

WATER PERMIT NO. 8324-3

Name of Applicant: John Freeburg

Address: Box 252, Gayville SD 57031

Phone: 605 660-4908

Amount of Water Claimed: no additional

Total Acres: 34 acres

Source of Water Supply: groundwater (1 existing well)

Water to be used for: irrigation

County: Clay

Type of Waste Disposal System:

Location: 4 miles west of Vermillion

PRIORITY

Date Received: 12-8-17

Application/License Fee: \$ 700

Corrected Application Received:

Period of Annual Use: April 1 – October 31

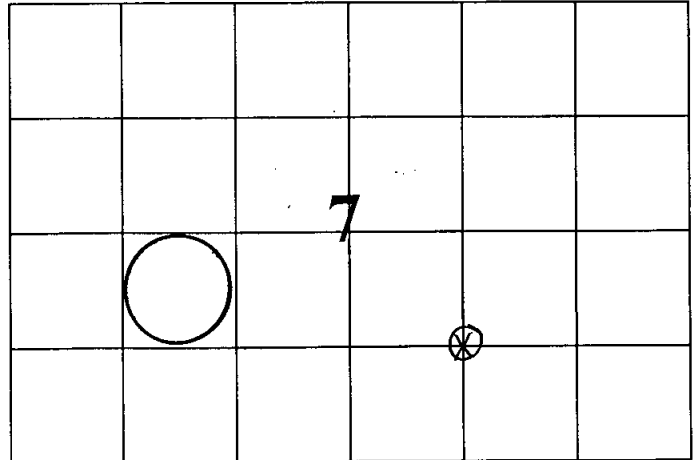
Remarks: Utilizing well authorized by Water Right No. 7553-3)

Diversion Point: center of SE 1/4 Sec 7-T92N-

R52W

Land to be Irrigated: NW 1/4 SW 1/4 Sec 7-T92N-

R52W



Depth of Well: 100 feet deep

Well Driller: Hammond Wetmore Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-11-17

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8324-3**

Date of first receipt of application December 8, 2017.

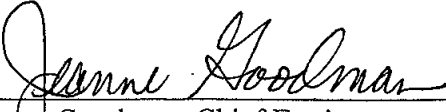
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8324-3 to John Freeburg, Box 252, Gayville SD 57031 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8324-3 authorizes irrigation of 34 new acres. Water Right No. 7553-3 appropriates 1.55 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the SE 1/4 Section 7 to irrigate 128 acres located in the SE 1/4, NE 1/4 SW 1/4 Section 7; all in T92N-R52W. This permit authorizes irrigation of 34 new acres located in the NW 1/4 SW 1/4 Section 7-T92N-R52W from the existing well. This permit does not authorize any increase in the developed diversion rate.
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: April 1 – October 31.
3. The date from which applicant may claim right is December 8, 2017.
4. The date of approval of Permit No. 8324-3 is March 5, 2018.
5. One-fifth of the construction is to be completed on or before September 5, 2020.
6. All construction is to be completed on or before March 5, 2023.
7. Water is to be put to beneficial use on or before March 5, 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 Right No. 7553-3 and Water Permit No. 8324-3 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 19 2018

date



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

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8324-3</u> (office use only) Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>
	Newspaper <u>Plain Talk, Vermillion</u>
	<u>Press & Dakotan, Yankton</u>

RECEIVED
DEC 08 2017
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 John Freeburg

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

Mailing Address Box 252 Gapville SD 57031
(Address) (City) (State) (Zip Code)

Phone 605-660-4908 Mobile _____ Email freeburgj@hotmail.com

2. Amount of water claimed additional *CFS or 700 **GPM no ***AF Total Acreage 34
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Ground

4. Location of point of diversion 1 Well Middle of Sec 7-92-52
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

(well authorized by Water Right No. 7553-3) County Clay

5. County or counties where water will be used Clay

6. Annual period during which water is to be used April Thru October

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

Land Description	Acres	Land Description	Acres
<u>NW 1/4 of SW 1/4 7-92-52</u>	<u>34</u>		

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

Install New pivot and pipe water and electric from Existing Well.

I, John Freeburg, 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.

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 and Irrigation

For either Existing or Proposed Wells:

c) Well Depth (**required**) ____ Depth to Top of Water Bearing Material ____ Depth to Water from Surface ____

d) Distance to nearest domestic well on applicant's property ____ 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)

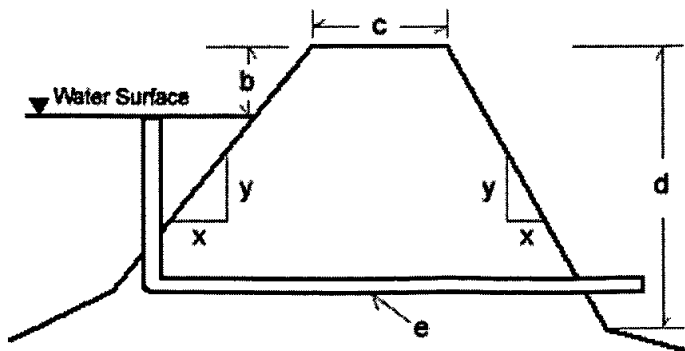
Upstream ____

Downstream ____

h) Surface Area of Impoundment ____

i) Storage ____ Acre Feet

j) Drainage Area Above Dam ____ Acres

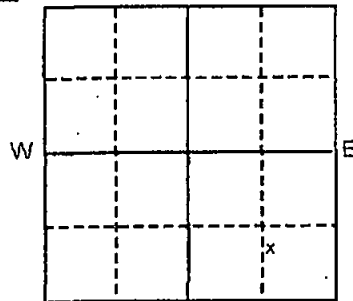


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ SE ¼ Sec 7 Twp 92N Rg 52WCounty Clay

North

Please mark well
location with an "X"

Well Completion Date

December 29, 2012

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

1,500.0 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
LB/FT	16.00 IN	0.0 FT	40.0 FT	28.00 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	13	9.5 Lb/gal	0.0 Ft	40.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Tremie Method

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 16.00 Inches Length 60.0 FeetMaterial PVCSlot Size .050 Set From 40.0 Feet to 100.0 Feet

Other information

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?☒ No, Why Not? Not RequiredLab to which water
quality sample sent for analysisWell Owner: John Freeburg

Business Name:

Address: 206 Meckling StCity, State, Zip: Gayville SD 57031

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	3
Blue Clay	3	20
Fine Sand	20	100

STATIC WATER LEVEL 18.0 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:☐ Balled☐ Other

Pumping Level Below Land Surface

28.0 Ft. After 3.5 Hrs. pumped 700.0 GPM37.0 Ft. After 7.0 Hrs. pumped 1,200.0 GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

