

WATER PERMIT NO. 8456-3

Name of Applicant: Shannon Klumb

Address: 26219 403rd Ave, Ethan SD 57334-6021

Phone: 605 770-6119

Amount of Water Claimed: 0.133 cfs

Total Acres: NA

Source of Water Supply: groundwater (2 existing wells)

Water to be used for: commercial

County: Davison

Type of Waste Disposal System:

Location: 8 miles west and 1 mile north of Ethan SD

PRIORITY Date Received: 9-4-20

Application/License Fee: \$ 700

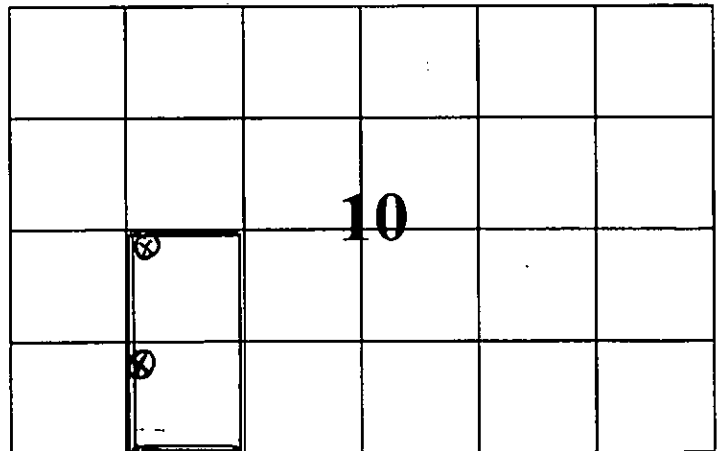
Corrected Application Received: 10-9-20

Period of Annual Use: Jan 1 – Dec 31

Remarks: livestock facility

Diversion Point: W 1/2 SW 1/4 Sec 10-T101N-
R61W

Facility Location: W 1/2 SW 1/4 Sec 10-T101N-
R61W



Depth of Well: 222 feet and 215 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 10-9-20

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8456-3**

Date of first receipt of application September 4, 2020.

Date of return to applicant for corrections, amendments or changes September 9, 2020.

Date of receipt of corrected application October 9, 2020.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8456-3 to Shannon Klumb, 26219 403rd Ave, Ethan SD 57334 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. 8456-3 appropriates 63 acre-feet of water annually at a maximum pump rate of 0.133 cubic feet of water per second from two existing wells completed into the Codell Aquifer (222 and 215 feet deep) located in the W 1/2 SW 1/4 Section 10 for commercial use in an existing livestock facility located in the W 1/2 SW 1/4 Section 10; all in T101N-R61W. This site is located approximately 8 miles west and 1 mile north of Ethan 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. 8456-3 is December 28, 2020.
5. The date from which applicant may claim right is September 4, 2020.
6. One-fifth of the construction is to be completed on or before June 28, 2023.
7. All construction is to be completed on or before December 28, 2025.
8. Water is to be put to beneficial use on or before December 28, 2029.
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. 8456-3 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 withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Water Permit No. 8456-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

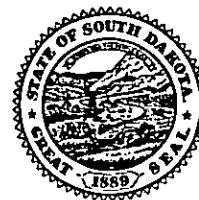
(continued)

3. Water Permit No. 8456-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a. Chapter 74:54:01 Ground Water Quality Standards,
 - b. Chapter 74:54:02 Ground Water Discharge Permit,
 - c. Chapter 74:51:01 Surface Water Quality Standards,
 - d. Chapter 74:51:02 Uses Assigned to Lakes,
 - e. Chapter 74:51:03 Uses Assigned to Streams, and
 - f. Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Codell aquifer.
5. Water Permit No. 8456-3 authorizes a total annual diversion of 63 acre-feet of water from the Codell aquifer.

WATER MANAGEMENT BOARD

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

MAR 08 2021
date



Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8456-3</u>	(office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>Daily Republic, Mitchell</u>	
	<u>Daily Plainsman, Huron</u>	

PAID
SEP 04 2020
Ck# 5591

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.)

1. Name to Appear on Water Permit Shannon Klumb

Mailing Address 26219 403rd Avenue Ethan SD 57334-6021
(Address) (City) (State) (Zip Code)

Phone (605) 996-1814 Mobile 605 770-6119 Email sklumb@santel.net

2. Amount of water claimed 0,133 *CFS or 60 **GPM and 63 ***AF or _____ 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)

3. Source of water supply Codell or Niobrara

4. Location of point of diversion 2 wells in the W 1/2 of the SW 1/4, 10-101N-61W County Davison

(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? Facility location: W 1/2 SW 1/4 Sec 10-T101N-R61W
(example - NW1/4 section 12-T104N-R53W)

5. County or counties where water will be used Davison

6. Annual period during which water is to be used January 1st thru December 31st

7. 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 livestock facility proposing to increase well capacity to plan for future growth.

I, Shannon Klumb

Name of Person

owner

Title (if applicable)

, the applicant, certify under

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

Supplemental Information

(type or print)

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

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

b) If existing wells, how many 2 Provide copy of log(s), if available. Drilled by '79-Lehr Well | '96-Pullman Well

For either Existing or Proposed Wells: '96 Well - 222' deep, 175' to water bearing mat'l, 100' to water surface

c) Well Depth (required) 215' Depth to Top of Water Bearing Material 185' Depth to Water from Surface 95'

d) Distance to nearest domestic well on applicant's property ~900' Property owned by others ? >2,000'

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)

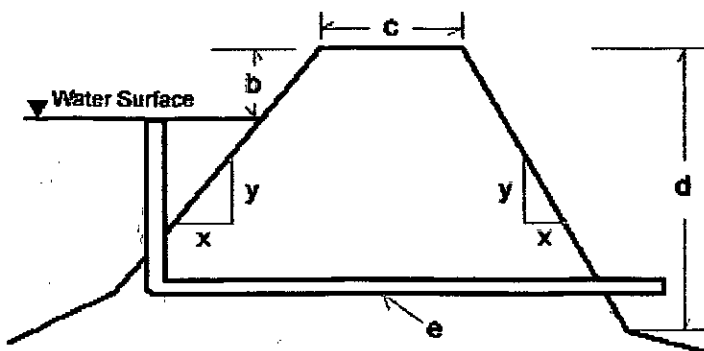
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

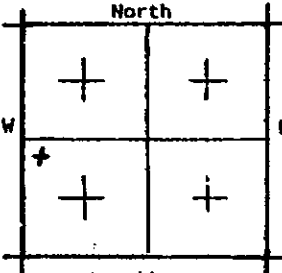


WELL DRILLERS REPORT
SOUTH DAKOTA WATER RIGHTS COMMISSION

4-78

Well Owner:
Name Medwin Klumb
Address Etham

Water Level Information:
Static water level 95' below land surface
If flowing: closed in pressure PSI
rate of flow GPM
Controlled by:
☐ Valve ☐ Reducers ☐ Other
If other; specify

Well Location:
Mark location with an "X"

County Davison 61
NW 1/4 of SW 1/4 Sec. 10 Twp 101-2

Well Test Data:
☐ Pumped Describe: Wellhead
☐ Bailed Describe: developed with
☒ Other air
Pumping Level Below Land Surface
ft. After Hrs. pumped GPM
" " " " " " " " " " " "

Proposed Use:
☒ Domestic ☐ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:
☒ Forward Rotary ☐ Bored ☐ Jetted
☐ Reverse Rotary ☐ Cable ☐ Other

Well Construction:
Diameter of Hole 5 inch
Depth 215 ft.
Casing ☐ Steel ☐ Concrete
☒ Plastic ☐ Other
If other, specify

Was casing end left open No
Was a well screen installed Yes
Describe Well Screen
Diameter 3 inch Material Plastic
Slot size 20
Was well gravel packed No
Was well grouted No
Was water sample taken Yes

Remarks: Well was back-filled with drill cuttings

Well Log:

Formation	Depth	
	From	To
<u>Topsoil</u>	<u>0'</u>	<u>2'</u>
<u>Yellow clay</u>	<u>2'</u>	<u>35'</u>
<u>Blue clay</u>	<u>35'</u>	<u>185'</u>
<u>with streaks of sand</u>	<u>185'</u>	<u>215'</u>

(Use Back if Necessary)

Date Completed: Oct. 5, 1979

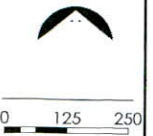
Driller: John Paul Dala 302
Driller's or Firm's Name License NO.

