

WATER PERMIT NO. 8361-3

Name of Applicant: Mark A Hohn

Address: 40455 266th St, Ethan SD 57334 Phone: 605 770-5436

Amount of Water Claimed: 1.89 cfs Total Acres: 145 acres

Source of Water Supply: groundwater (one existing well)

Water to be used for: irrigation County: Davison

Type of Waste Disposal System:

Location: 7 miles west of Ethan

PRIORITY Date Received: 6-18-18 Application/License Fee: \$ 1050

Corrected Application Received: Period of Annual Use: April 1 – Sept 30

Remarks:

Diversion Point: SE 1/4 NE 1/4 Sec 26-T101N-
R61W

Land to be Irrigated: NW 1/4 Sec 26-T101N-
R61W

Depth of Well: 121 feet deep

Well Driller: Hammond-Wetmore

Remarks:

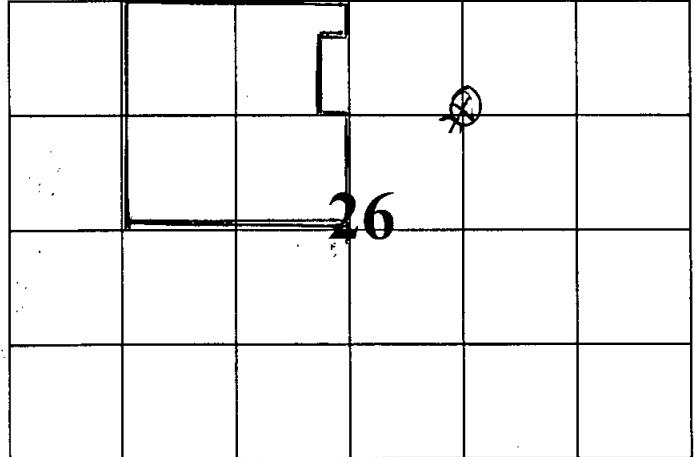
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 6-18-18

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 8361-3**

Date of first receipt of application June 18, 2018.

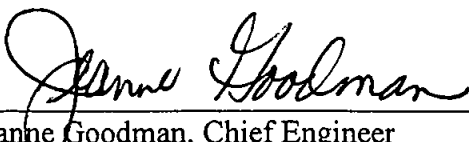
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8361-3 to Mark A Hohn, 40455 266th St, Ethan SD 57334 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8361-3 appropriates an additional 0.17 cubic feet of water per second (cfs) from one existing well completed into the Niobrara Aquifer (120 feet deep) located in the SE 1/4 NE 1/4 Section 26 and irrigation of 145 acres located in the NW 1/4 Section 26; all in T101N-R61W. The permit holder currently holds Water Permit No. 8019-3 appropriating 1.73 cfs from this well to irrigate 145 acres in the NE 1/4 Section 26-T101N-R61W. Water Permit No. 8019-3 and this permit will appropriate a total of 1.90 cfs from the well for irrigation of 290 acres. The project is approximately 7 miles west of Ethan SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is June 18, 2018.
4. The date of approval of Permit No. 8361-3 is September 10, 2018.
5. One-fifth of the construction is to be completed on or before March 10, 2021.
6. All construction is to be completed on or before September 10, 2023.
7. Water is to be put to beneficial use on or before September 10, 2027.
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 Permit Nos. 8019-3 and 8361-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control 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: 
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

SEP 13 2018

date



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

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8361-3</u> (office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>
	Newspaper <u>Daily Republic, Mitchell</u>

RECEIVED
JUN 18 2018
WATER RIGHTS
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 to Appear on Irrigation Permit Mark A. Hohn

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

Mailing Address 40455 266th Street Ethan SD 57334
(Address) (City) (State) (Zip Code)

Phone _____ Mobile 605-770-5436 Email _____

2. Amount of water claimed 0.17 *CFS or 75 add' 850 **GPM ***AF Total Acreage 145
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Niobrara Chalk Aquifer

4. Location of point of diversion 1 existing well in the SE 1/4 of NE 1/4 Section 26, T101n R61w;
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Davidson

5. County or counties where water will be used Davison

6. Annual period during which water is to be used April 1-September 30

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
NE 1/4, NW 1/4, Sect 26, T101nR61w	25		
SE 1/4, NW 1/4, Sect 26, T101nR61w	40		
SW 1/4, NW 1/4, Sect 26, T101nR61w	40		
NW 1/4, NW 1/4, Sect 26, T101nR61w	40		

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

Center pivot irrigation of the above listed property. Diversion rate above the statutory limit requested because of windshield wipe center pivot. Well will furnish water to both this requested appropriation and that already used by permit 8019-3

I, Mark A. Hohn Owner, the applicant, certify under
Name of Person Title (if applicable)

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

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 0 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Heine Electric & Irrigation, Inc.

