

WATER PERMIT NO. 7591-3

Name of Applicant: **Robert Raml**

Address: **17478 457th Ave, Watertown SD 57201** Phone: **605 882-0431**

Amount of Water Claimed: **1.11 cfs** Total Acres: **78 acres**

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

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

Type of Waste Disposal System:

Location: **2 miles southeast of Watertown**

PRIORITY Date Received: **12-26-12** Application/License Fee: **\$ 950**

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

Remarks:

Diversion Point: **SE 1/4 SW 1/4 Sec 15-T116N-R52W**

Land to be Irrigated: **SW 1/4 Sec 15-T116N-R52W**

Depth of Well: **40 feet deep**

Well Driller: **Empire Irrigation & Drilling**

Remarks:

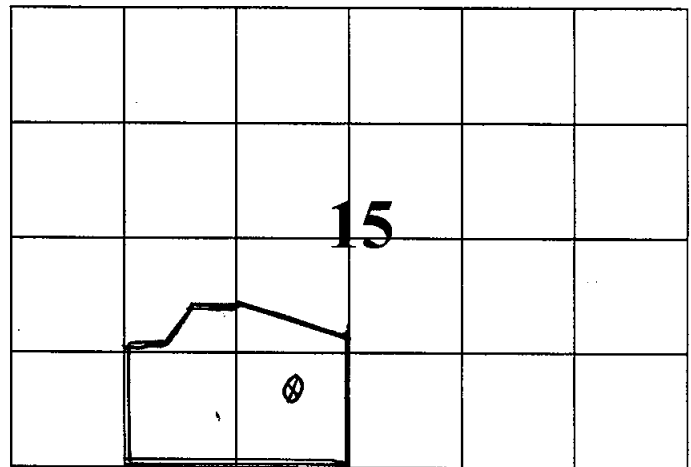
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **1-2-13**

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. 7591-3 (office use only)
Hydrologic Unit 10170201
Basin Sioux River
Newspaper Public Opinion P O Box 10
Watertown 57201-605-886-6901

well is
from permit
722-3B

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 Robert Raml
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent
(name and complete address if different than above name)

Mailing Address 17478 457 AVE WATERTOWN SD 57201
(Address) (City) (State) (Zip Code)

Home Phone 882-0431 Cell 881-9742 Email _____

2. Amount of water claimed 1.11 *CFS or 520 **GPM ***AF Total Acreage 78
(*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 900ft from the south 1800 from west SW 1/4-SW 1/4
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
SE 1/4 SW 1/4 Sec 15 - T116N-R52W County Connington

5. County or counties where water will be used Connington

6. Annual period during which water is to be used May - Sept

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
SW 1/4 of the SW 1/4 sec 15 T116-R52	15		
SE 1/4 of the SW 1/4 sec 15 T116-R52	38		
NE 1/4 of the SW 1/4 sec 15 T116-R52	10		
NE 1/4 of the SW 1/4 sec 15 T116-R52	15		

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

RECEIVED

DEC 26 2012

WATER RIGHTS
PROGRAM

I, Robert Raml Robert Raml, 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. 7591-3**

Date of first receipt of application December 26, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7591-3 to Robert Raml, 17478 457 Ave, Watertown SD 57201 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. 7591-3 appropriates 1.11 cubic feet of water per second from one well to be completed into the Big Sioux:North Aquifer (40 feet deep) located in the SE 1/4 SW 1/4 Section 15 for irrigation of 78 acres located in the SW 1/4 Section 15; all in T116N-R52W.
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 December 26, 2012.
4. The date of approval of Permit No. 7591-3 is March 11, 2013.
5. One-fifth of the construction is to be completed on or before September 11, 2015.
6. All construction is to be completed on or before March 11, 2018.
7. Water is to be put to beneficial use on or before March 11, 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

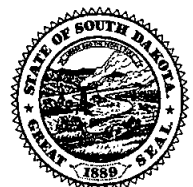
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7591-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. 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

APR 26 2013

date



Supplemental Information

(type or print)

- 1. Well Information** (check one or both as applicable) ☐ Drilling new well(s) ☒ Using existing well(s) *permit 722-3B*
- a) If new wells, how many ____ Have test holes been drilled ☐ Yes ☐ No Drilled by *well was install 1976*
(if yes, please provide copies of logs)
- b) If existing wells, how many *1* Provide copy of log(s), if available. Drilled by *land own by Tesch*
- c) Well Depth *40* Depth to Top of Water Bearing Material *32 ft* Depth to Water from Surface *8*
- d) Distance to nearest existing domestic well:
- On applicant's property *none* On property owned by others *1400 ft*

