

WATER PERMIT NO. 7917-3

Name of Applicant: **Steven M Maag**

Address: **16134 Still Lake Rd, Watertown SD 57201**

Phone: **605 882-3453**

Amount of Water Claimed: **1.9 cfs**

Total Acres: **133 acres**

Source of Water Supply: **groundwater (two wells)**

Water to be used for: **irrigation**

County: **Codington**

Type of Waste Disposal System:

Location: **5 miles east of Florence**

PRIORITY

Date Received: **10-25-13**

Application/License Fee: **\$ 1050**

Corrected Application Received:

Period of Annual Use: **May 1 – Sept 30**

Remarks:

Diversion Point: **N 1/2 SE 1/4 Sec 8-T118N-R53W**

Land to be Irrigated: **SE 1/4, SE 1/4 NE 1/4 Sec 8-T118N-R53W**

Depth of Well: **33 feet deep**

Well Driller: **Lacey Well Drilling**

Remarks:

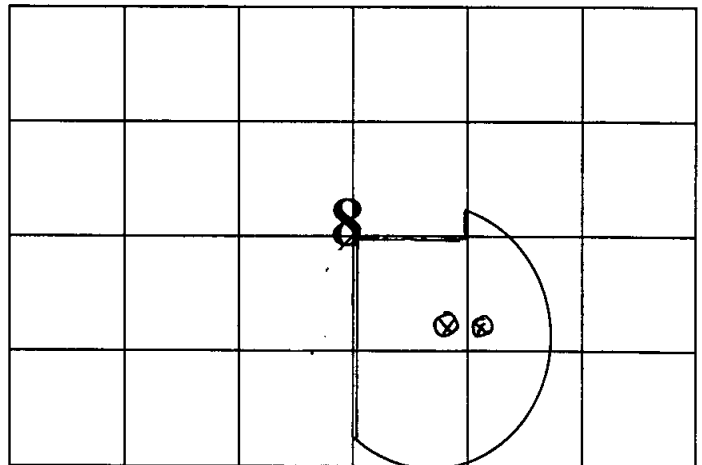
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **10-28-13**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota
(type or print)RECEIVED
OCT 25 2013
WATER RIGHTS
PROGRAM

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7917-3</u> (office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Public Opinion Box 10</u>
	<u>Watertown 57201 - 605-886-6901</u>

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name of Applicant Steven M. Maag Phone 605-882-3453
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 16134 Still Lake Road, Watertown, SD 57201
(Address) (City) (State) (Zip Code)

2. Amount of water claimed 1.9 *CFS or 855 **GPM ***AF Total Acreage 133
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply well

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Codington
N1/2 SE 1/4 Section 8 - T118 N-R53 W
Farm 5504

5. County or counties where water will be used Codington

6. Annual period during which water is to be used summer May 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
SE 1/4 Section 8 - 118 N	130 Acres		
SE 1/4, NE 1/4 " " R53W	3		

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

Irrigation project to improve crop production on light sandy soil

STATE OF SOUTH DAKOTA)

County of Codington) SS

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

I, Steven M. Maag, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature _____

Subscribed and sworn to before me this _____ day of _____ 20 _____

**SOUTH DAKOTA
WATER PERMIT NO. 7917-3**

Date of first receipt of application October 25, 2013.

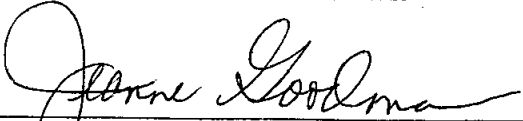
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7917-3 to Steven M Maag, 16134 Still Lake Road, Watertown SD 57201 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7917-3 appropriates 1.9 cubic feet of water per second from two wells to be completed into the Big Sioux:North Aquifer (30 feet deep) located in the N 1/2 SE 1/4 Section 8 for irrigation of 133 acres located in the SE 1/4, SE 1/4 NE 1/4 Section 8; all in T118N-R53W.
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 October 25, 2013.
4. The date of approval of Permit No. 7917-3 is January 13, 2014.
5. One-fifth of the construction is to be completed on or before July 13, 2016.
6. All construction is to be completed on or before January 13, 2019.
7. Water is to be put to beneficial use on or before January 13, 2023.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

