

WATER PERMIT NO. 8144-3

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

Address: **1911 W 57th St, Ste 102, Sioux Falls SD 57108**

Phone: **507 822-9466**

Amount of Water Claimed: **no additional**

Total Acres: **83 acres**

Source of Water Supply: **existing well**

Water to be used for: **irrigation**

County: **Brookings**

Type of Waste Disposal System:

Location: **20 miles southeast of Brookings**

PRIORITY Date Received: **1-13-15**

Application/License Fee: **\$ 750**

Corrected Application Received: **3-16-15**

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

Remarks: **Irrigation of add'l 83 acres and correct the legal description of the acreage authorized for irrigation under Permit No. 7702-3**

Diversion Point: **SW 1/4 SW 1/4 Sec 33-T109N-R47W**

Land to be Irrigated: **NW 1/4, S 1/2 Sec 12-T108N-R46W**

Depth of Well:

Well Driller:

Remarks:

Type of Map: **aerial**

Prepared by: **Ken Buhler**

Reviewed and the Number Assigned on: **3-24-15**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

Mail to: PMB 2020 DENR- Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8144-3</u>	(office use only) Hydrologic Unit <u>10170203</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register</u>	

RECEIVED
JAN 13 2015
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. STE 102 Sioux Falls SD 57108
(Address) (City) (State) (Zip Code)

Home Phone 605.338.4642 Cell 507.822.9266 Email lwiering@agrilandrealty.com (farm manager Jon Wiering)

2. Amount of water claimed no add'l *CFS or **GPM ***AF Total Acreage 83
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply existing well completed into the Big Sioux: Aurora aquifer

4. Location of point of diversion NW1/4 SW1/4 SW1/4 Sec. 33, T109N-R47W (well No. 10)
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

SW1/4 SW1/4 Sec 34 - T109N-R47W County Brookings

5. County or counties where water will be used Pipestone County Minnesota

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
See Attachment A			

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

This application is authority to irrigate an additional 83 acres, and to correct the legal description of ht acreage irrigated under this permit and No. 7702-3.

Jo's Family Farms, agent

I, Jon Wiering, Farm Manager, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

ATTACHMENT A

all R47W

NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.5 Acres
NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.2 Acres
SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.7 Acres
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.6 Acres
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 12, T108N-R46W: 38.8 Acres
NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 12, T108N-R46W: 21.0 Acres

SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 12, T108N-R46W: 36.7 Acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 12, T108N-R46W: 36.0 Acres
NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.3 Acres
NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 12, T108N-R46W: 35.8 Acres
SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 12, T108N-R46W: 34.2 Acres
SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 12, T108N-R46W: 31.8 Acres

**SOUTH DAKOTA
WATER PERMIT NO. 8144-3**

Date of first receipt of application January 13, 2015.

Date of return to applicant for corrections, amendments or changes January 13, 2015.

Date of receipt of corrected application March 16, 2015.

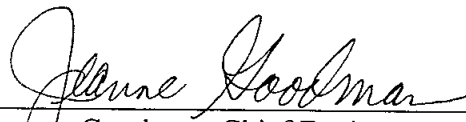
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8144-3 to Jo's Family Farms, c/o Jon Wiering, Farm Manager, 1911 W 57th St, Suite 102, Sioux Falls SD 57108 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8144-3 authorizes irrigation of 83 additional acres and corrects the legal description of the acres authorized by Water Permit No. 7702-3. Water Permit No. 7702-3 appropriates 3.56 cfs from two wells completed into the Big Sioux:Aurora aquifer located in the S 1/2 SE 1/4 Section 33-T109N-R47W (Brookings County) to irrigate 324 acres. An inspection of Water Permit No. 7702-3 found the additional 83 acres being irrigated. The location of the 83 new acres and the acres authorized by No. 7702-3 are located in the W 1/2, SE 1/4 Section 12-T108N-R47W (Pipestone County-Minnesota). This permit and Water Permit No. 7702-3 will authorize a diversion rate of 3.56 cfs for irrigation of 407 acres.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.
3. The date from which applicant may claim right is March 16, 2015.
4. The date of approval of Permit No. 8144-3 is June 15, 2015.
5. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

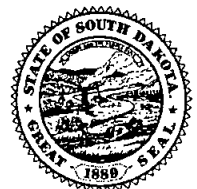
QUALIFICATIONS

1. The wells approved under Water Permit Nos. 7702-3 and 8144-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
3. That Jo's Family Farms 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 date recorded by the timing device 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

JUL 01 2016
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 ____
(if yes, please provide copies of logs)b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by Steffl Drilling & Pumpc) Well Depth 79 Depth to Top of Water Bearing Material 5 Depth to Water from Surface 23.3

d) Distance to nearest existing domestic well:

On applicant's property unknown On property owned by others _____

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

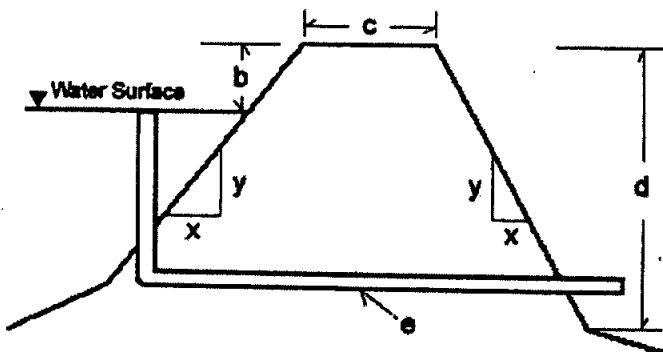
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



REPORT 11-02 #10

井口

Date:

