

WATER PERMIT NO. 7487-3

Name of Applicant: **Bottolfson Bros**

Address: **1834 Constance Dr, Vermillion SD 57069**

Phone: **605 624 8249**

Amount of Water Claimed: **1.56 cfs**

Total Acres: **140 acre**

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

Water to be used for: **irrigation**

County: **Clay**

Type of Waste Disposal System:

Location: **5 north of Vermillion**

PRIORITY

Date Received: **10-29-12**

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

Corrected Application Received:

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

Remarks:

Diversion Point: **SW 1/4 SW 1/4 Sec 13-T93N-R52W**

Land to be Irrigated: **SW 1/4 Sec 13-T93N-R52W**

Depth of Well: **180 feet deep**

Well Driller: **Hammond-Wetmore Drilling**

Remarks:

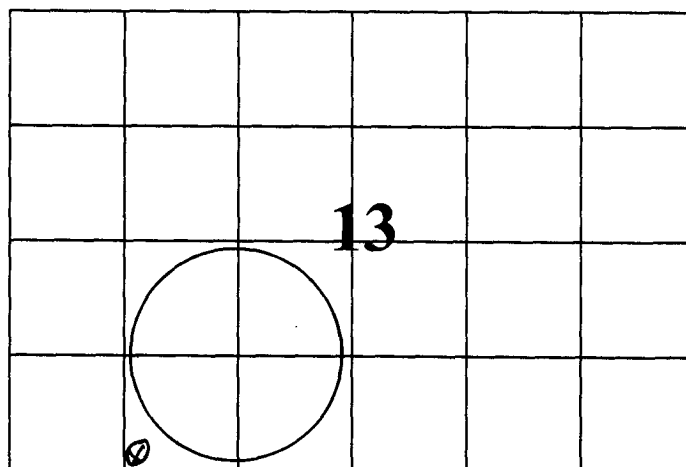
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **10-29-12**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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OCT 29 2012

WATER RIGHTS
PROGRAM

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7487-3</u> (office use only) Hydrologic Unit <u>10120102</u>
	Basin <u>Vermillion River</u>
	Newspaper <u>Plain Talk</u>
	<u>Press & Democrat</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 to Appear on Irrigation Permit Bottolfsen Brothers
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)

Mailing Address 1834 Constance Dr Vermillion SD 57069
(Address) (City) (State) (Zip Code)

Home Phone 605 624 8249 Cell 605 202 0966 Email _____

2. Amount of water claimed 1.56 *CFS or 700 **GPM ***AF Total Acreage 140
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply lower Vermillion - Missouri Aquifer

4. Location of point of diversion 1 well in SW 1/4 SW 1/4 sect 13-T93N-R52W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Clay

5. County or counties where water will be used Clay

6. Annual period during which water is to be used 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
<u>NW 1/4 SW 1/4 sect 13-T93N-R52W</u>	<u>35</u>		
<u>NE 1/4 SW 1/4 sect 13-T93N-R52W</u>	<u>35</u>		
<u>SW 1/4 SW 1/4 sect 13-T93N-R52W</u>	<u>35</u>		
<u>SE 1/4 SW 1/4 sect 13-T93N-R52W</u>	<u>35</u>		

8. Give a description of the project. (Attach sheet if more space is needed) E 1/2 NE 1/4 SW 1/4 sect 13-T93N-R52W
irrigation pivot and E 1/2 SE 1/4 SW 1/4 sect 13-T93N-R52W

owned by: Daryl and Arlis Johnson
46258 312 St
Vermillion SD 57069

I, Bottolfsen Brothers, 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. 7487-3**

Date of first receipt of application October 29, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7487-3 to Bottolfson Brothers, c/o Jay Bottolfson, 1834 Constance Dr., Vermillion SD 57069 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. 7487-3 appropriates 1.56 cubic feet of water per second from one well to be completed into the Lower Vermillion:Missouri Aquifer (180 feet deep) located in the SW 1/4 SW 1/4 Section 13 to irrigate 140 acres located in the SW 1/4 Section 13; all in T93N-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 October 29, 2012.
4. The date of approval of Permit No. 7587-3 is January 28, 2013.
5. One-fifth of the construction is to be completed on or before July 28, 2015.
6. All construction is to be completed on or before January 28, 2018.
7. Water is to be put to beneficial use on or before January 28, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The 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. 7487-3 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: Garland Erbele

Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

FEB 19 2013

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many ____ Have test holes been drilled ☒ Yes ☐ No Drilled by Hammond - Wetmore Drilling
(if yes, please provide copies of logs)

b) If existing wells, how many ____ Provide copy of log(s), if available. Drilled by ____

c) Well Depth 180' Depth to Top of Water Bearing Material 90' Depth to Water from Surface 90'

d) Distance to nearest existing domestic well:

On applicant's property n/a

On property owned by others > 3000'

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)

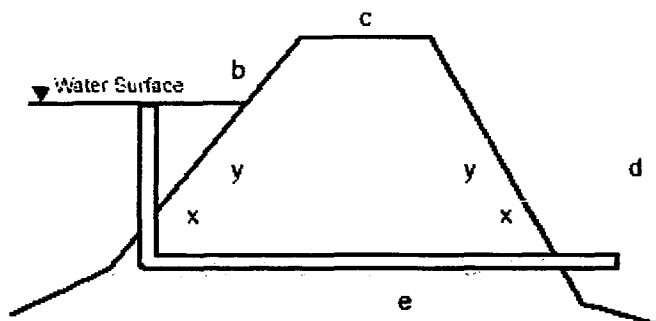
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



East 40 acres of project
owned by

Daryl and Arlis Johnson
46258 312th St
Vermillion SD 57069



4068
1619
1
118.76
NHSL



United States Department of Agriculture
Farm Service Agency

PLSS: 13_93_52
Farm: 4068

Clay County, SD

1:8,340

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April 14, 2010

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Common Land Units

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.