FEB - 1 2013

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

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 1-29-13

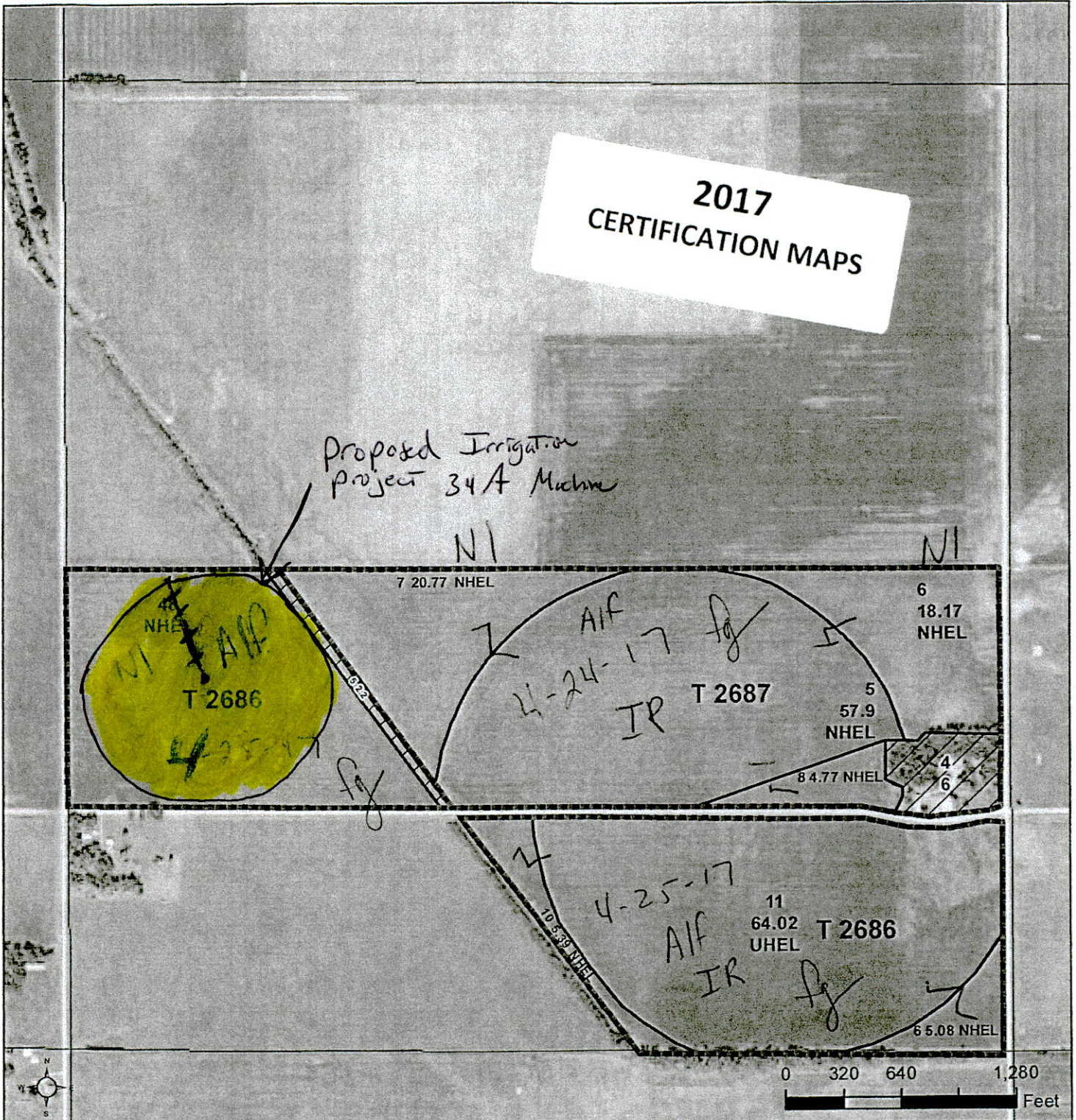


United States
Department of
Agriculture

Clay County, South Dakota

2017 CERTIFICATION MAPS

Proposed Irrigation
Project 34A Machine



Common Land Unit

	Tract Boundary
	Non-Cropland
	Cropland

Wetland Determination Identifiers

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

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

2017 Program Year

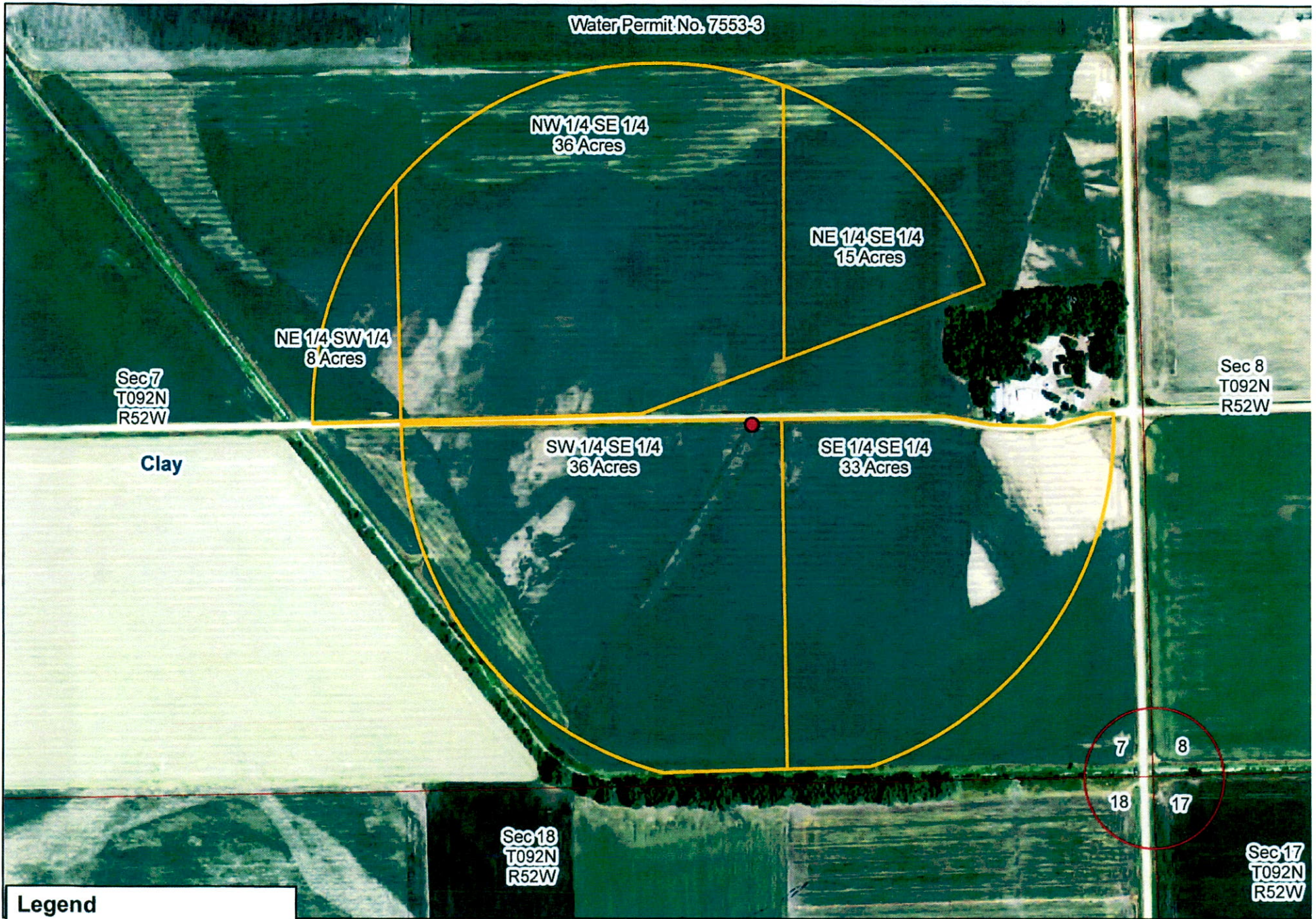
Map Created January 12, 2017

Farm 620

7 -92N -52W

100%

Water Permit No. 7553-3



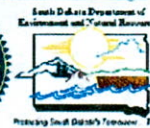
Legend

- Irrigated_Acres
- Section Boundaries - PLSS
- Well Location



0 0.035 0.07 0.14 Miles

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



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date December 8, 20 17

RECEIVED OF John Freeburg 706 Kingsbury St Gaycille 57031

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

Fee for Application for Permit No. <u>8324-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	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>8324-3</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	700 00

No. **08388**

By Jeanne Goodman
Chief Engineer

KS

Water Rights Program - File Documentation

NAME: John Freeburg

ADDRESS: Gayville SD

DATE: 12-11-17 **COUNTY:** Clay **TELEPHONE:** 605 660-4908

RE: Pending application

COMMENTS:

I called John Freeburg and verified that the well he was planning to use was the well authorized by Water Permit No. 7553-3. Mr. Freeburg stated he would not be using any additional water, just the 700 gpm authorized by No. 7553-3.



Karen Schlaak
Water Rights Program



**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. 8324-3, John Freeburg**

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. 8324-3, John Freeburg, Box 252, Gayville SD 57031.

The Chief Engineer is recommending APPROVAL of Application No. 8324-3 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 Right No. 7553-3 and Water Permit No. 8324-3 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 12, 2018

REPORT TO THE CHIEF ENGINEER

Water Permit Application No. 8324-3

John Freeburg

February 6, 2018

Water Permit Application No. 8324-3 proposes to appropriate water for irrigation of 34 acres located in the NW ¼ SW ¼ Section 7 T92N-R52W. These acres will be supplied using water from an existing irrigation well (100 feet deep) located in the approximate center of the SE ¼ Section 7 T92N-R52W. This well is currently authorized under Water Right No. 7553-3 and is completed into the Elk Point management unit of the Missouri aquifer. Water Right No. 7553-3 appropriates water at a maximum diversion rate of 1.55 cubic feet per second (cfs) for the irrigation of 128 acres in SE ¼ Section 7 T92N-R52W. While there is no increase in the maximum diversion rate, additional acres will increase the total pumpage from this well. This application is seeking to irrigate 34 additional acres in Clay County, SD with no increase in the maximum diversion rate.

AQUIFER: Missouri: Elk Point (M:EP)

HYDROGEOLOGY

The Elk Point management unit of the Missouri aquifer consists of unconsolidated glacial outwash deposits composed of materials ranging from fine sand to very coarse gravel (Niehus, 1994; Stephens, 1967). The Missouri: Elk Point aquifer in South Dakota is located in Yankton, Clay, and Union Counties, underlying the flood plains of the Missouri and Big Sioux Rivers. Hedges et al. (1982) estimated the areal extent of the aquifer to be 219,100 acres, with 3,287,100 acre-feet of recoverable water in storage. The movement of groundwater within the aquifer is generally from the northwest to the southeast, and towards the Missouri River (Stephens, 1967). The Missouri: Elk Point aquifer is hydraulically connected to the Lower Vermillion Missouri and Lower James Missouri aquifers, and the Missouri, Vermillion, and Big Sioux Rivers (Niehus, 1994; Stephens, 1967).

