

WATER PERMIT NO. 8199-3

Name of Applicant: Donahue Farms

Address: 23345 434th Ave, Howard SD 57349 Phone: 605 480-0216

Amount of Water Claimed: 0.162 cfs Total Acres: NA

Source of Water Supply: groundwater (4 existing wells)

Water to be used for: commercial County: Miner

Type of Waste Disposal System:

Location: 12 miles southwest of Howard

PRIORITY Date Received: 12-16-15

Application/License Fee: \$ 700

Corrected Application Received: 2-4-16

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE 1/4 NE 1/4, SE 1/4 NE 1/4,
NE 1/4 SE 1/4, Sec 27-T106N-R58W

Land to be Irrigated: NA

Depth of Well: 140, 140, 520, 113 feet deep

Well Driller:

Remarks:

Type of Map: topo

Prepared by:

Reviewed and the Number Assigned on: 2-5-16

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

				⊗ ⊗	
				⊗	
				⊗	

RECEIVED

DEC 16 2015

FEEDLOT PERMIT PROGRAM

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8199-3</u> (office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u> <u>605-772</u>
	Newspaper <u>Miner Co. Pioneer-Herald</u> <u>5644</u>
	<u>Daily Republic Mitchell</u> <u>605-996-5514</u>

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

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☒ 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 Donahue Farms(check one) ☐ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 23345 434th Ave Howard SD 57349
(Address) (City) (State) (Zip Code)

Home Phone _____ Cell (605) 480-0216 Email _____

2. Amount of water claimed 0.162 *CFS or 73 **GPM 72.6 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply Wells 1 & 2 NE 1/4 NE 1/4, well 3 SE 1/4 NE 1/4, well 4 NE 1/4 SE 1/44. Location of point of diversion 4 Wells in E 1/2 of Section 27 T106N R58W County Miner
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ NoIf "Yes," where will water be used? _____
(example - NW 1/4 section 12-T104N-R53W)5. County or counties where water will be used Miner6. Annual period during which water is to be used Jan 1 - Dec 31

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)

Producer is expanding a feedlot. This expansion will have a peak usage of approximately 73 gallons per minute, with an average usage of 35-45 gallons per minute after the expansion of the feedlot. The 4 wells to be used are existing wells at the site.



I, Bernard Donahue for Donahue Farms, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 8199-3

Date of first receipt of application December 16, 2015.

Date of return to applicant for corrections, amendments or changes December 17, 2015.

Date of receipt of corrected application January 21, 2016.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8199-3 to Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 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. 8199-3 appropriates 72.6 acre feet of water annually at up to a maximum diversion rate of 0.162 cubic feet of water per second from four wells. Three wells are completed into the Floyd:East James Aquifer (140, 140 and 113 feet deep) located in the NE 1/4 NE 1/4, NE 1/4 SE 1/4 Section 27-T106N-R58W. The fourth well is completed into the Dakota Aquifer (520 feet deep) located in the SE 1/4 NE 1/4 Section 27-T106N-R58W. Water use is for a livestock feedlot operation located in a portion of the NE 1/4 and E 1/2 SE 1/4 Section 27-T106N-R58W.
2. The water appropriated shall be used for the purpose of domestic and 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. 8199-3 is April 25, 2016.
5. The date from which applicant may claim right is December 16, 2015.
6. One-fifth of the construction is to be completed on or before October 25, 2018.
7. All construction is to be completed on or before April 25, 2021.
8. Water is to be put to beneficial use on or before April 25, 2025.
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 this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The Dakota well approved under Permit No. 8199-3 shall have flow reducers to limit the diversion to the amount authorized and the flow reduced to the amount needed or to a minimum when not being used. If either well is abandoned or the Permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
3. Permit No. 8199-3 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 for concentrated animal feeding operations.

(continued)

4. Permit No. 8199-3 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 separately report to the Chief Engineer annually the amount of water withdrawn from the Floyd:East James aquifer and the Dakota aquifer.
6. Water Permit No. 8199-3 authorizes a total annual diversion of 72.6 acre feet of water.

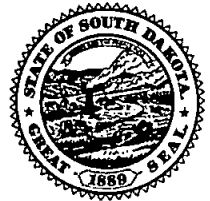
WATER MANAGEMENT BOARD

By: Jeanne Goodman
Jeanne Goodman, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

MAY 12 2016
date



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 4 Provide copy of log(s), if available. Drilled by Pullman Well Drilling, Dan Hinkerc) Well Depth 140' Depth to Top of Water Bearing Material 120' Depth to Water from Surface 40', 60'

d) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others _____

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

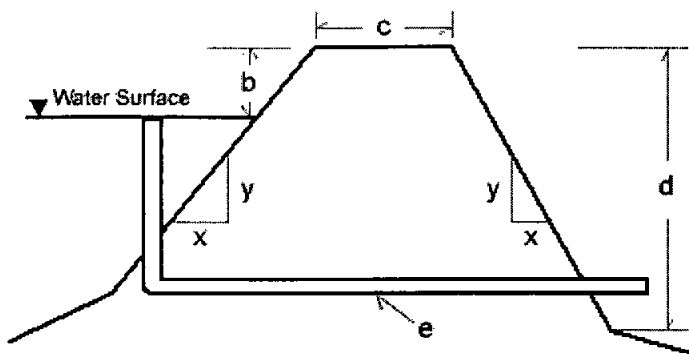
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Water Use Documentation

Site: Donahue Farms

Location: E1/2 Section 27 T106N R58W, Miner County, SD

Completed by: Justin Bonnema, PE

Date: 11/24/2015

Water Use Source #1: Well 1

Description of Source #1: Well is 140' deep with a 5" PVC casing. See attached well log for well construction details.

Water Use Source #2: Well 2

Description of Source: Well is 140' deep with a 5" PVC casing. Well capacity is approximately 55 gallons per minute. Static water level is at approximately 40' depth. See attached well log for well construction details.

Water Use Source #3: Well 3

Description of Source: Well 3 is a 520' deep well that flows at approximately 60 gallons per minute. It is a 2" and 4" PVC cased well. See attached well log for well construction details.

Water Use Source #4: Well 4

Description of Source: Well log was not located for Well 4. Well 4 was stated by the landowner to be 113' deep with a 5" PVC casing.

An attached map and the construction plans for part 2 of the Donahue Farms project show the location of the wells.

It is projected that the peak usage in the future would be approximately 73 gallons per minute. This assumes a total feedlot capacity of 3,500 head of cattle consuming approximately 30 gallons per head per day (typical of hottest part of summer). Typical usages is projected at 35-45 gallons per minute, which is 15-18 gallons per head per day water usage.

A water rights permit application is included with the feedlot permit application.



Scale in Feet

NE corner
Section 27
T106N R58W

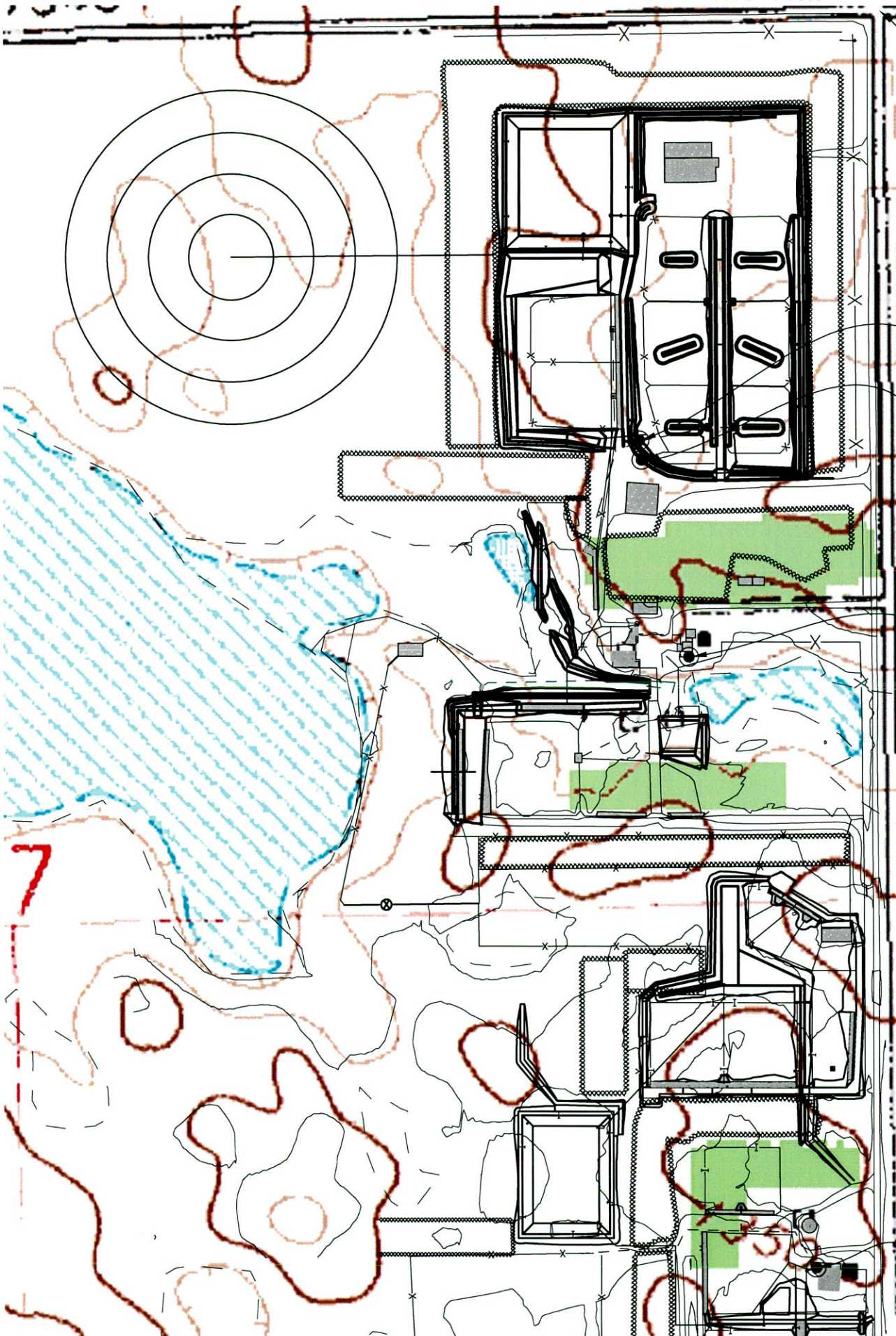


Well 1

Well 2

Well 3

Well 4



WELL 1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

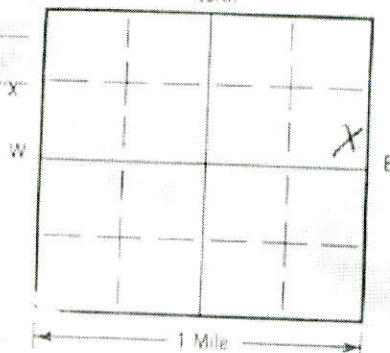
07-92

Location SE 1/4 NE 1/4 Sec 27 Twp 106 Rg 58

County: Miner

North

Please mark well location with an "X"



Well Completion Date

11/4/97

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.): 166 ft from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

Other description:

WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	5 IN	0 FT	120 FT	5 1/4 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Concrete	5	lb/gal	0 ft	20 ft
Red-Clay	6	lb/gal	20 ft	140 ft

Describe grouting procedure:

line to 140 ft.

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter: 5 IN Length: 20 FEET

Material: PVC

Slot Size: 3/16 Set from: 120 feet to: 140 feet

Other information:

Grout packed

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material?

Describe packer(s) and location?

CTION: Was well disinfected upon completion?

☒ YES, How

Bleach

☐ NO, Why Not?

Laboratory sent to for water quality analysis

Well Owner: Bernard Ponahue

Business Name:

Address: RR1 Box 343

Howard S.D.

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
yellow clay	0	25
Blue clay with rock	25	120
Sand & Gravel	120	140

STATIC WATER LEVEL

60

feet

If flowing, closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped

Describe: 150-562

☐ Bailed

Des. length

☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

This well was drilled under license # 840

And this report is true and accurate.

Drilling firm: Paulman Well Packer

Signature of License Representative:

B. S. Hall

Signature of Well Owner or Equitable Property Holder:

Date:



WELL 2

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

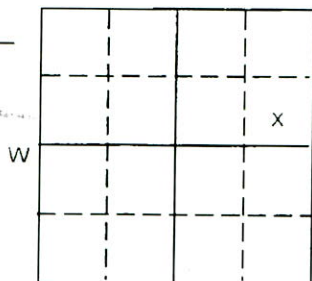
Location SE 1/4 NE 1/4 Sec 27 Twp 106 Rg 58

County

Miner

North

Please mark well location with an "X"



Well Completion Date

1/3/2013

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

? ft. from _____ (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Forward Rotary

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	5.00 IN	0.0 FT	120.0 FT	8.75 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Vol Clay	8	Lb/gal	0.0 Ft	115.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure _____

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 5.00 Inches Length 20.0 FeetMaterial PVCSlot Size 0.016 Set From 115.0 Feet to 140.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☒ Yes ☐ NoIf so, what material? Sand Packed

Describe packer(s) and location

115-140

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Pellets☐ No, Why Not? _____
Lab sample sent to for water quality analysisWell Owner: Bernard Donahue

Business Name: _____

Address: 23345 434th AveCity, State, Zip: Howard SD 57349

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Yellow Clay	0	20
Yellow/Blue Clay	20	40
Gravel/ Blue Clay	40	60
Sand/ Blue Clay	60	100
Sand	100	120
Med Sand	120	140

STATIC WATER LEVEL

40.0 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 55.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ CPM

REMARKS

RECEIVED

FEB - 3 2014

WATER RIGHTS PROGRAM

This well was drilled under license # 440

And this report is true and accurate.