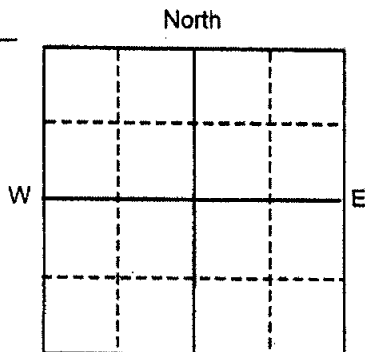
SOUTH DAKOTA WATER WELL COMPLETION REPORT

SD FORM 1021ED V1
11-02 ^{FII}

Location SW 1/4 SW 1/4 Sec 34 Twp 109 Rg 47

County Brookings

Please mark well location with an "X"



Well Completion Date

December 3, 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

WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
<u>12.00</u>	<u>12.00</u>	<u>0.0</u>	<u>45.0</u>	<u>17.50</u>
<u>12.00</u>	<u>12.00</u>	<u>60.0</u>	<u>70.0</u>	<u>17.50</u>
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT
<u>Quick Grout</u>	<u>26</u>	<u>0.0</u>	<u>0.0</u>	<u>35.0</u>
<u>Red Flint</u>	<u>30</u>	<u>35.0</u>	<u>35.0</u>	<u>70.0</u>

Describe grouting procedure

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 15.0 Feet

Material Stainless Steel

Slot Size 100 Set From 45.0 Feet to 60.0 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?

to which water
city 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:

		DEPTH	
FORMATION		FROM	TO
Top Soil	Blk	0	1
Clay	Brn	1	4
Sand/Gravel		4	60
Clay	Brn	60	70
Prod Well #6			
50hp Franklin electric 460V			
(700D50-3ALL/4T144F06			
MOTOR 13E19 22 081518)			

STATIC WATER LEVEL 25.4 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

45.0 Ft. After 6.0 Hrs. pumped 830.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Production #6, Test Hole #3

44 11 54.0N

96 27 55.1W

700 50~

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

Drilling firm: Steffl Drilling & Pump Inc / Kris VanHeuveln

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/18, 20 15

RECEIVED OF Jo's Family Farms LLC 1911 W 57th St # 102 Sioux Falls SD 57108

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

Fee for Application for Permit No. <u>81443</u> 7702-3 to Appropriate Water, to construct and to put water to beneficial use	750	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
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	750 00

No. 07324

By Jeannie Goodman
Chief Engineer

7702-3

Legend

 7702-3 Wells

NWSE

NESE

109N 47W

033

034

#11

20'

615'

650'

SE corner of Sec. 33, T109N-R47W

2150'

108N 47W

004

003



240 120 0 240 Feet



kb
30 Dec. 2014

Handwritten signature

Bureau of Land Management and U.S. Forest Service

002

001

006

7702-3

Legend

-  System 12 irrigated acres
-  System 11 irrigated acres
-  System 10 irrigated acres

NWNW
34.2 Acres**NENW**
34.5 Acres**SWNW**
34.7 Acres**SENW**
34.5 Acres

011

NWSW
21.0 Acres**NESW**
38.8 Acres

012

SWSW
36.7 Acres**SESW**
36.0 Acres**NWSE**
35.8 Acres**NENSE**
34.3 Acres

108N 46W 007

SWSE
34.2 Acres**SESE**
31.8 Acres

013

018

Bureau of Land Management and U.S. Forest Service



500 250 0 500 Feet



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



January 7, 2014

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

Dear Mr. Wiering:

On October 30, 2014, DENR engineer Ken Buhler conducted an on-site examination of Jo's Family Farms' irrigation systems constructed in Brookings County. The purpose of the examination is to license the water permit to insure the system was constructed in accordance with the original permits and to reflect the level of development. The examination found additional acres being irrigated to what is authorized by Water Permit No. 7702-3 and additional well, diversion capacity and acres to Water Permit No. 7178-3. There are also legal description discrepancies of the acres irrigated that need to be corrected.

Mr. Buhler partially completed application forms for Jo's Family Farms to complete in order to reflect the actual irrigation systems as developed in order to be in compliance with South Dakota water rights law.

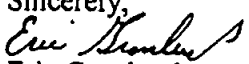
A copy of the originating water permits along with the partially completed applications and maps are enclosed. Please review the applications and if in agreement, sign and submit the applications filing fee to: Water Rights Program, 523 E Capitol Avenue, Pierre SD 57501

The application filing fee for the additional 83 acres to Water Permit No. 7702-3 is \$750.

The filing fee for additional diversion rate authority, irrigated acres and an additional well to Water Permit No. 7178-3 is \$850.

The applications will then be reviewed, a recommendation made prior to needing to be public noticed. DENR will walk you through the public notice process when we get to that point.

Please let us know if you have any questions.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8144-3, 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. 8144-3, Jo's Family Farms, c/o Jon Wiering, 1911 W 57th Street, Ste 102, Sioux Falls SD 57108.

The Chief Engineer is recommending APPROVAL of Application No. 8144-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under Water Permit Nos. 7702-3 and 8144-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
3. That Jo's Family Farms 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 date recorded by the timing device 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
May 26, 2015

REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NOS. 8143-3 and 8144-3
Jo's Family Farms
May 15, 2015

BACKGROUND:

Water Permit No. 7178-3 appropriates water from the Aurora Management Unit of the Big Sioux aquifer at a maximum diversion rate of 4.44 cubic feet per second (cfs) from three wells located in the S $\frac{1}{2}$ of Section 34, T109N-R47W. This water is to be used to irrigate 400 acres in Brookings County, South Dakota, and Pipestone County, Minnesota. An inspection of Water Permit No. 7178-3 found an additional 178 acres irrigated from a well constructed in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, T109N-R47W at 58 feet below ground surface and capable of diverting an additional 1.28 cfs. Water Permit Application No. 8143-3 is for this additional well, additional diversion rate authority, additional 178 irrigated acres, and to correct the legal description of the acres irrigated by Water Permit No 7178-3.