Hydrologically, the Elk Point management unit can be found under both confined and unconfined conditions. Near the edge of the floodplain, the Missouri: Elk Point is overlain by relatively impermeable glacial till (Niehus, 1994; Stephens, 1967). The well log shows that the aquifer at this location is comprised of fine sand from 20 to 100 feet below ground surface and is directly overlain by 17 feet of clay and 3 feet of top soil (Water Rights, 2018b). At the time of completion in December 2012, the static water level in this well was 18 feet below ground surface, indicating that the aquifer is confined at this location. The aquifer in this area may transition between confined and unconfined conditions dependent upon the seasonal usage of the aquifer and other hydrologic conditions.

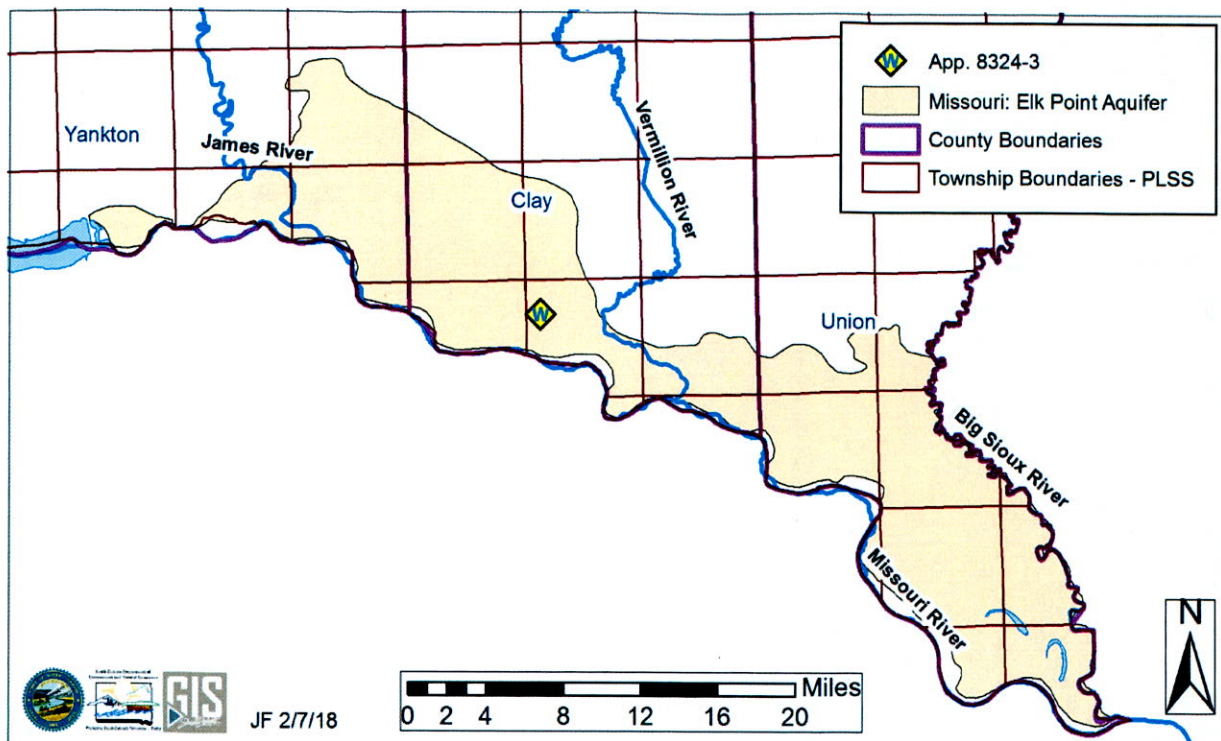


Figure 1. Map showing the location of the proposed diversion and Missouri: Elk Point aquifer boundaries as shown from Hedges et al. (1982).

South Dakota Codified Law 46-2A-9

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

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 that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older than or stratigraphically lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not take into consideration the balance of aquifer recharge and withdrawal. Here, the water source is not older or lower than the Greenhorn Formation and a water distribution system is not involved. Therefore, the balance of withdrawal and recharge must be considered.

Hydrologic Budget

Recharge

Recharge to the Missouri: Elk Point aquifer occurs through infiltration of precipitation, inflow from the Lower Vermillion-Missouri aquifer, leakage from the Dakota aquifer, and inflow from

surface water (Bugliosi, 1986; Niehus, 1994; Stephens, 1967). From analysis of data from 20 observation wells, Hedges et al. (1985) estimated the recharge to the unconfined portions of the Missouri: Elk Point aquifer to be 3.8 inches per year. The areal extent of the Missouri: Elk Point aquifer is 219,100 acres (Hedges et al, 1982), resulting in an estimated recharge to the aquifer of approximately 69,382 ac-ft/yr. By using observation well data, the data represents both withdrawals from and recharge to the aquifer, as they occur simultaneously. When the recharge is greater than discharge, this method produces a lower than actual recharge rate. The same holds true when discharge is greater than recharge, the calculated discharge rate is lower than the actual discharge rate.

The wells for the Lewis and Clark Rural Water System induce recharge from the Missouri River, and Stonesifer (2013) estimated that this amount is at least 50% of their total pumpage. Assuming all of their wells are similar in location with regards to the Missouri River, and the Lewis and Clark RWS uses their full appropriation (current permits and reserved future uses), the Missouri: Elk Point aquifer would gain at least 22,582 ac-ft/yr through induced recharge. Other water rights/permits within the Missouri: Elk Point aquifer may also induce recharge from the Missouri, Vermillion, James, or Big Sioux Rivers, although this amount has not been quantified.

Combining the estimated recharge of Hedges et al (1985), and the induced recharge for the current appropriations of the Lewis and Clark Rural Water System, the estimated average annual recharge to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr.

Discharge

Discharge from the Missouri: Elk Point aquifer occurs through well withdrawals, evapotranspiration from areas where the aquifer is near the land surface, and outflow to the Missouri and Big Sioux Rivers (Bugliosi, 1986; Niehus, 1994; Stephens, 1967). Currently, there are 614 Water Rights/Permits appropriating water from the Missouri: Elk Point aquifer (Water Rights, 2018a). Table 1 shows a summary of non-irrigation Water Rights/Permits with their appropriation and estimated annual expected use. 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.

Table 1: Summary and expected use of non-irrigation water rights/permits including future use permits (Water Rights, 2018a)

Use Type	No. of Water Rights/Permits	Appropriation (ac-ft)	Appropriation (cfs)	Expected Use (ac-ft)
RWS	4	45,165		45,165.00
SHD	2		0.199	86.50
REC	1	393.3		393.30
COM	10	637	1.539	1,305.96
DOM	2		2.780	1,208.38
IRR*	1	2		2
FWP	4		9.430	4,098.94
IND	5		0.878	381.64
MUN	12	9,111	11.662	14,180.12
Total	41	55,308	26.49	66,821.04
RWS = Rural Water Supply, SHD = Suburban Housing Development, REC = Recreation, COM = Commercial, DOM = Domestic, IRR*=Irrigation (not required to submit irrigation questionnaire), FWP = Fish & Wildlife Propagation, IND = Industrial, MUN =Municipal				

Several of the non-irrigation water rights/permits are required to report their annual water use from the Missouri: Elk Point aquifer. Two of these are recent permits and their systems are considered to be in development. The remaining water rights/permits and their reported water usage from 2006 to 2016 are shown in Table 2.

Table 2: Reported annual water use in acre-feet from non-irrigation water rights/permits for the years 2006 to 2016 (Water Rights, 2018a)

	Clay RWS	Lewis & Clark RWS	City of Vermillion
	5998A-3, 7388-3	6736-3, 7207-3	147-3, 6236-3
2006	170		1,252
2007	217		1,344
2008	213		1,199
2009	215		1,140
2010	183		1,071
2011	137	92	1,127
2012	525	3,836	1,317
2013	301	9,368	1,183
2014	307	11,532	1,121
2015	278	15,591	1,161
2016	231	17,091	1,175
Max	525	17,091	1,344
Min	137	92	1,071
Average	252.5	9,585	1,190

The reported usage for these non-irrigation permits shows that the usage for the City of Vermillion has remained steady over these years. Water Right No. 147-3 has a diversion rate of 2.66 cfs and Water Right No. 6236-3 is limited to an annual volume of 1,161 ac-ft. Combined, these two water rights are estimated to use 2,315 ac-ft/yr, however the average actual reported usage is 1,190 ac-ft/yr. The Clay RWS added Water Permit No. 7388-3 to their system in 2012, so the expected usage from their permits is greater than the average shown. The Lewis & Clark RWS is still under development and the usage will continue to grow. Using the average actual reported use from the City of Vermillion, instead of the appropriated amount, reduces the expected use from non-irrigation water rights/permits by 1,125 ac-ft/yr to 65,696.84 ac-ft/yr.