Drilling firm: Pullman Well Drilling Inc.

Signature of License Representative

Ken Palmer

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

WELL 3

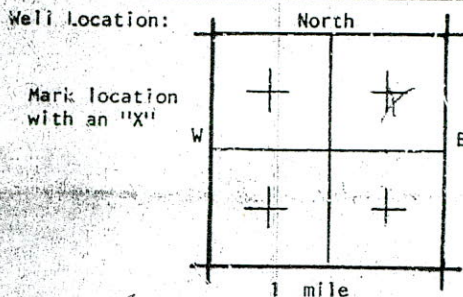
PLEASE COMPLETE
ENTIRE FORM

WELL DRILLERS REPORT

Division of Water Rights
Department of Water & Natural Resources

6/60

Well Owner:
Name Andell Dorschner
Address Leban



County Miner
NE 1/4 Sec. 27 Twp. Clinton Rg. 106-58

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 100' 4" PVC
Depth 520
Casing ☐ Steel ☐ Concrete
☒ Plastic ☐ Other
If other, specify _____

Was casing end left open No
Was a well screen installed perforated
Describe Well Screen
Diameter 2" Material _____
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 35 PSI
rate of flow 600 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
Shale	0	95
Sand & gravel	95	138
Chalk stone	138	160
Indell sand	160	220
Sticky shale	220	440
Streaks of sand	440	460
Sand Rock	460	520

(Use Back if Necessary)

Date Completed: 8-25-81

Driller: Hinker
Driller's or Firm's Name Woodschert License NO. 30
Address Dan Hinker
Signed By 9-28-81 Date

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/4, 20 16

RECEIVED OF Bernard Donahue 23345 434th Ave Howard SD 57349

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

Fee for Application for Permit No. <u>8199-3</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>8199-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	700 00

No. **07746**

By Jane Haslerman
Chief Engineer



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 17, 2015

Donahue Farms
Bernard Donahue
23345 434th Ave
Howard SD 57349

Dear Mr. Donahue:

Thank you for submitting the *Application for a Permit to Appropriate Water* along with your feedlot permit application. In order to complete the water permit application to authorize use of the wells, the following is required or needs to be clarified.

- You listed the type of use as "Domestic (over 18 gpm)". Use of this amount of water is a commercial use of water.
- The application states 73 gallons per minute (gpm) as peak usage with average usage of 35-45 gpm. Based on the typical usage of 35-45 gpm, using the 45 gpm, results in an annual volume of 72.6 acre-feet of water annually. Do you agree with this acre-feet annual volume amount?
- The well locations need to be listed by quarter-quarter section. Based on the map submitted with the application, the wells are in the NE 1/4 NE 1/4, SE 1/4 NE 1/4 and NE 1/4 SE 1/4 of Section 27-T106N-R58W. Do you concur?
- The application/license fee for 73 acre-feet of water will be \$700.00. At the time of public notice in the newspaper, you will be responsible for that cost. DENR will prompt you when to authorize publication of this notice and arrange payment with the newspapers.
- Based on well depth, Well No. 3 appears to be in a different water source than the other three wells. Please provide the pump rate from each of the wells.
- We are assuming the annual period of use will be January 1 – December 31. Is this correct?

If you have any questions, please contact Eric Gronlund or me.

Sincerely,

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

enclosures

Friday, January 08, 2016

Karen Schlaak
Water Rights Program
SD Department of Environment and Natural Resources
523 E. Capitol Avenue
Pierre, SD 57501

RECEIVED

JAN 21 2016

**WATER RIGHTS
PROGRAM**

Dear Karen,

This letter is intended to clarify the questions sent on December 17, 2015. The answers contained herein represent the best information we can provide at this time.

First, it is acknowledged that the use of water is considered commercial. The use of this water is primarily for production of livestock, therefore commercial use seems an appropriate classification. Please modify the previously submitted form or let us know if this needs some further acknowledgement.

The estimated peak usage of 73 gallons per minute and average of 35-45 gallons per minute is the best estimate we can make of the projected usage for this system once it is populated with livestock at 3,500 head capacity. The usage of 45 gallons per minute average corresponds to 72.6 acre feet per year. Therefore, yes, we agree with this amount.

The well locations by quarter-quarter section are:

Well 1 – NE1/4 of the NE1/4 of Section 27, T106N R58W

Well 2 – NE1/4 of the NE1/4 of Section 27, T106N R58W

Well 3 – SE1/4 of the NE1/4 of Section 27, T106N R58W

Well 4 - NE1/4 of the SE1/4 of Section 27, T106N R58W

Therefore, yes, the locations in your letter are correct.

The license fee is acknowledged. We will be prepared to submit this payment when the public notice is made.

Well 3 is a deeper, artesian well that was installed in 1981. It goes to approximately 520' deep, therefore yes, it is anticipated that this is a different water source than the other 3 wells. This well flows approximately 10-15 GPM, feeding both a cistern for domestic use and the buildings and feedlot waters in the area near to it.

Based on the currently installed pumps and capacity of the wells, the estimated maximum pump rate from each well is:

Well 1 – 20 gallons per minute (based on capacity of pump installed by Pullman Well Drilling)

Well 2 – 20 gallons per minute (based on capacity of pump installed by Pullman Well Drilling)

Well 3 – 13 gallons per minute (not pumped, based on landowner estimate)

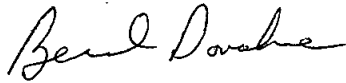
Well 4 – 20 gallons per minute (based on capacity of pump installed by landowner)

Yes, the wells will be used from January 1 to December 31. Well 2 is currently used as a back-up well, but this will likely be changed to balance the usage between Well 1 and Well 2 in the

future, therefore please use January 1 to December 31 for all the wells for the purpose of water rights.

If there are further questions, please contact me for more information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bernard Donahue".

Bernard Donahue
Owner/Operator, Donahue Farms

CC: Justin Bonnema, PE, USDA-NRCS, Brookings, SD
Eric Gronlund, Water Rights Program, SD DENR, Pierre, SD
Neal Konda, Feedlot Program, SD DENR, Pierre, SD

Gronlund, Eric

From: Gronlund, Eric
Sent: Wednesday, December 30, 2015 4:06 PM
To: Konda, Neal
Cc: Bonnema, Justin - NRCS, Brookings, SD (justin.bonnema@sd.usda.gov)
Subject: RE: Donahue Feedlot - Water Right Information
Attachments: Donahue12172015.pdf

Attached is the letter sent to Mr. Donahue sent December 17th.

The amount of water claimed on the application is 73 gallons per minute (gpm). Please be aware that DENR permits the peak diversion rate not the average rate. The application includes that the average usage is approximately 35 – 40 gpm. However, the "Water Use Documentation" included with the application indicates a well capacity of 55 gpm from Water Use Source #2 and 60 gpm from Water Source #3. The other two wells do not list a well capacity. The question is whether 73 gpm is the actual peak diversion rate?

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

From: Konda, Neal
Sent: Wednesday, December 30, 2015 3:24 PM
To: Gronlund, Eric
Cc: Bonnema, Justin - NRCS, Brookings, SD (justin.bonnema@sd.usda.gov)
Subject: Donahue Feedlot - Water Right Information

Eric,

Justin is working with Bernard on the design of his system. He indicated he did not receive a copy of the letter regarding the water rights submittal. Could you send him a copy?

Thanks,

Neal Konda



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

January 28, 2016

Donahue Farms
Bernard Donahue
23345 434th Ave
Howard SD 57349

Dear Mr. Donahue:

Thank you for supplying the information requested in my letter to you regarding the *Application for a Permit to Appropriate Water* for the feedlot. All of my questions have been answered.

Regarding the application/license fee, we require the \$700 fee prior to processing the application. I believe my letter may have misled you. My intent was to make you aware that at the time of public notice in the newspapers, you would be responsible for that cost also. DENR will prompt you when that time occurs.

Upon receipt of the \$700 fee, we will continue with the application process. If you have any questions, please contact Eric Grönlund or me.

Sincerely,

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

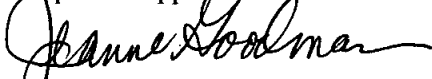
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8199-3, Donahue Farms**

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. 8199-3, Donahue Farms, c/o Bernard Donahue, 23345 434th Avenue, Howard SD 57349.

The Chief Engineer is recommending APPROVAL of Application No. 8199-3 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, 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The Dakota well approved under Permit No. 8199-3 shall have flow reducers to limit the diversion to the amount authorized and the flow reduced to the amount needed or to a minimum when not being used. If either well is abandoned or the Permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
3. Permit No. 8199-3 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 for concentrated animal feeding operations.
4. Permit No. 8199-3 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 separately report to the Chief Engineer annually the amount of water withdrawn from the Floyd:East James aquifer and the Dakota aquifer.
6. Water Permit No. 8199-3 authorizes a total annual diversion of 72.6 acre feet of water.

See report on application for additional information.


Jeanne Goodman, Chief Engineer
April 5, 2016

Report to the Chief Engineer
Water Permit Application No. 8199-3
Donahue Farms
March 9, 2016

Water Permit Application No. 8199-3 proposes to appropriate up to 72.6 acre-feet of water annually at a maximum diversion rate of 0.162 cubic feet per second (cfs) from four existing wells. A basic summary of the wells that this application proposes to utilize is provided in Table 1. The water is for domestic and commercial use in the expansion of a livestock feedlot operation located in the NE ¼ and E ½ SE ¼ Section 27-T106N-R58W in Miner County.

Table 1: Basic Information on the Wells for Application No. 8199-3

Applicant Well Name	Location*	Depth	Aquifer/Management Unit	Estimated Diversion Rate Provided with Application
Well 1	NE 1/4 NE 1/4	140 ft	F:EJ	20 gpm
Well 2	NE 1/4 NE 1/4	140 ft	F:EJ	20 gpm
Well 3	SE 1/4 NE 1/4	520 ft	Dakota	13 gpm
Well 4	NE 1/4 SE 1/4	113 ft	F:EJ	20 gpm

*all locations in Section 27-T106N-R58W in Miner County

Aquifer: East James management unit of the Floyd aquifer (F:EJ) and Dakota (DKOT)

East James management unit of the Floyd aquifer

F:EJ Hydrogeology and Aquifer Characteristics

The East James management unit of the Floyd aquifer is described by Hanson (1983) as consisting “of a complex system of interconnected sand and gravel layers, intermixed and confined by a grey pebbly till.” The management unit underlies approximately 374,580 acres of Beadle, Hanson, McCook, Miner and Sanborn Counties (Buhler, 2012). The management unit was deposited as outwash on bedrock (Pierre Shale, Niobrara Formation, Codell Sandstone, Carlile Shale, and Sioux Quartzite) or on glacial till (Hanson, 1983 and Koch and McGarvie, 1988). In the area of the well locations for this application, the management unit varies between overlying the Niobrara Formation or being separated from the Niobrara by a thin layer of glacial till (SDGS, 2016 and Water Rights, 2016c). The management unit is primarily under confined conditions, however Hedges et al. (1985) references an unconfined portion of the aquifer in the area of which remains undefined. From analysis of Water Rights Program observation wells Buhler (2012) indicates that groundwater movement in the management unit is generally east to west.

Only two (well 1 and well 2) of the three wells completed into the East James management unit of the Floyd aquifer have well completion reports available. For the remaining well, the information included with this application indicated that the well is 113 feet deep. Based on the available lithologic data for the area this well is likely also completed into the East James management unit of the Floyd aquifer (SDGS, 2016 and Water Rights, 2016c). For the

wells with completion reports available the top of the aquifer is reported at 120 and 100 feet below grade. Given the depth of the third well (113 ft) and the reported depth to the top of the aquifer of the other wells, the 113 feet deep well could potentially not be an adequate well. The static water levels at the time of completion were reported as 60 feet below grade (11/4/1997) and 40 feet below grade (1/3/2013). The management unit is under confined conditions in the area of the wells for this application. The information included with this application indicates that the maximum pump rate from each of the three wells completed into the East James management unit of the Floyd aquifer is 20 gallons per minute (gpm) each, for a total of 60 gpm or 0.133 cfs from the management unit.

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 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 existing rights from the aquifer that are pertinent to this application.

