

WATER PERMIT NO. 7702-3

Name of Applicant: **Jo's Family Farms**

Address: **1911 W 57th St, Sioux Falls SD 57108** Phone: **605 338-4642**

Amount of Water Claimed: **3.56 cfs** Total Acres: **324**

Source of Water Supply: **groundwater (2 wells)**

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

Type of Waste Disposal System:

Location: **3 miles south of Elkton**

PRIORITY Date Received: **2-15-13** Application/License Fee: **\$ 1350**

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

Remarks: **324 acres to be irrigated are located in Minnesota**

Diversion Point: **S 1/2 SE 1/4 Sec 33-T109N-R47W**

Land to be Irrigated: **W 1/2, W 1/2 SE 1/4 Sec 12-T108N-R47W**

Depth of Well: **68 feet deep**

Well Driller:

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **2-22-13**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

			33		
			(X)		
				(2)	

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

Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

(office use only)
No. 7702-3 Hydrologic Unit 10170203
Basin Sioux River
Newspaper Brookings Register
P.O. Box 177 57006-605-692-6271

RECEIVED

FEB 15 2013

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to Appear on Irrigation Permit Jo's Family Farms
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)

Mailing Address 1911 W 57th St Sioux Falls SD 57108
(Address) (City) (State) (Zip Code)

Home Phone 605 338-4642 Cell _____ Email _____

2. Amount of water claimed 3.56 *CFS or 1600 **GPM ***AF Total Acreage 324
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply 2 wells

4. Location of point of diversion #1 well N 44° 11 92327' W 96 28 39854 (S 1/2 SE 1/4)
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

#2 well N 44 11 83588 W 96 28 15913 Sec 33 109 - 47 County Brookings

5. County or counties where water will be used Pipestone

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

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW 1/4 of the NW 1/4 Sec 12 T108 R4TW	38	SW 1/4 of the SW 1/4 Sec 12 T108 R4TW	38
SW 1/4 of the NW 1/4 Sec 12 T108 R4TW	38	NW 1/4 of the SW 1/4 Sec 12 T108 R4TW	28
SE 1/4 of the NW 1/4 Sec 12 T108 R4TW	38	SE 1/4 of the SW 1/4 Sec 12 T108 R4TW	38
NE 1/4 of the NW 1/4 Sec 12 T108 R4TW	38	NE 1/4 of the SW 1/4 Sec 12 T108 R4TW	38

8. Give a description of the project. (Attach sheet if more space is needed) NW 1/4 of the SE 1/4 Sec 12 108 4TW 15
SW 1/4 of the SE 1/4 Sec 12 108 4TW 15

I, Jo's Family Farms Dr P.O. Sonstegard, 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. 7702-3**

Date of first receipt of application February 15, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7702-3 to Jo's Family Farms, c/o P O Sonstegard, 1911 W 57th St, Sioux Falls SD 57108 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. 7702-3 appropriates 3.56 cubic feet of water per second from two wells to be completed into the Big Sioux: Aurora Aquifer (68 feet deep) located in the S 1/2 SE 1/4 Section 33-T109N-R47W (Brookings County) for irrigation of 324 acres located in W 1/2, W 1/2 SE 1/4 Section 12-T108N-R47W; all located in Pipestone County, Minnesota.
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 February 15, 2013.
4. The date of approval of Permit No. 7702-3 is May 6, 2013.
5. One-fifth of the construction is to be completed on or before November 6, 2015.
6. All construction is to be completed on or before May 6, 2018.
7. Water is to be put to beneficial use on or before May 6, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under 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. 7702-3 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.
4. That Jo's Family Farms, and any successor, assignee, or transferee of this water permit, must install and maintain at its own cost, a timing device on its irrigation wells which records each time the pump of the irrigation well is turned on and off, and further, that data recorded by the timing devices be collected and provided to Lincoln Pipestone Rural Water on or before December 1st of each calendar year.

WATER MANAGEMENT BOARD

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

JUN 20 2013
date



Supplemental Information
(type or print)

*Log's will be sent
when drilled
spot for post pole marked*

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

a) If new wells, how many 2 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(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 _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest existing domestic well:

On applicant's property none

On property owned by others 2600 ft

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

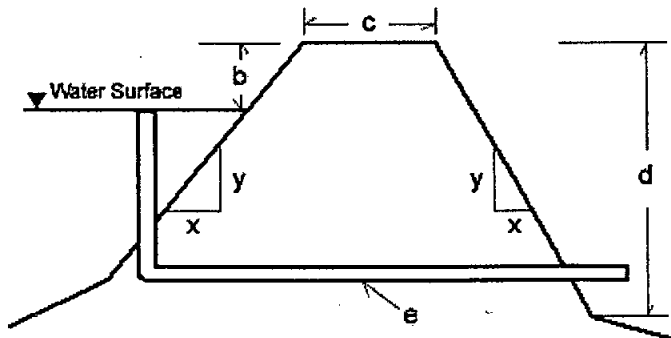
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

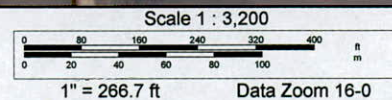




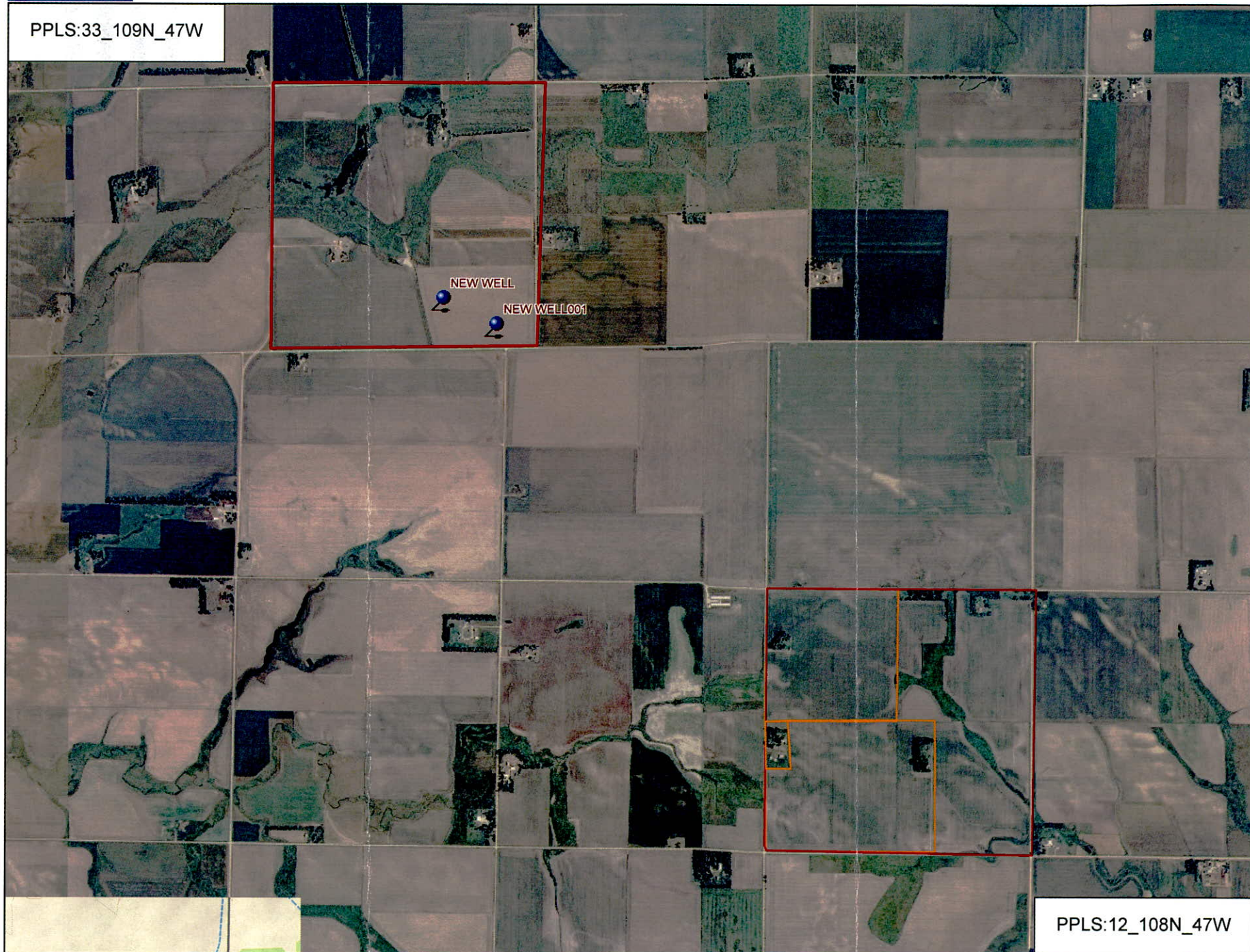
Data use subject to license.