Monro, S.D.
Address

Dustin Leku 10/5/79
Signed By Date

07-92

R. E. Leland
Signature of Well Owner or Equitable Property Holder.



Shannon Klumb
 Site Map
 SW 1/4, Section 10, T101N, R61W
 SEP PROJECT # 19162

PLOT DATE: 9/1/2020 5:19 PM

Overall

LAYOUT





DENR
SOUTH DAKOTA

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

September 9, 2020

PAID
OCT - 9 2020
Ck# 5626

Shannon Klumb
26219 403rd Ave
Ethan SD 57334-6021

Dear Mr. Klumb:

Thank you for submitting the *Application for a Permit to Appropriate Water* for a livestock facility located in Davison County. In order to complete the application, the following is required.

- We received your check for \$500.00. The application license fee is also required at this time. Please submit an additional \$200.00.

If you want more information regarding the permitting process, please go to our web site at <http://denr.sd.gov/des/wr/wr.aspx>

If you have any questions, please contact me.

Sincerely,

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

water rights

enclosures

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date October 9, 2020

RECEIVED OF Shannon G/Michelle L/Benjamin/Jennifer M Klumb 26219 403rd Avenue Ethan SD 57334-6021

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	\$
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>8456-3</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	\$200.00

By *Eric Gronlund*
Chief Engineer
EG



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. 8456-3, Shannon Klumb**

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. 8456-3, Shannon Klumb, 26219 403rd Avenue, Ethan SD 57334-6021.

The Chief Engineer is recommending APPROVAL of Application No. 8456-3 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 wells approved under Water Permit No. 8456-3 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 withdrawals so there is not a reduction of needed water supplies in adequate domestic wells, or in adequate wells having prior water rights.
2. Water Permit No. 8456-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.
3. Water Permit No. 8456-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Codell aquifer.
5. Water Permit No. 8456-3 authorizes a total annual diversion of 63 acre-feet of water from the Codell aquifer.

See report on application for additional information.

Eric Gronlund, Chief Engineer
December 8, 2020

Report to the Chief Engineer
On Water Permit Application No. 8456-3

Shannon Klumb

December 9, 2020

Water Permit Application No. 8456-3 proposes to appropriate 63 acre-feet of water annually at a maximum instantaneous diversion rate of 0.133 cubic feet of water per second (cfs) from two existing wells (215 and 222 feet deep) completed into the Codell aquifer and located in the W ½ SW ¼ of Section 10-T101N-R61W. The proposed appropriation is for commercial use in an existing livestock facility located in the W ½ SW ¼ of Section 10-T101N-R61W in Davison County approximately eight miles west and one mile north of Ethan, South Dakota.

AQUIFER: Codell (CDLL)

HYDROGEOLOGY:

The Codell aquifer is a bedrock aquifer that exists in portions of the Codell Sandstone Member of the Upper Cretaceous aged, Carlile Shale (Christensen, 1989). The Codell Sandstone consists of a multicolored, well cemented to uncemented, fine grained sandstone that is interbedded with gray shale and thin limestone layers (Hedges et al., 1982; Christensen, 1989). The sandstone member varies from white to gray or green in color and weathers to a light yellow or orange (Christensen, 1989). The Carlile Shale underlies most of South Dakota but the portion of the Codell Sandstone Member that contains the Codell aquifer is not as extensive (Hedges et al., 1982; Allen et al., 1985). West of the Missouri River, the Codell Sandstone Member has not been documented but the Carlile Shale is present in all areas except for the Black Hills region (Allen et al., 1985). In Davison and Hanson Counties, the Codell Sandstone ranges from 5 to 90 feet thick and has an average thickness of 40 feet. The Codell Sandstone outcrops in several areas in both counties, but it is also up to 350 feet below grade in the southwest part of Davison County (Christensen, 1989).

The Codell aquifer is primarily under confined conditions (SDGS, 2020; Water Rights, 2020b and 2020d). In Davison County, the direction of groundwater movement in the Codell aquifer is from the southwest to the northeast. In northern Hanson County, the direction of groundwater movement in the Codell aquifer is northwest towards Sanborn County (Hansen, 1983). Hedges and others (1982) estimated the minimum distribution of the areal extent of the Codell aquifer to be approximately 4,960,000 acres and contain approximately 9,895,700 acre-feet of recoverable water in storage. It is worth noting there are water rights/permits that use wells completed into the Codell aquifer that plot outside of the aquifer boundaries delineated by Hedges and others (1982) (as shown in Figure 1) (Water Rights, 2020c). Therefore, the Codell aquifer does have a larger areal extent and contain more water in storage than what was estimated by Hedges and others (1982). In Davison County, Hedges and others (1982) estimated the minimum distribution of the areal extent of the Codell aquifer to be approximately 270,720 acres and contain approximately 541,400 acre-feet of recoverable water in storage.

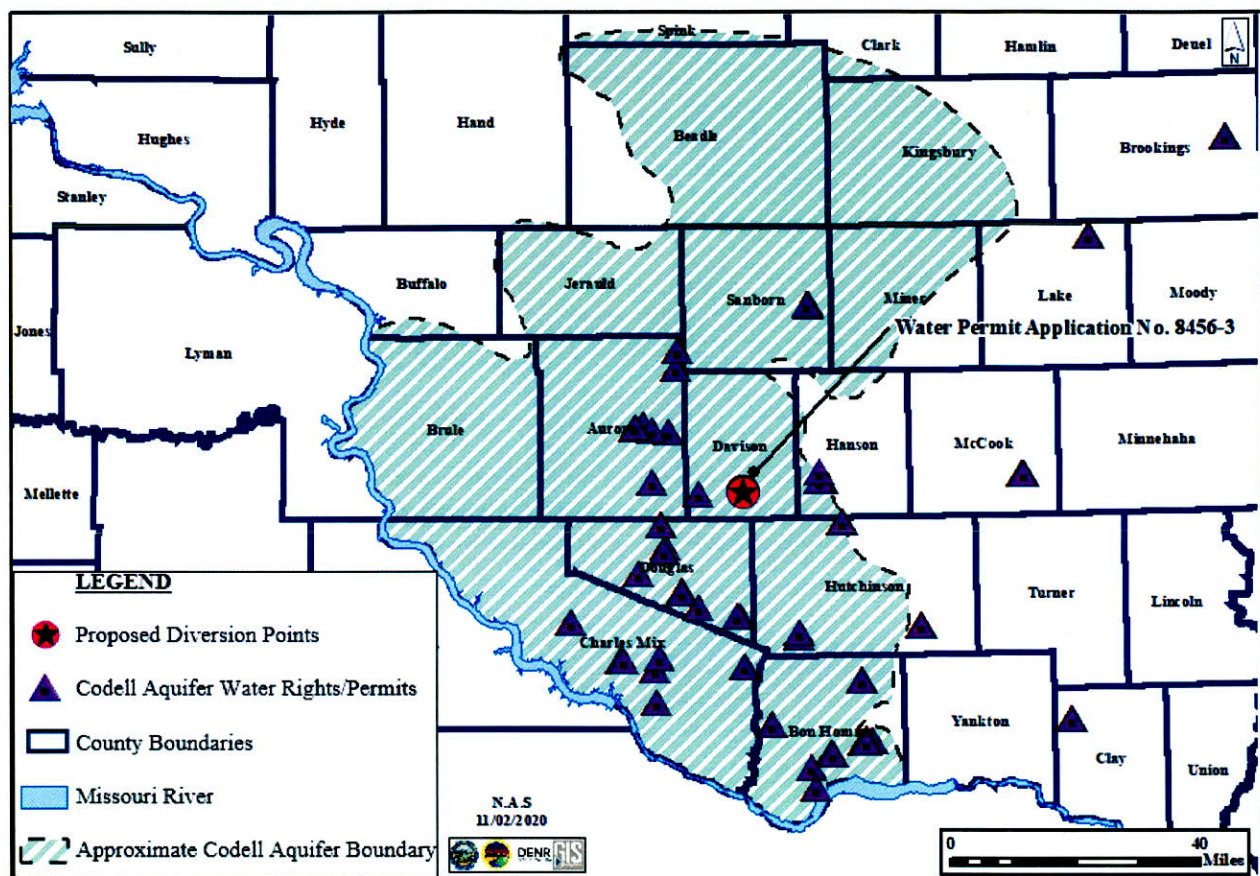


Figure 1. Map of the approximate minimum extent of the Codell aquifer from Hedges and others (1982), the proposed diversion points for Water Permit Application No. 8456-3 and the Codell aquifer water rights/permits (modified from Hedges et al., 1982; Water Rights, 2020c)