2008 Ortho-Photography - Not to Scale

Debra Eilers, Clay Co PT

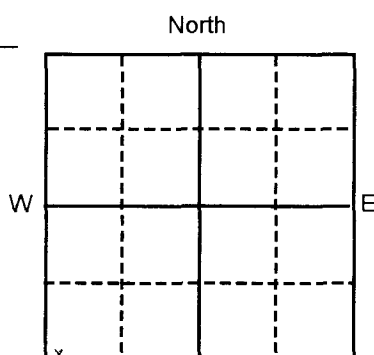
8/31/12

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SW ¼ Sec 13 Twp 93n Rg 52W

County clay

Please mark well
location with an "X"

Well Completion Date

10/2/12

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
2,500.0 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
bent grt	6	9.5 Lb/gal	0.0 Ft	136.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

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? _____

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

Well Owner: Jay Bottolfson

Business Name: Bottolfson Farms

Address: 45723 Timber Road

City, State, Zip: Vermillion sd 57069

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Clay, brown, pebbly, (till)	0	28
Clay, gray, pebbly, (till)	28	78
Sand, coarse, pebbly	78	126
Siltstone, gray-brown, calc, (Kn)	126	137

STATIC WATER LEVEL 70.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: _____

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

SWL estimated from nearby wells/topo maps

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

Drilling firm: Hammond-wetmore Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

10/29/2012

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/29, 20 12

RECEIVED OF Bottolfson Bros 1834 Constance Dr Vermillion SD 57069

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

Fee for Application for Permit No. <u>7487-3</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>7487-3</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. **05657**

By [Signature]
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. 7487-3, Bottolfson Brothers**

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. 7487-3, Bottolfson Brothers, c/o Jay Bottolfson Brothers, 1834 Constance Drive, Vermillion SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 7487-3 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. 7487-3 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.

Garland Erbele, Chief Engineer
January 4, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7487-3
BOTTOLFSON BROTHERS
c/o JAY BOTTOLFSON
JANUARY 2, 2013

Water Permit Application No. 7487-3 proposes to appropriate up to 280 acre-feet of water per year (ac-ft/yr) at a maximum diversion rate of 1.56 cubic feet of water per second (cfs) from one well to be completed into the Lower Vermillion Missouri aquifer. The well is expected to be approximately 180 feet deep and is to be located in the approximate center of the SW¼ SW¼ of Section 13 to irrigate 140 acres located in the SW¼ of Section 13, all in T93N-R52W in Yankton County.

AQUIFER: Lower Vermillion Missouri aquifer (LVM)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Lower Vermillion Missouri is a buried outwash consisting of sand and gravel. In total, the aquifer is estimated to underlie 125,600 acres and contain 1,884,000 acre-feet (ac-ft) of recoverable water in storage (Hedges and others, 1982). The majority of the Lower Vermillion Missouri aquifer lies in Clay County and also extends east into Union County. The proposed well site is located in central Clay County. The aquifer connects to the Upper Vermillion-Missouri aquifer to the north and to the Missouri: Elk Point aquifer to the south, overlies the Dakota aquifer in portions of Clay County, and is hydraulically connected to the Vermillion River. Water in the aquifer generally moves to the southeast (Stephens, 1967).

A test hole log submitted with this application documents layers of clay from ground surface to 78 feet below ground surface, sand from 78 to 126 feet below ground surface, and siltstone, which is likely the Niobrara formation, from 126 to 137 feet below ground surface, and an October 2, 2012, static water level of 70 feet below ground surface.

SDCL 46-2A-9

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

WATER AVAILABILITY:

This application proposes to appropriate 280 ac-ft/yr from the Lower Vermillion Missouri aquifer. If this application is approved, the actual water use will likely be less than the appropriation. 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 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.”

HYDROLOGIC BUDGET:

Recharge:

Recharge to the Lower Vermillion Missouri aquifer is due to infiltration of precipitation in areas where the aquifer is near land surface, inflow from the Upper Vermillion Missouri aquifer, and leakage from the underlying Dakota aquifer.

Hedges and others (1985) estimated recharge, based on observation well data, of the Lower Vermillion Missouri aquifer to be 3.8 inches per year. Using this recharge rate and the area of the aquifer, a conservative estimate of recharge for the Lower Vermillion Missouri aquifer equals 39,774 ac-ft/yr.

Discharge:

Discharge from the Lower Vermillion Missouri aquifer occurs due to evapotranspiration in areas where the aquifer is near land surface, outflow to the Missouri: Elk Point aquifer, outflow to the Vermillion River during periods of low flow, outflow to the aquifer in Clay County, and well withdrawals from rural water systems, institutional use, and irrigation. Currently there are a total of 66 water rights/permits appropriating water from the Lower Vermillion Missouri aquifer, with 55 of these in Clay County (Water Rights, 2012b).

In addition, there are many completion reports on file with the SD DENR-Water Rights Program in Clay and Yankton Counties for domestic wells that appear to be completed into the Lower Vermillion Missouri aquifer (Water Rights, 2012c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer.

