

WATER PERMIT NO. 8325-3

Name of Applicant: **Double Down Farm GP**

Address: **18 Crescent Key, Bellevue WA 98006**

Phone: **425 301-0728**

Amount of Water Claimed: **1.67 cfs**

Total Acres: **146 acres**

Source of Water Supply: **groundwater 1 well**

Water to be used for: **irrigation**

County: **Clay**

Type of Waste Disposal System:

Location: **Approximately 12 miles northwest of Vermillion**

PRIORITY

Date Received: **12-27-17**

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

Corrected Application Received:

Period of Annual Use: **May 1 – October 31**

Remarks:

Diversion Point: **center of SW 1/4 Sec 4-T93N-**

R53W

Land to be Irrigated: **SW 1/4 Sec 4-T93N-R53W**

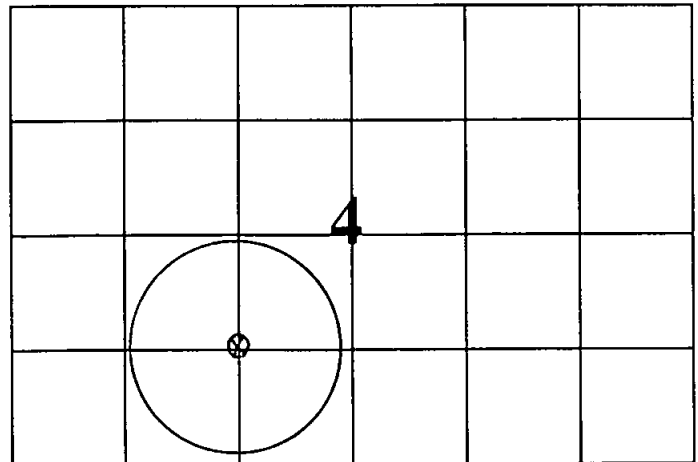
Depth of Well: **96 feet**

Well Driller: **Heine Electric & Irrigation Inc.**

Remarks:

Type of Map: **aerial**

Prepared by:



Reviewed and the Number Assigned on: **12-27-17**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

RECEIVED

DEC 27 2017

WATER RIGHTS
PROGRAM

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8325-3</u> (office use only)	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion R.</u>	
	Newspaper <u>Plain Talk, Vermillion</u>	
	<u>Press & Dakotan, Yankton</u>	

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to Appear on Irrigation Permit Double Down Farm, GP

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 18 Crescent Key Bellevue WA 98006
(Address) (City) (State) (Zip Code)

Phone 425-301-0728 Mobile _____ Email jgirotto@farmopp.com

2. Amount of water claimed 1.67 *CFS or 750 **GPM ***AF Total Acreage 146
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Lower Missouri Aquifer, Elk Point Management Unit

4. Location of point of diversion 1 well SW1/4 4-93N-53W (center SW1/4)
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Clay

5. County or counties where water will be used Clay

6. Annual period during which water is to be used May through October 31

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
NE1/4SW1/4 4-93N-53W	36.5		
NW1/4SW1/4 4-93N-53W	36.5		
SW1/4SW1/4 4-93N-53W	36.5		
SE1/4SW1/4 4-93N-53W	36.5		

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

Windshield wiper center pivot irrigation of the above listed properties, to be planted to common row crops. Diversion rates above the statutory limit requested because of 1) windshield wiper water application technique, and 2) soil type. The proposed project will irrigate 146 acres of cropland west of Meckling, South Dakota. Water will be drawn from one (1) well that has been dug by Heine Electric & Irrigation, 31585 460th Avenue, Vermillion, SD 57069. (605) 670-9567

I, Jay Girotto POA, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

**SOUTH DAKOTA
WATER PERMIT NO. 8325-3**

Date of first receipt of application December 27, 2017.

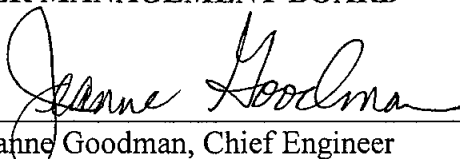
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8325-3 to Double Down Farm GP, c/o Jay Giroto, 18 Crescent Key, Bellevue WA 98006 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8325-3 appropriates 1.67 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (76 feet deep) located in the center of the SW 1/4 Section 4 for irrigation of 146 acres located in the SW 1/4 Section 4; all in T93N-R53W which is approximately 12 miles northwest of Vermillion SD.
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 – October 31.
3. The date from which applicant may claim right is December 27, 2017.
4. The date of approval of Permit No. 8325-3 is March 19, 2018.
5. One-fifth of the construction is to be completed on or before September 19, 2020.
6. All construction is to be completed on or before March 19, 2023.
7. Water is to be put to beneficial use on or before March 19, 2027.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 8325-3 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.

WATER MANAGEMENT BOARD

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

MAR 22 2018

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 Heine Electric & Irrigation, Inc.

For either Existing or Proposed Wells:

c) Well Depth (required) 96 ft Depth to Top of Water Bearing Material 58 ft Depth to Water from Surface 5 ft

d) Distance to nearest domestic well on applicant's property NA Property owned by others >3000 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)

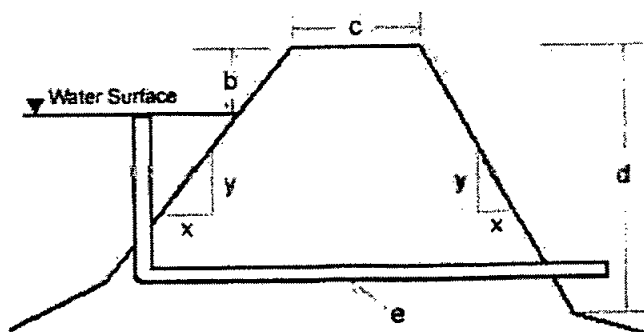
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

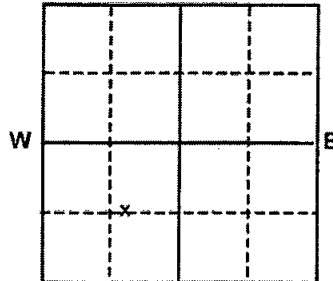


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location se 1/4 sw 1/4 Sec 4 Twp 93n Rg 53wCounty Clay

North

Please mark well
location with an "X"

Well Completion Date

12/26/16

1 Mile

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

>4000 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
sdr26 LB/FT	16 IN	0 FT	56 FT	24 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
bent grt	27	9.6 Lb/gal	0 Ft	52 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie method

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 16 Inches Length 20 FeetMaterial pvcSlot Size .085 Set From 56 Feet to 76 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? hth tabs in gravel pack
☐ No, Why Not?
 Lab to which water
 quality sample sent for analysis
Well Owner: Redwood Holdings of SD, LLC

Business Name:

Address: 11108 NE 65th StreetCity, State, Zip: WA 98033

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Topsoil, Black	0	4
Clay, Brown, silty	4	15
Clay, Gray, silty	15	28
Gravel, sandy, coarse to medium, some rock	28	78

STATIC WATER LEVEL 4 FEETIf flowing: closed in pressure PSIGPM flow through Inch pipeControlled 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

20 Ft. After 4 Hrs. pumped 800 GPM Ft. After Hrs. pumped GPMIf pump installed, pump rate: 750 GPM

REMARKS

Missouri: Elk Point AMThis well was drilled under license # 810 and this report is true and accurate.Drilling firm: Heine Electric & Irr. Inc

