

WATER PERMIT NO. 8876-3

Name of Applicant: **East River Genetic Services, LLC.**

Address: **29440 482nd Avenue, Hudson SD 57034**

Phone: **909-957-6525**

Amount of Water Claimed: **0.55 cfs**

Total Acres: **N/A**

Source of Water Supply: **Groundwater**

Water to be used for: **Commercial**

County: **Lincoln**

Type of Waste Disposal System:

Location: **Approx. 5.5 miles northeast of Hudson SD**

PRIORITY Date Received: **05-23-24**

Application/License Fee: **\$1,150.00**

Corrected Application Received: **06-12-24**

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

Remarks:

Diversion Point: **SW 1/4 NW 1/4 Sec 19-T96N-R48W**

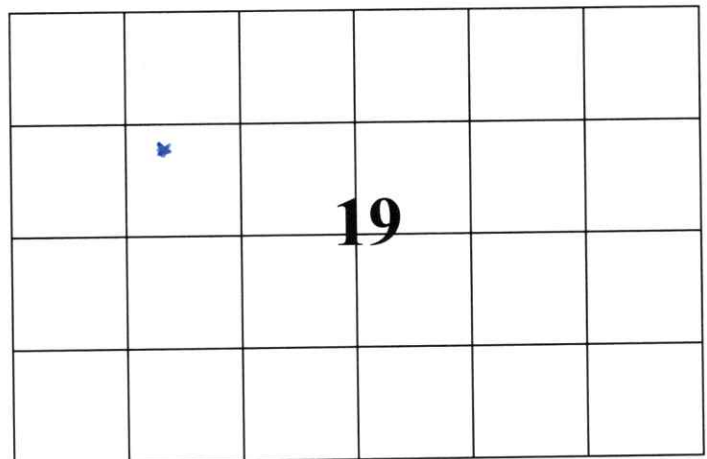
Land to be Irrigated: **N/A**

Depth of Well: **700**

Well Driller: **Thein Well**

Remarks:

Type of Map: **aerial**



Reviewed and the Number Assigned on: **06-12-24**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8876-3

Date of first receipt of application May 23, 2024.

Date of return to applicant for corrections, amendments or changes May 30, 2024.

Date of receipt of corrected application June 12, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8876-3 to East River Genetic Services, LLC., 29440 482nd Avenue, Hudson SD 57034, 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. 8876-3 appropriates up to 243 acre-feet of water annually at a maximum, combined, pump rate of 0.56 cubic feet of water per second from two existing wells and one proposed well all in the Dakota Aquifer (approximately 700 feet deep) located in the SW 1/4 NW 1/4 Section 19-T96N-R48W. Water is to be used for commercial use in a cattle confinement operation located in portions of the W 1/2 Section 19-T96N-R48W and E 1/2 E 1/2 Section 24-T96N-R49W. This site is located approximately five and one-half miles west of Hudson 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. 8876-3 is August 19, 2024.
5. The date from which applicant may claim right is May 23, 2024.
6. One-fifth of the construction is to be completed on or before February 19, 2027.
7. All construction is to be completed on or before August 19, 2029.
8. Water is to be put to beneficial use on or before August 19, 2033.
9. 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 Water Permit No. 8876-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under this Permit 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. The proposed well authorized by Permit No. 8876-3 must be constructed by a licensed well driller and construction of the well and installation of the pump must 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.

(continued)

3. The proposed new well and any future replacement wells must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. The new well and any replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.
4. Water Permit No. 8876-3 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.
5. Water Permit No. 8876-3 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
6. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Dakota Aquifer.
7. Water Permit No. 8876-3 authorizes a total annual diversion of up to 243 acre-feet of water from the Dakota Aquifer.

WATER MANAGEMENT BOARD

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

SEP 06 2024

date



SD EForm - 1585LD V5
FORM 2: Application for uses other than irrigation
(type or print)

PAID

MAY 23 2024
Ck# 6186
Rec't#

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8876-3</u> (office use only)
	Hydrologic Unit <u>10170203</u>
	Basin <u>Big Sioux</u>
	Newspaper <u>Lennox Independent</u> <u>Sioux Falls Argus Leader</u>

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

Check use(s) of water:

☐ Municipal	☐ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other	

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 East River Genetic Services, LLC
Mailing Address 29440 482nd Avenue Hudson SD 57034
(Address) (City) (State) (Zip Code)
Phone _____ Mobile 909-957-6525 Email jvanderwell@agbus.com
- Amount of water claimed 0.56 *CFS or 250 **GPM and 243 ***AF or 79,181,793 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 Dakota Sandstone (SW 1/4 NW 1/4)
- Location of point of diversion 3 wells in NW1/4, SW1/4, NW1/4, Sec. 19 - T96N - R48W County Lincoln
(example - 3 wells in SW1/4 NE1/4 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? _____
(example - NW1/4 section 12-T104N-R53W)
- County or counties where water will be used Lincoln
- Annual period during which water is to be used Continuously 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)
Existing 14,000 head immature dairy cattle confinement operation.

I, Josh Vander Well Member, 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.

RECEIVED

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)

MAY 23 2024

OFFICE OF
WATER

Supplemental Information

(type or print)

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

a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by Thein Well Company - Proposed
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) 700' Depth to Top of Water Bearing Material 300' Depth to Water from Surface 300'

d) Distance to nearest domestic well on applicant's property 300' Property owned by others 3/4 mile

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)

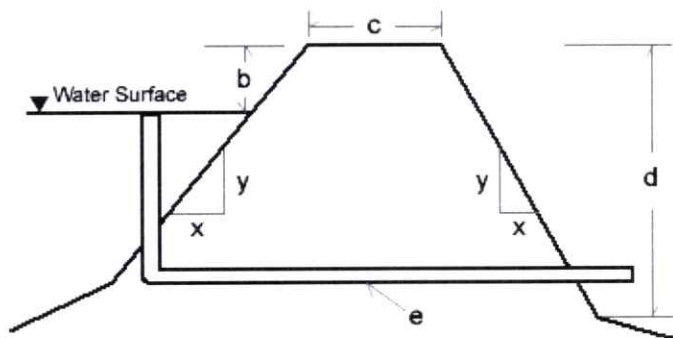
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Feet

j) Drainage Area Above Dam _____ Acres



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MAY 23 2024

OFFICE OF
WATER

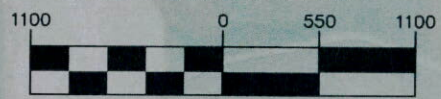


ProAg Engineering, Inc. 77402 U.S. Highway 71, P.O. Box 181 Jackson, MN 56143 (507) 849-7200	EAST RIVER GENETIC SERVICES, LLC. PROPOSED DAIRY HEIFER OPERATION NW 1/4, SECTION 19, T96N, R48W LINCOLN COUNTY, SOUTH DAKOTA			Date	5/20/24	Checked By	Project No.	SHEET
				Drawn	D.D.A.	N.J.R.	21-065	2/2



RECEIVED
MAY 23 2024
OFFICE OF
WATER

GRAPHIC SCALE



(IN FEET)
1 inch = 1100 ft.

481ST AVENUE

SECTION 24, T-96-N, R-49-W,
LINCOLN COUNTY, SOUTH DAKOTA

EXISTING
DEEP WELL

EXISTING
DEEP WELLS

PROPOSED
DEEP WELL

SECTION 19, T-96-N, R-48-W,
LINCOLN COUNTY, SOUTH DAKOTA

ASSUMED WEST LINE OF SECTION 19,
T-96-N, R-48-W, LINCOLN COUNTY,
SOUTH DAKOTA

294TH STREET

483RD AVENUE

295TH STREET

SECTION 25, T-96-N, R-49-W,
LINCOLN COUNTY, SOUTH DAKOTA

482ND AVENUE

SECTION 30, T-96-N, R-48-W,
LINCOLN COUNTY, SOUTH DAKOTA

296TH STREET

SHEET 1/2		Project No. 21-065	
Date 5/20/24		Checked By N.J.R.	
Drawn D.D.A.		EAST RIVER GENETIC SERVICES, LLC. EXISTING DAIRY HEIFER OPERATION NW 1/4, SECTION 19, T96N, R48W LINCOLN COUNTY, SOUTH DAKOTA	
ProAg Engineering, Inc. 77402 U.S. Highway 71, P.O. Box 181 Jackson, MN 56143 (507) 849-7200			

96N 48W
Section: 17

96N 48W
Section: 18

96N 49W
Section: 13

96N 48W
Section: 20

96N 48W
Section: 19

96N 49W
Section: 24

10170203 Lower Big Sioux

Big Sioux

96N 48W
Section: 21

96N 48W
Section: 30

96N 49W
Section: 25



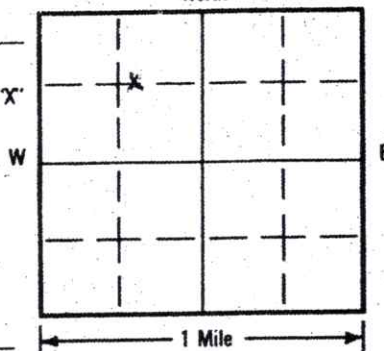
SOUTH DAKOTA WATER WELL COMPLETION REPORT

6406-3

07-92

Location NE 1/4 NW 1/4 Sec 19 Twp 96N Rg 48W
County LINCOLN

Please mark well location with an "X"



Well Completion Date

Dec 2, 2003

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 105 ft. from Feed lot (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>50R 17 LB/FT</u>	<u>5 IN</u>	<u>6 FT</u>	<u>574 FT</u>	<u>9 IN</u>
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Best GRT</u>	<u>34</u>	<u>210 lb./gal</u>	<u>22 ft</u>	<u>520 ft</u>
<u>Cement GRT</u>	<u>6</u>	<u>214 lb./gal</u>	<u>7 ft</u>	<u>22 ft</u>

Describe grouting procedure TremieSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 5 IN Length 40 FEETMaterial PVCSlot Size 030 Set From 574 Feet to 614 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: HTH

____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: HAVERHALL Feedlot

Business Name: _____

Address: Hudson, SD

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
CLAY, BRN: SUTY, pebbly	0	61
CLAY, GRAY, SUTY, pebbly	61	125
CLAYSTONE, Dk gray, V. stick	125	353
SANDSTONE, DR GR. BRN: calc.	353	375
CLAYSTONE, Dk GRAY	375	515
CLAYSTONE + SANDSTONE, Thin-bedded	515	554
SANDSTONE, WHITE, V FINE	554	623

STATIC WATER LEVEL 300 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

315 ft. After 20 Hrs. pumped 50 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 45 GPM

REMARKS

RECEIVED

JAN 30 2004

WATER RIGHTS PROGRAM

This well was drilled under license # 666

And this report is true and accurate.

