

WATER PERMIT NO. 7795-3

Name of Applicant: **Richard J Dougherty, Northwestern Farm Management Co.**

Address: **301 S O'Connell St, Marshall MN 56258** Phone:

Amount of Water Claimed: **no add'l** Total Acres: **110**

Source of Water Supply: **groundwater**

Water to be used for: **irrigation** County: **Brookings**

Type of Waste Disposal System:

Location: **12 miles northeast of Brookings**

PRIORITY Date Received: **3-18-13** Application/License Fee: **\$ 950**

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

Remarks: **Utilizing one of the wells authorized by Water Right No. 3922-3**

Diversion Point: **center of the NE 1/4 Sec 27-
T112N-R49W**

Land to be Irrigated: **SE 1/4 Sec 27-T112N-R49W**

Depth of Well: **105 feet**

Well Driller: **Grimshaw Drilling co.**

Remarks:

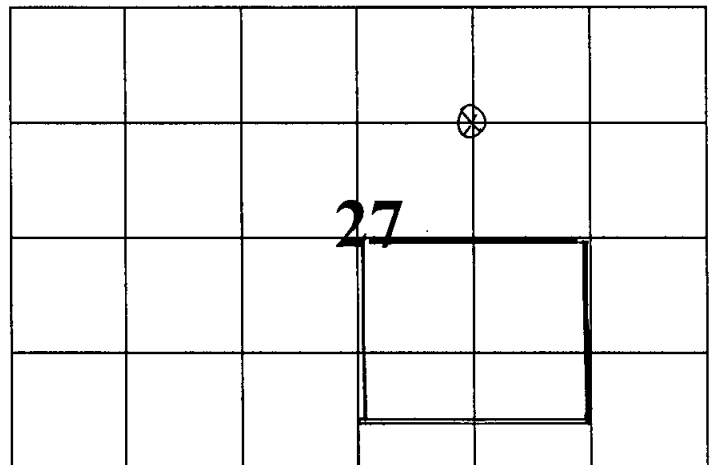
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **3-19-13**

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>7795-3</u> (office use only)	Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register Box 177</u>	<u>57006</u>
	<u>605-692-6271</u>	

RECEIVED

MAR 18 2013

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 3922-3
(Use predates Mar 2, 1955)

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

add acres no addition of water

1. Name to Appear on Irrigation Permit Richard J Dougherty
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent Northwestern Farm Mgmt + Company
(name and complete address if different than above name)

Mailing Address 3015 O'Connell St Marshall MINN 56258
(Address) (City) (State) (Zip Code)

Home Phone _____ Cell _____ Email _____

2. Amount of water claimed _____ *CFS or no add **GPM _____ ***AF Total Acreage 110
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Wells (approximate center NE 1/4 Sec 27 - T112N - R49W)

4. Location of point of diversion _____
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County Brookings

5. County or counties where water will be used Brookings

6. Annual period during which water is to be used May 1 - Sept 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
<u>SE 1/4 of the SE 1/4 Sec 27 112-49</u>	<u>18</u>		
<u>SW 1/4 of the SE 1/4 Sec 27 112-49</u>	<u>18</u>		
<u>NE 1/4 of the SE 1/4 Sec 27 112-49</u>	<u>37</u>		
<u>NW 1/4 of the SE 1/4 Sec 27 112-49</u>	<u>37</u>		

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

I, Richard Dougherty, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

**SOUTH DAKOTA
WATER PERMIT NO. 7795-3**

Date of first receipt of application March 18, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7795-3 to Richard J Dougherty, c/o Northwestern Farm Management Company, 301 S O'Connell St, Marshall MN 56258 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. 7795-3 authorizes irrigation of 110 additional acres. Water Right No. 3922-3 appropriates 2.56 cubic feet of water per second from two wells completed into the Unnamed Creek management unit of the Big Sioux Aquifer (105 and 43 feet deep) located in the NW 1/4 NW 1/4 and the SE 1/4 NE 1/4 Section 27 for irrigation of 220 acres located in the N 1/2 Section 27; all in T112N-R49W. This permit authorizes irrigation of 110 additional acres located in the SE 1/4 Section 27 from the existing well located in the SE 1/4 NE 1/4 Section 27; all in T112N-R49W. This permit does not authorize any increase in the developed diversion rate authorized by Water Right No. 3922-3.
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: May 1 – September 30.
3. The date from which applicant may claim right is March 18, 2013.
4. The date of approval of Permit No. 7795-3 is May 28, 2013.
5. One-fifth of the construction is to be completed on or before November 28, 2015.
6. All construction is to be completed on or before May 28, 2018.
7. Water is to be put to beneficial use on or before May 28, 2022.
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 wells approved under Water Right No. 3922-3 and Water Permit No. 7795-3 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

