

WATER PERMIT NO. 6875A-3

Name of Applicant: Gary or Amy Freeburg

Address: Box 188, Yankton SD 57031 Phone: 605 660-2000

Amount of Water Claimed: 1.56 cfs Total Acres: 135.5

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Clay

Type of Waste Disposal System:

Location: 3 miles northwest of Vermilion

PRIORITY Date Received: 1-22-13 Application/License Fee: \$ 1050 (refund \$950)

Corrected Application Received: 1-24-13 Period of Annual Use: April 1 – November 30

Remarks: Reinstatement of Water Permit No. 6895A-3

Diversion Point: N 1/2 NW 1/4 Sec 4-T92N-R52W

Land to be Irrigated: N 1/2 NW 1/4 Sec 4-T92N-R52W and S 1/2 SW 1/4 Sec 33-T93N-R52W

Depth of Well: 100 feet deep

Well Driller: Hammond-Wetmore

Remarks:

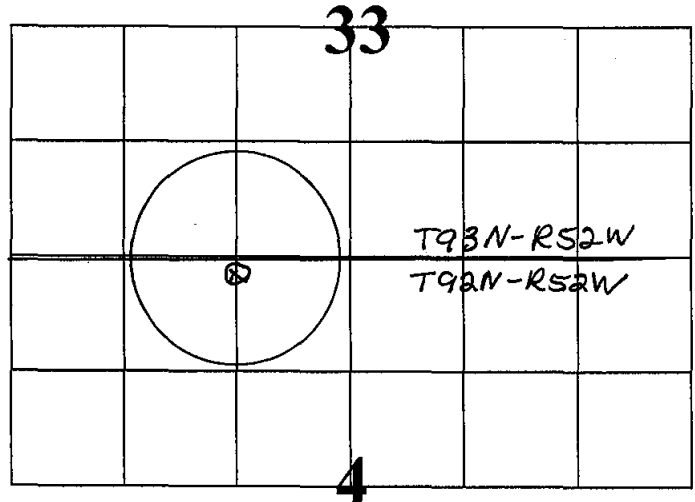
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-25-13

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>6895A-3</u> (office use only) Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>
	Newspaper <u>Press & Dakotan</u>
	<u>Plain Talk</u>

RECEIVED
JAN 22 2013
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to Appear on Irrigation Permit GARY OR AMY FREEBURG
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent
(name and complete address if different than above name)

Mailing Address Box 188 102 Tupper Gayville S.D. 57031
(Address) (City) (State) (Zip Code)

Home Phone 605-267-4426 Cell 605-660-2000 Email FREEBURGHAY@IOWA.NET

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

3. Source of water supply Well in

4. Location of point of diversion 1 well in sect 4 T92N 52W S 1/2 SW 1/4
(example - 3 wells in SW 1/4 NE 1/4 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 APR 1 thru NOV 30

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

Land Description	Acres	Land Description	Acres
N 1/2 NW 1/4 sec 4 T92N 52W	70		
S 1/2 SW 1/4 sec 33 T93N 52W	70		

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

New irrigation to irrigate crop in Sect 4 T92N R52W

I, Gary J Freeburg, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 6895A-3

Date of first receipt of application January 22, 2013.

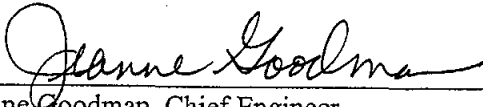
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6895A-3 to Gary or Amy Freeburg, Box 188, Gayville SD 57031 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6895A-3 reinstates Permit No. 6895-3. Permit No. 6895-3 appropriates 1.56 cfs from one well to be completed into the Missouri:Elk Point Aquifer (approximately 90-120 feet deep) located in the S 1/2 SW 1/4 Section 33 to irrigate 140 acres located in the S 1/2 SW 1/4 Section 33-T93N-R52W and N 1/2 NW 1/4 Section 4-T92N-R52W. Approval of No. 6895A-3 cancels No. 6895-3.
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 – November 30.
3. The date from which applicant may claim right is January 22, 2013.
4. The date of approval of Permit No. 6895A-3 is April 8, 2013.
5. One-fifth of the construction is to be completed on or before October 8, 2015.
6. All construction is to be completed on or before April 8, 2018.
7. Water is to be put to beneficial use on or before April 8, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 6895A-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