Drilling firm Hammond-Watmore DrillingSignature of License Representative: [Signature]Signature of Well Owner or Equitable Property Holder: [Signature]Date: 1-6-04

2-1-04

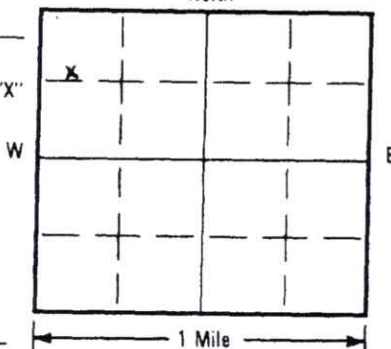
SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW 1/4 NW 1/4 Sec 19 Twp 96N Rg 48W
County LINCOLN

North

Please mark well location with an "X"



Well Completion Date

29 April 2001

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 380 ft. from Feed lot (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>1.80</u> LB/FT	<u>5</u> IN	<u>546</u> FT	<u>6</u> FT	<u>9</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland Cement</u>	<u>29</u>	<u>21</u> lb./gal	<u>21</u> ft	<u>540</u> ft
<u>Port Cement</u>	<u>4</u>	<u>214</u> lb./gal	<u>21</u> ft	<u>6</u> ft

Describe grouting procedure TremieSCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 5 IN Length 240 FEETMaterial PVCSlot Size .040 Set From 546 Feet to 586 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: HTH☐ NO, Why Not? _____

Laboratory sent to for water quality analysis

SD HealthWell Owner: John Haverhill

Business Name: _____

Address: 29457 482 Ave
Hudson, SD

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Yellow Limestone, clay, sand</u>	<u>0</u>	<u>36</u>
<u>clay, yellow, sandy, pebbly</u>	<u>36</u>	<u>72</u>
<u>clay, gray, sandy, pebbly</u>	<u>72</u>	<u>157</u>
<u>sand, multi layer</u>	<u>157</u>	<u>174</u>
<u>shale, dark gray</u>	<u>174</u>	<u>410</u>
<u>shale, light gray</u>	<u>410</u>	<u>540</u>
<u>clay, ls</u>		
<u>shale, dark</u>	<u>540</u>	<u>586</u>
<u>clay, ls, ls</u>	<u>586</u>	<u>601</u>

STATIC WATER LEVEL 304 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ in ch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

321 ft. After 30 Hrs. pumped 33 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 30 GPM

REMARKS

This well was drilled under license # 666

And this report is true and accurate.

Drilling firm Haverhill-Watmar DrillingSignature of License Representative: [Signature]

Signature of Well Owner or Equitable Property Holder: _____

Date: 4-29-01

ProAg Engineering, Inc.

Nicholaus J. Rowe, P.E.
77402 US Hwy 71
P.O. Box 181
Jackson, MN 56143
507-841-3269
nic@proageng.com

May 20, 2024

SD DANR – Water Rights
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

RE: East River Genetic Services, LLC
Existing Dairy Operation
Lincoln County, South Dakota
ProAg Project #21-065

On behalf of East River Genetic Services, LLC we are submitting the SD DANR Water Use Permit application for the construction of a third deep well at the existing 14,000 head immature dairy cow confinement operation located in Lincoln County. All of the immature dairy cows will be housed and milked in multiple confinement barns. The facility is proposing to drill one deep well adjacent to the two existing deep wells on the site where confinement operation is located. The site needs a total pumping capacity of 250 gallons per minute from the three wells. The wells will be located in the NW ¼, SW ¼, NW ¼, Section 19, T-96-N, R-48-W, Lincoln County.

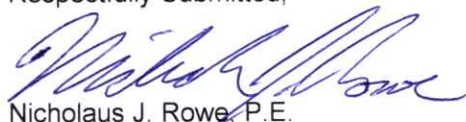
There is a third existing well adjacent to the residence that is owned by the facility on the west side of 482nd Avenue and is shown on the enclosed maps. This well only supplies water to the residence. No well log was found for this well.

Enclosed please find a copy of the following:

1. Completed Water Use Permit for Nonirrigation Uses w/ \$1,150.00 check for permit fee
2. Existing Well Logs
3. Site Plan Drawing

We trust the above information is adequate for your review and approval. Should you have any questions please do not hesitate to contact me at 507-849-7200.

Respectfully Submitted,



Nicholaus J. Rowe, P.E.
ProAg Engineering, Inc.

RECEIVED

MAY 23 2024

OFFICE OF
WATER

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date May 23, 2024

RECEIVED OF East River Genetic Services

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

Fee for Application for Permit No. <u>8876-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>950.00</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>8876-3</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>1150.00</u>

By Eric Gronlund
Chief Engineer
SK

State of South Dakota

Office of the Secretary of State

Certificate of Authority

Foreign Limited Liability Company

I, **Monae L. Johnson**, Secretary of State of the State of South Dakota, hereby certify that the APPLICATION FOR CERTIFICATE OF AUTHORITY to transact business in this state for

East River Genetic Services, LLC

BUSINESS ID# FL272220

with an effective date of: April 4, 2024, duly signed and verified, pursuant to the provisions of the South Dakota Limited Liability Company Act, has been received in this office and is found to conform to law.

ACCORDINGLY, and by virtue of the authority vested in me by law, I hereby issue this Certificate of Authority and attach hereto a duplicate of the APPLICATION FOR CERTIFICATE OF AUTHORITY.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of South Dakota, in Pierre, the Capital City, this day, April 4, 2024.

Monae L. Johnson

Monae L. Johnson
Secretary of State

04/04/2024 4:54 PM



FL272220

APPLICATION FOR CERTIFICATE OF AUTHORITY

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

FOREIGN LIMITED LIABILITY COMPANY
SDCL 47-34A-1002

Filing Fee: \$750

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

Total Fee: \$750

Application must be accompanied by a one page **Original Certificate of Existence** issued by the Secretary of State or other official having custody of the organizational records in the state or other jurisdiction under whose law it is organized.

1. The name of the Company: **East River Genetic Services, LLC**
2. If the name indicated above does not include Limited Liability Company, Limited Company or the abbreviation L.L.C., LLC, L.C. or LC. (Limited may be abbreviated as Ltd. and company may be abbreviated as Co.), then what is the alternative name adopted:

3. Professional Type (Optional):

4. The name of the state or other jurisdiction under whose laws it is organized: **MICHIGAN**

5. The address of its principal office (this is the address of the executive offices of the company):

Actual Street Address

588 3 MILE RD NW

SUITE 101

GRAND RAPIDS, MI 49544

Mailing Address

588 3 MILE RD NW

SUITE 101

GRAND RAPIDS, MI 49544

6. If the jurisdiction under which the company is formed requires the company to maintain an office in that jurisdiction then provide for that office:

Actual Street Address

Mailing Address

7. 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 **Joshua L. Vander Well**

Actual Street Address in this State

29440 482ND AVENUE

HUDSON, SD 57034

Mailing Address in this State

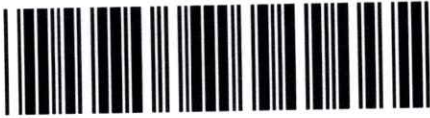
29440 482ND AVENUE

HUDSON, SD 57034

8. The duration of the company if other than perpetual is: **Perpetual**

If the document is not to be effective upon filing by the Secretary of State, the delayed effective date is:

B0308-4658 04/04/2024 2:45PM Rec'd by SD SOS



9. 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).