Water Availability

Water Permit Application No. 8199-3 proposes to appropriate water from the East James management unit of the Floyd aquifer for domestic and commercial use. The probability of unappropriated water being available from an 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." If the source of the water is older or lower than the Greenhorn Formation and the application is for a water distribution system defined pursuant to SDCL 46-1-6 (17), the Board need not consider the recharge/withdrawal issue. Here, a water distribution system is not involved and the East James management unit of the Floyd aquifer is not older or lower than the Greenhorn Formation, therefore the withdrawal/recharge issue must be considered.

F:EJ Hydraulic Budget

Recharge

The East James management unit of the Floyd aquifer is primarily recharged by the underlying bedrock aquifer. In Miner County the management unit is hydraulically connected to the Niobrara and the Codell aquifers (Koch and McGarvie, 1988). In Hanson County recharge can also come from the Sioux Quartzite (Hanson, 1983). Due to the thickness of the glacial till overlaying the management unit any direct infiltration of precipitation is likely highly limited, however Howells and Stephens (1968) note that some recharge to the management unit may

occur by direct infiltration and runoff into permeable surface deposits that then percolates into the management unit. The various recharge estimates for the management unit are summarized in Table 2. Since Emmons (1988) was a county based study area rather than an aquifer based study area the portion of the management unit in McCook County was located outside the study area. Additionally, Emmons (1988) treated the four major aquifers (Warren, Floyd, Bad Cheyenne, and Tulare) within the study area as a single aquifer system rather than individual aquifers. As a result the recharge estimate of Emmons (1988) is more reflective of recharge to the portion of the aquifer system simulated as confined within the study area, rather than the East James management unit of the Floyd aquifer specifically.

Table 2: Recharge estimates for the East James Management unit of the Floyd aquifer

Publication	Method	Recharge Rate (in/yr)	Estimated Volume (acre-feet)
Hedges et al., 1985	Observation well analysis (unconfined portion)	3.4	area undefined
	Regional flow-net analysis (confined portion)	0.3	9,365
Emmons, 1988	Digital Simulation	0.24-0.72	7,492-22,475
	Digital Simulation (steady state)	0.487	15,202
Buhler, 2012	Flow-net analysis based on Water Rights observation well data	0.42	13,213

Discharge

Discharge from the aquifer is from ground water outflow to adjacent aquifers and well withdrawals (Koch and McGarvie, 1988 and Hanson, 1983). Currently there are 67 water rights/permits appropriating water from the East James management unit of the Floyd aquifer. Of these six are for non-irrigation water use and 61 are for irrigation purposes (Water Rights, 2016b). The majority (63) of these water rights/permits are located in Beadle County, and the remainder are located in Hanson County (Water Rights, 2016b).

The six water rights for non-irrigation use are summarized in Table 3. The withdrawals associated with these water rights are all limited by instantaneous diversion rate. Historically, water use by non-irrigation appropriations has been less than 60% of full time pumping at the permitted authorize diversion rate. Estimated average annual water use for these water rights is shown in Table 3.

Table 3: Estimated Average Annual Appropriative Non-Irrigation Water Use (Water Rights, 2016b)

Permit No.	Name	STATUS	Use	Rate	Est. Annual Volume (acre-feet)
5397-3	Our Home Inc.	LC	INS/DOM	0.056	24.3
5488-3	Faith Mennonite Church	LC	INS	0.05	21.7
5734-3	City of Huron	LC	MUN	0.02	8.7
6025-3	Edney Distributing Co.	LC	COM	0.022	9.6
6290-3	Lindberg Specialties LLC	LC	COM	0.022	9.6
6321-3	City of Huron	LC	MUN	0.04	17.4
Total					91.2

LC=Water Right, INS= institutional, DOM= domestic, MUN= municipal, COM= commercial

The Water Rights Program collects and maintains irrigation water use information from across the state. Of the 61 water rights/permit for irrigation purposes eight water permits (authorizing the irrigation of 1,194 acres) do not have irrigation usage reflected in the period of record (were not constructed as of the submittal of the 2014 Irrigation Questionnaires), the remaining water rights/permits can be considered developed or have at least six years in the period of record where the submitted Irrigation Questionnaire indicated that the system had been constructed. The historic irrigation data for the aquifer is shown in Figure 1. The average annual reported pumpage over the period of record is 2,354 acre-feet per year. Aquifers and management units in the eastern portion of the state, for which the application rate per irrigated acre has been quantified, have yielded application rates of less than ten inches per acre. Utilizing this application rate for the eight water permits not reflected in the period of record and the historic average annual reported pumpage over the period of record for the remaining water rights/permits. This results in an estimated average annual irrigation use from the management unit of less than 3,349 acre-feet per year.

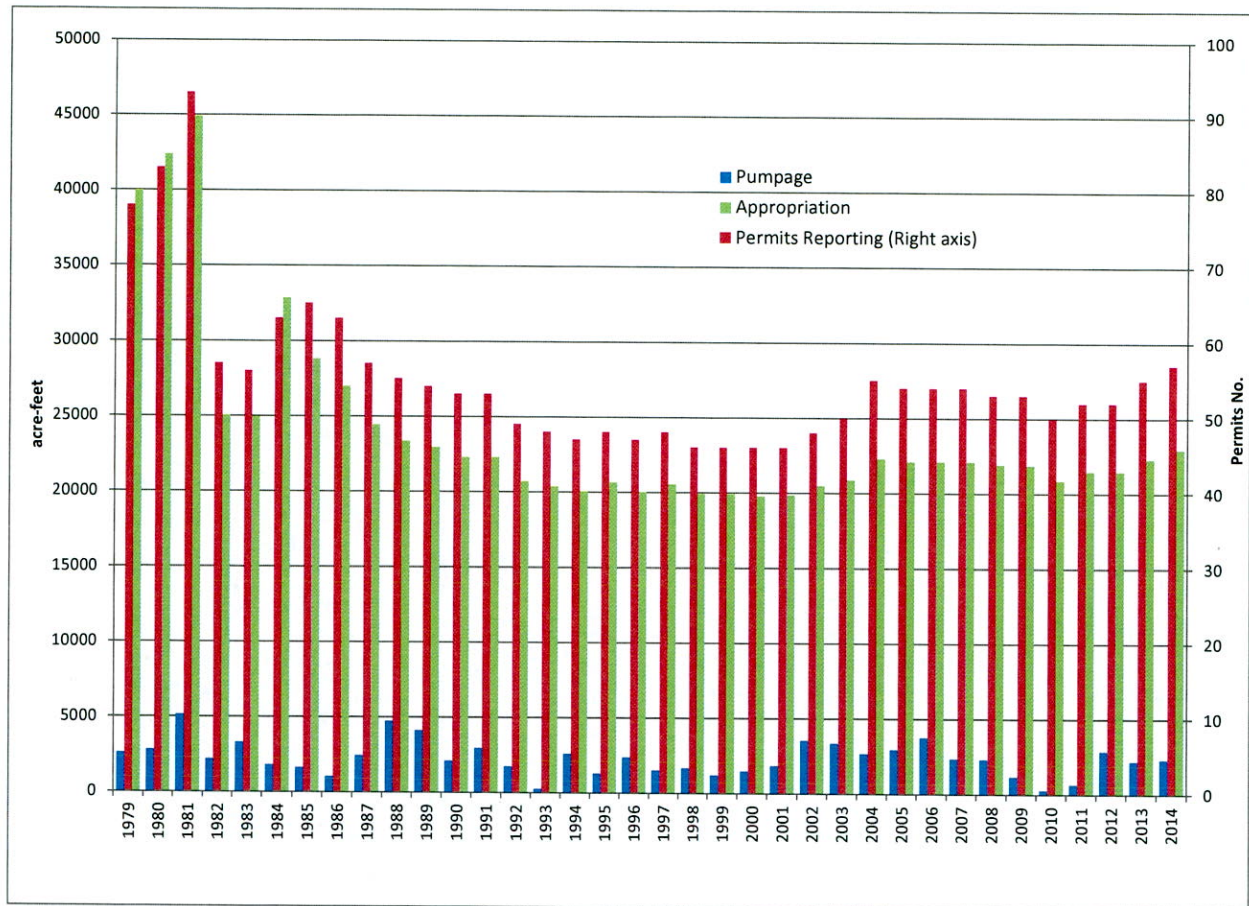


Figure 1: Historical Irrigation Water Use Data for the East James management unit of the Floyd aquifer (Water Rights, 1980-2015)

There are a number of domestic wells located within or adjacent to the areal extent of the management unit that could be completed in the management unit (Water Rights, 2016c). Buhler (2012) estimated water use from the management unit by domestic wells at about 88 to 243 acre-feet per year. Given the range of the estimate of domestic use by Buhler (2012), the methodology utilized, and how recent the data is this range remains a valid estimate for domestic water use from the management unit.

Balance

The estimated total average annual appropriative and domestic withdrawals for the management unit are less than 3,684 acre-feet per year. This is less than even the lowest (7,492 acre-feet) annual recharge estimate presented. Therefore, there is a reasonable probability that there is unappropriated water available to meet the appropriation requested by this application.

F:EJ Observation Wells

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge. When considered together observation wells can offer insight into the overall hydraulic conditions in an aquifer, and when considered singularly or in spatial groups, can offer insights into localized hydraulic conditions.

The Water Rights Program monitors 58 observation wells in the East James management unit of the Floyd aquifer. The nearest observation wells to the wells for this application that are completed into the East James management unit of the Floyd aquifer is observation well MR-79B located approximately 2.2 miles to the east (the hydrograph is shown in Figure 2). The hydrographs for the observation wells monitoring the East James management unit of the Floyd aquifer within five miles of the well locations for this application are shown in Figure 2 though Figure 7.

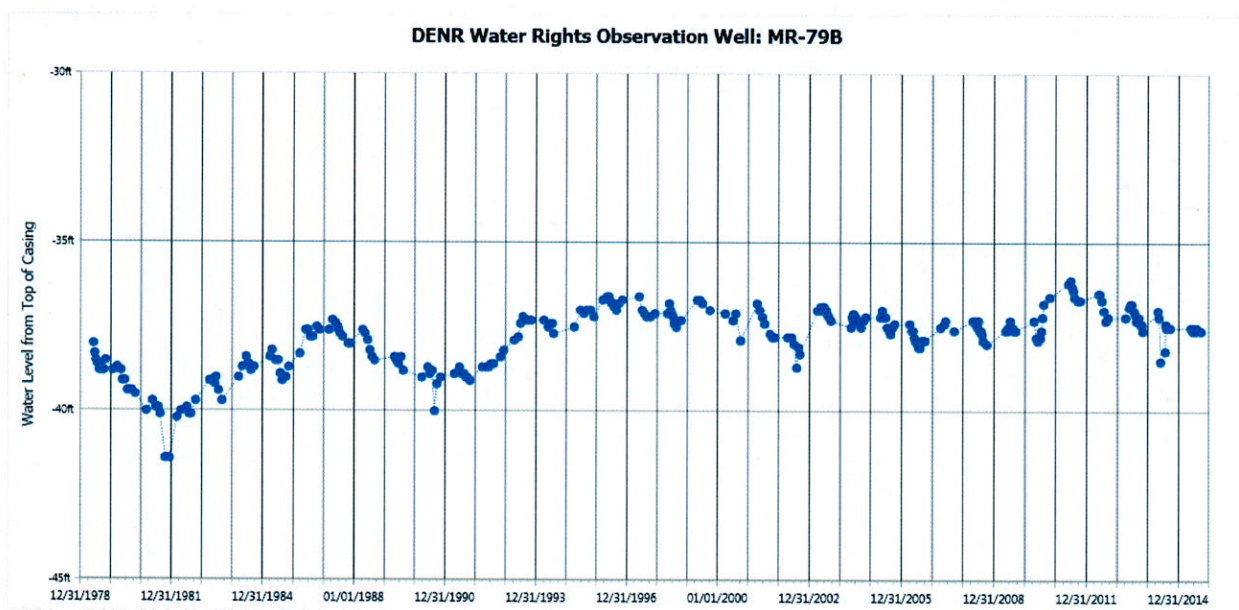


Figure 2: Hydrograph of observation well MR-79B (Water Rights, 2016a)

