

WATER PERMIT NO. 8748-3

Name of Applicant: **Van Buskirk Farms LLP**

Address: **PO Box 98, Hitchcock SD 57348**

Phone: **605-350-5671**

Amount of Water Claimed: **1.94 cfs**

Total Acres: **136**

Source of Water Supply: **Groundwater**

Water to be used for: **Industrial use**

County: **Beadle**

Type of Waste Disposal System:

Location: **6 miles southwest of Hitchcock**

*well depth
niobrara & aquifer
approximately
207 feet deep*

PRIORITY

Date Received: **2-3-2023**

Application/License Fee: **\$1,050.00**

Corrected Application Received: **4-6-2023**

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

Remarks:

Diversion Point: **Approximate center of NE1/4**
Section 36 -T113N-R64W

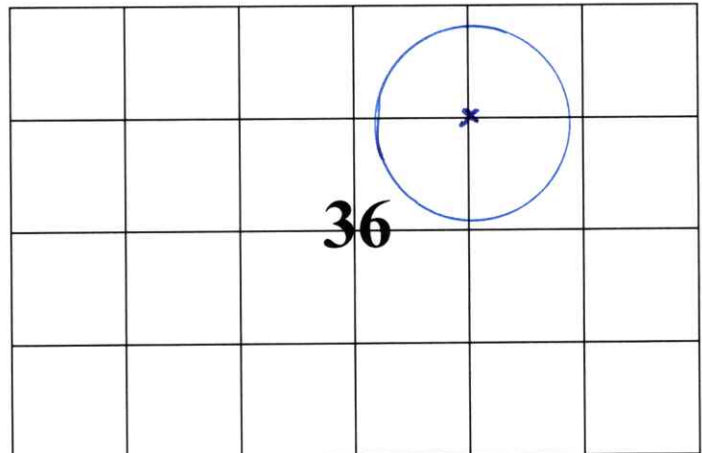
Land to be Irrigated:

Depth of Well: **207**

Well Driller: **Stretch's Well Service, Inc.**

Remarks:

Type of Map: **aerial**



Reviewed and the Number Assigned on: **4-12-2023**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8748-3**

Date of first receipt of application February 3, 2023.

Date of return to applicant for corrections, amendments or changes February 7, 2023.

Date of receipt of corrected application June 30, 2023.

The Water Management Board approved Water Permit No. 8748-3 on December 6, 2023 for Van Buskirk Farms LLP, c/o Matthew Van Buskirk, PO Box 98, Hitchcock SD 57348 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. 8748-3 appropriates 1.94 cubic feet of water per second (cfs) from one well to be completed into the Niobrara Aquifer (approximately 207 feet deep) located in the approximate center of the NE 1/4 Section 36 for irrigation of 136 acres located in the NE 1/4 Section 36; all in T113N-R64W. This site is located approximately 6 miles southwest of Hitchcock SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is June 30, 2023.
4. One-fifth of the construction is to be completed on or before June 6, 2026.
5. All construction is to be completed on or before December 6, 2029.
6. Water is to be put to beneficial use on or before December 6, 2033.
7. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well authorized by Water Permit No. 8748-3 shall be completed into the Niobrara aquifer. The well must not be completed into the Tulare: Western Spink Hitchcock aquifer.
2. The well approved under Water Permit No. 8748-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The well authorized by Permit No. 8748-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

JAN 08 2024

date



FORM 2: Application for irrigation in South Dakota

(type or print)

RECEIVED

FEB 03 2023

OFFICE OF
WATER

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8748-3</u> (office use only)	Hydrologic Unit <u>1016 0006</u>
	Basin <u>Middle James</u>	
	Newspaper <u>Huron Plainsman</u>	

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit Van Buskirk Farms LLP(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address PO Box 98 Hitchcock SD 57348

(Address)

(City)

(State)

(Zip Code)

Home Phone _____ Cell 350-5671 Email _____2. Amount of water claimed 1.94 *CFS or **GPM ***AF Total Acreage 136

(*Cubic Feet per Second)

(**Gallons per Minute)

(***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Niobrara aquifer4. Location of point of diversion approximate center of the NE 1/4 Section 36, T113N, R64W

(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Beadle5. County or counties where water will be used Beadle6. Annual period during which water is to be used April 1 - October 31

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.

(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NE 1/4 Section 36, T113N, R64W	136		

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

Develop center pivot irrigation

I, Mark Van Buskirk, the applicant, certify under

Name of Person

Title (if applicable)

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

2015-10

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable)

☐

Drilling new well(s)

☐

Using existing well(s)

a) If new wells, how many _____ Have test holes been drilled? ☒ Yes ☒ No Drilled by _____
 (if yes, please provide copies of logs)

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

For either existing or proposed wells:

c) Well Depth (required) _____ 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 2023

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth 200

b) Depth to water (ground surface to water level) 200

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)

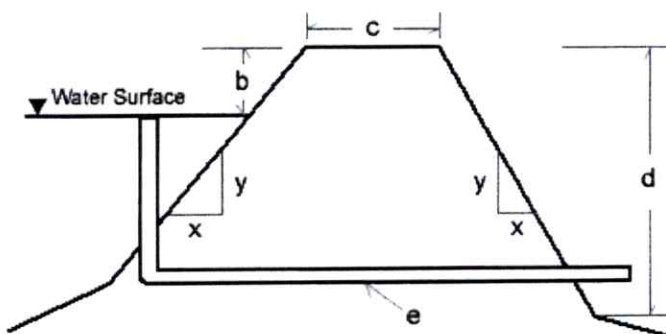
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Water Permit Application, Van Buskirk Farms LLP



1,700 850 0 1,700 Feet




Eric Gronlund
Water Rights Program, DENR
based on representation by
Matt Van Buskirk

SOUTH DAKOTA WATER WELL COMPLETION REPORT

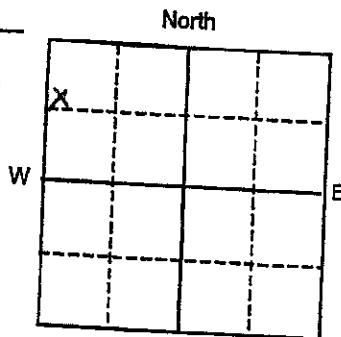
SD EForm - 1621LD V1

11-02

Location NW 1/4 NW 1/4 Sec 33 Twp 114 Rg 63

County Spink

Please mark well location with an "X"



Well Completion Date

3/20/2023

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1000 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Mud Rotary

CASING DATA:

If other describe ☐ Steel ☒ Plastic ☐ Other

PIPEWEIGHT 200 LB/FT DIAMETER 5 IN FROM 0 FT TO 166 FT HOLE DIAMETER 7 7/8 IN
LB/FT IN FT FT FT IN
LB/FT IN FT FT FT IN

GROUTING DATA:

Grout Type #20 No. of Sacks 5 Grout Weight 0 Lb/gal From 0 Ft To 166 Ft
Lb/gal Ft Ft Ft

Describe grouting procedure

From R pipe

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 5 Inches Length 40 Feet

Material PVC
Slot Size .025 Set From 166 Feet to 206 Feet

Other information

WAS A PACKER OR SEAL USED?

If so, what material? Grout ☒ Yes ☐ No

Describe packer(s) and location

DISINFECTION:

Was well disinfected upon completion?

☒ Yes, How? Chlorine

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner:

Business Name: Vinbaskin

Address: PO Box 90

City, State, Zip: Hitchcock

SD 57340

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>1</u>
<u>Yellow Clay</u>	<u>2</u>	<u>35</u>
<u>Blue Clay</u>	<u>35</u>	<u>45</u>
<u>Sand Gravel w/ Shells Clay</u>	<u>45</u>	<u>145</u>
<u>Sand + Gravel</u>	<u>145</u>	<u>165</u>
<u>Blue Clay</u>	<u>165</u>	<u>195</u>
<u>Chalk</u>	<u>195</u>	<u>207</u>

STATIC WATER LEVEL

46

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: Submersible

☐ Bailed

☐ Other

Pumping Level Below Land Surface

54 Ft. After 4 Hrs. pumped 30 GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

30

GPM

REMARKS

RECEIVED

APR 11 2023

OFFICE OF
WATER

This well was drilled under license # 722 and this report is true and accurate.

Drilling firm:

Stretch's Well Service Inc.