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

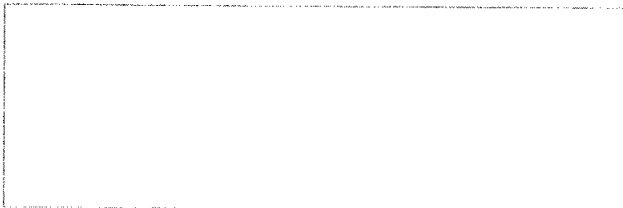
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

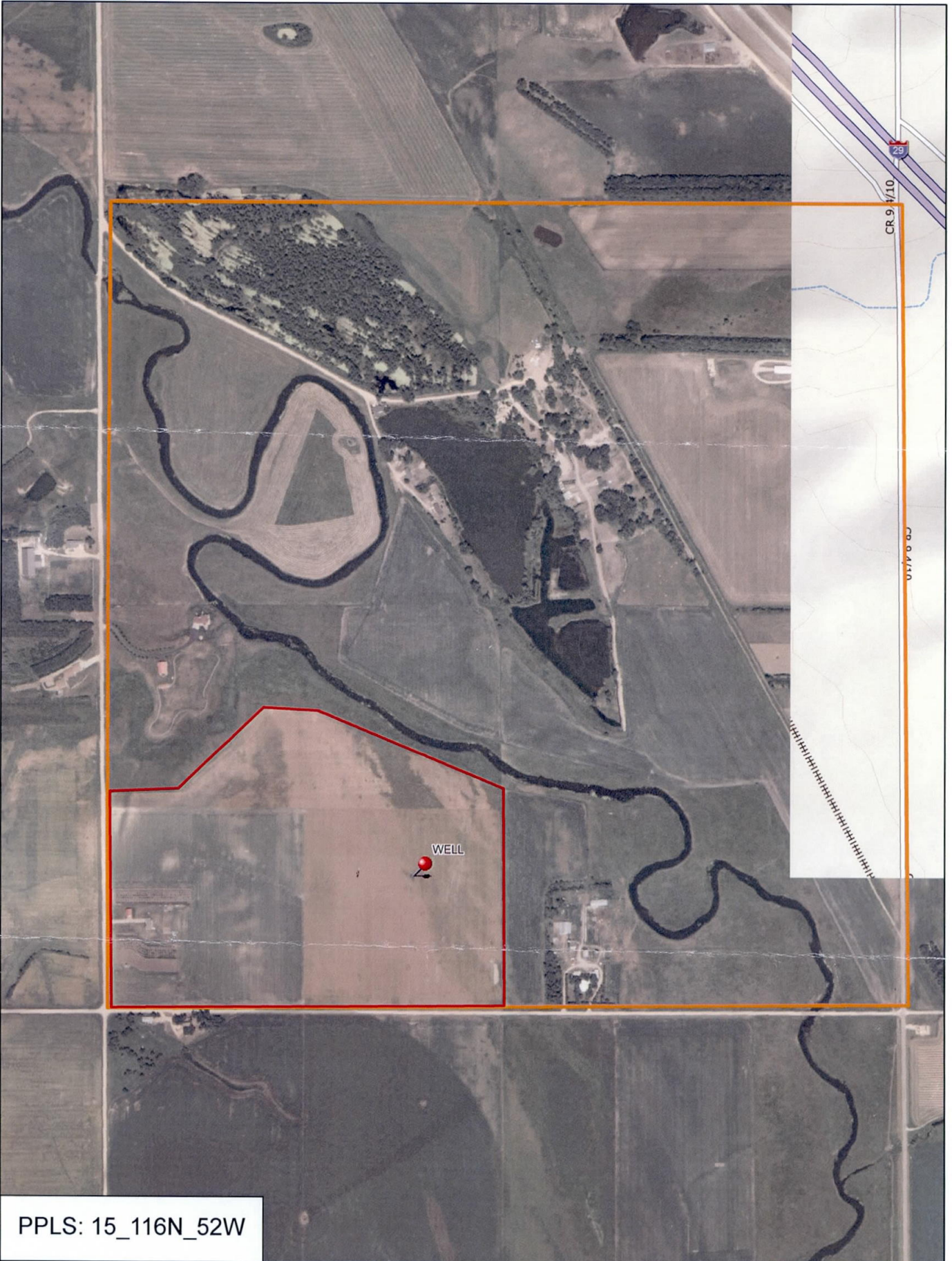
4. Water Storage Dams

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



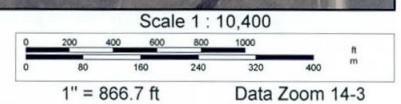
PPLS: 15_116N_52W

Data use subject to license.