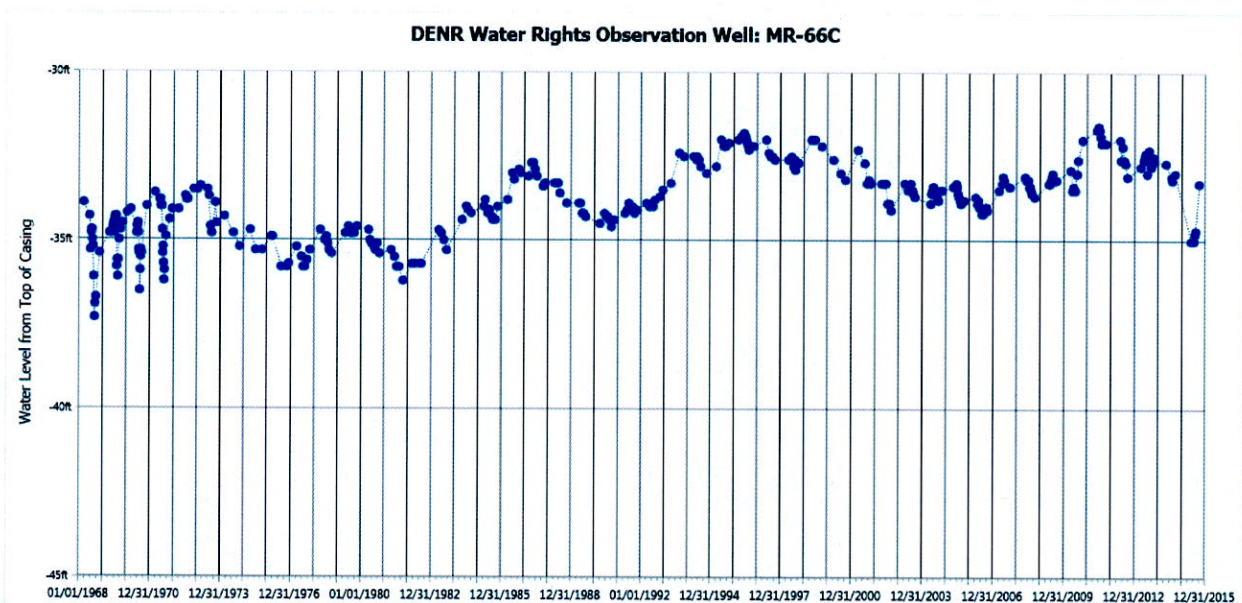


Figure 3: Hydrograph of observation well MR-66C located approximately 2.7 miles to the northwest (Water Rights, 2016a)

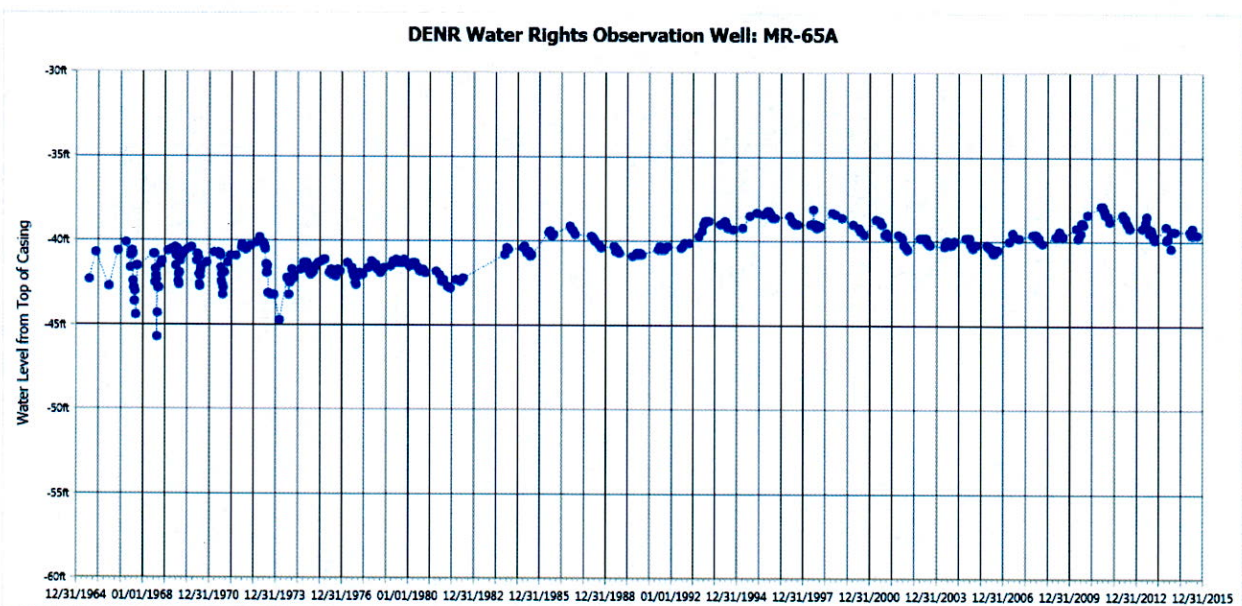


Figure 4: Hydrograph of observation well MR-65A located approximately 3.4 miles to the north northwest (Water Rights, 2016a)

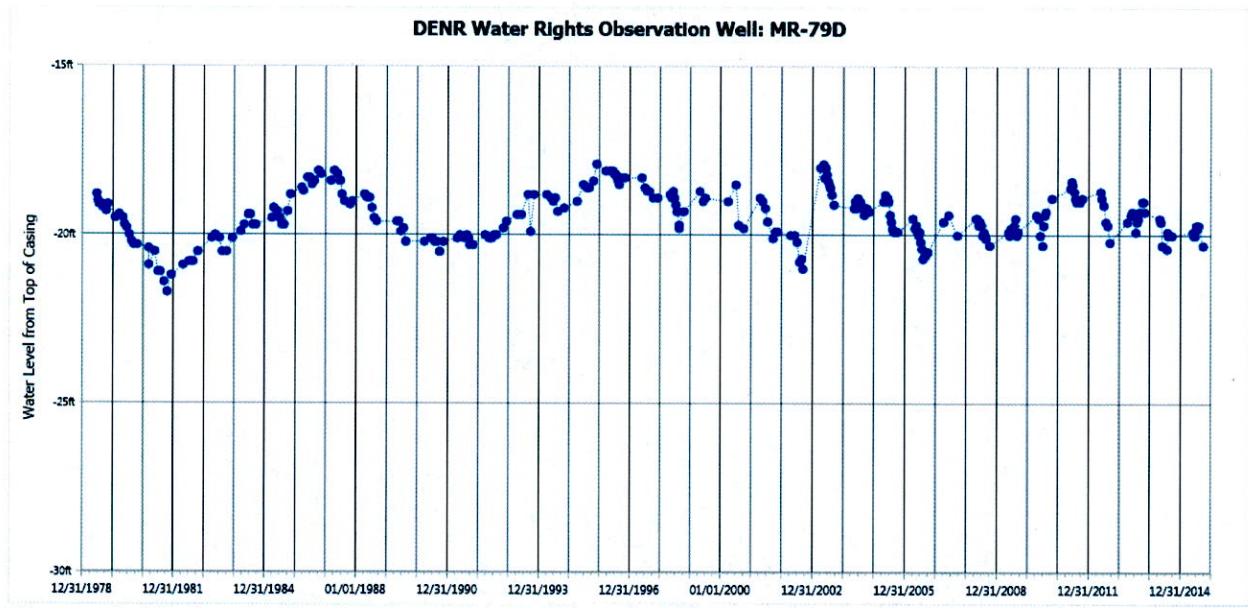


Figure 5: Hydrograph of observation well MR-79D located approximately 4.0 miles to the southwest (Water Rights, 2016a)

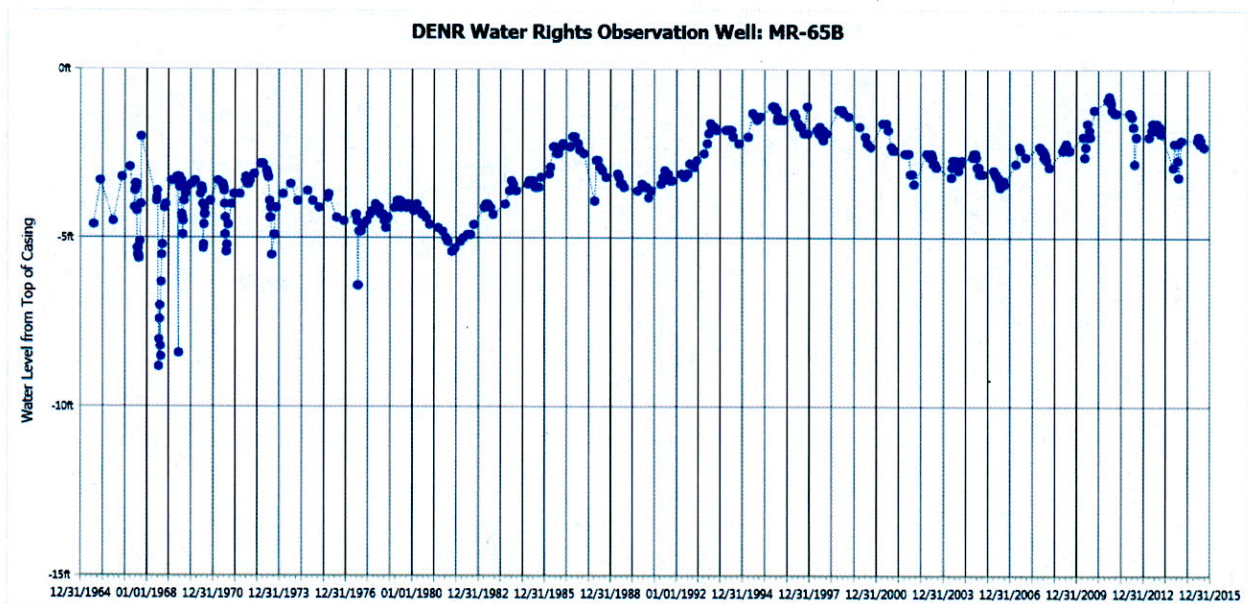


Figure 6: Hydrograph of observation well MR-65B located approximately 4.7 miles to the northwest (Water Rights, 2016a)

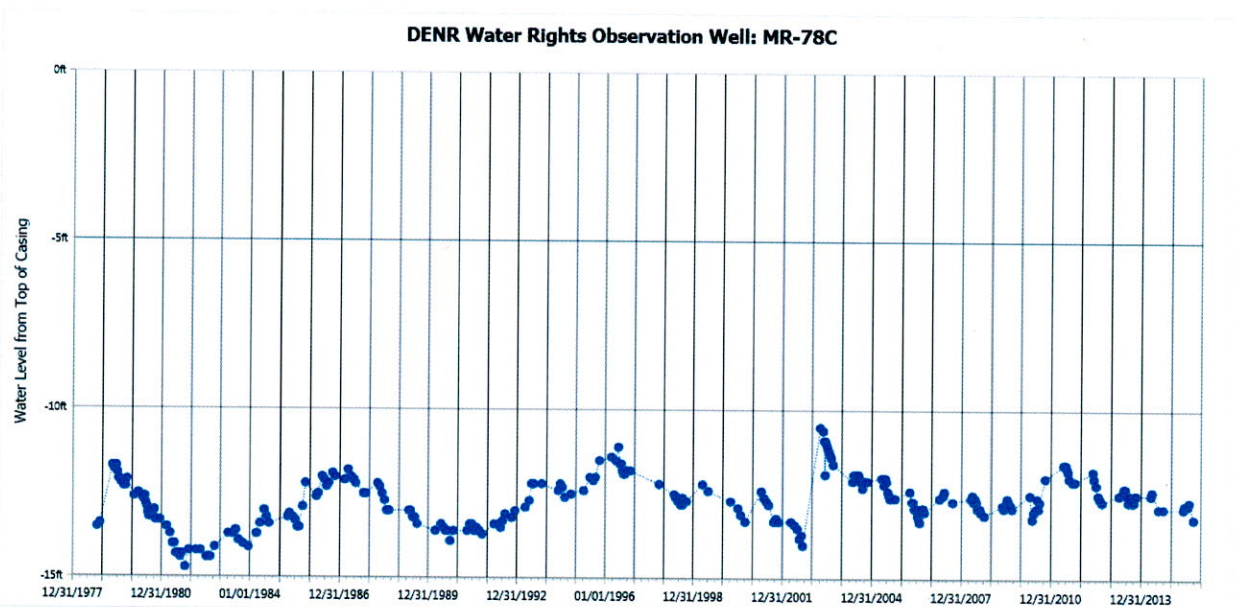


Figure 7: Hydrograph of observation well MR-78C located approximately 4.8 miles to the south (Water Rights, 2016a)

The hydrographs for these observation wells show relatively stable water levels when comparing the start of the period of record to the most recent water level data from these observation wells. Early in the periods of record for observation wells MR-65B, MR-65A, and MR-66C the effects of pumping can be noted from several now canceled irrigation appropriations that were located in the vicinity of these observation wells. During the early portion of the period of record for the noted observation wells, water levels recovered at the end of the irrigation season. These observation well hydrographs show good response to climatic conditions. Water levels increase during wet periods and gradually decrease during dry periods. Any temporal impacts of well withdrawals are masked by the effects of climatic conditions on water levels within the aquifer. Since recharge to and natural discharge from the aquifer can be captured for pumping and natural conditions dominate the management unit, there is a reasonable probability that water is available in the aquifer to meet the needs of this application.

F:EJ Existing Users

The diversion points for the immediate area water rights/permits appropriating water from East James management unit of the Floyd aquifer are shown in Figure 8. The nearest water right appropriating water from the management unit is Water Right No. 6296-3 for irrigation use located approximately 7.9 miles to the south of the nearest of the three wells in this management unit that this application proposes to utilize.