For either Existing or Proposed Wells:

c) Well Depth (required) 121 Depth to Top of Water Bearing Material 39 Depth to Water from Surface 55d) Distance to nearest domestic well on applicant's property 1500' Property owned by others >2000'**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)

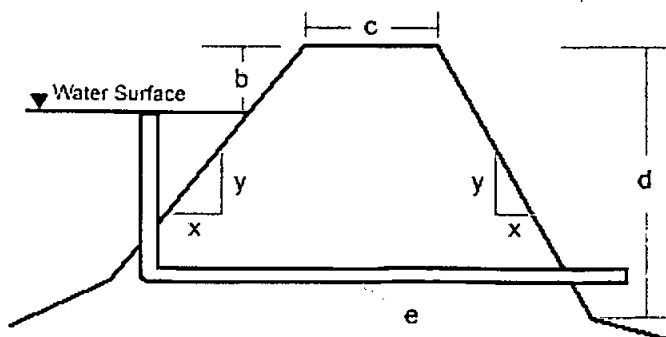
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





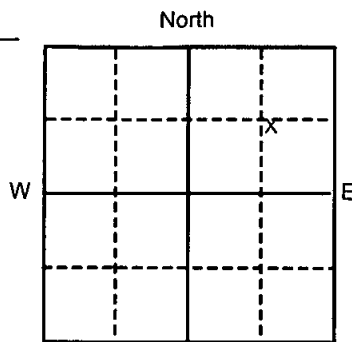
R.A. Arnold C.P.G. 9272

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ NE ¼ Sec 26 Twp 101N Rg 61W

County Davison

Please mark well
location with an "X"

Well Completion Date

April 28, 2014

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1,450.0 ft. from SEPTIC TANK (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well
METHOD OF DRILLING:
DIRECT ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	64.0 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
Bentonite	30	9.5 Lb/gal	0.0 Ft	64.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
TREMIE METHOD

SCREEN:

☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From _____ Feet to _____ Feet
 Other information OPEN HOLE FROM 64.0 FT TO 121.0 FT

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? HTH TABLETS

☐ No, Why Not?
 Lab to which water quality sample sent for analysis

Well Owner: MARK HOHN

Business Name:

Address: 40455 266 ST

City, State, Zip: ETHAN SD 57334

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOPSOIL	0	2
SILTY CLAY - TAN, PEBBLY	2	39
CHALK - GRAY	39	121

STATIC WATER LEVEL 55.0 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:☐ Bailed☐ Other

Pumping Level Below Land Surface

62.8 Ft. After 1.5 Hrs. pumped 500.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

This well was drilled under license # 666 and this report is true and accurate.

Drilling firm: HAMMOND-WETMORE DRILLING, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date June 18

, 20 18

Mark Hohn 40455 266th St Ethan, SD 57334-6001

RECEIVED OF

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

Fee for Application for Permit No. <u>8361-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8361-3</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	1050 00

No. 08763

By

Jeanne Goodman
Chief Engineer

zm

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Mark A Hohn

ADDRESS: 40455 266th Street, Ethan SD 57334 COUNTY: Davison County

DATE: June 18, 2018 TELEPHONE: 605 770-5436

RE: amount of water claimed

COMMENTS:

I contacted Mr. Hohn regarding the amount of water claimed on the application filed with DENR on June 18, 2018. The application claims 850 gallons per minute from the existing well completed into the Niobrara aquifer to irrigated 145 acres in the NW ¼ Section 26-T101N-R61W. This well is currently authorized by Permit No. 8019-3 appropriating 1.73 cfs (776 gpm) for irrigation of the NE ¼ of Section 26-T101N-R61W. I asked if this current application seeks 850 gpm in addition to the 776 gpm authorized by his current permit. Mr. Hohn stated that it is his intention that the well supply the two pivots authorized by No. 8019-3 and this application on an alternating basis. He believes the well produces 850 gpm which is 74 gpm greater than what is authorized by Permit No. 8019-3.

Mr. Hohn requested that I amend the application to request a 74 gpm increase in the diversion rate authority authorized for the well.

NAME: Eric Hohn



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8361-3, Mark A Hohn**

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. 8361-3, Mark A Hohn, 40455 266th Street, Ethan SD 57334.

The Chief Engineer is recommending APPROVAL of Application No. 8361-3 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 Permit Nos. 8019-3 and 8361-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control 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.

Jeanne Goodman, Chief Engineer
August 20, 2018

REPORT ON PERMIT APPLICATION NO. 8361-3

MARK A. HOHN

August 14, 2018

The applicant currently holds Water Permit No. 8019-3 appropriating 1.73 cfs from one well located approximately 7 miles west of Ethan SD in Davison County to irrigate 145 acres in the NE ¼ Section 26-T101N-R61W. Water Permit Application No. 8361-3 requests the appropriation of water for irrigation of an additional 145 acres with an increase in the maximum diversion rate of 0.17 cubic feet per second (cfs) from the same well as Water Permit No. 8019-3. The well is completed into the Niobrara aquifer with a depth of 120 feet and located in the SE ¼ NE ¼ Section 2 with the acres to be irrigated in the NW ¼ Section 26 all in T101N-R61W. Water Permit No. 8019-3 and this application, if approved, will appropriate a total of 1.90 cfs from the well for irrigation of 290 acres.