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, 2018b). The annual quantity of water withdrawn for domestic uses is considered to not be significant to the hydrologic budget of the aquifer.

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-ft 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. This method works well for estimating usage only when the appropriation per permitted acre remains constant, however in 1978, the appropriation that was permitted per acre was reduced from 3 ac-ft to 2 ac-ft for new permits. Over the years as new permits have been issued and older permits are canceled, the average appropriation per permitted acre has gradually decreased from 3 ac-ft in 1977, to 2.38 ac-ft in 2016.

Modifying Stonesifer's method (2013), the total number of acres permitted for irrigation was looked at for each year. Data from the irrigation questionnaires was updated to reflect permits that have had their identified aquifer changed. Water rights/permits Nos. 2925-3, 3070-3, 3109-3, and 3399-3 were previously identified as being in other aquifers. Prior to being identified as M:EP, the irrigation questionnaires were submitted under other aquifers, this data was added to this analysis. Water rights/permits Nos. 1434-3, 2550-3, 4246-3, 4651-3, 4896-3, and 5524-3 were all identified at one point as being in the M:EP, however they are no longer identified as M:EP and were removed from this analysis. Figure 2 shows the acres permitted for irrigation from 1979 to 2016 and the yearly total reported pumpage for the irrigation permits.

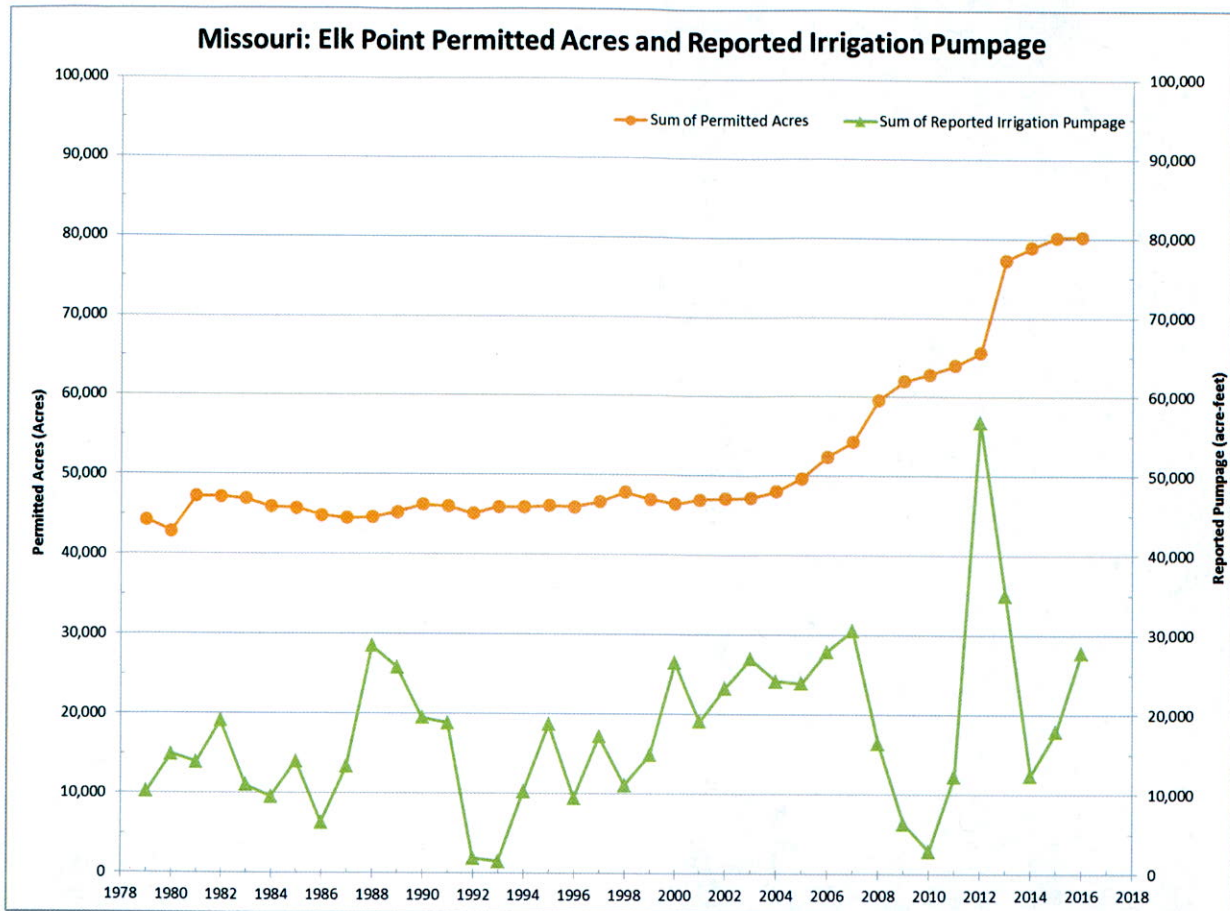


Figure 2: Acres permitted for irrigation and reported irrigation pumpage (Water Rights 2018a, Water Rights 2018d)

The period from 1979 to 2005 was fairly steady in terms of permitted acres for irrigation. The average from 1979 to 2005 is 46,273 acres. Over this time period, the average reported irrigation pumpage was 16,072 acre-ft and results in an average application rate on all acres permitted for irrigation of 0.35 ft (a little less than 4.2 inches). Using all of the available years of irrigation questionnaires, 1979 to 2016, the averages are 52,298 permitted acres and 17,905 ac-ft of pumpage, resulting in an average application rate of 0.34 ft (4.1 inches).

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 ft on the permitted acres results in an estimated average annual use for irrigation purposes of 28,348 acre-feet per year.

Hydrologic Budget

The estimated withdrawals from the Missouri: Elk Point aquifer are 65,696.84 ac-ft/yr from non-irrigation users, and 28,348 ac-ft/yr from irrigation. Including an estimated 26.6 ac-ft/yr from applications that are pending approval and an estimated 11.9 ac-ft/yr from this application, the estimated average annual withdrawal from the Missouri: Elk Point aquifer is 94,083.34 ac-ft/yr.

The estimated annual recharge to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr. 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 92,000 ac-ft/yr. 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

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge.

The Water Rights Program monitors 37 observation wells completed in the Missouri: Elk Point aquifer (Water Rights, 2018c). The nearest observation well is CL-80B, located approximately 3.8 miles west of the well location. As shown in Figure 3, the location of this application is within nine miles of several other observation wells. By using these other observation wells in this analysis, an idea of how the water table reacts to local pumping and regional climatic conditions can be obtained. The other nearby observation wells that were analyzed include CL-80A (5.8 miles), CL-80C (6.2 miles), YA-80KA (8.3 miles), and CL-80D (8.7 miles).