04/04/2024

Dated

Email (Optional)

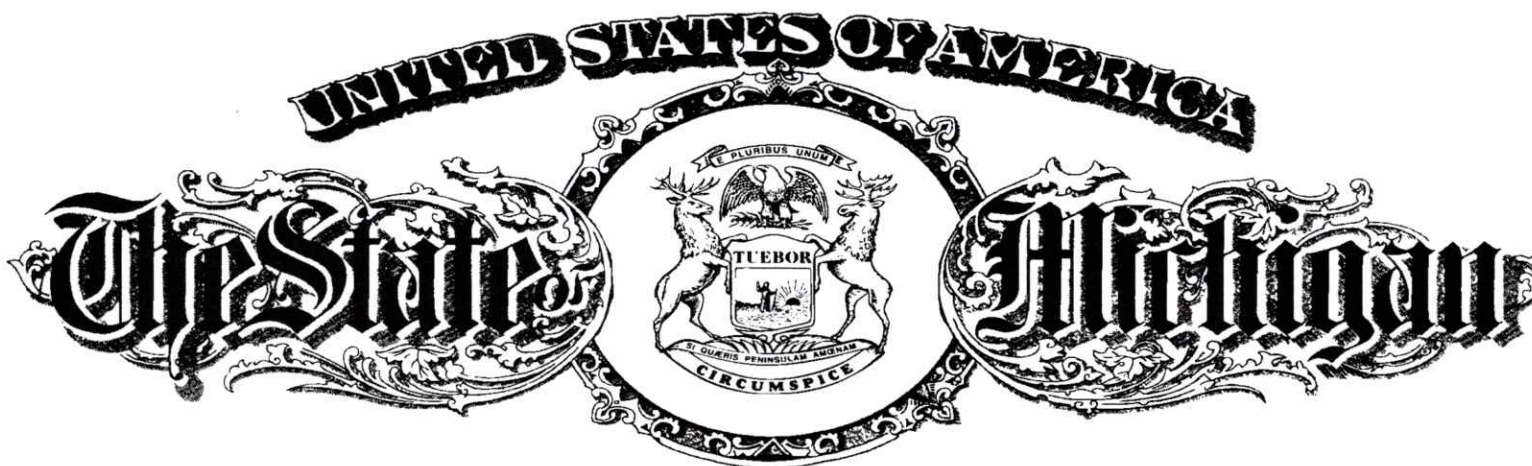
Joshua L. Vander Well

Signature of an Authorized Person

Joshua L. Vander Well

Printed Name

B0308-4659 04/04/2024 2:45PM Rec'd by SD SOS



Department of Licensing and Regulatory Affairs

Lansing, Michigan

This is to Certify That

EAST RIVER GENETIC SERVICES, LLC

*was validly authorized on March 3 , 2021, as a Michigan
DOMESTIC LIMITED LIABILITY COMPANY
and said limited liability company is validly in existence under the laws of this state and has satisfied its
annual filing obligations.*

*This certificate is issued pursuant to the provisions of 1993 PA 23 to attest to the fact that the company is
in good standing in Michigan as of this date.*

*This certificate is in due form, made by me as the proper officer, and is entitled to have full faith and credit
given it in every court and office within the United States.*



Sent by electronic transmission

Certificate Number: 24040103206

*In testimony whereof, I have hereunto set my hand,
in the City of Lansing, this 4th day of April , 2024.*

A handwritten signature in black ink, reading "Linda Clegg".

Linda Clegg, Director

Corporations, Securities & Commercial Licensing Bureau

Duvall, Ron

From: Duvall, Ron
Sent: Thursday, August 1, 2024 11:01 AM
To: nic@proageng.com
Cc: Gronlund, Eric; Dewell, Amanda
Subject: RE: [EXT] East River Genetics Services Water Permit Application

OK, thank you for the response. I should have started from 405 acre-feet, so 60% is 243 acre-feet which will be placed on the staff working copy of the application.

Ron

From: nic@proageng.com <nic@proageng.com>
Sent: Thursday, August 1, 2024 10:43 AM
To: Duvall, Ron <Ron.Duvall@state.sd.us>
Cc: Gronlund, Eric <Eric.Gronlund@state.sd.us>; Dewell, Amanda <Amanda.Dewell@state.sd.us>
Subject: RE: [EXT] East River Genetics Services Water Permit Application

Hi Ron,
Yes the 60% of the 403 acre-feet is acceptable. Let me know if you need anything else or have any questions.

Thanks, Nic Rowe P.E.
ProAg Engineering, Inc.
PO Box 181
Jackson, MN 56143
507-841-3269 (cell)
507-849-7200 (office)

From: Duvall, Ron <Ron.Duvall@state.sd.us>
Sent: Thursday, August 1, 2024 10:14 AM
To: Nic Rowe <nic@proageng.com>
Cc: Gronlund, Eric <Eric.Gronlund@state.sd.us>; Dewell, Amanda <Amanda.Dewell@state.sd.us>
Subject: East River Genetics Services Water Permit Application

Nicholas,

Following up on our Tuesday phone conversation this week regarding the volume of water being applied for by the dairy operation in Lincoln county. As we discussed, the application is for 250 gallons per minute and the volume specified on the application represented continuous pumping – 132,000,000 gallons or about 403 acre-feet. After we get a revised volume, the staff report on the application can be finalized and we can move on to the public notice step of the permitting process.

After today, I will be out of the office Friday, and back next week. You can reply back to this email or call me directly at 605.773.5670.

Thank you,

Rodriguez, Rachel

From: nic@proageng.com
Sent: Wednesday, June 12, 2024 11:26 AM
To: Rodriguez, Rachel
Subject: RE: [EXT] Haverhals Feedlot
Attachments: Water Use Permit App-2.pdf

Hi Rachel,

Thanks for the quick response. For some reason your first email went to my Trash folder. Attached is the updated application form with the two items added. Let me know if you need anything else or have any questions. Also please let me know when it goes to public notice.

Thanks, Nic Rowe P.E.
ProAg Engineering, Inc.
PO Box 181
Jackson, MN 56143
507-841-3269 (cell)
507-849-7200 (office)

From: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Sent: Wednesday, June 12, 2024 10:49 AM
To: Nic Rowe <nic@proageng.com>
Subject: FW: Haverhals Feedlot

Good Morning Nic,

I sent an email on May 30th and have not received a reply from you, see attached email.

Thank you,

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



From: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Sent: Wednesday, June 12, 2024 10:44 AM
To: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: FW: [EXT] Haverhals Feedlot

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



From: nic@proageng.com <nic@proageng.com>
Sent: Wednesday, June 12, 2024 10:34 AM
To: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Cc: Duvall, Ron <Ron.Duvall@state.sd.us>
Subject: RE: [EXT] Haverhals Feedlot

Hi Amanda,

We submitted a new water use permit for this site in East River Genetics name about a month ago. Just wondering the status of this application and double checking that you received it. Please let me know if you need anything else or have any questions or concerns.

Thanks, Nic Rowe P.E.
ProAg Engineering, Inc.
PO Box 181
Jackson, MN 56143
507-841-3269 (cell)
507-849-7200 (office)

From: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Sent: Tuesday, July 11, 2023 9:50 AM
To: Nic Rowe <nic@proageng.com>
Subject: Haverhals Feedlot

Nick –

My name is Amanda and I'm with the South Dakota Water Rights Program. I am currently working on a Water Use License for the Haverhals Feedlot located in SW ¼ NW ¼ Section 19-T96N-R48W, Lincoln County SD.

During a field inspection done by a staff engineer it was brought to out attention that the feedlot had transferred ownership and was now to be a dairy (name unknown). It is my understanding that you are to be the contact person for this project, is that correct? And if not do you know who should be?

With this water use permit being up for licensing I need to know the current pump rate that the two wells on the property operate at. Currently they are permitted for the combined diversion of 0.067 cfs (roughly 30gpm).

If the land has changed ownership, we would need a "Transfer of Ownership" form completed along with a fee of \$50.00 to move the current water permit from Haverhals to the new dairy owner.

I would also assume that with the expansion you would be needed a significantly higher water output. If that is the case, I would put you in touch with Ron Duvall (Engineer and Permitting Administrator) to figure out how much more water you would need for this new operation and the time constraints for development.

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, June 12, 2024 10:49 AM
To: nic@proageng.com
Subject: FW: [EXT] Haverhals Feedlot
Attachments: Water Permit Application

Good Morning Nic,

I sent an email on May 30th and have not received a reply from you, see attached email.

Thank you,

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



From: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Sent: Wednesday, June 12, 2024 10:44 AM
To: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: FW: [EXT] Haverhals Feedlot

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



From: nic@proageng.com <nic@proageng.com>
Sent: Wednesday, June 12, 2024 10:34 AM
To: Dewell, Amanda <Amanda.Dewell@state.sd.us>
Cc: Duvall, Ron <Ron.Duvall@state.sd.us>
Subject: RE: [EXT] Haverhals Feedlot

Hi Amanda,

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, May 30, 2024 12:02 PM
To: 'nic@proageng.com'
Subject: Water Permit Application
Attachments: East River Genetic Svcs.pdf

Good afternoon,

I am looking over the application for a water permit, see attached, and everything looks good. I just have a couple of items that need clarification:

- We will need a volume of water in acre-feet or gallons.
- We need to know what type of water use, I assume it is commercial?

Once I receive the information requested, I can begin processing your application.

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8876-3, East River Genetic Services, LLC**

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. 8876-3, East River Genetic Services, LLC, 29440 482nd Avenue, Hudson SD 57034.

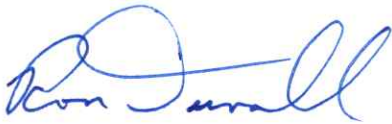
The Chief Engineer is recommending APPROVAL of Application No. 8876-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water 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 wells approved under Water Permit No. 8876-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under this Permit 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. The proposed well authorized by Permit No. 8876-3 must be constructed by a licensed well driller and construction of the well and installation of the pump must comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. The proposed new well and any future replacement wells must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. The new well and any replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.
4. Water Permit No. 8876-3 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)

5. Water Permit No. 8876-3 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
6. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Dakota aquifer.
7. Water Permit No. 8876-3 authorizes a total annual diversion of up to 243 acre-feet of water from the Dakota aquifer.