If approved, Water Permit No. 7178-3 and 8143-3 will authorize the diversion of 5.72 cfs for the irrigation of 578 acres as follows: 16.8 acres in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, 36.1 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, 26.8 acres in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, 39.5 acres in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, 14.4 acres in Gov. Lot 3 of Section 34, 17.3 acres in Gov. Lot 4 of Section 34, 22.5 acres in the N $\frac{1}{2}$ of Gov. Lot 2 of Section 36, 22.4 acres in the S $\frac{1}{2}$ of Gov. Lot 2 of Section 36, 32 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, 32.6 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, all in T109N-R47W. 56.6 acres in Gov. Lot 1 of Section 3, 55.6 acres in Gov. Lot 2 of Section 3, 23.2 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 3, 56.3 acres in Gov. Lot 3 of Section 3, 36.7 acres in Gov. Lot 4 of Section 3, 56.8 acres in the N $\frac{1}{2}$ of Section 2, 32.1 acres in the S $\frac{1}{2}$ of Section 2, all in T108N-R47W. The original three wells are located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, Gov. Lot 3 of Section 34, Gov. Lot 4 of Section 34, all in T109N-R47W.

Water Permit No. 7702-3 appropriates water from the Aurora Management Unit of the Big Sioux aquifer at a maximum diversion rate of 3.56 cubic feet per second (cfs) from two wells completed to a depth of approximately 68 feet below ground surface. The wells are located in the S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 33, T109N-R47W and are to be used to irrigate 324 acres. During an inspection of Water Permit No. 7702-3 it was found that an additional 83 acres were being irrigated with water from these wells. Water Permit Application No. 8144-3 is intended to address the additional acres and to correct the legal description of lands irrigated under Water Permit No. 7702-3.

If approved, Water Permit Nos. 8144-3 and 7702-3 will appropriate 3.56 cfs for the irrigation of a total of 407 acres as follows: 34.2 acres in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 12, 34.5 acres in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 12, 34.5 acres in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 12, 34.7 acres in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 12, 21 acres in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, 38.8 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, 36.7 acres in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, 36 acres in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, 35.8 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, 34.3 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, 31.8 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, 34.2 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, all in T108N-R47W.

AQUIFER: Aurora Management Unit of the Big Sioux aquifer.

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Big Sioux aquifer is an alluvium mantled outwash consisting of silt and fine to coarse sand and gravel that is generally under unconfined conditions near the Big Sioux River but can be confined elsewhere. The aquifer is hydraulically connected to the Big Sioux River and water in the aquifer generally moves from north to south and locally towards the Big Sioux River (Hamilton, 1989). The Aurora Management Unit of the Big Sioux aquifer underlies approximately 83,000 acres in Brookings and Moody Counties in South Dakota and Lincoln and Pipestone Counties in Minnesota. In the center of T109N-R47W, groundwater flow in the aquifer divides: flowing west-northwest in the northern portion and flowing southwest in the southern portion, essentially creating subunits of the Aurora management unit. The southern subunit, where this application proposes to divert water, underlies approximately 20,000 acres in Brookings County, South Dakota, and Pipestone County, Minnesota (Buhler, 2012).

In Brookings and Kingsbury Counties the Big Sioux aquifer has an average thickness of 30 feet and, where present, is encountered at depths ranging from ground surface to 212 feet with the depth to water ranging from zero to 120 feet below ground surface (Hamilton, 1989). The wells completed under Water Permit Nos. 7178-3 and 7702-3 as well as the additional well to be authorized by Water Permit Application No. 8143-3 are completed to depths ranging from 58 to 79 feet below ground surface with static water levels of 14 to 23.3 feet below ground surface. This is consistent with the known depth and water levels of the Aurora Management Unit of the Big Sioux aquifer (Water Rights, 2015a).

WATER AVAILABILITY:

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.” 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. Therefore, the withdrawal/recharge issue must be considered.

In applying SDCL 46-6-3.1, the Sixth Judicial Circuit Court ruled in 2005 that if the Water Management Board uses average annual recharge, then it should also use average annual withdrawals to determine if unappropriated water is available from the aquifer (*Hines v. South Dakota Dept. of Environ. and Nat'l. Resources, Hughes County 04-37*) (Memorandum Decision, April 29, 2005).

A 2012 First Judicial Circuit Court’s rulings basically stated that data must be presented to show it is probable the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (*Hanson County Dairy v. Robert Bender and Stace Nelson*) (Memorandum Decision, April 11, 2012).

Later in 2012, the First Judicial Circuit Court stated that in deciding whether or not it is probable that the quantity of water withdrawn will exceed the quantity of the average estimated annual recharge is to be based according to the best information reasonably available, and that nothing in South Dakota law requires a recharge study (*Longview Farms, LLP v. South Dakota Dept. of Environ. and Nat'l. Resources*), (Memorandum Decision, May 17, 2012).

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: Aurora aquifer occurs through infiltration of precipitation in areas where the aquifer is at or near land surface, seepage through till, lake deposits, and underlying aquifers, and inflow from the Big Sioux River at times of relative high stage (Hamilton, 1989).

Hedges and others (1985) determined the average recharge to the entire Big Sioux aquifer system by base flow analysis to be 6.5 inches per year (in/yr). Koch (1980) estimated average recharge to the Big Sioux aquifer in Brookings, Deuel, and Hamlin Counties by modeling to be 6.57 in/yr in the unconfined portions. Hansen (1988) estimated recharge to the Big Sioux aquifer in Moody County by modeling to be on average 4.85 in/yr. Hedges and others (1985) estimated recharge specifically of the Aurora management unit by observation well analysis to be 5.0 in/yr. For the purpose of this report the last recharge estimate of 5.0 in/yr (Hedges et al., 1985) will be used because of its focus on the Aurora Management Unit. However, it is possible that increased pumping could induce recharge from the Big Sioux River (Koch, 1980).