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

8025-3



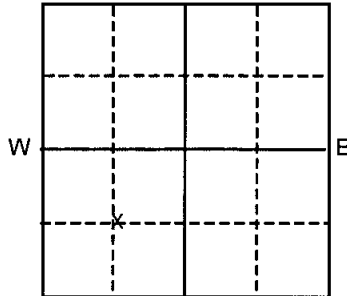
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE ¼ SW ¼ Sec 4 Twp 93N Rg 53W

County Clay

North

Please mark well
location with an "X"

Well Completion Date

3 March 2017

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:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	56.0 FT	22.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	19	9.5 Lb/gal	0.0 Ft	52.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie Method

SCREEN:

☒ Perforated pipe ☐ Manufactured

Diameter 16.00 Inches Length Feet

Material PVC

Slot Size .085 Set From 56.0 Feet to 76.0 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? HTH Tablets

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

Well Owner: Redwood Holdings of SD, LLC

Business Name:

Address: 11108 NE 65th St

City, State, Zip: Kirkland WA 98033

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	4
Brown silty clay	4	15
Gray sandy clay	15	28
Medium to coarse sand and gravel	28	58
Coarse sand and gravel with rocks	58	76

STATIC WATER LEVEL 8.0 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

13.0 Ft. After 1.0 Hrs. pumped 700.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

Elevation: 1154'

42.899277°

-97.117075°

Missouri: Elm Point NR

This well was drilled under license # 810 and this
report is true and accurate.

Drilling firm: Heine Electric & Irrigation

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

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FEB 02 2018

WATER RIGHTS
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Date:





Sec 32
T094N
R53W

Sec 33
T094N
R53W

Sec 34
T094N
R53W

Sec 5
T093N
R53W

Sec 4
T093N
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Sec 3
T093N
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Sec 8
T093N
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Sec 9
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Sec 10
T093N
R53W

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 12-27, 2017

RECEIVED OF Davenport, Evans, Hurwitz & Smith, PO Box 1030, Sioux Falls SD 57101

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

Fee for Application for Permit No. <u>8325-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8325-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1050.00

No. **08402**

By Jeanne Goodman
Chief Engineer (KS)

DAVENPORT EVANS LAWYERS

DAVENPORT, EVANS, HURWITZ & SMITH, LLP

206 WEST 14TH STREET • P.O. BOX 1030 • SIOUX FALLS, SOUTH DAKOTA 57101-1030
T: (605) 336-2880 • F: (605) 335-3639 • WWW.DEHS.COM

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DEC 27 2017

WATER RIGHTS
PROGRAM

December 22, 2017

DENR – Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182

Writer's Direct Dial
(605) 357-1213

E-Mail Address
drezac@dehs.com

Re: Application for Permit to Appropriate Water for Irrigation
Double Down Farm, GP – Clay County

Greetings:

Please find enclosed an Application for Permit to Appropriate Water for Irrigation, related maps detailing the project, and a check in payment of the applicable fees. Should any questions or concerns arise regarding the application, please do not hesitate to contact me for assistance.

Sincerely,



DAVID L. REZAC
For the Firm

DLR/mmk



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8325-3, Double Down Farm GP**

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. 8325-3, Double Down Farm GP, c/o Jay Giroto, 18 Crescent Key, Bellevue WA 98006

The Chief Engineer is recommending APPROVAL of Application No. 8325-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under Water Permit No. 8325-3 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.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
February 26, 2018

REPORT ON PERMIT APPLICATION NO. 8325-3

For Double Down Farm GP, % Jay Girotto

February 20, 2018

Double Down Farm GP, % Jay Girotto, has filed an application for a water permit to irrigate 1.67 cubic feet of water per second (cfs) from one well completed into the Missouri: Elk Point aquifer (76 feet deep) located in the approximate center of the SW¼ Section 4 for irrigation of 146 acres located in the SW¼ Section 4; all in T93N-R53W which is approximately 12 miles northwest of the town of Vermillion in Clay County, South Dakota.

AQUIFER – MISSOURI: ELK POINT (M: EP)

The Missouri aquifer consists of unconsolidated glacial outwash deposits composed of fine sand to very coarse gravel. The Elk Point management unit of the Missouri aquifer underlies an estimated 210,100 acres of Yankton, Clay, and Union Counties, and contains an estimated 3,287,100 acre feet of recoverable water in storage (Hedges and others, 1982). The Missouri: Elk Point aquifer is generally restricted to the Missouri River floodplain. The outwash is often overlain by permeable alluvial deposits. The permeable alluvium and outwash form a single aquifer (Stephens, 1967). Near the edge of the floodplain, the Elk Point management unit is overlain by relatively impermeable glacial till (Niehus, 1994; Stephens, 1967). Hydrologically, the Elk Point management unit can be found under both confined and unconfined conditions (Stephens, 1967). The Elk Point management unit is hydraulically connected to the Lower-Vermillion-Missouri aquifer and the Lower James-Missouri aquifer, the Missouri River, the Vermillion River, and the Big Sioux River (Niehus, 1994; Stephens, 1967).

The general direction of water movement in the aquifer is to the southeast toward the Missouri River (Stephens, 1967). The South Dakota Water Well Completion Report on file for this irrigation well identifies 28 feet of top soil and clay overlying 50 feet of the sand and gravel of the Missouri: Elk Point aquifer (Water Rights, 2018c). At the time of well completion (December 26, 2016), the static water level was 4 feet below ground surface, which indicates that the aquifer is under confined conditions at this location. According to the report, the well was pump tested at a rate of 800 gallons per minute for four hours with 20 feet of drawdown.

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. This report will address the availability of unappropriated water and existing rights from the aquifer.



WATER AVAILABILITY

The availability of unappropriated water from an aquifer can be evaluated by considering SDCL 46-6-3.1. This statute requires that an application to appropriate groundwater cannot 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 average estimated annual recharge. If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, a water distribution system is not involved and the Missouri: Elk Point aquifer is not older or lower than the Greenhorn Formation therefore withdrawal/recharge issue must be considered.

Recharge versus Discharge:

Recharge

Recharge to the Missouri: Elk Point aquifer is through infiltration of precipitation, groundwater inflow from other aquifers and streamflow losses from rivers and streams. Hedges and others (1985) estimated recharge to the aquifer at approximately 3.8 inches per year, based on observation well analysis. The areal extent of the Missouri: Elk Point aquifer is approximately 219,100 acres (Hedges et al, 1982), resulting in an estimated recharge to the aquifer of approximately 69,382 acre-feet per year. Stonesifer (2013) estimated the induced recharge to the aquifer due to the pumping of Lewis and Clark Rural Water System wells near the Missouri River to be approximately 22,582 acre-feet per year. This results in an estimated average annual recharge of approximately 91,964 acre-feet per year.

Discharge

Discharge from the aquifer is: (1) by well withdrawals; (2) evapotranspiration where the aquifer is near land surface; (3) to the Big Sioux and Missouri Rivers when the stage of the rivers are lower than the water table of the aquifer; and (4) to the Dakota aquifer when water levels of the Missouri: Elk Point aquifer are higher than the water levels of the Dakota aquifer (Niehus, 1997).

There are a number of domestic wells on file that withdraw water from the Missouri: Elk Point aquifer, however the magnitude of their withdrawals is small, and since the introduction of rural water systems, many of these wells may no longer be in use (Water Rights, 2018c). The annual quantity of water withdrawn for domestic uses is considered to not be significant to the hydrologic budget of the aquifer.