Signature of License Representative:

Tom Ratzliff

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIVED

APR 11 2023

OFFICE OF
WATER

Phone: 402.463.3522

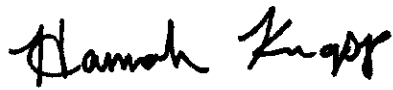
800.557.7509

Fax: 402.463.8132



1602 Park West Dr. • PO Box 169 • Hastings, NE 68902
www.servitech.com

Lab #: 002375 **LABORATORY ANALYSIS REPORT** Report Date: 04/05/2023 04:39 p

Send To: 54803	STRETCH'S WELL SERVICE INC PO BOX 36 HITCHCOCK, SD 57348		 Hannah Knapp Data Reviewer
Client Name:	STRETCHS WELL SERVICE	Received:	04/03/2023 09:20 am
Sample ID:		Submitted By:	
Location:		Invoice No:	986795
Sampled:		P.O. #:	
Sampled By:			

Analysis	Result	Unit	lbs /	
			Acre Inch	meq / L
Chloride, Cl	938.89914	mg/L	212.8	26.5
Electrical Conductivity, EC @ 25C	4.49	mmho/cm		
pH, at 20.3°C	8.28	unit		
Nitrate+Nitrite Nitrogen, NO3+NO2-N	<0.2	mg/L	<0.0	<0.0
Sulfate, SO4	360	mg/L	81.6	7.5
Total Sulfur, S	120	mg/L	27.2	7.5
Bicarbonate, at 21.7°C	710	mg/L	161.0	11.6
Carbonate, at 21.7°C	<10	mg/L	<2.3	<0.3
Hydroxide, at 21.7°C	<10	mg/L	<2.3	<0.6
Total Alkalinity, at 21.7°C	590	mg/L	133.8	11.8
Hardness (CaCO3)	180	mg/L		
Hardness (CaCO3)	10	grains/gal		
Total Calcium, Ca	48	mg/L	10.9	2.4
Total Magnesium, Mg	14	mg/L	3.2	1.2
Total Potassium, K	17	mg/L	3.9	0.4
Total Sodium, Na	827	mg/L	187.5	36.0
Sodium Adsorption Ratio, SAR	27.0	ratio		
Adjusted SAR, SARa	35.9	ratio		
Total Boron, B	3.8	mg/L	0.9	
Total Iron, Fe	0.24	mg/L	0.1	
Total Manganese, Mn	0.042	mg/L	<0.1	
Total Dissolved Solids (Calc), TDS	2870	mg/L		
Corrosion Indices				
Langelier Index, at 21.7°C	1.6			

Report formatted for regulatory compliance available upon request.

Page 1 of 2

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APR 11 2023

Phone: 402.463.3522

800.557.7509

Fax: 402.463.8132



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www.servitech.com

OFFICE OF
WATER

Lab #: 002375

LABORATORY ANALYSIS REPORT

Report Date: 04/05/2023 04:39 p

Sample ID:

Client Name: STRETCHS WELL S

Location:

Interpretations for Corrosive Indices

LANGLIER SATURATION INDEX (LSI): A calculation that indicates the calcium carbonate (CaCO_3) saturation of a water supply. An index value of 0.5 or greater is considered "positive". This indicates the water supply has an increasing tendency to precipitate calcium carbonate and form a protective scale layer. The water supply may be considered "non-corrosive", but there are other factors that may affect the ability to prevent corrosion. These factors include the type of metals used for piping and fixtures, water temperature, flow rate, and others.

Interpretations For Irrigation Use

GENERAL RATING - VERY POOR QUALITY IRRIGATION WATER

SALINITY HAZARD - HIGH: Extended use of this irrigation water is considered adequate for growth of many established plants. Soluble salts have potential to accumulate to levels that can affect growth of sensitive and moderately salt-tolerant species (i.e., sorghum, wheat). Routine leaching by a degree of over-irrigating may be needed to mobilize salts into the lower root zone, but good internal soil drainage is necessary. Test irrigation water and soil regularly to monitor salinity levels.

PERMEABILITY HAZARD: EXTREMELY HIGH. The adjusted SAR value suggests this water should not be used for extended irrigation unless it can be diluted with another water source to acceptable levels. Use of this water will require specialized soil and water management practices. Depending on the field situation, it may or may not be feasible to use this water for routine irrigation. If it is used for irrigation, both the soil and water should be tested annually for exchangeable sodium (%Na) and adjusted SAR to monitor sodium accumulations.

BORON HAZARD - WARNING: Boron is one of the essential plant nutrients required by plants for healthy growth but it is only needed in very small amounts and can therefore become toxic to plants even at very low concentrations. The boron concentration in this water source may affect a number of field crops and landscape plants. Boron toxicity symptoms can vary between types of plants, but a common symptom is burning effect at the tips and edges on older leaves.

Report formatted for regulatory compliance available upon request.

Page 2 of 2

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RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date April 11, 2023

RECEIVED OF Van Buskirk Farms LLP c/o Matthew Van Buskirk PO Box 98 Hitchcock SD 57348

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

Fee for Application for Permit No. <u>8748-3</u> to Appropriate Water, to construct and to put water to beneficial use	<u>\$850.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8748-3</u>	<u>\$200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law) TOTAL	<u>\$1050.00</u>

By Eric Gronlund
Chief Engineer
vm



530390256

ANNUAL REPORT

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

Domestic Limited Liability Partnership
SDCL 48-7A-1003; 59-11-24.1

2017
FILING YEAR

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

Filing Fee: \$50
Paper Filing Fee: \$15

Late Fee: \$50

Total Fee: \$115

1. Business ID and Name:

DR001395
BUSINESS ID

VAN BUSKIRK FARMS LLP
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

**19053 MAPLE AVE
HITCHCOCK, SD 57348-6809**

Mailing Address

**PO BOX 72
HITCHCOCK, SD 57348-0072**

4. The South Dakota Registered Agent's Name:

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

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

Name **MATTHEW VAN BUSKIRK**

Actual Street Address in this State

**19053 MAPLE AVE
HITCHCOCK, SD 57348-6809**

Mailing Address in this State

**PO BOX 72
HITCHCOCK, SD 57348**

5. The names and business addresses of the partners.

Name

Address

6. 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 civil and/or criminal penalty (SDCL 22-39-36; 47-15-51).

Dated

Email (Optional)


Signature of an Authorized Person

MATTHEW VAN BUSKIRK
Printed Name



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

April 14, 2023

Van Buskirk Farms LLP
Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

We have received the application/license fees for the five water permit applications from the Niobrara Aquifer. We have also received the well completion report from Stretch's Well Service Inc. for the 207 feet deep well.

As stated in my recent letter, Form 2A, Supplemental Information is required for each application. I have enclosed another set of forms. Please complete Item No. 1. Well Information including the proposed well depth if significantly different than your test hole log. Also, list the distance to the nearest domestic well located in the Niobrara Aquifer on property owned by others. If this distance is unknown, please indicate so.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures

RECEIVED

JUN 30 2023

OFFICE OF
WATER



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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PIERRE SD 57501-3182
danr.sd.gov

June 8, 2023

Van Buskirk Farms LLP
Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

The Department of Agriculture and Natural Resources has not received the Form 2A for the five water permit applications Van Buskirk Farms filed to appropriate water from the Niobrara aquifer for irrigation. Attached are prior letters and five Form 2A for you to complete the proposed well construction. Therefore, the application will now take a new priority date based on the date the required information is provided.

The applications will be held until this information is received. If Van Buskirk Farms decides to withdrawal the applications, please provide written notification and the application filing fees will be refunded.

If you have any questions, please contact me.

Sincerely,

Eric Gronlund
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures

sent 4/14/23 ltr
and Form 2As
again 5/10/23



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

April 14, 2023

Van Buskirk Farms LLP
Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

We have received the application/license fees for the five water permit applications from the Niobrara Aquifer. We have also received the well completion report from Stretch's Well Service Inc. for the 207 feet deep well.

As stated in my recent letter, Form 2A, Supplemental Information is required for each application. I have enclosed another set of forms. Please complete Item No. 1. Well Information including the proposed well depth if significantly different than your test hole log. Also, list the distance to the nearest domestic well located in the Niobrara Aquifer on property owned by others. If this distance is unknown, please indicate so.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures

Mathiowetz, Adam (DENR)

From: Tom Rathjen <stretchswell@yahoo.com>
Sent: Friday, April 7, 2023 9:11 AM
To: Mathiowetz, Adam (DENR)
Subject: [EXT] Vanbuskirk
Attachments: H-2023NL002375 (Old Style Report).pdf; SPINK CO NW NW Sec 33 Twp 114 Rg 63.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good Morning Adam,
I am attaching the water sample report and the well completion report for Vanbuskirk's well.