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www.delorme.com

850
800



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/2, 20 13

RECEIVED OF Robert Raml 17478 457th Ave Watertown SD 57201

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

Fee for Application for Permit No. <u>7591-3</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>7591-3</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. **05834**

By

David Chiles
Chief Engineer

7591-3

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Application No. 7591-3, Robert Raml

ADDRESS: 17478 457th Avenue, Watertown COUNTY: Codington County

DATE: January 7, 2013 TELEPHONE: cell 881-9742

RE: water source for applications

I contacted Mr. Raml regarding the well location. The application states the intended water source is the existing well from cancelled Water Right No. 722-3B. However, the well for this cancelled water right is listed on the water license to be 3500 feet east of the W $\frac{1}{4}$ corner of this section. The application Mr. Raml filed shows the well to be located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 15, T116N, R52W.

Mr. Raml indicated the map he submitted is correct and this is an existing well with the pump in place.

NAME: Eve Raml



**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. 7591-3, Robert Raml**

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. 7591-3, Robert Raml, 17478 457th Avenue, Watertown SD 57201.

The Chief Engineer is recommending APPROVAL of Application No. 7591-3 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. The well authorized by Permit No. 7591-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See on application for additional information.

Garland Erbele, Chief Engineer
February 19, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO.7591-3
ROBERT RAML
FEBRUARY 19, 2013

Water Permit Application No. 7591-3 proposes to appropriate up to 156 acre-feet annually at a maximum diversion rate of 1.11 cubic feet of water per second (cfs) from an existing well completed in to the Big Sioux: North aquifer. The well is 40 feet deep and is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 15, T116N-R52W. This permit application proposes to irrigate 78 acres located in the SW $\frac{1}{4}$ Section 15; all in T116N-R52W in Codington County.

AQUIFER: North management unit of the Big Sioux aquifer (BS: N)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The North management unit of the Big Sioux aquifer is an alluvium mantled, surficial outwash deposit located primarily in the flood plain of the Big Sioux River (Hansen, 1990). The Big Sioux: North aquifer is generally under unconfined conditions with water movement to the south and toward the Big Sioux River. The aquifer is hydraulically connected to Lake Kampeska, Pelican Lake, Still Lake and the Big Sioux River (Putnam and Thompson, 1996). The aquifer underlies approximately 83,500 acres of Codington, Grant, Hamlin, and Roberts Counties and contains approximately 187,880 ac-ft of recoverable water in storage (Hedges et. al, 1982). The Big Sioux: North can range from 2-54 feet thick and is generally encountered less than 50 feet below ground surface (Putnam and Thompson, 1996). According to the well log provided with the application the Big Sioux: North was first encountered at eight feet below land surface and continued to 40 feet below land surface. A portion of the Big Sioux: North aquifer, 12,500 acres, plus the drainage above the area reserved for future use by Future Use Permit No. 5862-3 was determined to be fully appropriated. Water permits approved for the area have been approved as temporary use permits pursuant to SDCL 46-5-39. The fully appropriated portion of the aquifer is approximately nine miles north of the well location proposed by this permit application.

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, the proposed diversion can be developed without unlawful impairment of existing rights and 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 up to 156 acre-feet annually from the Big Sioux: North aquifer. Although the actual water use if this application is approved will most likely be less than 156 acre-feet/year. 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 Big Sioux: North occurs through infiltration and subsequent percolation of precipitation where the aquifer is near land surface. Due to the hydraulic connection between the aquifer and some area lakes and the Big Sioux River, recharge can be provided to the aquifer during times of high flow and stage. Hedges and others (1985) stated “the calculated recharge rates range from 2.7 to 6.9 inches per year if flow-net analysis is ignored.” Hansen (1990) estimated the recharge rate to the Big Sioux aquifer to be 4-10 inches per year (in/yr). Putnam and Thompson (1996) estimated the recharge rate to be between 2.9-5.8 in/yr and 5.53 in/yr was used for the purpose of computer modeling under steady state conditions. The average annual recharge, using Putnam and Thompson’s (1996) recharge rate, to the North management unit of the Big Sioux aquifer is 38,480 ac-ft/yr.