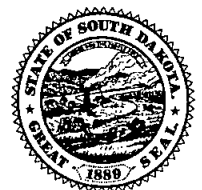
1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7917-3 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

FEB 13 2014

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 33
- b) Casing Type PVC Diameter 14" Thickness CL 160
- c) Screen Type PVC Diameter 14" Thickness CL 160
- d) Gravel Pack Mesquite Length of Gravel Pack 18'
- e) Depth to Top of Water Bearing Material 7'
- f) Depth to Water (ground surface to water level) 7'
- g) Distance to nearest existing domestic well:
- On applicants property 1/4 mile north On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

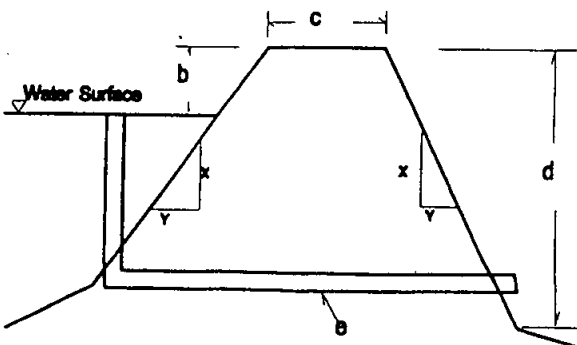
3. Dugout Information

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

4. Water Storage Dams

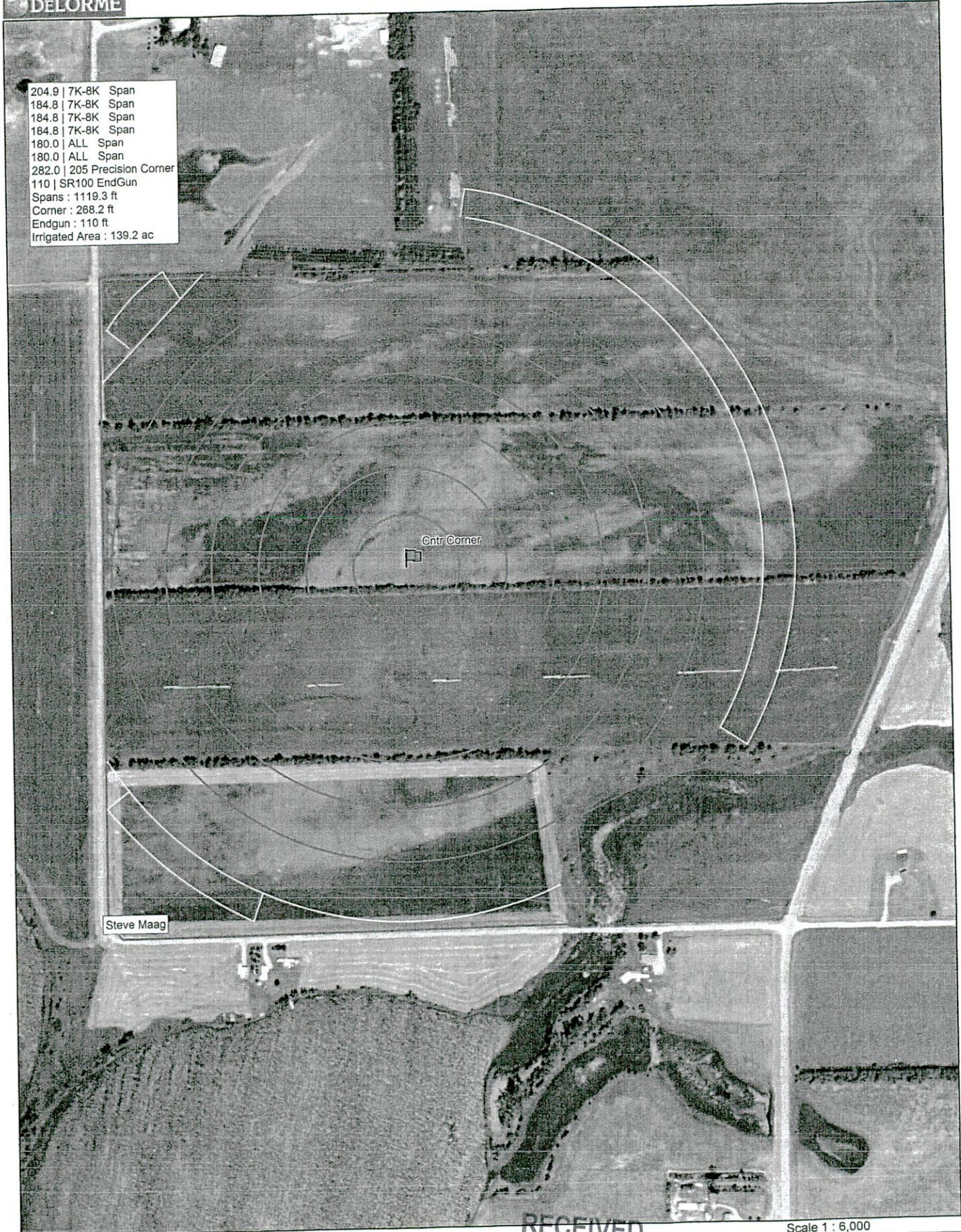
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