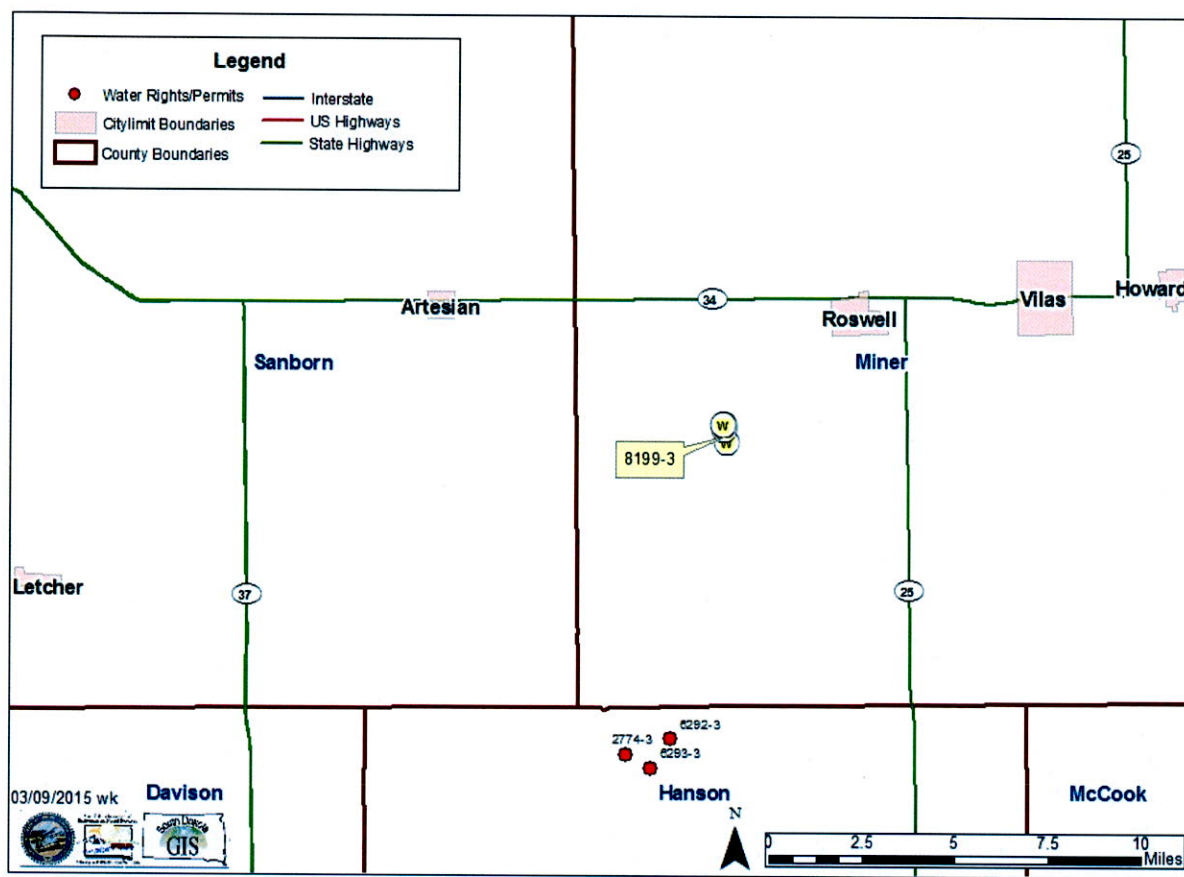


Figure 8: Diversion points for water rights/permits appropriating water from the East James management unit of the Floyd aquifer in the area of the wells for this application (cancelled water rights not shown) (Water Rights, 2016b)

Due to the distances involved and the relatively low maximum diversion rate proposed by this application, this application, if approved, is not expected to adversely impact existing water rights/permits. There are several domestic wells on file with the SDDENR-Water Rights Program within two miles of the well locations for this application some of which are likely completed into this management unit. Considering the amount of artesian head pressure available in the area of the wells this application proposes to use and the requested diversion rate, this application, if approved, is not expected to adversely impact area domestic wells.

The Water Management Board has promulgated rules that allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The board has defined an adversely impacted domestic well 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.” In the case of Water Permit Application No. 2313-2 for the Coca-Cola Bottling Company of the Black Hills the Water Management Board adopted findings that noted that if the increased costs or decreased production as a result of the impacts of

legitimate users on artesian head pressure could be considered an adverse impact it would conflict with SDCL 46-1-4 (Water Rights, 1995). SDCL 46-1-4 requires the water resources of the state be put to beneficial use to the maximum extent of which they are capable (Water Rights, 1995).

Dakota Aquifer

Dakota Hydrogeology and Aquifer Characteristics

The Dakota Formation is a Cretaceous age formation that underlies approximately 66,500 square miles of the 77,047 square miles that make up of the state of South Dakota (Schoon, 1971). The Dakota Formation is made up of yellowish, reddish, and sometimes whitish sandstone with local occurrences of shales and lignite beds (Schoon, 1971). Over much of the eastern part of the state the Dakota Formation can be subdivided into three units: an upper layer of fine- to medium grained, light to reddish brown, quartz sandstone interbedded with minor gray to dark gray shale layers; a middle unit of a silty gray clay interbedded with minor sandstone layers; and a lower unit of medium to coarse grained quartz sandstone (Schoon, 1971).

The Dakota aquifer exists within the porous, permeable portions of the Dakota Formation and is a bedrock aquifer under artesian conditions. Schoon (1971) estimated the volume of water stored in the South Dakota portion of the Dakota aquifer at 1.1 billion acre-feet. Three distinct water types have been identified in the Dakota aquifer: sodium chloride in Western SD, sodium sulfate in Northeastern SD, and calcium sulfate in Southeastern SD (Schoon, 1971). The chemical makeup of the water in the Dakota aquifer has been used to help identify the source of recharge to different areas of the aquifer (Schoon, 1971). The sodium sulfate type water of the Dakota originates in the Roundtop - Inyan Kara interval and is leaked to the Dakota where the Skull Creek formation is sporadically present (Schoon, 1971).

In Miner County, the Dakota Formation may up to 400 feet thick in the northern edge of the county, thins in the southeast portion of the county, and pinches out on the quartzite ridge in the southern portion of the county (Koch and McGarvie, 1988). Based on the well log for the Dakota well that this application proposes to use the top of the aquifer is reported at 460 feet below grade. Based on the well log at the time of completion (08/25/1981) this well flowed at a rate of 60 gallons per minute (gpm) with a closed in pressure of 35 psi, however the applicant indicates that this well flows at approximately 10 to 15 gpm and is expected to be used at a rate up to 13 gpm (0.029 cfs).

Water Availability

The probability of unappropriated water available from the Dakota 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." Additionally, pursuant to SDCL 46-1-6 (17) a water distribution system is defined as "a system of piping, valves, storage tanks, pumps, and appurtenances by which water is conveyed for domestic or municipal

use by a common distribution system, including a municipality as defined in § 9-1-1, a nonprofit rural water supply company as defined in § 10-36A-1, a water user district as defined in § 46A-9-2, a sanitary district as defined in chapter 34A-5, or homes, including mobile homes as defined in § 32-3-1, and manufactured homes as defined in § 34-34A-1.1 supplied by a common distribution system.” Here, although the Dakota aquifer is older and lower than the Greenhorn Formation, based on the information included with the application the Dakota well also feeds a cistern for domestic use. Therefore, the Dakota portion of this application, could be considered a water distribution system and would not be subject to the recharge versus discharge issue.

Dakota Declining Artesian Head Pressure

The decline of artesian head pressure in the Dakota aquifer has been a standing point of concern since the early 1900’s. Some investigators of the Dakota have concluded that this decrease in artesian head pressure is an indication of withdrawals exceeding recharge in the Dakota. The issue of declining artesian head pressure in the Dakota aquifer has been considered by the Water Management Board several times. In Water Rights (2010) the Water Management Board found that declines in artesian head pressure do not automatically indicate that withdrawals have exceeded recharge in the aquifer. In Water Rights (1987) the Board has concluded that whether withdrawals have exceeded recharge cannot be determined based solely on a decline in artesian head pressure, and in theory head pressure in the Dakota aquifer is stabilizing in relation to discharges and withdrawals. In the Finding of Facts and Conclusions of Law of Application No. 5136-3 the Water Management Board concluded that, “ The primary reason for declines in the Dakota Formation head pressure is due to water being discharged without beneficial use through uncontrolled flowing wells” (Water Rights, 1987). The Board further concluded that:

“When defining withdrawal for the purpose of interpreting the meaning of withdrawal pursuant to SDCL 46-6-3.1, there is a difference between withdrawal of water for beneficial use and water discharged without beneficial use through uncontrolled flowing wells. Water discharged from uncontrolled flowing does not constitute withdrawal (appropriation) pursuant to SDCL 46-6-3.1.”

The position of the Water Management Board has ultimately been to optimize development in the Dakota aquifer for beneficial use.

Dakota Hydraulic Budget

There is insufficient data available to estimate recharge to the Dakota aquifer. Therefore, there is insufficient data available to compare average annual withdrawals to average annual recharge. As previously noted, water being discharged without beneficial use from uncontrolled flowing wells is not considered by the Water Management Board to be an appropriation pursuant to SDCL 46-6-3.1. However, data is available to estimate water use for the Dakota aquifer appropriative use.

There are 227 water rights/permits for the Dakota aquifer and six future use permits. Of the 227 water rights/permits 19 are for irrigation purposes and the remainder are for non-irrigation purposes. Historically, water use by non-irrigation appropriations limited by instantaneous diversion rate has been less than 60% of full time pumping at the permitted authorize diversion rate. For water rights/permits limited to an annual volume, full use of that volume is assumed for estimation of average annual withdrawal. It is assumed that future use permits will be fully developed. The Dakota future use permits reserve a total of 3,737 acre-feet per year. Most of the municipalities that have water rights/permits for the Dakota aquifer have connected to rural water systems (Drinking Water, 2015 and Friedeman, 2016) and do not use much or any water from their wells. The estimated annual use by non-irrigation water right/permits (excluding water rights/permits utilizing rural water) limited to an annual volume is 5,870 acre-feet per year. The estimated annual water usage for water rights/permits that are limited by diversion rate (excluding water rights/permits utilizing rural water) is estimated to be 16,880. The major non-irrigation appropriations are for rural water systems and municipalities located in the southeastern portion of the state. This is a total estimated average annual appropriative non-irrigation use of 26,487 acre-feet per year.

The Water Rights Program collects and maintains irrigation water use information from across the state. The 19 irrigation water rights/permits authorize the irrigation of 1,314.44 acres. The historic irrigation data for the aquifer is shown in Figure 9. The average annual reported pumpage over the period of record is 141 acre-feet per year. Of the 19 water rights/permit for irrigation purposes three systems were not constructed as of the submittal of the 2014 Irrigation Questionnaires, thus would not be reflected in the period of record. The three water permits with no irrigation reflected in the period of record authorize the irrigation of a total of 693.9 acres. Due to the statewide geographic dispersion of the irrigation water rights/permits for the Dakota aquifer, differing hydrologic conditions (i.e. east river vs. west river) do not allow for a blanket calculation and application of an application rate to estimated irrigation water use from the Dakota aquifer. However, the three water permits not reflected in the period of record are for Clay, Yankton, and Union Counties. Aquifers and management units in the eastern portion of the state, for which the application rate per irrigated acre has been quantified, have yielded application rates of less than ten inches per acre. Combining this application rate for the three permits not reflected in the period of record and the average annual reported pumpage over the period of record, average annual irrigation use for the Dakota aquifer is estimated to be less than 720 acre-feet per year.

This results in a total estimated average annual appropriative water use from the Dakota aquifer of less than 27,207 acre-feet per year.