Thanks,
Lauren Struxness
Office Assistant
Stretch's Well Service, Inc 
(605) 266-2128
Fax: 1-605-266-2126

Schlaak, Karen

From: Gronlund, Eric
Sent: Thursday, April 6, 2023 4:48 PM
To: Mathiowetz, Adam (DENR)
Cc: Schlaak, Karen; Rodriguez, Rachel; Kilts, Whitney (DENR); Drennon, Kim
Subject: RE: Voice Mail (16 seconds)

Called Jeremy – he indicated that due to weather but primarily due to his driller getting covid they only got one test hole drilled. But with the weather next week they will be back out to complete test holes for the Van Buskirk applications from the Niobrara aquifer. I explained that 46-2A-15 provides 60 days for them to complete their application in order to retain priority. The 60 days is up April 8th so anything will have to be postmarked the next working day. I also told him in addition to the test hole the application filing fees need to be paid. He was going to fax the one test hole log and water quality analysis to Adam on Friday, April 8th.

Called Matt VanBuskirk – told him about the deadline and that we do not have discretion to extend the 60 day period. Also told him I didn't know if the one test hole would be applicable for all the applications that they filed. He intends to mail the check on Friday, April 7th.

Called Reed Bixler since there was no answer on the number on the applications for Bixler Farms. Explained that the 60 day period to complete application is this weekend. Reed said they drilled one test hole and didn't encounter water in the Niobrara aquifer below the Tulare aquifer. Reed said his sons planned to abandon the applications. I indicated it would be good for them to document this in writing. Reed said he would talk to his sons about it in the morning.

From: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Sent: Thursday, April 6, 2023 4:06 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Subject: FW: Voice Mail (16 seconds)

Jeremy with Stretch's well service called to discuss a deadline of April 7th for Van Buskirk's. Please call Jeremy back at 605-350-1515. I tried transferring the call but it failed for some reason.

Also they will be emailing me some water quality data tomorrow morning



Adam Mathiowetz, PE
Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

From: STRETCHS WELL S <+16053501515>
Sent: Thursday, April 6, 2023 3:47 PM
To: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Subject: Voice Mail (16 seconds)

Hi Adam, Jeremy Rafton 6053501515 stretches well service. Got some water results back on this chalk rock aquifer. I just wanted to visit with you. Thank you.

You received a voice mail from STRETCHS WELLS.

Thank you for using Transcription! If you don't see a transcript above, it's because the audio quality was not clear enough to transcribe.

[Set Up Voice Mail](#)



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

~~January~~
February 7, 2023

Van Buskirk Farms LLP
c/o Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

Thank you for submitting the five *Applications for a Permit to Appropriate Water* for irrigation in Beadle and Spink Counties. To complete the applications, the following is required.

- Enclosed are Form 2A's, Supplemental Information. Please complete one form for each application with proposed well construction including a test hole log.
- The application/license fee for each application is listed below:

136 acres – NE ¼ Sec 36-T113N-R64W	\$1,050.00
136 acres – NW ¼ Sec 33-T114N-R63W	1,050.00
544 acres – S ½ Sec 4 and E ½ Sec 5-T113N-R63W	1,750.00
982 acres – NW ¼ Sec 32, Sec 31, SW ¼ Sec 30; T114N-R63W & NW ¼ Sec 36-T114N-R64W	2,450.00
136 acres – NE1/4 Sec 7-T113N-R63W	<u>1,050.00</u>
Total	\$7,350.00

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8748-3, Van Buskirk Farms LLP**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8748-3, Van Buskirk Farms LLP, PO Box 98, Hitchcock SD 57348.

The Chief Engineer is recommending APPROVAL of Application No. 8748-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well authorized by Water Permit No. 8748-3 shall be completed into the Niobrara aquifer. The well must not be completed into the Tulare:Western Spink Hitchcock aquifer.
2. The well approved under Water Permit No. 8748-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The well authorized by Permit No. 8748-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
September 5, 2023

NOTE: As noted in the report, the water quality in the Niobrara aquifer may not be suitable for irrigation due to the water's high sodium adsorption ratio. The applicant is encouraged to consult with a qualified soil scientist to complete a soil-water compatibility analysis to determine whether the water is suitable for irrigation or, when used for irrigation, best management practices are followed to ensure water is placed to beneficial use in compliance with SDCL 46-2A-9.

**Report to the Chief Engineer on Water Permit Application Nos.
8748-3, 8749-3, 8750-3, 8751-3, and 8752-3
Van Buskirk Farms, LLP
2023 August 23**

Water Permit Application No. 8748-3 proposes to appropriate 1.94 cubic feet of water per second (cfs) from one well to be completed into the Niobrara aquifer (approximately 207 feet deep) located in the approximate center of the NE $\frac{1}{4}$ Section 36 for irrigation of 136 acres located in the NE $\frac{1}{4}$ Section 36; all in T113N-R64W. This application site is in Beadle County approximately 6 miles south-southwest of Hitchcock, South Dakota.

Water Permit Application No. 8749-3 proposes to appropriate 1.94 cfs from one well to be completed into the Niobrara aquifer located in the approximate center of the NW $\frac{1}{4}$ Section 33 for irrigation of 136 acres located in the NW $\frac{1}{4}$ Section 33; all in T114N-R63W. This application site is in Spink County approximately 0.8 miles north of Hitchcock.

Water Permit Application No. 8750-3 proposes to appropriate 7.77 cfs from four wells to be completed into the Niobrara aquifer located in the approximate centers of the SE $\frac{1}{4}$, SW $\frac{1}{4}$ Section 4 and NE $\frac{1}{4}$, SE $\frac{1}{4}$ Section 5 for irrigation of 544 acres located in the S $\frac{1}{2}$ Section 4 and E $\frac{1}{2}$ Section 5; all in T113N-R63W. This application site is in Beadle County on the south edge of Hitchcock and approximately 0.5 miles west of Hitchcock.

Water Permit Application No. 8751-3 proposes to appropriate 14.0 cfs from four wells to be completed into the Niobrara aquifer located in the approximate centers of the NW $\frac{1}{4}$ Section 32, Center of Section 31, SW $\frac{1}{4}$ Section 30; all in T114N-R63W and the center of the NE $\frac{1}{4}$ Section 36-T114N-R64W for irrigation of 982 acres located in the NW $\frac{1}{4}$ Section 32, Section 31, SW $\frac{1}{4}$ Section 30; all in T114N-R63W and the NE $\frac{1}{4}$ Section 36-T114N-R64W. This application site is in Spink County between approximately 1.5 and 2.5 miles west-northwest of Hitchcock.

Water Permit Application No. 8752-3 proposes to appropriate 1.94 cfs from one well to be completed into the Niobrara aquifer located in the approximate center of the NE $\frac{1}{4}$ Section 7 for irrigation of 136 acres located in the NE $\frac{1}{4}$ Section 7; all in T113N-R63W. This application site is in Beadle County approximately 2 miles west-southwest of Hitchcock.

The locations of the proposed wells for all these applications are mapped in Figure 1. In total, these five applications propose to appropriate 27.59 cfs to irrigate 1,934 acres in Spink and Beadle Counties.