Water well completion reports were submitted with Water Permit Application No. 8456-3 for two existing wells (215 and 222 feet deep) located in the W $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 10-T101N-R61W. The first well completion report indicated topsoil from 0 to 2 feet below the ground surface, yellow clay from 2 to 25 feet, blue clay from 35 to 185 feet and sandstone from 185 to 215 feet below the ground surface. Additionally, the first well had a static water level of 95 feet below the ground surface at the time of completion (October 5, 1979) (Water Rights, 2020d). The second well completion report indicated yellow clay from 0 to 30 feet below the ground surface, chalk from 30 to 175 feet, and “Codell” from 175 to 222 feet below the ground surface. Additionally, the second well had a static water level of 100 feet below the ground surface at the time of completion (December 11, 1996) (Water Rights, 2020d). Based on the submitted well completion reports and lithologic logs on file for nearby observation wells, the Codell aquifer is expected to be confined at the applicant’s proposed diversion points (SDGS, 2020; Water Rights, 2020b and 2020d).

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 Codell aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8456-3 proposes to appropriate water from the Codell 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 Codell aquifer is not older than or stratigraphically lower than the Greenhorn Formation, and the applicant’s proposed use is not for use in a water distribution system. Therefore, the average annual recharge and average annual withdrawal rates to and from the Codell aquifer must be considered.

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 22 observation wells completed into the Codell aquifer (Water Rights, 2020b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The four closest observation wells to the proposed diversion points are DN-79J (approximately 1.7 miles southeast), HT-78D (approximately 6.5 miles southeast), DN-78E (approximately 6.5 miles southeast), and DN-79M (approximately 8.7 miles northeast) (as shown in Figure 6) (Water Rights, 2020b and 2020c). The hydrographs for these observation wells are displayed in Figures 2 to 5 (Water Rights, 2020b). 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.

The hydrographs for the Codell 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. Additionally, the hydrographs show the water level in the aquifer has been generally stable over the period of record, indicating no evidence of a significant decrease in artesian head pressure for observation

wells completed into Codell aquifer (Water Rights, 2020b). This relatively stable water level in the Codell aquifer supports Hedges and others (1985) conclusion that it is unlikely that withdrawals are approaching or exceeding recharge from the aquifer. Overall, the observation well hydrographs demonstrate there is a reasonable probability unappropriated water is available for the proposed appropriation.

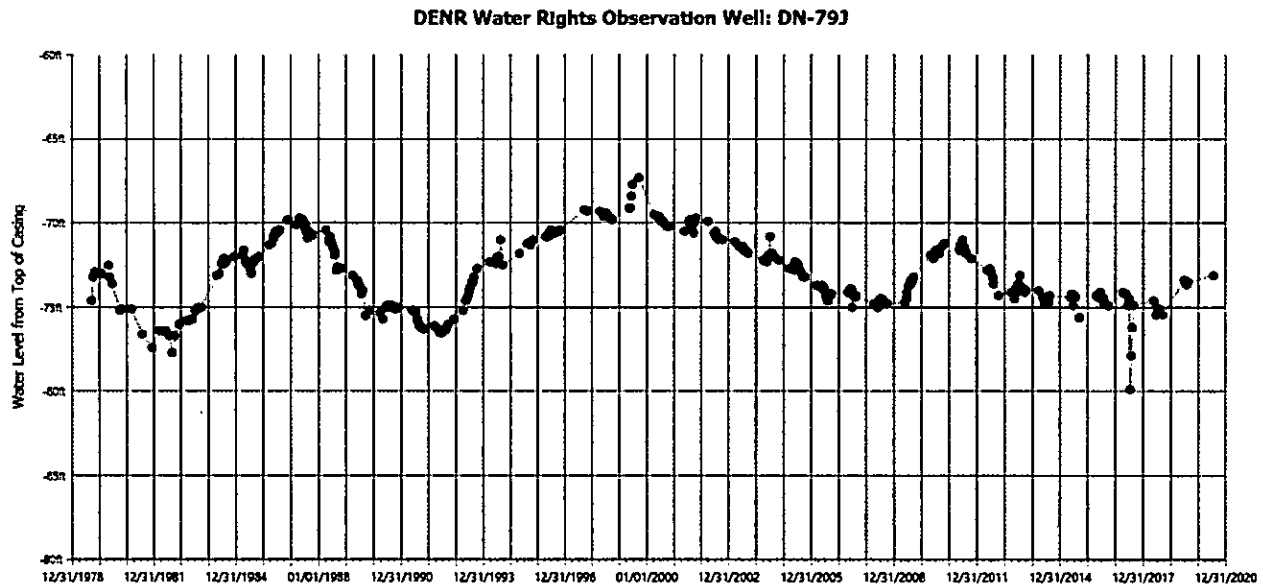


Figure 2. Hydrograph for observation well DN-79J (Water Rights, 2020b)

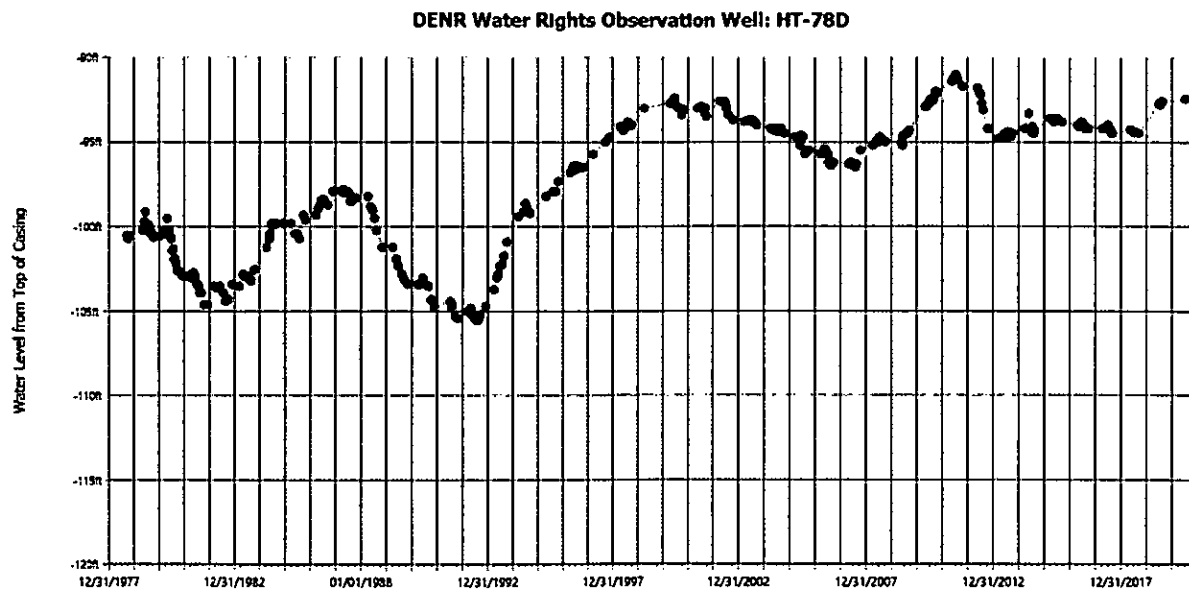


Figure 3. Hydrograph for observation well HT-78D (Water Rights, 2020b)