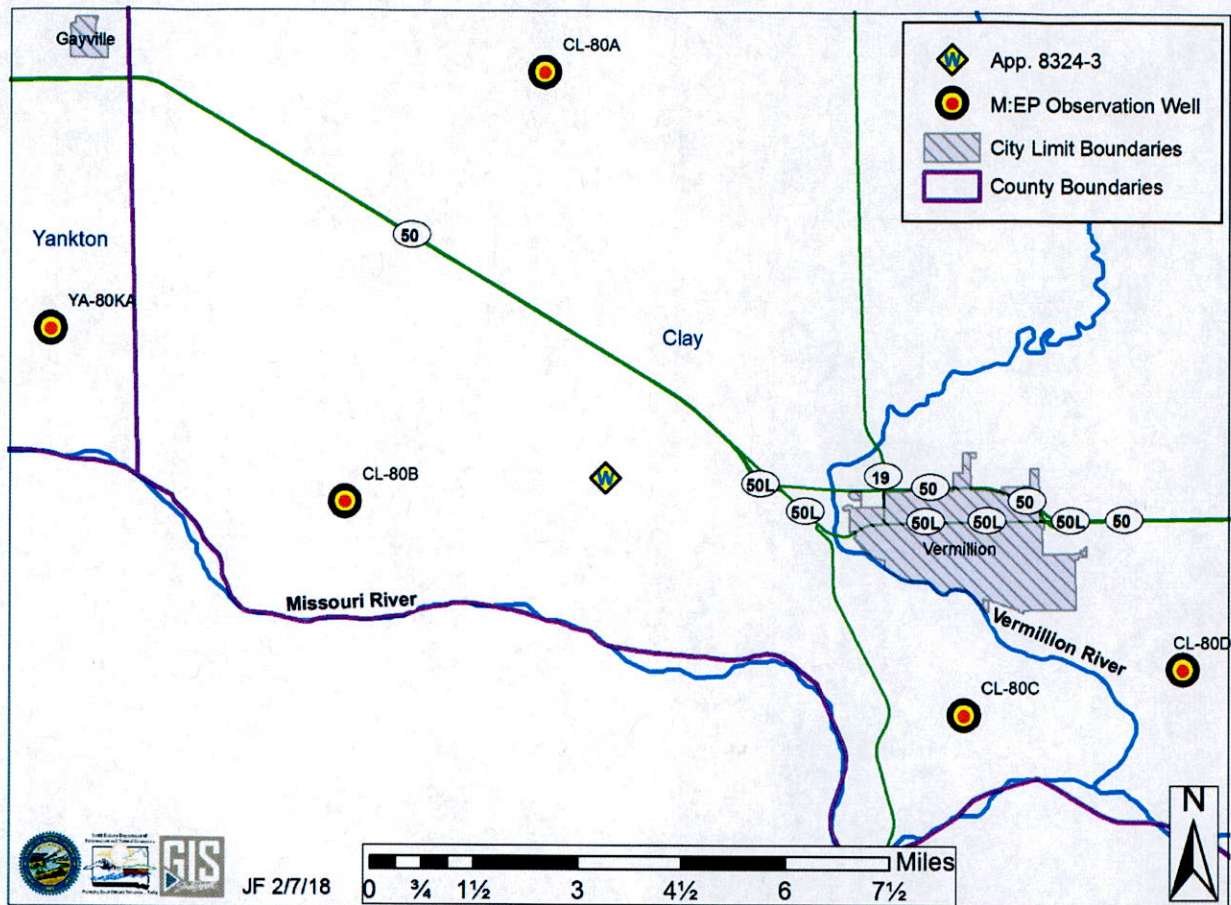


Figure 3. Map showing the location of nearby observation wells in the Missouri: Elk Point aquifer (Water Rights, 2018a; Water Rights, 2018c)

The hydrographs for the observation wells in Figure 3 are shown in Figure 4. These observation well hydrographs are representative of the Missouri: Elk Point aquifer. The hydrographs show that the aquifer responds well to hydrologic conditions, recharging during wetter periods and declining during drier periods. The hydrographs of the Missouri River (Figure 5 and 6) generally show the same peaks, rising periods, and declining periods as the hydrographs of the Missouri: Elk Point aquifer, indicating that the aquifer is hydraulically connected to the Missouri River. Observation well CL-80A is under confined conditions, and the four others shown are under water table conditions. Figure 5 is the hydrograph of the Missouri River at Sioux City, Iowa, approximately 40 miles downstream from the USGS stream gage Missouri River near Maskell, Nebraska (Figure 6), located across the Missouri River from Vermillion, SD. There are slight differences between these hydrographs as the confluences of the Vermillion and Big Sioux Rivers are located between these gages. Due to the availability of information, Figure 5 shows discharge, whereas Figure 6 shows gage height. The peaks on these hydrographs generally do not correspond with local precipitation events, as in the case of the peak in 2011, which was generated from the effects of snowmelt and rainfall far upstream and the controlled release of water from upstream dams. The observation well measurements show that the effects from pumping are temporal, and that the aquifer generally returns to pre-pumping conditions. There is a downward trend in these observation wells due to the construction of the Gavins Point Dam in Yankton, SD, the Missouri River is entrenching below the dam, lowering the water surface

elevation of the river (Goodman, 2007; Iles, 1979). Entrenchment of the Missouri River does not reflect the availability of water and the downward trend does not show that the Missouri: Elk Point aquifer is over appropriated. The observation well data indicates that there is a reasonable probability that there is unappropriated water available from the Missouri: Elk Point aquifer.

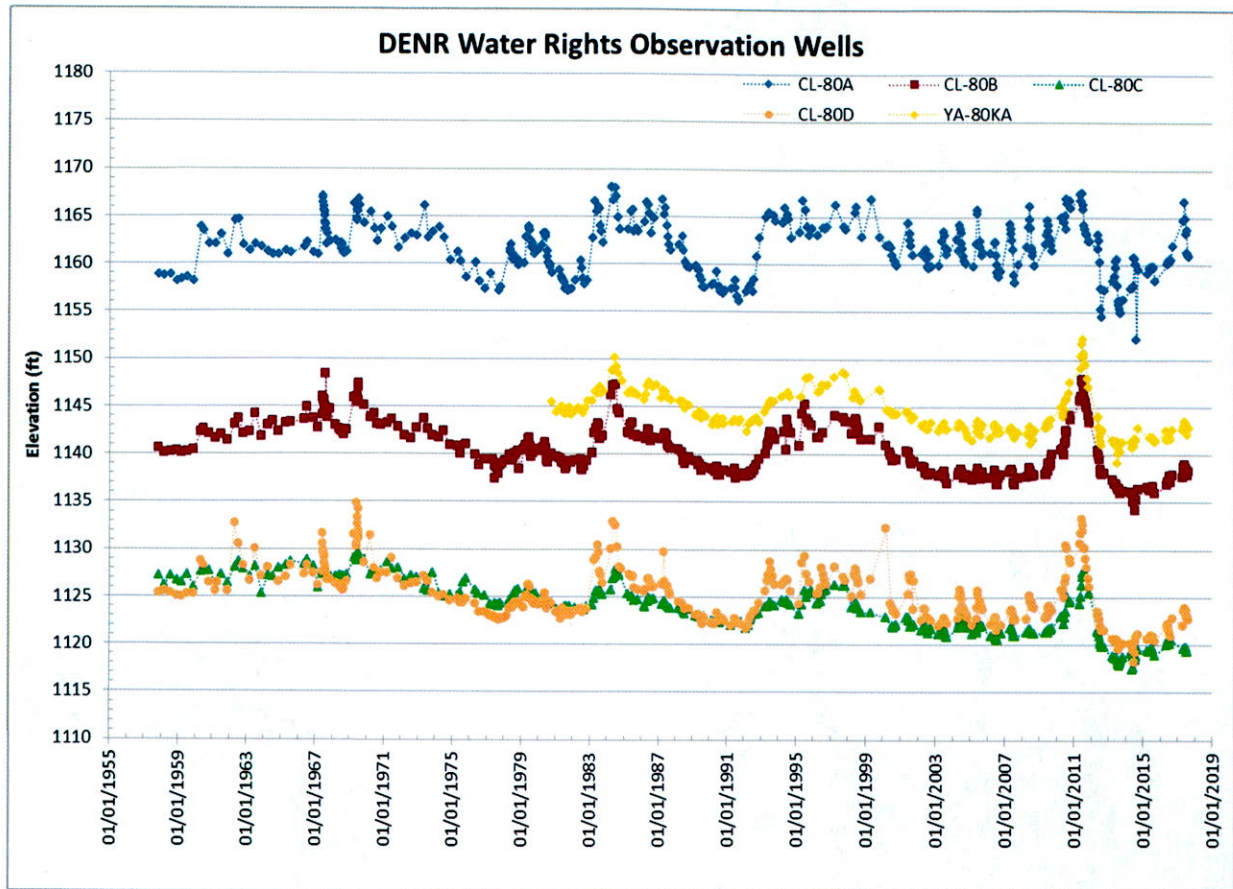


Figure 4: Hydrographs for Observation Wells CL-80A, CL-80B, CL-80C, CL-80D, and YA-80KA (Water Rights, 2018c)