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www.delorme.com



PPLS:33_109N_47W

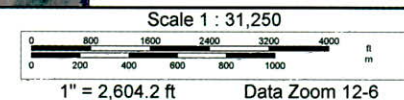


PPLS:12_108N_47W

Data use subject to license.

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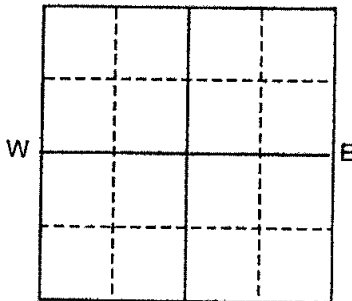


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SE 1/4 Sec 33 Twp 109 Rg 47County Brookings

North

Please mark well
location with an "X"

Well Completion Date

February 26, 2013

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

PROPOSED USE:

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

METHOD OF DRILLING:

mud 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
Bentonite	6	Lb/gal	0.0 Ft	190.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Pressure Tremmie

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: JO'S Family Farms

Business Name: _____

Address: 1911 W 57th St, #102City, State, Zip: Sioux Falls SD 57108

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	1
Clay Brn	1	5
Sand	5	79
Clay Brn	79	165
Clay Ylw	165	188
Rock	188	190

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

Test Hole #1

44 11' 54.2" N

96 28' 25.6" W

RECEIVED

MAR 25 2013

WATER RIGHTS
PROGRAMThis well was drilled under license # 463 and this
report is true and accurate.Drilling firm: Steffl Drilling & Pump Inc / Gary Olson

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

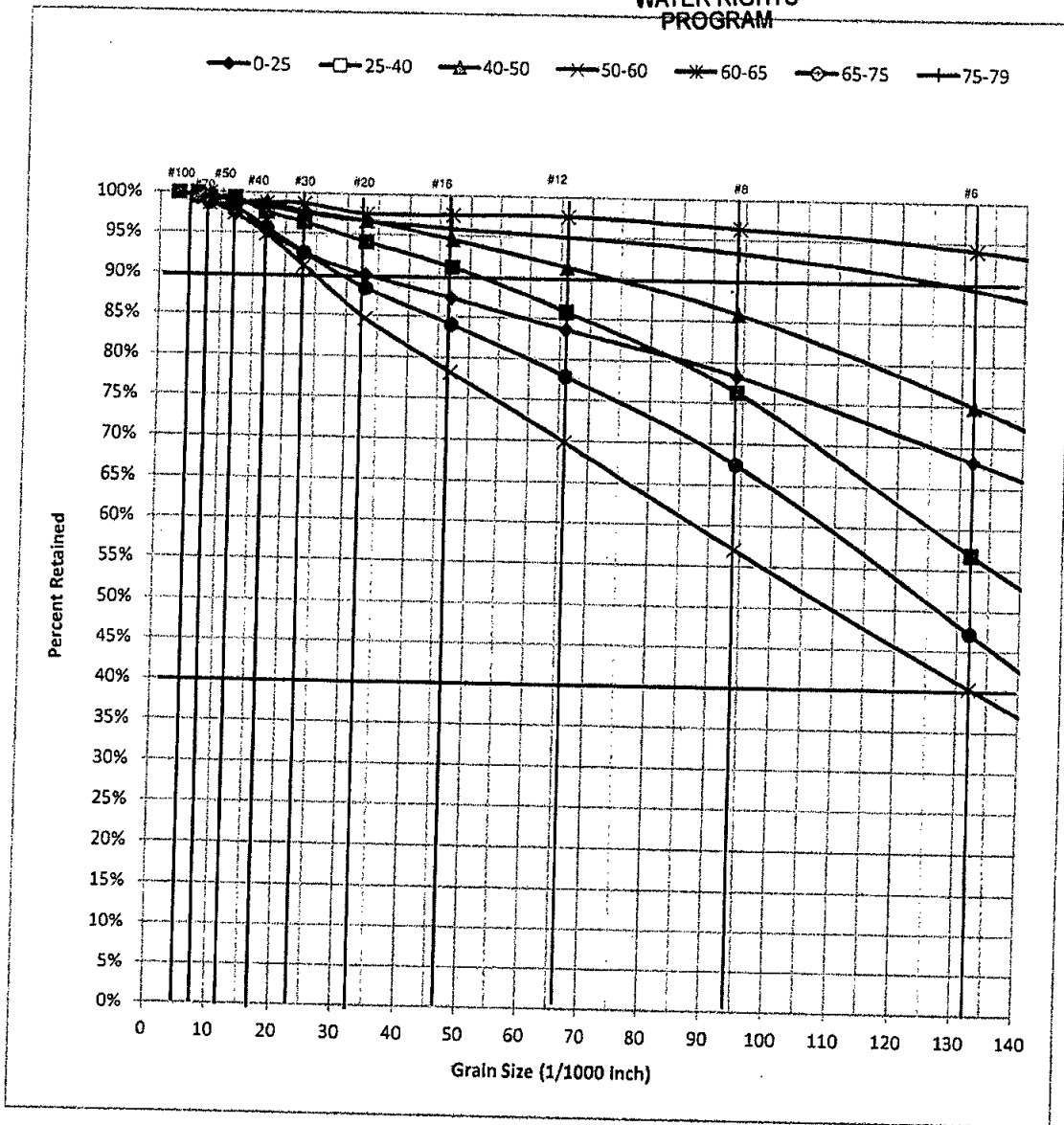
RECEIVED

MAR 25 2013

Johnson Screens
651-636-3900

SAND ANALYSIS

WATER RIGHTS
PROGRAM



Job Name Jo's Family Farms TH #1

Location

Driller Steffi Drilling

Sample ID 030613-5

Analyzed by: Al Smith, 651-638-3160

Date: 3/6/2013

Casing ϕ 12"

Screen ϕ 12" Pipe Size

Yield 800 - 1000 GPM (Estimated)

SWL (ft) 10' (Estimated)

Recommended Slot Size 120 Slot From 59' - 79'

Recommended Gravel Pack #120 Well Slot Red Flint

Based exclusively on the samples provided by the contractor, a sieve analysis graph and suggested screen slot size is provided as requested. Since numerous construction considerations and site circumstances influence successful well completion, Johnson Screens assumes no responsibility for final well performance nor awareness of local regulations pertaining to well installations.