Aquifer: Niobrara (NBRR)

Hydrogeology

Saturated areas in the Niobrara formation are known as the Niobrara aquifer. These saturated areas occur where there is sufficient fracturing and development of solution cavities. The Niobrara formation is composed of highly fossiliferous and densely fractured, calcareous marl, calcareous shale, chalk, and chalky limestone (Christensen, 1989, Jorgesen, 1971). The Niobrara is exposed at the surface in areas of Davison and Hanson Counties and is the first bedrock beneath glacial deposits in most of Davison County (Christensen, 1989). Where the Niobrara formation is not directly exposed at the surface, it is overlain by the Pierre Shale (Christensen, 1989). Locally, the Niobrara formation is known as “chalk rock” and is extensive throughout South Dakota (Hedges et al, 1982). In Davison County, the areal extent of the aquifer was estimated by Hedges et al. (1982) to be 400 square miles (256,000 acres). Thickness of the Niobrara formation varies from 30 feet to 130 feet with an average of 100 feet (Hansen, 1983). The general direction of water movement in the aquifer is to the northeast with the aquifer generally being under confined conditions but may be locally unconfined (Hansen, 1983).

The well log submitted with the application indicates the aquifer is confined in this region with glacial till from ground surface to a depth of 39 feet with the Niobrara formation being reached at 39 feet and continuing to 121 feet. Static water level at this well was recorded at 55 feet below grade when constructed on April 28, 2014.

South Dakota Codified Law 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 the existing rights within the Niobrara aquifer.

Water Availability

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

Hydrologic Budget

Recharge

Recharge to the Niobrara aquifer in Davison County occurs through snowmelt and precipitation, (Hansen, 1983). Hedges and others (1985) also stated that East of the Missouri River,

“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 occurs through evapotranspiration in areas where the aquifer is near land surface and through well withdrawals (Hansen, 1983). Currently, there are a total of 83 water rights/permits appropriating water from the Niobrara aquifer (Water Rights, 2018a). All current non-irrigation water rights/permits appropriating water from the Niobrara aquifer are summarized in Table 1. The amount of water that can be expected to be withdrawn can be estimated by assuming water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time.

Table 1: Summary of expected use of non-irrigation water rights/permits
(Water Rights, 2018a; modified from Farmer, 2018)

Use Type	No. of Water Rights/Permits	Water Claimed (cfs)	Expected Annual Use (ac-ft)
GEO	1	0.11	47.81
FWP	1	0.17	73.90
COM	9	1.25	545.09
INS	5	0.57	246.46
IND	1	0.13	58.25
MUN	11	4.54	1,973.44
Total	28	6.78	2,944.94

GEO = Geothermal, FWP = Fish and Wildlife Propagation, COM = Commercial, INS = Institutional, IND = Industrial, MUN = Municipal

There are 55 water rights/permits for irrigation currently authorized to appropriate water from the Niobrara aquifer. Irrigation water permits for the Niobrara aquifer rose dramatically starting in 2012, as shown by the increase in appropriations seen in Figure 2. Estimating the water usage from 1979 to 2017 would not properly reflect the current state of the aquifer and would result in an average of 1,279.9 ac-ft/yr. Calculating the average use over the last 5 years (2012-2017) would be a better representation of the current irrigation usage. Using the reported pumping data for the years 2012 to 2017 the estimated average annual withdrawals for irrigation rights/permits is 3,009.7 ac-ft/yr.

