

WATER PERMIT NO. 8421-3

Name of Applicant: Albert J Selland & Sons Feedlot

Address: 24166 395th Ave, Letcher SD 57359

Phone: 605 999-4752

Amount of Water Claimed: 0.48 cfs (78.5 AF)

Total Acres: NA

Source of Water Supply: groundwater (3 existing wells)

Water to be used for: commercial

County: Sanborn

Type of Waste Disposal System:

Location: 8 miles west of Letcher

PRIORITY Date Received: 1-29-20

Application/License Fee: \$ 700

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks: Existing feedlot

Diversion Point: N 1/2 SW 1/4, NW 1/4 SE 1/4 Sec

20-T105N-R62W

Facility located: same as above

Depth of Well: 880 and 963 feet deep

Well Driller:

Remarks:

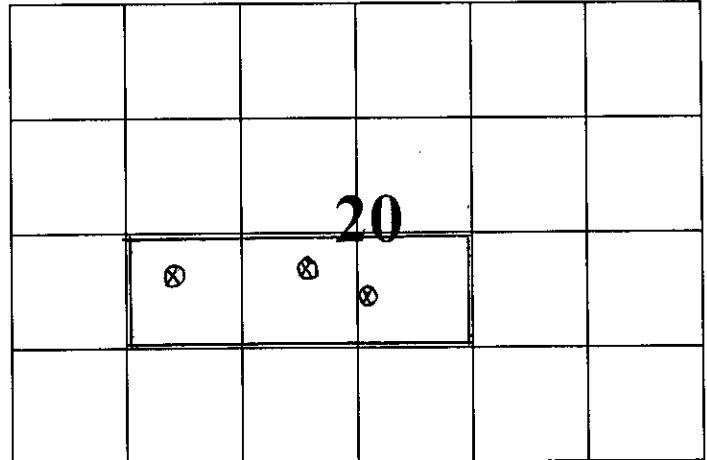
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-29-20

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
WATER PERMIT NO. 8421-3

Date of first receipt of application January 29, 2020.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8421-3 to Albert J Selland & Sons Feedlot, c/o Doyle M Selland, 24166 395 Ave, Letcher SD 57359 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. 8421-3 appropriates 78.5 acre-feet of water annually at a maximum rate of 0.48 cubic feet of water per second from three wells completed into the Dakota Aquifer (880 to 963 feet deep) located in the N 1/2 SW 1/4, NW 1/4 SE 1/4 Section 20-T105N-R62W for commercial use in an existing livestock feedlot located in the same area described above. This site is located 8 miles west of Letcher 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. 8421-3 is March 23, 2020.
5. The date from which applicant may claim right is January 29, 2020.
6. One-fifth of the construction is to be completed on or before September 23, 2022.
7. All construction is to be completed on or before March 23, 2025.
8. Water is to be put to beneficial use on or before March 23, 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. 8421-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits 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. The wells approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned or the permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
3. Water Permit No. 8421-3 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)

4. Water Permit No. 8421-3 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
5. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Dakota aquifer.
6. Water Permit No. 8421-3 authorizes a total annual diversion of 78.5 acre feet of water from the Dakota aquifer.
7. Any future replacement wells shall meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

WATER MANAGEMENT BOARD

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

MAR 27 2020

date



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

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8421-3</u>	(office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>Sanborn Weekly Journal</u>	
	<u>Daily Republic</u>	

PAID
JAN 29 2020
Ck# 32162

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 Albert J Selland & Sons Feedlot

Mailing Address 24166 395th Ave. Letcher SD 57359
(Address) (City) (State) (Zip Code)

Phone 605-248-2261 Mobile 605-999-4752 Email bselland@santel.net

2. Amount of water claimed 0.48 *CFS or 215 **GPM and 78.5 ***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 3 Artesian Wells

4. Location of point of diversion 3 wells in the N1/2 of the S1/2 section 20 T-105N-R62W County Sanborn
(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 - same as above
(example - NW1/4 section 12-T104N-R53W)

5. County or counties where water will be used Sanborn

6. Annual period during which water is to be used January 1st - 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)

After renewing our General Permit for our 3500 head feedlot we were told we needed a water permit. We have 3 existing artesian wells used to supply cattle in the feedlot. I'm supplying well drilling reports for 2 of the 3 wells. The third well was dug in the 1960's or early 1970's and we estimate it to flow @ 50 gpm.

RECEIVED

JAN 29 2020

WATER RIGHTS
PROGRAM

I, Doyle M. Selland Owner _____, 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.





105N 62W
Section: 18

105N 62W
Section: 17

105N 62W
Section: 16

105N 62W
Section: 19

105N 62W
Section: 20

105N 62W
Section: 21

105N 62W
Section: 30

105N 62W
Section: 29

105N 62W
Section: 28

PLEASE COMPLETE
ENTIRE FORM

WELL DRILLERS REPORT
Division of Water Rights
Department of Water & Natural Resources

6/60

Well Owner:
Name Doyle Selland
Address Letcher

Well Location:

Mark location with an "X"

North

W. E

1 mile

County Sarkov
SW 1 1 Sec. 20 Twp. E11 Rg. 105-62

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 40' of 4" PVC
Depth 880'
Casing ☐ Steel ☒ Concrete
☒ Plastic ☐ Other
If other, specify _____

Was casing end left open No
Was a well screen installed perforated
Describe Well Screen
Diameter _____ Material plastic
Slot size _____
Was well gravel packed No
Was well grouted yes
Was water sample taken No

Remarks:

Water Level Information:
Static water level _____ below land surface
If flowing: closed in pressure 32 PSI
rate of flow 65 GPM
Controlled by:
☒ Valve ☐ Reducers ☐ Other
If other; specify _____

Well Test Data:
☐ Pumped _____
☐ Bailed Describe: _____
☐ Other _____
Pumping Level Below Land Surface
_____ ft. After _____ Hrs. pumped _____ GPM
_____ " " _____ " " _____ "
_____ " " _____ " " _____ "

Well Log:

Formation	Depth	
	From	To
Drift	0	135
Cudell	140	180
Shale	180	660
Sand Rock	660	740
Hard Shale	740	860
Streaks of sand	860	880

32 psi = 73.8 ft H₂O

(Use Back

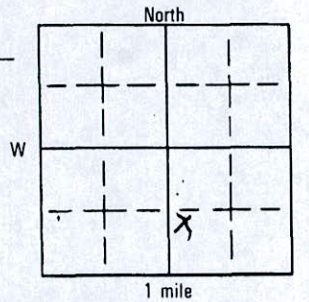
Date Completed: 6-9-81

Driller: Hinken 30
Driller's or Firm's Name License NO.