Given a recharge rate of 5.0 in/yr for the Aurora Management Unit (Hedges et al., 1985) and an area of 20,000 acres for the Southern Subunit, recharge to this subunit was calculated to be 8,333 ac-ft/yr.

Discharge:

Discharge from the Big Sioux: Aurora aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface, outflow to streams during dry years, and well withdrawals. There are 20 water rights and permits appropriating water for irrigation use, one for rural water, one for municipal use, and one future use permit reserving water from the Southern Subunit of the Big Sioux: Aurora aquifer (Water Rights, 2015b). Of these, the municipal water right is maintained by the City of Elkton for backup and emergency use only. The City of Elkton is currently supplied by the Brookings-Deuel Rural Water System (Drinking Water, 2015). Although Lincoln-Pipestone Rural Water reports annual use under Water Permit No. 7392-3, the permit has only been in place since November 2012. Consequently, an insufficient amount of time has passed for a meaningful average use calculation to be made. For the purpose of this report, it is assumed that Water Permit No. 7392-3 will pump at the maximum annual rate of 614 ac-ft/yr. However, this estimate is likely high as Lincoln-Pipestone RWS reported a withdrawal of 11.5 ac-ft in 2013 and zero ac-ft in 2014. Future Use Permit No. 7393-3 reserves an additional 614 ac-ft/yr for Lincoln-Pipestone RWS.

Historic withdrawals for irrigation from the Southern Subunit of the Big Sioux: Aurora aquifer during the period of record are shown below in Table 1. Average water use over this time period is 657 ac-ft/yr with a minimum of 132 ac-ft/yr and a maximum of 1,611 ac-ft/yr. This wide range of annual use can be attributed primarily to varying climatic conditions. Expected use is

assumed to be equal to average use as the number of permits/rights appropriating water from the Big Sioux: Aurora aquifer has remained relatively constant over the period of record.

Year	Number of Irrigation Permits/Rights	Total Irrigation Appropriation (ac-ft/yr)	Usage From South Subunit (ac-ft/yr)
1979	6	2001.07	281.83
1980	6	2001.07	228.12
1981	9	2923.07	404.10
1982	10	3153.07	421.88
1983	11	3264.07	686.73
1984	11	3264.07	487.10
1985	11	3264.07	515.70
1986	11	3264.07	163.60
1987	11	3264.07	437.60
1988	11	3264.07	1025.30
1989	11	3264.07	739.90
1990	11	3264.07	607.00
1991	12	3536.07	605.00
1992	12	3536.07	167.86
1993	12	3504.07	131.90
1994	13	3620.07	461.07
1995	13	3620.07	153.13
1996	13	3756.07	398.00
1997	13	3994.07	862.00
1998	11	3296.00	1322.40
1999	10	3240.00	545.55
2000	10	3240.00	796.12
2001	10	3240.00	1161.53
2002	10	3240.00	1078.25
2003	10	3240.00	1193.30
2004	10	3240.00	813.01
2005	10	3240.00	347.88
2006	10	3240.00	835.11
2007	10	3240.00	946.59
2008	10	3240.00	1040.27
2009	10	3240.00	549.27
2010	10	3240.00	165.28
2011	14	4590.00	569.70
2012	14	4590.00	1610.98
2013	19	6722.60	1249.93
2014	19	6722.60	1111.38
MIN	6	2001.07	131.90
MAX	19	6722.60	1610.98
AVE	11	3515.51	669.84

Table 1: Historic irrigation use in the South Subunit of the Big Sioux: Aurora aquifer (Water Rights, 1980-2015).

Although there are numerous domestic wells on file, their relatively small withdrawals compared to water rights/permits in the area renders them an insignificant part of the overall water budget, and they are not taken into consideration when estimating overall usage.

Hydrologic Budget:

The sum of the average or expected use from all water permits/rights appropriating water from the Southern Subunit Big Sioux: Aurora aquifer is estimated to be 1,885 ac-ft/yr. This rate assumes full development of Future Use Permit No. 7393-3. Comparing this rate to the estimated annual recharge of 8,333 ac-ft/yr shows unappropriated water is available from the Southern Subunit of the Big Sioux: Aurora aquifer for the proposed uses.

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 and other data 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 15 observation wells in the Aurora Management Unit of the Big Sioux aquifer, one of which is in the Southern Subunit. Observation Well BG-78H is located approximately 1,500 feet to the southwest of the unauthorized well site addressed in Water Permit Application No. 8143-3. The hydrograph for Observation Well BG-78H shows up to eight feet of variation over the period of record. Water levels appear to be primarily climatically controlled with very little visible affect from pumping. Ultimately, water levels in the Southern Subunit appear to be controlled by climatic conditions, indicating recharge and natural discharge exceed anthropogenic discharge in the aquifer and that unappropriated water is available for the proposed use.

