

WATER PERMIT NO. 8434-3

Name of Applicant: **Dahlerup Family Trust**

Address: **1637 Somerset Dr, Aberdeen SD 57078**

Phone: **605 380-2079**

Amount of Water Claimed: **no additional**

Total Acres: **129**

Source of Water Supply: **one existing well**

Water to be used for: **irrigation**

County: **Yankton**

Type of Waste Disposal System:

Location: **6 miles northeast of Yankton**

PRIORITY

Date Received: **6-25-20**

Application/License Fee: **\$ 1050**

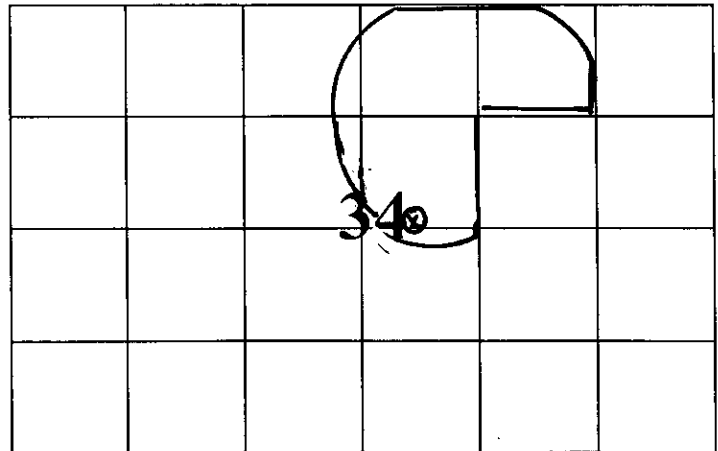
Corrected Application Received: **6-29-20**

Period of Annual Use: **April 1 – September 30**

Remarks: **Utilizing existing well authorized by Water Right No. 7977-3**

Diversion Point: **SW 1/4 NE 1/4 Sec 34-T95N-R55W**

Land to be Irrigated: **W 1/2 NE 1/4, NE 1/4 NE 1/4, E 1/2 NW 1/4, NW 1/4 SE 1/4 Section 34-T95N-R55W**



Depth of Well: **300 feet deep**

Well Driller: **Sam Heine Well Co**

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **6-29-20**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota
 (type or print)

RECEIVED

JUN 25 2020

WATER RIGHTS
PROGRAM

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only) No. <u>8434-3</u>	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Press & Dakotan, Yankton</u>	

Application For Permit To Appropriate Water For Irrigation

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

 Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)
Add new center pivot to existing well authorized by Water Right No. 7977-3
c/o Gary Dahlerup

 1. Name to Appear on Irrigation Permit Dahlerup Family Trust 1637 Somerset Dr. Aberdeen
SD 57401

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

 Mailing Address 2209 Burleight St Yankton SD 57078
 (Address) (City) (State) (Zip Code)

 Phone 605-380-2079 Mobile 605-380-2079 Email dahlerup.g@gmail.com

 2. Amount of water claimed 2.89 ^(no add'l) *CFS or 1300 **GPM ***AF Total Acreage 129
 (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

 3. Source of water supply Well

 4. Location of point of diversion Well 34-95n-55w (SW 1/4 NE 1/4)
 (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
Yankton County Yankton

 5. County or counties where water will be used Yankton

 6. Annual period during which water is to be used April- September

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

Land Description	Acres	Land Description	Acres
NW 1/4 NE 1/4	35	SE 1/4 NW 1/4	8
SW 1/4 NE 1/4	35	NW 1/4 SE 1/4	8
NE 1/4 NE 1/4	35	<u>all in Sec 34 - T95N - R55W</u>	
NE 1/4 NW 1/4	8		

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

 I, Gary Dahlerup, the applicant, certify under
 Name of Person Title (if applicable)

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

Supplemental Information

(Complete required and applicable portions only)

(type or print)

1. Well Information (check one or both as applicable) ☐ Drilling new well(s) ☒ Using existing well(s)a) If new wells, how many _____ Have test holes been drilled ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Sam Heine Well Co. LLC

For either Existing or Proposed Wells:

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

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

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

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)

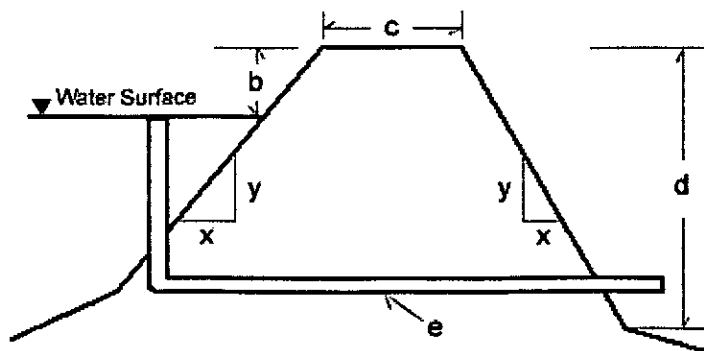
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



**SOUTH DAKOTA
WATER PERMIT NO. 8434-3**

Date of first receipt of application June 25, 2020.

Date of return to applicant for corrections, amendments or changes June 25, 2020.

Date of receipt of corrected application June 29, 2020.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8434-3 to Dahlerup Family Trust, c/o Gary Dahlerup, 1637 Somerset Dr., Aberdeen SD 57401 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. 8434-3 authorizes irrigation of 129 new acres. Water Right No. 7977-3 appropriates 2.89 cubic feet of water per second (cfs) from one well completed into the Lower James Missouri Aquifer (300 feet deep) located in the SW 1/4 NE 1/4 Section 34 for irrigation of 211 acres located in the SW 1/4, S 1/2 NW 1/4, SW 1/4 NE 1/4, W 1/2 SE 1/4 Section 34; all in T95N-R55W. The permit holder is authorized to irrigate 129 new acres located in the W 1/2 NE 1/4, NE 1/4 NE 1/4, E 1/2 NW 1/4, NW 1/4 SE 1/4 Section 34-T95N-R55W from the existing well. This permit and Water Right No. 7977-3 will authorize a total of 2.89 cfs for irrigation of a total of 340 acres. This site is located approximately 6 miles northeast of Yankton SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is June 25, 2020.
4. The date of approval of Permit No. 8434-3 is September 14, 2020.
5. One-fifth of the construction is to be completed on or before March 14, 2023.
6. All construction is to be completed on or before September 14, 2025.
7. Water is to be put to beneficial use on or before September 14, 2029.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Right No. 7977-3 and for this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

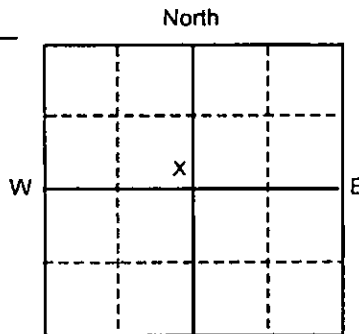
By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 06 2020
date



SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 NW 1/4 Sec 34 Twp 95N Rg 55WCounty YANKTONPlease mark well
location with an "X"

Well Completion Date

4-25-2014

1 Mile

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

1,700.0 ft. from SEPTIC TANK (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

REVERSE ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
160.0 LB/FT	16.00 IN	0.0 FT	180.0 FT	28.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
BENTONITE	75	9.5 Lb/gal	0.0 Ft	180.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

TREMIE PIPE AND GROUT PUMP

SCREEN:

☒ Perforated pipe ☐ Manufactured
Diameter 16.00 Inches Length 120.0 FeetMaterial PVCSlot Size .085 Set From 180.0 Feet to 300.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? CHLORINE TABLETS
☐ No, Why Not?
Lab to which water
quality sample sent for analysisWell Owner: DAHLERUP FAMILY TRUST

Business Name:

Address: 2209 BURLEIGH STCity, State, Zip: YANKTON SD 57078

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2
CLAY	2	42
SAND/ GRAVEL	42	300

STATIC WATER LEVEL 172.0 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: TURBINE PUMP AND MOTOR
☐ Bailed

☐ Other

Pumping Level Below Land Surface

176.0 Ft. After 2.0 Hrs. pumped 880.0 GPM179.0 Ft. After 2.0 Hrs. pumped 1,550.0 GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JUN 15 2015

WATER RIGHTS

This well was drilled under license # 805 PROGRAM and this report is true and accurate.Drilling firm: SAM HEINE WELL CO., LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 4-25-14