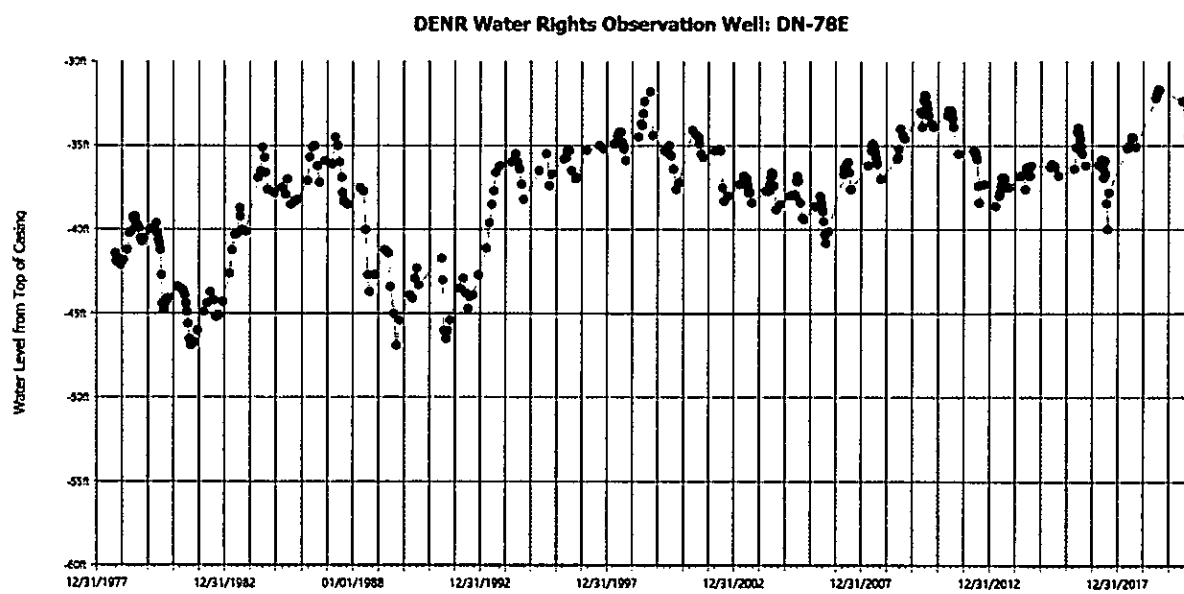


Figure 4. Hydrograph for observation well DN-78E (Water Rights, 2020b)

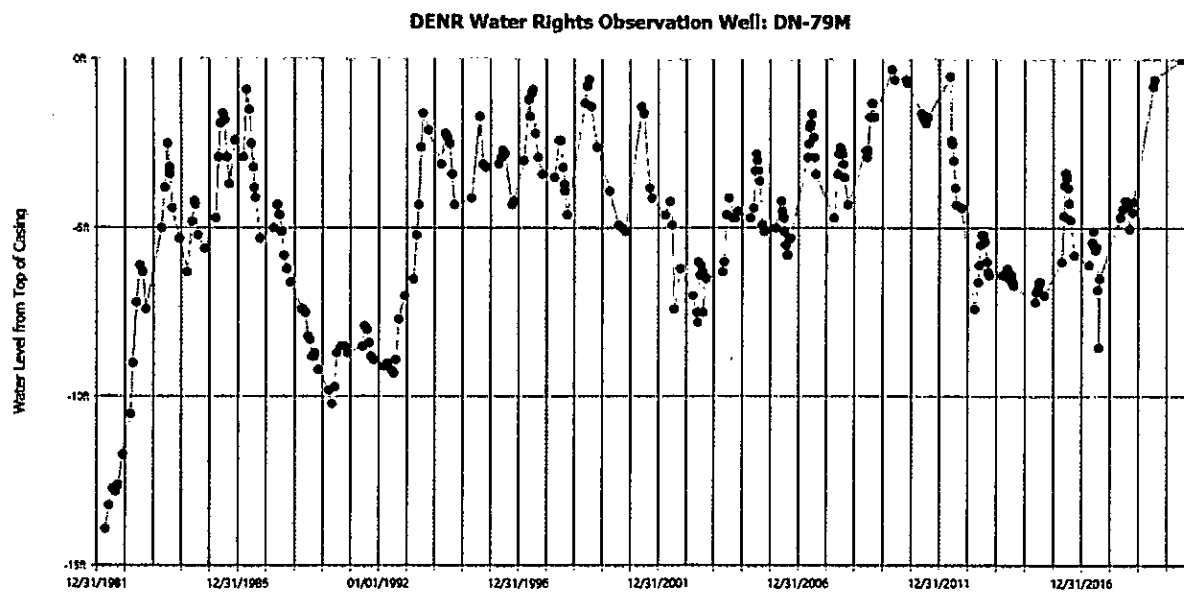


Figure 5. Hydrograph for observation well DN-79M (Water Rights, 2020b)

HYDROLOGIC BUDGET:

Recharge

Recharge to the Codell aquifer in Davison County occurs through leakage from the overlying Niobrara aquifer. In Hanson County, recharge to the aquifer may also be through the overlying Floyd: East James aquifer and by leakage through fractures in the underlying Sioux Quartzite (Hansen, 1983). The Codell Sandstone Member outcrops in several locations in both counties, particularly along Firesteel Creek (northwest of the City of Mitchell) (Christensen, 1989), which implies that there may be recharge through direct infiltration of precipitation on the outcrop.

No quantification of the average annual recharge rate to the Codell aquifer has been published. While the estimated recharge rate to the aquifer is unknown, Hedges and others (1985) noted that the “Codell Sandstone” has such high storage with low use, it is unlikely that withdrawals are approaching or exceeding recharge from the aquifer. Additionally, there has been no evidence of a significant decrease in artesian head pressure for wells completed into Codell aquifer (Hedges et al., 1985; Water Rights, 2020b).

Discharge

Discharge from the Codell aquifer in Davison County occurs through well withdrawals, evapotranspiration where the Codell Sandstone Member outcrops or is near land surface, and by leakage to the James River and Lake Mitchell (Hansen, 1983).

Currently, there are 43 water rights/permits authorized to appropriate water from the Codell aquifer, plus one pending application – Water Permit Application No. 8444-3 requesting 38 acre-feet of water annually (Water Rights, 2020c).

Table 1 summarizes the 39 non-irrigation water rights/permits authorized to appropriate water from the Codell aquifer, including the pending application, 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 the entire appropriated volume every year. It is estimated that the non-irrigation water rights/permits limited only by a diversion rate will pump at a maximum permitted diversion rate for 60 percent of the time. Twelve municipal water rights and one institutional water right were identified as being connected to a rural water system and maintain their wells for standby purposes (Drinking Water Program, 2020; Water Rights, 2020c); as such, the average annual water use for these water rights has been estimated to be zero acre-feet per year on Table 1.

Table 1. Summary of the non-irrigation water rights/permits authorized to appropriate from the Codell aquifer, including the pending application, with estimated annual use determined by their limiting diversion rate or annual volume (Drinking Water Program, 2020; Water Rights, 2020c)