It is important to note that not all of the recharge or recoverable water in storage in the aquifer is available for every diversion point. Putnam and Thompson’s (1996) computer model suggested that some high capacity wells would be seriously impacted during dry conditions. The model suggests “The Big Sioux aquifer probably is unable to support extensive irrigation during dry periods such as those that occurred during 1980 and 1981 or in 1976” (Putnam and Thompson, 1996). However, in applying SDCL 46-6-3.1, the Sixth Judicial Circuit Court ruled in 2005 that if the Water Management Board uses average annual recharge, then it should also use average annual withdrawals, to determine if unappropriated water is available from the aquifer (*Hines v. South Dakota Dept. of Environ. and Nat’l. Resources, Hughes County 04-37* (Memorandum Decision, April 29, 2005)).

Discharge:

There are 91 water rights/permits appropriating water and three future use permits reserving water from the Big Sioux: North aquifer. The non-irrigation appropriations include 16 for municipal use, 11 for commercial use, five for industrial use, two for rural water system use, and one for use by a suburban housing development (Water Rights, 2013b). Water Right No. 5158-3, Sioux Rural Water System, has not been used since 1998. The well field has “basically been abandoned” because of water quality issues (Buhler, 2012). The future use permits are all for municipal use and reserve a total of 3,469 ac-ft of water annually for the City of Watertown. The estimated annual water use by the non-irrigation appropriations, not including Clark Rural Water System, Sioux Rural Water System and the City of Watertown is 2,482 ac-ft per year (Water Rights, 2013b). This estimate is based on pumping at the maximum allowed diversion rate for 60 percent of the time. Reported water use from the Big Sioux: North for the City of Watertown and the Clark RWS is shown in table 1 and annual withdrawals for irrigation as reported to the DENR-Water Rights Program through irrigation questionnaires is shown in table 2.

Reported Pumpage From the BS:N for Municipal and RWS Use (ac-ft/yr)		
	Watertown₁	Clark RWS₂
2011	3864.04	143
2010	3947.15	143
2009	3735.26	164
2008	3984.15	127
2007	4062.46	44
2006	2960.86	N/A
2005	2391.83	N/A
2004	2125.66	N/A
Avg.	3383.93	124.2
₁ (Dewille)		
₂ (Water Rights, 2008-2012)		

Table 1- Reported water use from the Big Sioux: North aquifer (modified from Buhler, 2012).

Year	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2011	16208.5	2147.88
2010	16208.5	2421.27
2009	15948.5	1773.51
2008	15498.5	2743.94
2007	14584.5	3308.79
2006	15134.5	4285.97
2005	15250.5	2886.70
2004	14673.5	2448.79
2003	14113.5	3662.11
2002	14129.5	2835.49
2001	14116.0	2558.91
2000	14116.0	3013.88
1999	14047.6	2593.10
1998	14117.8	1702.52
1997	13612.8	1656.00
1996	13472.8	1497.96
1995	14136.8	1186.68
1994	14151.8	1192.95
1993	14445.8	865.50
1992	14311.8	1325.70
1991	17240.0	1659.00
1990	22492.8	2520.10
1989	21096.8	2686.60
1988	19564.8	2740.40
1987	19564.8	1929.40
1986	19564.8	1079.10
1985	19659.0	1419.70
1984	21936.3	1684.50
1983	21141.0	1110.45
1982	20187.0	1384.05
1981	20814.0	1067.00
1980	20598.0	888.00
1979	20598.0	912.00
Min	13472.8	865.50
Max	22492.8	4285.97
Avg	16870.8	2032.50

Table 2- Irrigation water withdrawal from the Big Sioux: North aquifer (Water Rights, 1979-2012).

Total estimated average annual withdrawal, including estimated non-irrigation use, is 8,022 ac-ft/yr. Comparing the estimated average annual withdrawal plus water reserved by the future use permits, 11,491 ac-ft/yr, to estimated average annual recharge, 38,780 ac-ft/yr, there is a reasonable probability that there is unappropriated water available from the North management unit of the Big Sioux aquifer.