There are 41 non-irrigation water rights/permits currently appropriating water from the Missouri: Elk Point aquifer. For non-irrigation water rights/permits the amount of water that can be expected to be withdrawn can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually, water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time,

and future use permits will be fully developed. Farmer (2018) modified this method by using the average actual reported use, instead of the appropriated amount, and calculated the expected use from non-irrigation water rights/permits to be 65,696.84 acre-feet per year.

Irrigation data from 2016 shows that there were 566 water rights/permits that were permitted for irrigation (Water Rights, 2018d). These water rights/permits appropriated 190,934.28 acre-feet of water in 2016, however the actual usage is much less. Stonesifer (2013) analyzed the irrigation data from 1979 to 2012, and determined that from 1979 to 2006, the appropriated amount of water in the Missouri: Elk Point aquifer remained steady. After 2006, the total appropriation increased due to a number of factors. Stonesifer developed a method to estimate the average annual use from irrigation even as the numbers of water rights/permits were increasing. Using the period of 1979 to 2006, and calculating the pumpage and the appropriations for each year, a ratio of pumpage to the appropriation was developed. This ratio showed that 13.7% of the appropriated amount of water for irrigation was the average annual usage for irrigation.

Farmer (2018) modified Stonesifer's method and developed a hydrologic budget using the actual average amounts reported on the annual irrigation questionnaires. Farmer used all of the available years of irrigation questionnaires, 1979 to 2016, calculating an average application rate of 0.34 feet per acre (Farmer, 2018). In 2016, there was a total of 80,279.54 acres permitted for irrigation. Between the 2016 irrigation season and January 2018, a total of 7 permits for irrigation have been approved with a total of 676 permitted acres. The total permitted acres for irrigation is 80,995.54 acres. Applying the average application rate of 0.35 feet on the permitted acres results in an estimated average annual use for irrigation purposes of 28,348 acre-feet per year (Water Rights, 2018d).

Hydrologic Budget

The estimated withdrawal from the Missouri: Elk Point aquifer is 65,696.84 acre-feet per year from non-irrigation users, and 28,348 acre-feet per year from irrigation use. Including an estimated 38.5 acre-feet per year from applications that are pending approval and an estimated 51.1 acre-feet per year from this application, the estimated average annual withdrawal from the Missouri: Elk Point aquifer is 94,134.44 acre-feet per year.

The estimated annual recharge to the Missouri: Elk Point aquifer is approximately 91,964 acre-feet per year. This estimated annual recharge does not include the recharge induced by well withdrawals. Aside from Lewis and Clark RWS, the actual recharge is likely to be greater than 91,964 acre-feet per year. The estimated annual withdrawals equate to roughly three percent of the available water in storage. Due to the relatively small development of this large resource and the ability to induce recharge to the aquifer from nearby bodies of surface water, there is a reasonable probability there is unappropriated water available from the Missouri: Elk Point aquifer for the proposed appropriation.

OBSERVATION WELL DATA

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to 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 37 observation wells completed into the Missouri: Elk Point aquifer (Water Rights, 2018b). Three of these wells were analyzed in order to get an idea of how the water table reacts to local pumping and regional climatic conditions. Observation well CL-80A is located approximately 4.0 miles southeast, YA-80KA is located approximately 5.8 miles southwest and YA-78J is located approximately 6.2 miles west of the well this application proposes as a source. Hydrographs for the wells are shown in Figures 1, 2 and 3.

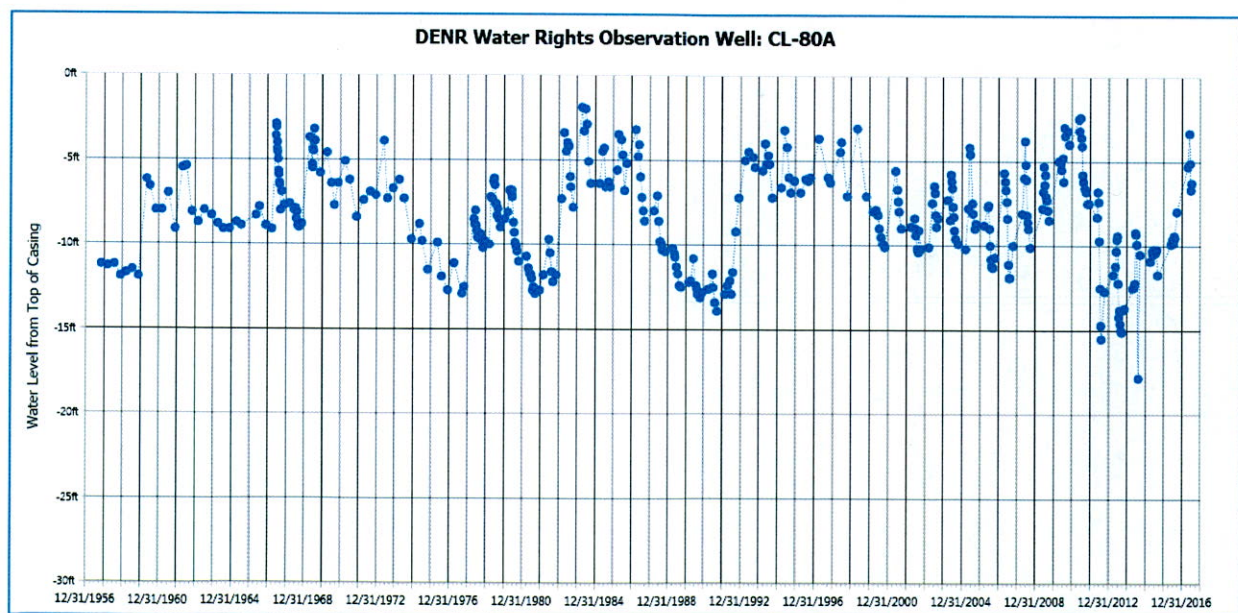


Figure 1. Hydrograph of observation well CL-80A.

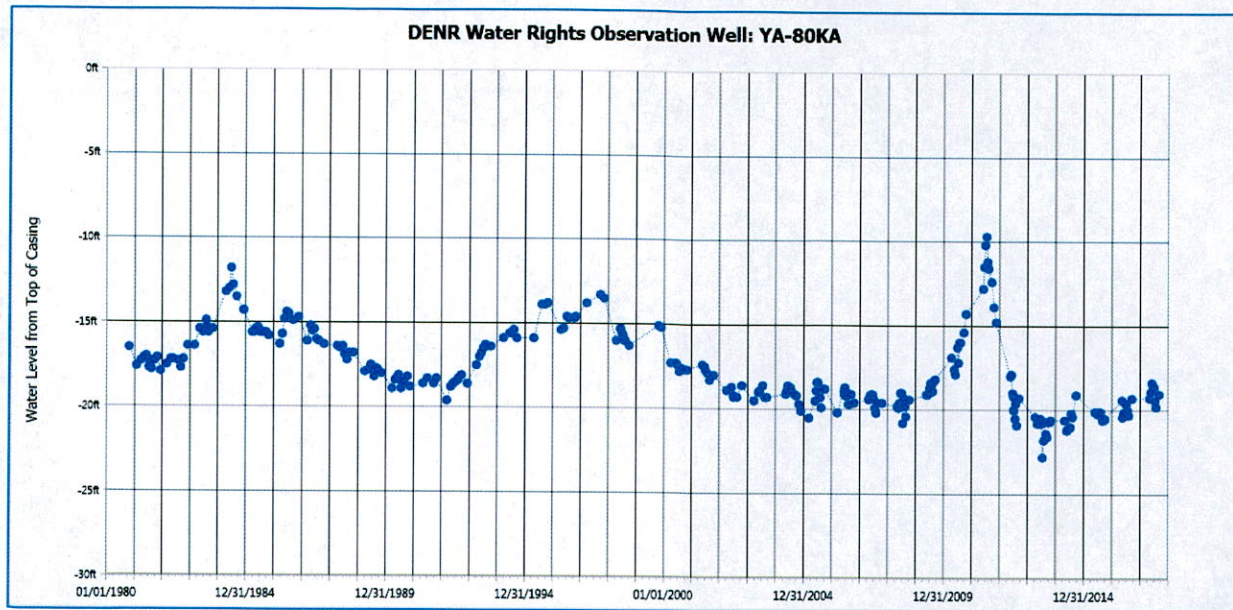


Figure 2. Hydrograph of observation well YA-80KA.