Prepared by: albert j smith

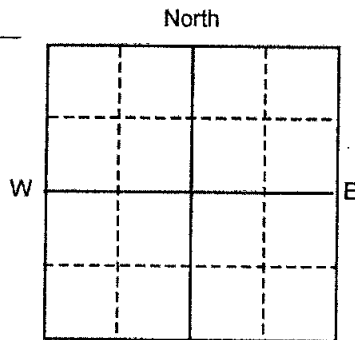
Send Samples to 1950 Old Highway 8, New Brighton, MN 55112

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SE ¼ Sec 33 Twp 109 Rg 47

County Brookings

Please mark well
location with an "X"

Well Completion Date

February 26, 2013

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

mud rotary

CASING DATA:

If other describe ☐ Steel ☐ Plastic ☐ Other

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
Bentonite	2	Lb/gal	0.0 Ft	67.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Pressure Tremmie

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: JO'S Family Farms

Business Name: _____

Address: 1911 W 57th St, #102

City, State, Zip: Sioux Falls SD 57108

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil Blk	0	1
Clay Brn	1	6
Sand	6	61
Clay Blu	61	67

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

Test Hole #2
 44 11' 49.9" N
 96 28' 14.5" W

RECEIVED
MAR 25 2013
WATER RIGHTS
PROGRAM

This well was drilled under license # 463 and this report is true and accurate.

Drilling firm: Steffi Drilling & Pump Inc / Gary Olson

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

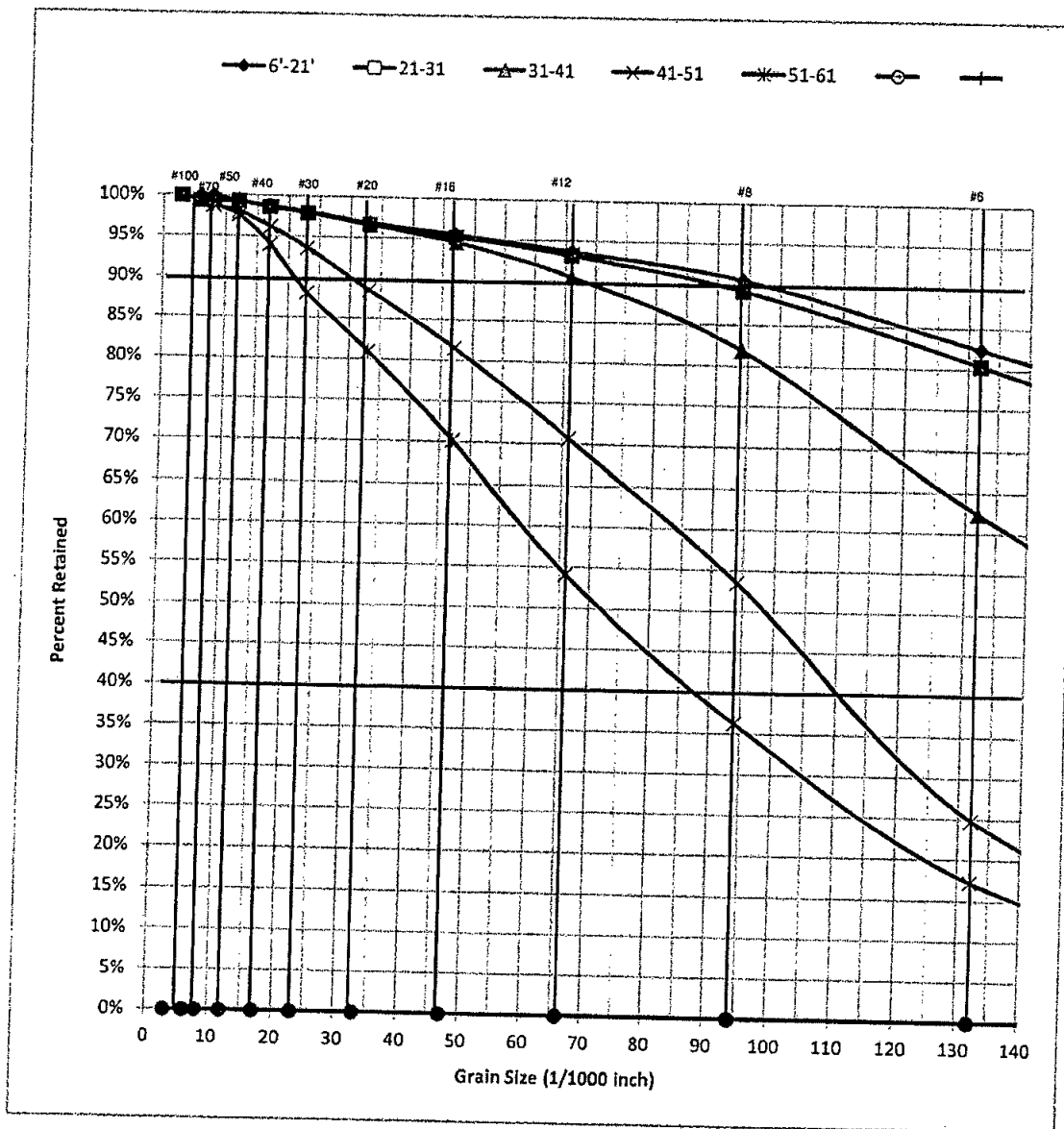
RECEIVED

MAR 25 2013

WATER RIGHTS
PROGRAM

Johnson Screens
651-636-3900

SAND ANALYSIS



Job Name Jo's Family Farms TH #2

Location

Driller Steffl Drilling

Sample ID 030613-6

Analyzed by: Al Smith, 651-638-3160

Date: 3/6/2013

Casing ϕ 12"

Screen ϕ 12" Pipe Size

Yield 800 - 1000 GPM (Estimated)

SWL (ft) 10' (Estimated)

Recommended Slot Size 120 Slot From 44' - 61'

Recommended Gravel Pack #120 Well Slot Red Flint

Based exclusively on the samples provided by the contractor, a sieve analysis graph and suggested screen slot size is provided as requested. Since numerous construction considerations and site circumstances influence successful well completion, Johnson Screens assumes no responsibility for final well performance nor awareness of local regulations pertaining to well installations.

Prepared by: albert j smith

Send Samples to 1950 Old Highway 8, New Brighton, MN 55112

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/19, 20 13

RECEIVED OF Farmers Implement for Jo's Family Farm 3023 E Hwy 14 Brookings SD 57000

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

Fee for Application for Permit No. <u>7702-3</u> to Appropriate Water, to construct and to put water to beneficial use	1150	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>7702-3</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	1350 00

No. 06147

By [Signature]
Chief Engineer

Water Rights Program - File Documentation

NAME: Dave Gullickson, Farmers Implement

ADDRESS: Brookings SD

DATE: 2-22-13

RE: Application for Jo's Family Farms – Sec 12-T108N-R47W

COMMENTS:

I called Dave Gullickson about the proposed well depth. Dave stated the proposed well depth should be **68 feet**. He said that was the depth of the nearby wells.

Karen

Karen Schlaak
Water Rights Program



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7702-3, Jo's Family Farms**

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. 7702-3, Jo's Family Farms, c/o P O Sonstegard, 1911 W 57th Street, Sioux Falls SD 57108.

