

WATER PERMIT NO. 7448-3

Name of Applicant: **Robert Heckenlaible**

Address: **43380 285th St, Freeman SD 57029**

Phone: **605 770-0619**

Amount of Water Claimed: **6.67 cfs**

Total Acres: **560**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation**

County: **Hutchinson**

Type of Waste Disposal System:

Location: **9 miles southwest of Freeman**

PRIORITY

Date Received: **10-3-12**

Application/License Fee: **\$ 1750**

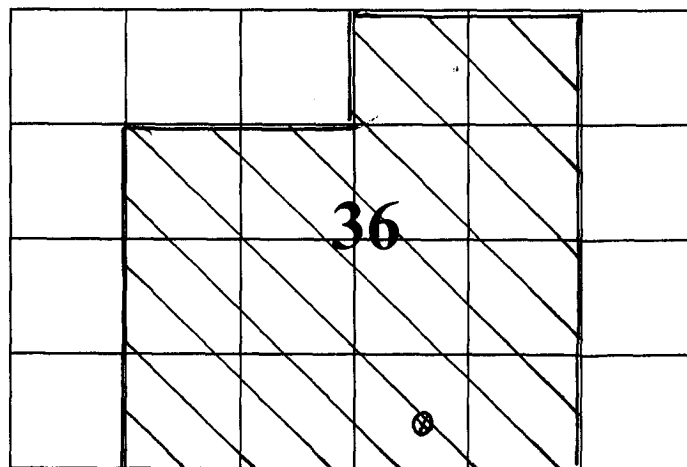
Corrected Application Received:

Period of Annual Use: **April 1- Oct 1**

Remarks:

Diversion Point: **SW 1/4 SE 1/4 Sec 36-T98N-R57W**

Land to be Irrigated: **E 1/2, SW 1/4, S 1/2 NW 1/4**
Sec 36-T98N-R57W



Depth of Well: **120 feet**

Well Driller: **Quality Well Service**

Remarks:

Type of Map: **aerial**

Prepared by: **Robert A Rennolet, NRCS**

Reviewed and the Number Assigned on: **10-3-12**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7448-3</u> (office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u> <u>605-925-7033</u>
	Newspaper <u>Freeman Courier Box 950 57029</u>
	<u>Press & Dakotan 319 Walnut Yankton 57078</u>

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OCT - 3 2012

605 WATER RIGHTS
605-7811 PROGRAM

Application For Permit To Appropriate Water For Irrigation

 Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name of Applicant Robert Heckenlaible Phone 605-770-0619(check one) ☒ Owner ☐ Tenant/lessee
 Mailing Address 43380 285th st Freeman SD 57029
 (Address) (City) (State) (Zip Code)

 2. Amount of water claimed 6.67 *CFS or 3000 **GPM ***AF Total Acreage 560
 (*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable
3. Source of water supply well
 4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Hutchinson
1 well located in SW 1/4 of SE 1/4 section 36-T98N-R57W or approximately 1800ft west and 400ft north of
jct. 285th st and 434 ave.
5. County or counties where water will be used Hutchinson6. Annual period during which water is to be used April 1 thru October 1
 7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
 (Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
see attached sheet	560		
E 1/2 Sec 36 - T98 R57W	320		
SW 1/4	160		
S 1/2 NW 1/4	80		

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

Irrigate 560 acres of crop ground from a well. Ag crops- corn, soybeans, and wheat. There will be a total of 3 pivots with the largest one covering 305 acres. Pivot # 1 will require 1500 gpm and pivots # 2 and # 3 will require 1500 gpm combined.

STATE OF SOUTH DAKOTA)

County of Hutchinson) SS

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

 I, Robert Heckenlaible, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.
Applicant's signature [Signature]Subscribed and sworn to before me this 2nd day of October 20 12
Cassie Willenborg
 Notary Public Signature
 My Comm Expires 12-3-2014

**SOUTH DAKOTA
WATER PERMIT NO. 7448-3**

Date of first receipt of application October 3, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7448-3 to Robert Heckenlaible, 43380 285th St, Freeman SD 57029 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. 7448-3 appropriates 6.67 cubic feet of water per second from one well to be completed into the Niobrara Aquifer (120 feet deep) located in SW 1/4 SE 1/4 Section 36 for irrigation of 560 acres located in the E 1/2, SW 1/4, S 1/2 NW 1/4 Section 36; all in T98N-R57W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 1.
3. The date from which applicant may claim right is October 3, 2012.
4. The date of approval of Permit No. 7448-3 is December 31, 2012.
5. One-fifth of the construction is to be completed on or before June 30, 2015.
6. All construction is to be completed on or before December 31, 2017.
7. Water is to be put to beneficial use on or before December 31, 2021.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 17 2013
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 120'
- b) Casing Type pvc Diameter 16" Thickness 1/2"
- c) Screen Type none Diameter _____ Thickness _____
- d) Gravel Pack none Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 57'
- f) Depth to Water (ground surface to water level) 26'
- g) Distance to nearest existing domestic well:
- On applicant's property 700 ft On property owned by others 1 1/4 miles

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

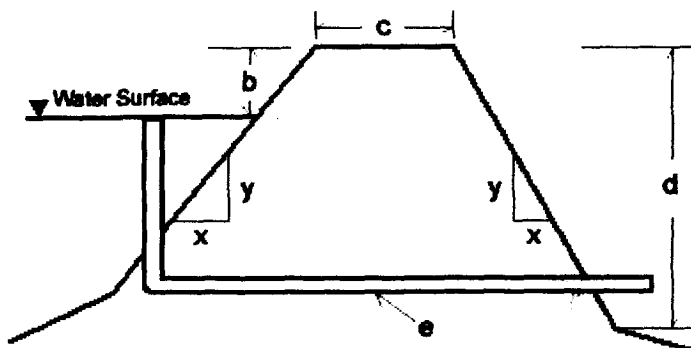
3. Dugout Information

- 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

<u>Land Owner</u>	<u>Land Description</u>	<u>Acres</u>
Robert & Stephanie Heckenlaible		
43380 285 th st	NE ¼ of NE ¼ of 36-T98N-R57W	40A
Freeman, SD 57029	SE ¼ of 36-T98N-57W	160A

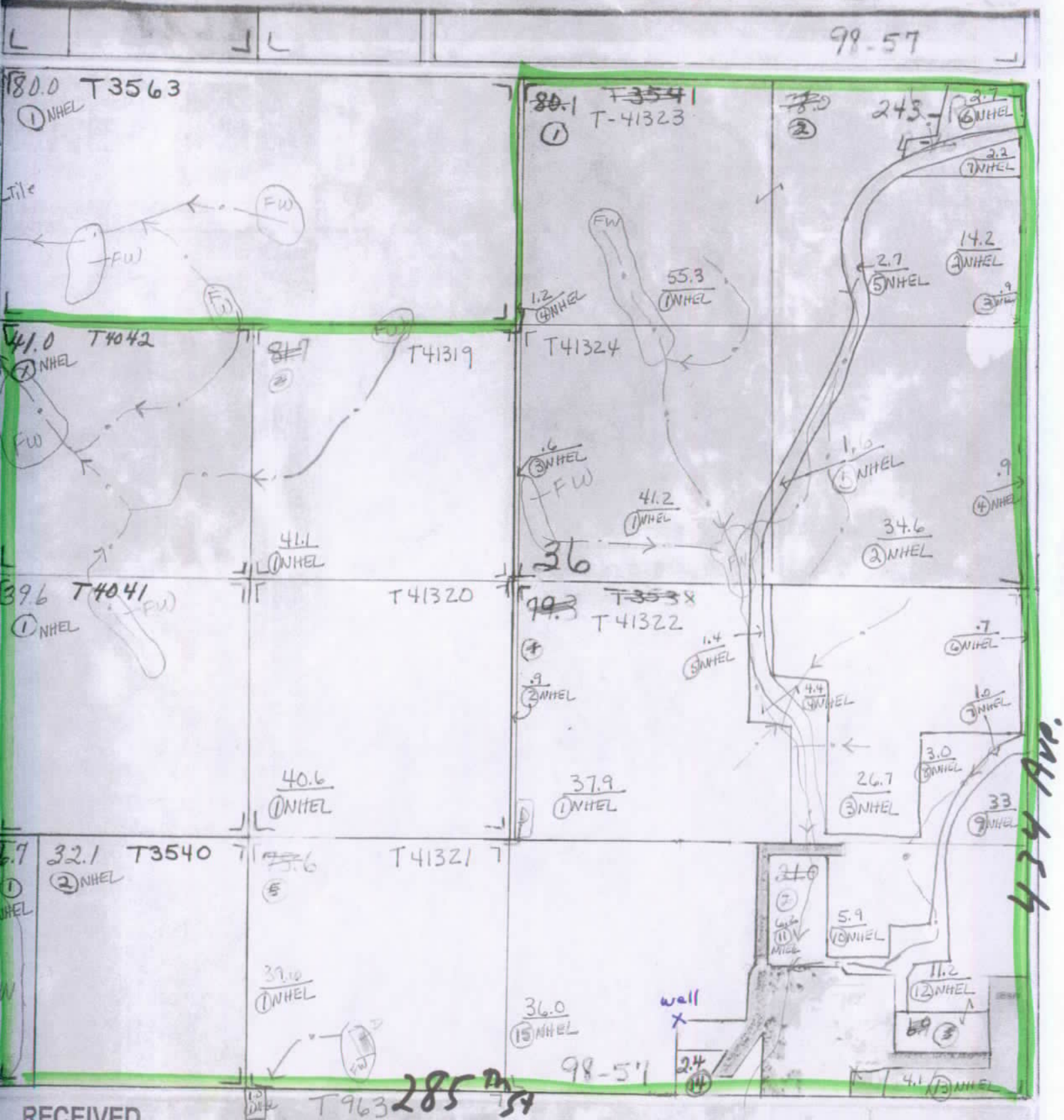
Glenn & Velda Heckenlaible	S ½ of NE ¼ of 36-T98N-R57W	80A
551 Park st. Box 461	N ½ of SW ¼ of 36-T98N-R57W	80A
Menno, SD 57045	SE ¼ of SW ¼ of 36-T98N-R57W	40A