See report on application for additional information.



for Eric Gronlund, Chief Engineer
August 1, 2024

Report to the Chief Engineer
On Water Permit Application No. 8876-3
East River Genetic Services LLC

August 1st, 2024

Water Permit Application No. 8876-3 proposes to appropriate up to 243 acre-feet of water annually at a maximum, combined, pump rate of 0.56 cubic feet of water per second (cfs) from two existing wells and one proposed well all in the Dakota aquifer (approximately 700 feet deep) located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 19-T96N-R48W. Water is to be used for commercial use in a cattle confinement operation located in portions of the W $\frac{1}{2}$ Section 19-T96N-R48W and E $\frac{1}{2}$ E $\frac{1}{2}$ Section 24-T96N-R49W. The site of interest is located approximately 5.5 miles west of Hudson, SD in Lincoln County.

AQUIFER: Dakota (DKOT)

HYDROGEOLOGY:

The Dakota Formation is defined as the first relatively continuous sandstone below the Greenhorn Limestone, and it extends downward to the top of the Skull Creek Shale in western and central South Dakota (Schoon, 1971). In eastern South Dakota, the Skull Creek Shale is not continuous and when absent, the Dakota Formation directly overlies Precambrian bedrock or the Inyan Kara Group (Schoon, 1971). In western South Dakota, a stratigraphically equivalent formation to the Dakota Formation is the Newcastle Formation, which outcrops the Black Hills (Bredehoeft and others, 1983). In eastern South Dakota the Dakota Formation can be separated into three layers: 1) upper layer of fine to medium grained, light to reddish brown, quartz sandstone interbedded with minor gray to dark grey shale layers; 2) a middle layer of silty gray clay interbedded with minor sandstone layers; and 3) a lower layer of medium to coarse grained quartz sandstone (Schoon, 1971).

The Dakota aquifer is comprised of the saturated and permeable portions of the Dakota Formation and is a primarily confined bedrock aquifer throughout most of South Dakota (Schoon, 1971; Water Rights 2024b and 2024d). The Dakota Formation underlies approximately 66,500 square miles of the 77,047 square miles that make up of the state of South Dakota and has an average thickness of 150 feet (Schoon, 1971). Schoon (1971) estimates the amount of water stored in the Dakota aquifer by assuming 15% porosity for the Dakota Formation, multiplied by the average thickness (150 feet) and areal extent (66,500 square miles or 42.5 million acres) of the aquifer to calculate an approximate 960 million acre-feet of stored water in South Dakota.

Two water well completion reports were submitted with Water Permit Application No. 8876-3. The water well completion reports indicate one of the wells is located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 19, completed on December 3rd, 2003, and the other report indicates completion in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 19 completed on April 29, 2001; both in T96N-R48W (Water Rights, 2024d). The actual location of both wells is in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 19-T96N-R48W. The water well completion reports are similar with the 2003 well indicating the top of aquifer

material (white sandstone) at 554 feet below the ground surface, a static water level of 300 feet below the ground surface, and a total aquifer saturation of 69 feet (Water Rights, 2024d). Several other nearby water well completion reports for the Dakota aquifer show the aquifer to be confined near the location of the diversion points (Water Rights, 2024b and 2024d). Considering all the information listed above, the aquifer at the diversion points for this application is expected to be confined.

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 unappropriated water is available for the applicant’s proposed use, the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, the proposed use is a beneficial use, and the permit is 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 uses and water rights within the Dakota aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8876-3 proposes to appropriate water from the Dakota aquifer. The probability of unappropriated water being available from the aquifer can be evaluated by considering 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 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 Dakota aquifer is older than or stratigraphically lower than the Greenhorn Formation; 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 Dakota aquifer must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers with a higher artesian pressure than the Dakota aquifer, downward seepage from overlying confining layers, and through the infiltration of precipitation on the Newcastle Formation that outcrops in the Black Hills (Bredehoeft and others, 1983; Water Rights, 2024b). Using computer modeling, Bredehoeft and others (1983) attempted to match Darton's (1909) potentiometric surface map of the Dakota aquifer and developed a recharge estimate of approximately 79.4 cfs (57,500 acre-feet-year) prior to well development. However, assumptions used in Bredehoeft and other's (1983) recharge estimate are now outdated. For example, the recharge estimates used for the Madison and Inyan Kara aquifers in Bredehoeft and other's (1983) analysis are much lower than estimates calculated by the more recent research of Carter and others (2002). While outdated the Bredehoeft and other's (1983) estimate is provided as best information available to give a sense of scale of the recharge to the Dakota aquifer in South Dakota, it is unknown whether the true recharge rate of the Dakota aquifer is higher or lower than Bredehoeft and other's (1983) estimates. Locally in Lincoln County, the Dakota aquifer is also receiving an unquantified amount of recharge from the Lennox and Schindler aquifers and the Sioux Quartzite (Iles, 1984).

Discharge

Discharge from the Dakota aquifer in South Dakota occurs through well withdrawals, uncontrolled flowing wells, outflow through corroded well casings, and outflow to overlying or adjacent aquifers due to higher artesian pressure in the Dakota aquifer (Bredehoeft and others, 1983; Water Rights, 2024a and 2024c). Locally the Dakota aquifer likely discharges to the Lower Vermillion Missouri, Missouri: Elk Point, and Sioux Quartzite aquifers (depending on location and water level elevation) (Niehus, 1994). Currently, there are 260 water rights/permits authorized to appropriate water from the Dakota aquifer (Water Rights, 2024c). There are 7 future use permits reserving 4,287 acre-feet/year of water from the Dakota aquifer, shown on Table 1 (Water Rights, 2024c).

Table 1. Future Use Permit reserved water for the Dakota aquifer (Water Rights, 2024c)

Future Use Permit Holder	Amount of Reserved Water (acre-feet)
South Lincoln Rural Water System (No. 4817-3)	1,448
City of Lennox (Nos. 5101-3, 5101A-3)	0*
Lincoln County Rural Water System (No. 5155-3)	440
City of Canton (Nos. 5219-3, 1262C-3)	1,849
City of Harrisburg (No. 8400-3)	550
Total:	4,287
*City of Lennox has allocated all the water they had reserved	

Table 2 summarizes the 240 non-irrigation water rights/permits authorized to appropriate water from the Dakota aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The amount of water that can be withdrawn was estimated by assuming the non-irrigation water rights/permits limited by an annual volume will withdraw their entire appropriated volume every year. It is estimated that non-irrigation water rights/permits limited only by a diversion rate will pump at their maximum permitted diversion rate for 60 percent of the time. The 60 percent estimation was established by Water Rights Staff to be a reasonable and safe estimate of average annual withdrawals by non-irrigation appropriations. Historically, the 60 percent estimate has been accepted by the Water Management Board. There are also some water permits/rights that divert their water from more than one aquifer, only the diversion from the Dakota aquifer will be accounted for on Table 2 (Water Rights, 2024c). It should be noted that some of the water permits/rights on Table 2 are connected to rural water systems and use rural water rather than their local wells; so, they will not contribute to the annual withdrawal rate. This includes water rights for the City of Canton which purchases 30% of their water from South Lincoln Water System (Drinking Water, 2024). Overall, the estimated average annual withdrawal rate for the Dakota aquifer non-irrigation water rights/permits is 22,146 acre-feet/year (Table 2) (Water Rights, 2024c). This application proposes to appropriate up to 243 acre-feet of water annually from the Dakota aquifer for commercial use. Collectively, the average annual withdrawal rate for the non-irrigation appropriations (22,146 acre-feet/year), plus this application's proposed annual withdrawal rate (243 acre-feet/year), is approximately 22,389 acre-feet per year.

Table 2. Estimated annual use for non-irrigation water rights/permits authorized to divert water from the Dakota aquifer (Water Rights, 2024c)

Type of Use	No. of Water Rights/Permits	Authorized Annual Volume (acre-feet)	Authorized Diversion Rate (cfs)	Estimated Annual Use (acre-feet/year)
COM	109	2,023.05	11.48	7,008
DOM	11	0	1.75	762
FWP	4	0	2.73	1,187
GEO	2	0	2.33	1,012
IND	7	167	0.84	534
INS	2	0	1.34	582
MUN	89	3,274	6.99	6,312
REC	3	3.10	0.45	199
RWS	6	2,005	2.20	2,961
SHD	7	0	3.33	1,447
Total:	240	7,472.15	33.78	22,003
COM: Commercial, DOM: Domestic, FWP: Fish & Wildlife Propagation, GEO: Geothermal, IND: Industrial, INS: Institutional, MUN: Municipal, REC: Recreation, RWS: Rural Water System, SHD: Suburban Housing Development				

Currently, there are 20 irrigation water rights/permits appropriating water from the Dakota aquifer (Water Rights, 2024c). Irrigation water rights/permits have been typically required to report their annual usage by submitting an irrigation questionnaire since 1979. The average annual withdrawal rate for the Dakota aquifer irrigation water rights/permits that have reported

over the period of record (1979 to 2022) is approximately 159 acre-feet per year (Table 3) (Water Rights, 2024a). To reflect the current development of irrigation water rights/permits more accurately, the average annual withdrawal rate for irrigation appropriations from 2013 to 2022 is approximately 233 acre-feet per year (Table 3) (Water Rights, 2024a). Water Permit No. 8842-3 was recently approved in 2024, so they have not reported an annual usage yet and will need to be accounted for. Generally, crop irrigators in eastern South Dakota apply less than one foot of water per acre per year. One foot of water per acre per year application rate will be used, as an overestimate, to estimate the annual withdrawal rate for Water Permit No. 8842-3. Water Permit No. 8842-3 is permitted to irrigate 120 acres. Therefore, Water Permit No. 8842-3 will have an estimated annual use of 120 acre-feet per year. Combining this estimate with the reported annual average results in an estimated annual irrigation withdrawal rate of 353 acre-feet per year.

There are domestic wells completed into the Dakota aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2024d). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the Dakota 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 Dakota aquifer.