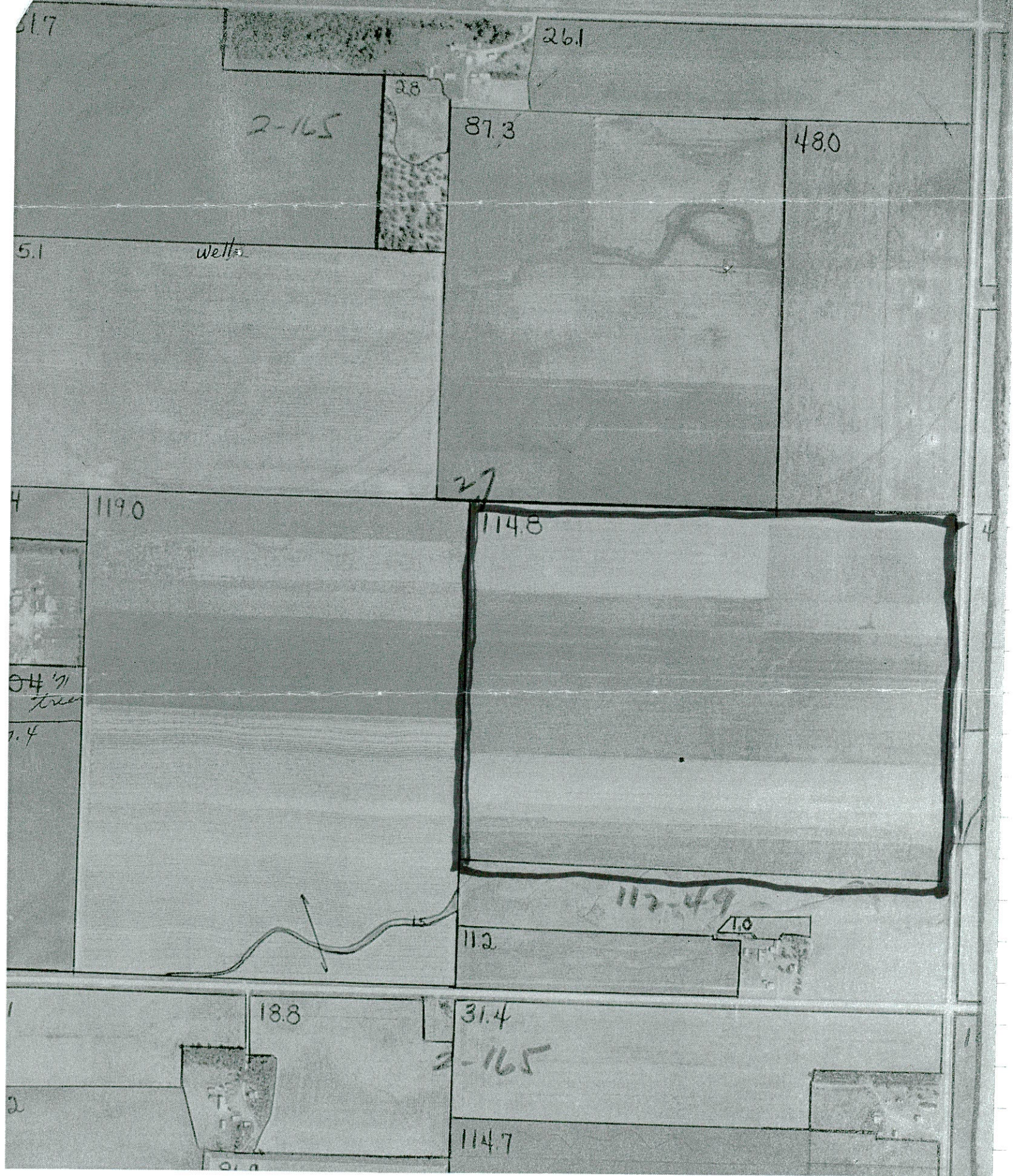
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

AUG 29 2013

date



NOT TO SCALE



DRILLING LOG

Name Mr Dick Liberty Date May 26-78
Address WHITE
County _____ Sec. _____ Twp. _____ Range _____

NO. FT.	DIA.	RATE	CASING	TOTAL
105	16"	25.00	16"	2625.00
15'	16"			
92'	16"	13.50		1242.00

BALANCE DUE:

	ft.	to	ft.	to	ft.	185
	ft.	to	ft.	to	ft.	300
	ft.	to	ft.	to	ft.	677
	ft.	to	ft.	to	ft.	5975
0	ft.	to	3 $\frac{1}{2}$	ft.	Topsoil	ft.
3 $\frac{1}{2}$	ft.	to	23	ft.	Clay yellow	ft.
23	ft.	to	25	ft.	Sand	ft.
25	ft.	to	56	ft.	Clay red blue	ft.
56	ft.	to	75	ft.	Clay Blue	ft.
75	ft.	to	103	ft.	Sand Blue	ft.
103	ft.	to	105	ft.	Clay Blue	ft.
	ft.	to	ft.	to	ft.	ft.