Elmer & Verna Zeeb	S ½ of NW ¼ of 36-T98N-R57W	80A
301 S. East st. Box 474	SW ¼ of SW ¼ of 36-T98N-R57W	40A
Menno, SD 57045		

Patricia Newman	NW ¼ of NE ¼ of 36-T98N-R57W	40A
PO Box 12275		
El Cajon, CA 92022		

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NOT TO SCALE



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WATER RIGHTS
PROGRAM

Robert A. Remondet
DC NRCS Parkersburg SD

1830 ft West
430 ft North
from SE corner
Sect 36 98-57



United States Department of Agriculture Farm Service Agency



South Dakota Hutchinson County

Farm Number
6837

Township-Range-Section
98N57W36

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Legend

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions
- CLU Field Boundary
- Tract Boundary



1:8,458

USDA FSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or the 2006 ortho rectified imagery for South Dakota. The producer accepts the data "as is" and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs. Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Apr 30, 2009



The Leader in Precision Irrigation

Number of Spuns: 11.
Total radius with overhang: 1976 feet.
Total Coverage: 305.49 acres.

5764800 Total GA

Prepared by:

Heine Electric and Irrigation, Inc.

For:

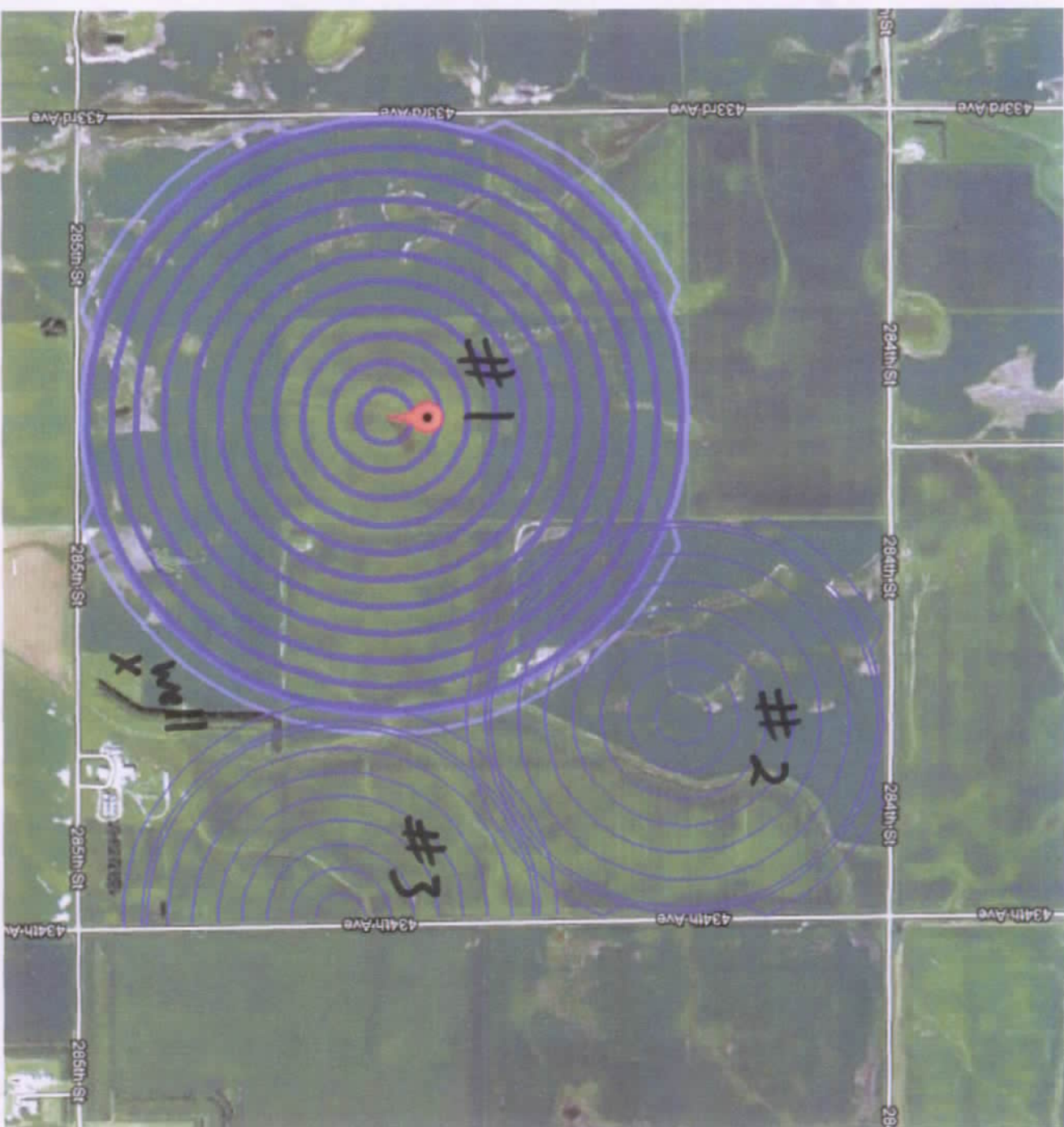
Robert Heckemlaible West Machine

Questions or concerns? Please call us at 402-640-1999!

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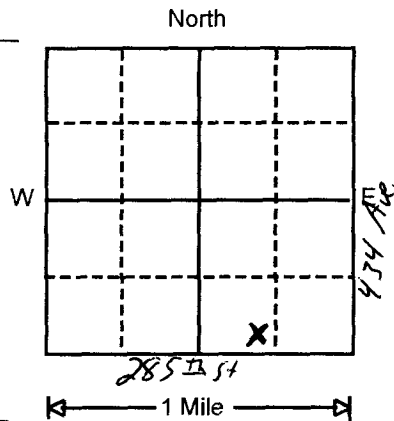
OCT - 3 2012

WATER RIGHTS
PROGRAM



SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SE 1/4 Sec 36 Twp 98N Rg 57WCounty HutchinsonPlease mark well
location with an "X"

Well Completion Date

September 19, 2012

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1,000.0 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
If other describe 40 PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	57.0 FT	24.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bent.	20	6.9 Lb/gal	0.0 Ft	57.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Kenn Method

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information Open Bottom

WAS A PACKER OR SEAL USED?