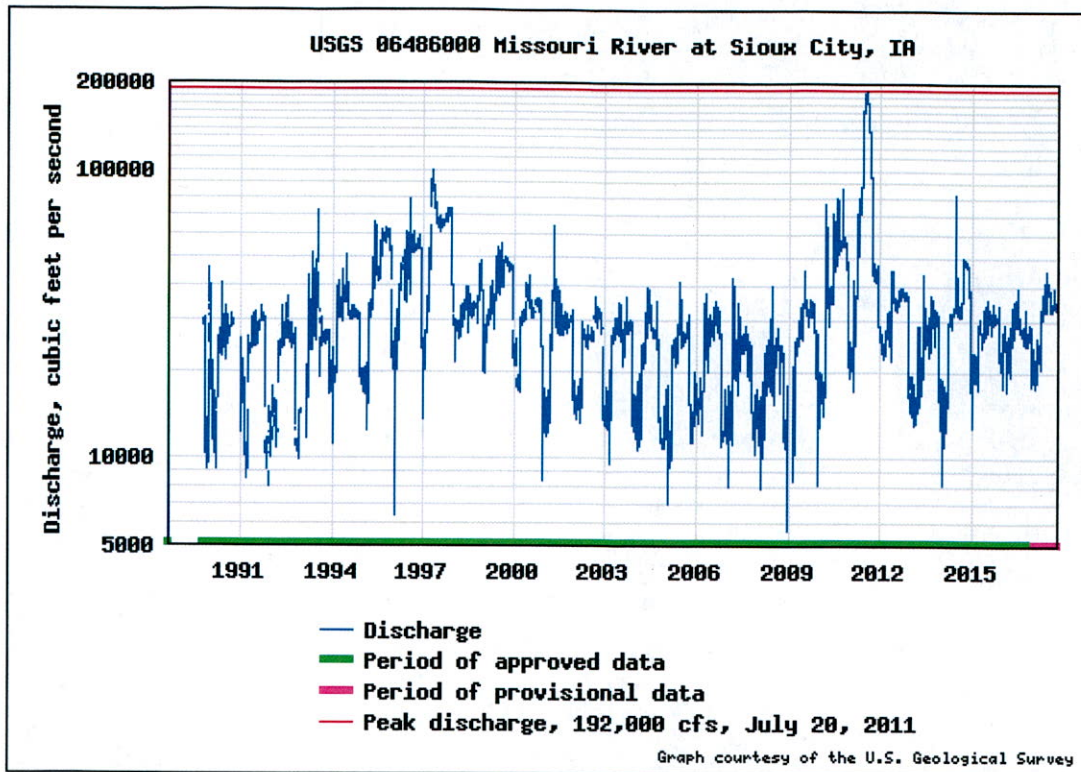


Figure 5: Hydrograph for USGS Stream Gage 06486000 Missouri River at Sioux City, IA (USGS, 2017)

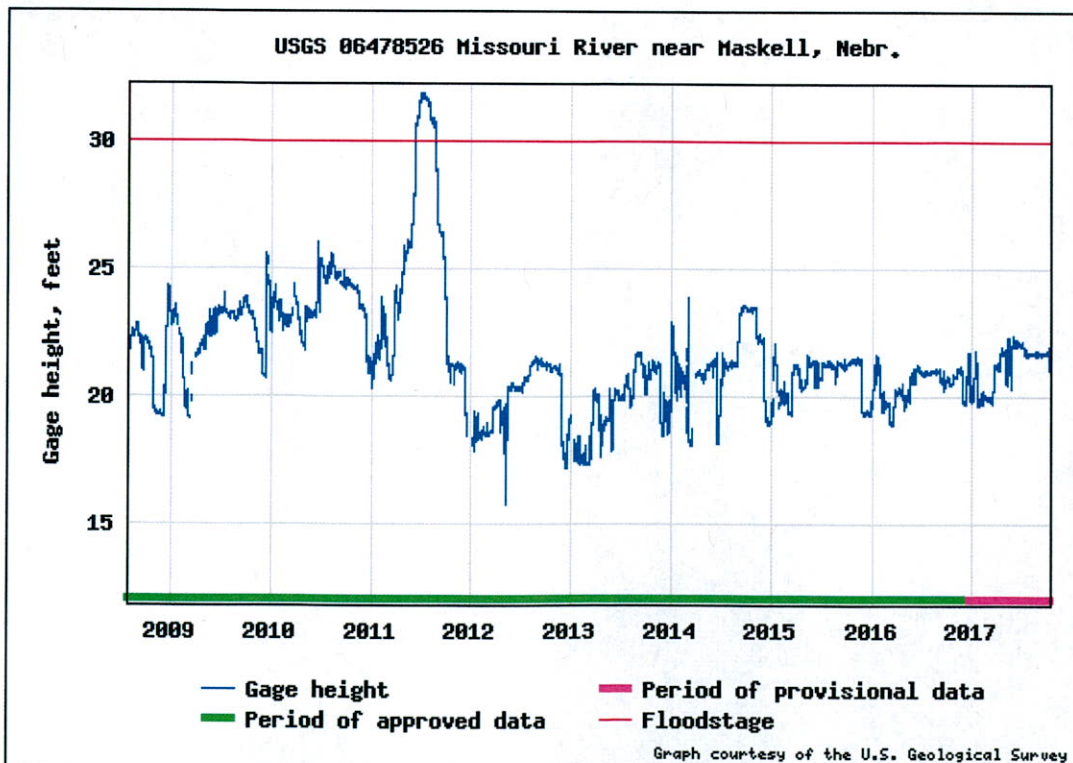


Figure 6: Hydrograph for USGS Stream Gage 06478526 Missouri River near Maskell, NE (USGS, 2017)

EXISTING WATER RIGHTS

There are 610 water rights/permits appropriating water and 4 future use permits reserving water from the Missouri: Elk Point area along with 2 deferred applications and 2 pending applications (Water Rights, 2018a). The location of the diversion points for water rights/permits authorized to withdraw water from the Missouri: Elk Point aquifer in the vicinity of this application are shown in Figure 7. The areas reserved for the future use permits within the map boundaries are also shown.

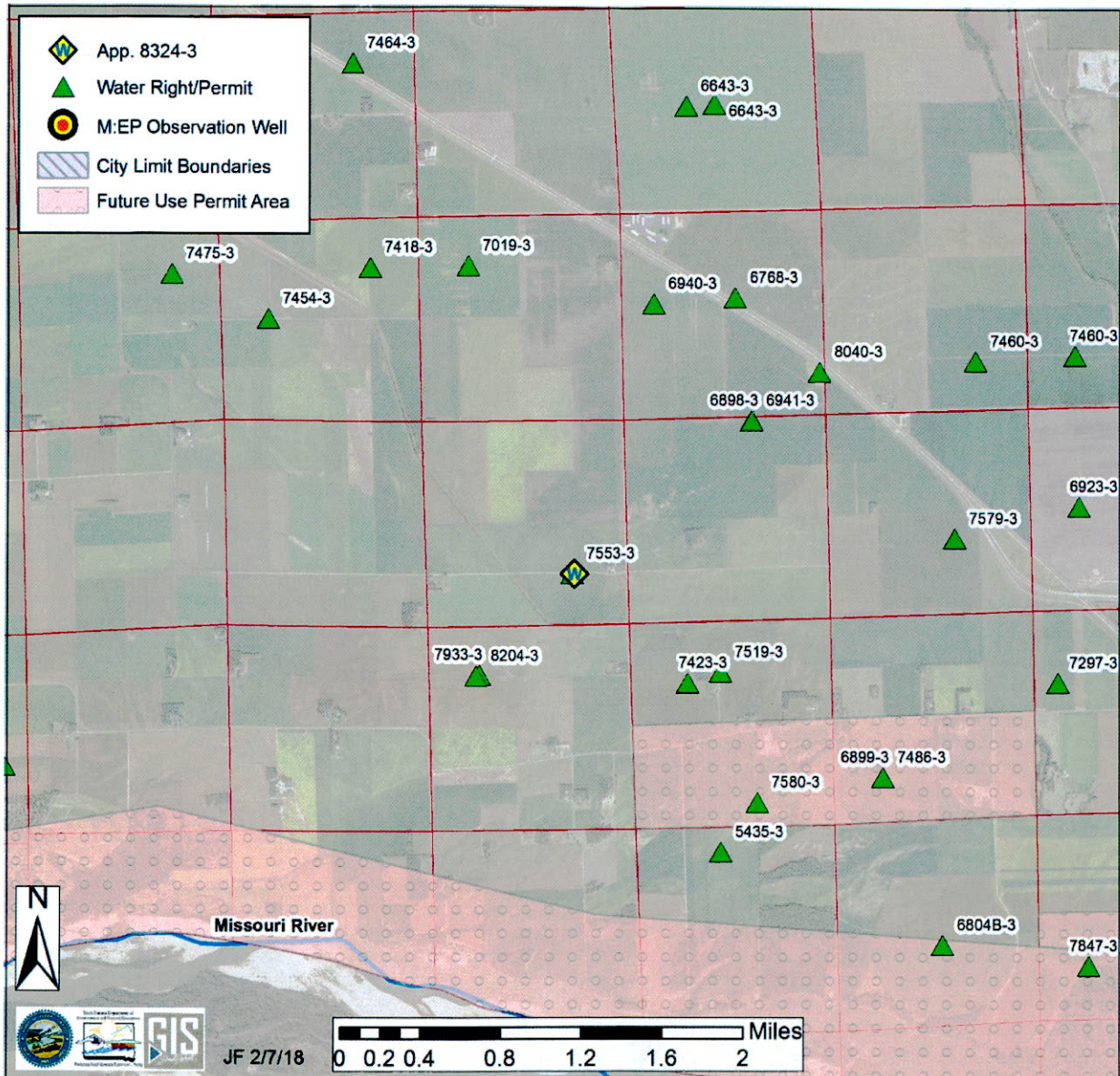


Figure 7: Map of the vicinity of Application No. 8324-3 including Missouri: Elk Point aquifer water rights/permits and future use areas (Water Rights, 2018a)

Drawdown from well withdrawals within the Missouri: Elk Point aquifer is generally not significant at distances far from the pumping well. Examination of the hydrographs of observation wells completed into the Missouri: Elk Point aquifer show no signs of being significantly impacted by drawdown caused by pumping, despite usually being located within a mile of several irrigation wells. Even though there are a large number of high capacity wells in the Missouri: Elk Point aquifer, there has not been a history of well interference. This application, if approved, is not expected to adversely impact nearby adequate wells.