STATIC WATER LEVEL

C W Spindler
DRILLER

REMARKS:

DRILLING LOG

Sioux Falls, S.D. 57106
Phone 605-332-6974

616-695-4716

Name Richard Doherty Date 10-15-79

Address White So. DRK.

County Brookings Sec. 27 Twp. N20 112 Range 49

NO. FT.	DIA.	RATE	CASING	TOTAL
43	32"	300 ⁰⁰ Ft	Drilling	1290 ⁰⁰
10	16"	132 ⁰⁰ Ft	Screen	1320 ⁰⁰
34	16"	15 ⁰⁰ Ft	CASING	510 ⁰⁰
15.4 ton			GRAVEL PACK	150 ⁰⁰
			Development + Test Pumping	250 ⁰⁰
			4 1/2" bit	140 ⁰⁰
BALANCE DUE:				3660 ⁰⁰

0 ft. to 2 ft. Topsoil
2 ft. to 5 ft. Yellow Clay
5 ft. to 20 ft. Yellow Clay Sand
20 ft. to 41 ft. Yellow Sand-Gravel
41 ft. to 42 ft. Yellow Clay
42 ft. to 43 ft. Gray Clay
43 ft. to 44 ft. Gray Clay
44 ft. to 45 ft. Gray Clay
45 ft. to 46 ft. Gray Clay
46 ft. to 47 ft. Gray Clay
47 ft. to 48 ft. Gray Clay
48 ft. to 49 ft. Gray Clay
49 ft. to 50 ft. Gray Clay

STATIC WATER LEVEL 21 ft. Jay Van Lere
DRILLER

REMARKS: SCREEN - .080 slot Johnson
STAINLESS STEEL.

Test Pumping - 700 GPM. DRAWDOWN
Signed Jay Van Lere To 34'

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

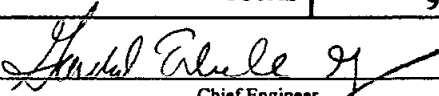
Date 3/19, 2013

RECEIVED OF Farmer's Implement 3023 W Hwy 14 Brookings SD 57006 (Dougherty)

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

Fee for Application for Permit No. <u>7795-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>7795-3</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	950 00

No. 06248

By 
Chief Engineer

Water Rights Program - File Documentation

NAME: Dave Gullickson, Farmers Implement

ADDRESS: Brookings

DATE: 3-19-13 **COUNTY:** BG **TELEPHONE:** 605 690-5447

RE: Pending application for Richard J Dougherty

COMMENTS:

I called Dave Gullickson regarding the application he submitted on behalf of Richard J Dougherty.

Dave indicated that Mr. Dougherty is proposing to use the well located in the approximate center of the NE 1/4 Section 27 to irrigate the NE 1/4 as well as the SE 1/4 Section 27. The well located in the NW 1/4 Section 27 authorized by No. 3922-3 will still be used to irrigate the NW 1/4 Section 27; all in T112N-R49W. No additional water is being requested.



Karen Schlaak
Water Rights Program



**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. 7795-3, Richard J Dougherty**

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. 7795-3, Richard J Dougherty, 301 S O'Connell St, Marshall MN 56258.

The Chief Engineer is recommending APPROVAL of Application No. 7795-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under water Right No. 3922-3 and Water Permit No. 7795-3 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
May 9, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7795-3
RICHARD J. DOUGHERTY
MAY 09, 2013

Water Permit Application No. 7795-3 proposes to appropriate water for the irrigation of 110 acres using an existing well authorized under Water Right No. 3922-3. Water Right No. 3922-3 appropriates water at a maximum diversion rate of 2.56 cubic feet of water per second (cfs) from two wells completed into the Big Sioux: Unnamed Creek aquifer for the irrigation of 220 acres located in the N ½ Section 27, T112N-R49W. The wells are located in the NW ¼ NW ¼ and the SE ¼ NE ¼ Section 27, and are 43 and 105 feet deep, respectively. The 110 acres will be located in the SE ¼ Section 27 using the well located in the SE ¼ NE ¼ Section 27. This application, if approved, does not authorize any increase in the developed diversion rate authorized by Water Right No. 3922-3. This project is located approximately three miles northwest of the town of White in Brookings County.

AQUIFER: Unnamed Creek management unit of the Big Sioux aquifer (BS:UC)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Big Sioux aquifer is an alluvium mantled glacial outwash deposit that consists of “well-sorted, very permeable glacial outwash sand and gravel, mostly medium to very coarse sand and very fine to medium gravel” (Hamilton, 1989). The aquifer is located primarily in the flood plain of the Big Sioux River and its tributaries. The Unnamed Creek management unit of the Big Sioux aquifer is in the north central portion of Brookings County. The Big Sioux: Unnamed Creek aquifer underlies approximately 5,800 acres of Brookings County and contains an estimated 13,050 acre-feet of recoverable water in storage. (Hedges et. al, 1982). The aquifer is generally unconfined and appears to be unconfined in the area of the wells (SDGS, 2013 and Water Rights, 2013c). Water movement is westward toward the Big Sioux River, with a static water level generally less than 15 feet below grade (Koch, 1980). The aquifer thickness ranges from less than 10 to more than 50 feet in some areas, but in the area of this application it is approximately 20 feet (SDGS, 2013).