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 27 observation wells completed into the Big Sioux: North aquifer (Water Rights, 2013a). The nearest observation wells are CD-60D and CD-57B, 1.2 miles north and 1.3 miles south of the proposed well location, respectively. The water level in the observation wells shows good response to climatic conditions. In general, the hydrographs of the observation wells document that there is more water in storage now than in the past. The water levels rise (recharge) during wet years and gradually decline during dry years. The observation well hydrographs show the effects of pumping, but it does not appear to be significant over the period of record. The climatic effects on water level greatly mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Big Sioux: North aquifer significantly exceeds pumping. Recognizing that natural discharge can be captured for pumping, the hydrographs document that unappropriated water is available for irrigation. Figure 1 and 3 show the hydrographs for CD-60D and CD-57B, respectively.

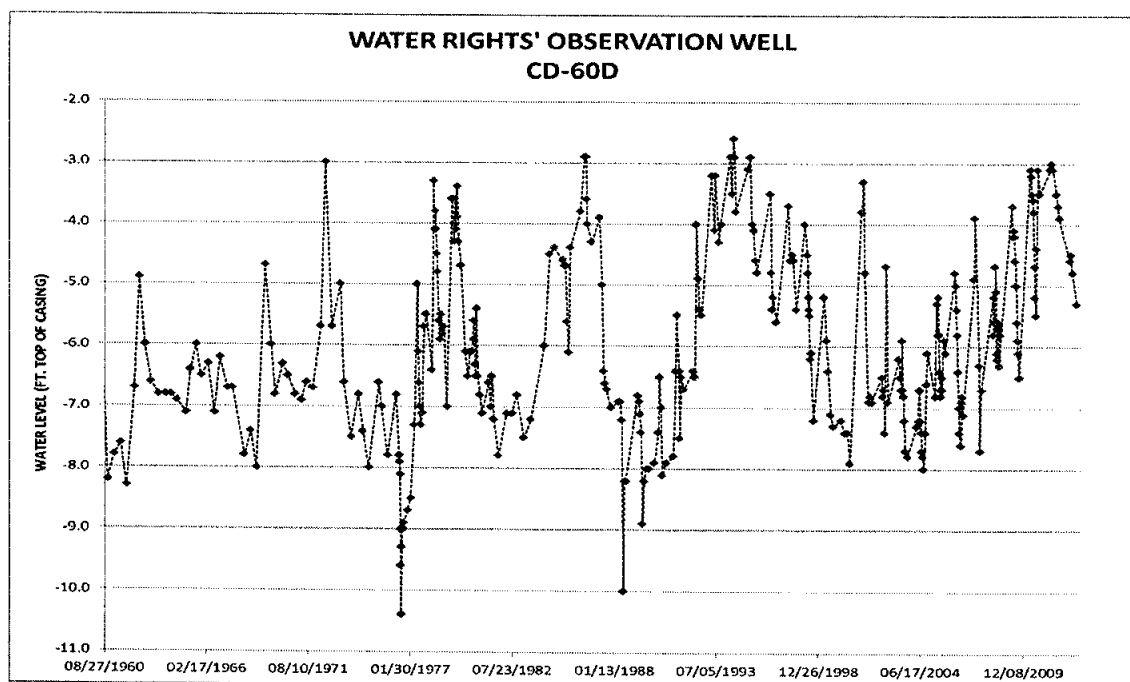


Figure 1- Hydrograph of DENR-Water Rights' observation well CD-60D (Water Rights, 2013a)