Permit No.	Name	County	Use	Status	Diversion Rate (cfs)	Annual Volume (acre-feet)	Estimated Use (acre-feet/year)
551-3	State Training School	AU	INS	LC	0.17		73.8
555-3	City of Armour	DG	MUN	LC	0.5		0*
687-3	City of Lake Andes	CM	MUN	LC	0.73		0*
1676-3	Town of Nunda	LK	MUN	LC	0.1		43.4
1694-3	Town of Stickney	AU	MUN	LC	0.11		0*
1892-3	City of Wakonda	CL	MUN	LC	0.33		0*
1966-3	City of Geddes	CM	MUN	LC	0.38		0*
4120-3	City of Plankinton	AU	MUN	LC	0.36		0*
4279-3	City of Delmont	DG	MUN	LC	0.3		0*
4279A-3	City of Delmont	DG	MUN	LC	0		0*
4383-3	Douglas County Cheese Co	DG	IND	LC	0.07		30.4
4402-3	City of Tripp	HT	MUN	LC	0.64		278
4836-3	City of Corsica	DG	MUN	LC	0.13		0*
4977-3	City of Menno	HT	MUN	LC	0.5		0*
5330-3	City of Avon	BH	MUN	LC	0.33		0*
5477-3	Artesian-Letcher School District	SA	INS	LC	0.05		21.7
5480-3	Cortrust Bank, N.A.	SA	COM	LC	0.04		17.4
5549-3	National Foods Corp	AU	COM	LC	0.26		112.9
5598-3	Storia Sunset Home	AU	INS	LC	0.08		0*
5731-3	St Charles Catholic Church	SA	INS	LC	0.033		14.3
5756-3	Town of Ravina	CM	MUN	LC	0.07		0*
5823-3	DNA Production LLC	DG	COM	LC	0.22		95.6
5978-3	Norfolk Hutterian Brethern Inc	BG	COM	LC	0.111		48.2
5995-3	Bernard Van Vuuren	DG	COM	LC	0.177		76.9
6018-3	National Foods Corp	AU	COM	LC	0.27		117.3
6041A-3	Calvin Berwald	AU	COM	LC	0.08		34.8
6232-3	Rockport Hutterian Brethern	HS	DOM	LC	0.222		96.4
6323-3	New Elm Springs Colony	HT	DOM	LC	0.09		39.1
6539-3	Clearfield Colony	CM	DOM	LC	0.2		86.9
6544-3	City of Armour	DG	REC	LC	1.381		599.9
6762-3	Van Winkle Dairy LP	MC	COM	LC	0.27		117.3
7206-3	Long View Farms LLP	CM	COM	PE	0.067		29.1
7359-3	James C Kokes	BH	COM	LC	0.067		29.1
7851-3	Alan Armstrong	BH	DOM	LC	0.067		29.1
8252-3	Michael Slama	BH	COM	LC	0.09	45	45
8291-3	Jackrabbit Family Farms	DN	COM	PE	0.085	50	50
8303-3	Frank Pravecsek	BH	COM	LC	0.12	51	51
8314-3	Cody Schelling	DG	COM	PE	0.07	29	29
8331-3	Rosedale Hutterian Brethern	HS	COM	PE	0.11	72.6	72.6
8444-3	Rosedale Hutterian Brethern (pending)	HS	COM	PE	0.056	38	38
LC: Licensed Water Right; PE: Water Permit						TOTAL:	2,277
MUN: Municipal; IND: Industrial; COM: Commercial; DOM: Domestic; INS: Institutional; REC: Recreation							
AU: Aurora; BG: Brookings; BH: Bon Homme; CL: Clay; CM: Charles Mix; DN: Davison;							
DG: Douglas; HS: Hanson; HT: Hutchinson; LK: Lake; MC: McCook; SN: Sanborn *Identified as being connected to a Rural Water System							

Currently, there are four water rights authorized to appropriate water from Codell aquifer for irrigation use (Water Rights, 2020c). Generally, irrigation water rights/permits are required to report their annual water usage; however, there were no irrigation water rights/permits appropriating water from the Codell aquifer from 1987 to 2003 (Water Rights, 2020a and 2020c). The average annual withdrawal rate for the Codell aquifer irrigation water rights/permits that have reported over the period of record (1979 to 1986 and 2004 to 2019) is approximately 76 acre-feet per year (Table 2) (Water Rights, 2020a).

Table 2. Reported historic irrigation use from Codell aquifer (Water Rights, 2020a)

Year	No. of Permits	Annual Appropriation (acre-feet)	Reported Pumpage (acre-feet)
1979	3	1,410	210
1980	3	1,410	92
1981	3	1,410	185
1982	2	N/A	N/A
1983	2	N/A	N/A
1984	2	570	124.2
1985	2	570	0
1986	2	570	152
2004	1	74	26.5
2005	1	74	26.5
2006	1	74	11.1
2007	1	74	0
2008	1	74	6.5
2009	1	74	2.7
2010	1	74	2.6
2011	1	74	3.4
2012	1	74	0
2013	4	880	23.6
2014	4	1,086	161.7
2015	4	1,086	191.2
2016	4	1,086	220.4
2017	4	1,086	213.6
2018	4	1,086	9.9
2019	4	1,090	9.3
Average	2.3	636.6	76.0

To estimate an annual withdrawal rate based on the current development of the current four Codell aquifer irrigation water rights, the number of developed acres multiplied by a 12-inch application rate will be used. A developed acre in this report was determined as the number of acres authorized to be irrigated by a water permit, or if the water permit has been licensed, the number of acres authorized to be irrigated by a water right. Collectively, these four irrigation water rights are licensed to irrigate 558 acres (Water Rights, 2020c). Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, to account for the fluctuation in wet and dry cycles from year to year, the one foot of water per acre per year application rate will be used to liberally estimate the annual withdrawal rate for these four irrigation water rights/permits. By assuming an average annual withdrawal rate of 12 inches per developed acre applied over the 558 acres currently licensed to irrigate from the Codell aquifer, the estimated annual withdrawal rate for the four irrigation water rights is approximately 558 acre-feet per year (Water Rights, 2020c).

There are domestic wells completed into the Codell 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 Codell aquifer.

Hydrologic Budget Summary

The average annual withdrawal rate from the Codell aquifer totals approximately 2,898 acre-feet per year: non-irrigation (with pending application): 2,277 acre-feet/year; irrigation: 558 acre-feet/year; Water Permit Application No. 8456-3, if approved, 63 acre-feet/year. This withdrawal rate is less than 0.03 percent of the nearly 10 million acre-feet of recoverable water stored in the Codell aquifer (Hedges et al., 1982). Hedges and others (1985) noted it is unlikely that withdrawals are approaching or exceeding recharge from the aquifer, and there has been no evidence of a significant decrease in artesian head pressure for wells completed into Codell aquifer (Hedges et al., 1985; Water Rights, 2020b). Therefore, there is a reasonable probability unappropriated water is available from the Codell aquifer for the proposed appropriation.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 43 water rights/permits authorized to appropriate water from the Codell aquifer, plus one pending application (Water Rights, 2020c). The closest water right/permit to the proposed diversion points is Water Permit No. 8291-3 which is held by Jackrabbit Family Farms. The diversion point for Water Permit No. 8291-3 is located approximately 7.0 miles east of the proposed diversion points for this application (Table 3) (Figure 6) (Water Rights, 2020c).

There are domestic wells on file with the DENR-Water Rights Program that are completed into the Codell aquifer, with the closest domestic well on file (not held by the applicant) within approximately 0.25 miles south of the proposed diversion points (Water Rights, 2020d). There are likely other domestic wells completed into the Codell aquifer near to the proposed diversion points that are not on file with the DENR-Water Rights Program.

Table 3. Water rights/permits authorized to withdraw water from the Codell aquifer within approximately 15 miles of the proposed diversion points, as shown in Figure 6 (Water Rights, 2020c)

Permit No.	Name	Status	Use	Diversion Rate (cfs)
551-3	State Training School	LC	INS	0.17
1694-3	Town of Stickney	LC	MUN	0.11
4120-3	City of Plankinton	LC	MUN	0.36
4383-3	Douglas County Cheese Co	LC	IND	0.07
4836-3	City of Corsica	LC	MUN	0.13
5549-3	National Food Corp	LC	COM	0.26
5995-3	Bernard Van Vuuren	LC	COM	0.177
6018-3	National Food Corp	LC	COM	0.27
6232-3	Rockport Htrn Brth	LC	DOM	0.222
6323-3	New Elm Springs Colony	LC	DOM	0.09
8291-3	Jackrabbit Family Farms	PE	COM	0.085
8331-3	Rosedale Htrn Brth	PE	COM	0.11
8444-3	Rosedale Htrn Brth (<i>pending</i>)	PE	COM	0.056

LC: Licensed Water Right; PE: Water Permit; INS: Institutional
MUN: Municipal; IND: Industrial; COM: Commercial; DOM: Domestic