The well completion reports submitted with this application identify non-contiguous aquifer materials in the 1,680 to 1,740 feet above mean sea level range. This elevation is consistent with aquifer materials identified in the well log for observation well BG-80E, located approximately one mile southwest of the well site. The observation well has been labeled as completed into the Pleistocene Series: Unknown. The geology of the area based on lithologic logs (SDGS, 2013) and water well completion reports (Water Rights, 2013c) indicate that observation well BG-80E is likely completed into the Big Sioux: Unnamed Creek aquifer. Figure 1 shows a map of the area near this application.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and existing rights from the aquifer that are pertinent to this application.

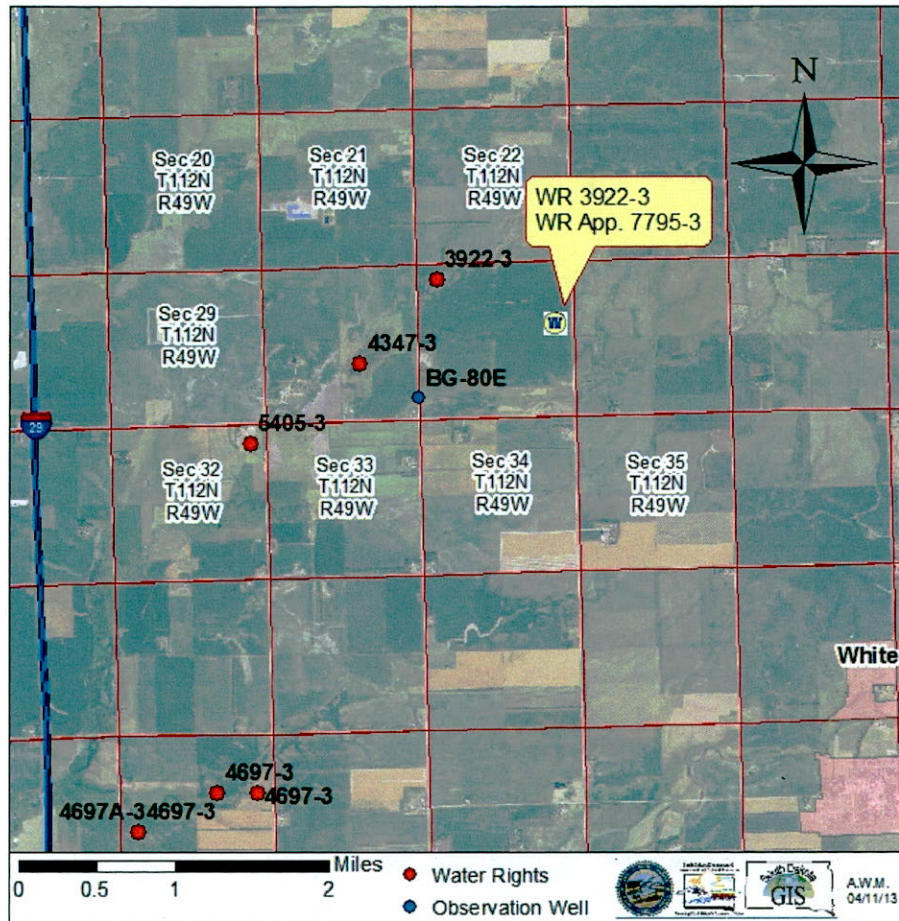


Figure 1- The area near Water Permit Application No. 7795-3

WATER AVAILABILITY:

This application proposes to appropriate from the Big Sioux: Unnamed Creek aquifer. The actual water use if this application is approved will likely be less than 220 acre-feet per year (ac-ft/yr). The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1 which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a public water system is not involved and the aquifer is not older or lower than the Greenhorn Formation, therefore withdrawal/recharge issue must be considered.

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: Unnamed Creek occurs through infiltration and percolation of precipitation falling on the surface of the outwash. Since the aquifer is hydraulically connected to surface water, recharge is also provided to the aquifer during times of high runoff when surface water levels are higher than groundwater levels. Recharge rates calculated for this management unit of the Big Sioux aquifer is estimated to be in the range of “2.7-5.6 in/yr” (Hedges et. al, 1985). Given the estimated area of the management unit of 5,800 acres in

Brookings County, average annual recharge to the aquifer is estimated to range from 1,305 to 2,707 acre-feet per year.

