the data was collected. Table 2 provides no useful information if you are trying to interpret aquifer characteristics, beyond the fact that at a particular moment there was some undetermined amount of water in the ground.

In fact, the report readily acknowledges that there, “...too few wellsto provide a relatively detailed analysis of the generalized water level trend locally and if that trend is possibly linked to long-term precipitation patterns or localized pumping.”

2. In the second paragraph on Page 5 of 14, the report states that, “Water levels in the Sioux Quartzite aquifer across southeastern South Dakota show a broad correlation with long-

term precipitation patterns. This assertion is attributed to a 1992 report by R.J. Lindgren and C.A. Niehus of the United States Geological Survey, entitled, "Water Resources of Minnehaha County, South Dakota." Figure 34 from this report (copy attached) is the apparent foundation for this statement. It compares precipitation trends in the area with water levels measured in Water Rights observation well MA-80I, which is located approximately 35 miles ENE of the proposed diversion point. A review of the lithologic log (attached) for MA-80I indicates that the well is completed in what is described as the "Sioux Quartzite Wash" aquifer. The description from the lithologic log makes clear that this unit is not the Sioux Quartzite aquifer as defined in the USGS report or in this document, and the figure label is in error. Consequently, the trend noted by Lindgren and Niehus, and erroneously attributed to the Quartzite Aquifer, is not applicable to the aquifer being addressed in this report.

The notion that the water levels in the Sioux Quartzite aquifer fluctuate with climate is restated several times in the report. No data to support these assertions is presented, beyond the problematic reference to Lindgren and Niehus (1992). In fact, in the final paragraph of Page 4 of 15, the report says that there is insufficient information available to establish water level trends in the target area. Yet, this is immediately followed by the statement that, "Regardless, water levels in the Sioux Quartzite wells tend to be similar to directly hydrologically connected aquifers (adjacent or overlying)." Again, no foundation for these statements is provided.

3. Under SDCL 46-6-3.1, no water permit may be awarded unless it can be demonstrated that the amount of water to be withdrawn annually will not exceed the estimated annual recharge to the aquifer. As noted in the report under the **WATER AVAILABILITY** section (page 4 of 14), the applicant does not qualify for the 'Greenhorn exception,' and therefore the provisions of SDCL 46-6-3.1 "must be considered." However, in the **Recharge** section (page 6 of 14) of the report, it states that, "A recharge rate to the Sioux Quartzite aquifer has not been quantified."

If a recharge rate has not been determined for the Sioux Quartzite aquifer, then it is not possible for the Water Management Board to determine whether the conditions clearly articulated in SDCL 46-6-3.1 have been met, and therefore no permit can be approved.

I you have any questions, or require clarification of anything I have presented, please do not hesitate to contact me. Thank you for your consideration of my comments.