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



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

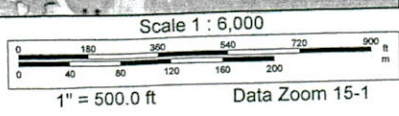
204.9 | 7K-8K Span
 184.8 | 7K-8K Span
 184.8 | 7K-8K Span
 184.8 | 7K-8K Span
 180.0 | ALL Span
 180.0 | ALL Span
 282.0 | 205 Precision Corner
 110 | SR100 EndGun
 Spans : 1119.3 ft
 Corner : 268.2 ft
 Endgun : 110 ft
 Irrigated Area : 139.2 ac



Data use subject to license.
 © DeLorme. XMap® 7.
 www.delorme.com



RECEIVED
 OCT 25 2013
 WATER RIGHTS
 PROGRAM





United States Department of Agriculture
Farm Service Agency

PLSS: 8_118N_53W
Farm: 5504

Codington County

1:8,926

April 20, 2012



RECEIVED

Wetland Determination Identifiers

- ☒ Restricted Use
- ☒ Limited Restrictions
- ☐ Exempt from Conservation Compliance Provisions

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

OCT 25 2013

WATER RIGHTS PROGRAM

Common Land Units

☒ Non Cropland

2010 Ortho-Photography - Not to Scale

Sec 6
T118N
R53W

Sec 5
T118N
R53W

Sec 30
T119N
R52W

Sec 29
T119N
R52W

Sec 7
T118N
R53W

Sec 8
T118N
R53W

Sec 31
T119N
R52W

Sec 32
T119N
R52W

Sec 9
T118N
R53W

Sec 18
T118N
R53W

Sec 17
T118N
R53W

Sec 16
T118N
R53W

Sec 5
T118N
R52W

Sec 19
T118N
R53W

Sec 20
T118N
R53W

Sec 21
T118N
R53W

Sec 8
T118N
R52W

In Water Since 1946

RECEIVED

Wells — Pumps
Dewatering Work
Test Drilling

LACEY WELL DRILLING, INC.
47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979

OCT 25 2013

WATER RIGHTS PROGRAM
Down-Hole Camera
Water Specialists
Irrigation Supplies

Steve Maag

Test Hole 33

10-2-13

16134 Still Lake Rd.

Wastewater, So Dak. 57201

#1 East 0-1 Topsoil

1-8 Rocks & Gravel

8-30 Good Gravel

30-33 Good Sand

7' water

24' of water

Best Hole

#2 West 0-1 Topsoil

1-12 Rocks

12-

Drilled 10-2-13

Driller Jim Lacey

Lacey Well Drilling Inc. Lnc: 111

Joan Rulden Lacey

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/28, 20 13

RECEIVED OF Steven Maag 16134 Still Lake Rd Watertown SD 57201

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

Fee for Application for Permit No. <u>7917-3</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>7917-3</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. **06470**

By J. Anne Goodman 29
Chief Engineer



**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. 7917-3, Steven M Maag**

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. 7917-3, Steven M Maag, 16134 Still Lake Road, Watertown SD 57201.