Woonsocket
Address
Dan Hinken 9-28-81
Signed By Date

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location Sw 1/4 Sec 20 Twp 105N Rg 62WCounty
SandburnPlease mark well
location with
an "X"Well Completion Date 11-3-87

PROPOSED USE:

☒ Domestic ☐ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:

forward Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT <u>5</u>	IN <u>0</u>	FT <u>100</u>	FT <u>100</u>	IN <u>8 3/4</u>
LB/FT <u>3</u>	IN <u>100</u>	FT <u>703</u>	FT <u>703</u>	IN <u>7 7/8</u>
LB/FT _____	IN _____	FT _____	FT _____	IN _____
LB/FT _____	IN _____	FT _____	FT _____	IN _____

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 790 FEETWhat is grouting material? cement - BentogrowIf cement, number of sacks? 8Describe grouting procedure line

What was grout weight? _____ LB/GAL

SCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 3 IN Length 260 FEET

Material _____

Slot Size 0.25 Set From 703 Feet To 963 Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Other information _____

Was a packer or seal used? ☒ YES ☐ NOIf so, what material? SandDescribe packer(s) and location? 640Was well disinfected upon completion? ☒ YES ☒ NO

Explain _____

Bacteriological analysis ☐ YES ☒ NO

Laboratory sent to _____

Well Owner:

Name Doyle SellandAddress Letcher, S.D. 57359Well Log: R. 1. Bot 73

Depth

Formation	From	To
<u>Yellow Clay</u>	<u>0</u>	<u>30</u>
<u>Blue Clay</u>	<u>30</u>	<u>40</u>
<u>Blue Clay w/ sand streaks</u>	<u>40</u>	<u>120</u>
<u>Blue Clay</u>	<u>120</u>	<u>140</u>
<u>Codell</u>	<u>140</u>	<u>280</u>
<u>sandy shale</u>	<u>280</u>	<u>320</u>
<u>shale</u>	<u>320</u>	<u>540</u>
<u>fair to good sand</u>	<u>540</u>	<u>580</u>
<u>shale</u>	<u>580</u>	<u>685</u>
<u>fair to good sand</u>	<u>685</u>	<u>860</u>
<u>hard sand w/ open streaks</u>	<u>860</u>	<u>880</u>
<u>hard sand w/ open streaks</u>	<u>880</u>	<u>900</u>
<u>fair to good sand</u>	<u>900</u>	<u>940</u>
<u>hard sand</u>	<u>940</u>	<u>963</u>

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure 25 PSIGPM flow 100 through 2 inch pipeControlled by ☒ Valve ☐ Reducers ☐ Other

If other, specify _____

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped☐ Bailed

Describe

☐ Other

Pumping Level Below Land

_____ ft. After _____

_____ ft. After _____

_____ ft. After _____

REMARKS: DATAThis well was drilled under license # 440

And this report is true and accurate.

Drilling firm Pullman Well Drilling

Signature of License Representative:

Royce Pullman

Signature of Well Owner:

X Doyle M. SellandDate 12-10-87

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Environment and Natural Resources

Date January 29, 2020

RECEIVED OF Albert J Selland & Sons 24166 395th Ave Letcher SD 57359

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

Fee for Application for Permit No. <u>8421-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$500.00
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>8421-3</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	\$700.00

By Jeanne Goodman
Chief Engineer me



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8421-3, Albert J Selland & Sons Feed Lot**

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. 8421-3, Albert J Selland & Sons Feed Lot, c/o Doyle M Selland, 24166 395th Avenue, Letcher SD 57359.

The Chief Engineer is recommending APPROVAL of Application No. 8421-3 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. 8421-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits 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. The wells approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned or the permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
3. Water Permit No. 8421-3 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.
4. Water Permit No. 8421-3 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

(continued)

5. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Dakota aquifer.
6. Water Permit No. 8421-3 authorizes a total annual diversion of 78.5 acre feet of water from the Dakota aquifer.
7. Any future replacement wells shall meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

See report on application for additional information.



Eric Gronlund, Chief Engineer

March 3, 2020

REPORT TO THE CHIEF ENGINEER
ON WATER PERMIT APPLICATION NO. 8421-3
ALBERT J SELLAND & SONS FEED LOT

February 27, 2020

Water Permit Application No. 8421-3 proposes to appropriate 78.5 acre-feet annually at a maximum instantaneous diversion rate of 0.48 cubic feet of water per second (cfs). The diversion points for this application are three existing wells (880 to 963 feet deep) completed into the Dakota aquifer and located in the N ½ SW ¼, NW ¼ SE ¼ of Section 20; all in T105N-R62W, approximately 8 miles west of Letcher, SD, in Sanborn County. This application is seeking to use water for commercial use in a livestock feedlot.

AQUIFER: Dakota (DKOT)

HYDROGEOLOGY:

The Dakota Formation is defined as the first relatively continuous sandstone below the Greenhorn Limestone and it extends downward to the top of the Skull Creek Shale in western and central South Dakota (Schoon, 1971). In eastern South Dakota, the Skull Creek Shale is not continuous and when absent, the Dakota Formation directly overlies Precambrian bedrock or the Inyan Kara Group (Schoon, 1971). A stratigraphically equivalent formation to the Dakota Formation is the Newcastle Formation, which has outcrops in the Black Hills (Bredehoeft, et al., 1983). In South Dakota, the Dakota Formation has been subdivided into three units (Schoon, 1971). The upper unit consists of light brown to reddish-brown, fine to medium grained, friable sandstone, interbedded with gray to dark gray shale. Thin, discontinuous beds of lignite are present in the lower part of the upper unit. The middle unit consists of a gray silty clay with small siderite pellets disseminated throughout. The lower unit consists of medium to coarse grained sandstone (Schoon, 1971).

The Dakota aquifer is comprised of the porous and permeable portions of the Dakota Formation and is primarily a confined bedrock aquifer throughout most of South Dakota (Schoon, 1971; Water Rights 2020c and 2020e). In Sanborn County, the thickness of the Dakota Formation ranges between 91 to 350 feet and is estimated to have 8,678,900 acre-feet of recoverable water in storage (Steece and Howells, 1965; Hedges et al., 1982). Schoon (1971) estimated the Dakota Formation underlies 66,500 square miles of South Dakota and has an average thickness of 115 feet. A conservative estimate of the amount of water stored in the Dakota aquifer can be measured by assuming 15% porosity for the Dakota Formation (Schoon, 1971), multiplied by the average thickness (115 ft) and areal extent (66,500 sq. miles) of the aquifer to get approximately 960 million acre-ft of stored water in South Dakota.