☒ Yes ☐ No
If so, what material? Plastic

Describe packer(s) and location

Plastic external ring at 57 feet

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? HTH in water
☐ No, Why Not?
Lab to which water
quality sample sent for analysisNoneWell Owner: Robert Heckenlaible

Business Name: _____

Address: 43380 285 St.City, State, Zip: Freeman SD 57029

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	3
brown clay	3	30
blue clay	30	45
sand	45	46
blue clay	46	53
shale	53	55
soft chalk	55	65
chunky or hard chalk	65	95
hard yellow chalk that took water	95	120

STATIC WATER LEVEL 26.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow 1,500.0 through _____ Inch pipeControlled by ☐ Valve ☒ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: Pumped at 1500 gpm for 1 hour
☐ Bailed

☐ Other

Pumping Level Below Land Surface

26.0 Ft. After 1.0 Hrs. pumped 1,500.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED**OCT - 3 2012**This well was drilled under license # 773 and this report is true and accurate.Drilling firm: Quality Well Service, Yankton SD

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

Date: 10-02-2012

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/3, 20 12

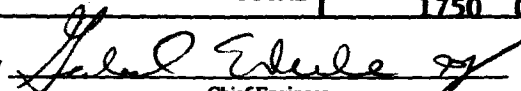
RECEIVED OF Robert Heckenliable 43380 285th St Freeman SD 57029

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

Fee for Application for Permit No. <u>7448-3</u> to Appropriate Water, to construct and to put water to beneficial use	1550	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>7448-3</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	1750 00

No. **05604**

By


Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

September 19, 2012

Robert Hechenlaible
43380 285th Street
Freeman, SD 57029

Dear Mr. Hechenlaible:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to construct a test well into the Niobrara aquifer in the SW¼ SE¼ Section 36, T98N-R57W, prior to approval of a water permit. The test well must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application; and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit.

Very truly yours,

GARLAND ERBELE, Chief Engineer
Water Rights Program
(605) 773-3352

Buhler, Ken

From: Gronlund, Eric
Sent: Tuesday, September 18, 2012 2:54 PM
To: Buhler, Ken
Subject: FW: Irr. Well
Attachments: rob_heck.pdf

Mr Huber had called about drilling a test well prior to obtaining a permit and subsequently sent this email. Eric

From: Dave H [<mailto:skyhawk5346@hotmail.com>]
Sent: Tuesday, September 18, 2012 2:38 PM
To: Gronlund, Eric
Subject: Irr. Well

Eric.

I would Like to drill an irrigation test well located in the South West Quarter of the South East Quarter of 98N 57W section 36 of Kassel township in Hutchinson County. The well will be approximately 180 feet deep in the Niobrara Formation. I have attached a map in pdf format with the location marked on it.
I am the owner and operator of this property. If I find sufficient water for irrigation I will apply for a permit to appropriate water for irrigation at a later time. Please CC Dave Huber with any emails and please reply to let me know that you received this email. Dave's email is skyhawk5346@hotmail.com

Thank you
Robert Heckenlaible
605-770-0619
robheck@gwtc.net

Aerial Map



map center: 43° 15' 34.04, 97° 31' 35.87

scale: 10215

36-98N-57W
Hutchinson County
South Dakota



9/18/2012

Maps provided by:



©AgriData, Inc. 2012

www.AgriDataInc.com

Field borders provided by Farm Service Agency as of 5/21/2008. Aerial photography provided by Aerial Photography Field Office.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 10, 2012

TO: Glenn & Velda Heckenlaible
Elmer & Verna Zeeb
Patricia Newman

FROM: Gail Jacobson, Secretary for Water Rights (DENR)

RE: Water Permit Application for Ron Heckenlaible # 7448-3

Mr. Ronald Heckenlaible informed our Department when he was applying for this Water Permit that you were also owners of the land to be irrigated. I have enclosed a copy of the notice that will be published in the Freeman Courier and the Daily Press & Dakotan on December 19, 2012.

If you have any questions, please don't hesitate to contact our office at (605) 773-3352.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7448-3, Robert Heckenlaible**

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. 7448-3, Robert Heckenlaible, 43380 285th Street, Freeman SD 57029.

The Chief Engineer is recommending APPROVAL of Application No. 7448-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
December 7, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7448-3
ROBERT HECKENLAIBLE
DECEMBER 7, 2012

Water Permit Application No. 7448-3 proposes to appropriate up to 1,120 acre-feet annually (ac-ft/yr) at a maximum diversion rate of 6.67 cubic feet of water per second (cfs) from one well to be completed into the Niobrara aquifer. The well is expected to be 120 feet deep and is expected to be located in SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 36-T98N-R57. The water will be used to irrigate 560 acres located in E $\frac{1}{2}$, SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 36; all in T98N-R57W in Hutchinson County.

AQUIFER: Niobrara aquifer (NBRR)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Niobrara aquifer is a bedrock aquifer that underlies approximately 729 square miles (466,560 acres) of Hutchinson and Turner Counties and contains an estimated 7,000,000 ac-ft of water in storage (Lindgren and Hansen, 1990). The aquifer is primarily composed of "a fractured, calcareous marl, interbedded with calcareous claystone and is referred to as "chalkrock" by local drillers" (Lindgren and Hansen, 1990). The Niobrara is not present in the bedrock channels occupied by the Choteau, Lower James Missouri, and the Upper Vermillion Missouri aquifers (Lindgren and Hansen, 1990). The aquifer is at or near land surface in northeastern Hutchinson County, and up to 510 feet below grade in southwestern Hutchinson County, near the proposed well location (Lindgren and Hansen, 1993). Generally, the aquifer thickness is less than 100 ft, but in the area of this application thickness can range from 150 to 210 ft, and may be up to 370 ft thick in southwestern Hutchinson County (Lindgren and Hansen, 1990). The aquifer is primarily under confined conditions. The test hole log included with this application indicates clay from the surface to 53 ft below grade, shale from 53 to 55 ft and chalk (Niobrara formation) from 55 to 120 ft below grade. The static water level in the test hole was 26 ft below grade.

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 existing rights from the aquifer.

WATER AVAILABILITY:

This application proposes to appropriate 1,120 ac-ft/yr from the Niobrara aquifer. Actual water use, if this application is approved, will likely be less than 1,120 ac-ft/yr. The probability of unappropriated water 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."

Recharge versus Discharge:

Recharge:

Recharge to the Niobrara aquifer is from (1) direct infiltration of precipitation on the outcrop, (2) possibly from fractures in the Sioux Quartzite, and (3) by leakage from till (Lindgren and Hansen, 1990). Hedges and others (1985) stated,

“The Niobrara Formation, Codell Sandstone, Inyan Kara Group, and Madison Group have such high storage and low use that it is unlikely that use is approaching or exceeding recharge. Furthermore, there is no evidence of significant head loss in any of these aquifers over the years that would suggest that use is exceeding recharge.”

Discharge:

Discharge from the Niobrara aquifer is through natural discharge to adjacent till, streams and rivers where the aquifer is near the surface, and from well withdrawals (Lindgren and Hansen, 1990). The Niobrara aquifer may have a hydrologic connection to the Lower James Missouri aquifer, Upper Vermillion Missouri aquifer, and Dolton aquifer. Water levels indicate that there is a potential for water movement from the Niobrara to glacial aquifers.

Well withdrawals from the Niobrara aquifer are for domestic, irrigation, municipal, and stock watering purposes. There are 58 water rights/permits appropriating water from the Niobrara aquifer in South Dakota (Water Rights, 2012b). There are 27 appropriations authorized for non-irrigation purposes (Water Rights, 2012b). While irrigation pumpage has remained fairly constant, much of the rural domestic, municipal and livestock use from the aquifer has been replaced by rural water since 1985 and current pumpage from the aquifer is expected to be comparable to the 1985 rate (Buhler, 2012). Lindgren and Hansen (1990) estimated total water pumping for 1985 in Hutchinson and Turner Counties to be 552.4 ac-ft. Estimated water use by non-irrigation appropriations are shown in table 1. A summary of irrigation water pumpage is shown in table 2.

Type	Number of Appropriations	Estimated Pumpage (ac-ft)
Municipal	11	1972.1
Non-Municipal	16	615.5
Total	27	2587.6

Table 1- Estimated water use by non-irrigations appropriations from the Niobrara aquifer in South Dakota (Water Rights, 2012b)

	Permits Reporting	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
Min	17	1033.2	201.3
Max	24	11499.0	2172.1
Avg	20.9	7935.2	960.5

Table 2- Summary of irrigation water pumpage from the Niobrara aquifer in South Dakota (Water Rights, 1979-2012)

Observation Well Data:

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

The DENR-Water Rights program monitors 55 observation wells completed into the Niobrara aquifer with 14 being in Hutchinson and Turner Counties (Water Rights, 2012a). The four nearest observation wells, HT-83F, TU-81A, HT-81C, and HT-82D, are all within approximately 10 miles of the proposed well location. Water levels in all four observation wells respond to climatic conditions; rising (recharging) during wet periods, and declining during dry periods. Well withdrawals and decreasing recharge during 2012 have lowered water levels, especially in HT-83F. This is most evident in the hydrograph for observation well HT-83F. The higher water levels than pre-1985 and the generally increasing water levels post-1985 show that there is a reasonable probability that unappropriated water is available for this proposed appropriation. In addition, the effects of climate mask the temporal effects of well withdrawals. Figures 1, 2, 3, and 4 show the hydrographs for observation wells HT-83F, TU-81A, HT-81C, and HT-82D, respectively. The sudden increase in the water level of observation well HT-83F in 1995 is where the observation well went from being under water table conditions to being under artesian conditions.