The Chief Engineer is recommending APPROVAL of Application No. 7917-3 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 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 wells authorized by Permit No. 7917-3 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 report on application for additional information.

Jeanne Goodman, Chief Engineer
December 20, 2013

REPORT TO THE CHIEF ENGINEER

WATER PERMIT APPLICATION NO. 7917-3

STEVEN M MAAG

December 4, 2013

Water Permit Application No. 7917-3 proposes to divert groundwater a maximum rate of 1.9 cubic feet per second (cfs) from two wells completed to a depth of approximately 30 feet and will be located near the center of the SE ¼ of Sec 8, T118N-R53W. Given the test hole data submitted with this application and the data available from nearby existing wells, it is expected that the wells proposed in this application will draw from the Big Sioux: North aquifer. The water will be used to irrigate 133 acres located in the SE ¼ of Section 8 (130 acres) and the SE ¼ NE ¼ of Section 8 (3 acres) in Codington County. Inspection and/or updated aerial photos of the completed system will be used to determine the actual number of acres being irrigated.

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 et. al, 1996). The aquifer underlies approximately 83,500 acres of Codington, Grant, Hamlin, and Roberts Counties and contains approximately 187,880 acre-feet (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 at less than 50 feet below the ground surface (Putnam et. al, 1996). The test hole log submitted with this application identified gravel from eight to 30 feet below the ground surface, which is assumed to be an extension of the Big Sioux: North aquifer.

Although a 12,500 acre portion of the Big Sioux: North aquifer was determined to be fully appropriated (Goodman, 1995), water from the diversion points associated with this application is not expected to be drawn from that fully appropriated portion of the Big Sioux: North aquifer as the well locations lie more than 10 miles to the south of the fully appropriated portion.

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 applicants proposed use, the proposed diversion can be developed without unlawful impairment of existing rights and the proposed use is of a beneficial nature and in the public interest. This report will address the availability of unappropriated water and the potential for impairment to prior rights to water in the aquifer.

WATER AVAILABILITY:

This application proposes to appropriate water from the Big Sioux: North aquifer. If this application is approved, the actual water use will likely be less than 260 acre-feet per year (ac-

ft/yr). The probability of unappropriated water being available can be evaluated by considering SDCL 46-6-3.1 which stipulates “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable 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. In this instance, a public water system is not involved and the aquifer is not older or lower than the Greenhorn Formation. Therefore, the issue of recharge/withdrawal must be addressed in the section below.

HYDROLOGIC BUDGET:

Recharge to the Big Sioux: North aquifer occurs due to infiltration and percolation of precipitation into areas of the aquifer which are near the group surface. The Big Sioux: North aquifer is also hydraulically connected to lakes in the area and the Big Sioux River itself, and is recharged by those water bodies during times of high lake levels and river flow. Recharge to the aquifer has been calculated in several reports and varies between 2.7 and 6.9 inches annually not taking into consideration flow-net analysis (Hedges et. al, 1985), 4.0 to 10.0 inches per year (Hansen, 1990), and 2.9-5.8 inches per year (Putnam et. al, 1996). In the case of the last rate, 5.53 inches per year was used for the purpose of computer modeling under steady state conditions. Using this rate, annual recharge to the Big Sioux: North aquifer was determined to be 38,480 ac-ft/year (Putnam et. al, 1996).

Due to varying conditions throughout the aquifer, the storage and rates of recharge are not necessarily constant at every diversion point. Some high capacity wells may be severely impacted during periods of drought (Putnam et. al, 1996). The model suggests that “The Big Sioux aquifer is probably unable to support extensive irrigation during dry periods such as those that occurred during 1980 and 1981 or in 1976.” (Putnam et. al, 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)).

Currently, there were 96 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 60 percent of the time. The maximum annual use by the City of Watertown through current appropriations from the Big Sioux: North is calculated from 60 percent assumed use for permits limited only by diversion rate and 100 percent use for permits limited by annual volume. This maximum annual use by Watertown is estimated to be 12,247 ac-ft/yr. The Clark Rural Water

System appropriates 404 ac-ft/yr. Current usage is a fraction of the maximum annual estimated use (see Table 1). Reported water use from the Big Sioux: North aquifer for the City of Watertown and the Clark Rural Water System is shown in Table 1, and annual withdrawals for irrigation as reported to the DENR-Water Rights Program through irrigation questionnaires are shown in Table 2.