M & S IRRIGATION

Poly with SAC

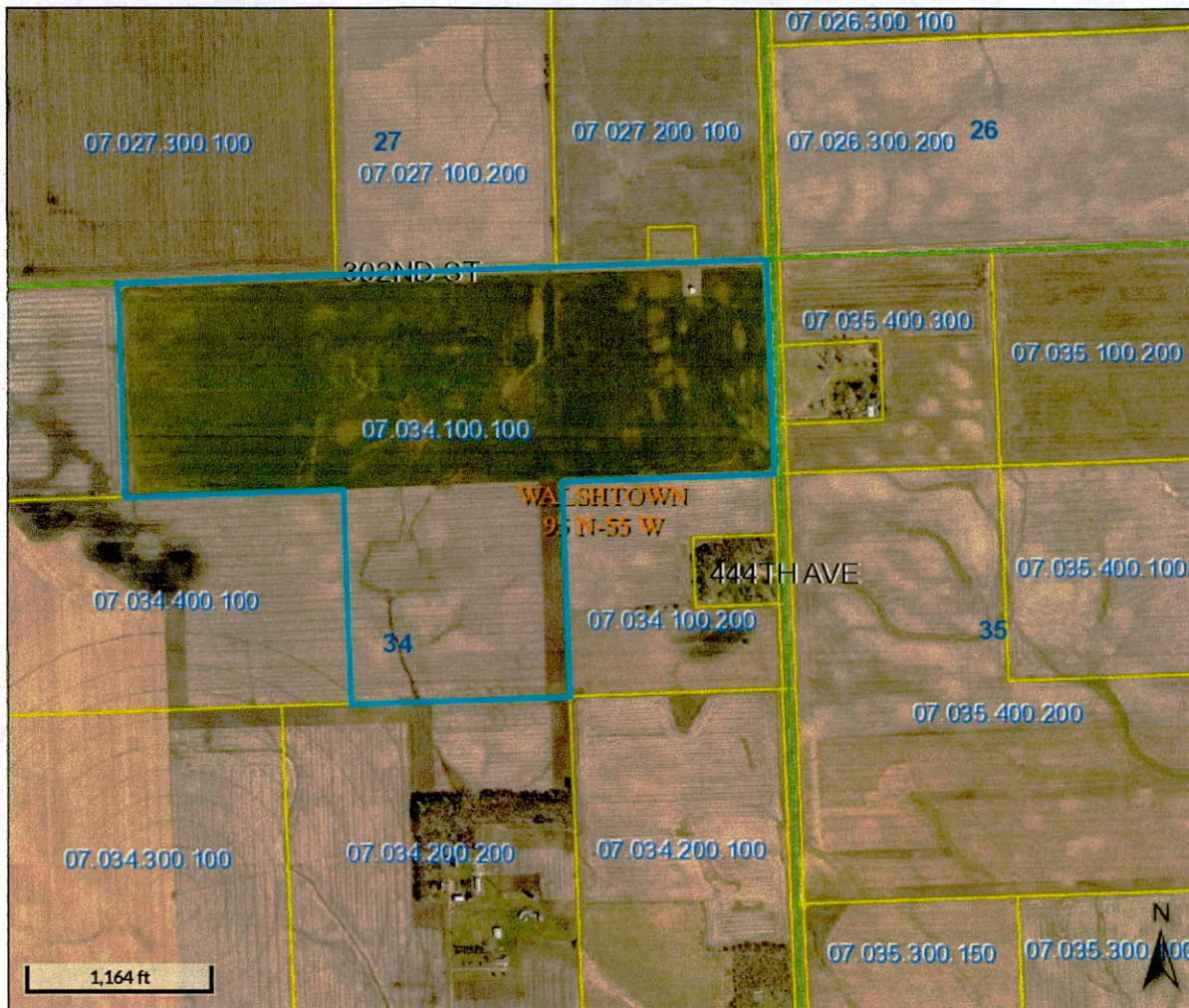
46736 317th Street
Vermillion SD 50769
(605) 999-5218

System Acres	80.76
SAC	29.69
End gun	9.35

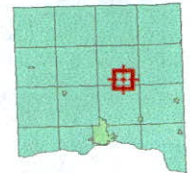
Grower: Randy Sverisen



DAHLERUP



Overview



Legend

-  Townships
-  Sections
-  Parcels
-  City Limits
-  Streets and Roads

Parcel ID - 07.034.100.100
 Owner - DAHLERUP FAMILY LIVING TRUST (D)
 Acres - 156

Disclaimer: Yankton County digital cadastral data are a representation of recorded plats and surveys for use within the Geographic Information System for purposes of data access and analysis. These and other digital data do not replace or modify land surveys, deeds, and/or other legal instruments defining land ownership or use.

Date created: 6/23/2020
 Last Data Uploaded: 6/23/2020 8:01:02 AM

Developed by  **Schneider**
 GEOSPATIAL

DAHLERUP TRUST

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, June 25, 2020 9:30 AM
To: dahlerup.g@gmail.com
Subject: Water Permit Application
Attachments: Dahlerup.pdf

Gary,
Received your application. I have reviewed the application and all we need from you now is the application/license fee of \$1,050.00. Attached is the letter being sent to you today.

Karen Schlaak
Water Rights Program
(605) 773-3352



DENR
SOUTH DAKOTA

Schlaak, Karen

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Sent: Thursday, June 25, 2020 9:30 AM
To: dahlerup.g@gmail.com
Subject: Water Permit Application
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(605) 773-3352





DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

RECEIVED

JUN 29 2020

WATER RIGHTS
PROGRAM

June 25, 2020

PAID

JUN 29 2020

Ck# 4059

Dahlerup Family Trust
c/o Gary Dahlerup
1637 Somerset Dr
Aberdeen SD 57401

Dear Mr. Dahlerup:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Yankton County. In order to complete the application, the following is required.

- The application/license fee to irrigate 129 acres is \$1,050.00.

If you have any questions, please contact me.

Sincerely,

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



DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
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RECEIVED

JUN 29 2020

WATER RIGHTS
PROGRAM

June 25, 2020

PAID

JUN 29 2020

Ck# 4059

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c/o Gary Dahlerup
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If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date June 29, 2020

RECEIVED OF Dahlerup Family Trust c/o Gary Dahlerup 2209 Burleight Apt 310 Yankton SD 57078

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

Fee for Application for Permit No. <u>8434-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$850.00
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>8434-3</u>	\$200.00
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	\$1050.00

By Eric Gronlund
Chief Engineer

vm

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date June 29, 2020

RECEIVED OF Dahlerup Family Trust c/o Gary Dahlerup 2209 Burleight Apt 310 Yankton SD 57078

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Fee for Application for Permit No. <u>8434-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$850.00
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Fee for _____	\$
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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	\$1050.00

By Eric Gronlund
Chief Engineer

vm



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8434-3, Dahlerup Family Trust**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8434-3, Dahlerup Family Trust, 1637 Somerset Dr, Aberdeen SD, 57401.

The Chief Engineer is recommending APPROVAL of Application No. 8434-3 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 rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under Water Right No. 7977-3 and for this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
August 24, 2020

Report to the Chief Engineer

On Water Permit Application No. 8434-3

Dahlerup Family Trust c/o Gary Dahlerup

August 14, 2020

Water Permit Application No. 8434-3 proposes to irrigate 129 additional acres located in the W $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 34-T95N-R55W from the same well authorized by Water Right No. 7977-3. No additional diversion rate authority was requested.

Water Right No. 7977-3, held by Dahlerup Family Trust, authorizes a maximum instantaneous diversion rate of 2.89 cubic feet of water per second (cfs) from one well (300 feet deep) completed into the Lower James-Missouri aquifer located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 34-T95N-R55W. The appropriation is approved for the irrigation of 211 acres located in SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ and W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 34-T95N-R55W and has a priority date of February 20, 2014.

If approved, Water Permit Application No. 8434-3 and Water Right No. 7977-3 would collectively authorize a maximum instantaneous diversion rate of 2.89 cfs for the irrigation of 340 acres. This site is located in Yankton County approximately 6 miles northeast of Yankton, South Dakota.