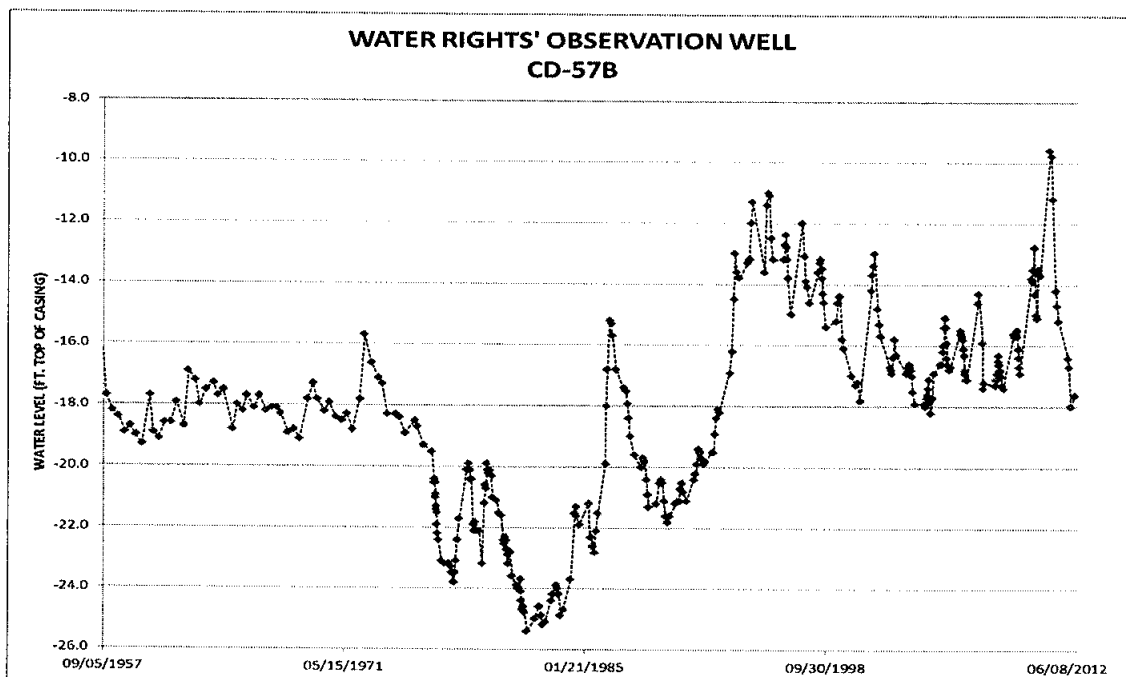


Figure 2- Hydrograph of DENR-Water Rights' observation well CD-57B (Water Rights, 2013a)

EXISTING WATER RIGHTS:

There are eight water rights/permits authorizing wells and eight domestic wells that are on file with the SD DENR-Water Rights Program within approximately two miles of the proposed well location. Table 3 shows the water rights/permits within approximately two miles of the proposed well location (Water Rights, 2013b).

Permit No.	Name	Status	Type	CFS	Acres
668-3	Nick & Matt Kranz Inc	LC	IRR	2	229.6
722-3A	Scott & Josie Simon	LC	IRR	0.64	45
2615A-3	Robert L. Endres	LC	IRR	1.67	136
5158-3*	Sioux Rural Water System	LC	RWS	2.44	
5415-3	Nick & Matt Kranz Inc	LC	IRR	1.11	105
5562-3	Robert L. Endres	LC	IRR	1.66	136
7129-3	Gordon Little	PE	IRR	1.78	140
7334-3	Nick & Matt Kranz Inc	PE	IRR	3.12	240
LC= Water Right, PE= Water Permit, IRR= Irrigation, RWS= Rural Water System					
* 5158-3 may be subject to cancellation due to forfeiture/non-use					

Table 3 – Water Rights from the Big Sioux: North aquifer within approximately two miles of the proposed well location (Water Rights, 2013b)

Since the North management unit of the Big Sioux aquifer is under unconfined conditions, drawdown created by pumping 1.11 cfs from one well is not expected to be significant very far from the production well. The nearest wells that are completed into the same aquifer are authorized by Water Right No. 722-3A (to the northeast) and 5562-3 (to the south) (Water Rights, 2013b). Both wells are approximately 0.3 miles away. The nearest domestic well that appears to be completed into the same aquifer is approximately 0.4 miles north (Water Rights, 2013c). The minimal drawdown and interference from pumping production wells and domestic wells is clearly shown in figure 1, the hydrograph for CD-60D. The observation well is within

approximately 0.4 miles of two irrigation and several domestic wells. Therefore due to the distance between wells and the low drawdown created by pumping high capacity wells, there is a reasonable probability that his proposed diversion can be made without adversely impacting existing appropriative or domestic users.

CONCLUSIONS:

1. This application proposes to appropriate up to 156 acre-feet of water annually for the irrigation of 78 acres at a maximum diversion rate of 1.11 cubic feet per second from the Big Sioux: North aquifer.
2. There is a reasonable probability that unappropriated water is available from the Big Sioux: North aquifer to supply this proposed diversion.
3. There is a reasonable probability that the diversion requested by this application can be made without adversely affecting existing water rights and domestic users.