Reported Pumpage From the BS:N for Municipal and RWS Use (ac-ft/yr)		
	Watertown	Clark RWS
2012	4259.65 ₁	108 ₂
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.	3481.23	121.5
(Deville)	(Water Rights, 2008-2013)	

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

Year	Number of Permits Reporting	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2011	46	16208.5	2147.88
2010	46	16208.5	2421.27
2009	45	15948.5	1773.51
2008	41	15498.5	2743.94
2007	38	14584.5	3308.79
2006	38	15134.5	4285.97
2005	40	15250.5	2886.7
2004	38	14673.5	2448.79
2003	37	14113.5	3662.11
2002	37	14129.5	2835.49
2001	36	14116	2558.91
2000	36	14116	3013.88
1999	35	14047.6	2593.1
1998	35	14117.8	1702.52
1997	31	13612.8	1656
1996	30	13472.8	1497.96
1995	32	14136.8	1186.68
1994	33	14151.8	1192.95
1993	34	14445.8	865.5
1992	33	14311.8	1325.7
1991	38	17240	1659
1990	44	22492.8	2520.1
1989	40	21096.8	2686.6
1988	35	19564.8	2740.4
1987	35	19564.8	1929.4
1986	35	19564.8	1079.1
1985	36	19659	1419.7
1984	36	21936.3	1684.5
1983	34	21141	1110.45
1982	32	20187	1384.05
1981	37	20814	1067
1980	39	20598	888
1979	39	20598	912
Min	30	13472.8	865.5
Max	46	22492.8	4285.97
Avg	37	16870.8	2036.0

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

The estimated average annual withdrawal from the Big Sioux: North aquifer, including the water reserved by future use permits is 20,638 ac-ft/yr. Comparing the estimated average annual withdrawal plus water reserved by the future use permits 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 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 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 well to the proposed diversion site in Application No. 7917-3 is CD-60A, located approximately two miles to the east.

The water levels shown in observation well CD-60A (see Figure 1) are primarily controlled by climatic conditions which eclipse the annual effects of pumping. These observations indicate that recharge rates greatly exceed those of annual pumping. Therefore, it can be reasonably assumed that unappropriated is available.