AQUIFER: Lower James-Missouri (LJM)

HYDROGEOLOGY:

The Lower James-Missouri aquifer is a glacial outwash that consists of fine sand to cobble gravel that is intermixed in some expanses with discontinuous layers of till up to 25 feet thick (Bugliosi, 1983 and 1986; Lindgren and Hansen, 1993). A portion of the Lower James-Missouri aquifer is designated as the Scotland management unit, but it is not included in the area of interest for Water Permit Application No. 8434-3 and will be excluded from this report. Hedges and others (1982) estimated the areal extent and amount of recoverable water stored in the Lower James-Missouri aquifer (Table 1). Figure 1 displays the delineation of the Lower James-Missouri aquifer based on the study completed by Hedges and others (1982). The Lower James-Missouri aquifer is hydraulically connected to the Lower Vermillion-Missouri aquifer, the Choteau: East aquifer, the Niobrara aquifer, the Missouri: Elk Point aquifer, Lower James-Missouri: Scotland aquifer, adjacent bedrock aquifers and surface water features (Hedges et al., 1982; Bugliosi, 1986; Lindgren and Hansen, 1993, Water Rights, 2020b). Depth to the top of the aquifer ranges from land surface in the James River flood plain to 245 feet below land surface (Lindgren and Hansen, 1993).

Table 1. Estimated areal extent and amount of recoverable water stored in the Lower James-Missouri aquifer (Hedges et al., 1982)

	Clay	Hutchinson	Yankton	Total:
Areal Extent (acres)	5,400	93,800	92,500	191,700
Recoverable Water in Storage (acre-feet)	81,000	633,150	2,081,250	2,795,400

In Yankton County, the Lower James-Missouri aquifer trends across the county from the northwest to southeast and has a saturated aquifer thickness that ranges between 50 to 150 feet (Bugliosi, 1983 and 1986). In Hutchinson County, a maximum documented thickness of 201 feet was measured for the Lower James-Missouri aquifer (Lindgren and Hansen, 1993).

A water well completion report was submitted with the application for Water Right No. 7977-3. The report indicated topsoil from 0 to 2 feet below the ground surface, clay from 2 to 42 feet, and sand and gravel from 42 to 300 feet in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 34-T95N-R55W (Water Rights, 2020d). The well was screened in sand and gravel from 180 feet to 300 feet and the static water level at the time of completion (April 25, 2014) was reported at 172 feet below the ground surface (Water Rights, 2020d). The Lower James-Missouri aquifer has confined and unconfined portions, but the aquifer is expected to be unconfined at the diversion point based on the available hydrogeologic information for this location (Bugliosi, 1986; SDGS, 2020; Water Rights, 2020b, and 2020d).

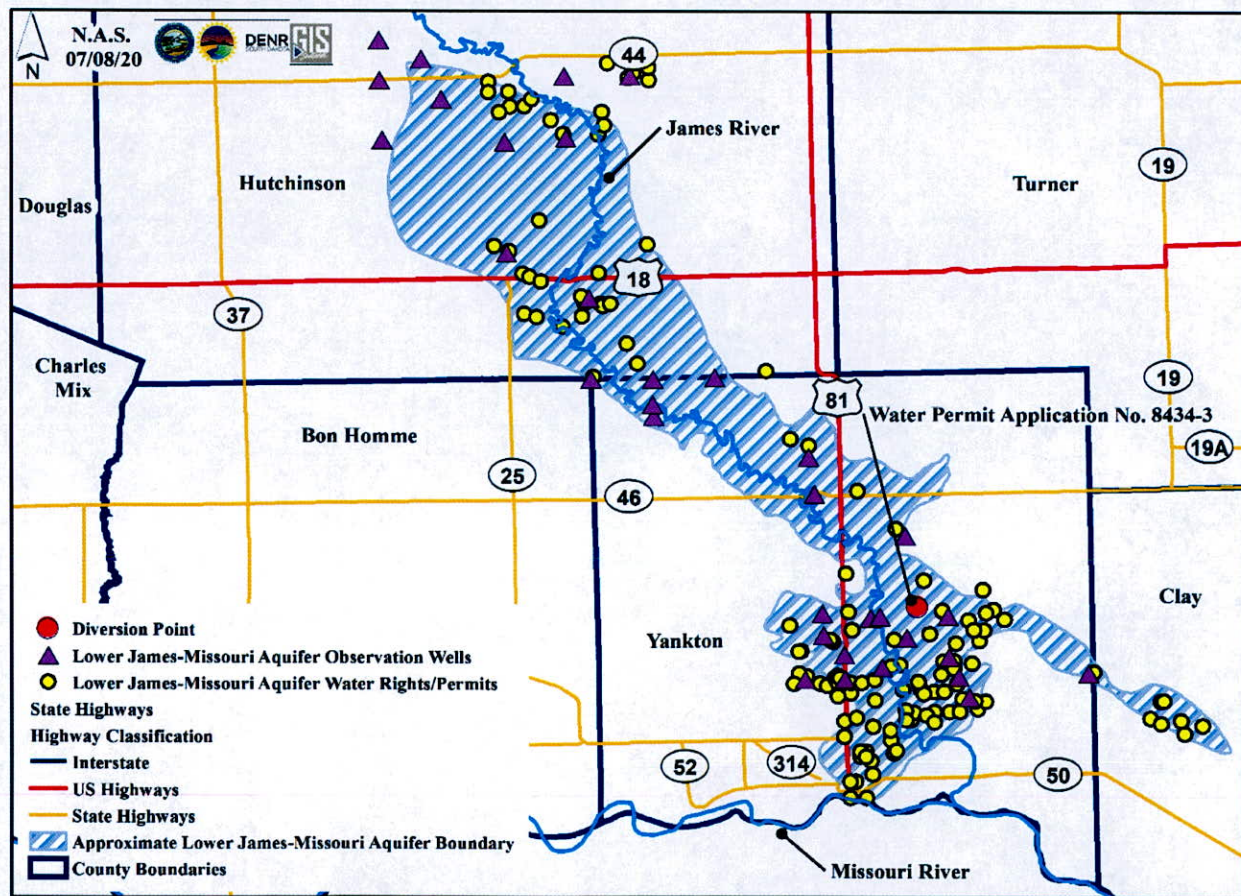


Figure 1. Map of the approximate Lower James-Missouri aquifer boundary (modified from Hedges et al., 1982) with the current water rights/permits authorized to appropriate water from the Lower James-Missouri aquifer (Water Rights, 2020c), Lower James-Missouri aquifer observation wells (Water Rights, 2020b), and the diversion point for Water Permit Application No. 8434-3

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

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

WATER AVAILABILITY:

Water Permit Application No. 8434-3 proposes to appropriate water from the Lower James-Missouri aquifer. The probability of unappropriated water being available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems." The Lower James-Missouri aquifer is not older than or stratigraphically lower than the Greenhorn Formation, and the proposed use is not for use in a water distribution system. Therefore, average annual recharge and average annual withdrawal must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Lower James-Missouri aquifer in South Dakota occurs through seepage from adjacent surface water features, inflow from adjacent glacial aquifers when the hydraulic head of those aquifers is higher than the hydraulic head of the Lower James-Missouri aquifer, and infiltration of precipitation where the aquifer is at or near land surface (Bugliosi, 1986). Most recharge to glacial aquifers occurs during the spring and early summer months so when precipitation and long-term climatic conditions fluctuate, the amount of water received by the aquifer also varies (Bugliosi, 1986).

Using regional flow-net analysis, Hedges and others (1985) estimated a recharge rate of 1.5 inches per year to the Lower James-Missouri aquifer. The Lower James-Missouri aquifer has an estimated areal extent of approximately 191,700 acres (Hedges et al., 1982); therefore, the average annual recharge rate (based on Hedges et al., 1982 and 1985) is approximately 23,963 acre-feet per year.

Using observation well analysis, Hedges and others (1985) estimated a recharge rate of 3.9 inches per year to the unconfined portions of the Lower James-Missouri aquifer. Stonesifer (2014) estimated the areal extent of the unconfined portions of the Lower James-Missouri aquifer to be approximately 82,200 acres. However, this larger areal extent included portions of what Hedges et al. (1982) identified as the Plum Creek and Choteau: East aquifers for both the

entire areal extent and the unconfined portions of the Lower James-Missouri aquifer. The average annual recharge rate to the unconfined portions of the Lower James-Missouri aquifer based on Stonesifer's (2014) unconfined areal extent and Hedges et al., (1985) estimated recharge rate to the unconfined portions of the aquifer is approximately 26,715 acre-feet/year, which should be considered a likely maximum recharge rate for the Lower James-Missouri aquifer. Overall, the average annual recharge rate to the Lower James-Missouri aquifer ranges between approximately 23,963 to 26,715 acre-feet/year (Hedges et al., 1982 and 1985; Stonesifer, 2014).