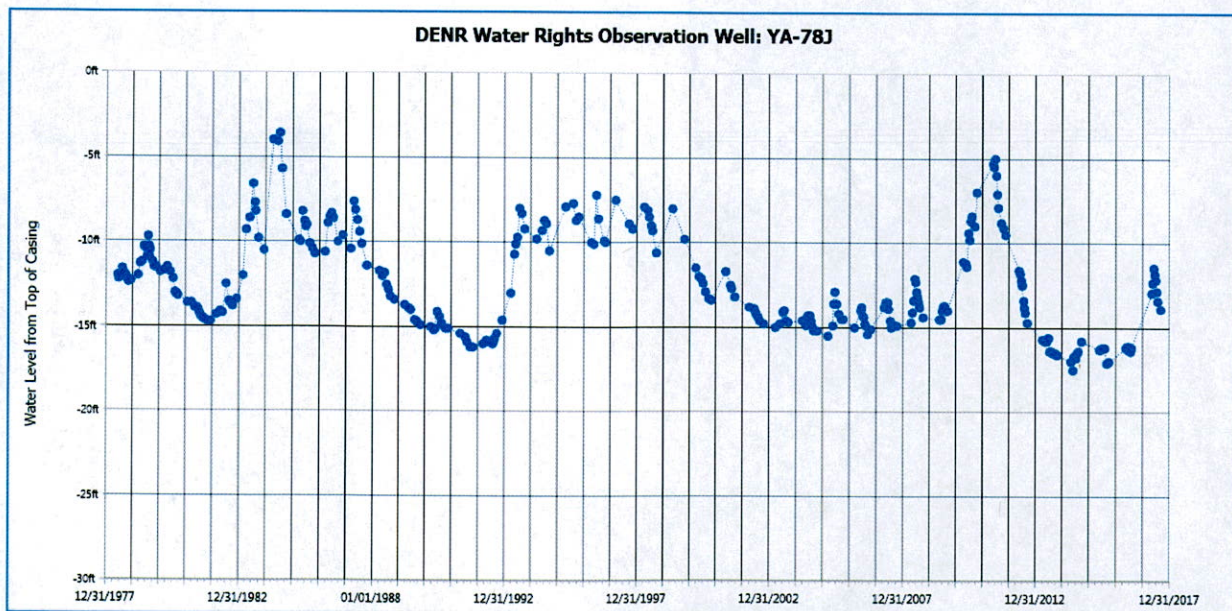


Figure 3. Hydrograph of observation well YA-78J.

The hydrographs show a cyclic pattern of the water levels based on the effect of climatic conditions, recharging during wet years and declining during dry years. Water levels may also be influenced by the aquifer's connection to the Missouri River. Figures 2 and 3 show a slight decline of the aquifer's water table. This gradual decline has been attributed to entrenching of the Missouri River (Goodman, 2007). Pumping from the aquifer will induce recharge supplied by the Missouri River or capture discharge before outflowing to the river (Stephens, 1967). The

declining water table levels demonstrate the hydraulic connection between the aquifer and the Missouri River. Hydraulic connection between the aquifer and the river can also be observed on two nearby Missouri River hydrographs (Figures 4 and 5) that, in general, show the same peaks and declining periods as observed on the Missouri: Elk Point aquifer hydrographs (USGS, 2018).

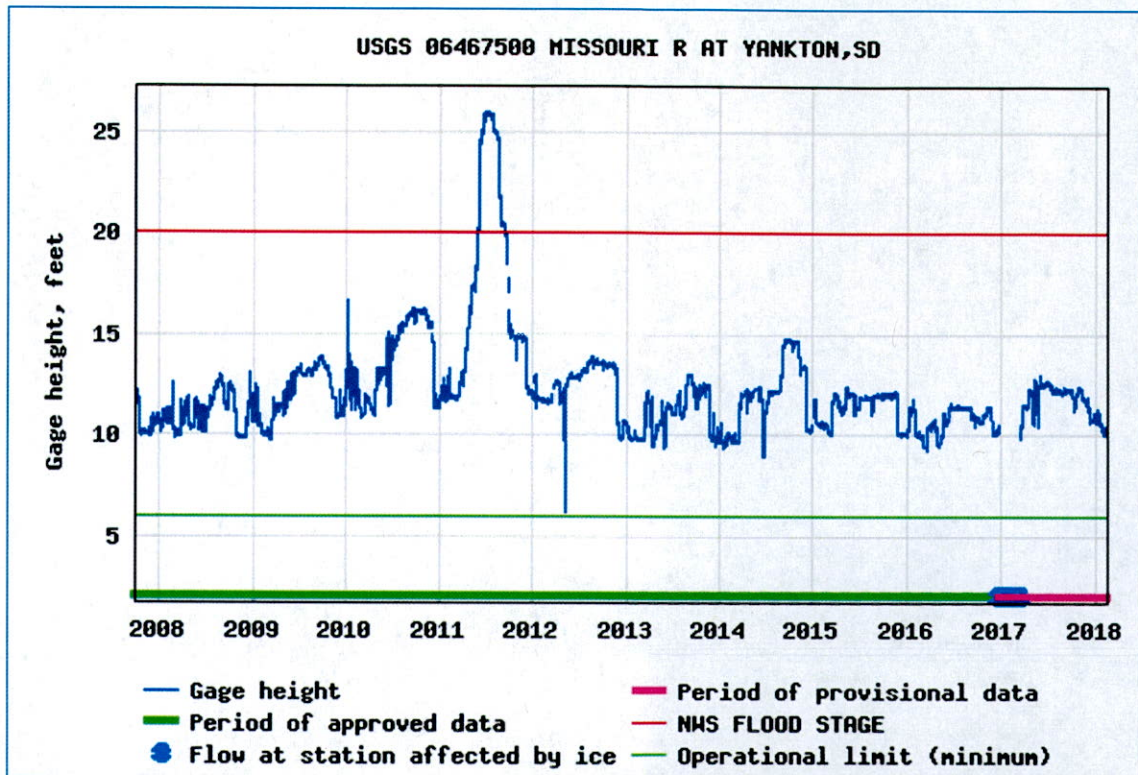


Figure 4: Hydrograph for USGS Stream Gage 06467500 Missouri River at Yankton, SD (USGS, 2018)