Two of the three wells for the proposed diversion had well completion reports submitted with Water Permit Application No. 8421-3. One well located in the N ½ SW ¼ of Section 20, T105N-R62W was drilled to a depth of 880 feet in June, 1981 (Water Rights, 2020e). The well completion report indicated a flowing well (65 gallon per minute (gpm)) with a closed in

pressure of 32 psi, which is equivalent to an artesian head pressure of 73.8 feet above the ground surface at the time of completion (Water Rights, 2020e). Another well, located in the NW ¼ SE ¼ of Section 20, T105N-R62W was drilled to a depth of 963 feet in November, 1987 (Water Rights, 2020e). The well completion report indicated a flowing well (100 gpm) with a closed in pressure of 25 psi, which is equivalent to an artesian head pressure of 57.7 feet above the ground surface at the time of completion (Water Rights, 2020e). The third well did not have a well completion report but it is in the N ½ SW ¼ of Section 20, T105N-R62W and is believed to have been drilled in the 1960s or 1970s approximately as deep as the other two wells. The applicant believed the well to be flowing at 50 gpm.

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 reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the proposed diversion can be developed without unlawful impairment of existing 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 Dakota aquifer.

WATER AVAILABILITY:

SDCL 46-6-3.1 is considered when evaluating the probability of unappropriated water from an aquifer and states “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Dakota aquifer is older and lower than the Greenhorn Formation; however, the applicant is not a water distribution system. Therefore, average annual recharge and average annual withdrawal must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers with higher artesian pressure than the Dakota aquifer, downward seepage from overlying confining layers and through infiltration of precipitation into the Newcastle Formation outcrops in the Black Hills (Bredehoeft, et al., 1983; Koch and McGarvie, 1988; Steece and Howells, 1965). Bredehoeft, et al. (1983) attempted to match Darton’s (1909) potentiometric surface map of the Dakota aquifer to develop a recharge estimate of approximately 79.4 cfs (57,500 acre-ft/yr) before well development began. However, many assumptions used in Bredehoeft, et al.’s (1983) recharge estimate were incorrect and outdated. For example, assuming steady-state flow conditions between aquifers is unrealistic of real-world conditions and the recharge estimates used for the Madison aquifer in Bredehoeft, et al.’s (1983) analysis are much lower than estimates measured by more recent research (Bredehoeft, et al., 1983; Carter, et al., 2002). While Bredehoeft, et al.’s (1983) estimate can provide a scale of the Dakota aquifer’s recharge rate, it cannot be used as an exact

value for water management purposes. As the physical properties of aquifers and the locations where adjacent aquifers are in contact with each other are relatively undefined among many other factors, it is unknown whether the true recharge rate of the Dakota aquifer is higher or lower than Bredehoeft et al.'s (1983) estimate.

Discharge

Discharge from the Dakota aquifer in South Dakota occurs through well withdrawals, uncontrolled flowing wells and outflow to overlying adjacent aquifers (Koch and McGarvie, 1988; Steece and Howells, 1965). The outflow to overlying adjacent aquifers is due to the high artesian pressure in the Dakota aquifer, areas where aquifers merge or are hydraulically connected on the slope and crest of the Sioux Ridge, and through corroded well casings (Steece and Howells, 1965).

Currently, there are 238 water rights/permits appropriating water from the Dakota aquifer within South Dakota, plus an additional seven future use permits (Water Rights, 2020d). The seven future use permits are assumed to be fully developed for a total of 4,237 acre-ft/year (Table 1).

Table 1. Future use water permits for Dakota aquifer with reserved water volume (Water Rights, 2020d)

Future Use Permit Holder	Amount of Reserved Water (acre-ft)
City of Canton (1262C-3, 5219-3)	1,849
City of Lennox (5101A-3)	0*
South Lincoln RWS (4817-3)	1,448
Lincoln RWS (5155-3)	440
City of Harrisburg (8400-3)	500
Total:	4,237
RWS: Rural Water System, *The City of Lennox has allocated the water they had reserved	

Table 2 summarizes all non-irrigation water rights/permits with their limiting appropriation 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. 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. Municipal water rights/permits that were identified as being connected to a rural water system are assumed to use zero, as those municipalities have typically maintained a well for backup or emergency use and use a negligible amount of water (Friedeman, 2020).

Table 2. Summary of the limiting appropriation and estimated use of the non-irrigation water rights/permits for the Dakota aquifer (Water Rights, 2020b and 2020d)

Use Type	No. of Water Rights/Permits	Appropriation for Water Rights/Permits limited by Volume (ac-ft/yr)	Appropriation for Water Rights/Permits limited by Diversion Rate (cfs)	Total Estimated Use (ac-ft/yr)
RWS	6	2,005	2.2	2,961
SHD	7		3.33	1,447
REC	2		0.45	195
COM	92	589	11.07	5,399
DOM	11		1.75	762
FWP	4		2.78	1,209
GEO	2		2.33	1,012
INS	2		1.34	582
IND	6	160	0.84	527
MUN	89	3,274	10.41	7,798
TOTAL	221	6,028.00	36.517	21,891
RWS: Rural Water System, SHD: Suburban Housing Development, REC: Recreation,				
COM: Commercial, DOM: Domestic, FWP: Fish & Wildlife Propagation, GEO: Geothermal,				
INS: Institutional, IND: Industrial, MUN: Municipal				

Currently, there are 17 irrigation rights/permits appropriating water from the Dakota aquifer (Water Rights, 2020d). Irrigation water rights/permits have been required to report their annual usage since 1979. The estimated average annual withdrawal rate for irrigation appropriations was calculated based on data from 2009 to 2018 to give a better representation of the current development for the last ten years (Table 3) (Water Rights, 2020a). On average, the last ten years of irrigation water rights/permits pumped 201.3 acre-ft annually (Table 3) (Water Rights, 2020a).