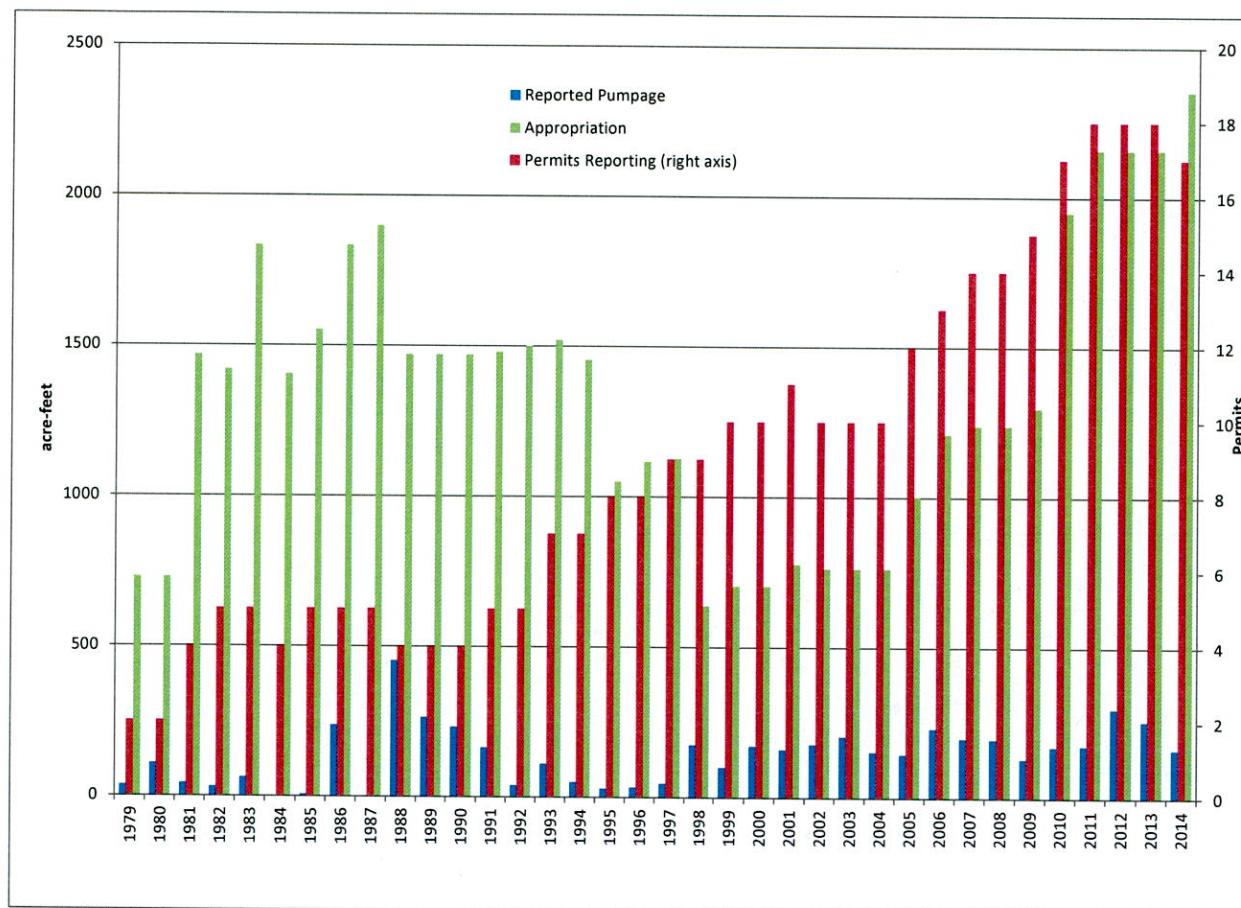


Figure 9: Historical Irrigation Water Use Data for the Dakota aquifer (Water Rights, 1980-2015)

There are a large number of completion reports for domestic wells completed into the Dakota aquifer that are on file with the Water Rights Program. The current status of these domestic wells is unknown and could range anywhere from controlled and in use to uncontrolled with some beneficial use. There are also a number of uncontrolled flowing Dakota wells that flow to waste. Additionally, water can also flow to waste from deterioration or poorly constructed flowing wells. However, water flowing from uncontrolled flowing wells should be available for capture and use by appropriative users.

Dakota Observation Wells

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge. Observation well data offers a picture of conditions in the aquifer over the period of record. Observation well data is especially useful in examining local conditions in an aquifer, especially in aquifers with large areal extents like the Dakota.

The Water Rights Program monitors 43 observation wells in the Dakota aquifer. Of these the majority (32 observation wells) are located in Lincoln County and the remainder are spread over the eastern portion of the state. Of the 43 Dakota observation wells, 33 show declining artesian head pressure over the period of record. In many of these observation wells the declining head pressure appears to be stabilizing, which would support the theory that the Dakota aquifer is in the process of stabilizing in relation to discharges and withdrawals.

The nearest Dakota observation well to the Dakota well that this application proposes to use is observation well AU-89A, which is located approximately 46 miles southwest of the location of the Dakota well that this application proposes to use. The hydrograph for AU-89A is shown in Figure 10. Additional Dakota hydrographs are shown in Figures 11, 12, and 13.

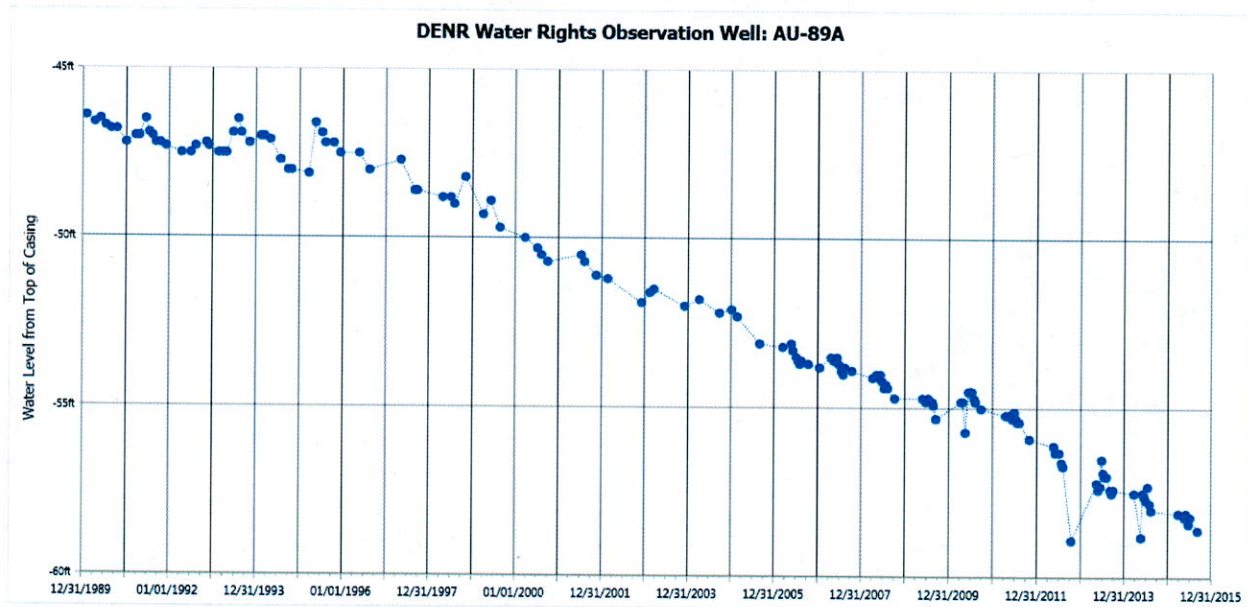


Figure 10: Hydrograph of observation well AU-89A (Water Rights, 2016a)

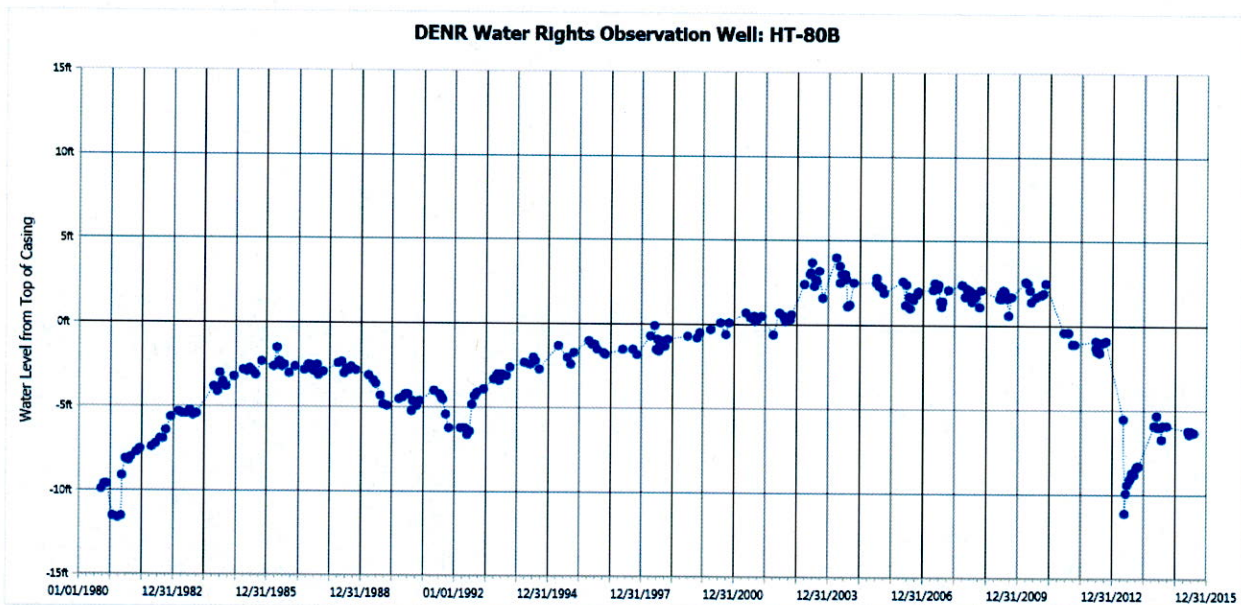


Figure 11: Hydrograph of observation well HT-80B located approximately 53 miles to the south (Water Rights, 2016a)

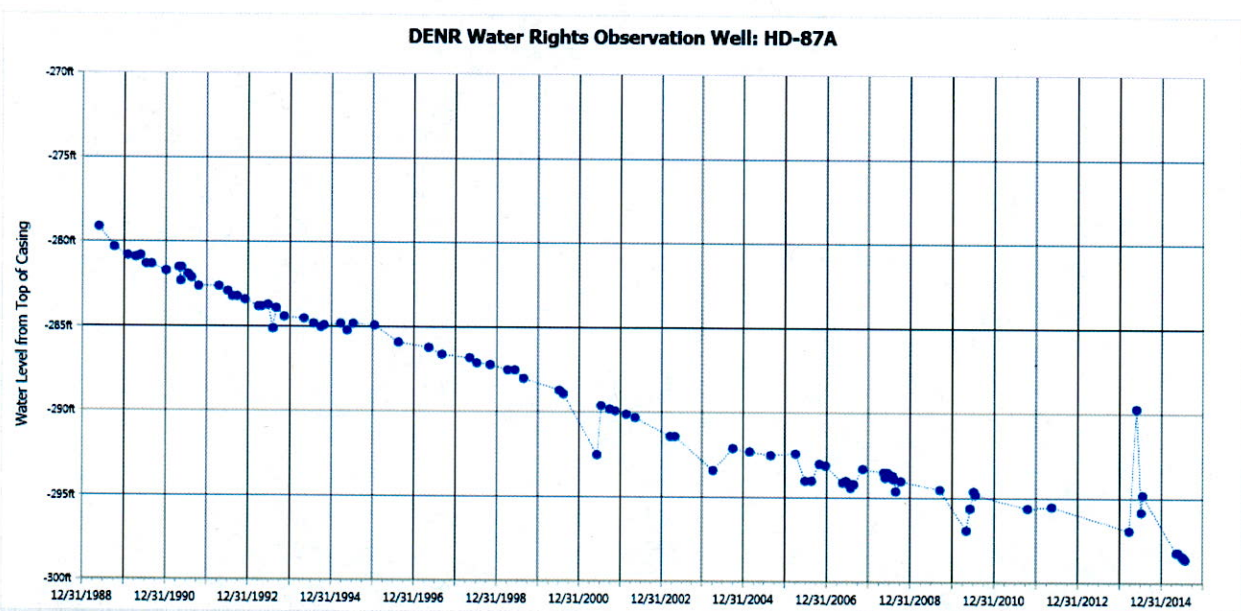


Figure 12: Hydrograph of observation well HD-87A located approximately 57 miles to the northwest (Water Rights, 2016a)

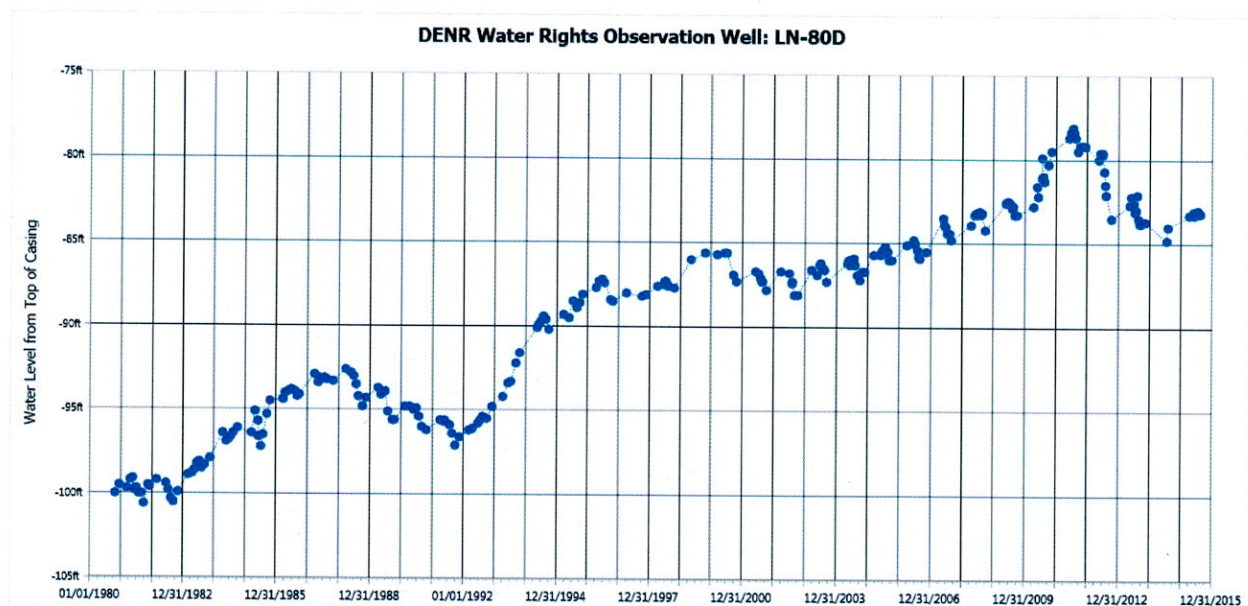


Figure 13: Hydrograph of observation well LN-80D located approximately 57 miles to the southeast (Water Rights, 2016a)

Over 15,000 domestic wells have been completed into the Dakota Aquifer, many of which are or at some point were, flowing at the land surface. The water levels measured in the four observation wells merely reflect what is happening in the aquifer in the respective areas of these wells. That includes natural fluctuations, use, and misuse by non-controlled flowing wells in the areas of the observation wells. These hydrographs also serve to illustrate the variability in the Dakota aquifer based on well location.