From the Lower Vermillion Missouri aquifer, water rights/permits for non-irrigation use that are limited only by diversion rate currently appropriate a total of 2.13 cfs. Water rights/permits for non-irrigation use that are limited by an annual volume currently appropriate a total of 307 ac-ft/yr (Water Rights, 2012b). The amount of water that can be expected to be withdrawn by the non-irrigation use water rights/permits at the current appropriation amount can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually and water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate at 60 percent of the time. Therefore, the total annual withdrawal from the Lower Vermillion Missouri aquifer by non-irrigation use is currently expected to total at maximum 1,233 ac-ft/yr (Water Rights, 2012b).

Figure 1 shows the Lower Vermillion Missouri aquifer’s historic irrigation data. The development of this aquifer has remained at the same general stage over the period of record. The annual withdrawal due to irrigation use fluctuates greatly, which seems to be dependent on growing season climatic conditions. The average pumpage reported equals 1,463 ac-ft/yr. The maximum pumpage reported was in 2008 for 4,302 ac-ft/yr (Water Rights, 1979-2012).

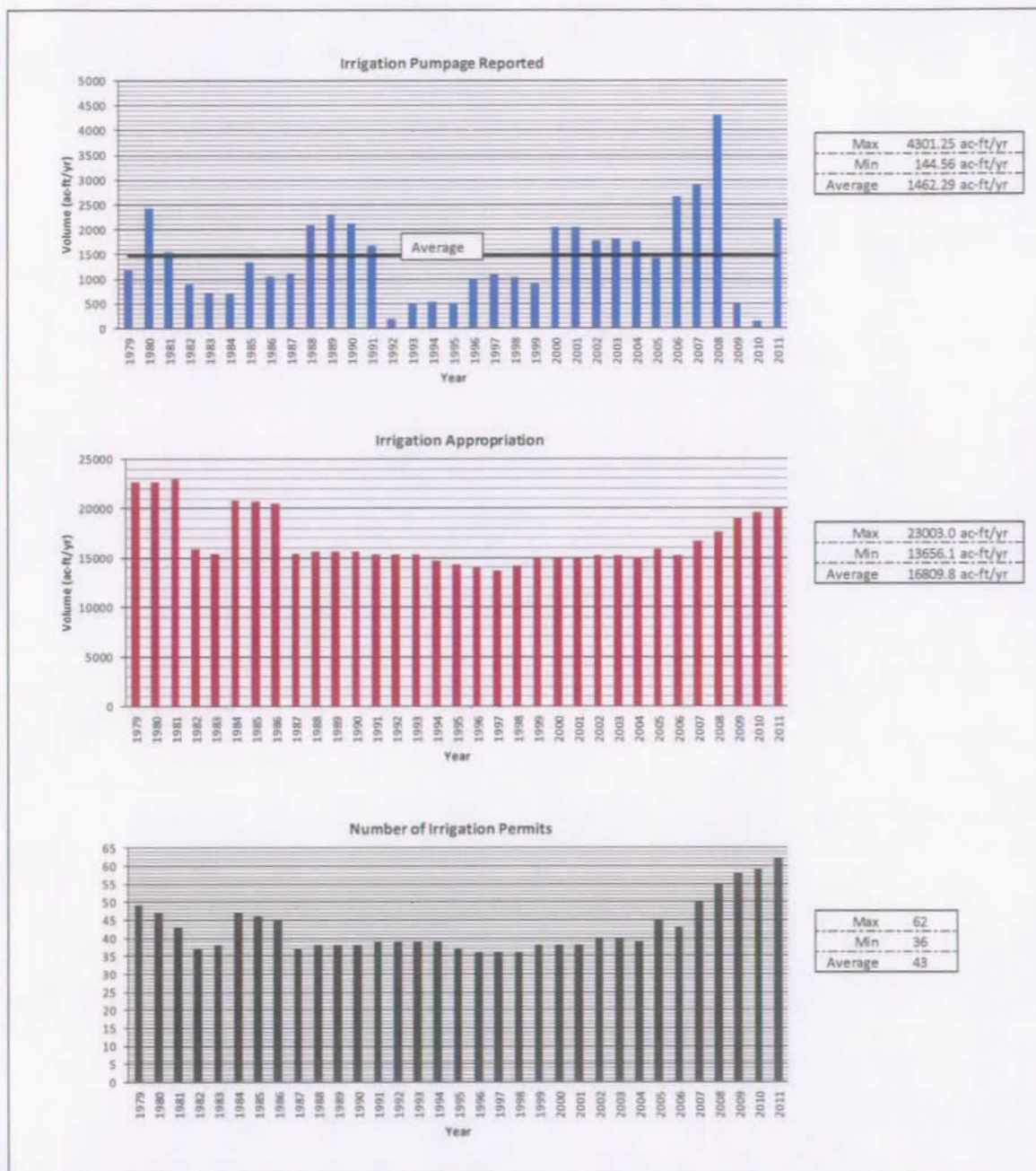


Figure 1: Historic irrigation water use from the Lower Vermillion Missouri aquifer (Water Rights, 1979-2011)

Hydrologic Budget:

Assuming the non-irrigation water rights/permits divert at the maximum expected rate and pump the maximum volume of water, and irrigation water rights/permits withdraw the maximum pumpage reported, the annual withdrawal from the aquifer would still be much less than the estimated annual recharge. Therefore, there is a reasonable probability that unappropriated water is available from the Lower Vermillion Missouri aquifer for the proposed appropriation of 280 ac-ft/yr.

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 12 observation wells completed into the Lower Vermillion Missouri aquifer (Water Rights, 2012a). The nearest of these wells, CL-80G and CL-80IR, are located approximately two and a third miles southwest and four and a third miles north of the proposed well site, respectively. Hydrographs of these observation wells are shown in Figures 2 and 3.