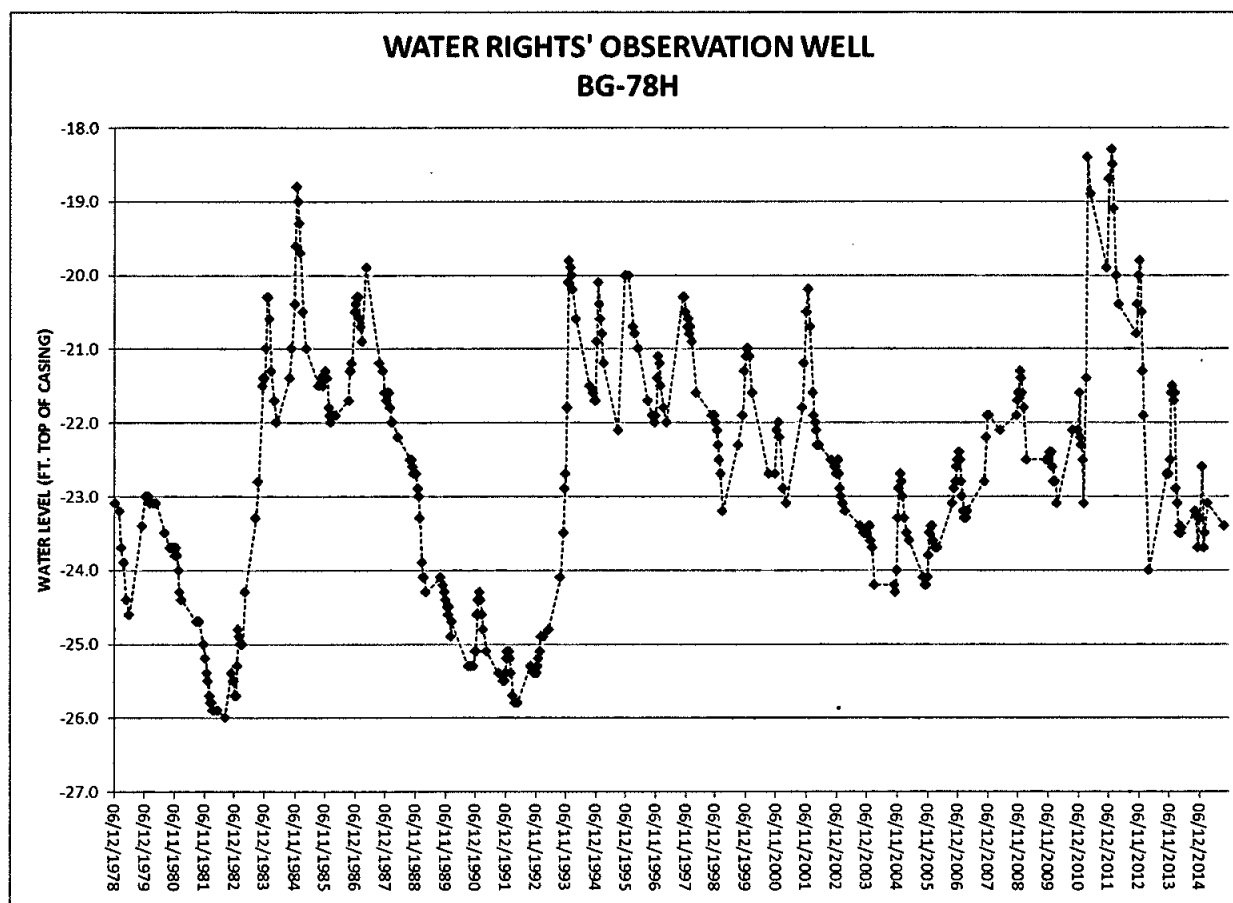


Figure 1: Historic water levels in Observation Well BG-78H (Water Rights, 2015a).

EXISTING WATER RIGHTS:

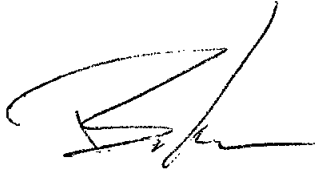
Currently, there are currently 21 water permits/rights appropriating water from the Southern Subunit of the Big Sioux: Aurora aquifer (Water Rights, 2015b) in addition to one future use permit held by the Lincoln-Pipestone RWS. Of these, the closest is Water Right No. 658-3, located approximately 2,500 feet to the south of the unauthorized well site addressed in Water Permit Application No. 8143-3. Assuming the applicant will apply approximately 178 ac-ft/yr on the 178 additional acres authorized under Water Permit Application No. 8143-3, it can be deduced that this usage is the equivalent of diverting 0.5 cfs continually over the 180 day irrigation season. With unconfined conditions in the area, a transmissivity of 52,000 to 100,000 gallons per day per foot (calculated from well logs obtained for Water Permit Nos. 7702-3, 7705-3, and 7678-3) and an assumed storativity value of 0.075, the drawdown at 2,500 feet from the existing well (the distance to the nearest well) as a result of pumping at 0.5 cfs continuously for 180 days was calculated to be less than one foot for all calculated transmissivities. Assuming adequate construction of nearby wells, this level of drawdown is not expected to impair existing water rights or domestic wells.

Water Permit Application No. 8144-3 does not propose to increase the maximum diversion rate authorized under Water Permit No. 7702-3. The proposed addition of 83 acres is expected to increase the rate of use by approximately 83 ac-ft/yr. This is the equivalent of pumping at 0.23 cfs for the entire 180 day irrigation season. Divided between the two existing wells authorized

by Water Permit No. 7702-3 and given the level of drawdown calculated for the single existing well in Water Permit Application No. 8143-3, this increase in diversion rate is not expected to impair any existing adequately constructed nearby wells.

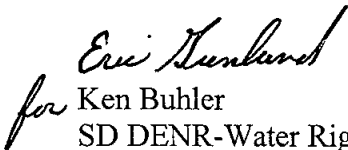
CONCLUSIONS:

1. Water Permit Application No. 8143-3 proposes to withdraw groundwater at a maximum rate of 1.28 cfs from one existing well completed into the Big Sioux: Aurora aquifer in the SE ¼ SE ¼ Section 33, T109N-R47W for the irrigation of 178 acres.
2. Water Permit Application No. 8144-3 proposes to irrigate 83 acres from wells authorized under Water Permit No. 7702-3 but does not propose to increase the maximum diversion rate authorized by Water Permit No. 7702-3.
3. There is a reasonable probability that unappropriated water is available from the Big Sioux: Aurora aquifer to supply the proposed appropriations.
4. The diversion rate is not expected to adversely impair nearby adequate wells.