Table 3. Reported historic irrigation use from the Dakota aquifer (Water Rights, 2024a)

Year	No. of Permits	Reported Use
1979	2	38
1980	2	110
1981	4	45
1982	5	33
1983	5	64
1984	4	0
1985	5	8
1986	5	239
1987	5	1
1988	4	453
1989	4	265
1990	4	234
1991	5	165
1992	5	40
1993	7	112
1994	7	52
1995	8	31
1996	8	34
1997	9	48
1998	9	176
1999	10	102
2000	10	173
2001	11	161
2002	10	179
2003	10	205
2004	10	154
2005	12	147
2006	13	232
2007	14	200
2008	14	196
2009	15	131
2010	17	172
2011	18	175
2012	18	298
2013	18	257
2014	17	163
2015	17	236
2016	16	196
2017	16	229
2018	16	157
2019	15	108
2020	16	246
2021	16	256
2022	17	483
Max.	18	483
Min.	2	0
Average (1979-2022)	10	159
Average (2013-2022)	16	233

Hydrologic Budget Summary

The average annual recharge rate to the Dakota aquifer has not been accurately quantified. Bredehoeft and others (1983) estimated the recharge rate to be approximately 57,500 acre-feet/year. However, the data used to create the Bredehoeft and others (1983) recharge estimate is dated and the actual recharge rate of the Dakota aquifer could be higher or lower than previously estimated. The estimated average withdrawal rate from the Dakota aquifer totals to approximately 27,029 acre-feet/year; (future use: 4,287 acre-feet/year; non-irrigation including this application: 22,389 acre-feet/year; and irrigation (avg 2013 to 2022): 353 acre-feet/year). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Dakota aquifer for the proposed appropriation.

OBSERVATION WELL DATA:

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

The DANR-Water Rights Program monitors 46 observation wells completed into the Dakota aquifer. The observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The three closest observation wells to the proposed diversion point are LN-81P (approximately 7.7 miles northeast), LN-81Q (approximately 8.0 miles northeast), and LN-80S (approximately 11.8 miles northwest) (Water Rights, 2024b). The water level elevations for these observation wells are displayed in Figure 1 (Water Rights, 2024b). The majority of observation wells in the Dakota aquifer have a declining water level, with several observation wells that are under the influence of heavy pumping showing a history of slightly declining water levels that eventually stabilize and a couple that have stable water levels over their period of record. The data shown on Figure 1 shares a similar trend with most of the southern Lincoln County observation wells in the Dakota aquifer.

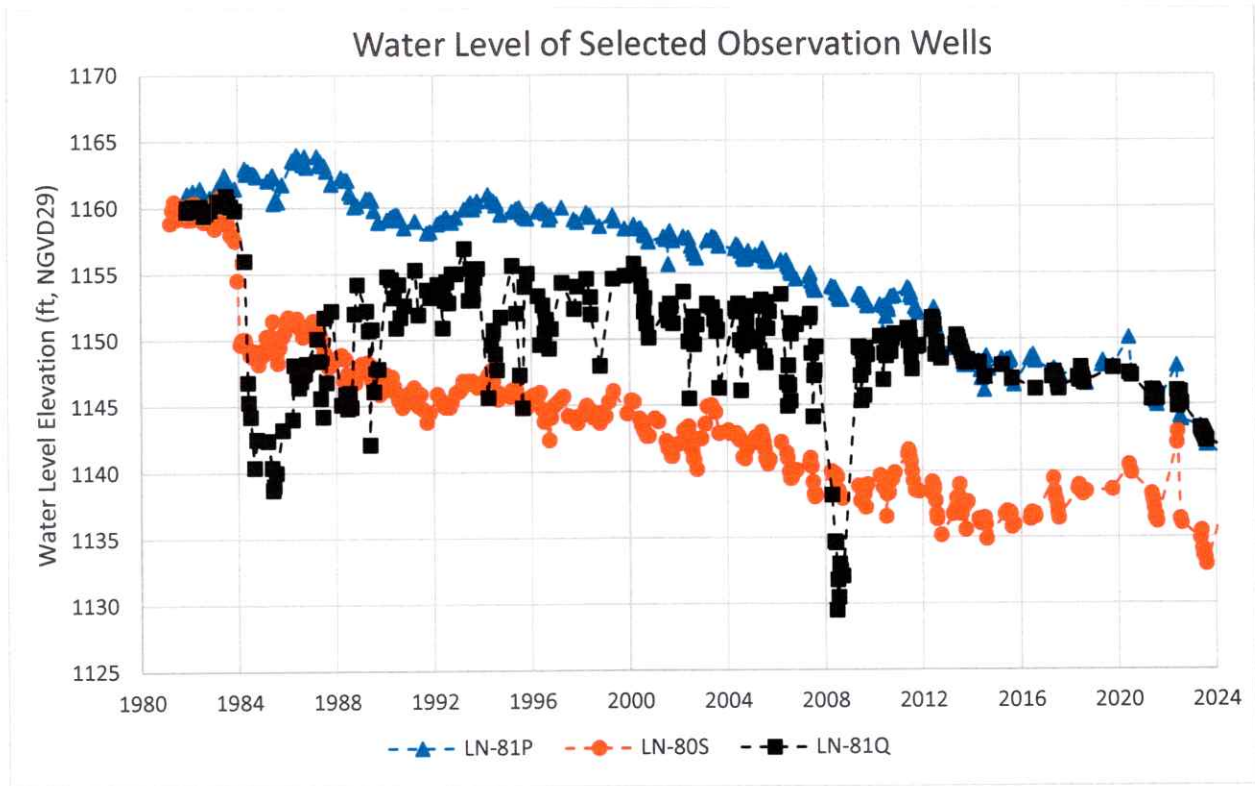


Figure 1. A graph showing the elevation of water levels of observation wells LN-81P, LN-81Q, and LN-81S (Water Rights, 2024b)

Figure 1 shows the observation wells display decreasing water levels which is representative of a majority of other observation wells in the Dakota aquifer. It should be noted several observation wells do show water levels that stabilize or have started stabilizing. The observation wells under influence of heavy and continuous pumping quickly stabilize after the pumping starts. In confined aquifers, a decline in observation well water levels do not necessarily indicate a significant decrease in water stored in the confined aquifer, since measured water levels are a reflecting artesian head pressure. Additionally, there are uncontrolled, flowing wells discharging water from the Dakota aquifer at ground surface, and it is expected water from the aquifer is also being discharged to other aquifers if wells completed into the Dakota aquifer have experienced casing failure. Concerns have developed over time about the decline in artesian head pressure of the Dakota aquifer. The Water Management Board has concluded that withdrawals exceeding the average annual recharge cannot be determined solely upon decline in head pressure, and in theory the Dakota aquifer head is stabilizing relative to withdrawals and discharges (Water Rights, 1987). Since discharge from uncontrolled flowing wells is likely to continue until water levels in the aquifer decline to being at or below the ground surface, continuing to allow beneficial pumping to occur reduces the amount of water being discharged to waste. The Water Management Board's decision to optimize development of the Dakota aquifer is favorable to issuance of permits. There is a reasonable probability unappropriated water is available for the proposed appropriation.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Water rights/permits in the general vicinity of the existing well sites and proposed well site for this application are shown in Figure 2 and summarized in Table 4 (Water Rights, 2024c). The closest water right/permit (not held by the applicant) to the diversion points is Water Right No. 6439-3 which is held by the Hulstein Feedyards LLC. The diversion point for Water Right No. 6439-3 is located approximately 4.6 miles northwest from this application (Water Rights, 2024c). It should be noted that Water Rights Nos. 6406-3, 6416-3, & 7162-3 were recently transferred ownership and are currently held by East River Genetic Services LLC. There are domestic wells on file with the DANR-Water Rights Program that are completed into the Dakota aquifer, with the closest domestic well on file (not held by the applicant) approximately 1.3 miles northeast of the diversion points based on the location identified by the well driller on the well completion report submitted by the driller (Water Rights, 2024d). There could potentially be other domestic wells completed into the Dakota aquifer near the diversion point that are not on file with the DANR-Water Rights Program.

Table 4. List of water rights/permits within 10 miles of the diversion points shown in Figure 2.