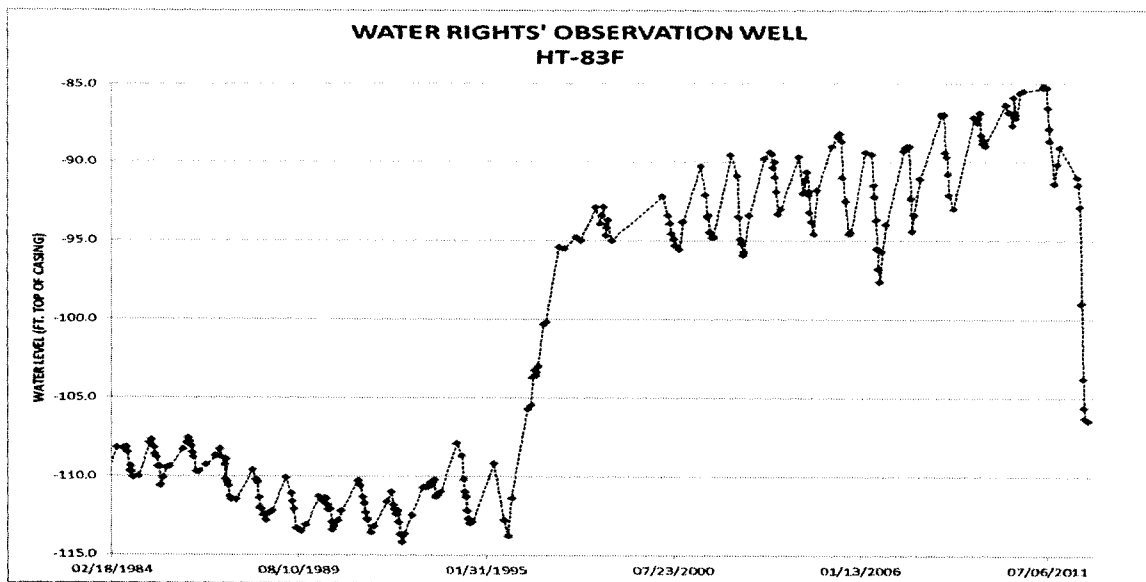


Figure 1- Hydrograph of HT-83F, approximately 6.4 miles northeast of the proposed well location (Water Rights, 2012a).

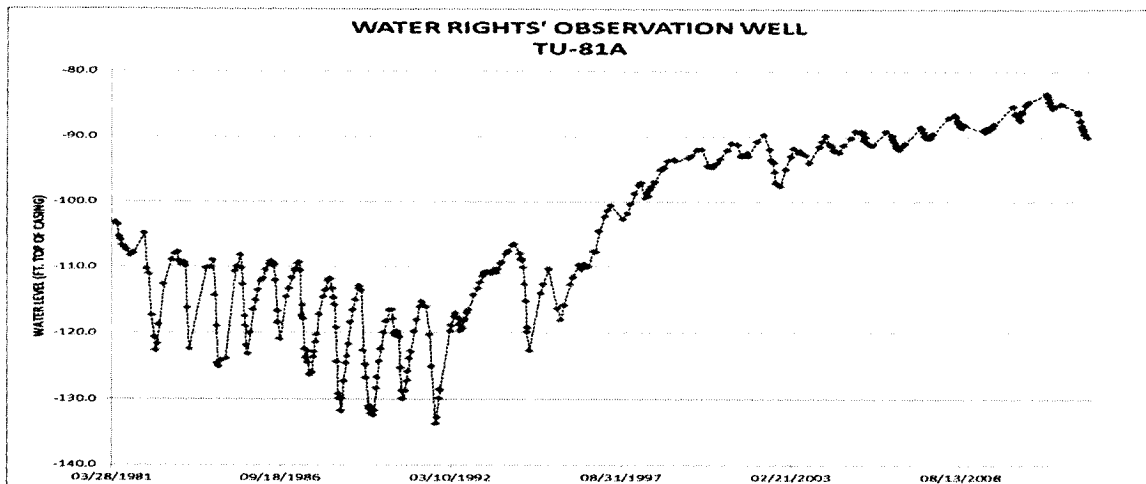


Figure 2- Hydrograph of TU-81A, approximately 9.4 miles northeast of the proposed well location (Water Rights, 2012a).

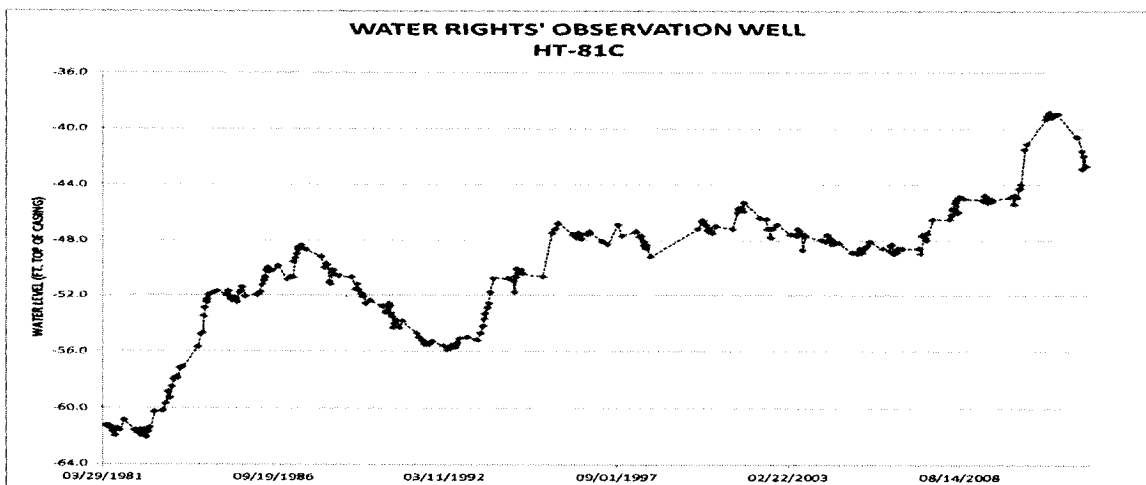


Figure 3- Hydrograph of HT-81C, approximately 8.9 miles north-northwest of the proposed well location (Water Rights, 2012a).

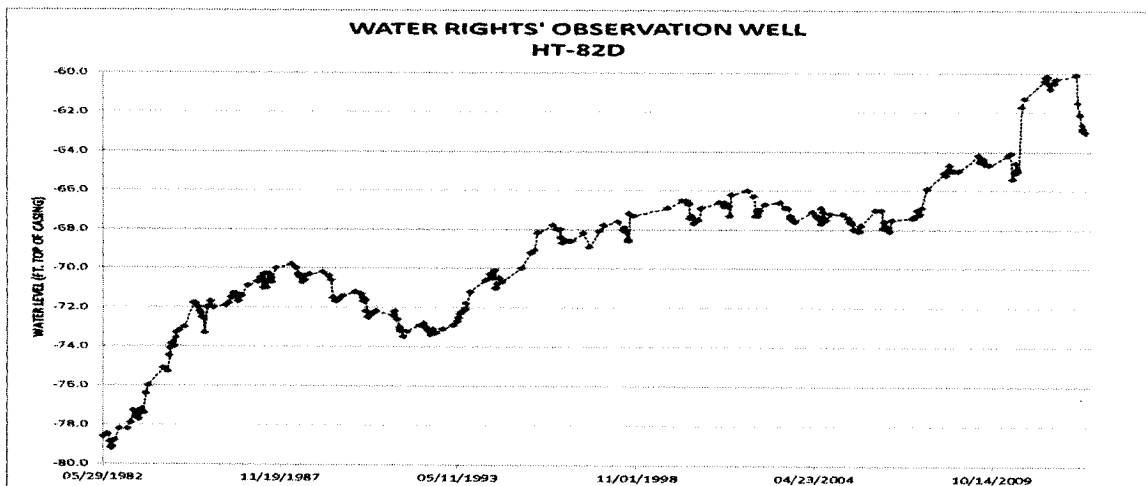


Figure 4- Hydrograph of HT-82D, approximately 10.0 miles north-northwest of the proposed well location (Water Rights, 2012a).