Table 3. Historical irrigation appropriation and pumping record from the Dakota aquifer (Water Rights, 2020a)

Year	No. of Permits	Annual Appropriation (ac-ft)	Reported Pumpage (ac-ft)
1979	2	729	38
1980	2	729	110
1981	4	1469	45
1982	5	1420.52	33.23
1983	5	1834.76	64.39
1984	4	1405.76	0
1985	5	1554.26	8.1
1986	5	1834.76	238.85
1987	5	1900.52	1.3
1988	4	1471.52	452.8
1989	4	1471.52	265.4
1990	4	1471.52	234
1991	5	1481.52	165.42
1992	5	1501.52	40.4
1993	7	1521.52	112.4
1994	7	1455.76	51.89
1995	8	1051.76	30.83
1996	8	1117.52	34.38
1997	9	1127.52	48
1998	9	637.52	175.8
1999	10	703.52	101.57
2000	10	703.52	172.81
2001	11	777.52	160.85
2002	10	763.52	178.87
2003	10	763.52	205.02
2004	10	763.52	153.97
2005	12	1003.52	146.51
2006	13	1211.52	232.32
2007	14	1238.52	199.98
2008	14	1238.52	196.39
2009	15	1298.52	130.76
2010	17	1950.52	171.66
2011	18	2158.52	174.57
2012	18	2158.52	298.33
2013	18	2158.52	256.52
2014	17	2354.52	162.86
2015	17	2576.32	236.1
2016	16	2368.32	195.95
2017	16	2368.32	229.07
2018	16	2368.32	156.71
Max	18	2576.32	452.8
Min	2	637.52	0
Avg (1979 to 2018)	9.7	1452.9	147.8
Avg (2009 to 2018)	16.8	2176.0	201.3

There are many domestic wells that appropriate water from the Dakota aquifer and do not require a water right/permit, so the withdrawal amount is unknown (Water Rights, 2020e). Since the introduction of rural water systems, many domestic wells are likely no longer in use. Therefore, the annual quantity of water withdrawn for domestic wells is negligible to the hydrologic budget of the Dakota aquifer. It is currently unknown how much water is being discharged from the Dakota aquifer through uncontrolled flowing wells. The Water Management Board has previously determined water being discharged through uncontrolled flowing wells is not a beneficial use and does not constitute appropriation pursuant to SDCL 46-6-3.1 (Water Rights, 1987).

Hydrologic Budget Summary

The estimated average annual recharge to the Dakota aquifer has not been accurately quantified. Bredehoeft et al. (1983) estimated a recharge rate of approximately 57,500 acre-ft but several factors make it uncertain if that is a high or low estimate. The Dakota aquifer average annual withdrawal rate is approximately 26,408 acre-ft (irrigation (2009 to 2018): 201.3 acre-ft, non-irrigation: 21,891 acre-ft, future use reservations: 4,237 acre-ft and this requested appropriation if approved: 78.5 acre-ft). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Dakota aquifer for the proposed appropriation.

OBSERVATION WELL DATA:

Administrative Rule of South Dakota (ARSD) Section 74:02:05:07 requires that “the 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 to the aquifer.”

The DENR – Water Rights program monitors 46 observation wells completed into the Dakota aquifer (Water Rights, 2020c). There are no observation wells completed into the Dakota aquifer in Sanborn County (Water Rights, 2020c). The nearest observation wells to the proposed diversion points are AU-89A (approximately 23 miles southwest) in Aurora County and HD-87A (approximately 37 miles northwest) in Hand County (Figures 1 and 2) (Water Rights, 2020c). Observation well AU-89A has recorded a decline in hydraulic head of approximately 14 feet since 1989, and observation well HD-87A has recorded a decline in hydraulic head of approximately 22 feet since 1988 (Figures 1 and 2) (Water Rights, 2020c).

The decline in hydraulic head is likely due to the uncontrolled flowing wells and not permitted/licensed appropriations. Soon after wells began penetrating the Dakota aquifer and were left to flow with no restrictions, concerns developed about the decline in artesian head pressure of the Dakota aquifer. Schoon (1971) stated, “The fact that withdrawal from the artesian system exceeds recharge is clearly demonstrated by declining pressures.” However, the Water Management Board has found that past declines of the potentiometric surface do not automatically mean that withdrawals have exceeded recharge (Water Rights, 1987). The Board has concluded that withdrawals exceeding the average annual recharge cannot be determined based solely upon a decline in head pressure, and in theory the Dakota aquifer head pressure is stabilizing relative to withdrawals and discharges (Water Rights, 1987). Overall, the Water Management Board’s decision to optimize development of the Dakota aquifer is favorable because by allowing beneficial withdrawals to occur, it is lowering the amount of pressure in the uncontrolled flowing wells, which is reducing the amount of water being discharged to waste.

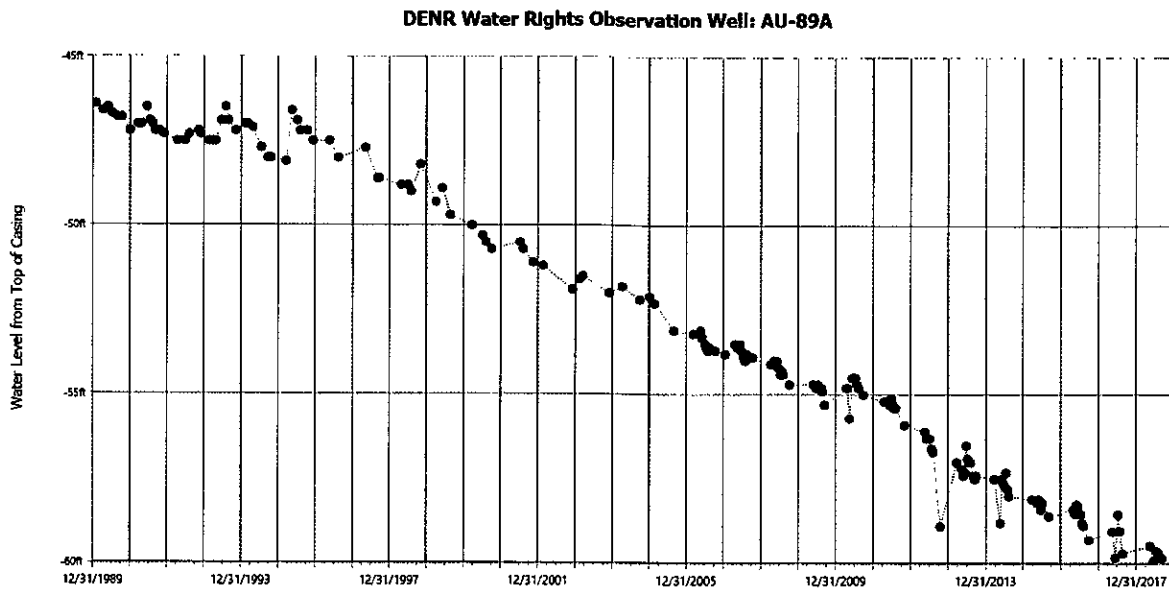


Figure 1. Hydrograph for observation well AU-89A, located approximately 23 miles southwest of the proposed diversion points, in Aurora County (Water Rights, 2020c)