Report on Water Permit App. Nos. 8748-3 through 8752-3

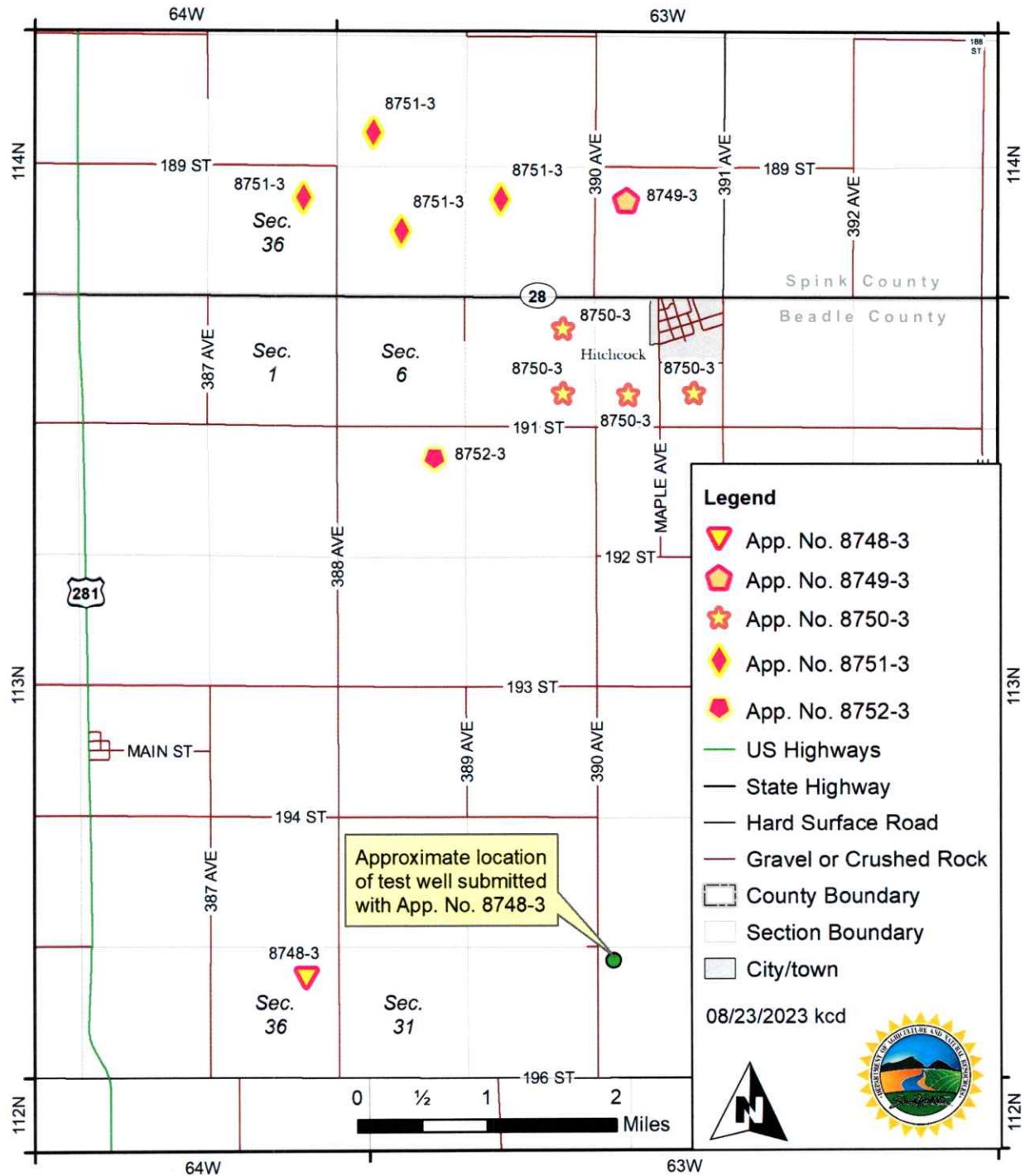


Figure 1: Water permit applications and surrounding area

Aquifer: Niobrara (NBRR)

Hydrogeologic Characteristics

The Niobrara aquifer is composed of the permeable and saturated portions of the upper-Cretaceous-aged Niobrara Formation. The Niobrara Formation is a “white to dark-gray argillaceous chalk, marl, and shale [1]” underlying most of South Dakota. Productivity in the Niobrara aquifer is mainly from secondary porosity features such as fractures, faults, and solution cavities [2]. Therefore, its characteristics vary greatly from location to location, and it is typically more productive in areas where weathering to the formation has occurred. The Niobrara Formation underlies approximately 29,054 square miles (18,594,560 acres) in South Dakota east of the Missouri River, including all 1,249 square miles (799,360 acres) of Beadle County and all 1,509 square miles (965,760 acres) of Spink County [2]. Some areas of the Niobrara Formation are separated from the main body of the formation by erosional channels. This application is located in the main body. The main body of the Niobrara Formation underlies approximately 27,500 square miles (17,600,000 acres) in South Dakota east of the Missouri River, including all of Spink and Beadle Counties [3]. The Niobrara Formation underlies the Cretaceous-aged Pierre Shale and the Quaternary-aged glacial deposits including the Tulare aquifer [4]. The Niobrara Formation directly overlies the Cretaceous-aged Carlile Shale. There is a lithologic log completed in 1963 in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 5 T113N-R63W indicating the Tulare: Western Spink Hitchcock aquifer management unit directly overlies and contacts the Niobrara Formation [5]. Another lithologic log completed in 1963 in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 31 T114N-R63W also indicates the presence the Tulare aquifer directly above the Niobrara Formation [5]. The contact between the Niobrara Formation and the Pierre Shale, and the Niobrara Formation, Pierre Shale, and glacial deposits is unconformable [6], which means there was a period of erosion between the deposition of those three deposits. Erosional periods can cause highly undulating surfaces of the bedrock formations which can be difficult to predict based on the available lithological information. Based on available information, including lithologic logs and bedrock mapped in the area of these applications, it is likely the Tulare aquifer comes into contact with weathered portions of the Niobrara aquifer near most of these applications. Consequently, withdrawals from wells completed into the Niobrara Formation could cause flow to go from the Tulare aquifer to the Niobrara aquifer. The Tulare: Western Spink Hitchcock aquifer management unit is fully appropriated. The only application in this report for which it is not likely the Tulare: Western Spink Hitchcock aquifer directly overlies the Niobrara aquifer is Water Permit Application No. 8748-3, which overlies a mapped area of the Pierre Shale which underlies the Tulare aquifer several miles surrounding that application and acts as a confining layer between the Tulare aquifer and the Niobrara aquifer [7].

The applicant submitted a well completion report for a well completed on March 20, 2023, in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 33 T114N-R63W. The driller reported encountering “blue clay” from 165 to 195 feet below grade and chalk from 195 to 207 feet below grade. The driller placed screen from 166 to 206 feet below grade. The static water level was 46 feet below grade at the time the well was completed. The applicant also submitted a laboratory analysis report of the water quality in the well. The analysis indicated the water quality was “very poor quality” for irrigation, the salinity hazard was high, and the permeability hazard was extremely high,

including the statement “Depending on the field situation, it may or may not be feasible to use this water for routine irrigation.”

Applicable South Dakota Codified Law (SDCL)

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

Pursuant to SDCL 46-6-3.1, no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source. An exception allows water distribution systems to withdraw from groundwater sources older or stratigraphically lower than the Greenhorn Formation regardless of the results of a hydrologic budget. The applicant is not a water distribution system as defined in SDCL 46-1-6(17) and the Niobrara aquifer is younger and stratigraphically higher than the Greenhorn Formation. Therefore, the Water Management Board must find that recharge to the aquifer exceeds withdrawals to approve this application.

Availability of Water

Hydrologic Budget

Recharge to the Main Body

Recharge to the Niobrara aquifer likely occurs by inflow from aquifers in contact with the Niobrara when the hydraulic head is higher in the other aquifers than in the Niobrara aquifer. No estimate of the recharge to the Niobrara aquifer is available due to the extreme variability of aquifer characteristics across South Dakota. Observation well water levels in the Niobrara aquifer indicate that recharge exceeds withdrawals in the aquifer [8].

Discharge from the Main Body

Discharge from the Niobrara aquifer is likely by groundwater outflow to aquifers in contact with the Niobrara aquifer when the hydraulic head in the Niobrara aquifer is higher than that of the other aquifers and by withdrawals from domestic and appropriative wells [4]. Domestic wells are not a significant source of discharge in the Niobrara aquifer due to the presence of rural water systems and stratigraphically higher (and therefore cheaper to drill) aquifers. There are 31 water rights/permits appropriating water from the main body of the Niobrara aquifer [9] [3]. Of those, 12 are for irrigation, seven are for commercial use, six for municipal use, four for institutional use, and one each for industrial use and fish and wildlife propagation. There are two water permit applications, Nos. 8721-3 and 8722-3 proposing to appropriate a total of 10.70 cfs to irrigate a total of 960 acres in Beadle County, and one water permit application, No. 8773-3, which proposes to appropriate a total of 2.11 cfs to irrigate 160 acres in Spink County. If those applications are approved, they will have senior priority to this application.

The average irrigation reported in the main body of the Niobrara aquifer over the period of record from 1979 through 2022 is 373 acre-feet per year (ac-ft/yr) [10]. There is one irrigation permit, No. 8678-3, which is too new to have reported any irrigation. That permit is estimated to apply 10 inches of water per acre over its 300 acres, for an estimated annual withdrawal of 250 ac-ft/yr. Using the same method for Water Permit Application Nos. 8721-3, 8722-3, and 8773-3 those permits are estimated to withdraw 933 ac-ft/yr. Figure 2 shows the irrigation reported in the main body of the Niobrara aquifer over the period of record (1979 -2022) [10].