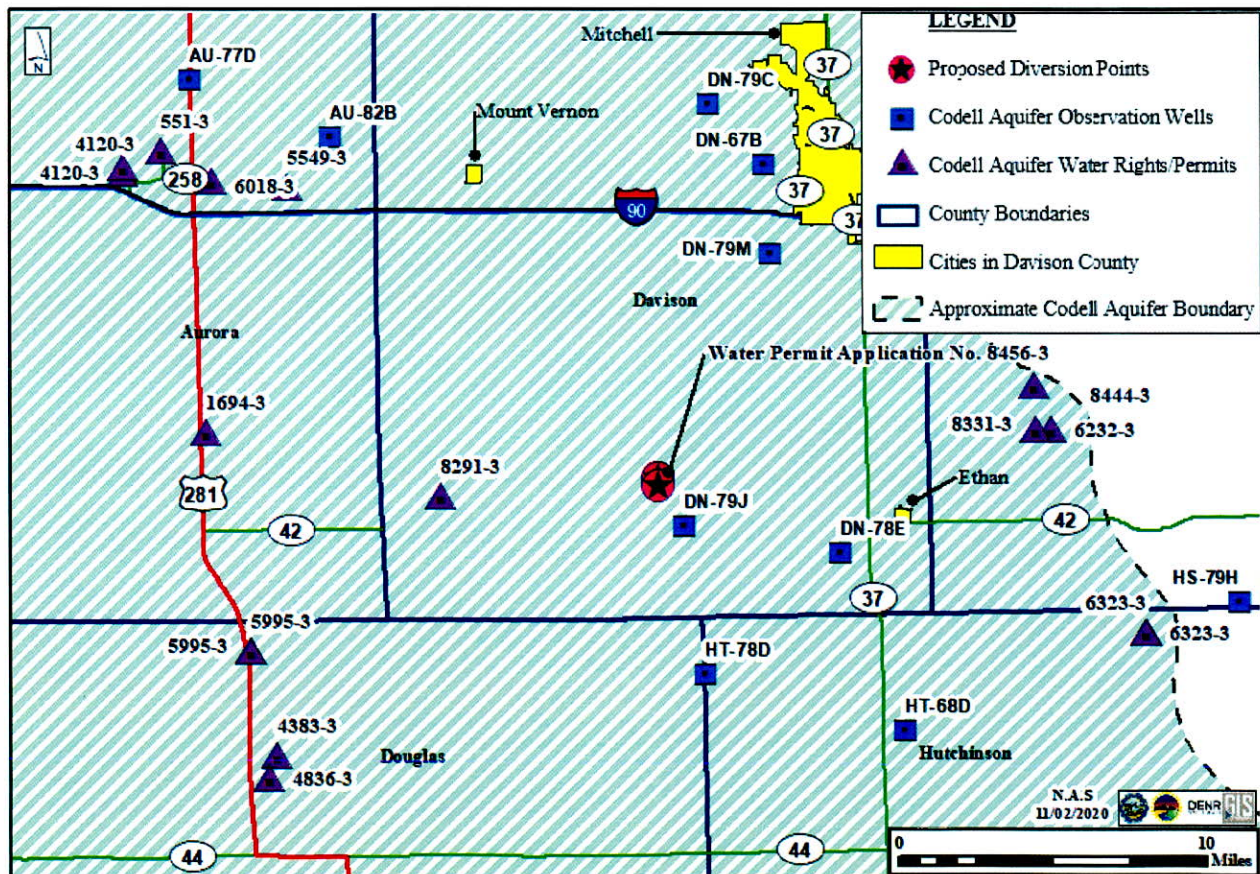


Figure 6. Location of proposed diversion points for Water Permit Application No. 8456-3 with the nearby Codell aquifer water rights/permits and observation wells (Water Rights, 2020b and 2020c)

In Davison County, the Codell aquifer is primarily under confined conditions with some variation in depth to the top of the aquifer and aquifer thickness (SDGS, 2020; Water Rights, 2020c and 2020d). Based on the well completion reports submitted with Water Permit Application No. 8456-3, the Codell aquifer is approximately 175 to 185 feet below grade at the proposed diversion points, with a static water level of approximately 95 to 100 feet below grade, which indicates there is approximately 75 to 90 feet of artesian head pressure in the Codell aquifer at the site of interest. Since the Codell aquifer is confined at the proposed diversion points, drawdown can extend some distance from pumping a well but the exact drawdown behavior of a well cannot be known without an aquifer performance test. The Codell aquifer is approximately 30 to 47 feet thick at the proposed diversion points (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 for this application is not expected to unlawfully impair nearby adequate wells. In addition, any drawdown as a result of the proposed diversion for this application is expected to impact the applicant's wells before other nearby wells. In Davison and Hanson Counties, there are no complaints on file with the DENR-Water Rights Program regarding well interference for wells completed into the Codell aquifer (Water Rights, 2020e).

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

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

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, "general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable..." (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Codell aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1) and ARSD 74:02:04:20 (6) and (7), the estimated thickness of the Codell 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. 8456-3 proposes to appropriate 63 acre-feet of water annually at a maximum instantaneous diversion rate of 0.133 cfs from two existing wells (215 and 222 feet deep) completed into the Codell aquifer. The proposed appropriation is for commercial use in an existing livestock facility located in Davison County approximately eight miles west and one mile north of Ethan, South Dakota.
2. Based on the hydrologic budget and observation well data, there is a reasonable probability that unappropriated water is available from the Codell aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the proposed diversion by Water Permit Application No. 8456-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.



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

Reviewed by:



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

References

- Allen, J.C., Iles, D.L., and Petres, A.K., 1985. Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota. Tasks 3A.B.C. and 4A.B.: Groundwater Resource Inventory. Final Report. U.S. Army Corps of Engineers Contract DACW 45-82-C-051.
- Christensen, C.M., 1989. Geology of Davison and Hanson Counties, South Dakota. South Dakota Geologic Survey Bulletin 33. Vermillion, SD.
- Drinking Water Program. 2020. Drinking Water System Information. SD DENR – Drinking Water Program Online Database. Accessed November 03, 2020.
<<http://denr.sd.gov/des/dw/sysinfomap.aspx>>
- Hansen, D.S., 1983. Water Resources of Hanson and Davison Counties, South Dakota. Water-Resources Investigations Report 83-4108. U.S. Geological Survey.
- 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 I: 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.
- SDGS, 2020. South Dakota Geological Survey Lithologic Logs Database. Accessed November 12, 2020. <http://cf.sddenr.net/lithdb/>
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. SD-DENR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2020a. "1979-1986, 2004-2019 Irrigation Summaries by Aquifer", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- 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: Wednesday, December 9, 2020 10:51 AM
To: sklumb@santel.net
Subject: Water Permit Application No. 8456-3
Attachments: 0171.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



AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

ss.

COUNTY OF DAVISON

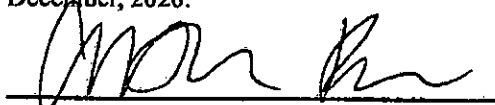
Elisabeth Beam, of said county, being first duly sworn, on oath, states as follows:

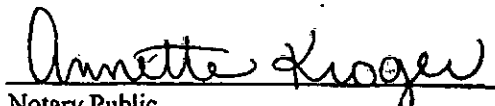
1. I am the designated agent of the *Mitchell Republic*, a daily newspaper published in the city of Mitchell, in said County of Davison, and State of South Dakota; I have full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4 inclusive; that said newspaper has been published within the said County of Davison and State of South Dakota, for at least one year next prior to the first publication of the attached public notice.

2. The newspaper listed on the exhibit published the advertisement of: *Legal Notice; (1) time: December 16, 2020*, as required by law or ordinance.

3. That the full amount of the fee charged for the publication of the attached public notice insures to the sole benefit of the publisher or publishers; 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, that the fees charged for the publication thereof are: \$25.84

Subscribed and sworn to before me this 16th day of December, 2020.


Legals Clerk


Notary Public
My Commission Expires: May 15, 2026



NOTICE OF APPLICATION NO. 8456-3 to Appropriate Water

Notice is given that Shannon Klumb, 26219 403rd Ave, Ethan SD 57334-6021 has filed an application for a water permit to appropriate 63 acre-feet of water annually at a maximum pump rate of 0.133 cubic feet of water per second from two existing wells completed into the Codell Aquifer (222 and 215 feet deep) located in the W 1/2 SW 1/4 Section 10 for commercial use in an existing livestock facility located in the W 1/2 SW 1/4 Section 10; all in T101N-R61W. This site is located approximately 8 miles west and 1 mile north of Ethan SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8456-3 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 December 28, 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 \$25.84.
(Dec. 16, 2020) 2869511

RECEIVED

DEC 30 2020

WATER RIGHTS
PROGRAM

PRINTER'S AFFIDAVIT

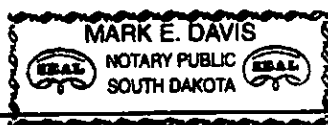
KLUMB, SHANNON: ss

I, KIM DAVIS, being duly sworn on oath say that the PLAINSMAN is a daily paper published at Huron, Beadle County, South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am Legal Advertising Coordinator of said newspaper and know the facts herein state. The annexed notice headed:

**NOTICE OF APPLICATION TO
APPROPRIATE WATER**

was published for one day, in said newspaper, and not in any supplement of the said newspaper. The first publication being the 16th day of DECEMBER 2020 That the full amount of the fee charged for publishing is: TWENTY NINE & 03/100 dollars insures to the benefit of the publisher of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whom so ever.