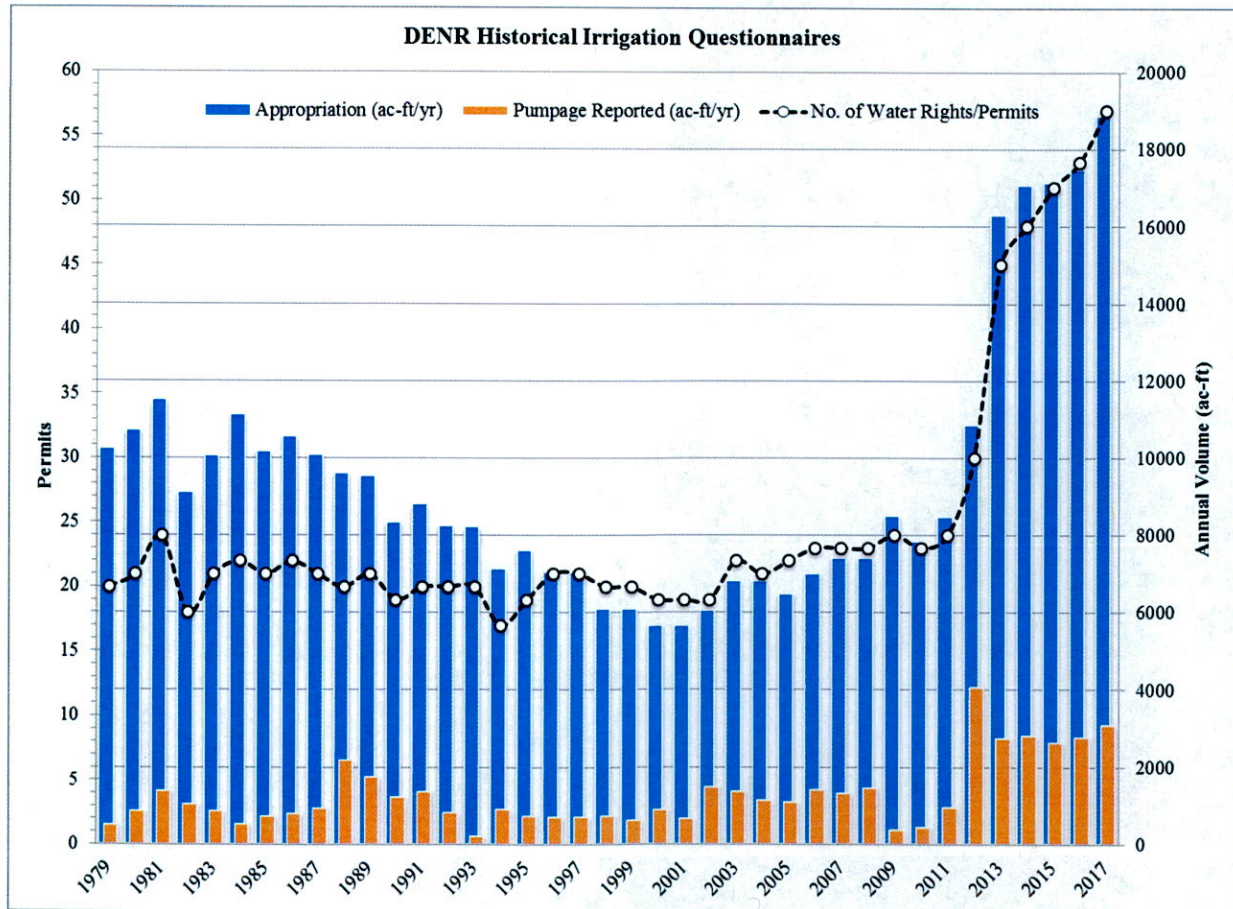


Figure 2: Historical Irrigation questionnaire data from the Niobrara aquifer in South Dakota (Water Rights, 2018d)

Hydrologic budget summary

Without recharge rate, there is no way to compare the recharge and discharge rates directly. It is unlikely that the Niobrara aquifer is approaching or exceeding recharge due to the high storage and low use. Adding the estimated average annual irrigation withdrawals to estimated average annual withdrawals by the non-irrigation water rights/permits, the estimated average annual withdrawal from the Niobrara aquifer is 5,955 ac-ft/yr.

Observation Well Data

In determining the availability of unappropriated water for a permit application Administrative Rule of South Dakota (ARSD) 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 average annual recharge to the aquifer.

The DENR-Water Rights Program monitors 57 observation wells completed into the Niobrara aquifer (Water Rights, 2018c). The location of this application is within a reasonable distance of several observation wells. These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. Observation wells located nearby that can be used for analysis are DN-66C (0.76 miles southeast), DN-69D (0.80 miles southwest), DN-79H (0.84 miles northwest), DN-78D (1.27 miles northeast), DN-69E (1.33 miles southeast), and DN-69C (2.14 miles northeast) as seen in Figure 3.