The Chief Engineer is recommending APPROVAL of Application No. 7702-3 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. 7702-3 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.
4. That Jo's Family Farms, and any successor, assignee, or transferee of this water permit, must install and maintain at its own cost, a timing device on its irrigation wells which records each time the pump of the irrigation well is turned on and off, and further, that data recorded by the timing devices be collected and provided to Lincoln Pipestone Rural Water on or before December 1st of each calendar year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer

April 16, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7702-3
JO'S FAMILY FARMS
APRIL 11, 2013

Water Permit Application No. 7702-3 proposes to appropriate water from two wells to be completed into the Aurora management unit of the Big Sioux aquifer at a maximum diversion rate of 3.56 cubic feet of water per second (cfs). The wells are expected to be approximately 68 feet deep and are to be located in the S½ SE¼ of Section 33-T109N-R47W in Brookings County, South Dakota. This application proposes to irrigate 324 acres located in the W½, W½ SE¼ of Section 12, T108N-R47W all located in Pipestone County, Minnesota.

AQUIFER: Aurora Management Unit of the Big Sioux Aquifer (BS: A)

AQUIFER CHARACTERISTICS:

The Big Sioux aquifer is a major glacial-drift aquifer consisting of alluvium-mantled outwash (silt, fine to coarse sand and gravel) that extends over most of the length of the Big Sioux River basin along the Big Sioux River and its tributaries. The Aurora management unit of the Big Sioux aquifer underlies approximately 83,000 acres of southeastern Brookings and northwestern Moody Counties, South Dakota and western Lincoln and Pipestone Counties, Minnesota (see Figure 1) (Anderson, 1976; Hamilton, 1989; Hansen, 1986; and Hedges and others 1982). The potentiometric surface map for the Big Sioux aquifer identifies an area, approximately in the center of T109N-R47W (near Elkton), where groundwater north of the area flows to the west and groundwater south of the area flows to the southwest (Hamilton, 1989). This groundwater divide produces an area that is isolated from the main body of the aquifer, essentially creating a sub-unit of the Big Sioux: Aurora aquifer. The sub-unit of the Big Sioux: Aurora aquifer which contains the well sites proposed by Application No. 7702-3 encompasses approximately 20,000 acres and is shown in Figure 1.

The Aurora management unit is a surficial aquifer under unconfined conditions in this area (Hamilton, 1989). The logs of test holes submitted with this application identify aquifer material from 5-79 feet below grade and from 6-61 feet below grade, respectively.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 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.

WATER AVAILABILITY:

Water Permit Application No. 7702-3 proposes to appropriate water from a subunit of the Aurora management unit of the Big Sioux aquifer. If Permit No. 7702-3 is approved, the water use will be less than 648 acre-feet annually. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably

available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a public water system is not involved and the aquifer is not older or lower than the Greenhorn Formation, therefore the withdrawal/recharge issue must be considered.

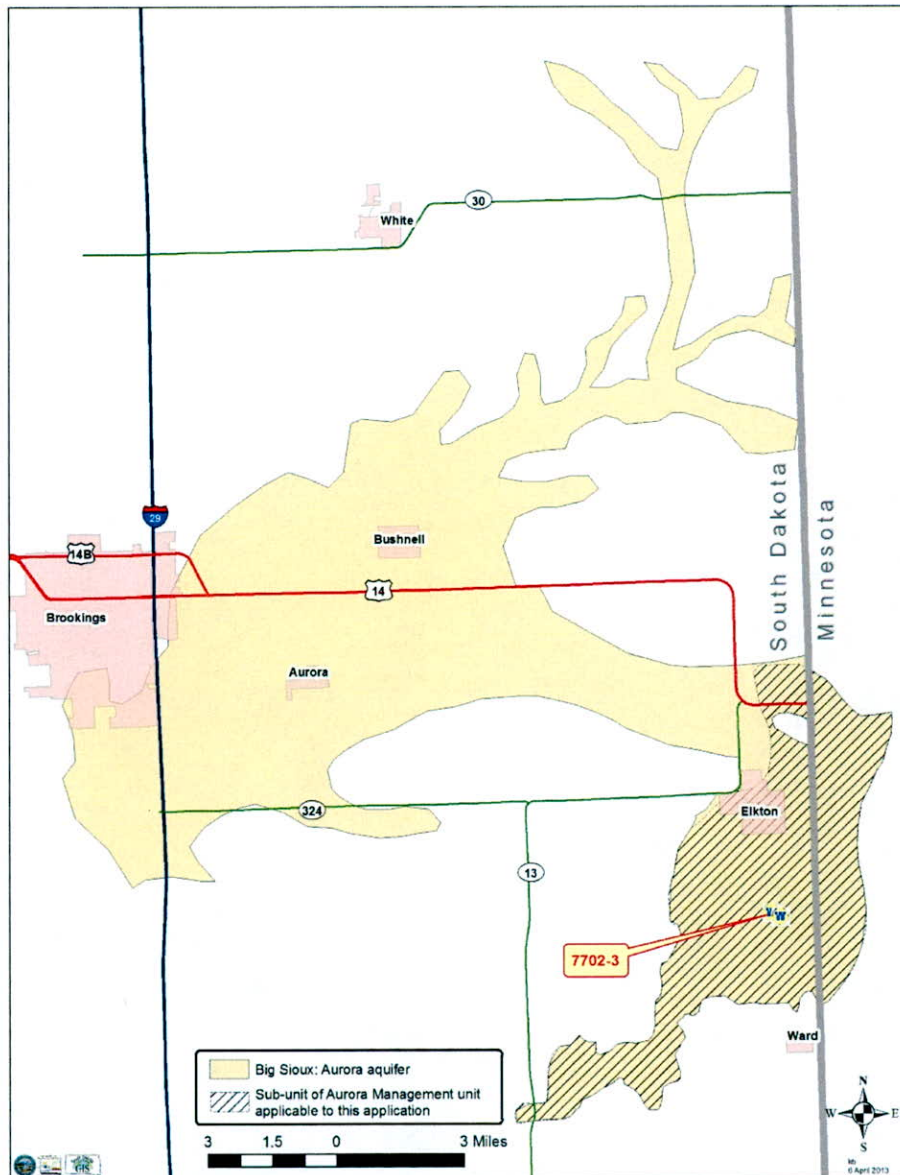


Figure 1. The extent of the Big Sioux: Aurora aquifer, the sub-unit of the Aurora management unit applicable to this application, the location of the well sites proposed by Application No. 7702-3. (Modified from Anderson, 1976; Hamilton, 1989; Hansen, 1986; and Hedges and others 1982)

Recharge versus Discharge:

Recharge:

Recharge to the Big Sioux: Aurora aquifer in this area is by infiltration of precipitation and seepage from Spring Creek and its tributaries. The average annual recharge rate to the Big Sioux: Aurora aquifer was estimated to be 5.0 inches per year based on observation well analysis (Hedges and others, 1985). Hedges and others (1985) also reported a computer model analysis "best fit" recharge rate for the Aurora management unit of 3.6 inches per year. A finite-difference method digital model used to simulate the Big Sioux aquifer in Brookings and Hamlin Counties (Koch, 1980), did not include the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by this application, but modeled an area within approximately five miles of these well sites. The model used an average annual recharge rate of 6.57 inches per year to the water table portion of the Big Sioux aquifer, to simulate steady state conditions using average annual water levels for 1970-1976 as the potentiometric head in the aquifer (Koch, 1980). The average annual recharge to the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by this application, based on the recharge rate estimates is shown in Table 1.