Dakota Existing Users

The diversion points for area water rights/permits appropriating water from the Dakota aquifer are shown in Figure 14. The nearest water right appropriating water from the Dakota aquifer is Water Right No. 1650-3 held by the Town of Roswell. Water Right No. 1650-3 is located approximately 4.7 miles to the northeast of the Dakota well that this application proposes to utilize.

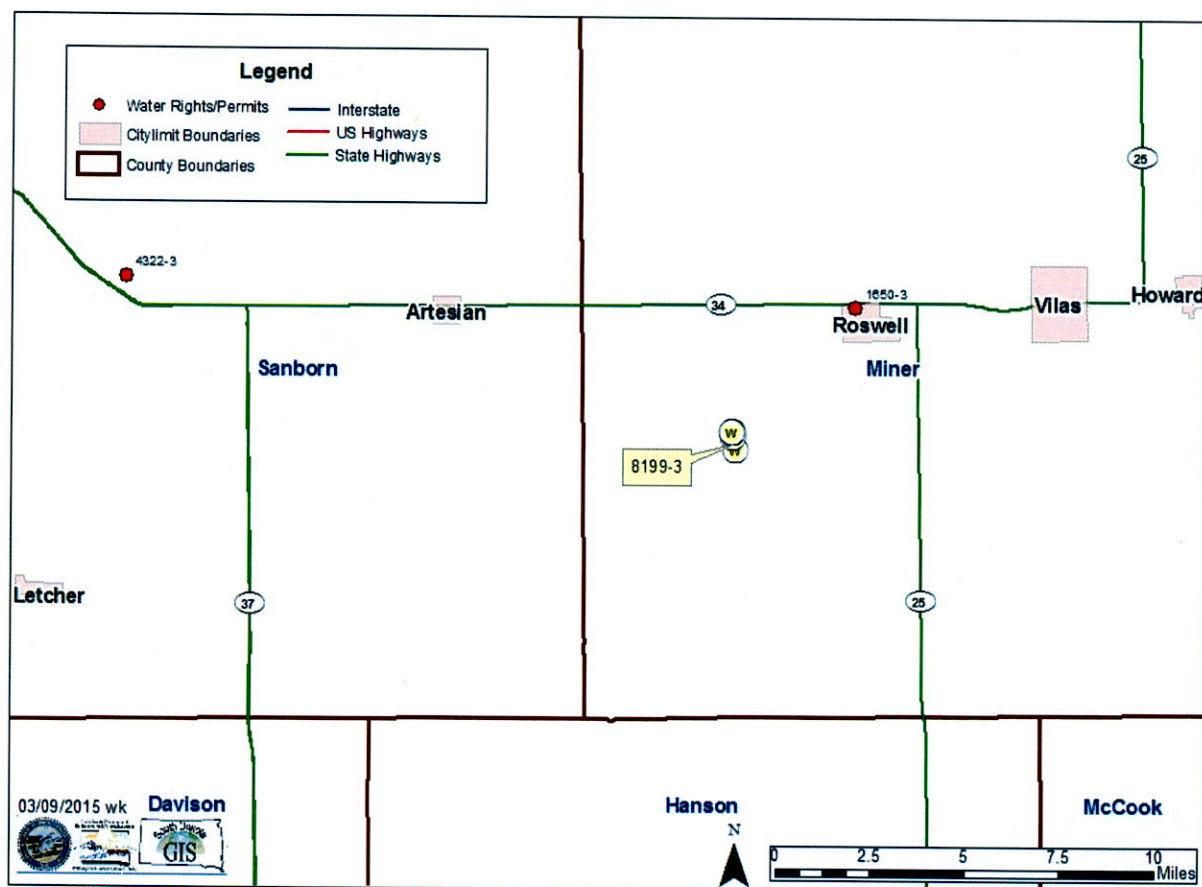


Figure 14: Diversion points for water rights/permits appropriating water from the Dakota aquifer in the area of the wells for this application (cancelled water rights not shown) (Water Rights, 2016b)

There are several domestic wells on file with the SDDENR-Water Rights Program within two miles of the well location for this application, some of which are likely completed into this aquifer. Due to the distances involved and the relatively low maximum diversion rate proposed by this application, this application, if approved, is not expected to adversely impact existing water rights/permits or area domestic wells. Additionally, the Dakota well that this application proposes to use has likely been utilized for domestic use since it was completed (08/25/1981), therefore the use of the Dakota well by this application, if approved, is unlikely to adversely impact existing adequate wells in this aquifer.

The Water Management Board has promulgated rules that allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The board has defined an adversely impacted domestic well 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.” In the case of Water Permit Application No. 2313-2 for the Coca-Cola Bottling Company of the Black Hills the Water Management Board adopted findings

that noted that if the increased costs or decreased production as a result of the impacts of legitimate users on artesian head pressure could be considered an adverse impact it would conflict with SDCL 46-1-4 (Water Rights, 1995). SDCL 46-1-4 requires the water resources of the state be put to beneficial use to the maximum extent of which they are capable (Water Rights, 1995).

Report Conclusions

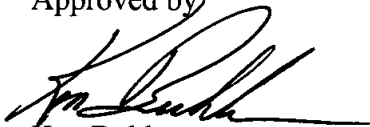
1. Water Permit Application No. 8199-3 proposes to appropriate up to 72.6 acre-feet of water annually at a maximum diversion rate of 0.162 cubic feet per second (cfs) from four existing wells (one Dakota and three East James management unit of the Floyd aquifer) for the expansion of a livestock feeding operation.
2. There is a reasonable probability that unappropriated water is available from the East James management unit of the Floyd aquifer to meet the requested appropriation of this application.
3. The Water Management Board has concluded that in the Dakota aquifer whether withdrawals exceed recharge cannot be determined solely based on a decline in artesian head pressure.
4. The Water Management Board has concluded that pursuant to SDCL 46-6-3.1 "withdrawals" apply only to water placed to beneficial use via appropriation or domestic use.
5. The flow from uncontrolled flowing Dakota wells should be available for capture, therefore there is a reasonable probability that water is available from the Dakota aquifer to meet the proposed appropriation be this application.
6. There is a reasonable probability that this application will not adversely impact existing water rights/permit or adequate domestic wells in the area.



Whitney Kilts

SDDENR-Water Rights Program

Approved by



Ken Buhler

SDDENR-Water Rights Program

References

- Buhler, K. 2012. Report of Water Permit Application No. 7239-3 Hanson County Dairy. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Drinking Water Program. 2015. Drinking Water System Information. SD DENR-Drinking Water Program Online Database. Accessed Mar. 28, 2016.
<http://denr.sd.gov/des/dw/sysinfomap.aspx>.
- Emmons, P. J. 1988. A Digital Simulation of the Glacial-Aquifer System in Sanborn and Parts of Beadle, Miner, Hanson, Davison, and Jerauld Counties, South Dakota. Water-Resources Investigations Report 87-4082. USGS. Huron, SD.
- Friedeman, B. 2016. Environmental Scientist. SDDENR-Drinking Water Program, Pierre, SD. Personal Communication. March 28, 2016.
- Hansen, D. 1983. Water Resources of Hanson and Davison Counties, South Dakota. Water Resources Investigations Report 83-4108. USGS. Huron, SD.
- Hedges, L.S., Burch, S. L., Iles, D. L., Barari, R. A., and Schoon, R. A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota, and Iowa. Task 3: Ground-Water Storage. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J. and 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. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Koch, N. C. and McGarvie, S. D. 1988. Water Resources of Miner County, South Dakota. Water-Resources Investigations Report 86-4035. USGS. Huron, SD.
- Howells, L.W. and Stephens, J. C. 1968. Geology and Water Resources of Beadle County, South Dakota Part II: Water Resources. South Dakota Geological Survey Bulletin 18. SDGS. Vermillion, SD.
- Schoon, R. A. 1971. Geology and Hydrology of the Dakota Formation in South Dakota. SDGS, Vermillion, SD.
- SD Geological Survey. 2016. Lithological Logs Database, SD DENR-Geological Survey Program, Vermillion, SD.
- Water Rights. 1980-2015. "1979-2014 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 1987. Water Right File No. 5136-3 Farmland Industries. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights. 1995. Water Rights File No. 2313-2 Coca-Cola Bottling Company of the Black Hills. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2010. Water Rights File No. 7165-3 Paul Buckneberg. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2016a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights. 2016b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2016c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

**NOTICE OF APPLICATION NO.
8199-3**

to Appropriate Water

Notice is given that Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 has

filed an application for a water permit to appropriate 72.6 acre feet of water annually at up to a maximum diversion rate of 0.162 cubic feet of water per second from four wells. Three wells are completed into the Floyd:East James

Aquifer (140, 140 and 113 feet deep) located in the NE 1/4 NE 1/4, NE 1/4 SE 1/4 Section 27-T106N-R58W. The fourth well is completed into the Dakota Aquifer (520 feet deep) located in the SE 1/4 NE 1/4 Section 27-T106N-R58W. Water use is for domestic and commercial use in a livestock feedlot operation located in the portion of the NE 1/4 and E 1/2 SE 1/4 Section 27-T106N-R58W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8199-3 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 April 25, 2016.

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

AFFIDAVIT OF PUBLICATION

RECEIVED

MAY - 2 2016

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA, County of Miner: ss.

Carla Poulson of said County and State, being duly sworn, on her oath says: That the Miner County Pioneer is a legal newspaper of general circulation, printed and published in Howard, said County and State, by Carla Poulson, and has been such newspaper during the time hereinafter mentioned: and that I, Carla Poulson the undersigned, am publisher of said newspaper, in charge of the advertising department thereof, and have personal knowledge of all the facts stated in this affidavit, and that the advertisement or notice headed

Notice of Application

A printed copy of which is hereunto attached, was printed and published in the regular and entire issue of said newspaper and not in a supplement, once each week for successive weeks, the first publication being made on the day of April 2016.

And the last publication on the day of 20.....

The first publication being made on the day of 20.....

The second publication being made on the day of 20.....

The third publication being made on the day of 20.....

The fourth publication being made on the day of 20.....

The fifth publication being made on the day of 20.....

That said newspaper is a legal newspaper, and has a bona fide circulation of more than two hundred copies weekly, and has been published within the County of Miner, for more than fifty-two successive weeks next prior to the first publication of said notice, and is printed in on office maintained in Howard, South Dakota, the place of publication of said newspaper. That the full amount of fees for publication of the annexed notice is \$ 26.17. and insures solely to the benefit of said publisher; that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any person whomever.

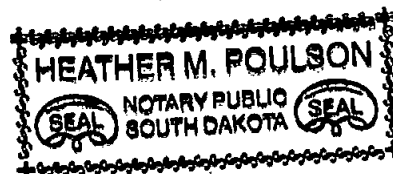
Subscribed and sworn to me this 14 day of April 2016

My commission expires the 10 day of Oct 2019

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.

Steven M. Pirner, Secretary,
Department of Environment and
Natural Resources.

Published once at the total
approximate cost of \$26.17.
(April 14)



RECEIVED

APR 18 2016

WATER RIGHTS
PROGRAM

NOTICE OF
APPLICATION NO.
8199-3 to
Appropriate Water

Notice is given that Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 has filed an application for a water permit to appropriate 72.6 acre feet of water annually at up to a maximum diversion rate of 0.162 cubic feet of water per second from four wells. Three wells are completed into the Floyd East James Aquifer (140, 140 and 113 feet deep) located in the NE 1/4 NE 1/4, NE 1/4 SE 1/4 Section 27-T106N-R58W. The fourth well is completed into the Dakota Aquifer (520 feet deep) located in the SE 1/4 NE 1/4 Section 27-T106N-R58W. Water use is for domestic and commercial use in a livestock feedlot operation located in the portion of the NE 1/4 and E 1/4 SE 1/4 Section 27-T106N-R58W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8199-3 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 April 25, 2016.