Bracken Capen
SD DENR-Water Rights Program

Approved by,


for Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K. 2012. Report on Water Permit Application Nos. 7392-3 and 7393-3 for Lincoln Pipestone Rural Water: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Drinking Water. 2015. Municipal Water Records, SD DENR-Drinking Water Program, Joe Foss Bldg., Pierre, South Dakota.
- Hamilton, L.J. 1989. Water Resources of Brookings and Kingsbury Counties, South Dakota. Water-Resources Investigations Report 88-4185, 82 p. USGS, Huron, South Dakota.
- Hansen, H.S. 1988. Appraisal of the Water Resources of the Big Sioux Aquifer, Moody County, South Dakota. Water-Resources Investigations Report 87-4057. USGS, Huron, South Dakota.
- 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. 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.
- In the Matter of Water Permit Application No. 7209-3, Longview Farms, LLP v. South Dakota DENR, South Dakota First Judicial Court Civ. No. 11-146 (Memorandum Decision, May 17, 2012).
- In the Matter of Water Permit Application No. 7239-3, Hanson County Dairy v. Robert Bender and Stace Nelson, South Dakota First Judicial Court Civ. No. 11-54 (Memorandum Decision, April 11, 2012).
- In the Matter of Water Permit Application No. 6431-3, Phillip W. Hines v. South Dakota DENR, South Dakota Sixth Judicial Court Civ. No. HU04-37 (Memorandum Decision, April 11, 2012).
- Water Rights. 1990-2015. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2015a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2015b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2015c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

May 26, 2015

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 8143-3 and 8144-3 to Appropriate Water. Please publish the notice once on June 3, 2015. 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 Jon Wiering, 1911 W 57th St, Ste. 102, 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

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.

May 26, 2015

Jo's Family Farms
Jon Wiering
1911 W 57th St, Ste 102
Sioux Falls SD 57108

Dear Mr. Wiering:

Water Permit Application Nos. 8143-3 and 8144-3 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.

RECEIVED

JUN 19 2015

WATER RIGHTS
PROGRAM

Affidavit of Publication

State of South Dakota

ss

County of Brookings

Katherine Foiles 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

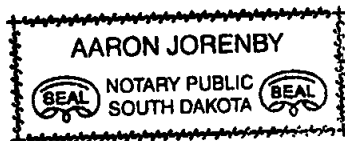
Leg#798 Applications 8143-3 and 8144-3

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

June 3, 2015

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:

Forty-one dollars and eight cents \$41.08



June

4th

day of

2015

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires February 22, 2020.

Legal 798, 1x, 6/3
NOTICE OF APPLICATION NOS. 8143-3 and 8144-3 to Appropriate Water

Notice is given that Jo's Family Farms, c/o Jon Wiering, 1911 57th St, Ste. 102, Sioux Falls SD 57108 has filed the following applications for a water permit.

Application 8143-3 proposes an additional well, increase the diversion rate authority by an additional 1.28 cubic feet of water per second (cfs), irrigate 178 additional acres and correct the legal description of the acres irrigated by Water Permit No. 7178-3. Water Permit No. 7178-3 appropriates 4.44 cfs from three wells completed into the Big Sioux: Aurora aquifer located in the S 1/2 Section 34-T109N-R47W to irrigate 400 acres. An inspection of Water Permit 7178-3 found an additional well completed into the Big

Sioux: Aurora Aquifer located in the SE 1/4 SE 14 Section 33-T109N-R47W capable of diverting an additional 1.28 cfs. The 178 additional acres and the 400 acres authorized by Water Permit No. 7178-3 are located in the SW 1/4, Gov't Lots 3 and 4 Section 34-T109N-R47W and Gov't Lots 1, 2, 3, 4 and NE 1/4 SW 1/4 Section 3-T108N-R47W (Brookings County) and E 1/2 SE 1/4, Gov't Lot 2 Section 36-T109N-R47W and portions of Section 2-T108N-R47W (Pipestone County-Minnesota). This application, if approved and Water Permit 7178-3 will authorize a total diversion rate of 5.72 cfs for irrigation of 578 acres. The original three wells are located in the SE 1/4 SE SW 1/4, Gov't Lot 3 and Gov't Lot 4 of Section 34, T109N-R47W.

Application No. 8144-3 proposes to irrigate 83 additional acres and correct the legal description of the acres authorized by Water Permit 7702-3. Water Permit 7702-3 appropriates 3.56 cfs from two wells completed into the Big Sioux: Aurora aquifer located in the S 1/2 SE 1/4 Section 33-T109N-R47W (Brookings County) to irrigate 324 acres. An inspection of Water Permit 7702-3 found the additional 83 acres being irrigated. The location of the 83 new acres and the acres authorized by Water Permit 7702-3 are located in the W 1/2, SE 1/4 Section 12-T108N-R46W (Pipestone County-Minnesota). This application, if approved and Water Permit No. 7702-3 will authorize a diversion rate of 3.56 cfs for irrigation of 407 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8143-3 and 8144-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition

opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 15, 2015.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Information concerning this application is available at <http://denr.sd.gov/public>. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$41.08.

Instruction to Newspaper - Publish the Notice on June 3, 2015. 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. 8143-3 and 8144-3 to Appropriate Water

Notice is given that Jo's Family Farms, c/o Jon Wiering, 1911 W 57th St, Ste. 102, Sioux Falls SD 57108 has filed the following applications for a water permit.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 8143-3 and 8144-3 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 June 15, 2015.