INVESTIGATOR	RECHARGE RATE (inches per year)	AVERAGE ANNUAL RECHARGE Assuming aquifer area = 20,000 acres (acre-feet per year)
Hedges and others, 1985, (Observation well analysis)	5.0	8,333
Hedges and others, 1985, (Computer model "best fit")	3.6	6,000
Koch, 1980	6.57	10,950

Table 1. Estimated average annual recharge to the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by this application

Discharge:

Discharge from the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by this application occurs through evapotranspiration, seepage to Spring Creek and its tributaries and well withdrawals. Well withdrawals are for domestic use (expected to be minor) and appropriative uses including irrigation and rural water system use. South Dakota water rights/permits appropriating water from this sub-unit of the Big Sioux: Aurora aquifers are shown in Table 2 and in Figure 3. In addition, the Lincoln Pipestone Rural Water System maintains a well field known as the Verdi Well Field consisting of five production wells completed into this aquifer just east of the Minnesota/South Dakota border. Lincoln Pipestone Rural Water System is currently permitted through the State of Minnesota for combined maximum withdrawals of 683 MGY (2,096.05 acre-feet per year) (Buhler, 2012).

PERMIT NO	NAME	STATUS	USE	CFS	ACRES
2332-3	HEARTLAND HBI	IL	IRR	NA	NA
2574-3	LOWELL CHRISTENSEN	LC	IRR	1.31	92
3185-3	WITTE AG PARTNERSHIP #1	LC	IRR	1.41	99
3496-3	MINNIE VAN DYKE	LC	IRR	0.52	37
4038-3	CITY OF ELKTON	LC	MUN	0.72	NA
4295-3	LARRY W MOULTON	IL	IRR	NA	NA
4295-3A	ALICE MOULTON	LC	IRR	1.34	136
4332-3	ALICE MOULTON	LC	IRR	1.34	125
4523-3	JAMES STUEFEN	LC	IRR	1	71
4726-3	WITTE AG PARTNERSHIP #3	LC	IRR	1.56	115
4763-3	MARY ELLEN MCGILL TRUST	LC	IRR	2.44	234
4877-3	LARRY O/CAROL J OLSON	IL	IRR	NA	NA
5558-3	LARRY OLSON	IL	IRR	NA	NA
5558A-3	LARRY OLSON	LC	IRR	1.78	268
5804-3	HEARTLAND HBI	LC	IRR	1.78	177
658-3	HEARTLAND HBI	IL	IRR	NA	NA
7178-3	JOS FAMILY FARMS	PE	IRR	4.44	400
7219-3	ELKTON SCHOOL DISTRICT	PE	IRR	0.178	2.3
7228-3	JOS FAMILY FARMS	PE	IRR	1.71	120
7317-3	JOS FAMILY FARMS	PE	IRR	1.78	180
7392-3	LINCOLN PIPESTONE RURAL WATER	PE	RWS	2.67	NA
7393-3	LINCOLN PIPESTONE RURAL WATER	FU (614 ac-ft)	RWS	NA	NA
7702-3	JOS FAMILY FARMS	PND	IRR	1.78	180
LC= Water Right, IL= Incorporated, PE= Water Permit, FU= Future Use, PND= Pending, IRR= Irrigation, MUN= Municipal					

Table 2. Water rights/permits appropriating water from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by this application (Water Rights, 2013c)

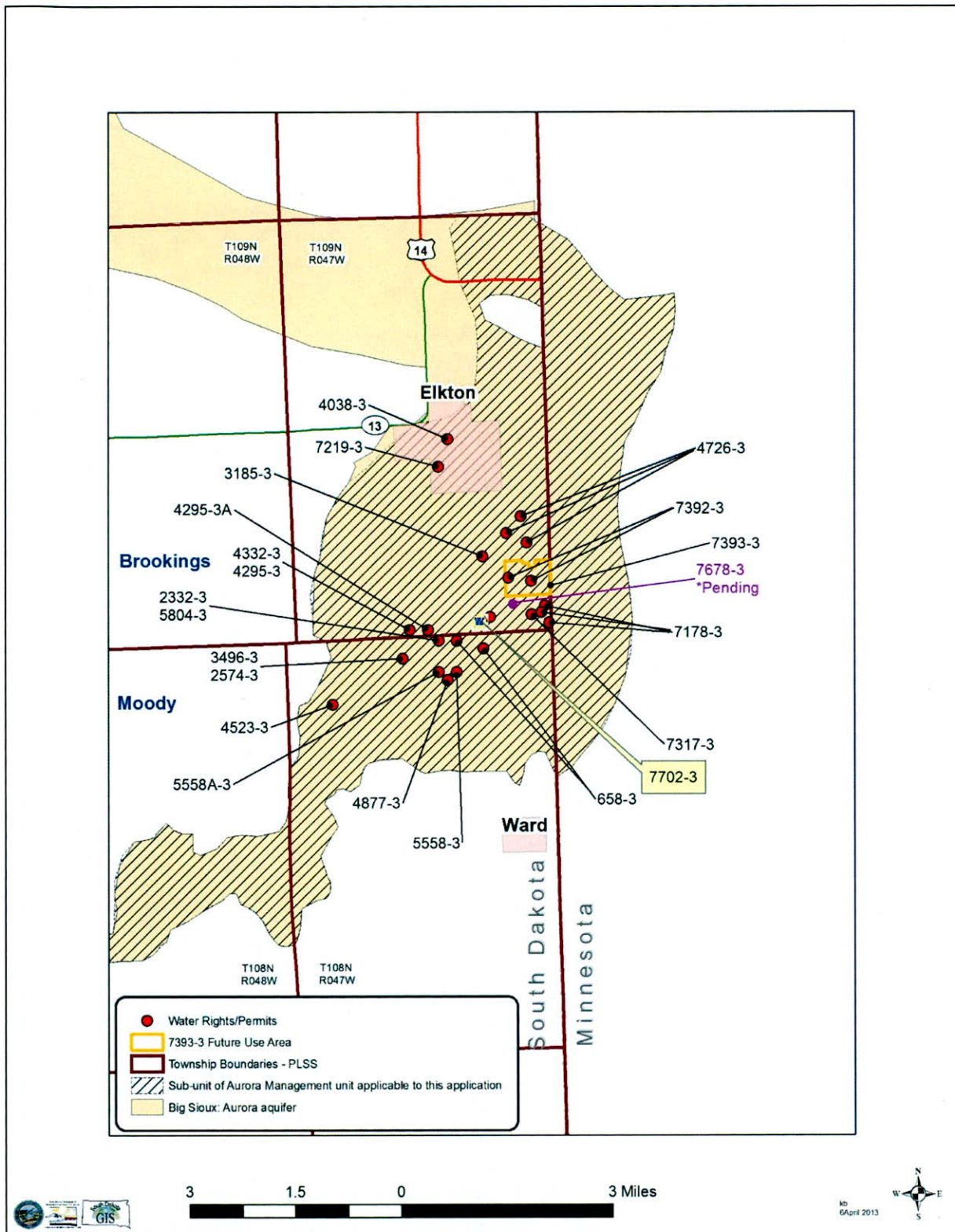


Figure 2. Water rights/permits appropriating water from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by this application (Water Rights, 2013c)

Water Permit No. 7392-3, Lincoln Pipestone Rural Water, appropriates 614 ac-ft/yr. Future Use Permit No. 7393-3, Lincoln Pipestone Rural Water, reserves 614 ac-ft/yr. The City of Elkton has been supplied by Brookings-Deuel Rural Water System since 1991 and maintains Water Right No. 4038-3 as a backup source only (Buhler, 2012). The irrigation use from the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by this application is shown in table 3. The average application rate for this sub-unit of the Big Sioux Aurora aquifer for 1979-2011 is 6.45 inches per year.