Discharge

Discharge from the Lower James-Missouri aquifer in South Dakota occurs through well withdrawals, leakage to the James River, and evapotranspiration in areas where the aquifer is at or near land surface (Bugliosi, 1986; Lindgren and Hansen, 1990). Currently, there are 135 water rights/permits authorized to appropriate water from the Lower James-Missouri aquifer and one other pending application (Water Permit Application No. 8431-3) (Water Rights, 2020c). There are no future use permits reserving water from the Lower James-Missouri aquifer (Water Rights, 2020c).

There are 127 water rights/permits authorized to appropriate water from the Lower James-Missouri aquifer for irrigation use (Water Rights, 2020c). Generally, irrigation water rights/permits are required to report their annual water usage. The estimated average annual withdrawal rate for irrigation appropriations over the period of record (1979-2019) is 2,800.52 acre-feet per year (Table 2) (Figure 2) (Water Rights, 2020a).

Pending Water Permit Application No. 8431-3 proposes to irrigate 27 acres at a golf course. Golf courses with water permits/rights are expected to apply more water than other irrigation water permits/rights. If approved, it is assumed the applicant for Water Permit Application No. 8431-3 will apply the maximum allowable amount of water (2 feet per acre) to the proposed 27 acres, resulting in an average annual withdrawal rate of approximately 54 acre-feet per year.

Since the number of irrigation water permits/rights authorized to appropriate water from the Lower James-Missouri aquifer has continued to increase over the period of record, the estimated average annual withdrawal rate for irrigation appropriations for the entire period of record may not accurately reflect the average annual withdrawal rate with the current level of development. The average reported irrigation rate is 4.16 acre-inches per developed acre for the Lower James-Missouri aquifer irrigation water rights/permits (Water Rights, 2020a and 2020c). A developed acre in this report was determined as the number of acres authorized to be irrigated by a person's water permit, or if the water permit has been licensed, the number of acres authorized to be irrigated by a person's water right. The maximum reported irrigation rate per acre was reported in 2012, when 10.24 acre-inches per developed acre was applied (Water Rights, 2020a and 2020c). By assuming an average annual withdrawal rate of 10 inches per developed acre applied over the 18,032.84 acres currently licensed/permitted to irrigate from the Lower James-Missouri aquifer, the estimated annual withdrawal rate for irrigation water rights/permits is 15,027.37 acre-feet per year (Water Rights, 2020a and 2020c).

Table 2. Reported historic irrigation use from the Lower James-Missouri aquifer (Water Rights, 2020a)

Year	No. of Permits	Annual Appropriation (acre-ft)	Reported Pumpage (acre-feet)
1979	22	11,265	588
1980	23	11,561	1,299.13
1981	33	14,408	1,834.06
1982	23	9,440.10	1,301.25
1983	27	9,883.10	1,306.54
1984	28	12,283.10	1,360
1985	27	10,033	1,483
1986	30	11,613.50	989.6
1987	30	11,613.50	1,041.60
1988	31	11,769.50	2,744.90
1989	31	10,909.10	2,144.80
1990	35	12,673.10	2,928.10
1991	42	15,497.90	2,599
1992	45	16,791.90	1,159
1993	45	16,241.90	230.44
1994	45	17,094.10	1,918.17
1995	41	15,088.10	1,483.32
1996	49	17,240.10	2,102.99
1997	50	17,072.10	2320
1998	53	16,915.10	2,787.03
1999	50	15,992.10	2,102.15
2000	51	17,048.10	3,751.08
2001	53	17,208.10	2,940.09
2002	53	17,108.10	4,061.52
2003	53	17,373.10	2,843.15
2004	47	14,525.10	2,886.65
2005	48	14,749.10	2,866.63
2006	50	15,627.10	3,630.92
2007	56	17,477.70	3,425.91
2008	79	23,891.70	4,494.03
2009	84	25,451.10	1,463.27
2010	85	25,731.10	665.37
2011	89	27,367.10	4,147.47
2012	93	28,626.70	13,058.45
2013	118	33,664.10	7,855.75
2014	125	36,286.10	3,347.24
2015	127	37,695.24	4,822.86
2016	126	37,607.24	5,747.01
2017	126	37,142.38	5,727.12
2018	126	36,758.38	1,035.87
2019	127	36,958.38	328.01
Max	127	37,695.00	13,058.45
Min	22	9,440.10	230.44
Avg	60.39	19,601.98	2,800.52

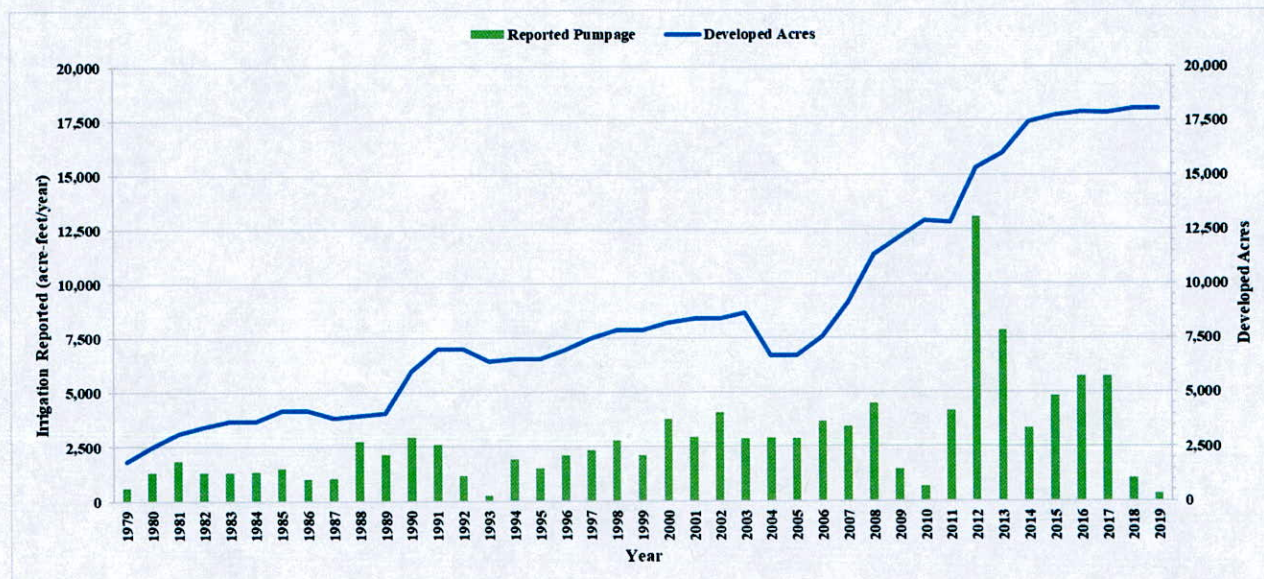


Figure 2. Reported irrigation use from Lower James-Missouri aquifer and developed acres (Water Rights, 2020a and 2020c)

Table 3 summarizes all non-irrigation water rights/permits authorized to appropriate water from the Lower James-Missouri aquifer with their limiting diversion rate and estimated annual use. 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 the entire appropriated volume every year. It is estimated that the non-irrigation water rights/permits limited only by a diversion rate are estimated to pump at their maximum permitted diversion rate for 60 percent of the time.

Table 3. Summary of the limiting appropriation and estimated use of the non-irrigation water rights/permits for the Lower James-Missouri aquifer (Water Rights, 2020c)

Permit No.	Name	Status	Use	Rate (cfs)	Estimation Method	Estimated Use (acre-feet/year)
840-3	Richard Ricke Stuelpnagels Inc	LC	COM	1.11	Estimate	482.2
4556-3	Concrete Materials	LC	COM	0.44	Estimate	191.1
6264-3	Yankton Land & Cattle Co.	LC	COM	0.56	Estimate	243.3
6320-3	Wolf Creek Httrn. Brth.	LC	COM	0.08	Estimate	34.8
6925-3	Tschetter Colony	LC	COM	0.07	Estimate	30.4
7827-3	Maxwell Colony	PE	COM	0.33	Estimate	143.4
1288-3	National Food Stores Inc	LC	IND	0.16	Estimate	69.5
8412-3	Concrete Materials Co.	LC	IND		Volume	400
COM: Commercial, IND: Industrial, LC: Licensed Water Right, PE: Water Permit					Total:	1,594.60

There are domestic wells completed into the Lower James-Missouri aquifer that do not require a water right/permit, so the withdrawal amount is unknown (Water Rights, 2020d). Since the introduction of rural water systems, many domestic wells are likely no longer in use or are not being used as primary water sources. Due to their relatively low diversion rates and the availability of rural water, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget for the Lower James-Missouri aquifer.