EXISTING WATER RIGHTS:

There are 58 water rights/permits appropriating water from the Niobrara aquifer in South Dakota (Water Rights, 2012b). Eight of those water rights/permits are in Hutchinson County and one is in northern Yankton County (the only water rights within approximately 10 miles of this application). The water rights/permits from Hutchinson and Yankton Counties within approximately 10 miles of the proposed well location are shown in table 3 and figure 5.

Permit No.	Name	County	Status	Type	CFS	Acres
5239-3	City of Freeman	HT	LC	MUN	0.33	N/A
5764-3	Freeman Area Golf Course	HT	LC	IRR	0.24	27.5
5913-3	Roger L. Schmidt	HT	LC	IRR	0.77	123
6524-3	Freeman Jr. College & Freeman Academy	HT	LC	INS	0.07	N/A
6706-3	Pheasant Run Farm	HT	PE	COM	0.1	N/A
6708-3	David W. Huber	HT	PE	IRR	2.44	280
6891-3	Munkvold Land & Cattle Co.	YA	PE	COM	0.333	N/A
7344-3	Michael Schultz	HT	PE	IRR	5.33	399
810-3	City of Freeman	HT	LC	MUN	1.26	N/A

HT= Hutchinson, YA= Yankton, LC= Water Right, PE= Water Permit, MUN= Municipal, IRR= Irrigation, INS= Institutional, COM= Commercial, N/A= Not Applicable

Table 3- Water rights/permits appropriating water from the Niobrara aquifer within approximately 10 miles of the proposed well location (Water Rights, 2012b).



Figure 5- Water rights/permits and observation wells in the area of the proposed well location (Water Rights, 2012a and 2012b)

Specific aquifer characteristics are not available at the proposed well location. Since the Niobrara is an artesian aquifer drawdown may extend quite far from the pumped well. Figure 1, the hydrograph for HT-83F, documents the well interference from the City of Freeman's pumping approximately 1.25 miles from the observation well. The well supplying water for Water Permit No. 6708-3 is the nearest well at 1.4 miles southeast of the proposed well site (figure 5). In addition to the appropriative rights, there are a number of well completion reports on file with the DENR-Water Rights Program for domestic wells completed into the Niobrara aquifer (Water Rights, 2012c). It may be possible that drawdown from this proposed appropriation may be measurable in the domestic wells and in the well that supplies Water Permit No. 6708-3.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. In order to balance interests between irrigation use and delivery of by artesian pressure 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"

Depending on the specific characteristics of the Niobrara aquifer at the well site proposed by this application, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However when considering the statute (SDCL 46-6-6.1) and rule (ARSD 74:02:04:20(7)), well interference from the proposed appropriation is not likely to cause a significant impact. Therefore, there is a reasonable probability that any interference will not be adverse.

CONCLUSIONS:

1. This application proposes to appropriate up to 1,120 ac-ft annually for the irrigation of 560 acres at a maximum diversion rate of 6.67 cfs. The amount of water that will actually be used is expected to be less than the 1,120 ac-ft annually.
2. This application proposes to withdraw water from the Niobrara aquifer.
3. There is a reasonable probability that unappropriated water is available from the Niobrara aquifer for this proposed appropriation.
4. There is a reasonable probability that the diversion requested by this application can be made without adversely impacting existing water rights or domestic wells.


Adam Mathiowetz
Natural Resources Engineer

REFERENCES:

- Buhler, K. 2012. "Water Permit Application No. 7344-3 Report". SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- 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. South Dakota DENR-Geological Survey, Vermillion, SD.
- Lindgren, R.J. and D.S. Hansen. 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey, Huron, South Dakota.
- Lindgren, R.J. and D.S. Hansen. 1993. Major aquifer in Hutchinson and Turner Counties, South Dakota. SD DENR-Geological Survey, Vermillion, South Dakota.
- Water Rights, 1979-2012. "Irrigation Report Summaries". SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012c. Water Well Completion Report. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

AFFIDAVIT OF PUBLICATION

RECEIVED

County of Hutchinson)

DEC 21 2012

WATER RIGHTS
PROGRAM

) ss.

State of South Dakota)

Tim L. Waltner, of said county and state, being sworn, on his oath, deposes and says: That the Courier is a weekly newspaper of general circulation and a legal newspaper as required by law, printed and published in the town of Freeman in said county by Tim L. Waltner, and has been such newspaper during the time hereinafter mentioned: That I, Waltner, 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 is headed **Appropriate Water**

a printed copy of which is hereto attached, was published in the said newspaper for one week and issues to-wit:

The first publication on:
December 19, 2012

the second publication on:

and the third publication on:

That the full amount of the fees charged for publication of the same to-wit: The sum of **\$23.44** insures so benefit of the publisher of the Freeman Courier agreement or understanding for any division thereof has been made with any other person whomsoever. The amount of **\$23.44** is the rate for publishing legal notices.

NOTICE OF APPLICATION NO. 7448-3 to Appropriate Water

Notice is given that Robert Heckenlaible, 43380 285th St., Freeman SD 57029 has filed an application for a water permit to appropriate 6.67 cubic feet of water per second from one well to be completed into the Niobrara Aquifer (120 feet deep) located in SW 1/4 SE 1/4 Section 36 for irrigation of 560 acres located in the E 1/2, SW 1/4, S 1/2 NW 1/4 Section 36; all in T98N-R57W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7448-3 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

Any person interested in opposing or

supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by December 31, 2012.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total
approximate cost of \$23.44
1-37FC

Tim L. Waltner

Subscribed and sworn to before me this 19th day of December 2012.

Linda [Signature]

Notary Public
Commission expires: 10/9/18

Publication fee: **\$23.44**
Notary fee:
Total: **\$23.44**

RECEIVED

DEC 26 2012

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Application No. 7448-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 19th DAY OF December 2012
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$24.82 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 12/19/2012

FILED ON: 12/19/2012

SUBSCRIBED AND SWORN TO BEFORE ME THIS 19th DAY OF December

2012

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

Notice is given that Robert Heck-
enlaible, 43380 285th St, Freeman
SD 57029 has filed an application
for a water permit to appropriate
6.67 cubic feet of water per sec-
ond from one well to be com-
pleted into the Niobrara Aquifer
(120 feet deep) located in SW 1/4
SE 1/4 Section 36 for irrigation of
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in T98N-R57W.

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water is available, 2) existing
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mended, unless a petition is filed
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applicant files a petition contest-
ing the Chief Engineer's recom-
mendation. If a petition opposing
the application or contesting the
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ten petition with BOTH the appli-
cant and Chief Engineer. The ap-
plicant must file a petition if con-
testing the Chief Engineer's rec-
ommendation. The Chief Engi-
neer'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 inter-
ested person or the applicant must
be filed by December 31, 2012.

The petition may be informal, but
must include a statement describ-
ing the petitioner's interest in the
application, the petitioner's rea-
sons for opposing or supporting
the application, and the signature
and mailing address of the peti-
tioner or the petitioner's legal
counsel, if legal counsel is ob-
tained. Contact Eric Gronlund at
the above Water Rights Program
address to request copies of infor-
mation pertaining to this applica-
tion. Steven M. Pirner, Secretary,
Department of Environment and
Natural Resources.

Published once at the total ap-
proximate cost of \$24.82.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 10, 2012

Freeman Courier
PO Box 950
Freeman SD 57029

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7448-3 to Appropriate Water. Please publish the notice once on December 19, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Robert Heckenlaible, 43380 285th St., Freeman SD 57029 (Ph # 605-770-0619).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 10, 2012

Daily Press & Dakotan
319 Walnut
Yankton SD 57078

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.

December 10, 2012

Robert Heckenlaible
43380 285th St
Freeman SD 57029

Dear Mr. Heckenlaible:

Water Permit Application No. 7448-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Freeman Courier printed at Freeman SD (Ph # 605-925-7033) and the Daily Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). 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.

Instruction to Newspaper - Publish the Notice on December 19, 2012. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

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Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

JAN 17 2013

Robert Heckenlaible
43380 285th St
Freeman SD 57029

Dear Mr. Heckenlaible:

Enclosed is Water Permit No. 7448-3 authorizing construction of your 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

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**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

February 8, 2022

Robert Heckenlaible
43380 285th Street
Freeman SD 57029

Dear Mr. Heckenlaible:

Last September the Water Rights Program received a complaint that two domestic wells were being adversely impacted by irrigation pumping. These wells are located southwest of Freeman in Hutchinson County where you hold a water right for irrigation. The water source for the domestic wells and area irrigators is the Niobrara aquifer.