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 _____.

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

Date 1/8/2015

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM: Jo's Family Farm

(name)

1911 W 57th St

(address)

Sioux Falls SD 57108

(city, state, zip)

(605) 822-9266

(phone)

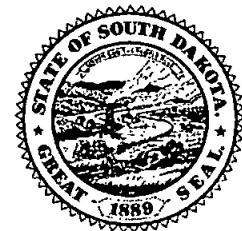
I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 7702-3 states that the water use system is to be constructed by
4/1/2017 , and water is to be put to beneficial use by 7/1/2013
(date) (date)

The water use system was completed on 7/1/2013
(date)

Applying the water to beneficial use was completed on 7/1/2013
(date)

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



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7702-3

I have this day, 30 October 2014, made a thorough examination of the water use system constructed by Jo's Family Farms, 1911 W 57th St. STE 102, Sioux Falls, SD 57108, holder of Permit No. 7702-3, bearing the priority of 15 February 2013 authorizing the diversion of 3.56 cu. ft. per second of the waters of the Big Sioux: Aurora aquifer for irrigation purposes, in Pipestone County Minnesota.

Inspection contact & relationship to permit holder, if applicable: **Jon Wiering, Farm Manager**

A. Works used to divert the water:

Well₁₀ Information:

- 1) Well Drilling Firm: Steffl Drilling & Pump
- 2) No. of Wells 1
- 3) Depth(s) 79 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 12 inches
- 2) Length 59 feet
- 3) Type PVC

Screen:

- 1) Type stainless steel
- 2) Length 20 feet
- 3) Static water level 23.3 feet (26 Nov. 2013)

Pump:

- 1) Make Franklin
- 2) Model 700D60-3ABB/4T145MO7
- 3) Size 60 HP
- 4) Capacity 900 GPM

Well₁₁ Information:

- 1) Well Drilling Firm: Steffl Drilling & Pump
- 2) No. of Wells 1
- 3) Depth(s) 60 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 12 inches
- 2) Length 45 feet
- 3) Type PVC

Screen:

- 1) Type stainless steel
- 2) Length 15 feet
- 3) Static water level 15'7" (3 Dec. 2013)

Pump:

- 1) Make Franklin
- 2) Model 700D50-3ALL/4T144FO6
- 3) Size 50 HP
- 4) Capacity 700 GPM

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

- 1) Type PIP 2) Size 10 inches 3) Length 18000 feet

Comments: **From well 10 to center pivot 12**

- 1) Type PIP 2) Size 10 inches 3) Length 14960 feet

Comments: **From well 10 to center pivot 10**

- 1) Type PIP 2) Size 10 inches 3) Length 17560 feet

Comments: **From well 11 to center pivot 11**

C. Works used to apply water to beneficial use:

Center pivot₁₀ (Lat/Lon: 44.17986/-96.44305):

- 1) Make Valley
- 2) Overall length 1298 feet
- 3) Number of towers 7
- 4) End gun yes
- 5) Capacity 450 GPM

Center pivot₁₁ (Lat/Lon: 44.17284/-96.44301)

- 1) Make Valley
- 2) Overall length 1538 w/corner feet
- 3) Number of towers 7 plus corner
- 4) End gun yes
- 5) Capacity 700 GPM

Center pivot₁₂ (Lat/Lon:44.17286/-96.43305)

- 1) Make Valley
- 2) Overall length 1298 feet
- 3) Number of towers 7
- 4) End gun yes
- 5) Capacity 450 GPM

Chemigation Equipment:

Does not chemigate

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes

If no, describe: na

- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes

List any extended period of nonuse: na

- 3) Exceptions to compliance are: na

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows:
Well No. 10: 650 feet north and 2150 feet west of the southeast corner of Sec. 33, T109N-R47W,
Lat/Lon: 44.19834,-96.47380, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 33, T109N-R47W
Well No. 11: 615 feet north 20 feet east of the southwest corner of Sec. 34, T109N-R47W,
(Lat/Lon: 44.19837/-96.46553, NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec.34, T109N-R47W.
2. The works are capable of diverting and conveying to the place of use 3.56 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
- | | |
|---|---|
| <u>NE$\frac{1}{4}$NW$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.5 Acres</u> | <u>SW$\frac{1}{4}$SW$\frac{1}{4}$ Sec. 12, T108N-R46W: 36.7 Acres</u> |
| <u>NW$\frac{1}{4}$NW$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.2 Acres</u> | <u>SE$\frac{1}{4}$SW$\frac{1}{4}$ Sec. 12, T108N-R46W: 36.0 Acres</u> |
| <u>SW$\frac{1}{4}$NW$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.7 Acres</u> | <u>NE$\frac{1}{4}$SE$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.3 Acres</u> |
| <u>SE$\frac{1}{4}$NW$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.6 Acres</u> | <u>NW$\frac{1}{4}$SE$\frac{1}{4}$ Sec. 12, T108N-R46W: 35.8 Acres</u> |
| <u>NE$\frac{1}{4}$SW$\frac{1}{4}$ Sec. 12, T108N-R46W: 38.8 Acres</u> | <u>SW$\frac{1}{4}$SE$\frac{1}{4}$ Sec. 12, T108N-R46W: 34.2 Acres</u> |
| <u>NW$\frac{1}{4}$SW$\frac{1}{4}$ Sec. 12, T108N-R46W: 21.0 Acres</u> | <u>SE$\frac{1}{4}$SE$\frac{1}{4}$ Sec. 12, T108N-R46W: 31.8 Acres</u> |

comprising a total of 406.6 acres of land and the license should be issued for 3.56.