Of the non-irrigation water rights/permits, Water Right Nos. 4278-3, 4121A-3, 4264A-3, and 4264B-3 are held by municipalities that purchase their water from another water distribution system [11] [12], so are assumed to withdraw a negligible amount of water for the hydrologic budget. There are two non-irrigation water rights/permits required to report their annual withdrawal but are still developing their permits. Those permits are assumed to withdraw the maximum volume limit listed on their permit, for a combined withdrawal of 227 ac-ft/yr. The remaining 13 non-irrigation water rights/permits are assumed to withdraw at their maximum licensed or permitted diversion rate 60% of the time, for an estimated combined average annual withdrawal rate of 705 ac-ft/yr.

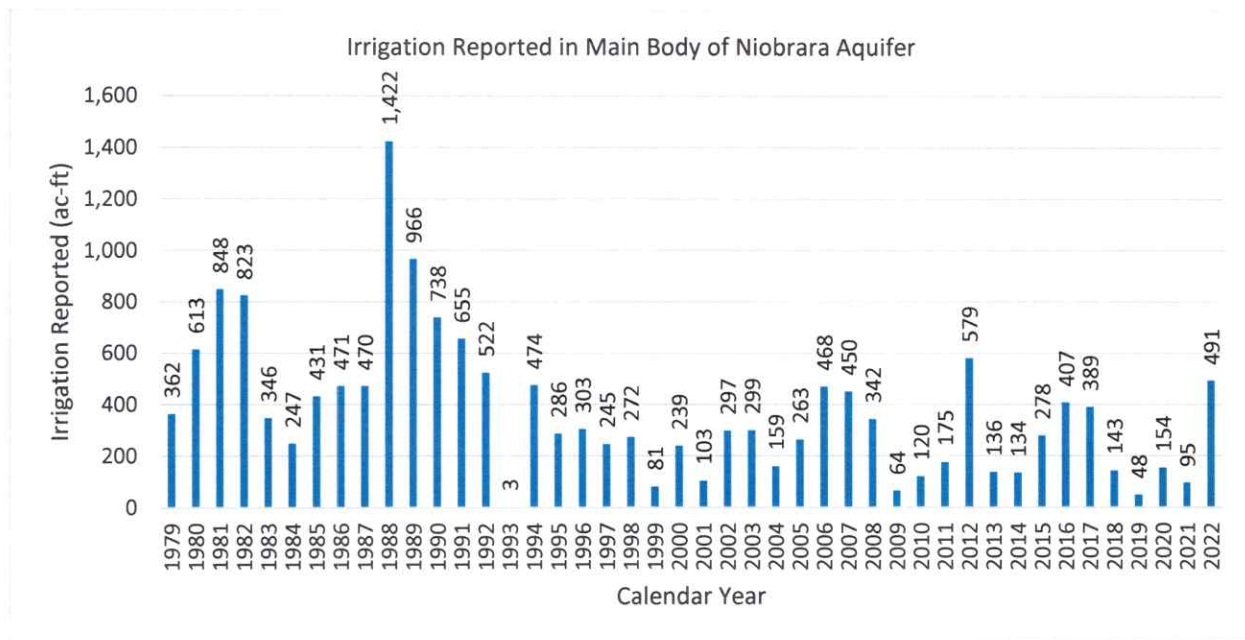


Figure 2: Irrigation reported in the main body of the Niobrara aquifer [5]

Summary of Hydrologic Budget of the Main Body

There is no estimate available for the recharge to the Niobrara aquifer due to its highly variable aquifer characteristics. The estimated average annual withdrawal from the main body of the Niobrara aquifer, including pending applications, is 2,488 ac-ft/yr. Using the same method for these applications as for other permits and applications not yet reporting irrigation, the estimated average annual withdrawal would be 1,612 ac-ft/yr, for a total estimated withdrawal of approximately 4,100 ac-ft/yr from the main body of the Niobrara aquifer. By dividing the estimated 4,100 ac-ft/yr of withdrawal by the 17,600,000 acres of the main body of the Niobrara

Formation, the recharge to the formation would have to exceed 0.003 inches per acre for recharge to exceed withdrawals. Given the very small amount of recharge needed to exceed withdrawals, there is reasonable probability unappropriated water is available in the Niobrara aquifer for this application.

Table 1: Summary of estimated withdrawals from the main body of the Niobrara aquifer

Type	Number	Est. Withdrawal (ac-ft/yr)
Irrigation, reporting	11	373
Irrigation, too new to report	1	250
Non-irrigation, Standby	4	0
Non-irrigation, Volume	2	227
Non-irrigation, Sixty percent	13	705
<i>Subtotal, authorized to withdraw</i>	<i>31</i>	<i>1,555</i>
Pending applications	3	933
Grand total	34	2,488

Spink and Beadle County Hydrologic Budgets

Because the Niobrara aquifer has highly variable aquifer characteristics, it is appropriate to consider a more localized hydrologic budget. Lacking distinctive hydrogeological boundaries smaller than the extent of the main body of the aquifer, hydrologic budgets concerning only the areas of Spink and Beadle Counties are considered. There are no water rights/permits authorized to withdraw from the Niobrara aquifer in Spink County. Water Permit Application No. 8773-3 is estimated to withdraw 133 ac-ft/yr on average and Water Permit Application Nos. 8749-3 and 8751-3 are estimated to withdraw a total of 932 ac-ft/yr on average, if they are approved. Dividing the 1,065 ac-ft/yr of estimated annual use from these applications over the 965,760 acres of Niobrara aquifer in Spink County, the required recharge to exceed withdrawals is 0.013 inches per acre per year.

In Beadle County, there are four existing water rights/permits authorized to withdraw from the Niobrara aquifer and two pending applications that would be senior to the three applications in this report (Water Permit Application Nos. 8748-3, 8750-3, and 8752-3), which would be in Beadle County if they are approved. Using the same methods as in the statewide section, the estimated withdrawal for water rights permits authorized to withdraw from the Niobrara aquifer in Beadle County is 307 ac-ft/yr. Water Permit Application Nos. 8721-3 and 8722-3 are estimated to withdraw a total of 800 ac-ft/yr, and Water Permit Application Nos. 8748-3, 8750-3, and 8752-3 are estimated to withdraw a combined total of 680 ac-ft/yr for a grand total of 1,787 ac-ft/yr of estimated withdrawals from the Niobrara aquifer in Beadle County. For recharge to exceed withdrawals in Beadle County, the recharge to the Niobrara aquifer would have to exceed 0.03 inches per acre per year.

Observation Wells

Administrative Rule of South Dakota 74:02:05:07 requires that the Water Management Board rely upon the record of observation wells, in addition to other information, to determine the

availability of unappropriated water. The Water Rights Program maintains 59 observation wells completed into the Niobrara aquifer, 38 of which are completed into the main body of the aquifer [8] [3]. The nearest observation well completed into the Niobrara aquifer to this application is BD-2023A, which is located approximately 11 miles east of the eastern-most proposed wells for these applications. The period of record for Observation Well BD-2023A is extremely limited and does not reflect fluctuations in the aquifer through wet and dry periods. The next nearest observation well is SP-77D, located approximately 14 miles north of the proposed wells for these applications [8]. The locations of the two nearest observation wells completed into the Niobrara aquifer, the nearest existing water permit, and senior applications pending approval, and bedrock formations near the Van Buskirk applications are shown in Figure 3 [8] [9] [7]. Figure 4 shows water elevations in those observation wells over their entire periods of record [8]. Water levels in observation wells completed into the main body of the Niobrara aquifer all have stable or increasing trends. Observation Well SP-77D is representative of the general behavior of the Niobrara aquifer, although at the distance from the proposed well sites, it does not reflect changes that would be specific to the area of these applications. In general water levels rise during periods of higher-than-average precipitation and decline during periods of lower-than-average precipitation. The fluctuation due to natural influences indicates water is naturally discharged from the Niobrara aquifer. The Water Management Board historically has considered natural discharge to be available for capture. Therefore, based on observation well analysis, there is reasonable probability unappropriated water is available in the Niobrara aquifer for these applications.