Subscribed and sworn to me before this 14TH day of JANUARY 2021.



Notary Public, South Dakota

My term expires 12/24/2024

RECEIVED

JAN 14 2021

PRINTER RIGHTS
PROGRAM

Wednesday, December

2000 - Legal

2000 - Legal

P.P. 12-18-20
NOTICE OF
APPLICATION
NO. 8456-3 TO
APPROPRIATE WATER

Notice is given that Shannon Klumb, 78710 433rd Ave., Huron, SD 57334-6021 has filed an application for a water permit to appropriate 53 acre - feet of water annually at a maximum pump rate of 0.133 cubic feet of water per second from line existing wells connected into the Casell Aquifer (222 and 215 feet deep) located in the W 1/2 SW 1/4 Section 10 for commercial use in an existing livestock facility located in the W 1/2 SW 1/4 Section 12, all in T80N-R10W. This site is located approximately 8 miles west and 1 mile north of Huron, SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8456-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unduly impaired, 3) it is beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and the staff report are available at: <http://www.sd.gov/> public or contact Tom Ouellet 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 approving the Chief Engineer's recommendation. The Chief Engineer's address is: Water Rights Program, P.O. Box 603, 675 E. Capitol, Pierre, SD 57501 (605) 773-6357 and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by December 28, 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 written 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. No. 0587 (rev.)
Published once at the approximate cost of \$75.00

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, December 9, 2020 10:47 AM
To: legals@mitchellrepublic.com
Subject: 8456-3, Shannon Klumb
Attachments: 8456-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on December 16, 2020.

Shannon Klumb, 26219 403rd Ave, Ethan SD 57334-6021 (605 770-6119) 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



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, December 9, 2020 10:48 AM
To: 'rcrandall@plainsman.com'
Subject: 8456-3, Shannon Klumb
Attachments: 8456-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on December 16, 2020.

Shannon Klumb, 26219 403rd Ave, Ethan SD 57334-6021 (605 770-6119) 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





DENR
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 NEWSPAPERS RIGHT AWAY.**

December 9, 2020

Shannon Klumb
26219 403rd Ave
Ethan SD 57334-6021

Dear Mr. Klumb

Water Permit Application No. 8456-3 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 Daily Republic printed at Mitchell SD (Ph # 605 996-5514) and the Plainsman printed at Huron SD (Ph # 605 353-7414). 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,

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.

NOTICE OF APPLICATION NO. 8456-3 to Appropriate Water

Notice is given that Shannon Klumb, 26219 403rd Ave, Ethan SD 57334-6021 has filed an application for a water permit to appropriate 63 acre-feet of water annually at a maximum pump rate of 0.133 cubic feet of water per second from two existing wells completed into the Codell Aquifer (222 and 215 feet deep) located in the W 1/2 SW 1/4 Section 10 for commercial use in an existing livestock facility located in the W 1/2 SW 1/4 Section 10; all in T101N-R61W. This site is located approximately 8 miles west and 1 mile north of Ethan SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8456-3 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 December 28, 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__



DENR
SOUTH DAKOTA

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

MAR 03 2021

Shannon Klumb
26219 403rd Ave
Ethan SD 57334

Dear Mr. Klumb:

Enclosed is Water Permit No. 8456-3 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

8426-3
RECEIVED

JUN 28 2021

WATER RIGHTS
PROGRAM**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date 5-2-21TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Shannon Klumb
(name)26219 403rd Ave
(address)Ethan SD 57334
(city, state, zip)605-770-6119
(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. 8456-3 states that the water use system is to be constructed by12-28-25
(date), and water is to be put to beneficial use by 12-28-29
(date)The water use system was completed on 5-2-21
(date)Applying the water to beneficial use was completed on 3-1-21
(date)

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

Shannon Klumb
(signature)



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

June 28, 2021

8456-3

Shannon Klumb
26219 403rd Ave
Ethan SD 57334

Dear Mr. Klumb:

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 the system authorized under Water Permit No. 8456-3.

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,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8456-3

I have this day, August 21, 2024, made a thorough examination of the water use system constructed by Shannon Klumb of 26219 403rd Ave, Ethan SD 57334 holder of Permit No. 8456-3, bearing the priority of September 4, 2020 authorizing the diversion of 0.133 cu. ft. per second (60 gpm) of the waters of groundwater Codell Aquifer for commercial use in a livestock facility purposes, in Davison County.

Inspection contact & relationship Shannon Klumb, owner

A. Works used to divert the water:

Well # 1 Information:

- 1) Well Drilling Firm: Pullman Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 220 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 5 inches
- 2) Length 190 feet
- 3) Type plastic

Screen:

- 1) Type PVC
- 2) Length 30 feet
- 3) Static water level 100 feet

Pump:

- 1) Make Grundfos
- 2) Model submersible
- 3) Capacity 20 GPM

Motor:

- 1) Make Grundfos
- 2) Model No. submersible
- 3) Horsepower rating 20 hp

5) **Well #2 Information:** Well Drilling Firm: Pullman Well Drilling

- 6) No. of Wells 1
- 7) Depth(s) 232 feet
- 8) Well log is available Y

Casing:

- 4) Diameter 5 inches
- 5) Length 212 feet

6) Type plastic

Screen:

4) Type PVC

5) Length 20 feet

6) Static water level 110 feet

Pump:

4) Make Grundfos

5) Model submersible

6) Capacity 20 GPM

Motor:

4) Make Grundfos

5) Model No. submersible

6) Horsepower rating 20 hp

B. Works used to transport water to place of use:

1) Type Poly 2) Size 2 inches 3) Length 1500 feet

Comments: none

D. Compliance with Permit Requirements:

1) Permit qualifications being abided by Y

2) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: from the SW corner of Sec 10 T101N-R61W: Well #1 - 1100 ft N and 40 ft E, latitude of 43.5577 and longitude of -98.14341, Well #2 - 465 ft N and 360 ft E, latitude of 43.55945 and longitude of -98.14474 , all in the SW ¼ SW ¼.

2. The works are capable of diverting and conveying to the place of use 0.089 cu. ft. per second of water and/or appropriating 63 acre-feet of water which is to be used for commercial use for a livestock facility.