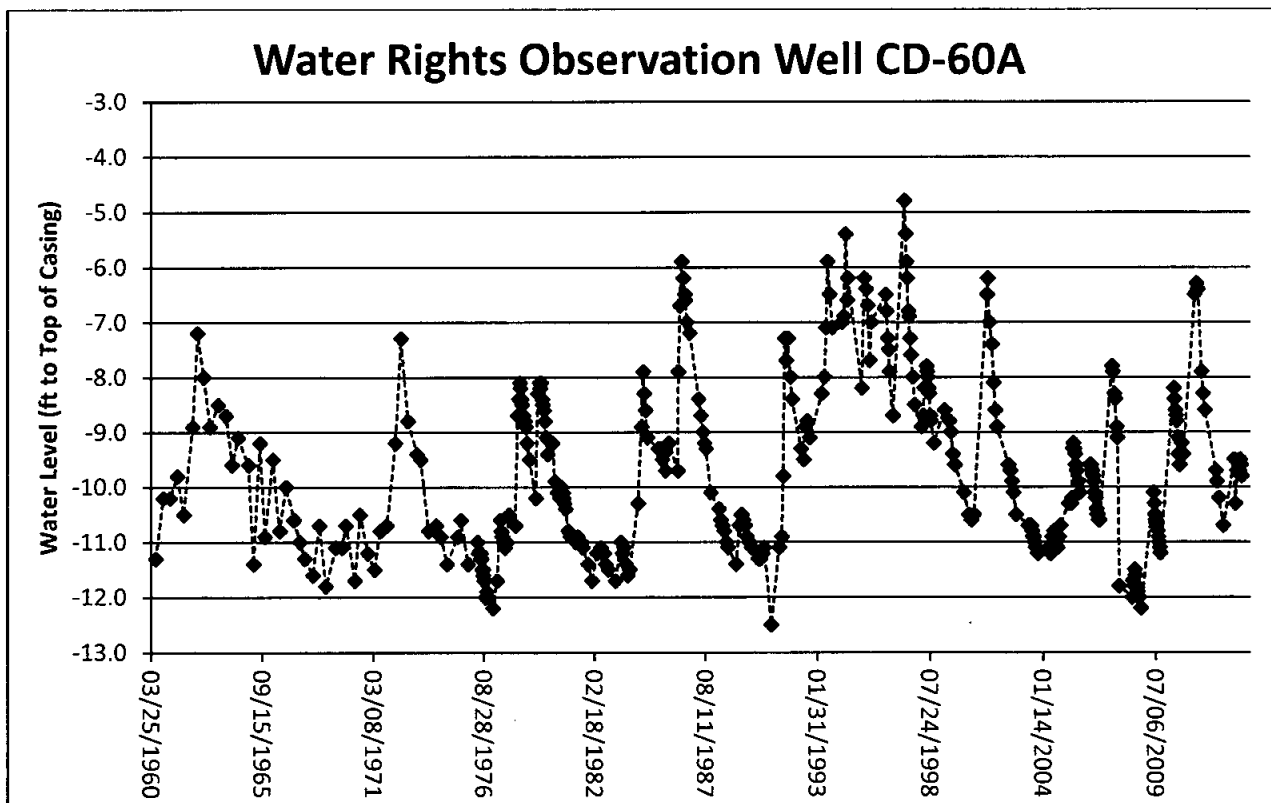


Figure 1- Hydrograph of DENR-Water Rights' observation well CD-57B (Water Rights, 2013a)

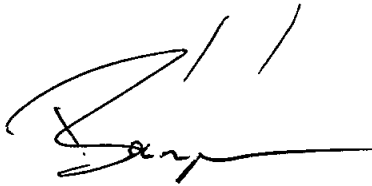
EXISTING WATER RIGHTS:

The closest diversion point to the SE ¼ of Sec 8, T118N-R53W is Water Permit No. 7650-3 which is located approximately 2.5 miles from the proposed well locations associated with this application (Water Rights, 2013c). At this distance, interference is not expected to be a concern. The nearest known domestic wells on file are located approximately 1,300 feet to the south along

the southern edge of Section 8 (Water Rights, 2013c). Interference at this distance is not expected to be a concern. However, if approved, Water Permit No. 7917-3 should include a qualification that the well owner will control his withdrawals to limit any potential impact that pumping may have on local domestic wells.

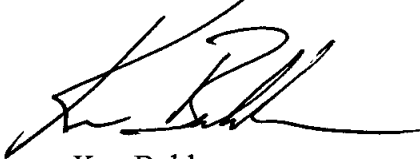
CONCLUSIONS:

1. This application proposes to appropriate water for the irrigation of 133 acres at a maximum diversion rate of 1.9 cfs from the Big Sioux: North aquifer.
2. There is a reasonable probability that unappropriated water is available from the Big Sioux: North aquifer to adequately accommodate the diversion rate of 1.9 cfs.
3. It is not expected that the diversion rate requested by this application will have an adverse impact on known existing wells and water rights.



Bracken Capen
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.
- Goodman, J.A. 1995. Report on Water Permit Application No. 5862-3. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- 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 Bldg., Pierre, South Dakota.
- Water Rights. 2008-2013. "Non-irrigation Yearly Reports". SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013c. Water Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

JAN 13 2014

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

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:

January 2nd, 2014

Cost of Printing 57.29

Monica Saathoff
(Signature)

Bookkeeper

(Title)

January 2nd, 2014

(Date Signed)

DEPARTMENT
OF ENVIRON-
MENT AND
NATURAL
RESOURCES

NOTICE OF APPLICATION
NO. 7917-3 to Appropriate
Water

Notice is given that Steven M. Maag, 16134 Still Lake Road, Watertown SD 57201 has filed an application for a water permit to appropriate 1.9 cubic feet of water per second from two wells to be completed into the Big Sioux North Aquifer (30 feet deep) located in the N 1/2 SE 1/4 Section 8 for irrigation of 133 acres located in the SE 1/4, SE 1/4 NE 1/4 Section 8; all in T118N-R53W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7917-3 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 January 13, 2014.