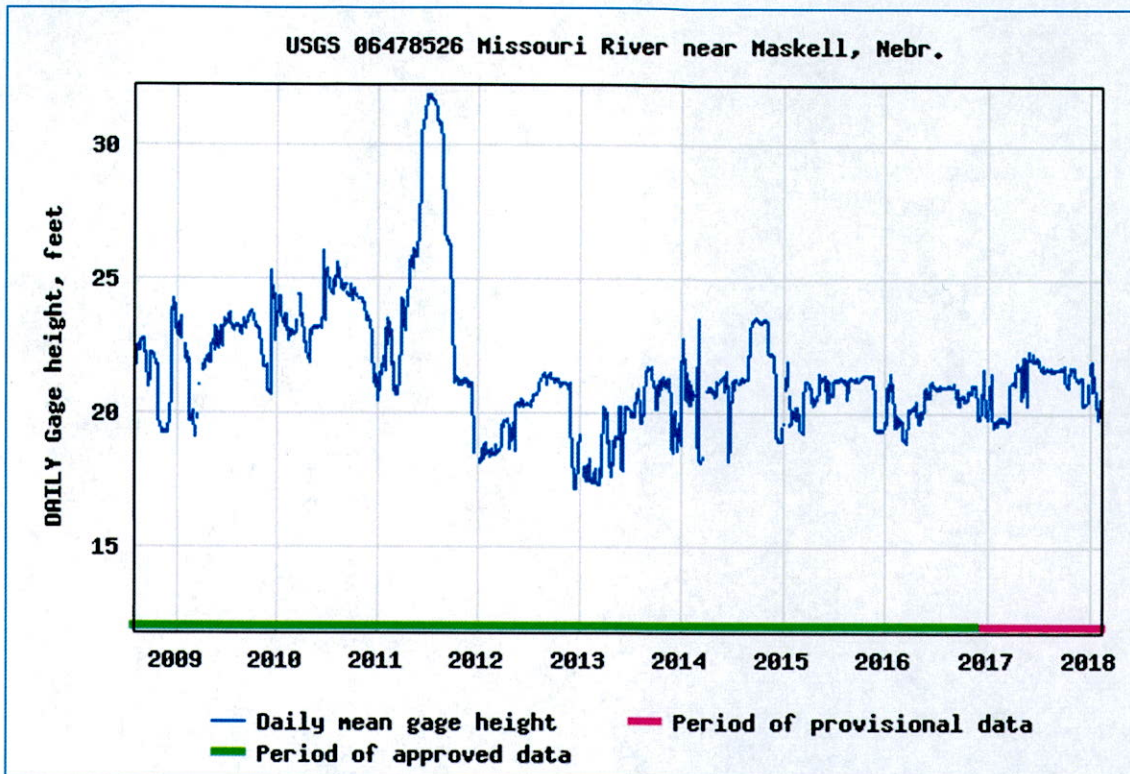


Figure 5: Hydrograph for USGS Stream Gage 0647852 Missouri River near Maskell, NE (USGS, 2018).

At the current level of development, the temporal effects of well withdrawals from the aquifer are masked by the climatic conditions on the aquifer and effects of the hydraulic connection between the aquifer and the Missouri River. Since recharge to the management unit and natural discharge from the management unit dominate the system, water is available to capture for additional well withdrawals. Therefore there is a reasonable probability that unappropriated water is available for this appropriation.

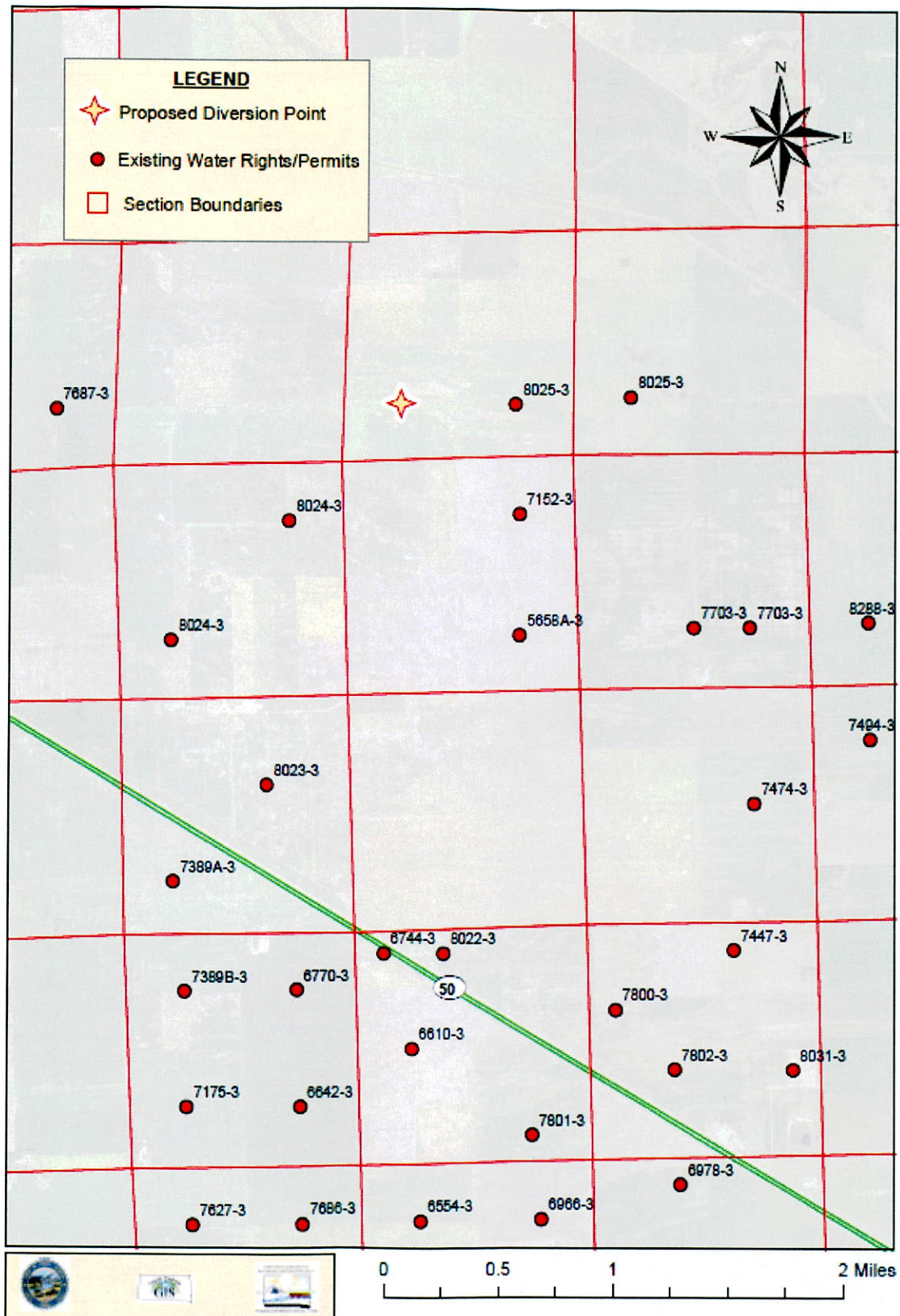
REVIEW OF EXISTING WATER PERMITS/RIGHTS

Currently, there are 612 water permits/rights appropriating water from the Missouri: Elk Point aquifer in addition to four future use permits, three pending applications and two deferred applications (Water Rights, 2018a). The water rights/permits in the vicinity of the acreage associated with this application are shown in Table 1 and Figure 6. In addition to wells supplying appropriative rights, there are a number of domestic use wells on file with the DENR-Water Rights Program in the vicinity of this proposed well site (Water Rights, 2018c).