Discharge:

Discharge from the Big Sioux: Unnamed Creek aquifer is by evapotranspiration, discharge to streams and withdrawal from wells. There are a number of completion reports on file with the DENR-Water Rights Program for domestic use wells completed into the Big Sioux: Unnamed Creek aquifer (Water Rights, 2013c), and there are currently 11 Water Rights/Permits appropriating water from the Big Sioux: Unnamed Creek aquifer all for irrigation use. Under current appropriations the well withdrawals will likely be less than the historic maximum, 1,041.6 ac-ft/yr, as shown in table 1.

Year	No. of Permits Reporting	Appropriated (ac-ft)	Pumpage Reported (ac-ft)
2011	10	3476	734.46
2010	10	3476	32.63
2009	10	3476	333.36
2008	10	3476	543.93
2007	10	3476	501.84
2006	10	3476	534.75
2005	10	3476	399.6
2004	10	3476	558.97
2003	10	3476	833.32
2002	10	3476	797.24
2001	10	3476	405.63
2000	10	3476	619.8
1999	10	3476	560.78
1998	10	3476	649.62
1997	10	3476	568
1996	10	3476	501.35
1995	10	3476	67.06
1994	10	3522	357.89
1993	10	3522	49.33
1992	10	3522	166.4
1991	10	3538	657
1990	10	3538	440
1989	8	3408	855
1988	8	3408	1041.6
1987	4	2020	166
1986	5	2470	98
1985	6	3182	192
1984	7	3380	458
1983	4	2020	326.5
1982	4	2020	155.38
1981	10	4679	1
1980	8	3763	0
1979	8	3763	53
Min	4	2020	0
Max	10	4679	1041.6
Avg	8.85	3359.00	413.92

Table 1- Historic irrigation use from the Big Sioux: Unnamed Creek aquifer (Water Rights, 1979-2012)

Hydrologic Budget:

Comparison of the estimated average annual withdrawal from the Big Sioux: Unnamed Creek aquifer with the estimated average annual recharge to the aquifer indicates that in general the average annual withdrawals to the aquifer do not exceed the average annual recharge to the aquifer and unappropriated water is available from the Big Sioux: Unnamed Creek aquifer. Specifically, unappropriated water is available for this proposed appropriation.

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 to the aquifer”.

The DENR-Water Rights Program monitors one observation well that has been labeled as completed into the Unnamed Creek management unit of the Big Sioux aquifer, BG-63B, and another observation well that appears to be completed into the aquifer but has been labeled as completed into the Pleistocene Series: Unknown aquifer, BG-80E. Observation well BG-63B is located approximately 9.8 miles southwest and BG-80E is approximately one mile southwest of the well site. The hydrographs for these observation wells are shown in Figures 2 and 3, respectively.

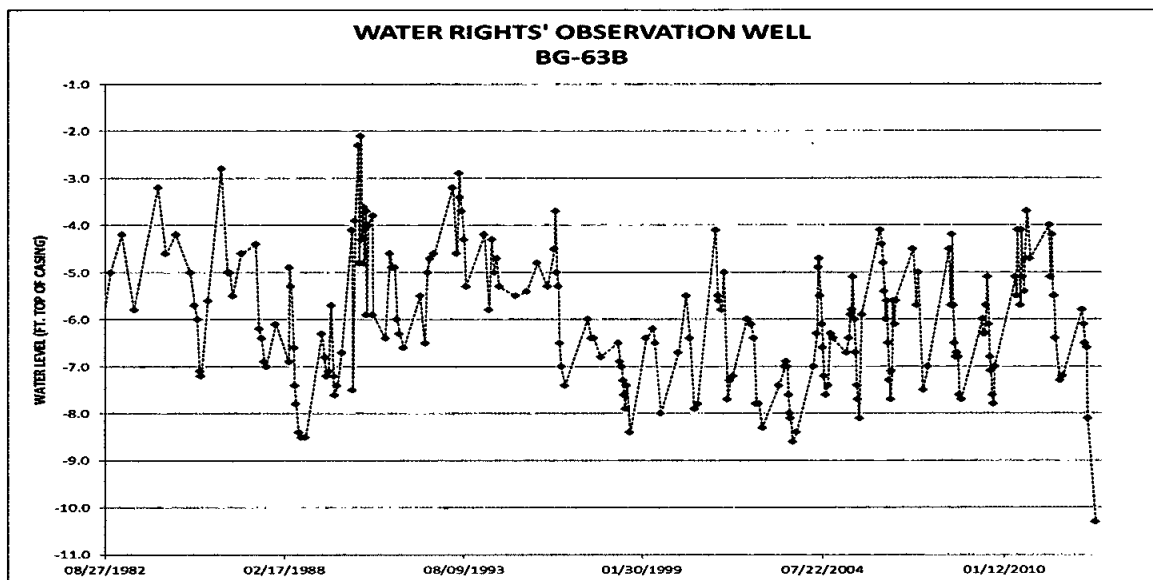


Figure 2- Hydrograph of DENR-Water Rights' observation well BG-63B (Water Rights, 2013a)