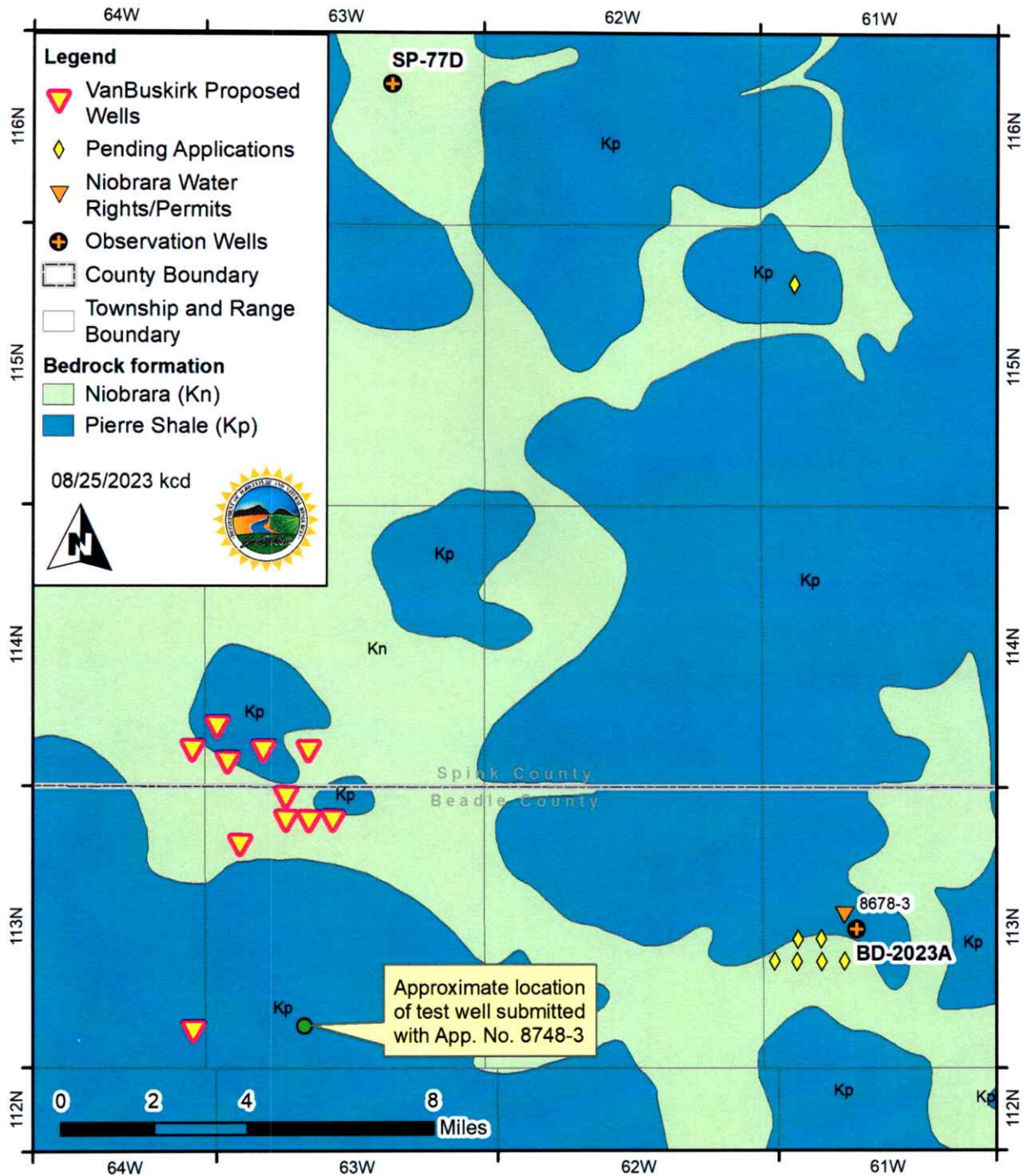


Figure 3: Observation wells [8], Niobrara water rights/permits [9], pending applications senior to the Van Buskirk applications, and bedrock formations [7] near the Van Buskirk applications.

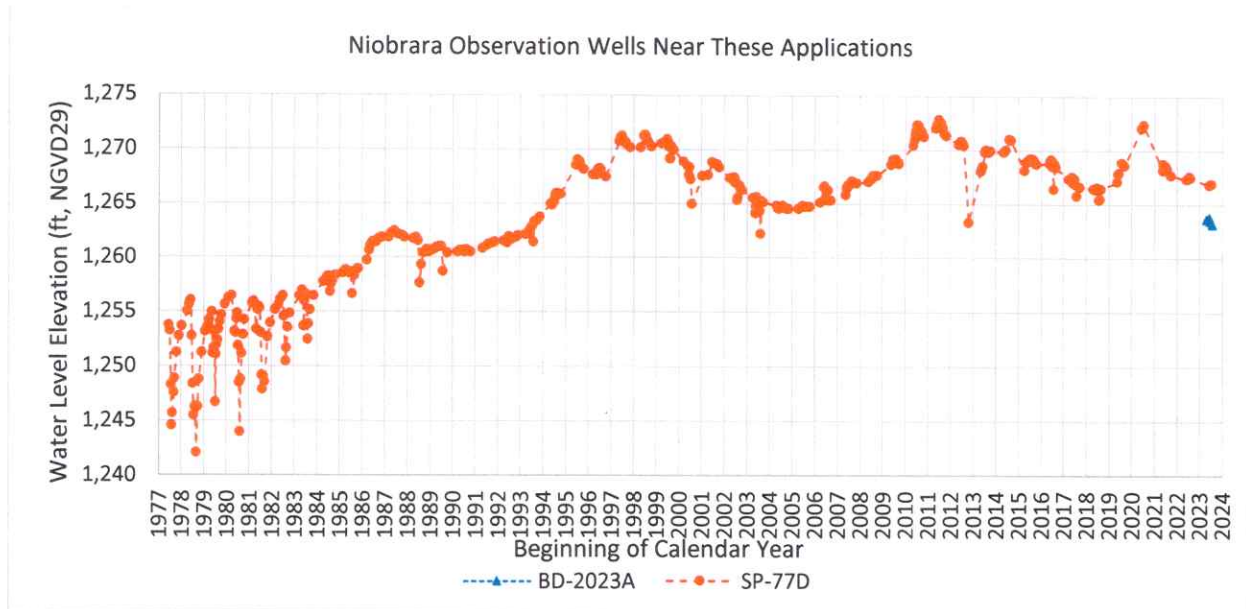


Figure 4: Observation well water elevations in the Niobrara aquifer [8]

Possibility of Unlawful Impairment of Existing Water Rights

The nearest water right/permit to all five applications that is completed into the Niobrara aquifer is Water Permit No. 8678-3, located approximately 14 miles south of the proposed well for this application [9]. There are no wells on file with the Water Rights Program that are likely to be completed into the Niobrara aquifer within three miles of all five of these applications [13]. The Water Rights Program has historically interpreted an unlawful impairment of existing water rights to occur if a junior water right/permit causes a nearby adequate well with a senior water right/permit to become unable to withdraw at the rate it is entitled to or, if a domestic well is impacted, a water right/permit causes an adequate domestic well to be unable to withdraw at the rate needed to supply reasonable domestic use of water. Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) defines an adequate well as:

...a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet

If these applications are approved, some drawdown in the aquifer will occur in the proximity of the pumping wells. There are no complaints concerning unlawful impairment of existing water rights in the Niobrara aquifer in Spink and Beadle Counties [14]. If these applications are approved, the applicant should control their withdrawals so that an unlawful impairment of adequate wells does not occur. Based on the distance of the proposed wells to the nearest water right, and lack of complaints concerning well interference in the Niobrara aquifer on file in Spink and Beadle Counties, there is reasonable probability these applications can be developed without unlawful impairment of existing domestic uses and water rights in the Niobrara aquifer.

However, if Application Nos. 8749-3, 8750-3, 8751-3, and 8752-3 are developed, they may induce withdrawal from the Tulare: Western Spink Hitchcock aquifer which is a fully appropriated aquifer. Over time induced withdrawals from the Tulare aquifer may create conditions that could be considered an unlawful impairment of existing water rights in the Tulare: Western Spink Hitchcock aquifer.

Special Consideration – Induction of Water from a Fully Appropriated Management Unit

As discussed in the Hydrogeologic Characteristics section, the Niobrara aquifer these applications (except No. 8748-3) seek to appropriate water from may directly underly the fully appropriated Tulare: Western Spink Hitchcock aquifer management unit. Consequently, pumping from the Niobrara aquifer may induce inflow from a fully appropriated management unit of the Tulare aquifer. Consequently, this may pose a beneficial use and public interest consideration for the Water Management Board which is beyond the technical review provided in this report. To aid in decision-making by the Board, the applicant should conduct an aquifer performance test monitoring both the Niobrara aquifer and the Tulare: Western Spink Hitchcock aquifer prior to approval of Water Permit Application Nos. 8749-3, 8750-3, 8751-3, and 8752-3 to determine whether pumping from the Niobrara aquifer under the local hydrogeologic conditions will induce inflow from the Tulare: Western Spink Hitchcock aquifer.