Table 1. Water rights/permits appropriating water from the Missouri: Elk Point aquifer located in the vicinity of Water Permit Application No. 8325-3.

PERMIT NO.	NAME	STATUS	USE	CFS	ACRES
6554-3	SCHMIDT	LC	IRR	1.56	132.0
6610-3	WARDIN	LC	IRR	1.67	135.0
6642-3	DGL FARMLAND HOLDINGS GP	LC	IRR	1.56	132.0
6770-3	LARSON	LC	IRR	1.56	125.0
6966-3	WALRAVEN	LC	IRR	1.78	133.0
7175-3	WALRAVEN	LC	IRR	1.78	133.0
7389A-3	LARSON	LC	IRR	1.60	137.0
7389B-3	DGL FARMLAND HOLDINGS GP	LC	IRR	1.51	129.0
7474-3	ORR	LC	IRR	1.78	134.0
7627-3	WALRAVEN	LC	IRR	1.78	65.0
7686-3	OLSON	LC	IRR	0.94	66.0
7687-3	OLSON	LC	IRR	1.00	67.0
7703-3	WARDIN	LC	IRR	3.90	534.0
8288-3	ORR	LC	IRR	1.78	97.0
5658A-3	MARQUARDT FAMILY LTD PARTNERSHIP	PE	IRR	2.00	140.0
6744-3	GRANT	PE	DOM	0.78	0.0
6978-3	MARQUARDT FARMS	PE	IRR	1.78	133.5
7152-3	MARQUARDT FAMILY LTD PARTNERSHIP	PE	IRR	2.00	145.0
7447-3	HAUCK	PE	IRR	1.78	160.0
7494-3	ORR	PE	IRR	1.78	116.0
7800-3	MARQUARDT	PE	IRR	2.22	110.0
7801-3	MARQUARDT	PE	IRR	1.56	108.0
7802-3	MARQUARDT	PE	IRR	1.78	165.0
8022-3	DOUBLE DOWN FARM GP	PE	IRR	1.91	134.0
8023-3	DOUBLE DOWN FARM GP	PE	IRR	4.14	290.0
8024-3	DOUBLE DOWN FARM GP	PE	IRR	3.36	235.2
8025-3	DOUBLE DOWN FARM GP	PE	IRR	3.82	267.2
8031-3	DAKOTA PROTEIN CONVERSION INC	PE	COM	0.22	0.0

(LC = license, PE = permit, IRR = irrigation, DOM = domestic, COM = commercial)



Drawdown from pumping wells completed into the Missouri: Elk Point aquifer is typically not significant very far from the pumping well. Examination of the hydrographs of observation wells completed into the Missouri: Elk Point aquifer shows no signs of being significantly impacted by

drawdown despite being located in the proximity of a number of irrigation wells. Although precise drawdown cannot be quantified without aquifer testing this application, if approved, is not expected to adversely impact nearby adequate wells.

An adequate well as defined by South Dakota Administrative Rules as:

"a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near as possible to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet."

There has not been a history of well interference issues with the Missouri: Elk Point aquifer. At the distances involved between this well site and wells of existing water rights/permits and domestic users, interference is not expected to be a concern.

CONCLUSIONS

1. Water Permit Application No. 8325-3 proposes to irrigate 146 acres at a maximum diversion rate of 1.67 cfs from a well completed into the Missouri: Elk Point aquifer.
2. Based on observation well data and hydrologic budget, there is a reasonable probability that unappropriated water is available for the application.
3. There is a reasonable probability that the diversion proposed by this application will not adversely impact existing water rights.



Aaron Tieman

SD DENR-Water Rights Program

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Water Rights, 2018c, Well Completion Report Database. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights, 2018d, Irrigation Questionnaire Database. 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

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

February 26, 2018

Double Down Farm, GP
c/o Jay Girotto
18 Crescent Key
Bellevue WA 98006

Dear Mr. Girotto:

Water Permit Application No. 8325-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

c: David L Rezak, Attorney

NOTICE OF APPLICATION NO. 8325-3 to Appropriate Water

Notice is given that Double Down Farm GP, c/o Jay Giroto, 18 Crescent Key, Bellevue WA 98006 has filed an application for a water permit to appropriate 1.67 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (76 feet deep) located in the center of the SW 1/4 Section 4 for irrigation of 146 acres located in the SW 1/4 Section 4; all in T93N-R53W which is approximately 12 miles northwest of Vermillion SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8325-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 19, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of_____.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, February 26, 2018 11:06 AM
To: 'Tera Schmidt'
Subject: 8325-3, Double down Farms
Attachments: 8325-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on March 9, 2018.

Double Down Farm GP, c/o Jay Giroto, 18 Cresent Key, Bellevue WA 98006 (425-301-0728) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, February 26, 2018 11:05 AM
To: classifieds@plaintalk.net
Subject: 8325-3, Double down Farms
Attachments: 8325-3public.short.docx; FORM8.FRM.doc

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Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



AFFIDAVIT OF PUBLICATION

RECEIVED

MAR 12 2018

WATER RIGHTS
PROGRAM

PLAIN TALK

DOUBLE DOWN FARM GP
JAY GIROTTO
18 CRESENT KEY
BELLEVUE WA 98006

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

TERA SCHMIDT, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE CLASSIFIED MANAGER OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF
THE OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN
THIS AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION NO.
8325-3 APPROPRIATE WATER
TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 9th DAY OF March, 2018
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$25.60 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 03/09/2018

FILED ON: 03/09/2018

Tera A Schmidt

SUBSCRIBED AND SWORN TO BEFORE ME THIS 9th DAY OF March, 2018

Angela Sp. Schild

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 08/19/2021

RECEIVED

MAR 12 2018

WATER RIGHTS
PROGRAM

Ad text : NOTICE OF APPLICATION NO. 8325-3 to
Appropriate Water

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8325-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$25.60.
Publish: March 9, 2018.

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

MAR 12 2018

WATER RIGHTS
PROGRAM

DOUBLE DOWN FARM GP
18 CRESCENT KEY
BELLEVUE WA 98006

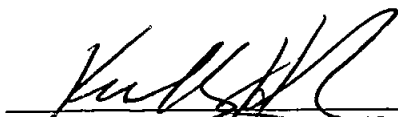
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

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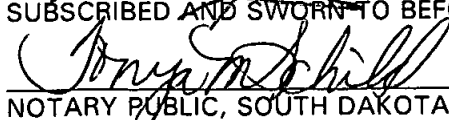
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BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
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HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 03/09/2018

FILED ON: 03/09/2018



SUBSCRIBED AND SWORN TO BEFORE ME THIS 9th DAY OF March, 2018



NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 08/19/2021

Ad text : 3+9

NOTICE OF APPLICATION NO. 8325-3 to Appropriate Water

RECEIVED
MAR 12 2018
WATER RIGHTS
PROGRAM

Notice is given that Double Down Farm GP, c/o Jay Girotto, 18 Crescent Key, Bellevue WA 98006 has filed an application for a water permit to appropriate 1.67 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (76 feet deep) located in the center of the SW 1/4 Section 4 for irrigation of 146 acres located in the SW 1/4 Section 4; all in T93N-R53W which is approximately 12 miles northwest of Vermillion SD.

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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$26.34.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 22 2018

Double Down Farm GP
c/o Jay Girotto
18 Crescent Key
Bellevue WA 98006

Dear Mr. Girotto:

Enclosed is Water Permit No. 8325-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

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

Sincerely,

A handwritten signature in cursive script that reads "Jeanne Goodman".