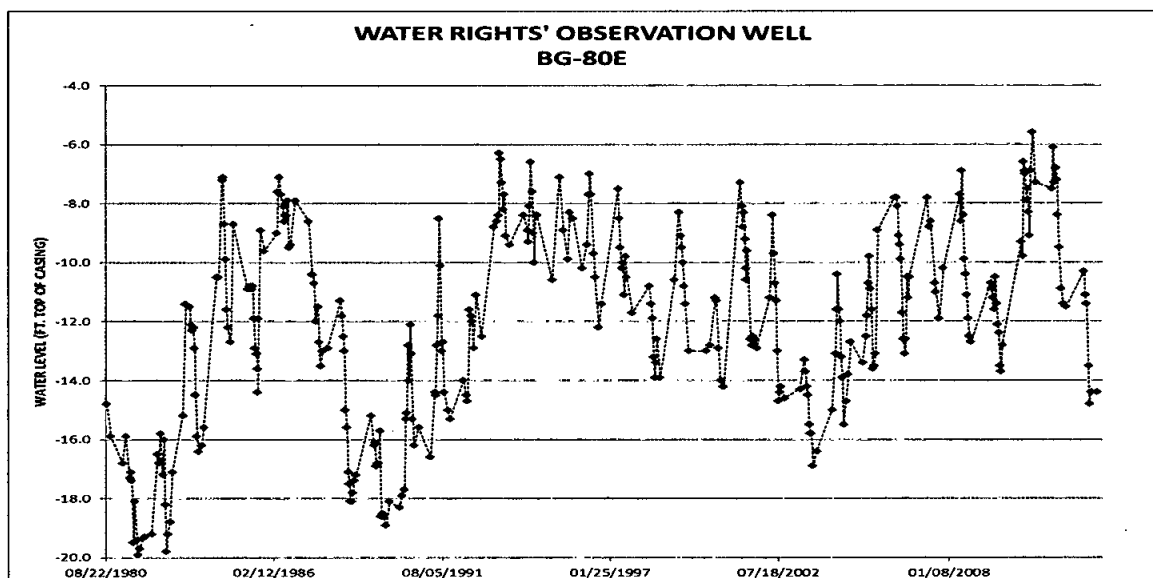


Figure 3- Hydrograph of DENR-Water Rights' observation well BG-80E (Water Rights, 2013a)

The observation well data shows the aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years. The water level data verifies that over the period of record, withdrawals have not exceeded recharge. Most importantly, the observation well data shows that at the current level of development, climatic conditions mask the temporal effects of well withdrawals. Therefore, recharge to and natural discharge from the Big Sioux: Unnamed Creek aquifer significantly exceeds pumping. Recognizing that natural discharge from the aquifer can be captured for pumping, the hydrographs document that there is unappropriated water available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

Table 2 lists all of the water rights/permits appropriating water from the Big Sioux: Unnamed Creek aquifer (Water Rights, 2013b). There are four water rights/permits authorizing wells within approximately 2.5 miles of the well that this application proposes to use, including the second of the two wells authorized under Water Right No. 3922-3, which is held by the applicant. The other seven water rights authorize wells that are greater than 3.5 miles from the well this application proposes to use. The nearest water right not held by the applicant is Water Right No. 4347-3, which is approximately 1.3 miles west-southwest. There are also a number of domestic wells on file with the DENR-Water Rights Program that appear to be completed into the Big Sioux: Unnamed Creek aquifer, but none are within approximately one mile of the well this application proposes to use (Water Rights, 2013c). Although this permit will not authorize an increase in maximum diversion rate, the additional withdrawal needed to irrigate the new 110 acres will require an increase in average diversion rate.

PERMIT NO	NAME	STATUS	USE	CFS	ACRES
2687-3	R & L RENNICK	LC	IRR	1.88	264
3484-3	C. NICHOLS	LC	IRR	1.49	104
3922-3*	R. DOUGHERTY	LC	IRR	2.56	220
4154-3	G. FOSTER	LC	IRR	1.64	115
4155-3	R. FOSTER	LC	IRR	1.08	76
4347-3*	R. RENNICK	LC	IRR	1.11	77.5
4593-3	B. EBERLE	LC	IRR	1.33	130
4697A-3	WESTERN TRUST COMPANY	LC	IRR	1.71	120
4697B-3	WORKMAN BROTHERS	LC	IRR	1.56	125
5405-3*	L. HOLLER	LC	IRR	1.67	117
7523-3*	B. CULVER	PE	IRR	2.00	152
* = Within 2.5 miles of proposed well site, LC= Water Right, PE= Water Permit, IRR= Irrigation					

Table 2 – Water Rights from of the Big Sioux: Unnamed Creek aquifer (Water Rights, 2013b)

To place water to maximum beneficial use, a certain amount of drawdown may occur. The water table conditions of the aquifer in this area dictate that drawdown due to pumping would not be significant far from the proposed well site. However, the close proximity of high capacity wells pumping from this relatively thin aquifer could lead to water level declines being compounded and magnified. Drawdown cannot be precisely quantified without aquifer testing in the area.