At that time, the Water Rights Program contacted several irrigators who willingly cooperated to shut off their irrigation system for a week in an effort to assess whether that provided relief for the domestic well owners. Timely rains and the end of the irrigation season meant many irrigation systems were not operated again.

As we approach another irrigation season, I want to make you aware of water rights law regarding impairment of adequate domestic wells and steps being taken to monitor the aquifer in your area.

Water Rights law states that the use of water for domestic purposes is the highest use of water and takes precedence over all appropriative rights. As such, water rights from groundwater, including yours, are issued with the following qualification.

The well approved under this Permit is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

The Water Management Board in prior rulings has stated that if pumping from a water source appropriated by a water right/permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. The Board has found that state law in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing material; subject to compliance with the minimum requirements for an adequate well as defined by the South Dakota well construction standards.

Based on the well completion reports, the two domestic wells in question meet the adequate well definition. Therefore, if water levels decline in the Niobrara aquifer such that the domestic wells cannot attain their needed water supply, appropriative water right holders may need to limit or cease their withdrawals.

To monitor the Niobrara aquifer's water levels in this area, the Water Rights Program is working in conjunction with the South Dakota Geological Survey to drill additional observation wells into the Niobrara aquifer in your area. Once in place, these observation wells will provide water level readings on how the aquifer fluctuates in response to pumping and climatic conditions.

In addition, your existing Water Permit No. 7448-3 is due for a site visit for the purpose of licensing the permit to reflect the level of development. This spring you may be contacted by Water Rights Program staff to schedule this site visit.

While I am unable to predict the precipitation this upcoming year, we are currently dry in South Dakota. Therefore, I am reaching out to make you aware of this potential situation if the drought continues and the steps being taken to monitor the aquifer.

Please feel free to contact me if you have questions.

Sincerely,



Eric Gronlund, Chief Engineer
Water Rights Program, DANR
605 773-3352
eric.gronlund@state.sd.us

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 7448-3**

I have this day, March 2, 2022, made a thorough examination of the water use system constructed by Robert Heckenlaible, 43380 285th St., Freeman, SD 57029, holder of Permit No. 7448-3, bearing the priority of October 3, 2012, authorizing the diversion of 6.67 cu. ft. per second of the waters of groundwater (Niobrara Aquifer) for the irrigation of 560 acres located in Hutchinson County.

Inspection contacts: Robert Heckenlaible

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Quality Well Service
- 2) No. of Wells: 1
- 3) Depth(s): 120 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 57 feet
- 3) Type: Plastic

Screen:

- 1) Type: Open hole in the shale chalk
- 2) Static water level: 26 feet

Pump:

- 1) Make: BW
- 2) Model: 10RKHC
- 3) Capacity: 1,500 GPM

Motor:

- 1) Make: Franklin
- 2) Model No.: Unknown
- 3) Horsepower rating: 100 hp

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

- 1) Type: PVC
- 2) Size: 12 inches
- 3) Length: 2,320 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make: Valley
- 2) Overall length: 1,972 feet
- 3) Number of towers: 11
- 4) End gun: Yes
- 5) Capacity: 1,500 GPM

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: **Yes**
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: **Yes**
- 3) 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:
The well is 1,790 feet west and 330 feet north of the southeast corner of Section 36-T98N-R57W (Latitude 43.25671, Longitude -97.52547 – SW1/4 of the SE1/4).
2. The works are capable of diverting and conveying to the place of use **3.34** cu. ft. per second of water which is to be used for **irrigation purposes**. Water has been put to beneficial use to the maximum extent as follows:

All in Section 36-T98N-R57W

<u>SW1/4NW1/4</u>	<u>27 acres</u>
<u>SE1/4NW1/4</u>	<u>40 acres</u>
<u>NW1/4SW1/4</u>	<u>40 acres</u>
<u>NE1/4SW1/4</u>	<u>40 acres</u>
<u>SW1/4SW1/4</u>	<u>26 acres</u>
<u>SE1/4SW1/4</u>	<u>40 acres</u>
<u>SW1/4NE1/4</u>	<u>26 acres</u>
<u>NW1/4SE1/4</u>	<u>40 acres</u>
<u>SW1/4SE1/4</u>	<u>24 acres</u>
<u>NE1/4SE1/4</u>	<u>1 acre</u>

comprising a total of **304** acres of land and the license should be issued for **3.34** cfs.

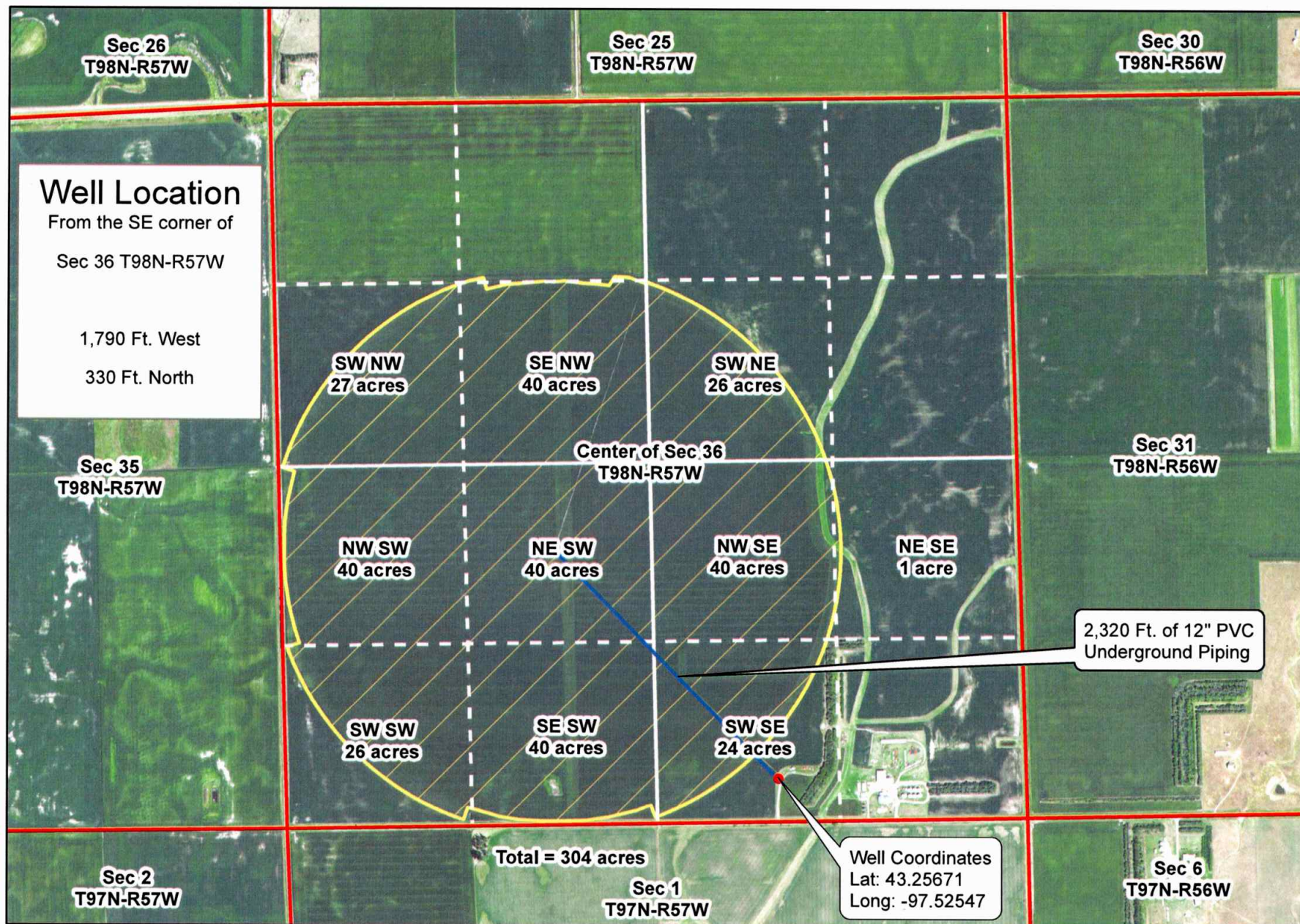
3. All structures, wells and lands on map: **Yes**

F. Comments or other permit(s) associated with the project: Mr. Heckenlaible did not construct the two pivots in the east half of the section. He understands that he will need to apply for a new water permit if he decides to construct those pivots in the future. The pump and motor information was obtained from Sam Heine Well Co., LLC.

Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: **March 3, 2022**

Water Right No. 7448-3



Keith DeJong

Keith DeJong, PE Ret.
March 3, 2022



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

7448-3

MAR 14 2022

Robert Heckenlaible
43380 285th St
Freeman SD 57029

Dear Mr. Heckenlaible:

Enclosed is Water License No. 7448-3. 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.

As 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. 7448-3**

(1) Robert Heckenlaible, 43380 285th St, Freeman SD 57029 made Application No. 7448-3, October 3, 2012 for a water permit to divert 6.67 cubic feet of water per second from ground water, one well (Niobrara Aquifer), Hutchinson County, South Dakota for irrigation purposes. Permit No. 7448-3, with a priority date of October 3, 2012, was approved December 31, 2012, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before December 31, 2017, and for the application to beneficial use of water on or before December 31, 2021.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 3.34 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,790'W and 330'N of the SE corner of Section 36, T98N, R57W (SW $\frac{1}{4}$ SE $\frac{1}{4}$)
Latitude 43.25671, Longitude -97.52547

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 36, T98N, R57W			
SW $\frac{1}{4}$ NW $\frac{1}{4}$	27 acres	SW $\frac{1}{4}$ NE $\frac{1}{4}$	26 acres
SE $\frac{1}{4}$ NW $\frac{1}{4}$	40 acres		
NW $\frac{1}{4}$ SW $\frac{1}{4}$	40 acres	NW $\frac{1}{4}$ SE $\frac{1}{4}$	40 acres
NE $\frac{1}{4}$ SW $\frac{1}{4}$	40 acres	SW $\frac{1}{4}$ SE $\frac{1}{4}$	24 acres
SW $\frac{1}{4}$ SW $\frac{1}{4}$	26 acres	NE $\frac{1}{4}$ SE $\frac{1}{4}$	1 acre
SE $\frac{1}{4}$ SW $\frac{1}{4}$	40 acres		
Total 304 acres			

(4) Pursuant to South Dakota Water Law 46-5-30.1 Robert Heckenlaible, 43380 285th St, Freeman SD 57029 the holder and/or owner of Water Right No. 7448-3 is issued a license to appropriate water, the right to use 3.34 cubic feet of water per second from ground water, one well (Niobrara Aquifer) with a priority date of October 3, 2012, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7448-3 and subject to the following qualifications:

- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right 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.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

MAR 14 2022

date





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

July 20, 2022

NOTICE OF SHUTOFF ORDER

TO: Robert Heckenlaible
43380 285th St
Freeman, SD 57029

FROM:  Eric Gronlund, Chief Engineer
SD DANR, Water Rights Program

SUBJECT: Niobrara Aquifer Shutoff Order for Water Right No. 7448-3

Pursuant to South Dakota Codified Law (SDCL) 46-1-5(1), use of water for domestic purposes is the highest use of water and takes precedence over all appropriative rights. Consequently, your appropriative permit to use groundwater for irrigation was issued with the following qualification.

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.

We were notified on July 20, 2022, that two domestic wells located southwest of Freeman in Hutchinson county are no longer able to produce water from the Niobrara aquifer. These wells meet the adequate well definition and are afforded protection as domestic water use wells.

As noted in a letter to you dated, February 8, 2022, observation wells have been put into place to monitor water levels in the Niobrara aquifer near these domestic wells. Measurements from these monitoring wells confirm a significant decline in water level in the aquifer since measuring began in late June.

To protect this domestic use of water, the department is issuing you, and other nearby irrigators, shutoff orders. Specifically, your shutoff order pertains to Water Right No. 7448-3 for irrigation of 304 acres located in the SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 36; all in T98N-R57W. Effective immediately, no diversions of water under this Permit will be allowed for the remainder of the 2022 irrigation season unless notified otherwise by the Chief Engineer. This Order is being issued pursuant to SDCL 46-2-18 to ensure compliance with the above permit qualification.

If you have any questions, please contact me at (605) 773-3352. Thank you for your cooperation in this matter.

c: Ann Mines Bailey, Assistant Attorney General

CERTIFICATION

I hereby certify that on July 20, 2022, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated July 20, 2022 regarding Notice of Shutoff Order addressed as stated below:

WR No. 7344-3
MICHAEL SCHULTZ
43721 281ST STREET
FREEMAN SD 57029

WR No. 7700-3
DAVID HUBER
28419 431ST AVE
MENNO SD 57045

WR No. 7448-3
ROBERT HECKENLAIBLE
43380 285TH ST
FREEMAN SD 57029

WR No. 7683-3
ROGER GUTHMILLER
28752 435th AVE
MENNO SD 57045

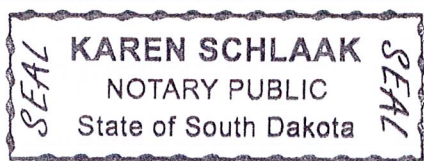
WR No. 7617-3
BRETT GUTHMILLER
28680 435TH AVE
MENNO SD 57045

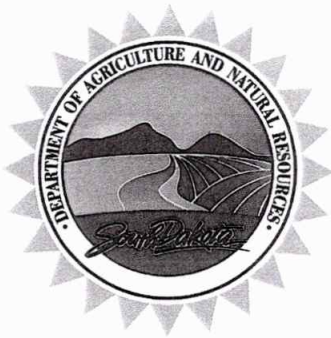

Vickie Maberry
Senior Secretary-Water Rights

[illegible]

Sworn to, before me, this 20 day of July, 2022.

Karen Schlaak
Karen Schlaak
Notary Public
My Commission expires April 1, 2025





7448-3

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

July 27, 2022

RESCISSION OF SHUTOFF ORDER

TO: Robert Heckenlaible
43380 285th Street
Freeman SD 57029

FROM: Eric Gronlund, Chief Engineer *Eric Gronlund*
SD DANR, Water Rights Program

SUBJECT: Recission of Niobrara Aquifer Shutoff Order for Water Right No. 7448-3

On July 20, 2022, a shutoff order was issued for Water Right No. 7448-3 to protect two adequate domestic wells located southwest of Freeman in Hutchinson County that were no longer able to produce water from the Niobrara aquifer. The domestic well owners rescinded their complaint on July 27th since agreement was reached in which they will be supplied water for the remainder of the 2022 irrigation season or until they are connected to rural water.

Therefore, the shutoff order is rescinded and you may resume irrigation as authorized by Water Right No. 7448-3.

The Water Rights Program intends to continue monitoring the two observation wells installed this spring. If there are additional domestic well complaints, the Water Rights Program will investigate. Please be aware future shutoff orders may be issued, if warranted, to protect the use of water for domestic purposes.

If you have any questions, please contact me at (605) 773-3352. Thank you for your cooperation in this matter.

c: Ann Mines Bailey, Assistant Attorney General

CERTIFICATION

The undersigned hereby certifies under the penalty of perjury that a true and correct copy of a Notice dated July 27, 2022, was served upon the following by enclosing the same in envelopes with first class postage prepaid and affixed thereto, and depositing said envelopes in the United States mail on July 27, 2022.

Michael Schultz 43721 281 st Street Freeman SD 57029	David Huber 28419 431 st Avenue Menno SD 57045
Robert Heckenlaible 43380 285 th Street Freeman SD 57029	Roger Guthmiller 28752 435 th Avenue Menno SD 57045
Brett Guthmiller 28680 435 th Avenue Menno SD 57045	Kerry Hofer Email: khofer@hotmail.com

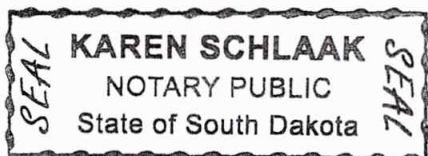
Above also Sent Inter-office to: Ann Mines Bailey, Assistant Attorney General
1302 East Highway 14, Suite 1
Pierre SD 57501-8501

Vickie Maberry
Vickie Maberry
Water Rights Program, DANR

[illegible]

Sworn to, before me, this 27th day of July, 2022.

Karen Schlaak
Karen Schlaak
Notary Public
My Commission expires April 1, 2025



7-26-22

RECEIVED

JUL 27 2022

OFFICE OF
WATER

I Dale Mehlhaf of 43465 283rd St. Freeman, SD 57029 and Twyla mehlhaf of 43543 284th. St. Freeman, SD 57029 are rescinding our complaints about the 2 domestic wells in question. Robert Heckenlaible is going to supply water for our needs for the rest of the 2022 irrigation season or until we have rural water hooked up, whichever comes first.