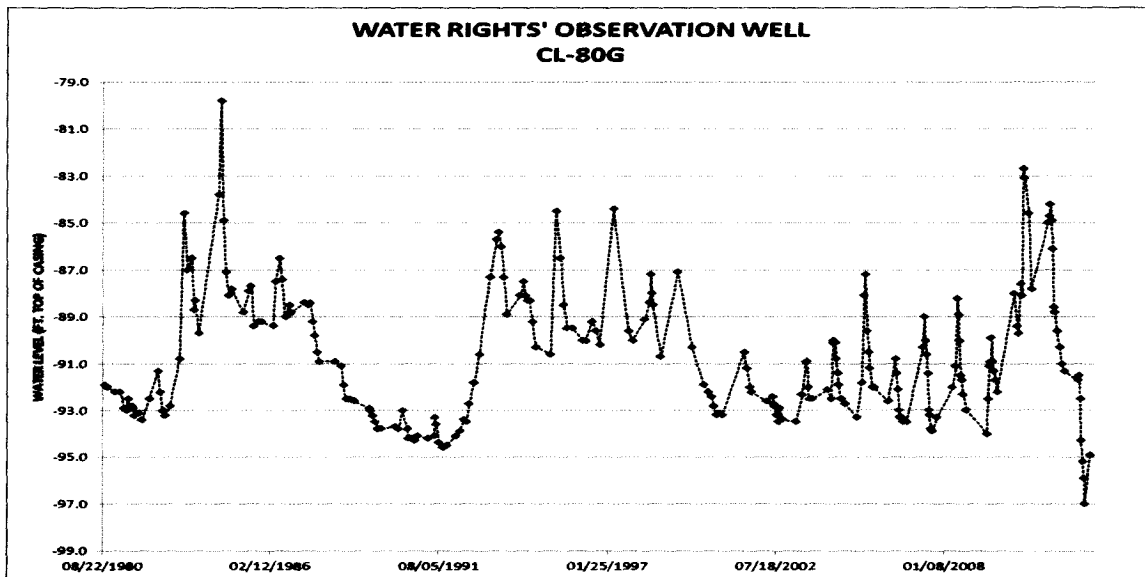


Figure 2: Hydrograph for DENR-Water Rights' observation well CL-80G (Water Rights, 2012a)

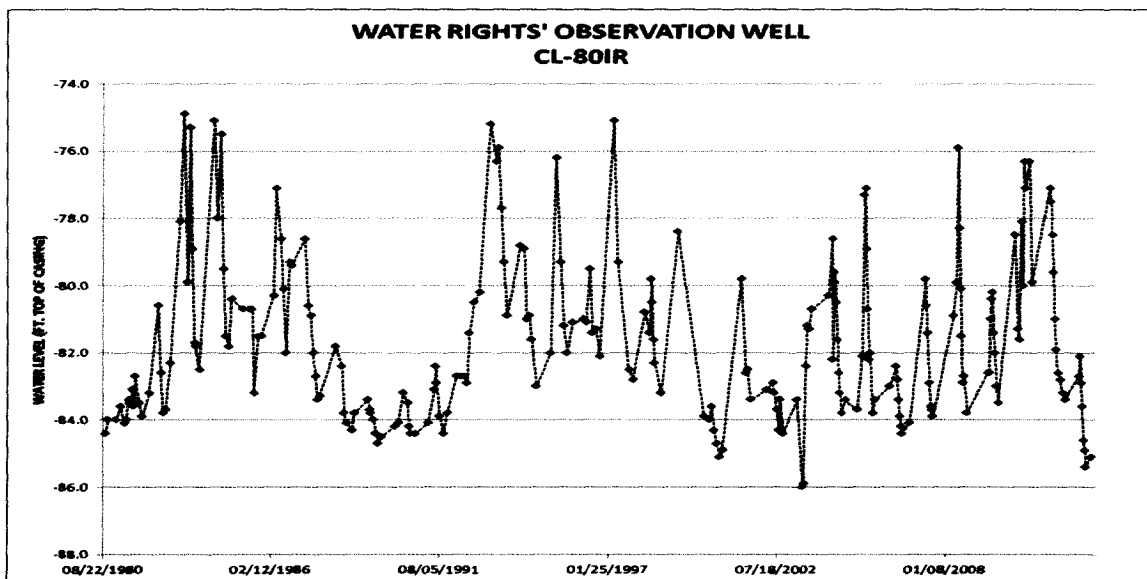


Figure 3: Hydrograph for DENR-Water Rights' observation well CL-80IR (Water Rights, 2012a)

The observation well data documents cyclic conditions of water levels, recharging during wet years and declining during dry years. The hydrographs also show the effects of nearby pumping on the aquifer. Observation well data indicates that, at the current level of development, temporal well withdrawal is masked by climatic conditions, indicating that recharge to and natural discharge from the aquifer greatly exceeds well withdrawal. Therefore, there is a reasonable probability that unappropriated water is available from the Lower Vermillion Missouri aquifer to support the proposed appropriation of 280 ac-ft/yr.

EXISTING WATER RIGHTS:

There are two water rights/permits appropriating water from the Lower Vermillion Missouri aquifer within two miles of the proposed well site. These are Water Right No. 2966-3 authorized for irrigation use to Harold or Beverly Fischer and Water Permit No. 7230-3 authorized for irrigation use to Paul Bremer. There are several domestic wells on file with the SD DENR-Water Rights Program within two miles of the proposed well site that could be completed into and withdrawing from the Lower Vermillion Missouri aquifer. There is only well within one mile of the proposed well site; this domestic well, from Mary Harding is located a quarter mile southeast of the proposed well site. (Water Rights, 2012b; Water Rights, 2012c). Because the Lower Vermillion Missouri aquifer is generally under confined conditions, some drawdown due to pumping is likely. First recognize that from the well completion report submitted with this application there is approximately 48 feet of saturated aquifer materials at this location.