Permit	Name/Business	Priority	Status	Use Type	CFS	Acres
4982-3	Town of Fairview	10/26/1983	License	Municipal	0.09	0
6064-3	Doug Kats	03/17/1998	License	Irrigation	1.78	224
6406-3	East River Genetics Services LLC.	04/10/2003	License	Commercial	0.111	0
6416-3	East River Genetics Services LLC.	04/11/2003	License	Commercial	0.06	0
6439-3	Hulstein Feedyards LLC.	09/02/2003	License	Commercial	0.07	0
6574-3	Wendall Nilson	12/27/2004	License	Commercial	0.111	0
7162-3	East River Genetics Services LLC.	09/28/2009	License	Commercial	0.19	0

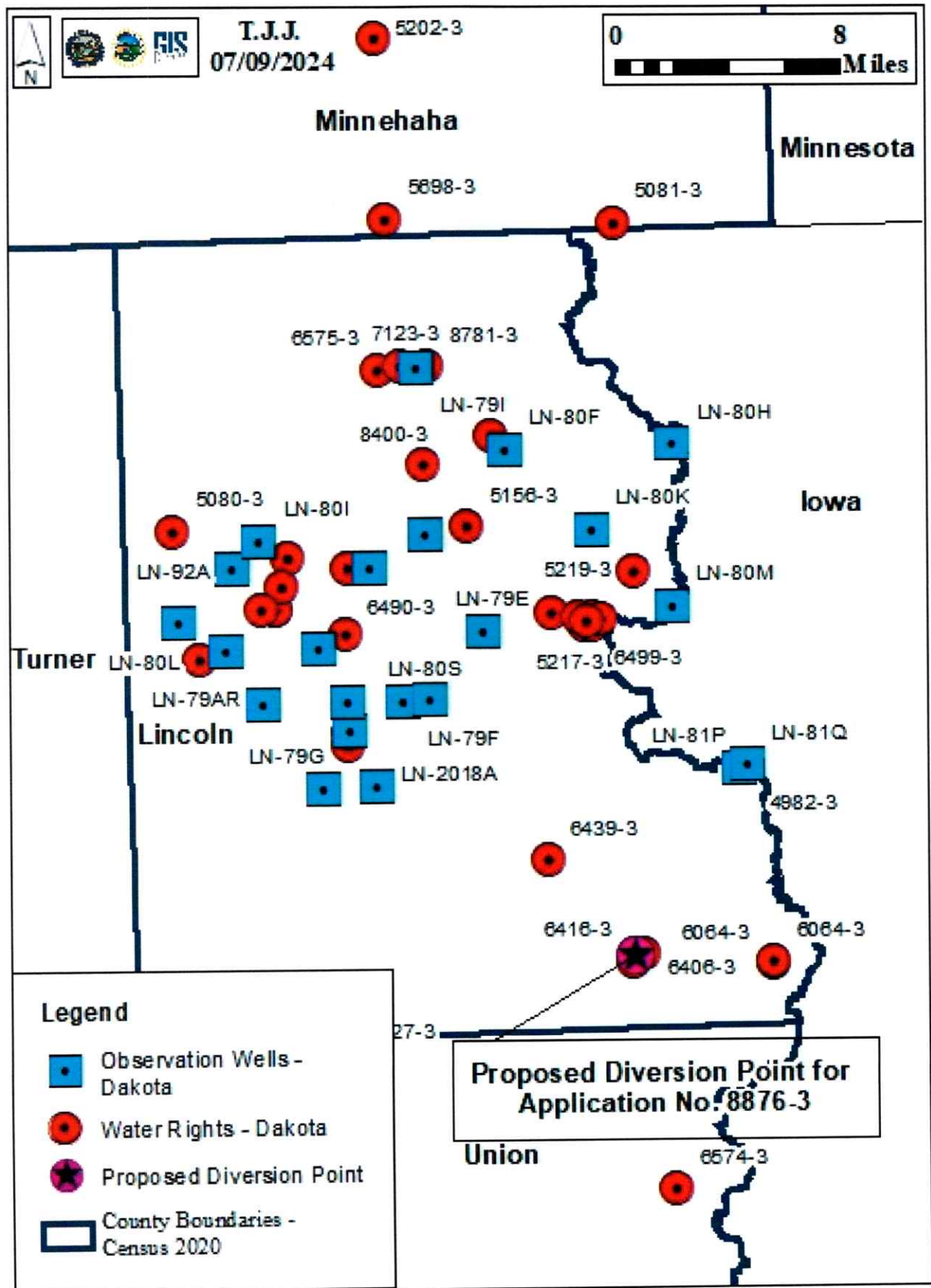


Figure 2. Map of the Dakota aquifer water rights/permits within Lincoln County (Water Rights, 2024b and 2024c).

The Dakota aquifer is primarily under confined conditions. In a confined aquifer, drawdown from a pumping well can extend some distance from the well. The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

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

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). When considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20 (6) and (7)), the saturated thickness of the Dakota aquifer in Lincoln County, the lack of well interference complaints for adequate wells completed into the Dakota aquifer in Lincoln County (Water Rights, 2024e), any drawdown created from the diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments on existing users with adequate wells.

Special Consideration: Water Quality (Sweet Pocket Area)

In central and southern Lincoln County, there is an area commonly referred to as the “sweet pocket” in the Dakota aquifer, which contains better water quality compared to the rest of the aquifer. While the source of the higher water quality is unknown, it is believed to be limited, since the water locally recharging the Dakota aquifer is of poorer quality than the water being withdrawn (Iles, 1984). In the past, development for irrigation out of the “sweet pocket” area has been contentious (Water Rights, 2024c). The approximate area of the “sweet pocket” is indicated by the presence of lower total dissolved solid concentrations, as seen in Figure 3 (Iles, 1984). The proposed diversion point and existing wells proposed to be used by Water Permit Application No. 8876-3 are located within the “sweet pocket” (Figure 3) (Iles, 1984).

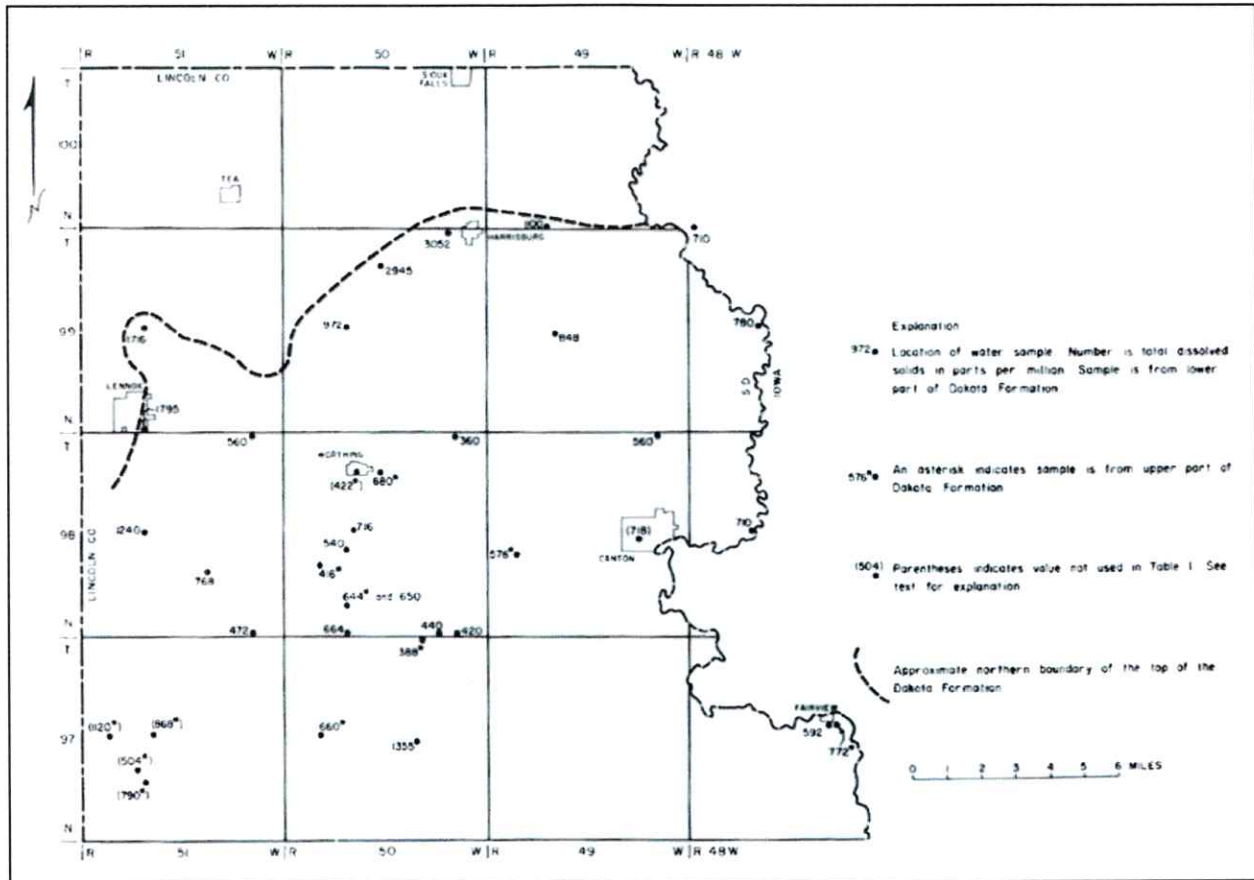


Figure 3. Distributions of total dissolved solids in the Dakota aquifer (modified from Iles, 1984) (Note parentheses only relevant to original publication)

Special Consideration: Well Construction

The new well for this proposed diversion must meet adequate well construction standards as defined in ARSD 74:02:04:20.

An adequate well has been defined in ARSD 74:02:04:20 (6) as:

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

The alternative well construction standard for certain Dakota aquifer wells (74:02:04:35) are not permitted for appropriative uses. The new well and any future replacement wells shall meet the adequate well construction standard as defined in ARSD 74:02:04:20. Replacement wells for this application may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

Abridged History of Dakota Aquifer Water Permit Applications in Lincoln County

In 1982, the Water Management Board approved Future Use Permit No. 4817-3 which reserves water for future use by South Lincoln Rural Water. The future use area designated by this permit included over 290 square miles in southern Lincoln County. Currently, there is 1,448 acre-feet per year remaining in this future use reservation (Water Rights, 2024c).

In 1989, South Lincoln Rural Water filed Future Use Permit No. 5320-3 that proposed to reserve water for future use. The Board denied Future Use Permit No. 5320-3 due to failure to demonstrate the quantity of water to be reserved would be needed by South Lincoln Rural Water.