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. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at the approximate cost of \$52.25. (January 2, 2014)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

December 20, 2013

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7917-3 to Appropriate Water. Please publish the notice once on January 2, 2014. 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 Steven M Maag, 16134 Still Lake Rd, Watertown SD 57201 (Ph # 605-882-3453).

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.**

December 20, 2013

Steven M Maag
16134 Still Lake Rd
Watertown SD 57201

Dear Mr. Maag:

Water Permit Application No. 7917-3 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 January 2, 2014. 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. 7917-3 to Appropriate Water

Notice is given that Steven M Maag, 16134 Still Lake Road, Watertown SD 57201 has filed an application for a water permit to appropriate 1.9 cubic feet of water per second from two wells to be completed into the Big Sioux:North Aquifer (30 feet deep) located in the N 1/2 SE 1/4 Section 8 for irrigation of 133 acres located in the SE 1/4, SE 1/4 NE 1/4 Section 8; all in T118N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7917-3 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 January 13, 2014.

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

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



FEB 13 2014

Steven M Maag
16134 Still Lake Rd
Watertown SD 57201

Dear Mr. Maag:

Enclosed is Water Permit No. 7917-3 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

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

7917-3

Location NW 1/4 SE 1/4 Sec 8 Twp 118N Rg 53 W 53

County Codington

Please mark well location with an "X"

Well completion Date 11-3-14

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) 3/4 mile ft from Parsons (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:
False Casing - Bucket

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
25 LB/FT	14 IN	426 FT	218 FT	20 IN
25 LB/FT	14 IN	426 FT	246 FT	20 IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement		Lb/gal	12 Ft	8 Ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 14 Inches Length 10 Feet

Material PVC

Slot Size 100 Set From 218" Feet to 218" Feet EAST

Other information 246" 346" 14x1

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? Chlorine in Pack

☐ No, Why Not? _____

Lab sample sent to for water quality analysis Yes

WELL OWNER: Steve MAAg

Business Name: _____

Address1: 116134 Still Lake Rd

Address2: _____

City, State, Zip: Water-town S.D. 57201

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
1-6 Topsoil	0	9
1-3 1/2" coarse	9	18
clean gravel	18	31'8"
3 1/2" Blue clay		31'8"

STATIC WATER LEVEL E.W. 9' 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: sub

☐ Bailed

☐ Other

Pumping Level Below Land Surface

Ft. After	Hrs. pumped	GPM
17'	2	650
15'	1	700

If pump installed, pump rate: _____ GPM

REMARKS Really Good Well

RECEIVED
DEC 08 2014
WATER RIGHTS PROGRAM

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm: Lacey Well Drilling Inc.

Signature of License Representative: Juan Reddy-Lacey

Signature of Well Owner or Equitable Property Holder: Steve M. MAAg

Date: 11/24/14

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

7917-3



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

January 20, 2023

NOTICE

TO: SCOTT MAAG, MGR, 44869 161ST ST, FLORENCE, SD 57235

FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2022 Irrigation Questionnaire(s)

Our records indicate your 2022 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7917-3 & 8315-3. The request for the Questionnaire was dated October 21, 2022. The Water Management Board has directed owners of water permits who have not submitted the 2022 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) 7917-3 & 8315-3 qualification:

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

The hearing will be held at **Wednesday, March 8, 2023 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) 7917-3 & 8315-3 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 8, 2023** 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://danr.sd.gov/iq> using this password: JOXWOY**

c: STEVEN MAAG, 16134 STILL LAKE RD, WATERTOWN SD 57201

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.

7917-3



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

January 24, 2023

7917-3
8315-3

Scott Maag
44869 161st St
Florence SD 57235

Dear Mr. Maag:

I am writing to acknowledge receipt of the 2022 irrigation questionnaires.