As previously discussed, the hydrographs for observation wells completed into the Lower Vermillion Missouri aquifer document the effects of pumping. However, these are minimal relative to climatic conditions. Over the period of record, water levels in these observation wells fluctuated at maximum 18 feet (Water Rights, 2012a). This amount of fluctuation is a probable worst case scenario for the aquifer.

Considering that SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur, a nearby adequate well defined by ARSD 74:02:20(7), which states that the pump intake must be set 20 feet below the top of the aquifer or, if the aquifer is less than 20 feet thick, as near to the bottom of the aquifer as is practical, is not expected to be adversely or unlawfully impaired. Therefore, there is a reasonable probability that any well interference from the proposed appropriation will not adversely or unlawfully impair existing users.

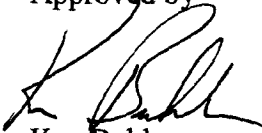
CONCLUSIONS:

1. The application proposes to appropriate 280 ac-ft/yr for irrigation; however, the actual water used will likely be much less.
2. There is a reasonable probability that unappropriated water is available from the Lower Vermillion Missouri aquifer to supply the proposed appropriation.
3. There is a reasonable probability that this proposed well will not cause interference in existing nearby wells.



Joseph R Stonesifer
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Goodman, J.A. 2007. Report on Water Permit Application No. 6869-3 for Lewis and Clark RWS: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J., and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 7: Ground Water Recharge. South Dakota DENR-Geological Survey, Vermillion, SD.
- Jensen, A.R. 2000. Aquifer Materials Map 1. South Dakota DENR-Geological Survey, Vermillion, SD.
- Stephens, J.C. 1967. Geology and Hydrogeology of Clay County, South Dakota, Part II: Water Resources. South Dakota DENR-Geological Survey Bulletin 19, 62 p.
- Water Rights. 1979-2012. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

**NOTICE OF APPLICATION
NOS. 7486-3, 7487-3, 7488-3 to
Appropriate Water**

Notice is given that Bottolfson Brothers, c/o Jay Bottolfson, 1834 Constance Dr, Vermillion SD 57069 has filed the following applications for a water permit.

AFFIDAVIT OF PUBLICATION

PLAIN TALK

DENR

Division of Environmental Services
Air Quality Program
Joe Foss Building, 523 East Capitol
Pierre, SD 57501

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

TERA SCHMIDT BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT SHE IS THE **CLASSIFIED MANAGER** OF YANKTON
MEDIA INC., A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF THE
OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS
AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION FOR AIR QUALITY CONSTRUCTION PERMIT

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 18 DAY OF JANUARY 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID **NOTICE** TO WIT **\$38.73** ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 1/18/13

FILED ON: 1/18/13

Application No. 7486-3 proposes to irrigate 70 additional acres. Water Permit No. 7083-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Missouri:Elk Point Aquifer (115 feet deep) located in the NE 1/4 NE 1/4 Section 16 for irrigation of 103.5 acres located in the N 1/2 NE 1/4, SE 1/4 NE 1/4 Section 16; all in T92N-R52W. This application proposes to irrigate 70 additional acres located in the N 1/2 NW 1/4 Section 16-T92N-R52W from the existing well. This application, if approved, does not authorize any increase in the diversion rate.

Application No. 7487-3 proposes to appropriate 1.56 cfs from one well to be completed into the Lower Vermillion:Missouri Aquifer (180 feet deep) located in the SW 1/4 SW 1/4 Section 13 to irrigate 140 acres located in the SW 1/4 Section 13; all in T93N-R52W.

Application No. 7488-3 proposes to appropriate 1.56 cfs from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the NE 1/4 Section 17 to irrigate 210 acres located in the NE 1/4 Section 17, and NW 1/4 Section 16; all in T92N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7486-3, 7487-3 and 7488-3 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 these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Tera A. Schmidt
SUBSCRIBED AND SWORN TO BEFORE ME THIS

22

DAY OF

January

Kayla M. Schild
NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES

8/19/2015

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 28, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$38.73.

Published: January 18, 2013

JAN 22 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

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

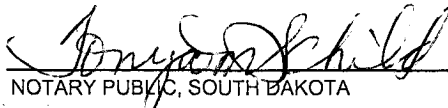
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE **MANAGING EDITOR** OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Application Nos. 7486-3 & 7487-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 18th DAY OF January 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID **NOTICE** TO WIT \$37.24 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 1/18/2013

FILED ON: 1/18/2013


SUBSCRIBED AND SWORN TO BEFORE ME THIS 18th DAY OF January 2013

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 8/19/2015

Brothers, c/o Jay Bottolfson, 1834
Constance Dr, Vermillion SD
57069 has filed the following ap-
plications for a water permit.

Application No. 7486-3 proposes
to irrigate 70 additional acres.
Water Permit No. 7083-3 author-
izes 1.56 cubic feet of water per
second (cfs) from one well com-
pleted into the Missouri:Elk Point
Aquifer (115 feet deep) located in
the NE 1/4 NE 1/4 Section 16 for
irrigation of 103.5 acres located in
the N 1/2 NE 1/4, SE 1/4 NE 1/4
Section 16; all in T92N-R52W.
This application proposes to irri-
gate 70 additional acres located in
the N 1/2 NW 1/4 Section
16-T92N-R52W from the existing
well. This application, if ap-
proved, does not authorize any in-
crease in the diversion rate.