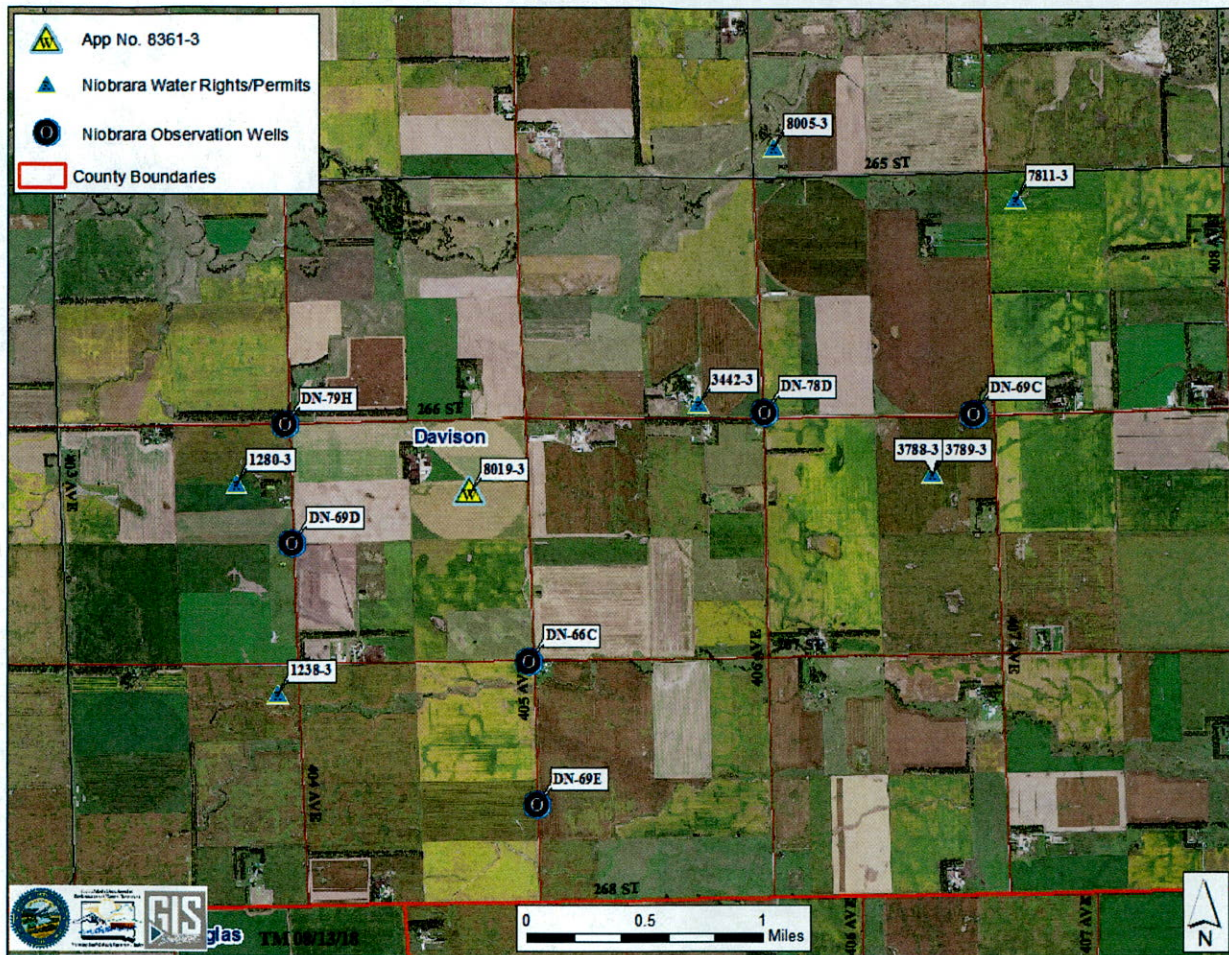


Figure 3: Map showing the location of observation wells used for analysis, the proposed diversion point, and nearby water rights/permits completed into the Niobrara aquifer. (Water Rights, 2018c; Water Rights, 2018a)

Permit No	Name	Priority Date	Status	cfs	Acres
1238-3	LINCOLN NEUGEBAUER	12/14/1965	LC	1.88	386
1280-3	MARTY NEUGEBAUER	06/08/1966	LC	2.04	152
3442-3	NORMAN F MAESCHEN	09/01/1976	LC	1.22	108
3788-3	LYLE RUMBOLZ	03/09/1977	LC	1.33	120
3789-3	RANDAL L RUMBOLZ	03/09/1977	LC	1.33	130
7811-3	CHARLES STORM	03/27/2013	PE	1.78	133
8005-3	ROBERT MAESCHEN	04/24/2014	PE	1.56	180
8019-3	MARK HOHN	05/28/2014	PE	1.73	145

Table 2: Water Rights/Permits appropriating water from the Niobrara aquifer in the vicinity of the well site proposed by Application No. 8361-3 (Water Rights, 2018a).

The hydrographs for these wells are shown in Figures 4 and 5. These observation well hydrographs are representative of the Niobrara aquifer. The hydrographs show that the aquifer responds well to hydrologic conditions, recharging during wetter periods and declining during drier periods. Observation well DN-79H is a replacement well for observation well DN-66A. Observation well DN-66A did not work correctly and was replaced in 1979 (Water Rights, 2018c). The water level data from observation DN-66A was correlated to observation well DN-79H and included in the period of record for observation well DN-79H. Since the installation of DN-79H, the water level in the observation well has been relatively stable and reflects the trends of surrounding observation wells. Therefore the pre-1980 portion of the hydrograph for observation well DN-79H is being considered as part of the observation well analysis for this water permit application.

The water levels in the observation wells show that the recharge rate compensates for periods of well withdrawals. Therefore, recharge to, and natural discharge from the Niobrara aquifer can be captured for pumping, and the hydrographs document that unappropriated water is available for this proposed appropriation.