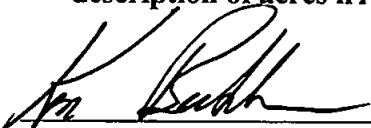
3. All structures, wells and lands on map Yes

If no, describe: na

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

System No. 12 irrigates a full circle (i.e. 136.1 acres) in the SE $\frac{1}{4}$ of Sec. 12, T108N-R46W. Public Notice for Water Permit Application No. 7702-3 was given to irrigate 80 acres in the quarter.

Water Permit No. 8144-3 approved 6-15-15 authorized irrigation of 83 acres and corrected the legal description of acres irrigated by No. 7702-3.



Ken Buhler

DENR, Water Rights Program

Date report completed: 30 December 2014

Water Permit Nos. 7702-3 and 8144-3 (acreage breakdown with priority dates)

	Original 7702-3	Developed	Priority 2/15/2013	Priority March 16, 2015
NW NW	38	34.2	34.2	
SW NW	38	34.7	34.7	
SE NW	38	34.6	34.6	
NE NW	38	34.5	34.5	
NW SW	28	21.0	21	
SW SW	38	36.7	36.7	
SE SW	38	36.0	36	
NE SW	38	38.8	38.8	
NW SE	15	35.8	35.8	
SW SE	15	34.2	17.7	16.5
NE SE		34.3		34.3
SE SE		31.8		31.8
Total			324	82.6

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Jo's Family Farms

ADDRESS: 1911 W 57th St. STE 102, Sioux Falls, SD 57108

DATE: April 10, 2015

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

Water Permit No. 7702-3 authorized two wells to be located in the S½ SE¼ Sec. 33, T109N-R47W. Two wells were developed into the Big Sioux: Aurora aquifer for this system: Well No. 10 located in the SW¼SE¼ Sec.33, T109N-R47W and Well No. 11 located in the SW¼SW¼ Sec. 34, T109N-R47W. No additional diversion rate capacity was developed.

- **If irrigation, no new land is irrigated**

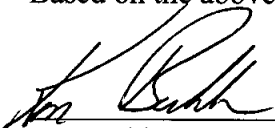
The acreage that is irrigated under this permit, was included in the public notice for Water Permit Application No. 7702-3.

- **Review of Existing Diversions**

Approval of the change of location of Well No. 11 (approximately 20 feet) from the SW¼ Sec.33, T109N-R47W to the SE¼ Sec.34, T109N-R47W as proposed will not impair existing users.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Ken Buhler,
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Jeanne Goodman, Chief Engineer
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 8144-3

(1) Jo's Family Farms, c/o Jon Wiering, Farm Manager, 1911 W 57th St, Ste 102, Sioux Falls SD 57108 made Application No. 8144-3, January 13, 2015 for a water permit to irrigate 83 additional acres in, Brookings County, South Dakota for irrigation purposes. Permit No. 8144-3, with a priority date of January 13, 2015 was approved June 15, 2015 and issued to the applicants for diversion of water with construction of the described water supply system and the application to beneficial use of water completed.

Water Permit No. 7702-3, with a priority date of February 15, 2013 authorized diversion of 3.36 cubic feet of water per second (cfs) from two wells (Big Sioux:Aurora Aquifer) to irrigate 324 acres. The applicable portions of No. 7702-3 are incorporated into No. 8144-3.

An investigation conducted for licensing purposes found one of the wells under Water Permit No. 8144-3 was not in the location authorized by the permit. Pursuant to SDCL 46-5-13.1, the Chief Engineer makes a finding that the change in location of diversion point does not increase the potential for interference with existing water rights.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the permit holder of Incorporated Water Right No. 8144-3 is issued a license, bearing priority dates of February 15, 2013 (324 acres) and January 13, 2015 (83 acres) to appropriate 3.56 cfs from 2 wells (Big Sioux:Aurora Aquifer) to irrigate 407 acres.

The diversion points are located as follows: all in T109N-R47W

Well No. 10: 650 feet north and 2,150 feet west of the SE corner of Section 33 (SW 1/4 SE 1/4)

Well No. 11: 615 feet north and 20 feet east of the SW corner of Section 34 (SW 1/4 SW 1/4)

The acres authorized for irrigation are as follows:

Sec 12-T108N-R46W	NE 1/4 NW 1/4	34.5 ac	Sec12-T108N-R46W	NE 1/4 SE 1/4	34.3 ac
	NW 1/4 NW 1/4	34.2 ac		NW 1/4 SE 1/4	35.8 ac
	SW 1/4 NW 1/4	37.4 ac		SW 1/4 SE 1/4	34.2 ac
	SE 1/4 NW 1/4	34.6 ac		SE 1/4 SE 1/4	31.8 ac
	NE 1/4 SW 1/4	38.8 ac			
	NW 1/4 SW 1/4	21.0 ac			
	SW 1/4 SW 1/4	36.7 ac			
	SE 1/4 SW 1/4	36.0 ac			
				Total 406.6 acres	

3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Incorporated Water Permit No. 8144-3 including the following qualifications:

- The wells approved under Nos. 7702-3 and 8144-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

(continued)

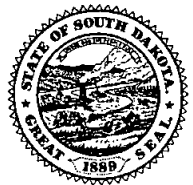
- This permit is approved subject to the irrigation water use questionnaire being submitted each year.
- That Jo's Family Farms LLC, and any successor, assign, or transferee of this water permit, must install and maintain at its own cost, a timing device on each of its irrigation wells which records each time the pumps on the irrigation wells are turned on and off, and further, that date recorded by the timing device be collected and provided to Lincoln Pipestone Rural Water on or before December 1st of each calendar year.



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

JUL 01 2016

date



8144-3



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