Application No. 7487-3 proposes
to appropriate 1.56 cfs from one
well to be completed into the
Lower Vermillion:Missouri Aquif-
er (180 feet deep) located in the
SW 1/4 SW 1/4 Section 13 to irri-
gate 140 acres located in the SW
1/4 Section 13; all in
T93N-R52W.

Application No. 7488-3 proposes
to appropriate 1.56 cfs from one
well to be completed into the Mis-
souri:Elk Point Aquifer (100 feet
deep) located in the approximate
center of the NE 1/4 Section 17 to
irrigate 210 acres located in the
NE 1/4 Section 17 and W 1/2 NW
1/4 Section 16; all in
T92N-R53W.

Pursuant to SDCL 46-2A-2, the
Chief Engineer recommends AP-
PROVAL of Application Nos.
7486-3, 7487-3 and 7488-3 be-
cause 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 ac-
cordance with SDCL 46-2A-23,
the Chief Engineer will act on
these applications, as recom-
mended, unless a petition is filed
opposing the applications or the
applicant files a petition contest-
ing the Chief Engineer's recom-
mendations. If a petition oppos-
ing the applications or contesting
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a hearing will be scheduled and
the Water Management Board
will consider these applications.
Notice of the hearing will be
given to the applicant and any
person filing a petition.

Any person interested in opposing
or supporting these applications or
recommendations must file a writ-
ten petition with BOTH the appli-
cant and Chief Engineer. The ap-
plicant must file a petition if con-
testing the Chief Engineer's rec-
ommendations. The Chief Engi-
neer's address is "Water Rights
Program, Foss Building, 523 E
Capitol, Pierre SD 57501 (605
773-3352)" and the applicant's
mailing address is given above. A
petition filed by either an inter-
ested person or the applicant must
be filed by January 28, 2013.

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

Published once at the total ap-
proximate cost of \$37.24



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

January 7, 2013

Plain Talk
201 W Cherry St
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7486-3, 7487-3 and 7488-3 to Appropriate Water. Please publish the notice once on January 18, 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 Bottolfson Brothers, c/o Jay Bottolfson, 1834 Constance Dr., Vermillion SD 57069 (Ph # 605-624-8249).

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

January 7, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7486-3, 7487-3 and 7488-3 to Appropriate Water. Please publish the notice once on January 18, 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 Bottolfson Brothers, c/o Jay Bottolfson, 1834 Constance Dr., Vermillion SD 57069 (Ph # 605-624-8249).

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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

January 7, 2013

Bottolfson Brothers
Jay Bottolfson
1834 Constance Dr
Vermillion SD 57069

Dear Mr. Bottolfson:

Water Permit Application Nos. 7486-3, 7487-3 and 7488-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications 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(s) has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

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 applications.

Instruction to Newspaper - Publish the Notice on January 18, 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 NOS. 7486-3, 7487-3, 7488-3 to Appropriate Water

Notice is given that Bottolfson Brothers, c/o Jay Bottolfson, 1834 Constance Dr, Vermillion SD 57069 has filed the following applications for a water permit.

Application No. 7486-3 proposes to irrigate 70 additional acres. Water Permit No. 7083-3 authorizes 1.56 cubic feet of water per second (cfs) from one well completed into the Missouri:Elk Point Aquifer (115 feet deep) located in the NE 1/4 NE 1/4 Section 16 for irrigation of 103.5 acres located in the N 1/2 NE 1/4, SE 1/4 NE 1/4 Section 16; all in T92N-R52W. This application proposes to irrigate 70 additional acres located in the N 1/2 NW 1/4 Section 16-T92N-R52W from the existing well. This application, if approved, does not authorize any increase in the diversion rate.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7486-3, 7487-3 and 7488-3 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 these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 28, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

FEB 19 2013

Bottolfson Brothers
Jay Bottolfson
1834 Constance Dr
Vermillion SD 57069

Dear Mr. Bottolfson:

Enclosed are Water Permit Nos. 7486-3, 7487-3 and 7488-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses may be issued, thus completing the acquisition of a water right.

An informational sheet ? *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

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

enclosures

7487-3

RECEIVED

JUL 29 2013

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 7-25-13TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

~~1834~~ BottoKson Bros
(name)1834 Constance Dr
(address)Vermillion, SD 57069
(city, state, zip)605
624-2404
(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

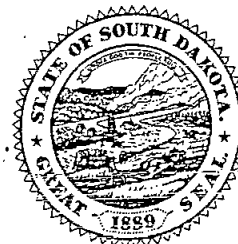
Water Permit No. 7487-3 states that the water use system is to be constructed by 1-28-18, and water is to be put to beneficial use by 1-28-22.
(date) (date)

The water use system was completed on 7-5-13.
(date)

Applying the water to beneficial use was completed on 7-5-13.
(date)

You may schedule an investigation so that the water license may be issued.

M. K. BottoKson owner/partner
(signature)
BottoKson





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

July 29, 2013

7486-3
7487-3
7488-3

Bottolfson Brothers
1834 Constance Dr
Vermillion SD 57069

Dear Mr. Bottolfson:

I am writing to acknowledge receipt of the "Notice of Completion of Works" forms that you sent in to let us know that you are completed with your irrigation systems.

The systems are now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of the projects and the staff inspection has no bearing on your water permits.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

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

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

Report of Examination of Works and/or Application of Water to Beneficial Use

To: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, September 22, 2014 made a thorough examination of the water system used by the Bottolfson Brothers, 1834 Constance Dr., Vermillion SD 57069, holder of Water Permit No. 7487-3, bearing the priority date of October 29, 2012. Water Permit No. 7487-3 authorizes the diversion of 1.56 cubic feet per second (cfs) from one well completed into the Lower Vermillion Missouri aquifer at approximately 120 feet below ground surface for the purposes of irrigating 140 acres in Clay County as follows: 35 acres in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W, 35 acres in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W, 35 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W, and 35 acres in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W.