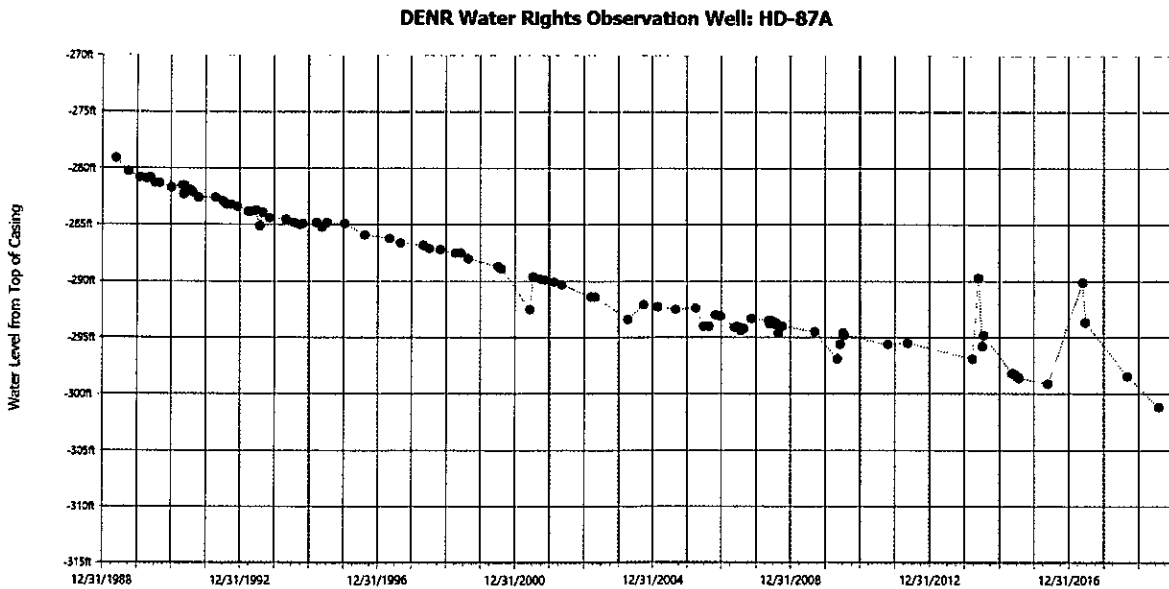


Figure 2. Hydrograph for observation well HD-87A, located approximately 37 miles northwest of the proposed diversion points, in Hand County (Water Rights, 2020c)

While the overall trend in these historical measurements is downward, observation well ED-85A (approximately 106 miles north) completed into the Dakota aquifer has recorded a trend that has been stable to slightly increasing from 1991 to 2017 (Figure 3) (Water Rights, 2020c). An aquifer pumping test at the well was the cause for the drawdown in hydraulic head that occurred in 2018 (Figure 3) (Water Rights, 2020c).

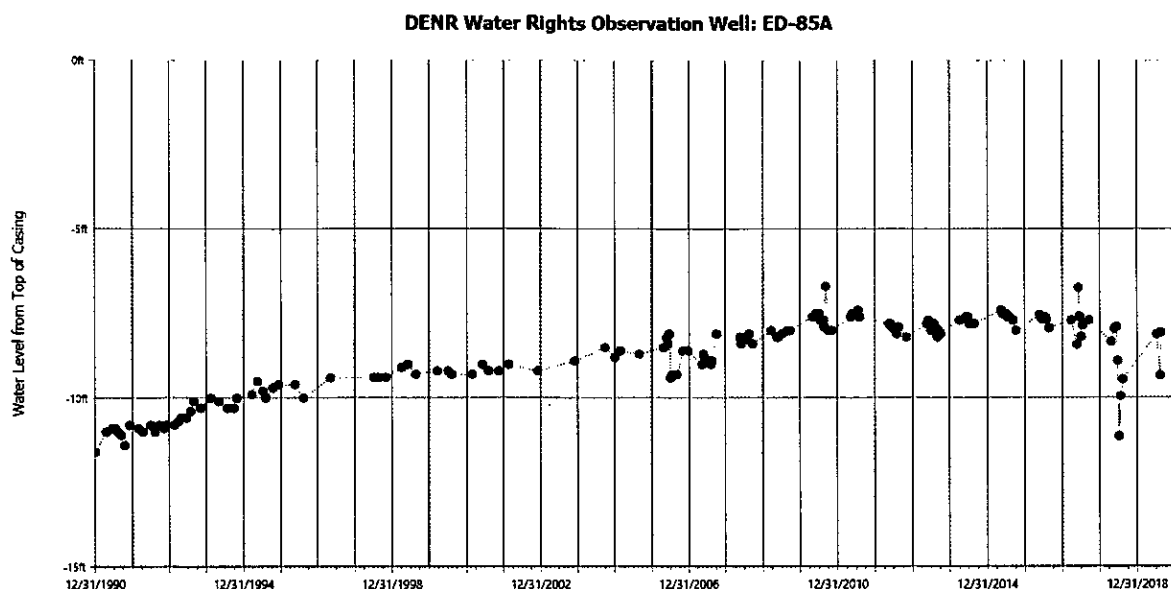


Figure 3. Hydrograph for observation well ED-85A, located approximately 106 miles north of the proposed diversion points, in Edmunds County (Water Rights, 2020c)

In addition to the observation well hydrographs, a record of the potentiometric surface is known through historical accounts. Schoon (1971) developed maps of the potentiometric surface of the Dakota aquifer using data modified from Darton (1909), from the State Engineer's office for the period 1914 to 1915, and a compilation of many reports over the period of 1936 to 1953. Wells that have been completed into the Dakota aquifer within the past 5 years and are located within 10 miles of the proposed diversion points were used to approximate the current potentiometric surface conditions (Table 4) (Water Rights, 2020e).

Table 4. Historic and current approximate water levels near proposed diversion points (Schoon, 1971; Water Rights, 2020e)

Data Source	Year(s)	Approximate potentiometric surface within 10 miles of diversion points (feet)
Schoon (1971), after Darton	1909	1,500-1,510
Schoon (1971), State Engineer's Office	1914-1915	1,380-1,390
Schoon (1971)	1936-1953	1,420-1,430
Well Logs Database	2015-Present	1,330-1,360

Throughout South Dakota, the hydrographs for observation wells and the potentiometric surface measurements of the Dakota aquifer show a slight decreasing trend in hydraulic head (Water Rights, 2020c). However, the decreasing trend is likely due to uncontrolled flowing wells which the Water Management Board determined were not a beneficial use and do not constitute appropriation pursuant to SDCL 46-6-3.1 (Water Rights, 1987). Observation well datasets indicate that there is a reasonable probability unappropriated water is available from the Dakota

aquifer (Water Rights, 2020c). By allowing unappropriated water to go to beneficial withdrawals, the pressure in the uncontrolled flowing wells is lowered, thus reducing the amount of water flowing to waste.