YEAR	ACRES IRRIGATED	ACRE-FEET PUMPED	APPLICATION RATE (in/yr)
1979	661	281.83	5.12
1980	396	228.12	6.91
1981	737	404.1	6.58
1982	958	421.88	5.28
1983	1247	686.73	6.61
1984	1040	487.1	5.62
1985	1125	515.7	5.50
1986	798	163.6	2.46
1987	966	437.6	5.44
1988	1176	1025.3	10.46
1989	1193	739.9	7.44
1990	1302	607	5.59
1991	1161	605	6.25
1992	654	167.86	3.08
1993	450	131.9	3.52
1994	1368.8	461.07	4.04
1995	548	153.13	3.35
1996	1075.8	398	4.44
1997	1164.8	862	8.88
1998	1378.8	1322.4	11.51
1999	1094.8	545.55	5.98
2000	1366.6	796.12	6.99
2001	1316.8	1161.53	10.59
2002	1389.8	1078.25	9.31
2003	1290.8	1193.3	11.09
2004	1036.8	813.01	9.41
2005	1068	347.88	3.91
2006	1350	835.11	7.42
2007	1354	946.59	8.39
2008	1354	1040.27	9.22
2009	1031	549.27	6.39
2010	857	165.28	2.31
2011	1843	569.7	3.71

Table 3. Irrigation use from the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by this application (Water Rights, 1980-2012a; and Water Rights, 1980-2012b)

There are currently 2,056.3 acres authorized for irrigation by South Dakota water rights/permits from this sub-unit of the Big Sioux: Aurora aquifer. Water Permit Application No. 7678-3 proposes to authorize an additional 180 acres. At the average application rate of 6.45 inches per year, the average annual withdrawal for irrigation can be expected to be approximately 1,202 acre-feet annually, if Application No. 7678-3 is approved.

In addition to domestic use of water from the Minnesota portion of this aquifer, the only other water user is the Lincoln Pipestone Rural Water System (LPRWS) (Buhler, 2012). Well withdrawals from the Lincoln Pipestone Rural Water System Verdi well field are shown in Table 4. The system is estimating 2012 withdrawals will be 445 million gallons per year (MGY) (1,365.7 acre-feet) (Buhler, 2012).

YEAR	MGY	ACRE- FEET/YR
2005	330.61	1014.6
2006	396.872	1218.0
2007	421.389	1293.2
2008	415.044	1273.7
2009	386.915	1187.4
2010	404.493	1241.3
2011	440.089	1350.6

Table 4. Withdrawals from the Lincoln Pipestone Rural Water System Verdi well field (Buhler, 2012)

Assuming the LPRWS will fully develop their Minnesota permit appropriating 683 MGY (2,096.05 acre-feet per year), and the rural water system's water permit (No. 7392-3) and future use permit (No. 7393-3) will be fully developed (i.e. 1,228 acre-feet of water per year), the total of the well withdrawals from the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by Application No. 7702-3 is expected to average approximately 4,526 acre-feet per year under current appropriations.

A comparison between the estimated average annual recharge (see Table 1) and the estimated average annual well withdrawals indicates that there is currently at least 1,473 ac-ft/yr unappropriated water from this sub-unit of the Big Sioux: Aurora aquifer.

Observation well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that "the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer".

The SD DENR-Water Rights Program monitors one observation well, BG-78H, located within 1,200 feet of both well sites proposed by this application (Water Rights, 2013a). A hydrograph for the observation well is shown in Figure 3.

The hydrograph shows that although the potentiometric surface in the sub-unit of the Big Sioux: Aurora aquifer that contains the site proposed by this application fluctuates with the climate, the amount of water in the aquifer has trended upward by approximately 0.0365 inches per year over the period of record. Most importantly, the observation well data shows that at the current level of development, climatic conditions greatly mask the temporal effects of well withdrawals. Therefore, the observation well data documents that recharge to and natural discharge from this aquifer significantly exceeds pumping. The hydrograph documents that there is unappropriated water available from the aquifer to support this appropriation.

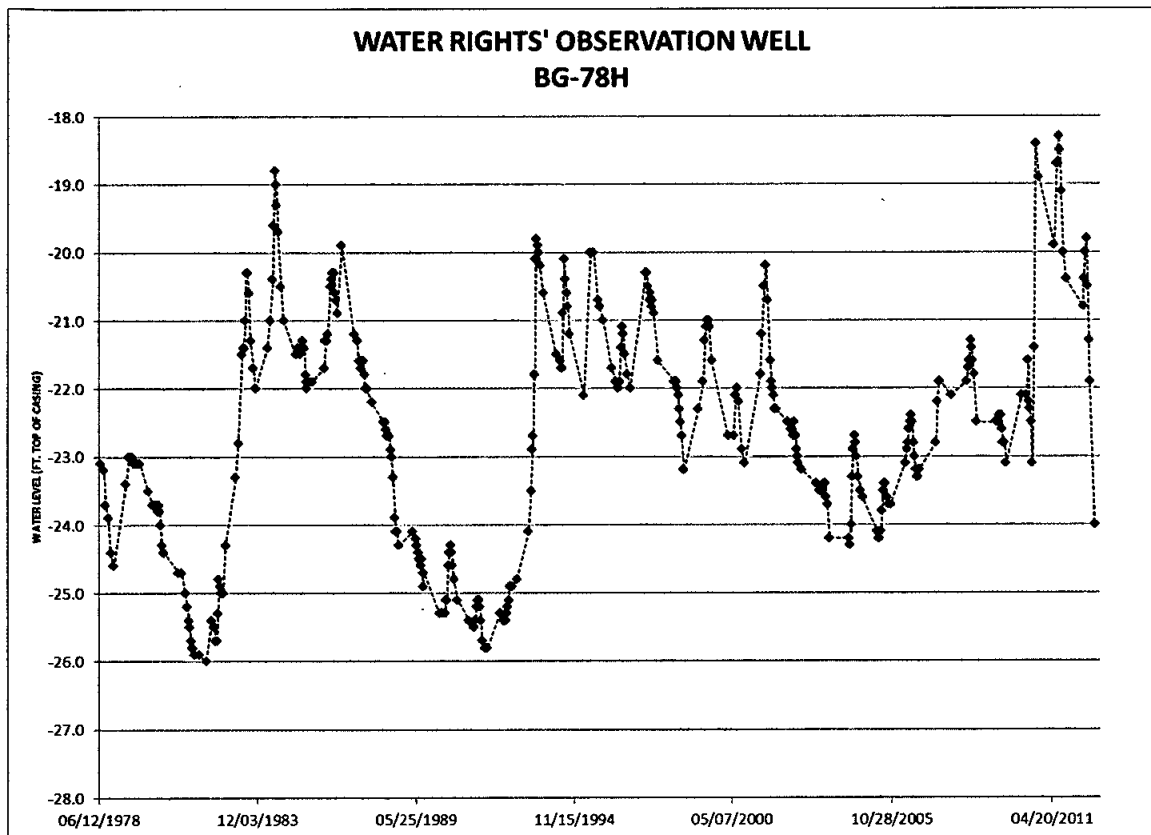


Figure 3. Hydrograph for an observation well completed into the sub-unit of the Big Sioux: Aurora aquifer located approximately one mile southwest of the well site proposed by this application.