Hydrologic Budget Summary

The average annual recharge rate to the Lower James-Missouri aquifer ranges between approximately 23,963 to 26,715 acre-feet per year (Hedges et al., 1982 and 1985; Stonesifer, 2014). The average annual withdrawal rate from the Lower James-Missouri aquifer totals approximately 16,784 acre-feet per year: (15,027.37 acre-feet/year for irrigation (based on developed acres); 1,594.6 acre-feet/year for non-irrigation; 54 acre-feet/year for the pending water permit application; and 108 acre-feet/year for Water Permit Application No. 8434-3 (assuming 10 inches of water applied per acre) (if approved)). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Lower James-Missouri aquifer for the proposed appropriation.

OBSERVATION WELL DATA:

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

The DENR – Water Rights program monitors 33 observation wells completed into the Lower James-Missouri aquifer (Water Rights, 2020b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The nearest observation wells to the diversion point are YA-80DA (approximately 1.9 miles southwest of diversion point), YA-80M (approximately 2.4 miles southwest of diversion point), YA-80O (approximately 3.5 miles southwest), YA-80FA (approximately 1.5 miles southeast), YA-80HA (approximately 1.7 miles southwest), YA-78E (approximately 3 miles southeast), and YA-80IA (approximately 4 miles southeast) (as shown in Figure 10) (Water Rights, 2020b and 2020c). The data points utilized to construct the hydrographs are measurements of the static water level in the observation wells from the top of the well casing.

Observation wells YA-80DA, YA-80M and YA-80O are the closest three wells to the James River (all within approximately 0.5 miles) and the diversion point (Water Rights, 2020b and 2020c) (Figures 3 to 5). The water levels in these wells have remained generally steady over the period of record and are dominated by both the fluctuations in the James River and the effects of climatic conditions on the Lower James-Missouri aquifer. The James River acts as a buffer for these observation wells resulting in less variable fluctuations for the water levels in the wells.

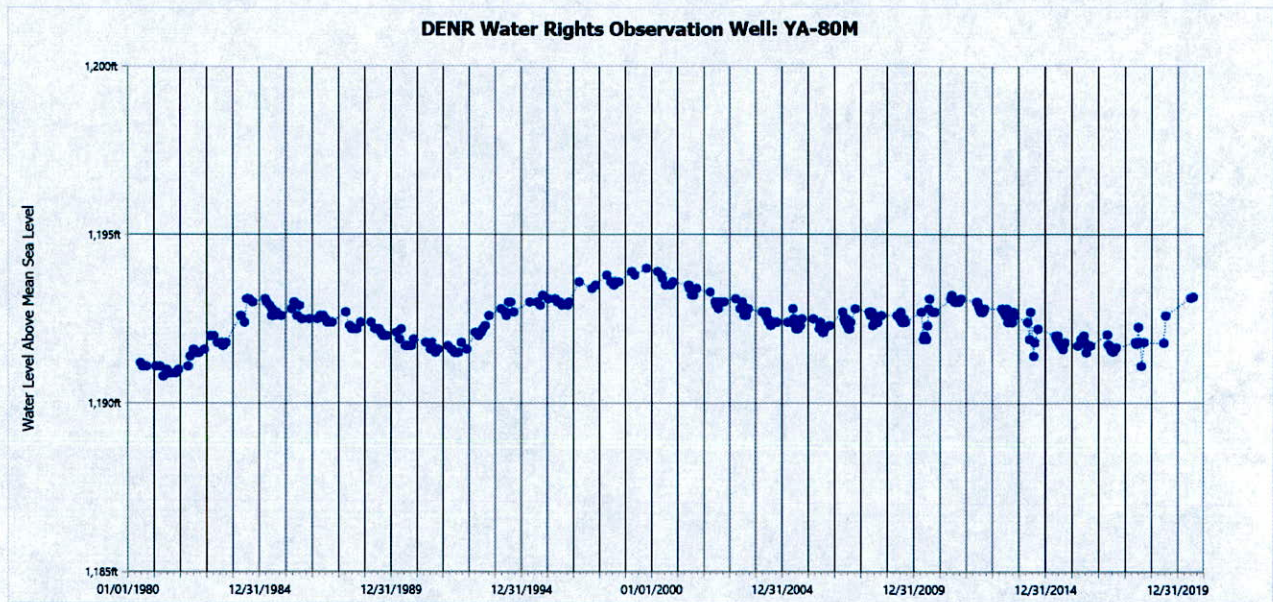


Figure 3. Hydrograph for observation well YA-80M (ground surface elevation: 1,198 ft) (SDGS, 2020; Water Rights, 2020b)

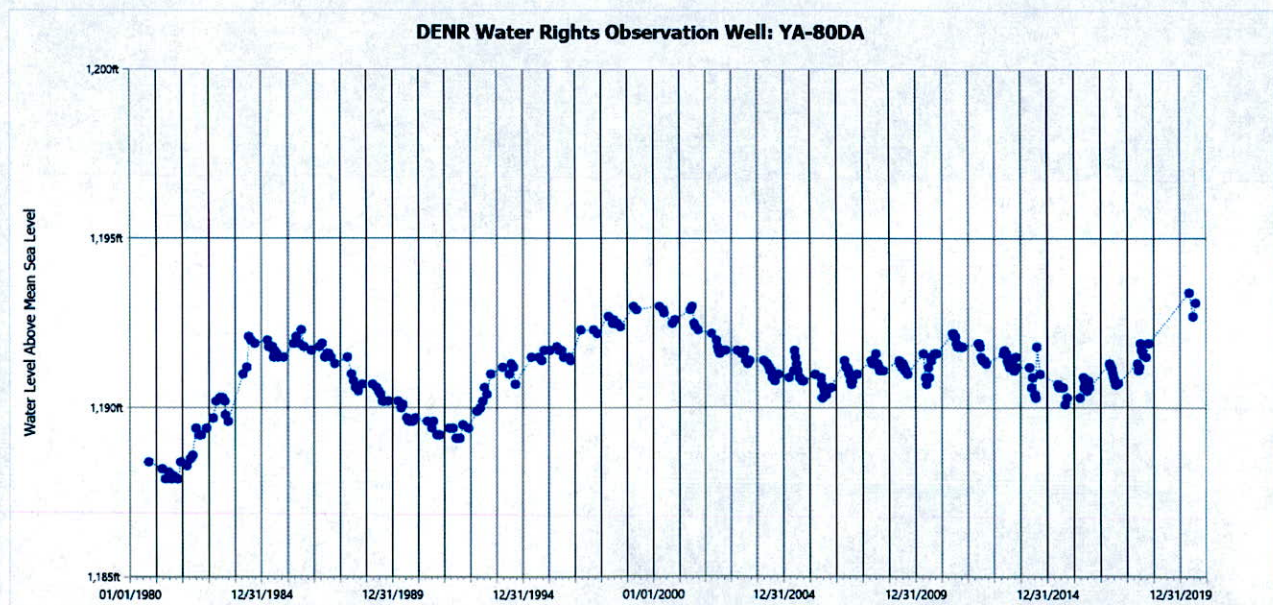


Figure 4. Hydrograph for observation well YA-80DA (ground surface elevation: 1,195 ft) (SDGS, 2020; Water Rights, 2020b)

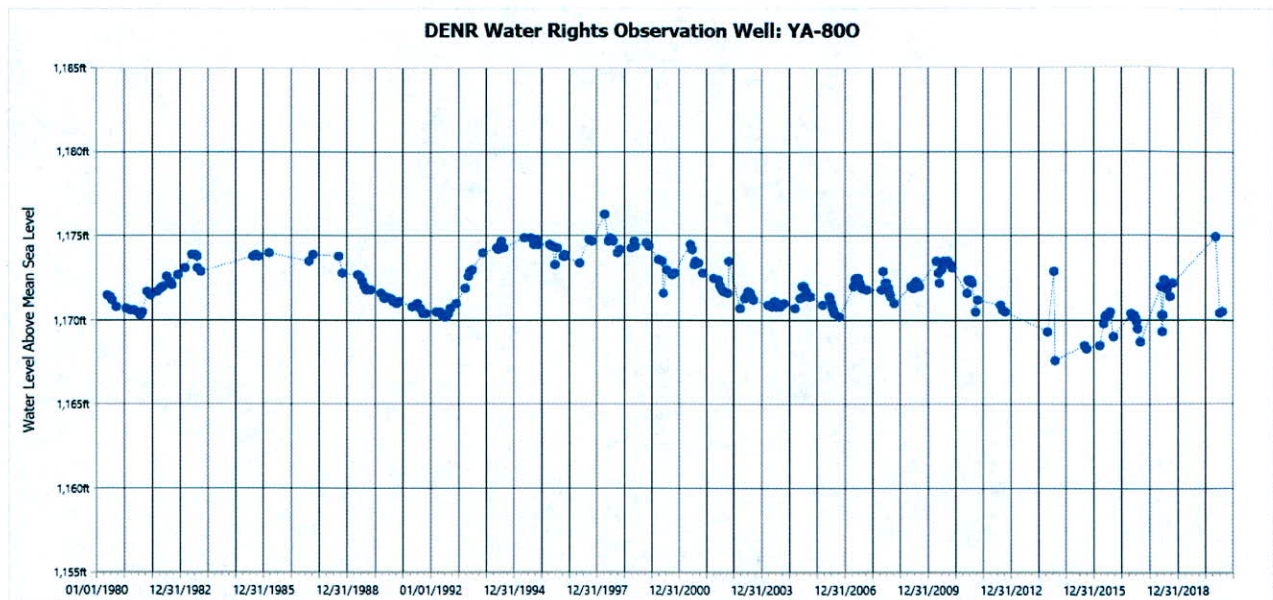


Figure 5. Hydrographs for observation well YA-800 (ground surface elevation: 1,175 ft) (SDGS, 2020; Water Rights, 2020b)