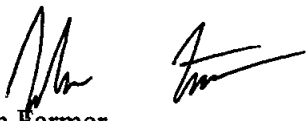
An adequate well has been defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) as:

“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 to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet”

In the past, the Water Management Board has recognized that to place water to the maximum beneficial use, a certain amount of drawdown may occur. With no history of well interference complaints from users in the Missouri: Elk Point aquifer, adequate wells are not expected to be adversely impacted if this proposed appropriation is approved.

CONCLUSIONS

1. Water Permit Application No. 8324-3 proposes to irrigate 34 acres with no increase of the maximum diversion rate of 1.55 cfs from the well approved by Water Right No. 7553-3 and completed into the Missouri: Elk Point aquifer in Clay County.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer.
3. There is a reasonable probability that the diversion proposed by this application will not adversely impact adequate wells for existing water rights and domestic uses.


John Farmer
SD DENR – Water Rights Program

REFERENCES

Bugliosi, E.F., 1986. Water Resources of Yankton County, South Dakota. Water Resources Investigations Report 84-4241. U.S. Geological Survey. 41 p.

- Goodman, J.A., 2007. Report on Water Permit Application No. 6869-3 for Lewis & Clark RWS. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
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- Water Rights. 2018c, "Observation Well 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 12, 2018

John Freeburg
Box 252
Gayville SD 57031

Dear Mr. Freeburg:

Water Permit Application No. 8324-3 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.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, February 12, 2018 1:12 PM
To: 'Tera Schmidt'
Subject: 8324-3, John Freeburg
Attachments: 8324-3public.short.docx; APPL.docx

Attached is a notice to be published on February 23, 2018.

John Freeburg, Box 252, Gayville SD 57031 (605 660-4908) 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 12, 2018 1:12 PM
To: classifieds@plaintalk.net
Subject: 8324-3, John Freeburg
Attachments: 8324-3public.short.docx; APPL.docx

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



NOTICE OF APPLICATION NO. 8324-3 to Appropriate Water

Notice is given that John Freeburg, Box 252, Gayville SD 57031 has filed an application for a water permit to irrigate 34 new acres. Water Right No. 7553-3 appropriates 1.55 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the SE 1/4 Section 7 to irrigate 128 acres located in the SE 1/4, NE 1/4 SW 1/4 Section 7; all in T92N-R52W. This application is to irrigate 34 new acres located in the NW 1/4 SW 1/4 Section 7-T92N-R52W from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8324-3 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 5, 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 _____.

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

FEB 28 2018

WATER RIGHTS
PROGRAM

JOHN FREEBURG
PO BOX 252
GAYVILLE SD 57031

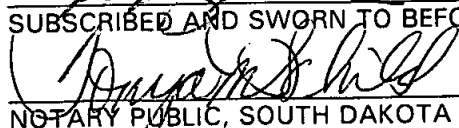
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
2+23 NOTICE OF APPLICATIO

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 23rd DAY OF February, 2018
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$28.09 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: 02/23/2018

FILED ON: 02/23/2018


SUBSCRIBED AND SWORN TO BEFORE ME THIS 23rd DAY OF February, 2018

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

Ad text : 2 + 23

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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$28.09.

AFFIDAVIT OF PUBLICATION

PLAIN TALK

RECEIVED

FEB 26 2018

WATER RIGHTS
PROGRAM

JOHN FREEBURG
BOX 252
GAYVILLE SD 57031

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

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8324-3 APPROPRIATE WATER
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HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 02/23/2018

FILED ON: 02/23/2018



SUBSCRIBED AND SWORN TO BEFORE ME THIS 23rd DAY OF February, 2018



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

RECEIVED

FEB 26 2018

WATER RIGHTS
PROGRAM

Ad text : NOTICE OF APPLICATION NO. 8324-3 to

Appropriate Water

Notice is given that John Freeburg, Box 252, Gayville SD 57031 has filed an application for a water permit to irrigate 34 new acres. Water Right No. 7553-3 appropriates 1.55 cubic feet of water per second from one well completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the SE 1/4 Section 7 to irrigate 128 acres located in the SE 1/4, NE 1/4 SW 1/4 Section 7; all in T92N-R52W. This application is to irrigate 34 new acres located in the NW 1/4 SW 1/4 Section 7-T92N-R52W from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

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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 5, 2018.

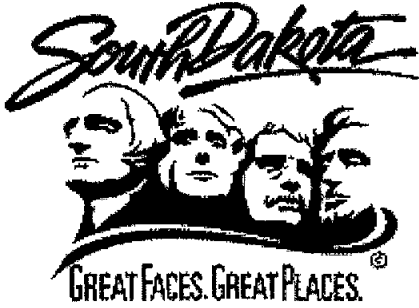
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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$27.35.

Publish: February 23, 2018.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 19 2018

John Freeburg
Box 252
Gayville SD 57031

Dear Mr. Freeburg:

Enclosed is Water Permit No. 8324-3 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

8324-3
RECEIVED
MAR 28 2018
WATER RIGHTS
PROGRAM

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

Date 3-26-18

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

FROM:

John Freeburg
(name)

Box 252
(address)

Geyville SD 57031
(city, state, zip)

605-660-4908
(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. 8324-3 states that the water use system is to be constructed by

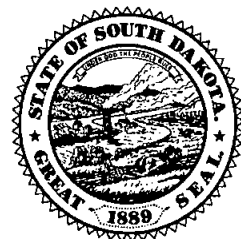
3-5-2023, and water is to be put to beneficial use by 3-5-2027.
(date) (date)

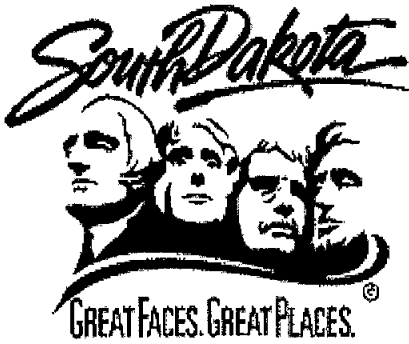
The water use system was completed on 3-26-2018.
(date)

Applying the water to beneficial use was completed on 3-26-2018.
(date)

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

John Freeburg
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 28, 2018

8324-3

John Freeburg
PO Box 252
Gayville SD 57031-0252

Dear Mr. Freeburg:

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. If you have any questions, please contact me.

Sincerely,

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. 8324-3**

I have this day, August 30, 2022, made a thorough examination of the water use systems owned by John Freeburg, Box 252, Gayville, SD 57031, holder of Permit No. 8324-3, bearing the priority date of December 8, 2017. This permit authorizes the irrigation of 34 new acres from the existing well authorized by Water Right No. 7553-3 with no increase in the diversion rate. The irrigated land is located in Clay County.

Inspection contacts: John Freeburg and Thomas Dreeseon

A. Works used to divert the water:

Well Information (from Water Right No. 7553-3)

- 1) Well Drilling Firm: Hammond Wetmore Drilling
- 2) No. of Wells: 1
- 3) Depth(s): 100 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 40 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 60 feet
- 3) Type: PVC
- 4) Static water level: 18 feet

Pump:

- 1) Make: Hydroflo
- 2) Model: Unknown
- 3) Capacity: 800 GPM

Motor:

- 1) Make: Unknown
- 2) Model No.: Unknown
- 3) Horsepower rating: 20 hp

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

- 1) Type: PVC
- 2) Size: 6 inches
- 3) Length: 3,430 feet

C. Works used to apply water to beneficial use:

Center Pivot:

- 1) Make: Valley
- 2) Overall length: 653 feet
- 3) Number of towers: 4
- 4) End gun: Yes
- 5) Capacity: 500 GPM

Chemigation Equipment:

- 1) Does chemigate: No

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: Legal Description

E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 1,300 feet west and 1,300 feet north of the southeast corner of Section 7-T92N-R52W (Latitude 42.79716, Longitude -97.02756– SW1/4 of the SE1/4).
2) The works are capable of diverting and conveying to the places of use 1.11 cu. ft. per second of water from the well which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows:

Section 7-T92N-R52W

NW1/4SW1/4 31 acres

NE1/4SW1/4 3 acres

comprising a total of 34 acres of land and the license should be issued for 0.00 cfs.