EXISTING WATER RIGHTS:

The existing South Dakota appropriations from the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by this application are shown in Table 2 and in Figure 2. There are a number of wells authorized by water rights/permits in the vicinity of the well site proposed by this application (see figure 4.) In addition, the area reserved for future use is within approximately 2,700 feet of this proposed well site. The test hole reports submitted with this application along with test hole and completion reports on file with the DENR-Water Rights Program (Water Rights, 2013b), indicate as much as 74 feet of aquifer material in this area. The saturated thickness of the aquifer in this area appears to exceed 40 feet in places. The transmissivity of the Big Sioux: Aurora aquifer as a whole ranges from 20,000 to 42,000 ft^2/d (Hamilton, 1989) and this sub-area of the aquifer should be no exception. “The effects of withdrawals from wells that tap the Big Sioux aquifer generally are small because of extensive recharge and unconfined conditions. Drawdown of water levels is temporary and a few feet at most at a distance of about a mile from large-capacity wells.” (Hamilton, 1989). The observation well hydrograph (see Figure 3) verifies that drawdown from nearby irrigation wells is not significant. In general, if Application No. 7702-3 is approved, well interference is not expected to be an issue given the distance between wells. Therefore, there is a reasonable probability that existing users will not be unlawfully impaired. Approval of this application should not impact LPRWS’s ability to develop from the future use area.

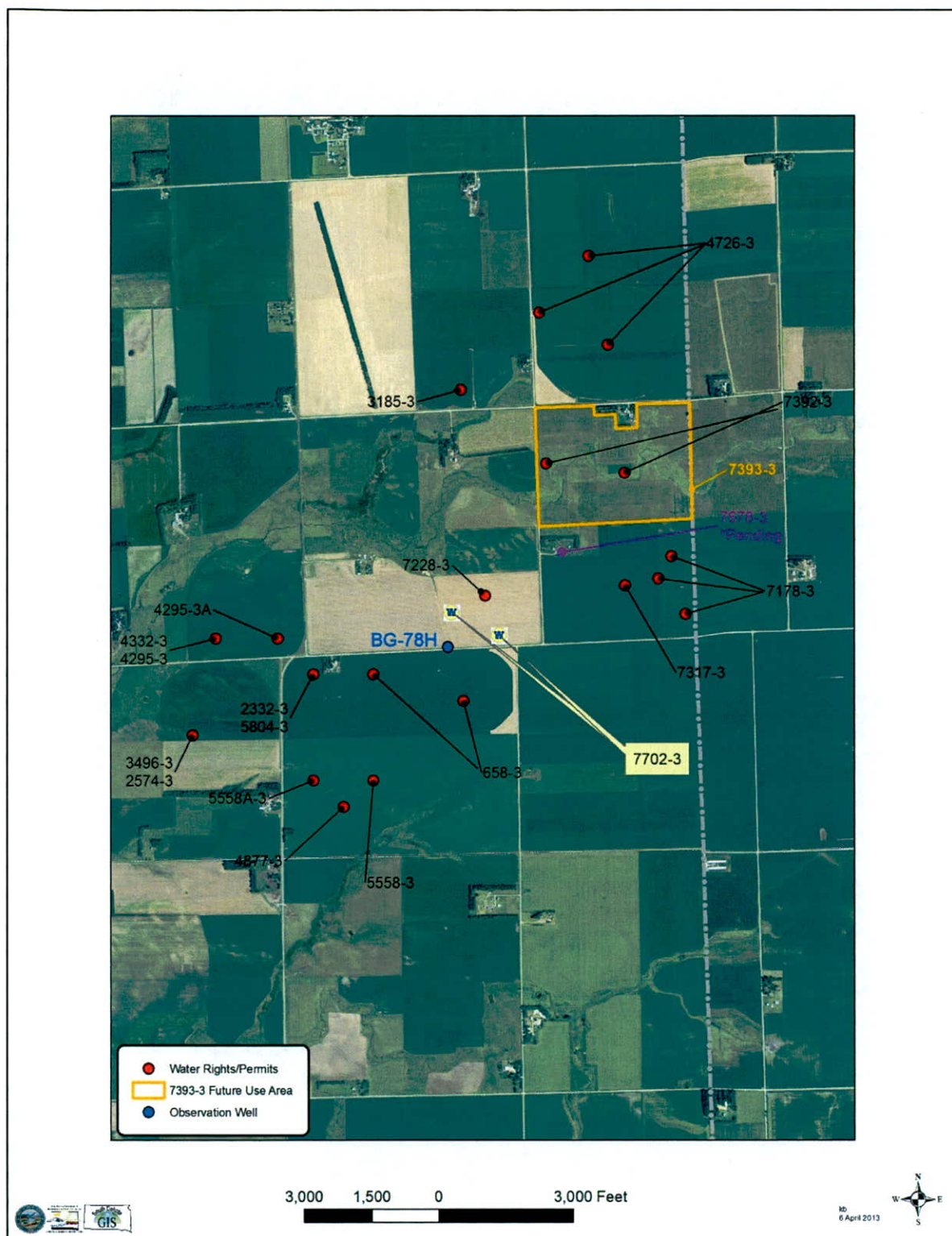


Figure 4. Map showing the location of the well site proposed by Application No. 7702-3, Observation well BG-78H and existing water rights/permits in the area. (Note: well sites for Water Permit Nos. 7178-3 and 7317-3 are located per the map submitted with Application No. 7317-3)

The close proximity of the irrigation wells and proposed rural water system wells pumping from this aquifer and the fact that the aquifer can be fairly thin could lead to a situation where the cumulative impact of pumping several wells causes water level declines that cannot be attributed to any one single well. Goodman, (2012) stated that "...extended droughts could and will impact water levels and potential pumping rates". Even if the withdrawals from the aquifer do not exceed recharge to the aquifer, the cumulative impact of development in this concentrated area could reduce the amount of water available for existing irrigation wells. If the water levels in existing wells decline to the extent that they can no longer pump at their "historically established" diversion rates, "shut-off" orders may be necessary on a priority basis.

HISTORY:

The sub-unit of the Aurora management unit of the Big Sioux aquifer that this application proposes to appropriate water from is also the source of water for Lincoln Pipestone Rural Water. In 2010, the rural water system contested issuance of Water Permit No. 7178-3, because they considered the water source "very susceptible to drought conditions", and they believed the irrigation project "endangers the water supply for the 1,153 farms and rural residences, and 10 communities" they serve. Following a public hearing, the Water Management Board approved Water Permit No. 7178-3 with the condition:

"That Jo's Family Farm LLC, and any successor, assign, or transferee of this water permit, must install and maintain, at its own cost, a timing device on each of its irrigation wells which records each time the pumps on the irrigation wells are turned on and off, and further, that data be recorded by the timing devices to be collected and provided to Lincoln Pipestone Rural Water on or before December 1st of each calendar year."

Water Permit No. 7228-3 was uncontested in 2011 but was conditioned with the same qualification as cited above.

In 2012, Lincoln Pipestone Rural Water expressed concerns regarding Water Permit Application No. 7317-3, in particular about "impacts to the Verdi Wellfield from both well interference and changes in water quality that could result from increased irrigation pumping." The rural water system did not however request a hearing on the permit application. In accordance with SDCL 46-2A-23, Water Permit No. 7317-3 was issued by the Chief Engineer. Water Permit No. 7317-3 also contains the condition:

"That Jo's Family Farm LLC, and any successor, assign, or transferee of this water permit, must install and maintain, at its own cost, a timing device on each of its irrigation wells which records each time the pumps on the irrigation wells are turned on and off, and further, that data be recorded by the timing devices to be collected and provided to Lincoln Pipestone Rural Water on or before December 1st of each calendar year."

South Dakota Codified Law (SDCL) 46-1-13

Pursuant to SDCL 46-1-13, "A water right may be granted for uses outside this state on the same basis and subject to the same terms and conditions as water rights are granted to persons for use of water within this state..."