While the withdrawals would not exceed recharge of the aquifer as a whole, this cumulative impact of withdrawals could lead to a reduction of water levels to the extent that local water rights/permits can no longer pump at their developed, or “historically established,” diversion rates. If approved, the water permit should include a qualification that the well owner should 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.

CONCLUSIONS:

1. This application proposes to appropriate water for the irrigation of 110 acres from a well completed into the Big Sioux: Unnamed Creek aquifer authorized by Water Right No. 3922-3.
2. Water Right No. 3922-3 authorizes the diversion of water at a rate of 2.56 cfs from two wells completed into the Big Sioux: Unnamed Creek aquifer for the irrigation of 220 acres.
3. This permit, if approved, would not authorize any increase in the developed diversion rate authorized by Water Right No. 3922-3.
4. There is a reasonable probability that unappropriated water is available from the Big Sioux: Unnamed Creek aquifer to satisfy this proposed appropriation.
5. Withdrawals from the Big Sioux: Unnamed Creek wells proposed by this application will not be expected to adversely impair existing water rights or domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Hamilton, L.J. 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 88-4185, 82 p.
- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Koch, N.C. 1980. Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota. U.S. Geological Survey Water-Resources Investigations 80-100. Huron, South Dakota
- SDGS. Lithologic Logs Database Search. < <http://sddenr.net/lithdb/>>. Accessed: April 11, 2013. SD DENR-Geological Survey, Vermillion, South Dakota.
- Water Rights, 1979-2012, Irrigation Questioner Summaries 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013c, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

Tuesday, May 21, 2013 • B5

Affidavit of Publication

MAY 28 2013

10/

State of South Dakota

WATER RIGHTS
PROGRAM

Exhibit "A"

County of Brookings

Jennifer Milligan of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

Leg#482 Notice #7795-3-Dougherty

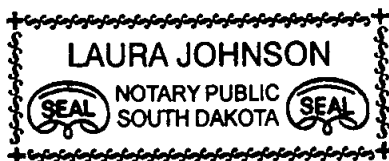
same was published, is hereto attached marked Exhibit said newspaper for _____ 2 times, to-wit:

May 21, 2013

May 22, 2013

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

twenty-six dollars and fifty-five cents \$26.55



[Signature]
23rd day of

May

2013

[Signature: Laura Johnson]

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires August 3, 2017.

Legal 482, 1x, 5/17
NOTICE OF APPLICATION NO. 7795-3 to
Appropriate Water
Notice is given that Richard J Dougherty, 301 S O'Connell St, Marshall MN 56258 has filed an application to appropriate water to irrigate 110 additional acres. Water Right No. 3922-3 appropriates 2.56 cubic feet of water per second from two wells completed into the Unnamed Creek management of the Big Sioux Aquifer (105 and 43 feet deep) located in the NW 1/4 NW 1/4 and the SE 1/4 NE 1/4 Section 27 for irrigation of 220 acres located in the N 1/2 Section 27; all in T112N-R49W. This application proposes to irrigate 110 additional acres located in the SE 1/4 Section 27 from the existing well located in the SE 1/4 NE 1/4 Section 27; all in T112N-R49W. This application,

if approved, does not authorize any increase in the developed diversion rate authorized by Water Right No. 3922-3. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7795-3 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 May 28, 2013. 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 \$26.55.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

May 10, 2013

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7795-3 to Appropriate Water. Please publish the notice once on May 17, 2013. 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 Richard J Dougherty, 301 S O'Connell St, Marshall MN 56258 (Ph # 605-692-6153).

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

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

May 10, 2013

Richard J Dougherty
301 S O'Connell St
Marshall MN 56258

Dear Mr. Dougherty:

Water Permit Application No. 7795-3 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 Brookings Register printed at Brookings SD (Ph # 605-692-6271). 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

C: Dave Gullickson, Farmer's Implement, 3023 US Hwy 14 Bypass, Brookings SD 57006

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 May 17, 2013. 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.

NOTICE OF APPLICATION NO. 7795-3 to Appropriate Water

Notice is given that Richard J Dougherty, 301 S O'Connell St, Marshall MN 56258 has filed an application to appropriate water to irrigate 110 additional acres. Water Right No. 3922-3 appropriates 2.56 cubic feet of water per second from two wells completed into the Unnamed Creek management of the Big Sioux Aquifer (105 and 43 feet deep) located in the NW 1/4 NW 1/4 and the SE 1/4 NE 1/4 Section 27 for irrigation of 220 acres located in the N 1/2 Section 27; all in T112N-R49W. This application proposes to irrigate 110 additional acres located in the SE 1/4 Section 27 from the existing well located in the SE 1/4 NE 1/4 Section 27; all in T112N-R49W. This application, if approved, does not authorize any increase in the developed diversion rate authorized by Water Right No. 3922-3.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7795-3 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 May 28, 2013.