Sincerely,



Jay P. Gilbertson
Manager/Treasurer

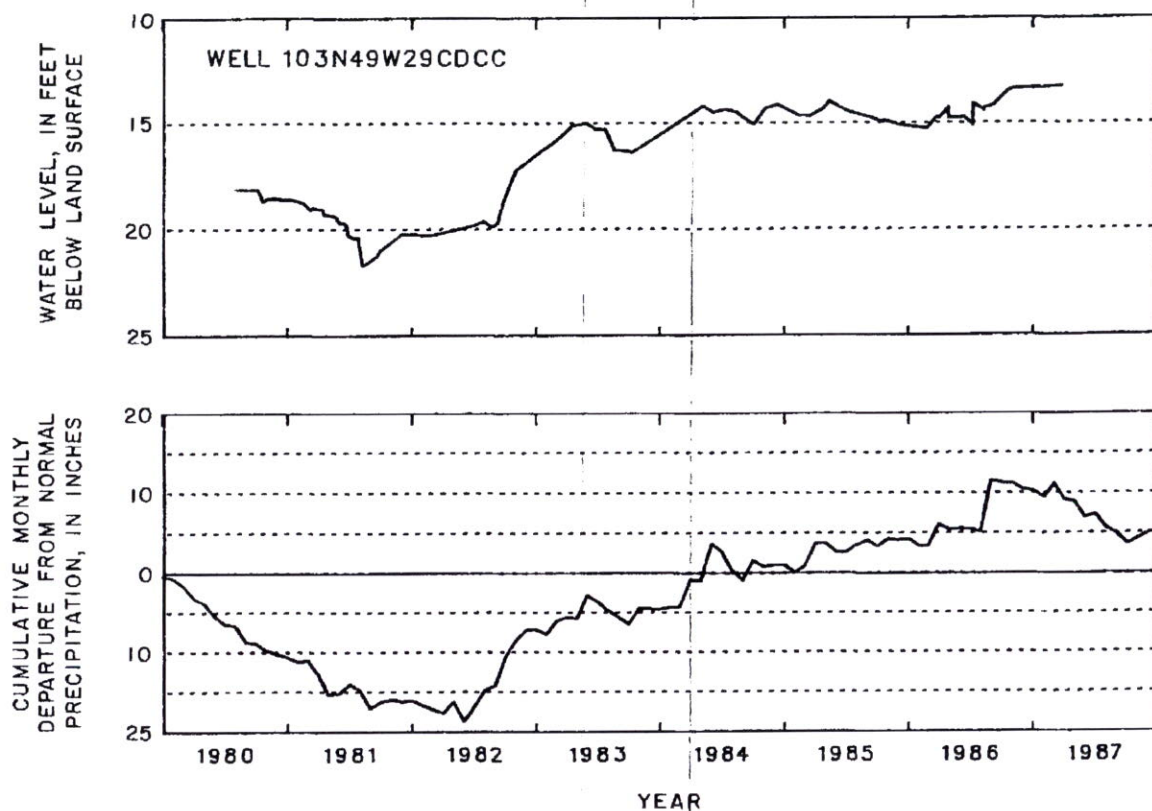


Figure 34.--Water-level fluctuations in the Sioux Quartzite aquifer and cumulative monthly departure from normal precipitation at Sioux Falls.

WATER USE

Surface water in Minnehaha County is used predominantly for stock-watering and irrigation purposes. Total surface-water use in Minnehaha County in 1985 was about 416 million gallons. About 60 percent of the total was for stock-watering purposes and about 40 percent was for irrigation.

Water use from glacial and bedrock aquifers in Minnehaha County in 1985 was estimated to be about 5.87 billion gallons (table 9). About 94 percent of the water used was withdrawn from glacial aquifers and about 6 percent of the water used was withdrawn from bedrock aquifers. Eighty-five percent of the water withdrawn from the aquifers in Minnehaha County was used for municipal purposes and 94 percent of the water withdrawn for municipal purposes was used by the city of Sioux Falls. About 347 million gallons (6 percent of the estimated 1985 water use) of water were withdrawn from the Big Sioux, Skunk Creek, and Brandon aquifers in 1985 for irrigation purposes. About 35 percent of the water withdrawn from the aquifers for rural domestic purposes was withdrawn from the Sioux Quartzite aquifer.

Location Information

Legal Location: SW SW SE SW SEC. 29, T. 103 N., R. 49 W.

County: MINNEHAHA

Hydrologic Unit Code: 10170203

Land Owner:

Location: 103N49W29CDCC

Latitude: 43.688847

Longitude: -96.745457

Ground Surface Elevation: 1480 T

Project Information

Project: SIOUX FALLS-BRANDON STUDY

Drill Date: 6/19/1980

Company: SDGS

Drilling Method: ROTARY

Test Hole Number: SFB-207

Geologist: D. ILES

Geologist's Log: ☒

Driller: B. GARRISON

Driller's Log: ☐

Total Drill Hole Depth (ft): 112.0

Well Information

SDGS Well Name:

Water Rights Well: MA-80I

Other Well Name:

Casing Type: PVC

Screen Type: PVC, MFG.

Total Casing and Screen (ft): 112.5

Casing Stick-up (ft): 2.5

Filter Pack from (ft): to

Well Protector Installed: No

Aquifer: SIOUX QUARTZITE WASH

Management Unit:

Casing Top Elevation: 1482.5 T

Casing Diameter (in): 2

Screen diameter (in):

Screen Length (ft):

Screened from (ft): to

Screen Slot Size (in)

Fence Posts Installed: No

Grouting Information

Bentonite Grout from (ft): to Neat Cement Grout from (ft): to

Bentonite Chips/Granular from (ft): to Other: to

Formation and Geophysical Information

Bottom Hole Formation

☐ E-Log Available

BOTTOM OF WELL AT 110 FEET.

<u>Elevation (ft)</u>	<u>Depth (ft)</u>	<u>Description</u>
1480 - 1476	0 - 4	TOPSOIL, BROWN, SILTY
1476 - 1467	4 - 13	SILT, YELLOW; SOFT
1467 - 1456	13 - 24	CLAY, MOTTLED-YELLOW, SILTY, SANDY, PEBBLY (TILL)
1456 - 1455	24 - 25	SAND AND GRAVEL, FINE SAND TO COARSE GRAVEL; OXIDIZED
1455 - 1442	25 - 38	CLAY, MOTTLED-YELLOW, SILTY, SANDY, PEBBLY (TILL)
1442 - 1415	38 - 65	CLAY, YELLOW AND GRAY, MOTTLED, SILTY, SANDY, PEBBLY; SOME WHITE CALCAREOUS JOINT FILLING, THE COLOR WAS MOSTLY YELLOW AT 38 FEET AND MOSTLY GRAY AT 65 FEET
1415 - 1405	65 - 75	CLAY, YELLOW, SILTY, SANDY, PEBBLY; HARD, CALCAREOUS
1405 - 1370	75 - 110	SANDSTONE, PINK, FINE TO COARSE; COMPOSED OF QUARTZ, THE FIRST 3 INCHES WERE VERY HARD, INDIVIDUAL GRAINS APPEARED IN THE CUTTINGS, NO CHUNKS
1370 - 1368	110 - 112	QUARTZITE, PINK AND WHITE; HARD, USED ROCK BIT (SIOUX QUARTZITE)