The hydrographs for observations wells YA-80FA, YA-80HA, YA-78E and YA-80IA were compared to other hydrographs for observation wells also completed into the Lower James-Missouri aquifer at least a mile away from the James River and each have similar trends; therefore, these four observation wells used for this analysis are generally representative of the Lower James-Missouri aquifer near the applicant's diversion point (Figures 6 to 9) (Water Rights, 2020b).

These hydrographs for the Lower James-Missouri aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. The drawdown from pumping can be seen during some years in the hydrographs, with the aquifer returning to pre-pumping conditions following the irrigation season. Aquifer recovery indicates that climatic conditions and therefore, natural recharge to and natural discharge from the aquifer, dominate changes in water level to the Lower James-Missouri aquifer rather than pumping. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

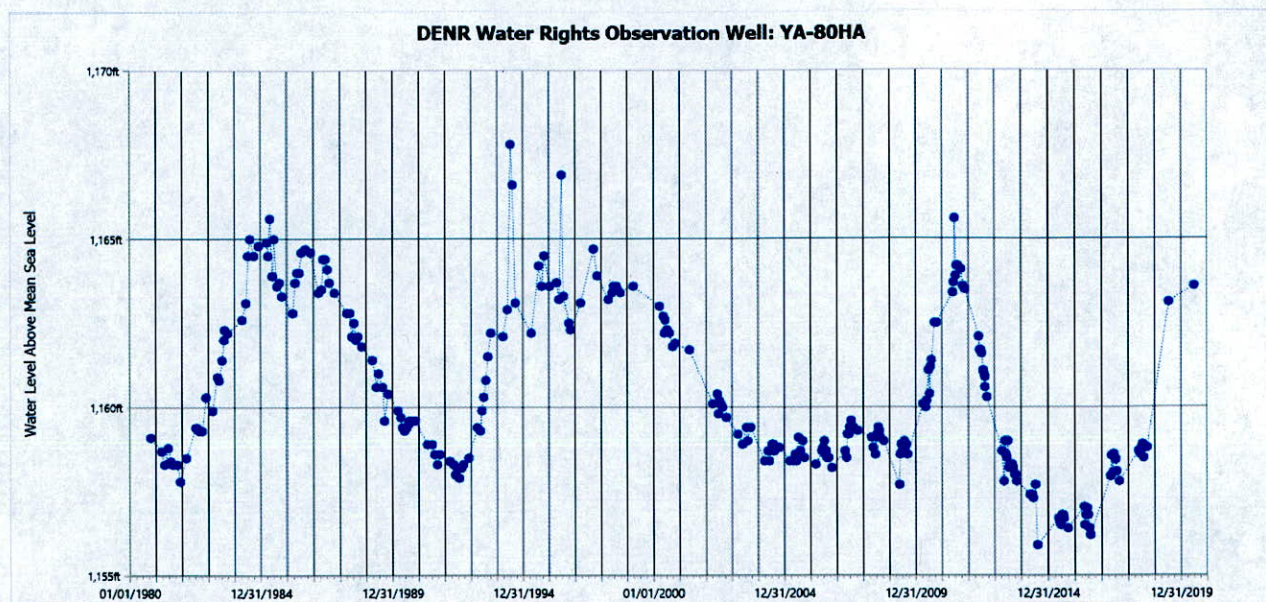


Figure 6. Hydrograph for observation well YA-80HA (ground surface elevation: 1,350 ft) (SDGS, 2020; Water Rights, 2020b)

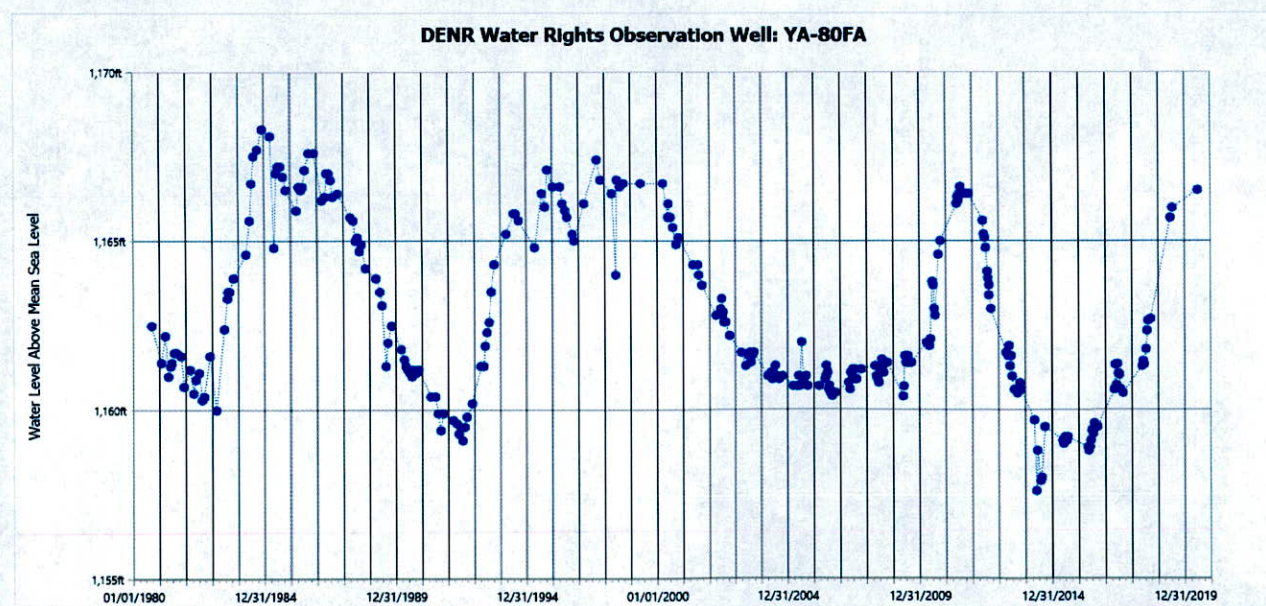


Figure 7. Hydrograph for observation well YA-80FA (ground surface elevation: 1,296 ft) (SDGS, 2020; Water Rights, 2020b)