Adam Mathiowetz
SD DENR-Water Rights Program

Approved By:


Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K. 2012. Report on Water Permit Application No. 7328-3, Marvin Amdahl. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Hansen, D.S. 1990. Water resource of Codington and Grant Counties, South Dakota: U.S. geological Survey Water-Resources Investigations Report 89-4147. U.S. Geological Survey, Huron, SD.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 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.
- Hedges, L.S. J. Allen, and D.E. Holly. 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.
- Hines v. South Dakota Dept. of Environ. and Nat'l. Resources, Hughes County 04-37. Memorandum Decision, April, 29,2005.
- Putnam, L.D. and R.C. Thompson. 1996. Appraisal of the Water Resources of the Big Sioux aquifer, Codington and Grant Counties, South Dakota: U.S. Geological Survey Water Resources Investigations No. 96-4275. U.S. Geological Survey, Huron, SD.
- Water Rights. 1979-2012. "1979-2011 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, 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.

RECEIVED

MAR - 4 2013

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Codington)

I, Monica K. Saathoff

certify that the attached printed Notice was
taken

from the Watertown Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was
published

in the newspaper on the following date:

February 28th, 2013

Cost of Printing \$57.29

Monica K. Saathoff
(Signature)

Bookkeeper

(Title)

February 28th, 2013

(Date Signed)

DEPARTMENT OF ENVIRON- MENT AND NATURAL RESOURCES

Notice is given that Robert Raml, 17478 457th Ave. Watertown SD 57201 has filed an application for a water permit to appropriate 1.11 cubic feet of water per second from one well to be completed into the Big Stone North Aquifer (40 feet deep) located in the SE 1/4 SW 1/4 Section 15, for irrigation of 78 acres located in the SW 1/4 Section 15; all in T116N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7591-3 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 March 11, 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 approximate cost of \$49.50. (February 28, 2013)

All legal notices in the Public Opinion and other South Dakota newspapers can be found at www.sdpublicnotices.com



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 20, 2013

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7591-3 to Appropriate Water. Please publish the notice once on February 28, 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 Robert Raml, 17478 457th Ave., Watertown SD 57201 (Ph # 605-882-0431).

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 DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.

February 20, 2013

Robert Raml
17478 457th Ave
Watertown SD 57201

Dear Mr. Raml:

Water Permit Application No. 7591-3 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 Public Opinion printed at Watertown SD (Ph # 605-886-6901). 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 February 28, 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. 7591-3 to Appropriate Water

Notice is given that Robert Raml, 17478 457th Ave, Watertown SD 57201 has filed an application for a water permit to appropriate 1.11 cubic feet of water per second from one well to be completed into the Big Sioux:North Aquifer (40 feet deep) located in the SE 1/4 SW 1/4 Section 15 for irrigation of 78 acres located in the SW 1/4 Section 15; all in T116N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7591-3 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 March 11, 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

APR 26 2013

Robert Raml
17478 457th Ave
Watertown SD 57201

Dear Mr. Raml:

Enclosed is Water Permit No. 7591-3 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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7591-3

I have this day, April 26, 2023, made a thorough examination of the water use system constructed by Robert Raml; 17478 457th Ave, Watertown, SD 57201 of Permit No. 7591-3, bearing the priority of December 26, 2012 authorizing the diversion of 1.11 cu. ft. per second of the waters of the Big Sioux:North Aquifer for irrigation purposes, in Codington County.

A. Works used to divert the water:

Well Information:

Well Drilling Firm: Empire Drilling (April, 1975)

- 1) No. of Wells: 1
- 2) Depth(s): 40 feet
- 3) Well log is available Y

Comments: (from 722-3B)

Casing:

- 1) Diameter: 16 inches
- 2) Length: 20 feet
- 3) Type fiberglass

Screen:

- 1) Type: fiberglass
- 2) Length 20 feet
- 3) Static water level 8 feet

Pump:

- 1) Make: Submersible
- 2) Capacity 450 GPM

Motor: Make, Model No. and Horsepower rating are unknown

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

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 665 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1160 feet
- 3) Number of towers 6
- 4) End gun Y
- 5) Capacity 450 GPM

Chemigation Equipment: none

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 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: WELL LOCATION
From the SW corner Sec 15 T116N R52W, 895 ft N & 2065 ft E, Lat 44.85003 Long -97.05972 (SE ¼ SW 1/4)
2. The works are capable of diverting and conveying to the place of use 1.00 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
All land in Sec 15 T116N R52W
NW ¼ SW ¼ - 2.3 acres
NE ¼ SW ¼ - 3.0 acres
SE ¼ SW ¼ - 32.2 acres
SW ¼ SW ¼ - 21.6 acres

comprising a total of 59.1 acres of land and the license should be issued for 0.84 cfs (The diversion rate is based on 1 cfs/70 acres irrigated)
3. All structures, wells, and lands on map yes

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

The irrigated acreage was determined with the aid of FSA imagery and ArcMAP software.