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, August 13, 2025 8:16 AM
To: Marty Rost
Subject: 8960-3 Thunder Ridge LLC -Public Notice
Attachments: 8960-3 Rec.pdf; 8960-3 Ltr.pdf; 8960-3 PubNotice.pdf; Argus Leader Info.pdf

Good morning,

Attached is a copy of the report, acting chief engineer's recommendation, and information regarding the public notice for your water permit application. As stated in the letter, please contact the paper(s) as soon as possible to authorize publication and arrange for payment. This information is 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

October 27, 2025

Thunder Ridge RE, LLC.
c/o Marty Rost
PO Box 188
Pipestone MN 56164

Dear Mr. Rost:

Enclosed is Water Permit No. 8960-3 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,

Mark Mayer, PE
Director of Office of Water

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8960-3

(1) Thunder Ridge RE, LLC, PO Box 188, Pipestone MN 56164, made Application No. 8068-3, December 15, 2014, for a water permit to divert 0.11 cubic feet of water per second from groundwater, two wells (Sioux Quartzite Aquifer), Turner County, South Dakota for commercial purposes. Permit No. 8068-3, with a priority date of December 15, 2014, was approved by the Water Management Board on March 1, 2017, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 1, 2022, and for the application to beneficial use of water on or before March 1, 2026.

The applicable portions of Water Permit No. 8068-3 have been incorporated into this license.

Tunder Ridge RE, LLC made Application No. 8960-3, June 10, 2025, for a water permit to divert an additional 0.045 cubic feet of water per second, to what was already authorized by Permit No. 8068-3, from the two existing wells, with no increase to the annual volume. Permit No. 8960-3, with a priority date of June 10, 2025, was approved September 2, 2025, for the application to beneficial use of water for commercial purposes.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to place water to beneficial use. The locations of the diversion points are:

- West Well: 480 ft S & 1,130 ft W of the NE corner Section 19, T100N, R55W (NE ¼ NE ¼)
(Latitude 43.47180 & Longitude -97.38425)
- East Well: 485 ft S & 1,070 ft W of the NE corner Section 19, T100N, R55W (NE ¼ NE ¼)
(Latitude 43.47178 & Longitude -97.38390)

(3) The water is to be used during the following described annual period: January 1 – December 31.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Thunder Ridge RE, LLC the holder and/or owner of Water Right No. 8960-3 is issued a license to appropriate water, the right to appropriate up to 46 acre-feet of water annually, with a maximum diversion rate of 0.155 cubic feet of water per second, from groundwater, two wells (Sioux Quartzite Aquifer), with priority dates of December 15, 2014 (46 ac-ft & 0.11 cfs) and June 10, 2025 (0.045 cfs), from the locations specified in (2) of this license for commercial purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8960-3 and subject to the following qualifications:

1. The wells approved under this Permit and Water Permit No. 8068-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner must control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights. *(The applicable portions of Permit No. 8068-3 have been incorporated into Water Right No. 8960-3)*
2. Water Permit No. 8960-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

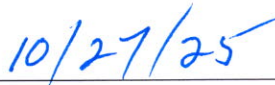
continued

3. Water Permit No. 8960-3 is subject to compliance with all existing and applicable Water Management Board Rules, including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards
 - b) Chapter 74:54:02 Ground Water Discharge Permits
 - c) Chapter 74:51:01 Surface Water Quality Standards
 - d) Chapter 74:51:02 Uses Assigned to Lakes
 - e) Chapter 74:51:03 Uses Assigned to Streams
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Sioux Quartzite Aquifer.
5. This Permit and Water Permit No. 8068-3, combined, appropriate up to 46 acre-feet of water annually.
(The applicable portions of Permit No. 8068-3 have been incorporated into Water Right No. 8960-3)



Mark Mayer, PE
Director of the Office of Water
Department of Agriculture and Natural Resources

date





**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.: 8960-3

Name of Applicant: Thunder Ridge RE, LLC.

Date of Posting: 8/18/2025

Date of Removal: 10/27/2025

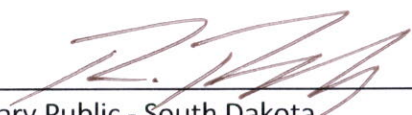


Ron Duvall, Engineer III

10/27/2025

Date

Subscribed and sworn to before me, a notary public, this 27th day of Oct, 2025.



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

(SEAL)