In 1992, ICI Seed Company submitted Water Permit Application No. 5669-3, which proposed irrigating 60 acres using a well to be completed into the Dakota aquifer to be located approximately 14 miles west of the proposed diversion point and existing well proposed to be used by Water Permit Application No. 8876-3. The history of declining water levels in the aquifer statewide in conjunction with the controversy associated with the development of the Dakota aquifer for nearby public water systems (i.e. South Lincoln and Lincoln County RWS, and Cities of Canton and Lennox) lead staff to question whether irrigation from the Dakota aquifer is in the public interest (Buhler, 2014; Goodman 1992). The Chief Engineer recommended denial of Water Permit Application No. 5669-3 because “it is not in the public interest to allow use of Dakota Formation water for irrigation in this location. The application is also within the South Lincoln Rural Water System Future Use area specified by Future Use Permit No. 4817-3” (Hatch, 1992). In response to the denial recommendation, the application was withdrawn before any board consideration.

In 2009, Paul M Buckneberg submitted Water Permit Application No. 7165-3, which proposed irrigation from the Dakota aquifer approximately 25 miles west of the proposed diversion point and existing well proposed to be used by Water Permit Application No. 8876-3. The well site proposed by Water Permit Application No. 7165-3 is approximately nine miles west of the future use area designated by Future Use Permit No. 4817-3. The Chief Engineer recommended approval of the application and following a contested case hearing, the Water Management Board approved the water permit. The Board concluded that the Dakota aquifer is large and capable of sustaining additional withdrawals, past declines (of artesian head pressure) do not automatically mean that withdrawals have exceeded recharge, the reference to withdrawals in SDCL 46-6-3.1 applies only to withdrawals of water within the Board’s control and not to uncontrollable flowing wells, and that the potential to diminish the “sweet pocket” by irrigating at the specific location is speculative. Although this issue may bear a hard look in future cases involving other locations, it does not outweigh the public interest in granting this particular application at this specific location and claims of potential diminishment of sweet water sometime in the future for the public water supply systems does not constitute an “impairment of existing domestic water issues and water rights” within the meaning of SDCL 46-2A-9.

In 2014, Anden VanBeek submitted Water Permit Application No. 7991-3, which proposed irrigating 480 acres using water from the Dakota aquifer. The application was withdrawn from consideration by the applicant prior to hearing following the Chief Engineer making a denial

recommendation. Many factors were considered when recommending denial of the application, including:

“Through the history of hearing, it is clear the Water Management Board was concerned about the water quality and use from the Dakota aquifer in this area. The Record shows that the Water Management Board and its predecessor, the Water Rights Commission have been very concerned with both the possible interference to existing wells and rate of decline in the aquifer. In addition, the Board has expressed concern with the potential of diminishment of the better water quality area known as the “sweet pocket” by irrigating.”

Facts in this case area:

- The well proposed to be used by Water Permit Application No. 8876-3 is within the area commonly referred to as the “sweet pocket” in the Dakota aquifer relied upon by public water systems;
- The proposed well for this application is within the future use area of by Future Use Permit No. 4817-3, held by South Lincoln Rural Water System, which reserves water from the Dakota aquifer for the system’s future needs;
- The Water Management Board’s conditions on a South Lincoln Rural Water System requiring spacing between wells of at least 2.5 miles. The existing and proposed diversion points for Water Permit Application No. 8876-3 are located approximately 12.2 miles southeast from the nearest wells currently operated by South Lincoln Rural Water System;
- The use of water from the Dakota aquifer led to adversarial water permit hearings throughout the history of development of the aquifer in Lincoln County and a recognition by the Water Management Board that special consideration be given to water use from the Dakota aquifer in this area.

The staff report and Chief Engineer’s review of the record of past cases lead to this recommendation for denial because it is not in the public interest to allow use of water from the Dakota aquifer for irrigation in this specific location (Goodman, 2014).

In 2014, Dakota Plains Dairy LLC submitted Water Permit Application No. 8035-3, which proposed to use water from the Dakota aquifer for commercial use in a dairy operation. The well sites proposed to be used by Water Permit Application No. 8035-3 are located within the future use area designated by Future Use Permit No. 4817-3. At that time, the applicant requested consideration of the application wait until negotiations between South Lincoln Rural Water System and the dairy were completed. In 2015, the application was withdrawn by the applicant as it was unlikely an approval recommendation would have been made at that location.

CONCLUSIONS:

1. Water Permit Application No. 8876-3 proposes to appropriate up to 243 acre-feet of water annually at a maximum combined pump rate of 0.56 cfs from two existing wells and one well to be completed into the Dakota aquifer (approximately 700 feet deep) for commercial use. The site of interest is located in Lincoln County, 5.5 miles west of Hudson, SD.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Dakota aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the diversion by Water Permit Application No. 8876-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic uses.
4. The new well, if approved, and any future replacement wells must meet the adequate well construction standards and may not be constructed using the alternative well construction method defined in ARSD 74:02:04:35.
5. The Water Management Board concluded that in reference to SDCL 46-6-3.1, "withdrawals" applies only to water placed to beneficial use via appropriations or domestic use.
6. The Water Management Board's position has been to optimize development of water for beneficial use from the Dakota aquifer.


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

Reviewed by:


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

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- Water Rights, 2024d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024e. County Files, 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 2, 2024

East River Genetic Services, LLC.
c/o Josh Vander Well
29440 482nd Avenue
Hudson SD 57034

Dear Mr. Vander Well:

Water Permit Application No. 8876-3 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 Lennox Independent printed in Lennox SD (Ph # 605 647-2284) and the Argus Leader printed in Sioux Falls (Ph # 844-254-5287). 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 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 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. 8876-3 to Appropriate Water

Notice is given that East River Genetic Services, LLC., 29440 482nd Avenue, Hudson SD 57034 has filed an application for a water permit to appropriate up to 243 acre-feet of water annually at a maximum, combined, pump rate of 0.56 cubic feet of water per second from two existing wells and one proposed well all in the Dakota Aquifer (approximately 700 feet deep) located in the SW 1/4 NW 1/4 Section 19-T96N-R48W. Water is to be used for commercial use in a cattle confinement operation located in portions of the W 1/2 Section 19-T96N-R48W and E 1/2 E 1/2 Section 24-T96N-R49W. This site is located approximately five and one-half miles west of Hudson SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8876-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by August 19, 2024.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by August 19, 2024.

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

Published once at the total approximate cost of_

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, August 1, 2024 1:50 PM
To: Newspaper Notices
Subject: 8876-3 East River Genetic Services, LLC - Public Notice
Attachments: 8876-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on August 8, 2024.

East River Genetic Services, LLC., 29440 482nd Avenue, Hudson SD 57034, 909-957-6525, 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: Thursday, August 1, 2024 1:52 PM
To: legals@argusleader.com
Subject: 8876-3 East River Genetic Services, LLC - Public Notice
Attachments: 8876-3 public.short_final.docx; FORM8.FRM.doc

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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: Gannett Legals Public Notices 4 <ganlegpubnotices4@gannett.com>
Sent: Thursday, August 1, 2024 4:36 PM
To: Rodriguez, Rachel
Subject: RE: [EXT] 10449041 8876-3 East River Genetic Services, LLC - Public Notice
Attachments: 10449041.pdf

Good Afternoon,

Please find your order confirmation and proof of ad attached.

Your ad is set to run in the Argus Leader on August 8. The order cost is \$56.98 which includes an affidavit, that will be mailed to you 7-10 business days after the last day of the ad printing.

All orders are subject to a 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 with ACH. Pay by ACH and Save!
Final order cost provided at time of payment and via a receipt.

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

If you would like to utilize our online self-serve ad portal to place your legal notices in the future, please visit your local publication's online classifieds legal section. There, you can conveniently submit and immediately preview your notices anytime, 24/7.

Thank you!

Brittany Grady
Public Notice Representative



Office: 844-254-5287

From: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Sent: Thursday, August 1, 2024 1:52 PM
To: SFA-Legals mbx <allegals@gannett.com>
Subject: 10449041 8876-3 East River Genetic Services, LLC - Public Notice

Attached is a notice to be published on August 8, 2024.

East River Genetic Services, LLC., 29440 482nd Avenue, Hudson SD 57034, 909-957-6525, 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:	1474661
Customer Name:	East River Genetic Services LLC
Customer Address:	East River Genetic Services LLC 29440 482Nd AVE Hudson SD 57034-6627
Contact Name:	Rachel Rodriguez
Contact Phone:	(605) 773-3212
Contact Email:	rachel.rodriguez@state.sd.us
PO Number:	

Date:	08/01/2024
Order Number:	10449041
Prepayment Amount:	\$ 0.00

Column Count:	1.0000
Line Count:	162.0000
Height in Inches:	0.0000

Print

Product	#Insertions	Start - End	Category
SFA SiouxFalls Argus Leader 1		08/08/2024 - 08/08/2024	Public Notices
SFA argusleader.com 1		08/08/2024 - 08/08/2024	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!

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Service Fee 3.99%	\$2.27
Cash/Check/ACH Discount	-\$2.27
Payment Amount by Cash/Check/ACH	\$56.98
Payment Amount by Credit Card	\$59.25

Order Confirmation Amount
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PO Box 630567 Cincinnati, OH 45263-0567

AFFIDAVIT OF PUBLICATION

Rachel Rodriguez
East River Genetic Services LLC
29440 482Nd AVE
Hudson SD 57034-6627

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:

08/08/2024

and that the fees charged are legal.
Sworn to and subscribed before on 08/08/2024

Legal Clerk

Notary, State of WI, County of Brown

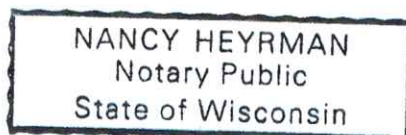
5.15.27

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Publication Cost:	\$56.98	
Tax Amount:	\$0.00	
Payment Cost:	\$56.98	
Order No:	10449041	# of Copies:
Customer No:	1474661	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.