Special Consideration – Suitability for Irrigation

In a letter to the holder of Cancelled Water Permit No. 1286-3 dated November 27, 1978, then Chief Engineer Hatch indicated the permit holder had abandoned use of that irrigation permit because the water was ruining his land [9]. Hamilton and Howells [15] indicate "The large sodium concentration in the Niobrara aquifer makes the water unsuitable for irrigation use." It is recommended the applicant complete a soil-water compatibility analysis by a qualified soil scientist to determine whether the water is suitable for irrigation, or when used for irrigation, what best management practices are needed to ensure water is placed to beneficial use in compliance with SDCL 46-2A-9.

Conclusions:

1. Water Permit Application No. 8748-3 proposes to appropriate 1.94 cfs from one well to be completed into the Niobrara aquifer located in the approximate center of the NE $\frac{1}{4}$ Section 36 for irrigation of 136 acres located in the NE $\frac{1}{4}$ Section 36; all in T113N-R64W.
2. Water Permit Application No. 8749-3 proposes to appropriate 1.94 cfs from one well to be completed into the Niobrara aquifer located in the approximate center of the NW $\frac{1}{4}$ Section 33 for irrigation of 136 acres located in the NW $\frac{1}{4}$ Section 33; all in T114N-R63W.
3. Water Permit Application No. 8750-3 proposes to appropriate 7.77 cfs from four wells to be completed into the Niobrara aquifer located in the approximate centers of the SE $\frac{1}{4}$, SW $\frac{1}{4}$ Section 4 and NE $\frac{1}{4}$, SE $\frac{1}{4}$ Section 5 for irrigation of 544 acres located in the S $\frac{1}{2}$ Section 4 and E $\frac{1}{2}$ Section 5; all in T113N-R63W.
4. Water Permit Application No. 8751-3 proposes to appropriate 14.0 cfs from four wells to be completed into the Niobrara aquifer located in the approximate centers of the NW $\frac{1}{4}$

Section 32, Center of Section 31, SW $\frac{1}{4}$ Section 30; all in T114N-R63W and the center of the NE $\frac{1}{4}$ Section 36-T114N-R64W for irrigation of 982 acres located in the NW $\frac{1}{4}$ Section 32, Section 31, SW $\frac{1}{4}$ Section 30; all in T114N-R63W and the NE $\frac{1}{4}$ Section 36-T114N-R64W.

5. Water Permit Application No. 8752-3 proposes to appropriate 1.94 cfs from one well to be completed into the Niobrara aquifer located in the approximate center of the NE $\frac{1}{4}$ Section 7 for irrigation of 136 acres located in the NE $\frac{1}{4}$ Section 7; all in T113N-R63W.
6. Based on the hydrologic budget and observation well analysis, there is reasonable probability unappropriated water is available for these applications in the Niobrara aquifer.
7. There is reasonable probability these applications can be developed without unlawful impairment of existing water rights in the Niobrara aquifer.
8. If these applications are approved, the applicant should follow best management practices as recommended by a qualified soil scientist to prevent damage to the soil from poor water quality in the Niobrara aquifer. The permit may include a qualification requiring regular testing of the soil salinity.
9. Based on lithologic information available, Application Nos. 8749-3, 8750-3, 8751-3, and 8752-3 should be deferred to allow for an aquifer performance test to determine whether Niobrara aquifer withdrawals potentially impact the Tulare: Western Spink Hitchcock aquifer.
10. The Niobrara aquifer near the proposed well site for Application No. 8748-3 is overlain by a mapped area of the Pierre shale, which acts as a confining layer between the Niobrara and Tulare aquifers, so it is not likely to cause a noticeable impact to the Tulare aquifer.



Kimberly C. Drennon, E.I.
Engineer II – DANR Water Rights Program

References

- [1] J. E. Martin, J. F. Sawyer, M. D. Fahrenbach, D. W. Tomhave and L. D. Schulz, "Geologic Map of South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 2004. General Map 10.
- [2] L. S. Hedges, S. L. Burch, D. L. Iles, R. A. Barari and R. A. Schoon, "Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa Tasks 1-4," SD DANR Geological Survey Program, Vermillion, South Dakota, 1982.

- [3] N. Steen and A. Mathiowetz, "Report to the Chief Engineer on Water Permit Application No. 8624-3," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2022.
- [4] L. W. Howells and J. C. Stephens, "Geology and Water Resources of Beadle County South Dakota Part II: Water Resources," SD DANR Geological Survey Program, Vermillion, South Dakota, 1968. Bulletin 18.
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- [6] Fahrenbach, M. D., F. V. Steece, J. F. Sawyer, K. A. McCormick, G. L. McGillivray, L. D. Schulz and J. A. Redden, "South Dakota Stratigraphic Correlation Chart," SD DANR Geological Survey Program, Vermillion, South Dakota, 2010. Oil and Gas Investigations 3.
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- [9] SD DANR Water Rights Program, "Water Right Permit Files," SD DANR Water Rights Program, Pierre, South Dakota, 2023.
- [10] SD DANR Water Rights Program, "Irrigation reports," Joe Foss Bldg., Pierre, South Dakota, 2022.
- [11] SD DANR Drinking Water Program, "Drinking Water Reports," SD DANR Drinking Water Program, Pierre, South Dakota, 2021.
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- [14] SD DANR Water Rights Program, *County Files*, Pierre, South Dakota: SD DANR Water Rights Program, 2023.
- [15] L. J. Hamilton and L. W. Howells, "Water Resources of Spink County, South Dakota," United States Geological Survey, Rapid City, South Dakota, 1996. Water-Resources Investigations Report 96-4056.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

October 17, 2023

Van Buskirk Farms, LLP
c/o Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

You should have received a letter dated October 16, 2023, regarding Water Permit Application Nos. 8748-3, 8749-3, 8750-3, 8751-3, and 8752-3. A notice has been sent to the **Plainsman** printed in Huron SD (Ph # 605 353-7414) for No. 8748-3. For Nos. 8749-3, 8750-3, 8751-3, and 8752-3 the notice has also been sent to the **Huron Plainsman and the Redfield Press** in Redfield SD (Ph # 605 472-0822). I did not notice that the other applications 8749-3 through 8750-3 have different counties which is why they need to be printed in the other newspaper. I will also be calling to remind you that your applications have been submitted for public notice on October 25, 2023. Should you have any questions, feel free to call me.

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.

Please note that as a legal entity, Van Buskirk Farms, LLP is required to be represented by legal counsel in this administrative proceeding.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

October 16, 2023

Van Buskirk Farms, LLP
c/o Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

Water Permit Application No. 8748-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plainsman printed in Huron SD (Ph # 605 353-7414). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Please note that as a legal entity, Van Buskirk Farms, LLP is required to be represented by legal counsel in this administrative proceeding.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

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

NOTICE OF HEARING on Application No. 8748-3 to Appropriate Water

Notice is given that Van Buskirk Farms LLP, c/o Matthew Van Buskirk, PO Box 98, Hitchcock SD 57348 has filed an application for a water permit to appropriate 1.94 cubic feet of water per second (cfs) from one well to be completed into the Niobrara Aquifer (approximately 207 feet deep) located in the approximate center of the NE 1/4 Section 36 for irrigation of 136 acres located in the NE 1/4 Section 36; all in T113N-R64W. This site is located approximately 6 miles southwest of Hitchcock SD.

South Dakota Codified Law (SDCL) 46-2A-4(10) provides that “if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer’s recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board.” In this case, the Chief Engineer finds that this application presents important issues of public interest that should be heard by the Water Management Board.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8748-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer’s recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

The Water Management Board will consider this application at 9:45 AM (Central Time) on December 6, 2023, in the Matthew Training Center, Joe Foss Bldg, 523 E. Capitol Ave., Pierre SD. The Chief Engineer’s recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing.

Any person who intends to participate in the hearing shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer’s address is “Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501” or call (605) 773-3352. The applicant’s mailing address is given above. If contesting the Chief Engineer’s recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by November 6, 2023.

The petition shall be in writing and 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. The hearing is an adversary proceeding and any party has the right to be present at the hearing and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing and decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

The December hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition to oppose the application. The request for an automatic delay must be filed by November 6, 2023. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicant and all petitioners regarding the time, date, and location.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by November 6, 2023.

Notice is given to individuals with disabilities that the meeting is being held in a physically accessible location. Individuals requiring assistive technology or other services in order to participate in the meeting or materials in an alternate format should contact Brian Walsh, Nondiscrimination Coordinator, by calling (605) 773-5559 or by email at Brian.Walsh@state.sd.us as soon as possible but no later than two business days prior to the meeting in order to ensure accommodations are available.