EXISTING WATER RIGHTS AND PERMITS:

Currently, there are 238 water rights/permits appropriating water from the Dakota aquifer in South Dakota, plus an additional seven future use permits (Water Rights, 2020d). There are two water rights within approximately ten miles of the proposed diversion points for this application (Figure 4) (Water Rights, 2020d).

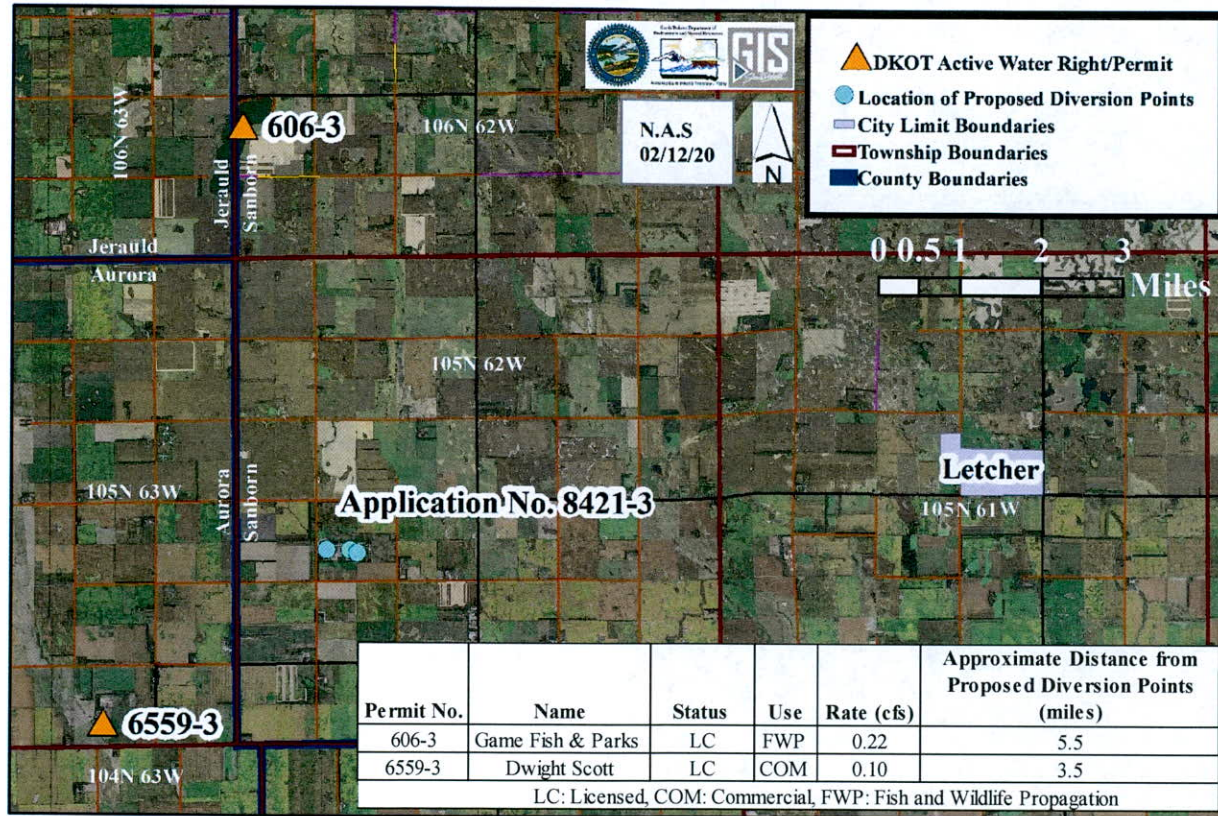


Figure 4. Nearby active water rights/permits to proposed diversion points for Water Permit Application No. 8421-3 (Water Rights, 2020d)

The nearest domestic well on file with the DENR – Water Rights Program, not owned by the applicant, and completed into the Dakota aquifer is approximately 5 miles (southwest) from the proposed diversion points (Water Rights, 2020e). The next nearest domestic wells on file with the DENR – Water Rights Program completed into the Dakota aquifer are over 10 miles away (Water Rights, 2020e). While the Dakota aquifer is primarily a confined aquifer, the drawdown created from the proposed diversion should not unlawfully impair nearby adequate wells. The exact drawdown behavior of a well cannot be known without an aquifer pumping test. In Sanborn county, there are no complaints on file with the Water Rights Program regarding well interference for wells completed into the Dakota aquifer (Water Rights, 2020f). Furthermore,

these wells for the proposed diversion have been completed with at least some use since 1987 without any reported issues (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 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 Dakota aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), ARSD 74:02:04:20 (7), and the lack of well complaints, any well drawdown created from this 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 this proposed appropriation will not impose unlawful impairments.

Special Consideration: Declining Hydraulic Head

As the Dakota aquifer is a confined aquifer, the hydraulic head causes the water within the aquifer to rise above the top of the aquifer. In the late 1800’s, wells began being completed into the Dakota aquifer and a decline in the aquifer’s hydraulic head occurred whenever a flowing well was drilled and not properly controlled. These uncontrolled wells create a release of pressure contained within the aquifer. This decline has caused some concern on whether the Dakota aquifer withdrawals have exceeded the recharge to the aquifer. The Water Management Board has previously and carefully considered the declining hydraulic head in the Dakota aquifer. In the deliberation and approval of Water Permit No. 5136-3, for Farmland Industries Inc, the Water Management Board approved the findings of facts and conclusions of law containing the following summarized points (Water Rights, 1987):

- The estimated average annual recharge to the Dakota aquifer is not likely to be quantified in the near future.
- Determination of whether the withdrawals exceed the estimated average annual recharge cannot be determined solely by a decline in the hydraulic head.
- SDCL 46-6-6.1 does not require the artesian head to be protected; however, the Board must consider the effect of a limitation or loss of artesian head as one of the factors under the public interest determination.
- The decline in the hydraulic head in the Dakota aquifer has been primarily due to water being discharged through uncontrolled flowing wells.
- “Water discharged from uncontrollable flowing wells does not constitute withdrawal (appropriation) pursuant to SDCL 46-6-3.1.”
- That it is in the public interest to appropriate water rather than allow the water to be discharged by uncontrollable flowing wells.
- That it is not in the public interest to deny a water permit application when the effects of the withdrawal will not be measurable and will not have a significant effect upon the decline or stabilization of the hydraulic head in the Dakota aquifer.