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.

Steven M. Pirner
Secretary,
Department of
Environment and
Natural Resources
Published once at the total approximate cost of \$71.17

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF DAVISON)

Penny Hohbach of said county, being, first duly sworn, on oath, says; that he/she is the publisher or an employee of the publisher of The Daily Republic, a daily newspaper, published in the City of Mitchell, in said County of Davison, and State of South Dakota; that he/she has 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, and that the notice, order or advertisement, a printed copy of which, taken from the paper in which the same was published, and which is hereto attached and made a part of this affidavit, was published in said newspaper for 1 issues(s), to wit:

Thursday, April 14, 2016

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: \$71.17

Signed:

Penny Hohbach

Subscribed and sworn to before me this 14th day of April, 2016.

Deb Townsend

Notary Public
County of Davison

My Commission Expires: 09-18-21

Prepared by: The Daily Republic, P.O. Box 1288, Mitchell S.D. 57301 605-996-5515

DEB TOWNSEND
Notary Public
SEAL
South Dakota

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, April 05, 2016 10:29 AM
To: ads@minercountypioneer.com
Subject: 8199-3, Donahue Farms
Attachments: 8199-3publicnov2015.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on April 14, 2016.

Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 (605 480-0216) 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.

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

Karen Schlaak

Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, April 05, 2016 10:28 AM
To: Hohbach, Penny (PHohbach@mitchellrepublic.com)
Subject: 8199-3, Donahue Farms
Attachments: 8199-3publicnov2015.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on April 14, 2016.

Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 (605 480-0216) 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.

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

Karen Schlaak
Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 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 NEWSPAPER(S) RIGHT AWAY.**

April 5, 2016

Donahue Farms
Bernard Donahue
23345 434th Ave
Howard SD 57349

Dear Mr. Donahue:

Water Permit Application No. 8199-3 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 Miner County Pioneer printed at Howard SD (Ph # 605-948-2110) and the Daily Republic printed at Mitchell SD (Ph # 605-996-5514). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) 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
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. 8199-3 to Appropriate Water

Notice is given that Donahue Farms, c/o Bernard Donahue, 23345 434th Ave, Howard SD 57349 has filed an application for a water permit to appropriate 72.6 acre feet of water annually at up to a maximum diversion rate of 0.162 cubic feet of water per second from four wells. Three wells are completed into the Floyd:East James Aquifer (140, 140 and 113 feet deep) located in the NE 1/4 NE 1/4, NE 1/4 SE 1/4 Section 27-T106N-R58W. The fourth well is completed into the Dakota Aquifer (520 feet deep) located in the SE 1/4 NE 1/4 Section 27-T106N-R58W. Water use is for domestic and commercial use in a livestock feedlot operation located in the portion of the NE 1/4 and E 1/2 SE 1/4 Section 27-T106N-R58W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8199-3 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 April 25, 2016.

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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

MAY 12 2016

Donahue Farms
Bernard Donahue
23345 434th Ave
Howard SD 57349

Dear Mr. Donahue:

Enclosed is Water Permit No. 8199-3 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,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8199-3

I have this day, July 15, 2024, made a thorough examination of the water use system constructed by Donahue Farms, 23345 434th Ave, Howard, SD 57349 of Permit No. 8199-3, bearing the priority of December 16, 2015 authorizing the diversion of 0.162 cu. ft. per second of the waters of the Floyd:East James & Dakota Aquifer for livestock feedlot purposes, in Miner County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Pullman Well Drilling & Hiniker
- 2) No. of Wells 4
- 3) Depth(s) 140 (#1), 140 (#2), 520 (#3) & 113 (#4) feet
- 4) Well log is available Y If no, explain in comments

Comments: Not for Well #4 but similar depth as #1 & #2

Casing:

- 1) Diameter 5, 5, 2, 5 inches
- 2) Length 120, 120, unknown, unknown feet
- 3) Type PVC

Screen:

- 1) Type PVC
- 2) Length 20, 20 feet
- 3) Static water level 60, 40, Flowing, unknown feet

Pump:

- 1) Make Submersibles
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 20, 20, 5, 20 GPM

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating 1, 1, N/A, 3/4 hp

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

- 1) Type 1 ½ inch PVC & 1 inch PE 2) Size unknown inches 3) Length varies feet

Comments: **none**

C. D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
If no, describe:
2) Exceptions to compliance are: None

E. Condition and Location:

- The system is in good condition with the point(s) of diversion located as follows: **WELL LOCATIONS**
From the NE corner Sec 27 T106N R58W WELL #1: 1250 ft S & 750 ft W, Lat 43.96238 Long -
97.77360 (NE ¼ NE ¼) WELL #2: 1265 ft S & 750 ft W, Lat 43.96225 Long -97.77358 (NE ¼ NE ¼)
WELL #3: 1900 ft S & 575 ft W, Lat 43.96062 Long -97.77309 (SE ¼ NE ¼) WELL #4: 3750 ft S &
249 ft W, Lat 43.95567 Long -97.77163 (NE ¼ SE ¼)
- The works are capable of diverting and conveying to the place of use **0.145** cu. ft. per second of water which is to be used for **commercial livestock feedlot purposes.**
The license should be issued for **0.145** cfs.
- All structures, wells and lands on map Y

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

Talked to Mr. Bernard Donahue (605/480-0216), feedlot operator, on the phone regarding the wells. He estimated the shallow wells could produce 60-80 gpm (said should contact Pullman well drilling to verify) which has not been done.

Well #3 is a flowing well (maybe 5 gpm) which discharges into a cistern which in turn uses a submersible pump to provide water for the feedlot.

Some of the well data are a bit sketchy but it is the best I could do.

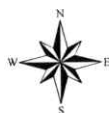
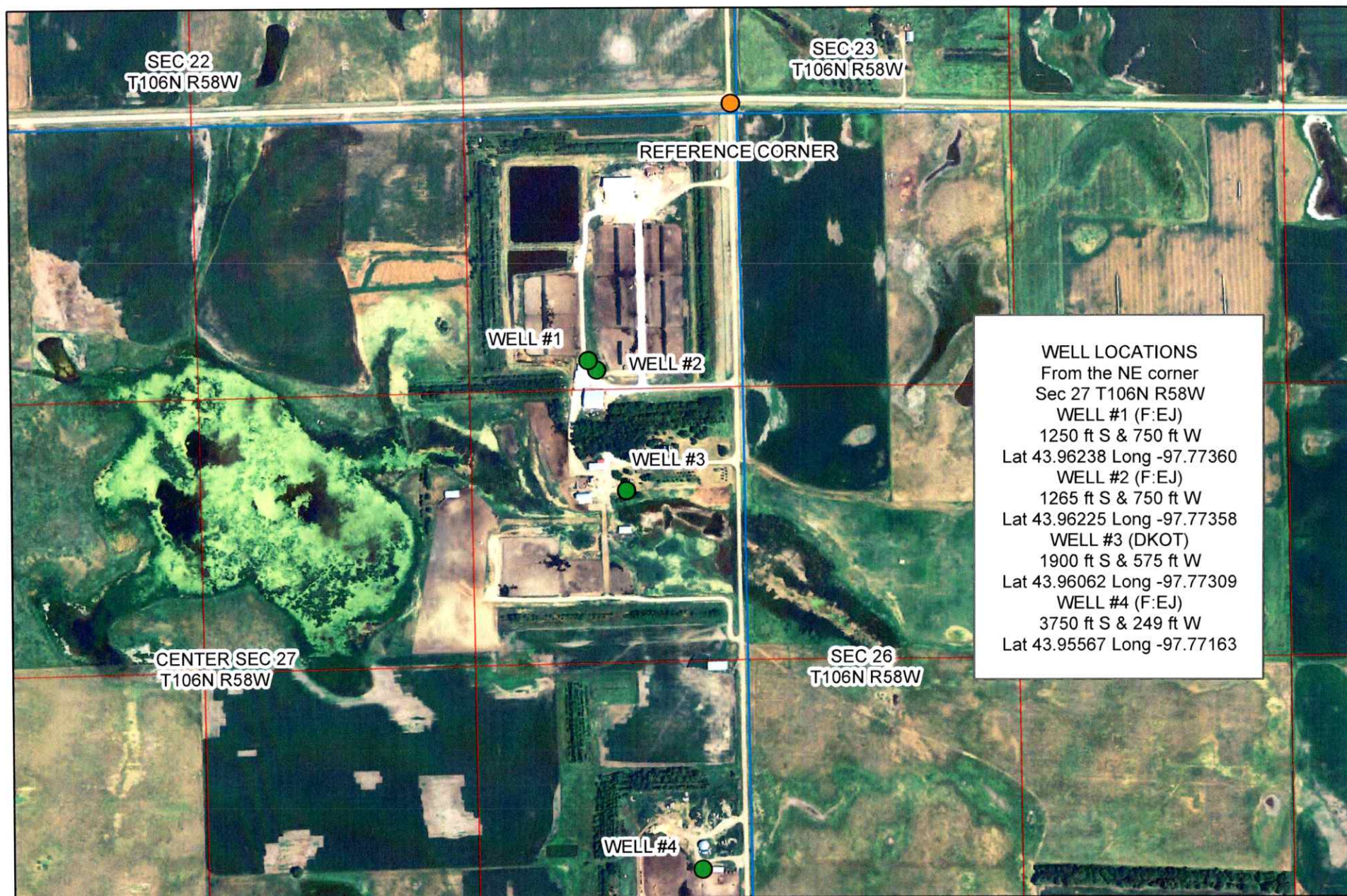
The new mailing address for Bernard is 23624 421st Ave, Fedora, SD 57337.



Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: **July 22, 2024**

** AMD called Mr. Donahue to discuss well pump rates. He confirmed that nothing had changed since the pumps were originally installed. (see page 13 in WRinfo file)



0 500 1,000 2,000 3,000 4,000 Feet



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

AUG 12 2024

8199-3

Donahue Farms
c/o Bernard Donahue
23624 421st Ave
Fedora SD 57337

Dear Mr. Donahue:

Enclosed is Water License No. 8199-3. 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. 8199-3

(1) Donahue Farms, 23624 421st Ave, Fedora SD 57337, made Application No. 8199-3, December 16, 2015, for a water permit to appropriate 72.6 acre-feet of water annually at a maximum diversion rate of 0.162 cubic feet of water per second from groundwater, four wells, Miner County, South Dakota for domestic and commercial purposes in a livestock feedlot operation. Permit No. 8199-3, with a priority date of December 16, 2015, was approved April 25, 2016, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 25, 2021, and for the application to beneficial use of water on or before April 25, 2025.

(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 divert 0.145 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well #1 (F:EJ) 1,250 ft S & 750 ft W of the NE corner Section 27, T106N, R58W (NE ¼ NE ¼)
(Latitude 43.96238 & Longitude -97.77360)
- Well #2 (F:EJ) 1,265 ft S & 750 ft W of the NE corner Section 27, T106N, R58W (NE ¼ NE ¼)
(Latitude 43.96225 & Longitude -97.77358)
- Well #3 (DKOT) 1,900 ft S & 575 ft W of the NE corner Section 27, T106N, R58W (SE ¼ NE ¼)
(Latitude 43.96062 & Longitude -97.77309)
- Well #4 (F:EJ) 3,750 ft S & 249 ft W of the NE corner Section 27, T106N, R58W (NE ¼ SE ¼)
(Latitude 43.95567 & Longitude -97.77163)

(3) The water appropriated shall be used for the purpose of domestic and commercial use and may not exceed the amount of water needed for beneficial use. 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 Donahue Farms, the holder and/or owner of Water Right No. 8199-3 is issued a license to appropriate water, the right to appropriate 72.6 acre-feet of water annually at a maximum rate of 0.145 cubic feet of water per second from groundwater, three wells completed into the Floyd: East James Aquifer (0.134 cfs) and one well completed into the Dakota Aquifer (0.011 cfs), all with a priority date of December 16, 2015, from the locations specified in (2) of this license for domestic and commercial purposes in a livestock feedlot operation.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8199-3 and subject to the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or adequate wells having prior water rights.
2. The Dakota well approved under Permit No. 8199-3 shall have flow reducers to limit the diversion to the amount authorized and the flow reduced to the amount needed or to a minimum when not being used. If either well is abandoned or the Permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

continued

3. Permit No. 8199-3 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 for concentrated animal operation.
4. Permit No. 8199-3 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 separately report to the Chief Engineer annually the amount of water withdrawn from the Floyd: East James Aquifer and Dakota Aquifer.
6. Water Permit No. 8199-3 authorizes a total annual diversion of 72.6 acre-feet of water.


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

AUG 12 2024
date