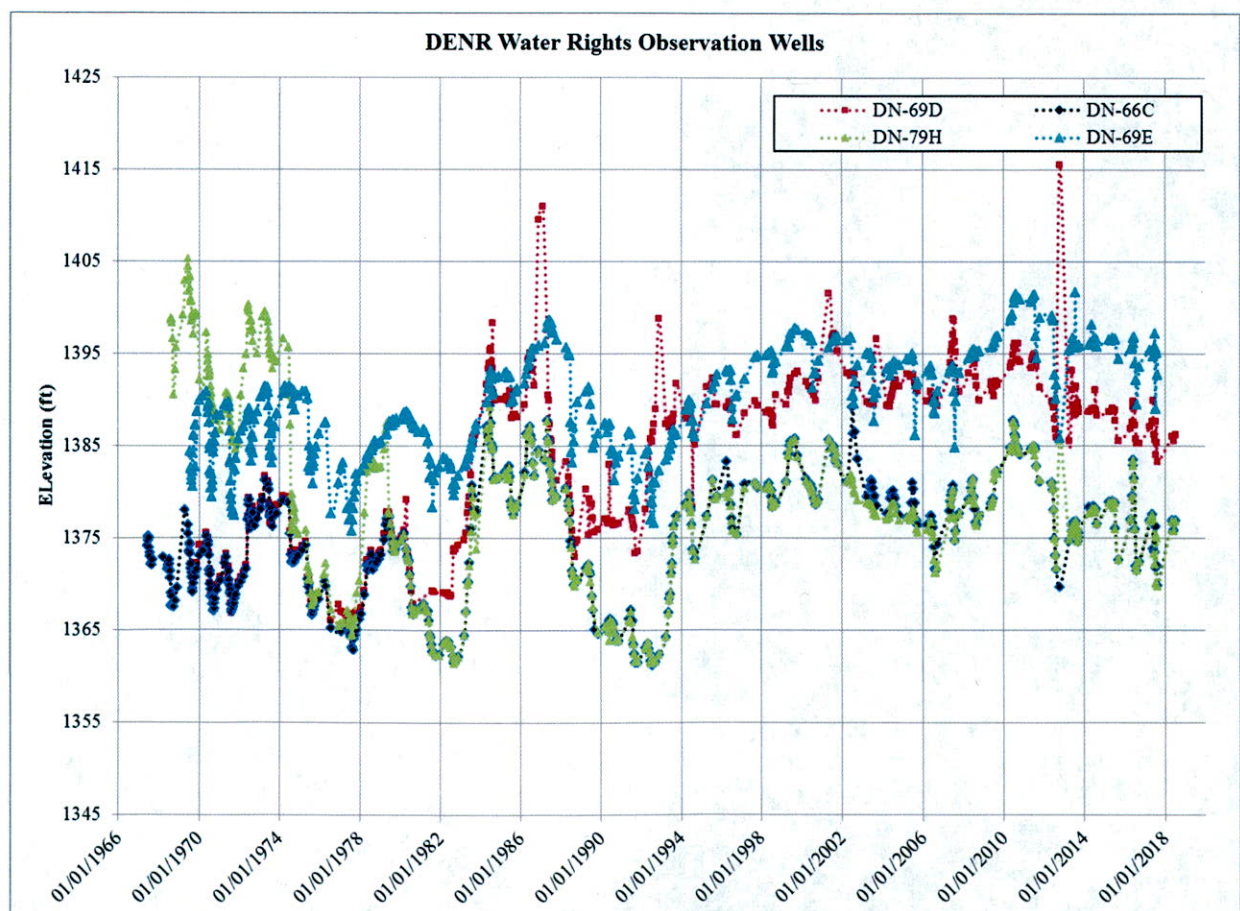


Figure 4: Hydrographs for Observation Wells DN-66C, DN-69D, DN-79H, and DN-69E. (Water Rights, 2018c)