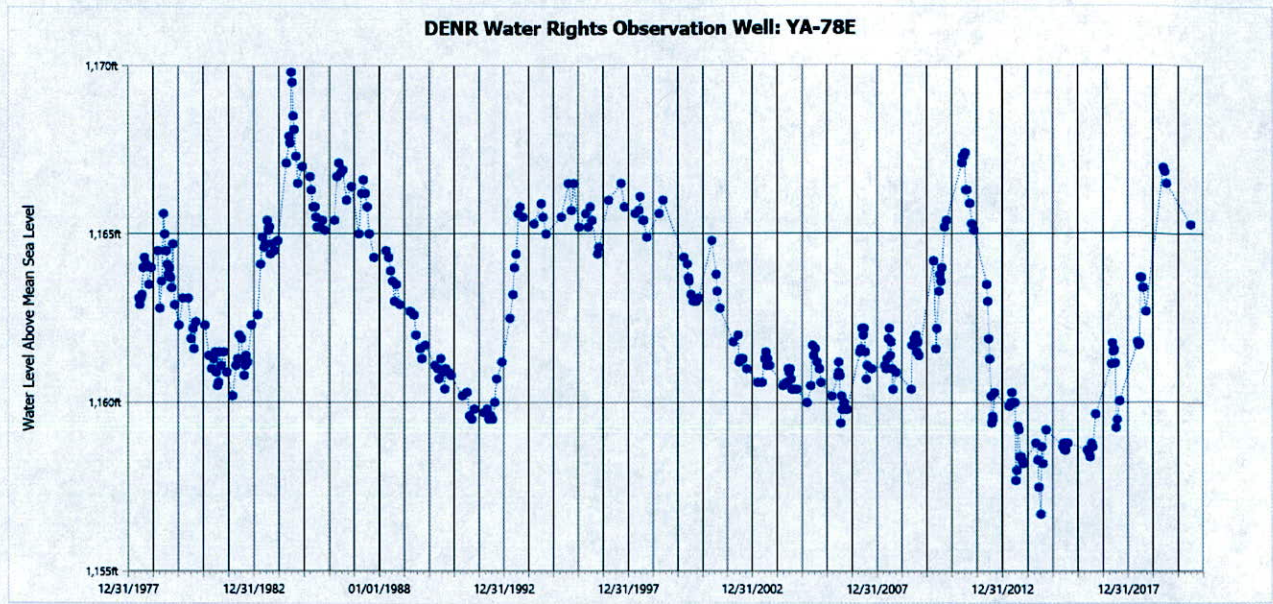


Figure 8. Hydrograph for observation well YA-78E (ground surface elevation: 1,299 ft) (SDGS, 2020; Water Rights, 2020b)

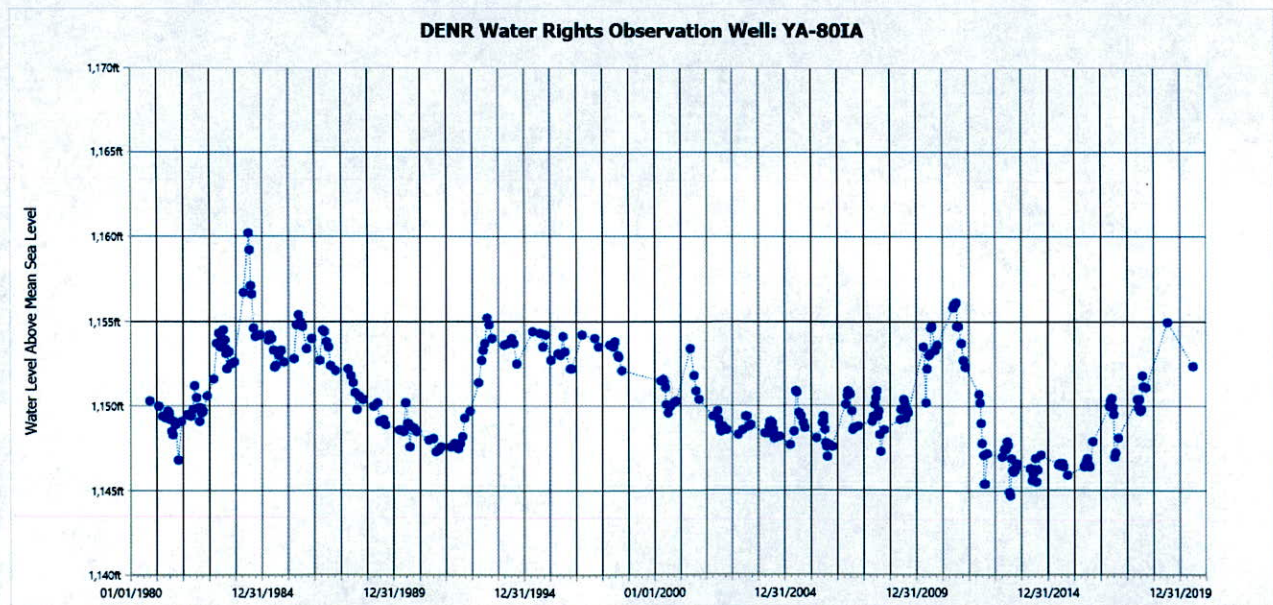


Figure 9. Hydrograph for observation well YA-801A (ground surface elevation: 1,259 ft) (SDGS, 2020; Water Rights, 2020b)

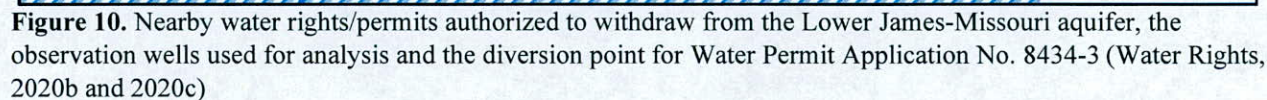
POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 135 water rights/permits authorized to appropriate water from the Lower James-Missouri aquifer and one other pending application (Water Rights, 2020c). The closest water rights/permits to the diversion point proposed by this application are Water Right Nos. 4867-3 and 8233-3, held by Randy and Valerie Svendsen and Sons, which are approximately 1.20 miles east of the diversion point (Figure 10) (Table 3) (Water Rights, 2020c).

There are domestic wells on file with the DENR-Water Rights Program that are completed into the Lower James-Missouri aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.42 miles to the northeast from the diversion point (Water Rights, 2020d). There are likely other domestic wells completed into the Lower James-Missouri aquifer near to the diversion point that are not on file with the DENR-Water Rights Program.

The Lower James-Missouri aquifer is under unconfined conditions at the applicant's diversion point based on the water well completion report submitted with Water Permit Application No. 7977-3 and the available hydrogeologic information for this location (SDGS, 2020; Water Rights, 2020b and 2020d). However, the Lower James-Missouri aquifer has confined and unconfined portions depending on location (Bugliosi, 1986; SDGS, 2020; Water Rights, 2020b, and 2020d). Drawdown created by pumping a well generally does not extend far from the pumped well in an unconfined aquifer; however, in a confined aquifer, drawdown from pumping could extend a distance from the diversion point. The exact drawdown behavior of a well cannot be known without an aquifer performance test. Observation well YA-80IA (approximately 4 miles southeast of diversion point) has 20 high-yield irrigation wells within approximately 2 miles of it (Water Rights 2020b and 2020c). The drawdown from pumping can be seen in the hydrograph for YA-80IA, along with the aquifer returning to pre-pumping conditions between irrigation seasons (Figure 9) (Water Rights, 2020b). The lithologic log on file for YA-80IA noted the well was drilled 230 feet deep with the depth to the top of aquifer 135 feet deep (SDGS, 2020; Water Rights, 2020b). The lowest recorded static water level on the hydrograph is approximately 115 feet deep, which indicates there was still approximately 20 feet of artesian head pressure in YA-80IA even during a drier periods when high-yield irrigation wells are expected to be pumping more water (Water Rights, 2020b).

At the diversion point, the Lower James-Missouri aquifer has a saturated aquifer thickness of approximately 128 feet with depth to the top of aquifer at 180 feet according to the well completion report submitted with Water Permit No. 7977-3 (Water Rights, 2020d). This would allow for enough thickness for a pump to be placed 20 feet below the top of the aquifer, which is required for the well to be considered adequate under ARSD 74:02:04:20 (6). Any drawdown as a result of the proposed diversion is not expected to unlawfully impair nearby adequate wells. In Yankton County, there are no complaints on file with the Water Rights Program regarding well interference for wells completed into the Lower James-Missouri aquifer (Water Rights, 2020e)



Permit No.	Name	Status	Use	Rate (cfs)	Acres
4506-3	Karl M Schenk	LC	IRR	2.45	203
4551-3	Dennis/Darrell Nelson	LC	IRR	1.78	140
4629-3	Mary Jane Boyd	LC	IRR	1.78	154
4827-3	Gary Smith	LC	IRR	1.83	128
4855-3	Karl M Schenk	LC	IRR	1.78	206
4867-3	Randy and Valerie Svendsen & Sons	LC	IRR	1.78	140
5553-3	Lyle Stratman	LC	IRR	2	211
6766-3	Randy and Valerie Svendsen & Sons	LC	IRR	1.94	136
6915-3	Gary Smith	PE	IRR	1.78	70
6937A-3	Dean R Morman	PE	IRR	1.78	135
6942-3	Craig L Johnson	PE	IRR	4.44	315
6974-3	Paul Gustad	PE	IRR	1.56	140
7014-3	Gary Smith	PE	IRR	2	76
7138-3	Morris Nelson Farms Inc	LC	IRR	1.89	134
7567-3	Terry Frick	PE	IRR	1.78	83
7586-3	Three Sisters Farm	PE	IRR	1.78	150
7611-3	Dan Hacecky	PE	IRR	1.89	77
7612-3	Dan Hacecky	PE	IRR	2.22	153
7618-3	James C & Jason Kokes	LC	IRR	1.67	101
7939-3	Karl M Schenk	PE	IRR	1.78	128
7972-3	Nelson Ag Holdings LLC	LC	IRR	1.67	116
7977-3	Dahlerup Family Trust	LC	IRR	2.89	211
8233-3	Randy and Valerie Svendsen & Sons	PE	IRR		140

LC: Licensed Water Right, PE: Water Permit, IRR: Irrigation

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 Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Lower James-Missouri aquifer at their location. In the unconfined portions of the Lower James-Missouri aquifer, drawdown due to pumping is not expected to be significant at a distance from the pumping well. Additionally, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), ARSD 74:02:04:20 (6) and (7), the thickness of the Lower James-Missouri aquifer at the applicant’s location, and the lack of well interference complaints, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water rights/permits 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.