Special Consideration: Well Construction

The two well completion reports for the proposed diversion points do not meet adequate well construction standards as defined in ARSD 74:02:04:20.

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

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

The alternative well construction requirements for certain Dakota aquifer wells (74:02:04:35) is not permitted for commercial uses. However, the wells to be put to appropriative use in the proposed diversion are long-term existing wells. Any future replacement wells shall meet the adequate well construction standard as defined in ARSD Chapter 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

CONCLUSIONS:

1. Water Permit Application No. 8421-3 proposes to appropriate 78.5 acre-feet of water annually at a maximum instantaneous diversion rate of 0.48 cubic feet of water per second from three wells completed into the Dakota aquifer in Sanborn County.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Dakota aquifer.
3. There is a reasonable probability that the proposed diversion by this application will not unlawfully impair adequate wells for existing water rights/permits and domestic users.
4. The proposed use of the applicant's three wells is for commercial use on a feedlot; therefore, any future replacement wells shall meet the adequate well construction standard as defined in ARSD Chapter 74:02:04:20.

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

- Bredehoeft, J.D., Neuzil, C.E., and Milly, P.C., 1983. Regional Flow in the Dakota Aquifer: A Study of the Role of Confining Layers. Alexandria, Virginia: U.S. Geological Survey, 1983. Water-Supply Paper 2237.
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- 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.
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- Water Rights. 2020b. 2003-2019 Non-irrigation Water use Data. SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020c. Observation Well Data, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020d. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD
- Water Rights, 2020e. Well Completion Report Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020f. County Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Form 8

RECEIVED
MAR 16 2020
WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Sanborn) SS

I, Carrie Ann Howard

certify that the attached printed Notice was taken

from the Sanborn Weekly
Journal

printed and published in Woonsocket

County of Sanborn and

state of South Dakota. The notice was published

in the newspaper on the following date:

March 12, 2020

Cost of Printing \$ 27.38

Carrie Ann Howard
(Signature)

Editor
(Title)

3/5/2020
(Date Signed)

NOTICE OF APPLI- CATION NO. 8421-3

to Appropriate Water

Notice is given that Albert J. Selland & Sons Feedlot, c/o Doyle M. Selland, 24166 395th Ave, Letcher SD 57359 has filed an application for a water permit to appropriate 78.5 acre-feet of water annually at a maximum rate of 0.48 cubic feet of water per second from three wells completed into the Dakota Aquifer (880 to 963 feet deep) located in the N 1/2 SW 1/4, NW 1/4 SE 1/4 Section 20-T105N-R62W for commercial use in an existing livestock feedlot located in the same area described above. This site is located eight miles west of Letcher, S.D.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8421-3 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 Eric Gronlund 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 March 23, 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 \$27.38.

Form 8

RECEIVED

MAR 16 2020

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Davison) SS

I, Penny Hobbach
certify that the attached printed Notice was taken
from the Daily Republic

printed and published in Mitchell SD
County of Davison and
state of South Dakota. The notice was published
in the newspaper on the following date:

Thursday, March 12, 2020

Cost of Printing \$65.23

Penny Hobbach
(Signature)

Legal Advertising
(Title)

3-12-20
(Date Signed)

LEGALS

NOTICE OF APPLICATION NO. 8421-3 to Appropriate Water

Notice is given that Albert J Selland & Sons Feedlot, c/o Doyle M Selland, 24166 395th Ave, Letcher SD 57359 has filed an application for a water permit to appropriate 78.5 acre-feet of water annually at a maximum rate of 0.48 cubic feet of water per second from three wells completed into the Dakota Aquifer (880 to 963 feet deep) located in the N 1/2 SW 1/4, NW 1/4 SE 1/4 Section 20-T105N-R62W for commercial use in an existing livestock feedlot located in the same area described above. This site is located 8 miles west of Letcher SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8421-3 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 Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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LEGALS

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.

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Published once at the total approximate cost of \$59.92

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, March 2, 2020 3:57 PM
To: 'phohbach@mitchellrepublic.com'
Subject: 8421-3, Albert J Selland & Sons Feedlot
Attachments: 8421-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on March 12, 2020.

Albert J Selland & Sons Feedlot, c/o Doyle Selland, 24166 395th Ave, Letcher SD 57356 (605 999-4752)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
SD DENR, Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, March 2, 2020 3:57 PM
To: swj4221@icloud.com
Subject: 8421-3, Albert J Selland & Sons Feedlot
Attachments: 8421-3public.short.docx; FORM8.FRM.doc

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

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352





**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.**

March 3, 2020

Albert J Selland & Sons Feedlot
c/o Doyle M Selland
24166 395th Ave
Letcher SD 57359

Dear Mr. Selland:

Water Permit Application No. 8421-3 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 Sanborn Weekly Journal printed at Woonsocket SD (Ph # 605 786-4221) and the Daily Republic printed at Mitchell SD (Ph # 605 996-5514). 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 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,

Eric Gronlund /KS

Eric Gronlund
Natural Resources Engineer
(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. 8421-3 to Appropriate Water

Notice is given that Albert J Selland & Sons Feedlot, c/o Doyle M Selland, 24166 395th Ave, Letcher SD 57359 has filed an application for a water permit to appropriate 78.5 acre-feet of water annually at a maximum rate of 0.48 cubic feet of water per second from three wells completed into the Dakota Aquifer (880 to 963 feet deep) located in the N 1/2 SW 1/4, NW 1/4 SE 1/4 Section 20-T105N-R62W for commercial use in an existing livestock feedlot located in the same area described above. This site is located 8 miles west of Letcher SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8421-3 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 Eric Gronlund 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 March 23, 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.

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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

MAR 27 2020

Albert J Selland & Sons
c/o Doyle M Selland
24166 395th Ave
Letcher SD 57359

Dear Mr. Selland:

Enclosed is Water Permit No. 8421-3 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

8421-3

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APR 06 2020

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 4/01/2020

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181
Albert J. Selland & Sons
c/o Doyle M Selland

FROM:

(name)
24166 395th Ave.

(address)
Letcher, SD 57359 605-248-2261

(city, state, zip) (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.