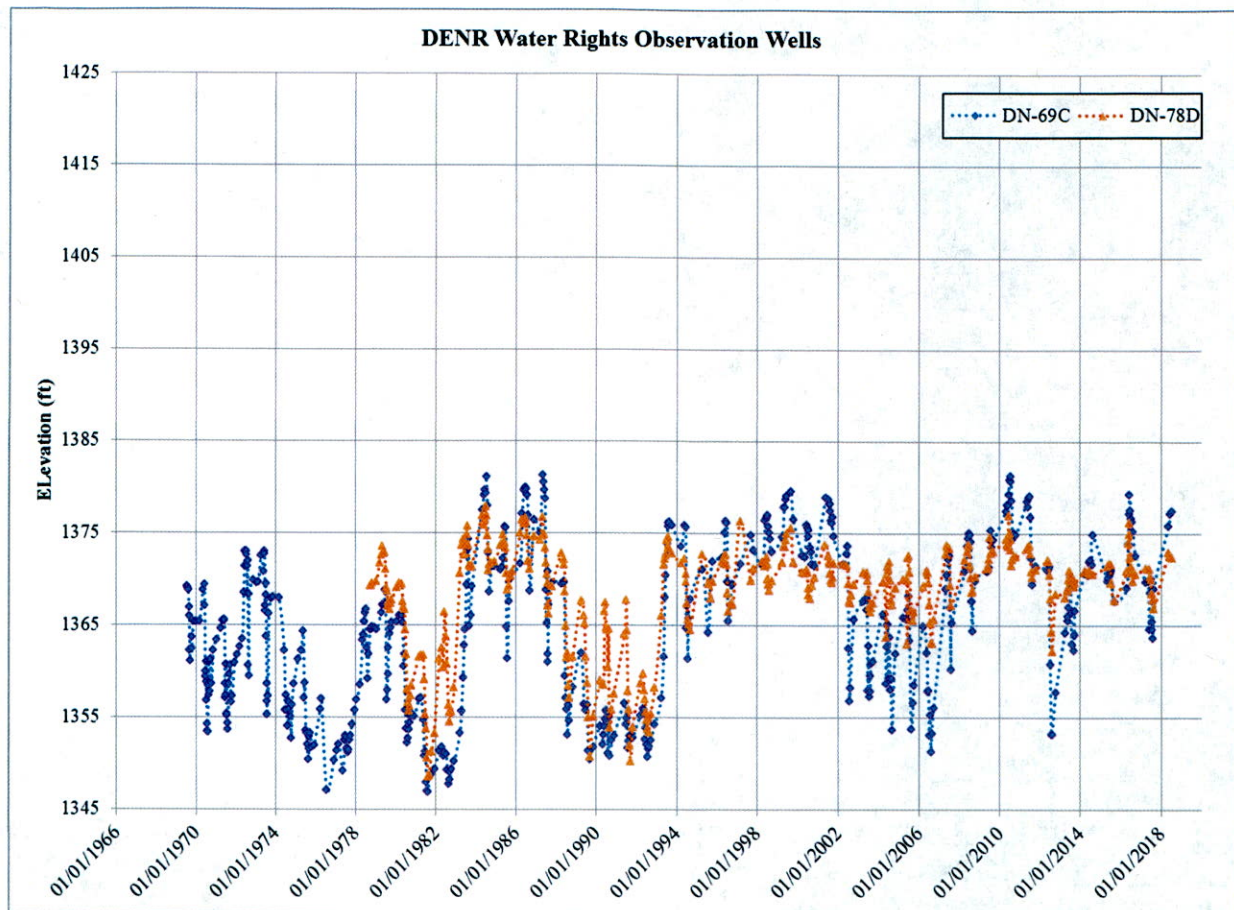


Figure 5: Hydrographs for Observation wells DN-69C and DN-78D (Water Rights, 2018c)

Existing Water Rights

Currently, there are 83 water rights/permits appropriating water from the Niobrara aquifer (Water Rights, 2018a). There are 8 diversion points for water rights/permits currently authorized to withdraw water within a 3 mile radius of the proposed application as seen in table 2 and Figure 3. The nearest water right/permit other than these 8 is more than 13 miles to the northeast of the proposed application site. The applicant currently holds Water Permit No. 8019-3. The nearest water right/permit not owned by the applicant and completed into the Niobrara aquifer is approximately 1 mile away. The 8 surrounding water rights/permits are used for irrigation (Water Rights, 2018a). There are a number of domestic wells on file with the SD DENR- Water Rights Program within 3 miles of the proposed well site that appear to be completed into the Niobrara aquifer (Water Rights, 2018b). The nearest domestic well completed into the Niobrara aquifer is about 0.7 miles to the northeast (Water Rights, 2018b).

The Niobrara aquifer is confined in this area, so drawdown from pumping the aquifer can extend over a fairly large area. Observation well data can provide insight into how the aquifer reacts to local pumping. Observation wells DN-69C and DN-78D are located within a half mile of one or more existing water rights/permits, as shown in Figure 3. The hydrographs in Figure 5 show that the most significant decline of the water level in one year was 21 (1983) and 17.6 (1991) feet in

DN-69C and DN-78D, respectively (Water Rights, 2018c). DN-69C still had 13 feet of artesian head, and DN-78D had 10 feet of artesian head remaining during these years (Water Rights, 2018c). Saturated thickness of the Niobrara aquifer in this area is expected to be about 100 feet (Hansen, 1983). This would allow sufficient saturated thickness for a pump to be placed 20 feet below the top of the aquifer. An adequate well should not be adversely impacted by pumping at this proposed diversion rate.

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

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

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery, and in the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur (Water Rights, 1995). Given the applicant holds Water Permit No. 8019-3, and there have been no complaints. The artesian head pressure at the well site and the lack of well interference complaints in the area, well interference from this proposed diversion is not expected to cause an adverse impact. Therefore, there is a reasonable probability that any interference created by pumping for this proposed appropriation will not be adverse.

Conclusions

1. Water Permit Application No. 8361-3 proposes to irrigate an additional 145 acres with an additional maximum diversion rate of 0.17 cfs from an existing well authorized by Water Permit No. 8019-3 and completed into the Niobrara aquifer in Davison County.
2. The applicant currently holds Water Permit No. 8019-3 appropriating 1.73 cfs to irrigate 145 acres from one well completed into the Niobrara aquifer in Davison County.
3. Water permit No. 8019-3 and this application, if approved, will appropriate 1.90 cfs from one well for irrigation of 290 acres.
4. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Niobrara aquifer.
5. There is a reasonable probability that the diversion proposed by this application will not adversely impact adequate wells for existing water rights and domestic use.


Timothy Magstadt

SD DENR – Water Rights Program

References

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- Water Rights. 2018d. Irrigation Questionnaire database. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

SEP 04 2018

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

**NOTICE OF
APPLICATION NO.
8361-3 to Appropriate
Water**

Notice is given that Mark A. Hohn, 40455 266th St, Ethan SD 57334 has filed an application for a water permit to appropriate and additional 0.17 cubic feet of water per second (cfs) from one existing well completed into the Niobrara Aquifer (120 feet deep) located in the SE 1/4 NE 1/4 Section 26 and irrigation of 145 acres located in the NW 1/4 Section 26; all in T101N-R61W. The applicant currently holds Water Permit No. 8019-3 appropriating 1.73 cfs from this well to irrigate 145 acres in the NE 1/4 Section 26-T101N-R61W. Water Permit No. 8019-3 and this application, if approved, will appropriate a total of 1.90 cfs from the well for irrigation of 290 acres. The project is approximately 7 miles west of Ethan SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8361-3 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 September 10, 2018.

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 \$72.64

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, August 30, 2018

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: \$72.64

Signed: Penny Hohbach

Subscribed and sworn to before me this 30th day of August, 2018.