I have the following conditions to report for the system in question:

- 1) Works used to divert water:
One irrigation pump, manufactured by Kroy-Midwest
- 2) Works used to transport water to a place of use:
Underground pipes, 8 inch diameter.
- 3) Works used to apply water to beneficial use:
One Valley 8000 Pivot.

The system is in the following condition: well maintained. The well associated with Water Permit No. 7487-3 is located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W. The exact location the well is as follows:

- 1) **50 feet east and 20 feet north of the southwest corner of Section 13, T93N-R52W. Lat 42.86675N Lon 96.94395W.**

The lands irrigated by the fore mentioned well are as follows:

- 1) 35 acres in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W.
- 2) 35 acres in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W.
- 3) 35 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W.
- 4) 35 acres in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13, T93N-R52W.

For a total of 140 acres.

License should be issued for the developed diversion rate of: **1.56 cfs or 700 gpm.**

Applicable permit qualifications have been complied with: **Yes**

Exceptions to compliance are: **None**

Date Report Completed: **May 26, 2015**



Bracken Capen
Natural Resources Engineer
DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR WATER PERMIT NO. 7487-3

DATE OF INVESTIGATION:	September 22, 2014
NAME & ADDRESS OF PERMIT HOLDER	Bottolfson Brothers 1834 Constance Dr. Vermillion SD 57069
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Mark Bottolfson
DIVERSION POINT LEGAL LOCATIONS	50 feet east and 20 feet north of the southwest corner of Section 13, T92N-R52W. Lat 42.86675N Lon 96.94395W.

WELL INFORMATION:

- 1) Well Drilling Firm: **Hammond Wetmore Drilling**
- 2) Number of Wells: **1**
- 3) Depth: **120 feet**
- 4) Well Logs Available: **Yes**
- 5) Comment: **Test hole log and actual well log both available.**

Pumps

- 1) Make: **Kroy Midwest**
- 2) Model: **CVMW6**
- 3) Size:
- 4) Capacity: **700 gpm (1.56 cfs)**

Casing

- 1) Diameter: **16 inches**
- 2) Length: **90 feet**
- 3) Type: **Plastic**

Screen

- 1) Type: **Manufactured**
- 2) Length: **30 feet**
- 3) Static Water Level: **70**

Motor

- 1) Make: **Kroy-Midwest**
- 2) Model No:
- 3) Power: **60 hp**

System Type

- 1) Make: **Valley 8000**
- 2) Overall length: **1,300 feet**
- 3) Number of Towers: **7 Towers**
- 4) Distance Between Towers:
- 5) End Gun: **Yes**
- 6) Pressure:
- 7) Capacity: **700 gpm**

CHEMIGATION EQUIPMENT:

Yes, Mobile System

- 1) Mainline Check Valve: **Yes**
- 2) Low Pressure Drain: **No**
- 3) Inspection Port/Air Relief: **Yes**
- 4) Discharge 20 Feet Away: **No discharge**
- 5) Injection Line Check Valve or Positive Displacement Pump: **Piston Pump**
- 6) Injection Check Valve: **Yes**
- 7) Properly Installed: **Yes**

PERMIT QUALIFICATIONS:

- 1) Special qualifications to permit being abided by: **N/A**
- 2) All structures, wells, and lands on map: **Yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by end of construction period: **Yes, irrigation in 2013 to present**

COMMENTS: During inspection Mark Bottolfson said the system is capable of 700 gpm but is currently only nozzled for 450 gpm. During a phone conversation on May 27, 2015, he explained the nozzles will be adjusted in future irrigation seasons in order to accommodate a higher rate.

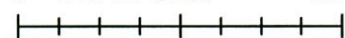


Legend

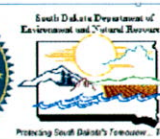
- Irrigated_Acres
- Section Boundaries - PLSS
- Well Location



0 0.045 0.09 0.18 Miles



Prepared by Bracken Capen
Natural Resources Engineer
DENR, Water Rights Program

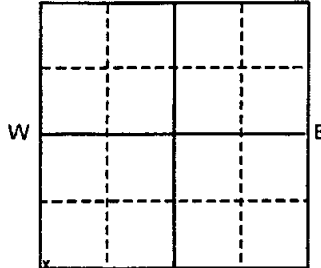


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SW 1/4 Sec 13 Twp 93 Rg 52WCounty Clay

North

Please mark well
location with an "X"

Well Completion Date

February 5, 2013

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
2,150.0 ft. from Septic Tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Direct Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	90.0 FT	22.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	25	9.5 Lb/gal	0.0 Ft	80.0 Ft
Gravel		30,000 Lb/gal	80.0 Ft	120.0 Ft

Describe grouting procedure

Tremie Method

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 16.00 Inches Length 30.0 FeetMaterial PVCSlot Size .060 Set From 90.0 Feet to 120.0 Feet

Other information

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?