MAY 17 2013

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☐ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☐ No Drilled by Hammond Wetmore
(if yes, please provide copies of logs)b) If existing wells, how many Provide copy of log(s), if available. Drilled by c) Well Depth 100 Depth to Top of Water Bearing Material 50 Depth to Water from Surface 22

d) Distance to nearest existing domestic well:

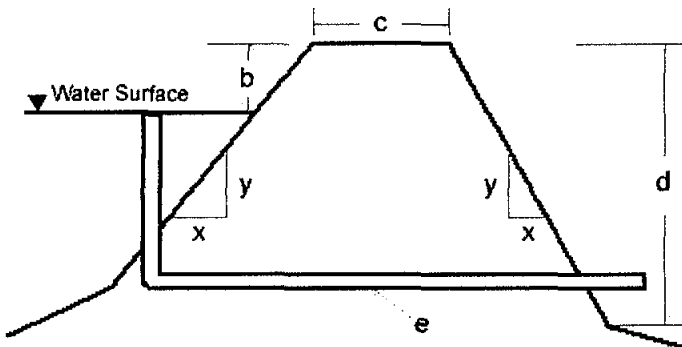
On applicant's property None On property owned by others 4800 + ft**2. Wastewater Disposal System Information**a) Type of System (i.e. septic tank, drain field) b) System Capacity (gallons) Year Constructed c) Connected to the City of Sanitary System **3. Dugout Information**a) Surface Dimensions Depth 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 Feetj) Drainage Area Above Dam Acres



Prepared By: **Heine Electric and Irrigation, Inc.**
For: **Freeburg South 80**

Questions or concerns? Please call us at 402-640-1999!