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 _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

AUG 29 2013

Richard J Dougherty
Northwestern Farm Management Co
301 S O'Connell St
Marshall MN 56258

Dear Mr. Dougherty:

Enclosed is Water Permit No. 7795-3 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,

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

enclosures



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

8061-3

AUG 10 2021

Dougherty Family Associates
% Dallas Mahoney
Northwestern Farm Management
301 S O'Connell St
Marshall MN 56258

Dear Mr. Mahoney:

Enclosed is Water License No. 8061-3. This is the final water right document completing the process of obtaining a Water Right. Included with the 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.

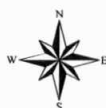
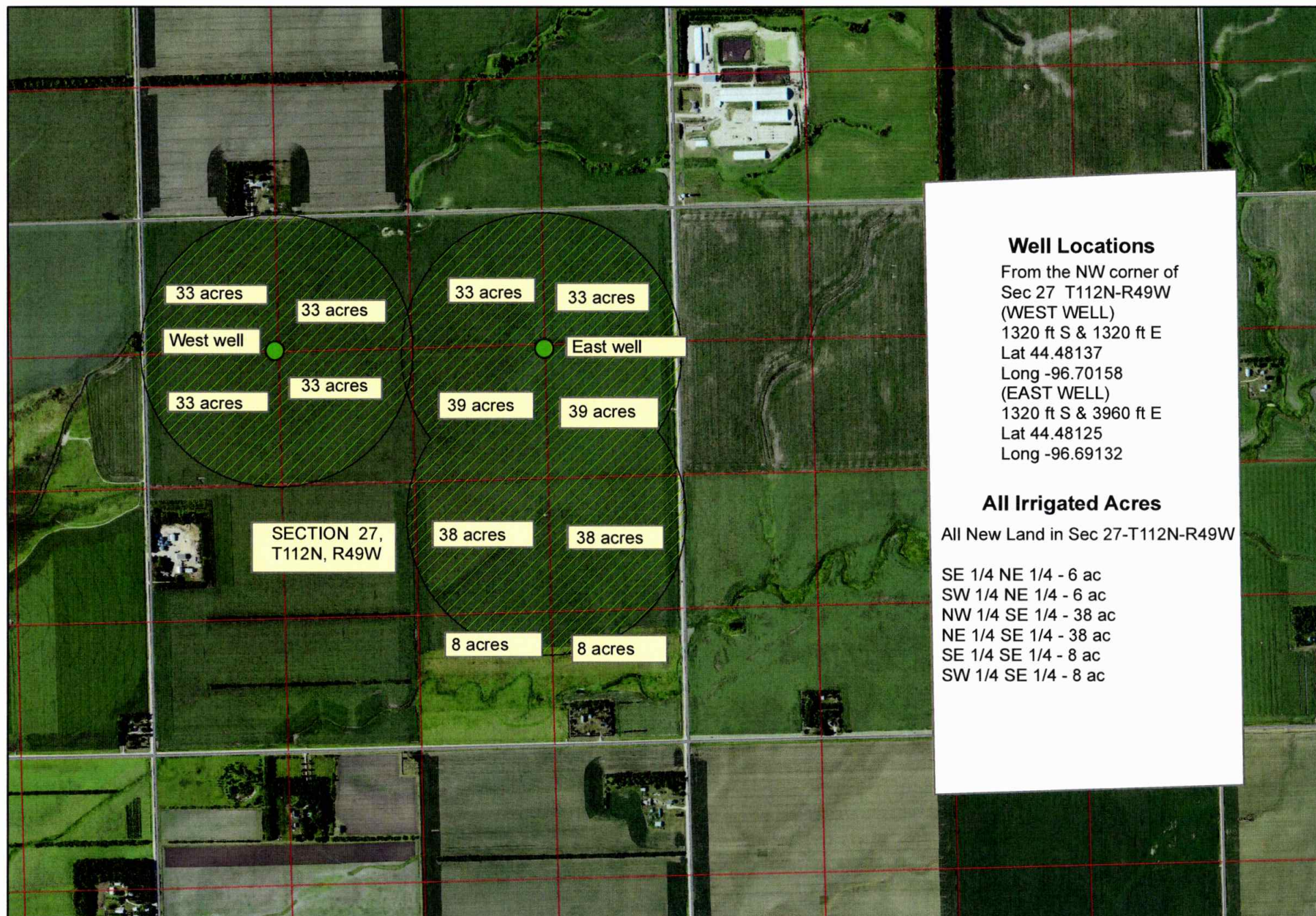
As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

Enclosures

Note: Upon licensing, the applicable portions of Water Right No. 3922-3 and Water Permit No. 7795-3 were incorporated into No. 8061-3.



0 0.175 0.35 0.7 1.05 1.4 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program