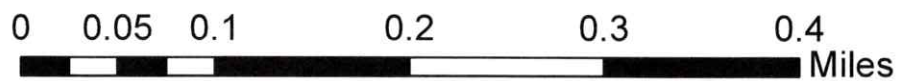
The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity.

The mailing address and the telephone number in the permit materials are current



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: April 27, 2023



7591-3

NOTICE OF WELL CONSTRUCTION

Codington County

(1) WELL CONSTRUCTION

Location of well: 1/4 1/4 SW Section 15 Township 116 Range 52

Well owner: Hal Pasch Watertown, SD 57201

Date well drilling completed: April 1975 Purpose of well: Irrigation

WELL LOG

Layer, top to top in feet	Description of layer	Depth to top of water producing aquifer
0-2	top soil	35
2-8	sandy clay	
8-40	sand & gravel	
40-	clay	

Depth to top of water producing aquifer 35 ft.

Depth to static water level

Name of producing aquifer (if known) gravel

Total depth of drill hole 40 ft.

Depth to bottom of casing 40 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

0-20 16" fiberglass

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

20-40 16" fiberglass

If a flowing well, flow of completed well G.P.M.

Empire Irrigation Drilling Co. Inc.
Name of Drilling Contractor

Attach sheet if more space is needed

(2) PUMP INSTALLATION

Company name and size of pump Not done by Empire HP

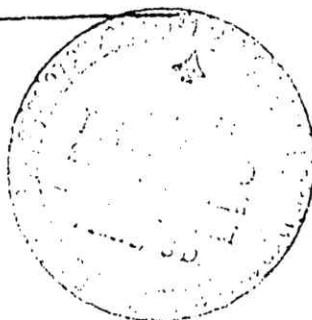
Type of pump Capacity of installed pump G.P.M.

Depth of pump placement ft., Date of pump installation

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ft., tube diameter tube material



Name of Pump Installation Contractor

Permit File # 722-3B



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

MAY 01 2023

7591-3

Robert Raml
17478 457th Ave
Watertown SD 57201

Dear Mr. Raml:

Enclosed is Water License No. 7591-3. 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

NOTE: The investigation found your irrigation system is capable of diverting 1.00 cubic feet of water per second (cfs) which is equivalent to approximately 450 gallons per minute. The statutory limit for 59.1 acres is 0.84 cfs (equivalent to 380 gpm). Diversion of water under this water license is limited to 0.84 cfs.

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7591-3

(1) Robert Raml, 17478 457th Ave., Watertown SD 57201 made Application No. 7591-3, December 26, 2012 for a water permit to divert 1.11 cubic feet of water per second from ground water, one well (Big Sioux North Aquifer), Codington County, South Dakota for irrigation purposes. Permit No. 7591-3, with a priority date of December 26, 2012, was approved March 11, 2013, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 11, 2018 and for the application to beneficial use of water on or before March 11, 2022.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 0.84 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 895'N & 2,065'E of the SW corner of Section 15, T116N, R52W (SE ¼ SW ¼)
Latitude 44.85003, Longitude -97.05972

(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 15, T116N, R52W	NW ¼ SW ¼	2.3 acres
	NE ¼ SW ¼	3.0 acres
	SE ¼ SW ¼	32.2 acres
	SW ¼ SW ¼	21.6 acres
	Total	59.1 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Robert Raml, 17478 457th Ave., Watertown SD 57201 the holder and/or owner of Water Right No. 7591-3 is issued a license to appropriate water, the right to use 0.84 cubic feet of water per second from ground water, one well (Big Sioux North Aquifer) with a priority date of December 26, 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. 7591-3 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.
- The well authorized by Permit No. 7591-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***The well was drilled in 1975 by Empire Drilling. A copy of the well completion report is on file with the Water Rights Program.***

continued

- 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

MAY 01 2023

date