CONCLUSIONS:

1. Water Permit Application No. 8434-3 proposes to irrigate 129 additional acres located in the W $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 34-T95N-R55W from the same well authorized by Water Right No. 7977-3. No additional diversion rate authority was requested.
2. Water Right No. 7977-3, held by Dahlerup Family Trust, authorizes a maximum instantaneous diversion rate of 2.89 cubic feet of water per second (cfs) from one well (300 feet deep) completed into the Lower James-Missouri aquifer located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 34-T95N-R55W. The appropriation is approved for the irrigation of 211 acres located in SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ and W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 34-T95N-R55W.
3. If approved, Water Permit Application No. 8434-3 and Water Right No. 7977-3 would collectively authorize a maximum instantaneous diversion rate of 2.89 cfs for the irrigation of 340 acres. This site is located in Yankton County approximately 6 miles northeast of Yankton, South Dakota.
4. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Lower James-Missouri aquifer to supply the proposed appropriation.
5. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8434-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.

Nakaila Steen

Nakaila Steen
Natural Resources Engineer I
SD DENR - Water Rights Program

Reviewed by:

Adam Mathiowetz

Adam Mathiowetz PE
Natural Resources Engineer III
SD DENR - Water Rights Program

References

- Bugliosi, E.F., 1983. Major Aquifers in Yankton County, South Dakota. Vermillion, South Dakota: SD DENR Geological Survey Program, 1983. Information Pamphlet No. 28.
- Bugliosi, E.F., 1986. Water Resources of Yankton County, South Dakota. USGS Water-Resources Investigations Report 84-4241. USGS. Huron, SD.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982. Evaluation of Ground- Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J., Holly, D.E., 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; United States Army Corps of Engineers Contract DACW 45-80-C-0185
- Lindgren, R.J., and Hansen, D.S., 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey, Huron, South Dakota.
- Lindgren, R.J., and Hansen, D.S., 1993. Major Aquifers in Hutchinson and Turner Counties, South Dakota. Vermillion, South Dakota: SD DENR Geological Survey Program, 1993. Information Pamphlet 45
- Stonesifer, J.R., 2014. Report to the Chief Engineer, Water Permit Application No. 7977-3, Dahlerup Family Trust, April 25, 2014. SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- SDGS, 2020. South Dakota Geological Survey Lithologic Logs Database. Accessed July 28, 2020.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DENR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2020a. "1979-2018 Irrigation Summaries by Aquifer", SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights, 2020b. Observation Well Data, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020c. Water Right/Permit Files, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020d. Well Completion Reports, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020e. County Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, August 24, 2020 1:16 PM
To: dahlrup.g@gmail.com
Subject: Water Permit Application No. 8434-3
Attachments: 8434-3.pdf

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

Karen Schlaak

Water Rights Program
(605) 773-3352



DENR
SOUTH DAKOTA

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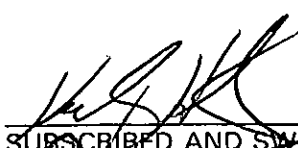
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

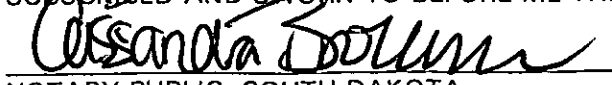
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
9 + 2 NOTICE OF APPLICATION

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 2nd DAY OF September, 2020
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$27.21 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND 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.

PUBLISHED ON: 09/02/2020

FILED ON: 09/02/2020


SUBSCRIBED AND SWORN TO BEFORE ME THIS 2nd DAY OF September, 2020


NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 07/04/2026



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WATER RIGHTS
PROGRAM

Ad text : 9 + 2

NOTICE OF APPLICATION

NO. 8434-3 to Appropriate Water

Notice is given that Dahlerup Family Trust, c/o Gary Dahlerup, 1637 Somerset Dr, Aberdeen SD 57401 has filed an application for a water permit to irrigate 129 new acres. Water Right No. 7977-3 appropriates 2.89 cubic feet of water per second (cfs) from one well completed into the Lower James Missouri Aquifer (300 feet deep) located in the SW 1/4 NE 1/4 Section 34 for irrigation of 211 acres located in the SW 1/4, S 1/2 NW 1/4, SW 1/4 NE 1/4, W 1/2 SE 1/4 Section 34; all in T95N-R55W. The applicant is proposing to irrigate 129 new acres located in the W 1/2 NE 1/4, NE 1/4 NE 1/4, E 1/2 NW 1/4, NW 1/4 SE 1/4 Section 34-T95N-R55W from the existing well. This application, if approved, and Water Right No. 7977-3 will authorize a total of 2.89 cfs for irrigation of a total of 340 acres. This site is located approximately 6 miles northeast of Yankton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8434-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352) and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 14, 2020.

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

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

Published once at the total approximate cost of \$27.21.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, August 24, 2020 1:00 PM
To: Jackie Lammers (jackie.lammers@yankton.net)
Subject: 8434-3, Dahlerup Family Trust
Attachments: 8434-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on September 2, 2020.

Dahlerup Family Trust, c/o Gary Dahlerup, 1637 Somerset Dr., Aberdeen SD 57401 (605 380-2079) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak
Water Rights Program
(605) 773-3352



NOTICE OF APPLICATION NO. 8434-3 to Appropriate Water

Notice is given that Dahlerup Family Trust, c/o Gary Dahlerup, 1637 Somerset Dr, Aberdeen SD 57401 has filed an application for a water permit to irrigate 129 new acres. Water Right No. 7977-3 appropriates 2.89 cubic feet of water per second (cfs) from one well completed into the Lower James Missouri Aquifer (300 feet deep) located in the SW 1/4 NE 1/4 Section 34 for irrigation of 211 acres located in the SW 1/4, S 1/2 NW 1/4, SW 1/4 NE 1/4, W 1/2 SE 1/4 Section 34; all in T95N-R55W. The applicant is proposing to irrigate 129 new acres located in the W 1/2 NE 1/4, NE 1/4 NE 1/4, E 1/2 NW 1/4, NW 1/4 SE 1/4 Section 34-T95N-R55W from the existing well. This application, if approved, and Water Right No. 7977-3 will authorize a total of 2.89 cfs for irrigation of a total of 340 acres. This site is located approximately 6 miles northeast of Yankton SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8434-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 14, 2020.

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

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

Published once at the total approximate cost of



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SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

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

August 24, 2020

Dahlerup Family Trust
c/o Gary Dahlerup
1637 Somerset Dr
Aberdeen SD 57401

Dear Mr. Dahlerup

Water Permit Application No. 8434-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Daily Press and Dakotan printed at Yankton SD (Ph # 605 665-7811). 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 newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

enclosures

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



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SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

OCT 06 2020

Dahlerup Family Trust
c/o Gary Dahlerup
1637 Somerset Dr
Aberdeen SD 57401

Dear Mr. Dahlerup:

Enclosed is Water Permit No. 8434-3 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

JAN 19 2023

7977-3
8434-3
8659-3

Dahlerup Family Trust
c/o Gary Dahlerup
1637 Somerset Dr
Aberdeen SD 57401

Dear Mr. Dahlerup:

Enclosed are Water Permit and Water License No. 8659-3. The water license is the final document completing your process of obtaining a Water Right. Also, included is a map prepared by the staff engineer who conducted the investigation.

For your information SDCL 46-6-27 requires that if in the future the owner drills a replacement well and has no plan to use the old existing well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

Note: The applicable portions of Nos. 7977-3 and 8434-3 are incorporated into Water License No. 8659-3.

enclosures