CONCLUSIONS:

1. Water Permit Application No. 7702-3 proposes to appropriate water from the Big Sioux: Aurora aquifer at a maximum diversion rate of 3.56 cfs to irrigate 324 acres located in Minnesota.
2. SDCL 46-1-13 allows water rights to be granted for uses outside the state.
3. The sub-unit of the Aurora management unit of the Big Sioux aquifer this application proposes to appropriate water from areas which underlies approximately 20,000 acres of Brookings and Moody Counties, South Dakota, and Lincoln and Pipestone Counties, Minnesota.
4. There is a reasonable probability that unappropriated water is available from this aquifer for the appropriation proposed by Application No. 7702-3.
5. There is a reasonable probability that this appropriation can be developed without unlawful impairment of existing rights.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Anderson, H.W., 1976, Water Resources of the Rock River Watershed, Southwestern Minnesota: U.S. Geological Survey Hydrologic Atlas 555, 14 maps on 3 sheets
- Buhler, K.A., 2012, Report to the Chief Engineer on Water Permit Application No. 7392-3 and Future Use Permit Application No. 7393-3 Lincoln Pipestone Rural Water September 17, 2012, SD DENR-Water Rights Program
- Goodman, J.A., 2012, Report on Water Permit Application No. 7317-3 For Jo's Family Farms, March 15, 2012, SD DENR-Water Rights Program
- Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report: 88-4185, 82 p.
- Hansen, D.S., 1986, Water Resources of Lake and Moody Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 84-4209, 51 p.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185

- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota: U.S. Geological Survey Water Resources Investigations 80-100, 46 p.
- Water Rights, 1980-2012a, Irrigation Questionnaires 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 1980-2012b, Irrigation Questionnaire Summaries 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

MAY - 1 2013

10/

Affidavit of Publication

State of South Dakota

ss

WATER RIGHTS
PROGRAM

County of Brookings

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

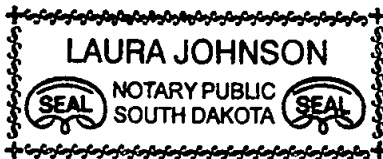
Leg#419 Notice #7702-3 and #7705-3

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

April 26, 2013

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

twenty-nine dollars and seventy-one cents \$29.71



[Signature]
29th day of

April

2013

[Signature]

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

Legal 419, 1x, 4/26
NOTICE OF APPLICATION NOS. 7702-3 and 7705-3 to Appropriate Water

Notice is given that Jo,s Family Farms, c/o P O Sonstegard, 1911 W 57th St, Sioux Falls SD 57108 has filed the following applications for a water permit.

Application No. 7702-3 proposes to appropriate 3.56 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (68 feet deep) located in the S 1/2 SE 1/4 Section 33-T109N-R47W (Brookings County) for irrigation of 324 acres located in W 1/2, W 1/2 SE 1/4 Section 12-T108N-R47W; all located in Pipestone County, Minnesota.

Application No. 7705-3 proposes to appropriate 3.56 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (68 feet deep) located approximately 1,570 feet north and 1,650 feet east and 670 feet north and 290 feet east of the SW corner Section 34-T109N-R47W (Brookings County) for irrigation of 240 acres located in S 1/2 Section 1-T108N-R47W all located in Pipestone County, Minnesota.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7702-3 and 7705-3 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 May 6, 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 \$29.71.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

April 17, 2013

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7702-3 and 7705-3 to Appropriate Water. Please publish the notice once on April 26, 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 Jo's Family Farms, c/o P O Sonstegard, 1911 W 57th St, Sioux Falls SD 57108 (Ph # 605-338-4642).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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

April 17, 2013

Jo's Family Farms
P O Sonstegard
1911 W 57th St
Sioux Falls SD 57108

Dear Dr. Sonstegard:

Water Permit Application Nos. 7702-3 and 7705-3 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 Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the 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 April 26, 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. 7702-3 and 7705-3 to Appropriate Water

Notice is given that Jo's Family Farms, c/o P O Sonstegard, 1911 W 57th St, Sioux Falls SD 57108 has filed the following applications for a water permit.

Application No. 7702-3 proposes to appropriate 3.56 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (68 feet deep) located in the S 1/2 SE 1/4 Section 33-T109N-R47W (Brookings County) for irrigation of 324 acres located in W 1/2, W 1/2 SE 1/4 Section 12-T108N-R47W; all located in Pipestone County, Minnesota.

Application No. 7705-3 proposes to appropriate 3.56 cubic feet of water per second from two wells to be completed into the Big Sioux:Aurora Aquifer (68 feet deep) located approximately 1,570 feet north and 1,650 feet east and 670 feet north and 290 feet east of the SW corner Section 34-T109N-R47W (Brookings County) for irrigation of 240 acres located in S 1/2 Section 1-T108N-R47W all located in Pipestone County, Minnesota.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7702-3 and 7705-3 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 May 6, 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

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

denr.sd.gov

JUN 20 2013

Jo's Family Farms
Phil Sonstegard
1911 W 57th St
Sioux Falls SD 57108

Dear Mr. Sonstegard:

Enclosed are Water Permit Nos. 7678-3, 7702-3 and 7705-3 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,

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

enclosures

7702-3

SD EForm - 1621LD V1

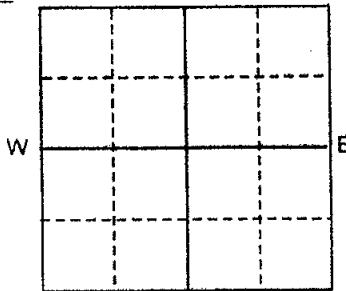
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SE ¼ Sec 33 Twp 109 Rg 47

County Brookings

North

Please mark well
location with an "X"

Well Completion Date

November 26, 2013

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

mud rotary

CASING DATA:

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	46.0 FT	17.50 IN
LB/FT	12.00 IN	61.0 FT	70.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	6	Lb/gal	0.0 Ft	36.0 Ft
Red Flint	30	Lb/gal	36.0 Ft	70.0 Ft

Describe grouting procedure
Pressure Tremmie

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 15.0 Feet

Material Stainless Steel

Slot Size 100 Set From 46.0 Feet to 61.0 Feet

Other information

WAS A PACKER OR SEAL USED?

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: JO'S Family Farms

Business Name:

Address: 1911 W 57th St, #102

City, State, Zip: Sioux Falls SD 57108

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil Blk	0	1
Clay Brn	1	6
Sand	6	61
Clay Blu	61	70

STATIC WATER LEVEL 23.1 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: submersible☐ Bailed☐ Other

Pumping Level Below Land Surface

45.6 Ft. After 6.0 Hrs. pumped 580.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

Production Well #5, Test Hole #2

44 11' 49.9" N

96 28' 14.5" W

RECEIVED

MAY - 5 2014

WATER RIGHTS
PROGRAM

This well was drilled under license # 463 and this report is true and accurate.

Drilling firm: Steffi Drilling & Pump Inc / Kris VanHeuveln

Signature of License Representative:

Signature of Well Owner or Easement Property Holder:

Date: 1-13-14

5-6-14



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

JUL 01 2016

7178-3
7702-3
8143-3
8144-3

Jo's Family Farms
c/o Jon Wiering, Farm Manager
1911 W 57th St
Suite 102
Sioux Falls SD 57108

Dear Mr. Wiering:

Enclosed are Water License Nos. 8143-3 and 8144-3. These are the final water right documents completing the process of obtaining a Water Right. Also, included with the licenses are maps prepared by the staff engineer who conducted the investigations.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right Nos. 8143-3 and 8144-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water 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

Note: The applicable portions of No. 7178-3 are incorporated into Water License No. 8143-3.
The applicable portions of No. 7702-3 are incorporated into Water License No. 8144-3.

enclosures