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

8325-3
RECEIVED

MAY 21 2018

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 4/20/18TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181FROM: DOUBLE DOWN FARM LP c/o JAY GIROTTI
(name)
18 CRESCENT KEY
(address)
BELLEVUE, WA 98006 425-301-0728
(city, state, zip) (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.

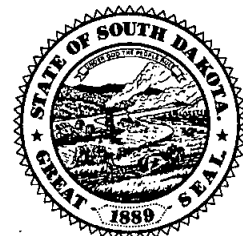
Water Permit No. 8325-3 states that the water use system is to be constructed by 6/1/18, and water is to be put to beneficial use by 6/2/18.
(date) (date)

The water use system was completed on 5/18/18.
(date)

Applying the water to beneficial use was completed on 6/2/18.
(date)

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

[Signature]
(signature)





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 22, 2018

8325-3

Jay Girotto
Double Down Farm GP
18 Crescent Key
Bellevue WA 98006

Dear Mr. Girotto:

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

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

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. I am returning the copy of the water permit you sent in with the completion form. This is yours to keep. If you have any questions, please contact me.

Sincerely,

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

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8325-3

I have this day, August 5, 2022, made a thorough examination of the water use system constructed by Double Down Farm, GP, c/o Jay Girotto, 18 Crescent Key, Bellevue, WA 98006, holder of Permit No. 8325-3, bearing the priority of December 27, 2017, authorizing the diversion of 1.67 cu. ft. per second of the waters of groundwater (Missouri: Elk Point Aquifer) for the irrigation of 146 acres located in Clay County.

Inspection contact: Brad Grootheest

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Heine Elec. & Irrigation, Inc.
- 2) No. of Wells: 1
- 3) Depth(s): 78 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 56 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 20 feet
- 3) Type: PVC
- 4) Static water level: 4 feet

Diesel Engine:

- 1) Make: Isuzu

Gear Drive:

- 1) Make: Amarillo
- 2) Model No.: S60A
- 3) Horsepower rating: 60 hp

Pump:

- 1) Make: Borer Wholesale
- 2) Model No.: 11RKM0
- 3) Capacity: 850 GPM

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

- | | | |
|-----------------------|--------------------------|--|
| 1) Type: <u>Misc.</u> | 2) Size: <u>8</u> inches | 3) Length: <u>75</u> feet <u>(to the south pivot)</u> |
| 2) Type: <u>PVC</u> | 2) Size: <u>8</u> inches | 3) Length: <u>150</u> feet <u>(to the north pivot)</u> |

C. Works used to apply water to beneficial use:**South Center Pivot:**

- 1) Make: Valley
- 2) Overall length: 1,299 feet
- 3) Number of towers: 7
- 4) End gun: Yes
- 5) Capacity: 850 GPM

Chemigation Equipment:

- 1) Does chemigate: No

North Center Pivot:

- 1) Make: Valley
- 2) Overall length: 1,279 feet
- 3) Number of towers: 7
- 4) End gun: Yes
- 5) Capacity: 750 GPM

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: No
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: The pump flow rate is more than what was permitted and four acres are being irrigated that were not described in the permit.

E. Condition and Location:

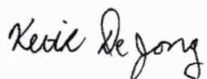
1. The system is in good condition with the point(s) of diversion located as follows:
The well is 1,340 feet east and 1,320 feet north of the southwest corner of Section 4-T93N-R53W (Latitude 42.88930, Longitude -97.11714 – near the center of the SW1/4).
2. The works are capable of diverting and conveying to the place of use 1.89 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows: All in Section 4-T93N-R53W

NW1/4SW1/4 30 acresNW1/4SE1/4 2 acresNE1/4SW1/4 36 acresSW1/4SE1/4 2 acresSW1/4SW1/4 32 acresSE1/4SW1/4 34 acres

comprising a total of 136 acres of land and the license should be issued for 1.67 cfs.

3. All structures, wells and lands on map: Yes

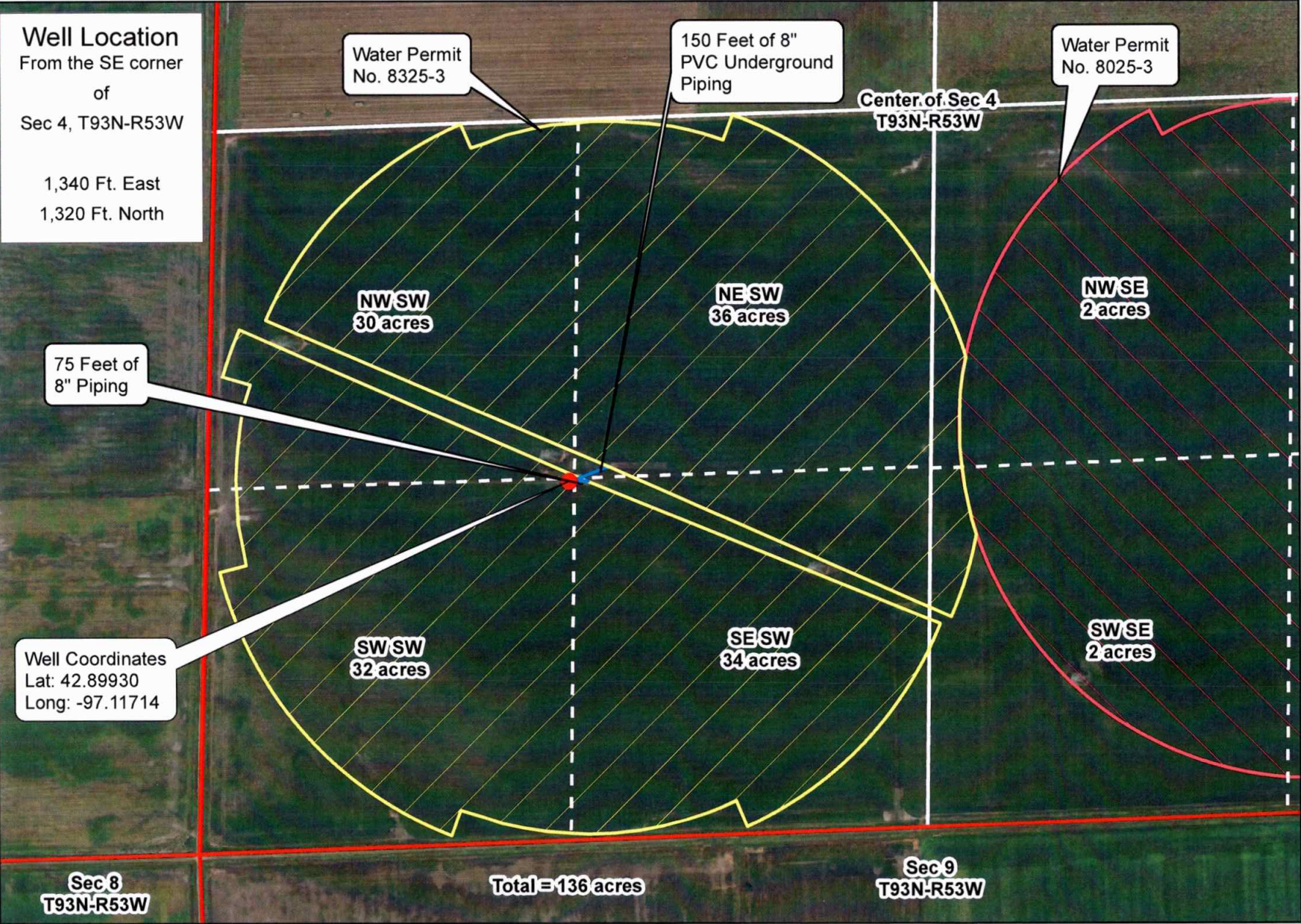
F. Comments or other permit(s) associated with the project: The pump flow rate is 1.89 cfs instead of 1.67 cfs. Also, two acres are being irrigated in the NW1/4 of the SE1/4 and two acres are being irrigated in the SW1/4 of the SE1/4 of Section 4, T93N-R53W. This property is owned by Double Down Farms, GP and does not include any acres within Water Permit No. 8025-3.



Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: August 12, 2022

Water Permit No. 8325-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
August 12, 2022

Licensing of Acreage Outside of Permitted Area

NAME: Double Down Farm GP

ADDRESS: 18 Crescent Key, Bellevue WA 98006

DATE: August 16, 2022 COUNTY: Clay

AUTHORITY

Pursuant to SDCL 46-5-30.5, acreage developed for irrigation outside of the area described on the permit may be licensed provided the following conditions are met:

NO INCREASE IN PERMITTED ACREAGE OR WATER APPROPRIATED:

The acreage developed for irrigation is 136 acres as compared to 146 acres authorized by the permit.

UNPERMITTED ACREAGE:

- **Contiguous to Permitted Acreage**

Water Permit No. 8325-3 authorized the irrigation of 146 acres in SW ¼ SW ¼, NW ¼ SW, SE ¼ SW ¼, NE ¼ SW ¼ of Section 4 T93N-R53W. The 4 acres located outside the permitted area are located in the NW ¼ SE ¼, SW ¼ SE ¼ of Section 4 T93N-R53W.

- **Owned by Same Property Owner**

Double Down Farm GP owns all of the property

- **Developed Prior to Expiration of Construction Period**

Yes, the permit holder reported irrigation of the acres prior to the end of the construction period.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the 4 acre area be included in the water license.



Mark D Rath, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant to SDCL 46-5-30.5 that:

This acreage change does not impair existing water rights and the overall project, as developed, is consistent with the original application. Licensing of the unpermitted acreage may occur without application or publication pursuant to SDCL 46-2A-4.



Eric Gronlund, Chief Engineer
Water Rights Program



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

AUG 18 2022

Jay Giroto
Double Down Farm GP
18 Crescent Key
Bellevue WA 98006

RE: Water License Nos. 8022-3, 8023-3, 8024-3, 8025-3, 8211-3 and 8325-3

Dear Mr. Giroto:

Enclosed are Water License Nos. 8022-3, 8023-3, 8024-3, 8025-3, 8211-3 and 8325-3. They are the final water right documents completing your process of obtaining Water Rights. Included with each license is a map prepared by the staff engineer who conducted the field investigation.

Items to be aware of for the following licenses:

- **No. 8022-3** (N ½ Section 21): The investigation found your irrigation system is capable of diverting 850 gallons per minute (1.89 cfs). The statutory limit for 115 acres is 1.64 cfs (equivalent to 737 gpm). Diversion of water under this water license is limited to 1.64 cfs;
- **No. 8024-3** (Section 8) The investigation found your irrigation system is capable of diverting 1,700 gallons per minute (3.79 cfs). The statutory limit for 223 acres is 3.19 cfs (equivalent to 1,430 gpm). Diversion of water under this water license is limited to 3.19 cfs;
- **No. 8025-3** (SE ¼ Sec 4 and SW ¼ Sec 3) The investigation found your irrigation system is capable of diverting 1,700 gallons per minute (3.79 cfs). The statutory limit for 255 acres is 3.64 cfs (equivalent to 1,635 gpm). Diversion of water under this water license is limited to 3.64 cfs;
- **No. 8211-3** (Sec 27 & 28, T91N, R50W – **Union** County) In regard to the equipment used for applying chemicals and/or fertilizer through your irrigation systems, the staff engineer indicated he spoke with Ryan Strem about the absence of a hose to drain the water at least 20 feet from the well. Enclosed is a copy of Water Management Board rules dealing with chemigation. "Appendix A" shows the minimum requirements for the equipment. Please coordinate with Mr. Strem to ensure the requirements are met.

continued

Double Down Farm GP

Page 2

- **No. 8325-3** (SW $\frac{1}{4}$ & W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 4) The investigation found your irrigation system is capable of diverting 850 gallons per minute (1.89 cfs). The original permit authorized a diversion rate of 1.67 cfs (750 gpm). Diversion of water under this license is limited to 1.67 cfs.

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

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

Sincerely,



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

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8325-3

(1) Double Down Farm GP, 18 Crescent Key, Bellevue WA 98006 made Application No. 8325-3, December 27, 2017, for a water permit to divert 1.67 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 8325-3, with a priority date of December 27, 2017, was approved March 19, 2018, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 19, 2023, and for the application to beneficial use of water on or before March 19, 2027.

The Permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use" on May 21, 2018. The "Notice" stated the water use system was completed on May 18, 2018, and the water placed to beneficial use on June 2, 2018.

An investigation conducted for licensing purposes found acreage developed outside of the permitted area. Pursuant to SDCL 46-5-30.5 and ARSD 74:02:01:14.01, the Chief Engineer made a finding that the change in acreage did not impair existing water rights and the overall project, as developed, is consistent with the original application.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.67 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,340'E and 1,320'N of the SW corner of Section 4, T93N, R53W (near the center of SW ¼ Section 4)
Latitude 42.88930, Longitude -97.11714

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

Section 4, T93N, R53W	NW ¼ SW ¼	30 acres	NW ¼ SE ¼	2 acres
	NE ¼ SW ¼	36 acres	SW ¼ SE ¼	2 acres
	SW ¼ SW ¼	32 acres		
	SE ¼ SW ¼	34 acres		
		Total 136 acres		

(4) Pursuant to South Dakota Water Law 46-5-30.1 Double Down Farm GP, 18 Crescent Key, Bellevue WA 98006 the holder and/or owner of Water Right No. 8325-3 is issued a license to appropriate water, the right to use 1.67 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of December 27, 2017, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8325-3 and subject to the following qualifications:

- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.



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

AUG 18 2022

date



6179-3, 6180-3, 6181-3, 6642-3, 6804B-3, 7389B-3, 8022-3
8023-3, 8024-3, 8025-3, 8211-3, & 8325-3



FARMLAND
OPPORTUNITY

RECEIVED

NOV 01 2023

OFFICE OF
WATER

September 30, 2023

Everyone,

The Farmland Opportunity mailing address/ office changed.

Please send all future USPS, Fedex, UPS, DHL mail and packages to the addresses listed below:

Farmland Opportunity, LLC or [Entity Name] c/o Farmland Opportunity, LLC
1661 Ringling Blvd.
PO Box 2139
Sarasota, FL 34230

If you plan to visit us in person, tell us when you are coming 😊

We are physically located @ 645 S. Orange Ave, Sarasota, FL 34236. DO NOT SEND ANYTHING TO THIS ADDRESS.

Sincerely,

Jay Girotto

Farmland Opportunity LLC
M: 425.301.0728
F: 319.538.0034
jgirotto@farmopp.com

Florida Mailing Address:
1661 Ringling Blvd
PO Box 2139
Sarasota, FL 34230

Iowa Mailing Address:
4926 Autumn Dr
Cedar Rapids, IA 52411

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