Under SDCL 1-26-17(7) notices must state that "if the amount in controversy exceeds \$2,500.00 or if a property right may be terminated, any party to the contested case may require the agency to use the Office of Hearing Examiners by giving notice of the request to the agency no later than ten days after service of a notice of hearing issued pursuant to SDCL 1-26-17." This is a Notice of Hearing, service is being provided by publication, and the applicable date to give notice to the Chief Engineer is November 6, 2023. However, since this particular matter is a water permit application and not a monetary controversy in excess of \$2,500.00 or termination of a property right the Chief Engineer disputes the applicability of this provision and maintains that the hearing must be conducted by the Board.

As applicable, the following provides the legal authority and jurisdiction under which the hearing will be held and the particular statutes and rules pertaining to this application: SDCL 1-26-16 thru 1-26-28; SDCL 46-1-1 thru 46-1-9, 46-1-13 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-17; 46-2A-1 thru 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21, 46-2A-23; 46-5-1.1, 46-5-2 thru 46-5-26, 46-5-30.2 thru 46-5-30.4, 46-5-31, 46-5-32 thru 46-5-34.1, 46-5-38 thru 46-5-39, 46-5-46, 46-5-47, 46-5-49; 46-6-1 thru 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-21, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

Published once at an approximate cost of_____.

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, October 16, 2023 1:00 PM
To: rcrandall@plainsman.com
Subject: 8748-3 Van Buskirk Farms LLP - Public Notice
Attachments: 8748-3 public.wmb_final.docx; FORM8.FRM.doc

Attached is a notice to be published on October 25, 2023.

Van Buskirk Farms LLP, c/o Matthew Van Buskirk, PO Box 98, Hitchcock SD 57348, (605-350-5671) has been notified to contact you to authorize publication and arrange for payment.

I am requesting that you please send the affidavit or Publication form via email or mail ASAP to the Water Rights Program, 523 E Capitol Ave, Pierre SD 57501. It would be greatly appreciated.

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



Proof Of Publication

Huron Plainsman
49 3rd Street SE
Huron, SD 57350
605-353-7402

Legal Notice Number: 2249

I, Kim Davis, being duly sworn on oath say that the Plainsman is a daily paper published at Huron, Beadle County South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am a Legal Advertising Coordinator of said newspaper and know that facts herein state. The annexed notice headed: VanBuskirk Farms – Notice of Hearing was published for one day, in said newspaper and not in any supplement of the said newspaper; the publication was on 10/25/2023. That the full amount of the fee charged for the \$79.50 insures to the benefit of the publisher of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whom so ever.

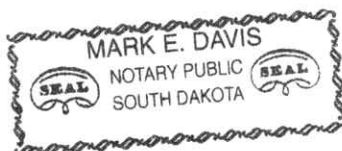


Subscribed and sworn to me before this date 10/25/23.



Notary Public, South Dakota

My Term Expires 12/27/2024



RECEIVED

NOV 03 2023

OFFICE OF
WATER

F. P. 10-25-23
**NOTICE OF HEARING
on Application
No. 8748-3 to
Appropriate Water**

Notice is given that Van Buskirk Farms LLP, c/o Matthew Van Buskirk, PO Box 98, Hitchcock SD 57348 has filed an application for a water permit to appropriate 1.94 cubic feet of water per second (cfs) from one well to be completed into the Niobrara Aquifer (approximately 207 feet deep) located in the approximate center of the NE 1/4 Section 36 for irrigation of 136 acres located in the NE 1/4 Section 36; all in T113N-R64W. This site is located approximately 6 miles southwest of Hitchcock SD.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8748-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at

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. The hearing is an adversary proceeding and any party has the right to be present at the hearing and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing and decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

The December hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition to oppose the application. The request for an automatic delay must be filed by November 6, 2023. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicant and all petitioners regarding the time, date, and location.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by November 6, 2023.

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No. 2249 (adv.)
Published one time at the total approximate cost of \$79.50 and may be viewed free of charge at www.sdpublicnotices.com.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JAN 08 2024

Van Buskirk Farms LLP
c/o Matthew Van Buskirk
PO Box 98
Hitchcock SD 57348

Dear Mr. Van Buskirk:

Enclosed is Water Permit No. 8748-3 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.

The water quality of the Niobrara aquifer in your area has the potential for a high sodium adsorption ratio making it unsuitable for irrigation. As the permit holder you will want to maintain the suitability of the soil for irrigation. You are encouraged to have a soil-water compatibility analysis completed by a qualified soil scientist to determine whether the water is suitable for irrigation. This may include establishing an irrigation management plan to maintain the suitability of the soil for plant growth and to avoid damage to the soil structure.

Sincerely,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

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

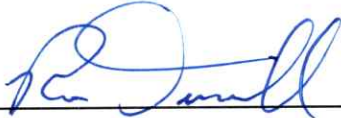
Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the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

Application No.: 8748-3

Name of Applicant: Van Buskirk Farms LLP, Matthew Van Buskirk

Date of Posting: 10/24/2023

Date of Removal: 1/8/2024

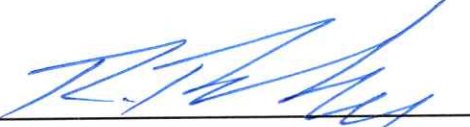


Ron Duvall, Engineer III

1/8/2024

Date

Subscribed and sworn to before me, a notary public, this 8th day of January, 2024.



Notary Public - South Dakota

My commission expires:

Rachel Rodriguez
My Commission Expires
May 16, 2029

(SEAL)

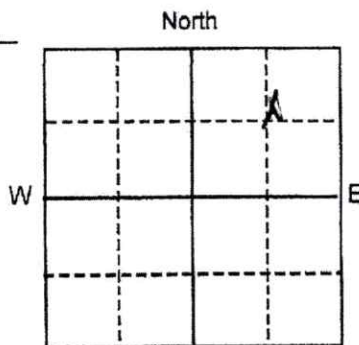


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location N 1/4 NE 1/4 Sec 36 Twp 113 Rg 64County Beadle

Please mark well location with an "X"



Well Completion Date

5-3-24

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
NONE ft. from _____ (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Mud Rotary

CASING DATA:

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>#20</u>	<u>10</u>	Lb/gal	<u>0</u> Ft	<u>230</u> Ft
		Lb/gal		

Describe grouting procedure

Pumped Through Drill Pipe

SCREEN:

☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From _____ Feet to _____ Feet
 Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☐ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?
☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: V9abuskirk Farms

Business Name:

Address: PO Box 98City, State, Zip: Hitchcock SD 57348

A.W. Mathiowetz 06/10/2024

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>2</u>
<u>Yellow Clay</u>	<u>2</u>	<u>21</u>
<u>Blue Clay</u>	<u>21</u>	<u>83</u>
<u>Shale</u>	<u>83</u>	<u>155</u>
<u>Chalk</u>	<u>155</u>	<u>202</u>
<u>Shale</u>	<u>202</u>	<u>230</u>

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow _____ through _____

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:
☐ Bailed
☐ Other

RECEIVED

JUN 10 2024

Pumping Level Below Land Surface

OFFICE OF WATER

_____ Ft. After _____ Hrs. pumped

GPM

_____ Ft. After _____ Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

Dry Hole No Water lossThis well was drilled under license # 722 and this report is true and accurate.

Drilling firm:

Stretch's Well Service Inc.

Signature of License Representative:

Erin Blathgen

Signature of Well Owner or Equitable Property Holder:

Michael Blathgen

Date:



also add to: 8261-3, 7315A-3, 7264-3
7316-3, 8108-3, 8109-3, 8110-3
8748-3, 8752-3, 8751-3, 8750-3

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

8749-3
5601-3

January 21, 2025

7316-3

Van Buskirk Farms LLP
18892 390th Ave
Hitchcock SD 57348

Dear Mr. Van Buskirk:

Enclosed is a "Notice" dated January 14, 2025, concerning the 2024 Irrigation Questionnaire.

The notice was originally mailed to Van Buskirk Farms LLP, PO Box 98, Hitchcock SD 57348. The post office notified our office that your address has changed, and your records have been updated accordingly.

This is a time sensitive matter. Please complete and return the enclosed questionnaire or submit your report online at <https://danr.sd.gov/iq/> using this password **CFLRWV**.

If this change of address is in-correct, please contact our office immediately to update your contact information.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

55E NFE 114192410001/15/25
RETURN TO SENDER
VANBUSKIRK
18892 390TH AVE
HITCHCOCK SD 57348-7707

RETURN TO SENDER