- 3) All structures, wells and lands on map: Yes

F. Comments or other permit(s) associated with the project: The well authorized by Water Right No. 7553-3 supplies water to this pivot. The pump, motor and well information was obtained from the file for Water Right No. 7553-3. Water Permit No. 8324-3 authorized the irrigation of an additional 34 acres to be irrigated from the existing well.

Also, three acres of the 34 acres irrigated is in the NE1/4 of the SW1/4 of Section 7, T92N-R52W, instead of all of the irrigated ground being in the NW1/4 of the SW1/4. This property is adjacent to and owned by Mr. Freeburg.



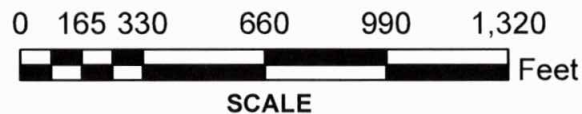
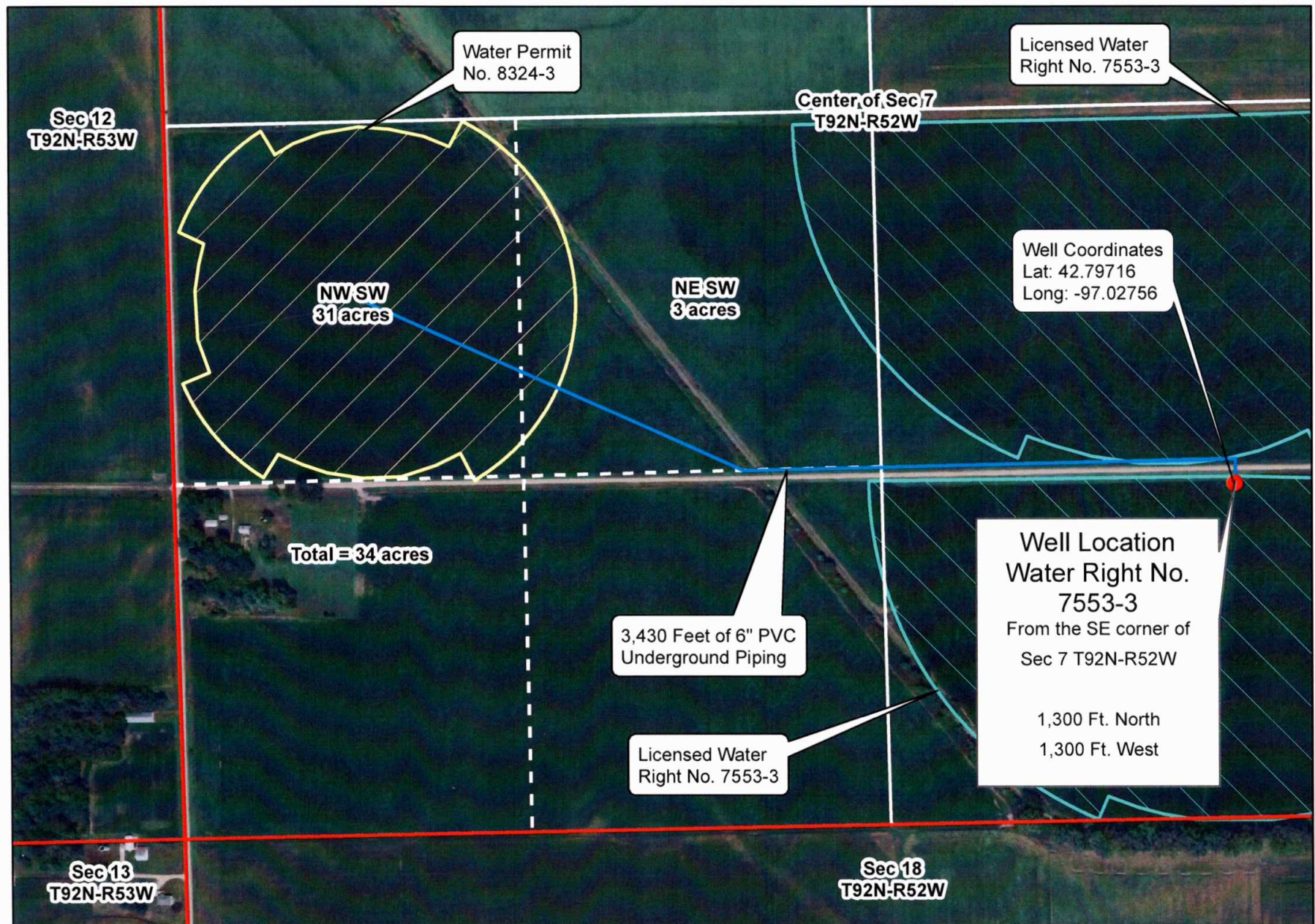
Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: August 30, 2022

Note: Water Right No. 7553-3 will be incorporated into Water License No. 8324-3 since all of the acreage is irrigated from the same well. Priority dates will be retained for the acreage as originally permitted. The license will reflect 162 acres irrigated at a rate of 1.55 cfs.

- Genny McMath

Water Permit No. 8324-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
August 30, 2022

Licensing of Acreage Outside of Permitted Area

NAME: John Freeburg

ADDRESS: Box 252 Gayville SD 57031

DATE: September 14, 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 34 acres as compared to 34 acres authorized by the permit.

UNPERMITTED ACREAGE:

- **Contiguous to Permitted Acreage**

The relocated 3 acres are in the NE1/4 SW1/4 immediately adjacent to permitted acres in the NW 1/4 SW1/4 of Section 7 T92N-R52W

- **Owned by Same Property Owner**

All the property involved is listed under John Freeburg

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

The construction completion date was to be completed by March 5, 2023. The completion of works form submitted by the permit holder indicated the project was completed and water placed to beneficial use on March 26, 2018.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the 3 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

8324-3



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

SEP 20 2022

7553-3
8324-3

John Freeburg
PO Box 252
Gayville SD 57031

Dear Mr. Freeburg:

Enclosed is Water License No. 8324-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing 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 License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

enclosures

Note: Upon licensing, the applicable portions of Water Right No. 7553-3 were incorporated into Water License No. 8324-3.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8324-3**

(1) John Freeburg, PO Box 252, Gayville SD 57031 made Application No. 8324-3, December 8, 2017, for a water permit to add acreage to an existing water right with no increase in the developed diversion rate of 1.55 cubic feet of water per second from ground water, one existing well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 8324-3, with a priority date of December 8, 2017, was approved March 5, 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 5, 2023, and for the application to beneficial use of water on or before March 5, 2027.

The Permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use" indicating the water use system was completed and the water placed to beneficial use on March 26, 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.

Water Right No. 7553-3, with a priority date of November 30, 2012, authorizes diversion of 1.55 cfs from one well to irrigate 128 acres in portions of the S ½ Section 7, T92N, R52W. Water Permit No. 8324-3 was obtained to irrigate a new 34 acre pivot in the N ½ SW ¼ Section 7 utilizing the existing well. Upon licensing, the applicable portions of Water Right No. 7553-3 are incorporated into No. 8324-3.

(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 1.55 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,300'N and 1,300'W of the SE corner of Section 7, T92N, R52W (SW ¼ SE ¼).
Latitude 42.79716, Longitude -97.02756

(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 7, T92N, R52W				Section 7, T92N, R52W			
Priority date – November 30, 2012 (7553-3)				Priority date – December 8, 2017 (8324-3)			
SE ¼ SE ¼	33 acres	NE ¼ SW ¼	8 acres	NW ¼ SW ¼	31 acres		
SW ¼ SE ¼	36 acres			NE ¼ SW ¼	3 acres		
NE ¼ SE ¼	15 acres	Subtotal	128 acres	Subtotal	34 acres		
NW ¼ SE ¼	36 acres						
				Total – 162 acres			

(4) Pursuant to South Dakota Water Law 46-5-30.1 John Freeburg, PO Box 252, Gayville SD 57031 the holder and/or owner of Incorporated Water Right No. 8324-3 is issued a license to appropriate water, the right to use 1.55 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with priority dates of November 30, 2012 (128 acres) and December 8, 2017 (34 acres) from the location specified in (2) of this license for irrigation purposes.

continued

Water License No. 8324-3

Page 2

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8324-3 and subject to the following qualifications:

- The well approved under Nos. 7553-3 and 8324-3 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

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

SEP 20 2022

date