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APPLICATION NO. 8876-3
to Appropriate Water**

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8876-3 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.

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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.

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<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 August 19, 2024.

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

Published once at the total approximate cost of \$56.98 and may be viewed free of charge at

www.sdpublicnotices.com.

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

:SS

COUNTY OF LINCOLN

Julia Eng

being first duly sworn, disposes and says: That (he/she) is a resident of the County of Lincoln and State of South Dakota; that THE LENNOX INDEPENDENT is a weekly legal newspaper of general circulation, printed and published in Lennox, in said County and State, and is now, and has been such newspaper continuously, during all the times hereinafter mentioned; that the affiant is affiliated with said newspaper as employer or employee and has personal knowledge of all the facts stated in this affidavit, and the notice and advertisement headed

Notice of Application No. 8876-3 to
Appropriate Water

a printed copy of which is hereonto attached and made a part hereof, was printed and published in the said newspaper 1 successive issues. That the first publication of said notice in said newspaper aforesaid was on Thursday the 8 day of August A.D., 20 24 and that the succeeding publication was severally

on Thursday the _____ day of _____ A.D., 20 _____
on Thursday the _____ day of _____ A.D., 20 _____
on Thursday the _____ day of _____ A.D., 20 _____
on Thursday the _____ day of _____ A.D., 20 _____
on Thursday the _____ day of _____ A.D., 20 _____
on Thursday the _____ day of _____ A.D., 20 _____

that the fees charged for the printing and publication of said notice and advertisement in said newspaper as aforesaid were 44 Dollars and 54 Cents, and that said fees for the printing and publishing of said notice and advertisement, and for the affidavit as aforesaid, have been fully paid; that the full amount of the fee charged for the publishing of the said attached and annexed notice and advertisement inures to the benefit of the publishers of the said Lennox Independent, 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, whomsoever.

Julia Eng

Subscribed and sworn to before me this 15 day of

Aug, 20 24.

Anne Hornan

Notary Public

Lincoln County, South Dakota

My Commission expires Oct. 26, 20 24.

NOTICES

NOTICE OF APPLICATION NO. 8876-3 to Appropriate Water

Notice is given that East River Genetic Services, LLC., 29440 482nd Avenue, Hudson SD 57034 has filed an application for a water permit to appropriate up to 243 acre-feet of water annually at a maximum, combined, pump rate of 0.56 cubic feet of water per second from two existing wells and one proposed well all in the Dakota Aquifer (approximately 700 feet deep) located in the SW 1/4 NW 1/4 Section 19-T96N-R48W. Water is to be used for commercial use in a cattle confinement operation located in portions of the W 1/2 Section 19-T96N-R48W and E 1/2 E 1/2 Section 24-T96N-R49W. This site is located approximately five and one-half miles west of Hudson SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8876-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/> public or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer.

RECEIVED

AUG 21 2024

OFFICE OF
WATER

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 August 19, 2024.

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

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by August 19, 2024.

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

Published once at the total approximate cost of \$41.54 and can be viewed free of charge at www.sdpublicnotices.com. (8-1)

STATE OF SOUTH DAKOTA
County of Lincoln

IN THE CIRCUIT COURT
JUDICIAL CIRCUIT

VS.

Affidavit of Publication

The within Affidavit of Publication of

was filed in my office this _____

day of _____, 20_____.

Clerk of Circuit Court of the _____
Judicial Circuit of the State of South
Dakota within and for Lincoln County.

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Friday, August 2, 2024 8:27 AM
To: 'jvanderwell@agbus.com'
Cc: 'nic@proageng.com'
Subject: 8876-3 East River Genetic Services, LLC - Public Notice
Attachments: 8876-3 Rec.pdf; 8876-3 Ltr.pdf; 8876-3 PubNotice.pdf; ArgusLeader Invoice.pdf

Good morning,

Attached is a copy of the report, chief engineer's recommendation, and information regarding the public notice for your water permit application. 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

SEP 06 2024

East River Genetic Services, LLC.
c/o Josh Vander Well
29440 482nd Avenue
Hudson SD 57034

Dear Mr. Vander Well:

Enclosed is Water Permit No. 8876-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

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

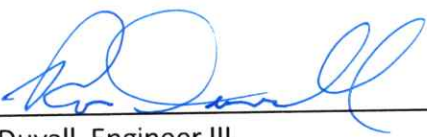
Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the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

Application No.: 8876-3

Name of Applicant: East River Genetic Services, LLC, c/o Josh Vander Well

Date of Posting: 8/5/2024

Date of Removal: 9/6/2024



Ron Duvall, Engineer III

9/6/2024

Date

Subscribed and sworn to before me, a notary public, this 6th day of Sept, 20 24.



Notary Public - South Dakota
My commission expires:

(SEAL)

Rachel Rodriguez
My Commission Expires
May 18, 2029



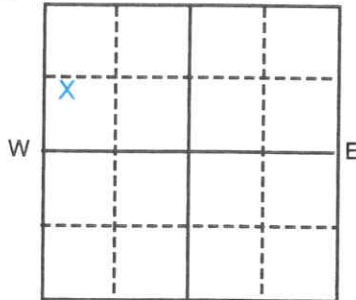
8876-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 19 Twp 96 Rg 48County LINCOLN ☒

North

Please mark well
location with an "X"

Well Completion Date

12/26/2024

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
200 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:

☒ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>8</u> IN	<u>0</u> FT	<u>570</u> FT	<u>14</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Neat Cement 12 YD</u>		Lb/gal	<u>0</u> Ft	<u>570</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

TREMMIE PIPED

SCREEN:

☐ Perforated pipe ☒ ManufacturedDiameter 4 InchesLength 133 FeetMaterial STAINLESS STEELSlot Size .010 Set From 570 Feet to 703 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? CHLORINATED☐ No, Why Not?Lab to which water
quality sample sent for analysisWell Owner: EAST RIVER GENETIC SERVICES

Business Name:

Address: 48340 SD HWY 46City, State, Zip: HUDSON ☒ SD ☒ 57034

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
SEE ATTACHED LOG	0	703

STATIC WATER LEVEL 323 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

365 Ft. After 7 Hrs. pumped 250 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS : N 43 7.3130 W 96 34.0710

This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: THEIN WELL COMPANY, INCORPORATED

Signature of License Representative:

Michael Thein

Signature of Well Owner or Equitable Property Holder:

RECEIVED

Date: JAN 21 2025OFFICE OF
WATER

East River Genetics 703 ft 8" Well Dec 2024- Hudson SD

Formation	From	To
Clay tan	0	4
Clay brown soft and silty	4	18
Clay brown firm	18	78
Clay blue/ gray	78	100
Clay brown	100	109
Clay brown w/ gray clay layers	109	114
Clay tan hard shale like	114	130
Clay gray	130	147
Clay blue	147	165
Clay w/ sand & gravel layers	165	174
Shale black hard	174	196
Shale gray, Pierre	196	331
Shale gray a few thin sandstone layers	331	351
Shale w/ limestone layers	351	357
Limestone – greenhorn	357	407
Shale gray a few thin sandstone layers	407	421
Limestone – greenhorn	421	425
Shale gray	425	436
Shale w/ sandstone layer @ 440	436	449
Sandstone with a few shale layers	449	451
Sand and sandstone- white Dakota shale	451	461
Shale	461	465
Sandstone with a few thin shale layers	465	482
Shale w/ sandstone layers – hard @ 491	482	491
Sandstone w/ a few thin shale layers- hard @ 498	491	498
Coal w/ sandstone layers and shale	498	509
Shale gray	509	520
Sandstone and sand	520	528
Shale w/ thin sandstone layers	528	536
Sandstone	536	538
Shale black hard	538	541
Shale w/ sandstone layers	541	547
Sandstone w/ thin shale layers	547	555
Shale black hard w/ sandstone layers	555	568
Sandstone hard	568	572
Sandstone and sand	572	581
Sandstone somewhat hard a few thin shale layers	581	589
Shale w/ sandstone	589	593
Sandstone and sand – not cemented	593	609
Sandstone – somewhat hard	609	611
Sandstone firm	611	630
Sand	630	651
Sandstone hard	651	653
Sandstone firm	653	666
Sand w/ sandstone layers – coarse for Dakota	666	701
Sandstone hard	701	703
Granite	703	

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JAN 21 2025

OFFICE OF
WATER

East river Genetics 8" well, Dec 2024

Legend

Feature 1

East River Genetics 8" well 703' depth Dec 2024
n 43 7.3130 w 96 34.0710

Google Earth

2000 ft



8876-3
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FEB 21 2025

OFFICE OF
WATER**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date 2/18/25

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

FROM: East River Genetic Services, LLC
(name)

29440 482nd Ave
(address)

Hudson, SD 57034
(city, state, zip)

605-984-2160
(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 8876-3 states that the water use system is to be constructed by

8/19/29 (date), and water is to be put to beneficial use by 8/19/33 (date).

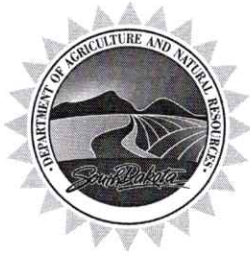
The water use system was completed on ~~1/6/25~~ 12/26/24 (date).

Applying the water to beneficial use was completed on 1/2/25 (date).

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

John V. [Signature]
(signature)





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

February 24, 2025

8876-3

East River Genetic Services, LLC
29440 482nd Ave
Hudson, SD 57034

Dear Mr. Vander Well:

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

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

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

Sincerely,

Amanda Dewell
Water Rights Program
(605) 773-3352
email: Amanda.Dewell@state.sd.us