Melina Seppala

Notary Public
County of Davison

My Commission Expires: 4-15-20

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



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, August 20, 2018 10:26 AM
To: 'phohbach@mitchellrepublic.com'
Subject: 8361-3, Mark A Hohn
Attachments: 8361-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on August 30, 2018.

Mark A Hohn, 40455 266th St, Ethan SD 57334 (605 770-5436) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak

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





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

August 20, 2018

Mark A Hohn
40455 266th St
Ethan SD 57334

Dear Mr. Hohn:

Water Permit Application No. 8361-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Daily Republic printed at Mitchell SD (Ph # 605 996-5514). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
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. 8361-3 to Appropriate Water

Notice is given that Mark A Hohn, 40455 266th St, Ethan SD 57334 has filed an application for a water permit to appropriate and additional 0.17 cubic feet of water per second (cfs) from one existing well completed into the Niobrara Aquifer (120 feet deep) located in the SE 1/4 NE 1/4 Section 26 and irrigation of 145 acres located in the NW 1/4 Section 26; all in T101N-R61W. The applicant currently holds Water Permit No. 8019-3 appropriating 1.73 cfs from this well to irrigate 145 acres in the NE 1/4 Section 26-T101N-R61W. Water Permit No. 8019-3 and this application, if approved, will appropriate a total of 1.90 cfs from the well for irrigation of 290 acres. The project is approximately 7 miles west of Ethan SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8361-3 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 September 10, 2018.

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
<http://denr.sd.gov>

SEP 13 2018

Mark A Hohn
40455 266th St
Ethan SD 57334

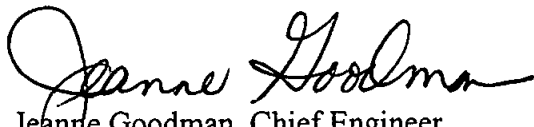
Dear Mr. Hohn:

Enclosed is Water Permit No. 8361-3 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



8361-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 23, 2020

NOTICE

TO: MARK A HOHN, 40455 266TH ST, ETHAN, SD 57334

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2019 Irrigation Questionnaire(s)

Our records indicate your 2019 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8019-3 & 8361-3. The request for the Questionnaire was dated October 18, 2019. The Water Management Board has directed that owners of water permits who have not submitted the 2019 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 8019-3 & 8361-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, February 26, 2020 at 8:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

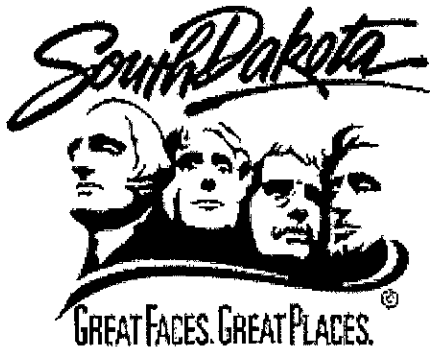
1. Suspend or cancel Permit No(s) 8019-3 & 8361-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

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

If the questionnaire(s) is (are) received in this office before the **February 26, 2020** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://denr.sd.gov/iq> using this password: IXTMOF**

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

8361-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 3, 2020

8019-3
8361-3

Mark A Hohn
40455 266th St
Ethan SD 57334

Dear Mr. Hohn:

I am writing to acknowledge receipt of your 2019 irrigation questionnaires.

You may disregard the January 23, 2020, "Notice" concerning reporting requirements for Water Permit Nos. 8019-3 and 8361-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads 'Genny McMath'.

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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

November 7, 2022

8019-3
8361-3

Hohn Family
515 N Union Ave
Madison SD 57042 2045

Dear Ms. Hohn:

Enclosed is a "Notice" dated October 21, 2022 concerning the 2022 irrigation questionnaires.

The notice was originally mailed to Ethan SD. The post office notified us the address has changed, and I will update our records accordingly.

If the permits should be transferred out of Mark's name, please let me know and I can send you transfer forms. If you have any questions, please contact me.

Sincerely,

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

enclosures

8361-3,
8019-3



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

January 20, 2026

NOTICE

TO: SAMANTHA HOHN, 515 N UNION AVE, MADISON, SD 57042 2045
FROM: Ron Duvall, Engineer III
for Adam Mathiowetz, PE, Acting Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2025 Irrigation Questionnaire(s)

Our records indicate your 2025 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8019-3 & 8361-3. The request for the Questionnaire was dated October 8, 2025. The Water Management Board has directed owners of water permits who have not submitted the 2025 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 8019-3 & 8361-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held on **Wednesday, March 4, 2026 at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 8019-3 & 8361-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

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

If the questionnaire(s) is (are) received in this office before the **March 4, 2026** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Shannon Konst at (605) 773-3352 or email at shannon.konst@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: OIXHXN**

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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

8019-3

8361-3

January 28th, 2026

SAMANTHA HOHN
515 N UNION AVE
MADISON SD 57042

Dear Ms. Hohn,

I am writing to acknowledge receipt of your 2025 irrigation questionnaire(s).

You may disregard the January 20, 2026, "Notice" concerning irrigation reporting requirements for your water permit/right(s). The information was received in our office prior to the Water Management Board meeting, and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Shannon Konst
Water Rights Program
605 773-8204
Shannon.konst@state.sd.us