☒ No, Why Not? Not Required

Lab to which water

quality sample sent for analysis

Well Owner: Bottolfson Bros

Business Name:

Address: 45723 Timber RdCity, State, Zip: Vermillion SD 57069

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	1
Lime Nogle Tan w/ some pebbles	1	32
Glacial Till	32	38
Sand Brown fine	38	42
Glacial Till	42	78
Glacial Till w/ Small Rocks & Sand	78	87
Sandy Fine Green	87	91
Pebble Green Sand	91	120

STATIC WATER LEVEL

FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JAN 21 2014

WATER RIGHTS
PROGRAMThis well was drilled under license # 666 and this report is true and accurate.Drilling firm: Hammond Wetmore Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 3/13/2013



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

JUN 11 2015

Jay Bottolfson
Bottolfson Brothers
1834 Constance Dr
Vermillion SD 57069

RE: Water License Nos. 6899-3, 7082-3, 7486-3, 7487-3 and 7488-3

Dear Mr. Bottolfson:

Enclosed are Water License Nos. 6899-3, 7082-3, 7486-3, 7487-3 and 7488-3. They are the final water right documents completing your process of obtaining Water Rights. Included with each license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by each water right, 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.

In regard to the equipment used for applying chemicals and/or fertilizer through your irrigation systems, the staff engineer indicated he spoke with you about the absence of a low pressure drain. Enclosed is a copy of Water Management Board rules dealing with chemigation. "Appendix A" shows the minimum requirements for the equipment. Low pressure drains are required and must be in place to prevent contamination of the water source. If after reading through the rules you have questions concerning placement of the equipment, please contact Ron Duvall with our program (his card is attached).

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

Sincerely,

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

enclosures

Note: Water Permit Nos. 7083-3 and 7486-3 authorized irrigation of acreage using the same well. Upon licensing, the applicable portions of Water Permit No. 7083-3 were incorporated into Water License No. 7486-3.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7487-3**

(1) Bottolfson Brothers, 1834 Constance Dr., Vermillion SD 57069 made Application No. 7487-3, October 29, 2012 for a water permit to divert 1.56 cubic feet of water per second from ground water (one well, Lower Vermillion Missouri Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 7487-3, with a priority date of October 29, 2012 was approved January 28, 2013 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before January 28, 2018 and for the application to beneficial use of said water on or before January 28, 2022.

The Permit holder submitted a *"Notice of Completion of Works and Application of Water to Beneficial Use"* on July 29, 2013. The *"Notice"* stated the water use system was completed and water placed to beneficial use on July 5, 2013.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and are entitled to divert 1.56 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 50 feet E and 20 feet N of the SW corner of Section 13, T92N, R52W (SW $\frac{1}{4}$ SW $\frac{1}{4}$).

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

T93N, R52W Section 13	SW $\frac{1}{4}$ SW $\frac{1}{4}$	35 acres
	NW $\frac{1}{4}$ SW $\frac{1}{4}$	35 acres
	NE $\frac{1}{4}$ SW $\frac{1}{4}$	35 acres
	SE $\frac{1}{4}$ SW $\frac{1}{4}$	35 acres
Total		140 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Bottolfson Brothers, 1834 Constance Dr., Vermillion SD 57069 the holders and/or owners of Water Right No. 7487-3 are issued a license to appropriate water, the right to use 1.56 cubic feet of water per second from ground water (one well, Lower Vermillion Missouri Aquifer) with a priority date of October 29, 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. 7487-3 and subject to the following qualifications:

- 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.
- The well authorized by Permit No. 7487-3 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 constructed in February, 2013 by Hammond-Wetmore Drilling. A copy of the log is on file with the Water Rights Program.***

continued

- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

JUN 11 2015

date



Schlaak, Karen

To: Gronlund, Eric
Subject: RE: 312th and 463rd. NE corner of.

From: Smith, Kim (DENR)
Sent: Thursday, July 16, 2015 7:20 AM
To: Gronlund, Eric
Cc: Goodman, Jeanne; Duvall, Ron
Subject: FW: 312th and 463rd. NE corner of.

Overspray photos.

NOTE: When replying to this email do **NOT** click the person's [\[mailto:myname@email.com\]](mailto:myname@email.com) address since this may result in your reply being undeliverable. Either copy and paste just the email address (e.g. myname@email.com) or type just the address into your reply message.

From: Dean Tomkins-Searcy [\[mailto:dtomkins@gmail.com\]](mailto:dtomkins@gmail.com)
Sent: Wednesday, July 15, 2015 5:44 PM
To: DENR INTERNET INFORMATION
Subject: Fwd: 312th and 463rd. NE corner of.

Please see the attached photos of a violation north of Vermillion. 463rd Ave north of 312th St. This is the to the northeast of that intersection.

Dean Tomkins-Searcy
605-202-0974

----- Forwarded message -----

From: Dean Tomkins-Searcy <dtomkins@gmail.com>
Date: Wed, Jul 15, 2015, 5:00 PM
Subject: 312th and 463rd. North of
To: <dtomkins@gmail.com>







DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

7487-3

July 22, 2015

Bottolfson Bros.
c/o Jay Bottolfson
1834 Constance Dr.
Vermillion SD 57069

Dear Mr. Bottolfson:

The Department of Environment and Natural Resources (DENR) has received information alleging the irrigation system located in the SW 1/4 Section 13-T93N-R52W had irrigation water from the end gun overspraying on the road. The water right for this system is Water Right No. 7487-3 and listed in your name.

It is common for center pivots to have stops which can be engaged to shut off the operation of the end gun when the pivot nears a road. Please take steps to insure end gun stops are functioning properly so there is not direct overspray on to the road.

A water right holder is not allowed to operate an irrigation system in violation of state water law, which includes end gun overspray upon land not authorized by the water right. Continued overspray can result in DENR taking enforcement action.

If you don't believe this irrigation system is causing the overspray, or if you have any questions, please contact me at (605) 773-3352 or by email at eric.gronlund@state.sd.us.

Thank you for your cooperation,

Eric Gronlund
Water Rights Program, DENR
605 773-3352