3. All structures, wells and lands on map Y

If no, describe: none

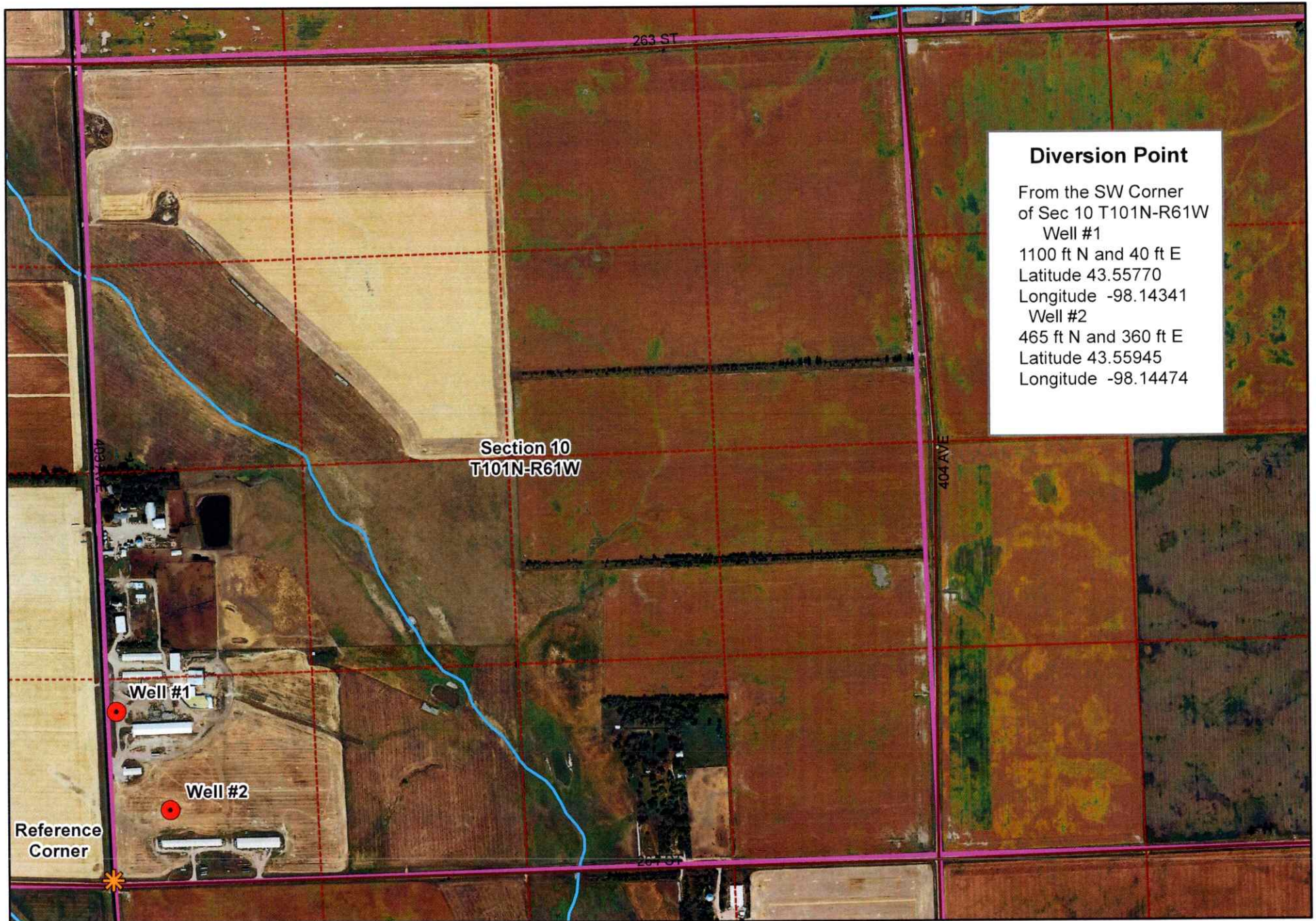
F. Comments or other permit(s) associated with the project:

none



Mark D Rath
Water Right Inspector
DANR, Water Rights Program

Date report completed: August 26, 2024

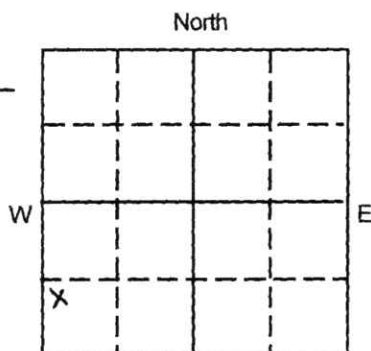


0.5 0.25 0 0.5 Miles

Mark D Rath
Water Right Inspector
DANR-Water Rights Program

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SW ¼ Sec 10 Twp 101 Rg 61County
DavisonPlease mark well
location with an "X"

Well Completion Date

6/11/2007

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

? _____ ft. from _____ (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Forward

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT LB/FT	DIAMETER IN	FROM FT	TO FT	HOLE DIAMETER IN
	5.00	0.0	212.0	8.75

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight Lb/gal	From 0.0 Ft	To 10.0 Ft
Cement	2			
VolClay	14		10.0 Ft	209.0 Ft

Describe grouting procedure
Line

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 5.00 inches Length 20.0 Feet
Material PVCSlot Size .016 Set From 212.0 Feet to 232.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☒ Yes ☐ NoIf so, what material? Gravel

Describe packer(s) and location

@212

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Pellets☐ No, Why Not?Lab sample sent to for
water quality analysisWell Owner: Larry KlumbBusiness Name: Klumb FarmsAddress: 26354 403 AveCity, State, Zip: Ethan SD 57334

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Yellow Sand	0	17
Yellow Clay	17	20
Blue Clay Few Rocks	20	42
Chalk	42	185
Codell	185	200
Shale	200	210
Sand	210	234

STATIC WATER LEVEL 110.0 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: w/air☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JAN - 2 2008

WATER RIGHTS
PROGRAMThis well was drilled under license # 440

And this report is true and accurate.

Drilling firm: Pullman Well Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: _____



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

AUG 30 2024

8456-3

Shannon Klumb
26354 403rd Ave
Ethan SD 57334

Dear Mr. Klumb:

Enclosed is Water License No. 8456-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old 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.

So long as you use the water beneficially, as stated in the Water License, 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

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8456-3

(1) Shannon Klumb, 26219 403rd Ave, Ethan SD 57334, made Application No. 8456-3, September 4, 2020, for a water permit to appropriate 63 acre-feet annually with a maximum diversion rate of 0.133 cubic feet of water per second from groundwater, two wells (Codell Aquifer), Davison County, South Dakota for commercial use in a livestock facility. Permit No. 8456-3, with a priority date of September 4, 2020, was approved December 28, 2020, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before December 28, 2025, and for the application to beneficial use of water on or before December 28, 2029.

The permit holder submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on June 28, 2021. The Notice stated the diversion system was completed on February 1, 2021, and the water was placed to beneficial use on March 1, 2021.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to appropriate 63 acre-feet of water annually with a maximum diversion rate of 0.089 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well #1: 1,100 ft N & 40 ft E of the SW corner Section 10, T101N, R61W (SW $\frac{1}{4}$ SW $\frac{1}{4}$) (Latitude 43.55770 & Longitude -98.14341)
- Well #2: 465 ft N & 360 ft E of the SW corner Section 10, T101N, R61W (SW $\frac{1}{4}$ SW $\frac{1}{4}$) (Latitude 43.55945 & Longitude -98.14474)

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

(4) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(5) Pursuant to South Dakota Water Law 46-5-30.1 Shannon Klumb, the holder and/or owner of Water Right No. 8456-3 is issued a license to appropriate water, the right to use 63 acre-feet of water annually with a maximum diversion rate of 0.089 cubic feet of water per second from groundwater, two wells (Codell Aquifer), with a priority date of September 4, 2020, from the locations specified in (2) of this license for commercial use in a livestock facility.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8456-3 and subject to the following qualifications:

1. The wells approved under Water Permit No. 8456-3 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 withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Water Permit No. 8456-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

continued

3. Water Permit No. 8456-3 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
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Codell Aquifer.
5. Water Permit No. 8456-3 authorizes a total annual diversion of 63 acre-feet of water from the Codell Aquifer.

Eric Gronlund

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

AUG 30 2024

date





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 23, 2025

NOTICE OF HEARING

TO: Shannon Klumb, 26219 403rd Avenue, Ethan SD 57334

FROM: Ron Duvall, Engineer III
for Mark Mayer, PE
Director of Office of Water

SUBJECT: Violation of Permit Qualification to Report Annual Water Use

Our records indicate your 2024 annual water use has not been submitted for Permit No. 8456-3. The request to report water use for 2024 was dated January 3, 2025. Two follow-up attempts to get the required water use report have gone unanswered. The Water Management Board has directed owners of water permits who have not submitted the 2024 water use reporting be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No. 8456-3 qualification:

"The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Codell Aquifer."

The hearing will be held on **Wednesday, July 9, 2025, at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No. 8456-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

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

If the water use report(s) is (are) received in this office before the **July 9, 2025**, hearing, you will no longer be in violation of your permit and your name will be removed from the Board agenda. You may submit your water use report by providing the information to Rachel Rodriguez at (605) 773-3352 or via email at rachel.rodriguez@state.sd.us. You may also submit the water use report via mail using the address in the NOTE at the bottom of this Notice.

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD 57501 or call (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, June 9, 2025 9:08 AM
To: sklumb@santel.net
Subject: RE: [EXT] 2024 Annual Water Use Reporting

This is to notify you that your permit has been removed from the July Board meeting.

Thank you,

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



From: Rodriguez, Rachel
Sent: Thursday, May 29, 2025 12:44 PM
To: sklumb@santel.net
Subject: RE: [EXT] 2024 Annual Water Use Reporting

Received.

Thank you,

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



From: sklumb@santel.net <sklumb@santel.net>
Sent: Thursday, May 29, 2025 12:24 PM
To: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: Re: [EXT] 2024 Annual Water Use Reporting

I thought I sent this back in January but am unable to find any email of it. Not sure who got it but definitely not the right person. sorry about this. Our annual water use was 10,146,000 gallons.