Dale Mehlhaf

7-26-22

Robert Heckenlaible

7-26-22

Twyla Mehlhaf

7-26-2022



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

October 28, 2022

Michael Schultz
43721 281st Street
Freeman SD 57029

Robert Heckenlaible
43380 285th Street
Freeman SD 57029

Roger Guthmiller
28752 435th Avenue
Menno SD 57045

Brett Guthmiller
28680 435th Avenue
Menno SD 57045

David Huber
28419 431st Avenue
Menno SD 57045

Gentlemen:

Hope you all are having a productive harvest! This letter is intended to discuss the past two irrigation seasons regarding drawdown from irrigation pumping adversely impacting two domestic wells in the area.

On July 20, 2022, shutoff orders were issued to water rights holders, including yourself, to protect two adequate domestic wells that were no longer able to produce water from the Niobrara aquifer in your area. The shutoff order was rescinded on July 27, 2022, upon agreement between the domestic well owners and local irrigators in which the domestic well owners were supplied water for the remainder of the 2022 irrigation season. Hauling water was viewed as a short term solution until a long term solution is in place.

The Water Rights Program monitored water levels in these two observation wells throughout the 2022 irrigation season. Attached is a hydrograph that shows water levels in the aquifer from June 22, 2022, through October 26, 2022. Also, attached is a map. Drawdown from irrigation pumping can be seen as well as water level recovery to the area once irrigation pumping ceased. Monitoring of water levels in these observation wells will continue.

A long term solution needs to be in place prior to the 2023 irrigation season or depending on weather and drawdown conditions of the aquifer shutoff orders may again need to be issued to protect the domestic wells. In addition, three pending water applications in the area seek to appropriate water from the Niobrara aquifer. One of the criteria to approve

an application is that the diversion can be developed without unlawful impairment of existing domestic water uses and water rights. Given the potential impact to these two domestic wells, this criteria can not currently be met in order to make a favorable recommendation until this situation is resolved.

The long term solution will take an effort on all your part to be successful. Please let the Water Rights Program know steps being taken and your progress to resolve this situation.

Sincerely,



Eric Gronlund, Chief Engineer

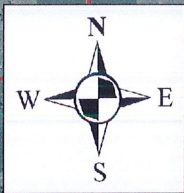
Water Rights Program, DANR

605 773-3352

eric.gronlund@state.sd.us

enclosure

c: Kerry Hofer, 27633 431st Avenue, Freeman SD 57029
Schultz Bros Dairy, c/o John Schultz, 28031 436th Avenue, Freeman SD 57029



98N 57W
Section: 01

98N 56W
Section: 06

7344-3
MICHAEL
SCHULTZ

7344-3
MICHAEL
SCHULTZ

7344-3
MICHAEL
SCHULTZ

HT-2022A

7700-3
DAVID
HUBER

7448-3
ROBERT
HECKENLAIBLE

HT-2022B

6708-3
DAVID
HUBER

6708-3
DAVID
HUBER

7617-3
BRETT
GUTHMILLER

7683-3
ROGER
GUTHMILLER

Menno

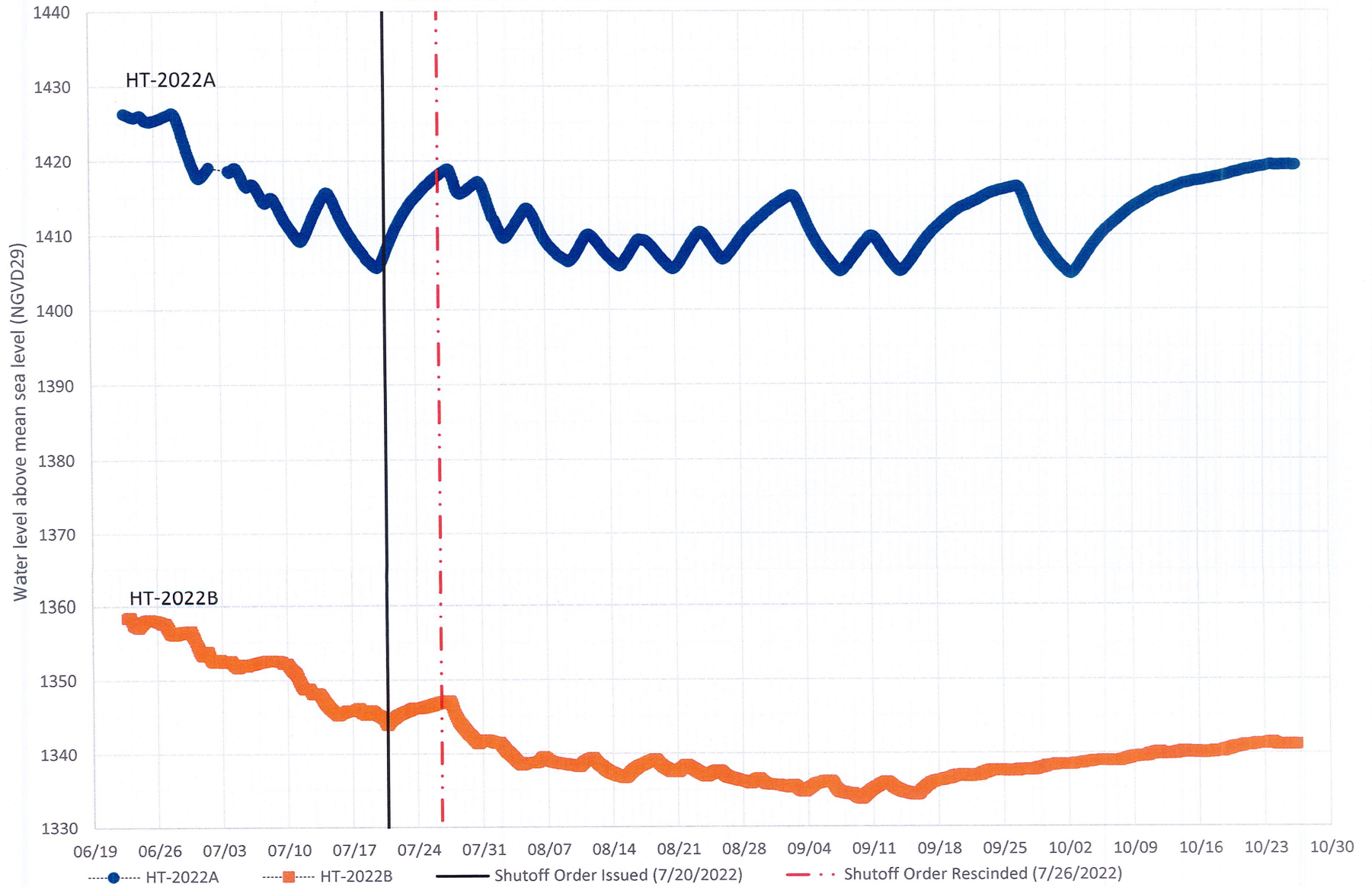
18

0 0.5 1 2 Miles



A.W. Mathiowetz
Oct. 27, 2022

DANR-Water Rights Program Niobrara Aquifer
Observation Wells Between Freeman and Menno





7344-3, 7700-3, 7448-3, 6708-3, 7617-3, 7683-3

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 4, 2023

Michael Schultz
43721 281st Street
Freeman SD 57029

Robert Heckenlaible
43380 285th Street
Freeman SD 57029

Roger Guthmiller
28752 435th Avenue
Menno SD 57045

Brett Guthmiller
28680 435th Avenue
Menno SD 57045

David Huber
28419 431st Avenue
Menno SD 57045

Gentlemen:

The enclosed letter was sent to all of you on October 28, 2022, regarding the progress to resolve the situation that occurred in your area during the past two irrigation seasons when irrigation pumping adversely impacted two domestic wells. To date, I have not received a response.

The Water Rights Program desires to have a solution in place prior to the 2023 irrigation season. If there is not a solution in place it is likely that shut off orders will again need to be issued.

Please let the Water Rights Program know steps being taken to resolve this situation.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program, DANR
605 773-3352
eric.gronlund@state.sd.us

enclosure

c: Kerry Hofer, 27633 431st Avenue, Freeman SD 57029
Schultz Bros Dairy, c/o John Schultz, 28031 436th Avenue, Freeman SD 57029