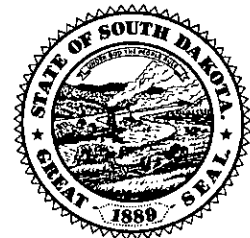
Water Permit No. 8421-3 states that the water use system is to be constructed by
11/03/1987, and water is to be put to beneficial use by 11/03/1987.
(date) (date)

The water use system was completed on 11/03/1987.
(date)

Applying the water to beneficial use was completed on 11/03/1987.
(date)

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

Doyle M. Selland
(signature)





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

April 8, 2020

8421-3

Doyle M Selland
Albert J Selland & Sons Feedlot
24166 395th Ave
Letcher SD 57359

Dear Mr. Selland:

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

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

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

Sincerely,

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. 8421-3

I have this day, August 15, 2025, made a thorough examination of the water use system constructed by Albert J Selland & Sons Feedlot, 21466 395th Ave, Letcher, SD 57359 of Permit No. 8421-3, bearing the priority of January 29, 2020 authorizing the diversion of 0.48 cu. ft. per second of the waters of the Dakota Aquifer for commercial livestock feedlot purposes, in Sanborn County.

A. Works used to divert the water:

Well Information: (#1)

- 1) Well Drilling Firm: Hiniker (#30 License) in 1981
- 2) No. of Wells 1
- 3) Depth(s) 880 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 4 & 2 inches
- 2) Length 40 & 840 feet
- 3) Type PVC

Screen:

- 1) Type Plastic
- 2) Length Unknown feet
- 3) Static water level Flowing @ 32psi "closed pressure" feet

Pump:

- 1) Make NONE
- 2) Model
- 3) Size
- 4) Capacity GPM

Motor:

- 1) Make NONE
- 2) Model No.
- 3) Horsepower rating hp

Well Information: (#2)

- 5) Well Drilling Firm: Pullman Well Drilling in 1987
6) No. of Wells 1
7) Depth(s) 963 feet
8) Well log is available Y

Casing:

- 4) Diameter 5 & 3 inches
5) Length 100 & 703 feet
6) Type Plastic

Screen:

- 4) Type Manufactured
5) Length 260 feet
6) Static water level Flowing @ 20psi "closed pressure" feet

Pump:

- 5) Make NONE
6) Model _____
7) Size _____
8) Capacity _____ GPM

Motor:

- 4) Make NONE
5) Model No. _____
6) Horsepower rating _____ hp

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

- 1) Type Unknown 2) Size Unknown inches 3) Length Unknown feet

Comments: xx

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: **WELL LOCATIONS**
From the SW corner Sec 20 T105N R62W WELL #1 2205 ft N & 520 ft E, Lat 43.88605 Long -98.30949
(NW ¼ SW ¼) WELL #2 2220 ft N & 1990 ft E, Lat 43.88609 Long -98.30287 (NE ¼ SW ¼) WELL
#3 1930 ft N & 2640 ft E, Lat 43.88547 Long -98.30133 (NE ¼ SW ¼).

2. The works are capable of diverting and conveying to the place of use 0.48 cu. ft. per second of water which is to be used for commercial livestock feedlot.

the license should be issued for 0.48 cfs.

3. All structures, wells and lands on map Y

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

FSA maps and ArcGIS were used to construct the permit map.

There are three free flowing wells in the feedlot but could only find well logs, etc. for two. Flow rates for the three wells are WELL 1 – 50 gpm, WELL #2 – 65 gpm and WELL #3 – 100 gpm for a total of 215 gpm.

I visited with Mr. Brad Seland during the filed visit and his cell phone number is 605/999-4752. The mailing address in the permit materials is current.



Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: August 21, 2025



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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

DEC 03 2025

8421-3

Albert J Selland & Sons Feedlot
c/o Doyle Selland
24166 395th Ave
Letcher SD 57359

Dear Mr. Selland:

Enclosed is Water License No. 8421-3. 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 Amanda Dewell, Permitting Administrator (605) 773-3352.

Sincerely,

Mark Mayer, PE
Director of the Office of Water

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8421-3**

(1) Albert J Selland & Sons Feedlot, 24166 395th Ave, Letcher SD 57359, made Application No. 8421-3, January 29, 2020, for a water permit to appropriate up to 78.5 acre-feet of water, annually, at a maximum rate of 0.48 cubic feet of water per second from groundwater, three wells (Dakota Aquifer) for commercial purposes in a livestock feedlot. Permit No. 8421-3 was approved March 23, 2020, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 23, 2025, and for the application to beneficial use of water on or before March 23, 2029.

The permit holders submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on April 1, 2020. The Notice stated the diversion system was completed and the water was placed to beneficial use.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and are entitled to appropriate up to 78.5 acre-feet of water, annually, at a maximum rate of 0.48 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well #1: 2,205 ft N & 520 ft E of the SW corner Section 20-T105N-R62W (NW ¼ SW ¼)
(Latitude 43.88605 & Longitude -98.30949)
- Well #2: 2,220 ft N & 1,990 ft E of the SW corner Section 20-T105N-R62W (NE ¼ SW ¼)
(Latitude 43.88609 & Longitude -98.30287)
- Well #3: 1,930 ft N & 2,640 ft E of the SW corner Section 20-T105N-R62W (NE ¼ SW ¼)
(Latitude 43.88547 & Longitude -98.30133)

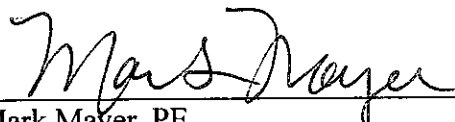
(3) The amount of appropriation may not exceed 78.5 acre-feet annually for to which water is actually and beneficially used for commercial purposes. The water is to be used during the following described annual period: January 1 – December 31.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Albert J Selland & Sons Feedlot, the holders and/or owners of Water Right No. 8421-3 is issued a license to appropriate water, the right to use up to 78.5 acre-feet of water, annually, at a maximum rate of 0.48 cubic feet of water per second from groundwater, three wells (Dakota Aquifer), with a priority date of January 29, 2020, from the locations specified in (2) of this license for commercial purposes at a livestock feedlot.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8421-3 and subject to the following qualifications:

1. The wells approved under Water Permit No. 8421-3 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 right.
2. The wells approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned, or the permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

3. Water Permit No. 8421-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.
4. Water Permit No. 8421-3 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
5. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Dakota Aquifer.
6. Water Permit No. 8421-3 authorizes a total annual diversion of 78.5 acre-feet of water from the Dakota Aquifer.
7. Any future replacement wells shall meet the adequate well construction standard as defined in Administrative Rule or South Dakota (ARSD) 74:02:04:20. Replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.



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

12/3/2025

date