You may disregard the January 20, 2023, "Notice" concerning reporting requirements for Water Permit Nos. 7917-3 & 8315-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

Recently you called and spoke with Eric Gronlund in our program concerning the permits. It is our understanding from his conversation with you and the irrigation questionnaire for Permit No. 8315-3 that you have chosen not to develop the irrigation system. The permit will be scheduled for cancellation consideration at a later date. You will be notified of the time, date, and place of the hearing once it is scheduled.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

c: Steven Maag, 16134 Still Lake Rd, Watertown SD 57201

7917-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 05 2023

Steven M Maag
16134 Still Lake Rd
Watertown SD, 57201

7917-3

Dear Mr. Maag:

Enclosed is Water License No. 7917-3. 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 wells, constructs a replacement well and does not plan to use the old wells, the old wells are considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7917-3

(1) Steven M Maag; 16134 Still Lake Rd, Watertown SD, 57201 made Application No. 7917-3, October 25, 2013 for a water permit to divert 1.9 cubic feet of water per second from groundwater, two wells, (Big Sioux; North Aquifer), Codington County, South Dakota for irrigation purposes. Permit No. 7917-3, with a priority date of October 25, 2013 was approved January 13, 2014 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before January 13, 2019 and for the application to beneficial use of water on or before January 13, 2023.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion points are:

East Well: 1,385 ft N & 1,470 ft W of the SE corner of Section 8, T118N, R53W (NW ¼ SE ¼)
Latitude 45.03971 Longitude -97.21366

West Well: 1,375 ft N & 1,725 ft W of the SE corner of Section 8, T118N, R53W (NW ¼ SE ¼)
Latitude 45.03970 Longitude -97.21465

(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 8, T118N, R53W	NW ¼ SE ¼	39.3 acres
	NE ¼ SE ¼	34.5 acres
	SE ¼ SE ¼	24.2 acres
	SW ¼ SE ¼	35.0 acres
	TOTAL	133.4 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Steven M Maag; 16134 Still Lake Rd, Watertown SD, 57201 the holder and/or owner of Water Right No. 7917-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, two wells, (Big Sioux; North Aquifer) with a priority date of October 25, 2013 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. 7917-3 and subject to the following qualifications:

1. The wells 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.

continued

2. The wells authorized by Permit No. 7917-3 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 wells were drilled by Lacey Well Drilling Inc in 2014. A copy of the well completion reports are on file with the Water Rights Program.)*
3. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.


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

JUN 05 2023

date



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7917-3

I have this day, May 2, 2023, made a thorough examination of the water use system constructed by Steven M Maag; 16134 Still Lake Rd, Watertown, SD 57201 of Permit No. 7917-3, bearing the priority of October 25, 2013 authorizing the diversion of 1.9 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:

- 1) Well Drilling Firm: Lacey Well Drilling Inc.
- 2) No. of Wells 2 (basically the same)
- 3) Depth(s) 32 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 14 inches
- 2) Length 22 feet
- 3) Type PVC

Screen:

- 1) Type PVC
- 2) Length 10 feet
- 3) Static water level 9 feet

Pump:

- 1) Make Submersibles
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 800 GPM

Motor:

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

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

- 1) Type Buried PVC
- 2) Size 8 inches
- 3) Length 30 & 200 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1350 feet
- 3) Number of towers 7 (includes a corner arm)
- 4) End gun Y
- 5) Capacity 800 GPM

Chemigation Equipment:

- 1) Does chemigate Y

Comments: **Uses commercially available equipment**

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 LOCATIONS**
From the SE corner Sec 8 T118N R53W; WELL "E" 1,385 ft N & 1,470 ft W, Lat 45.03971 Long -
97.21366 WELL "W" 1,375 ft N & 1,725 ft W, Lat 45.03970 Long -97.21465 (NW ¼ SE ¼).
2. The works are capable of diverting and conveying to the place of use 1.78 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:

legal description/acreage

All land in Sec 8 T118N R53W

NW ¼ SE ¼ – 39.3 acres

NE ¼ SE ¼ – 34.5 acres

SE ¼ SE ¼ – 24.2 acres

SW ¼ SE ¼ – 35.0 acres

comprising a total of 133.0 acres of land and the license should be issued for 1.78 cfs

3. All structures, wells and lands on map Y

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

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

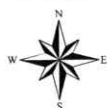
The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity.

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

A handwritten signature in black ink, appearing to read 'Darrell W DeBoer', written in a cursive style.

Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: May 6, 2023



0 0.075 0.15 0.3 0.45 0.6 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program