Vermillion Sec 4

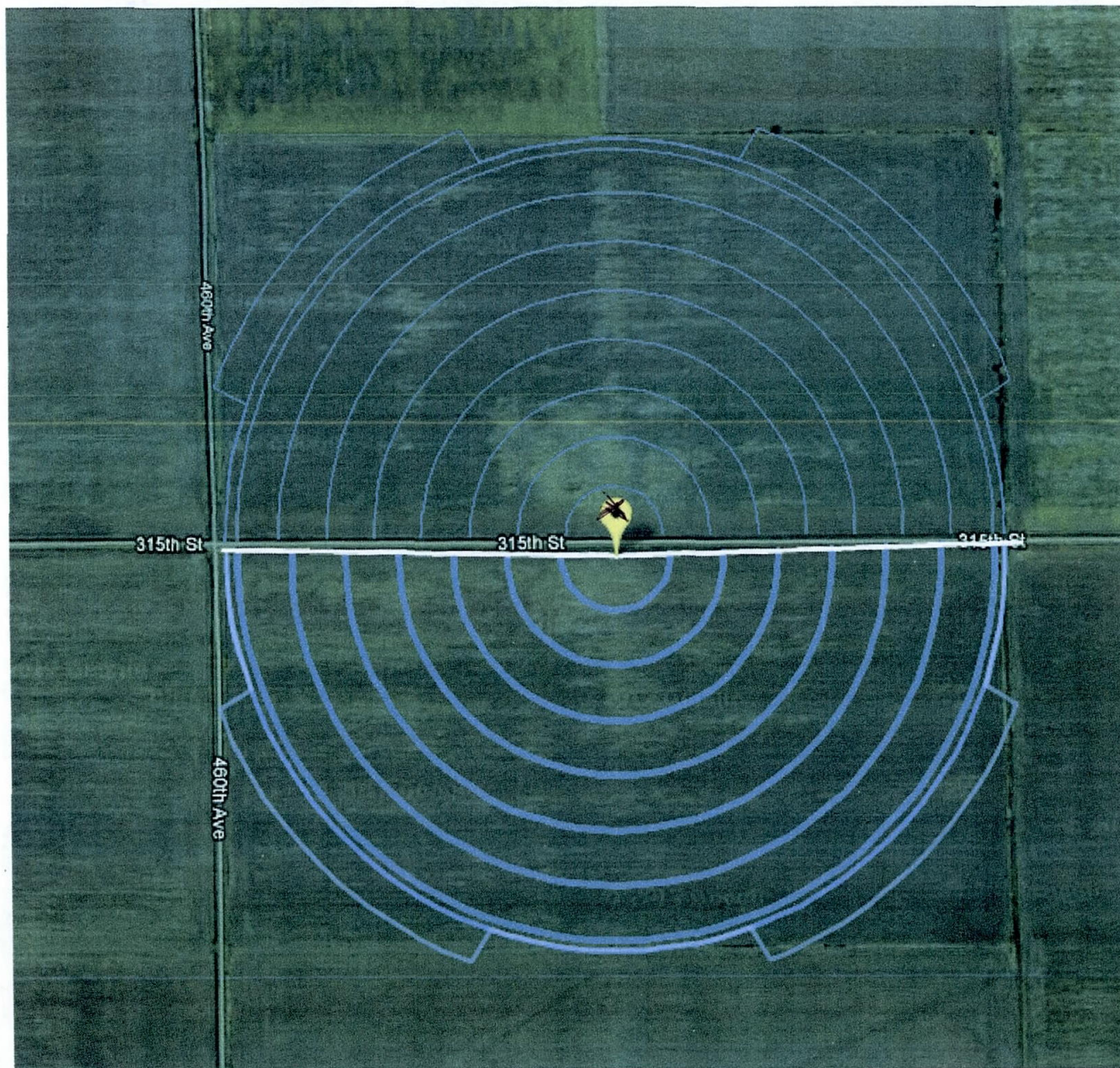
Heister South

91-92N - 51-52W

Number of Spans: 7.
Total radius with overhang: 1296 feet.
Total Coverage: 67.9 acres.

Invoice # 11848

83,002.19



Prepared By: **Heine Electric and Irrigation, Inc.**
For: **Freeburg North 80**
Questions or concerns? Please call us at 402-640-1999!

Geisler North

315 + 460th

Spirit Mound

Sec. 33 - 93N-52W

Number of Spans: 8.
Total radius with overhang: 1296 feet.
Total Coverage: 67.56 acres.

Invoice #11847

83,002.19





United States Department of Agriculture
Farm Service Agency

PLSS: 4_92N_52W
Farm: 5040

Clay County, SD

1:8,691



July 10, 2012

Sheree Christensen
Program Tech 1-18-13

Wetland Determination Identifiers

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

□ Common Land Units

▨ Non Cropland

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original dermination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

2010 Ortho-Photography - Not to Scale



United States Department of Agriculture
Farm Service Agency

PLSS: 33_93N_52W
Farm: 5040

Clay County, SD

1:8,959

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area.
Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.



July 12, 2012

Sheree Christensen
Program Tech. 1-18-13

Wetland Determination Identifiers

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

□ Common Land Units

▨ Non Cropland

2010 Ortho-Photography - Not to Scale

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/25, 20 13

RECEIVED OF Gary Freeburg PO Box 188 Gayville SD 57031

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

Fee for Application for Permit No. <u>6895A-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>6895A-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. 06017

By

[Signature]
Chief Engineer

Schlaak, Karen

From: Gronlund, Eric
Sent: Thursday, January 24, 2013 10:56 AM
To: Schlaak, Karen
Subject: FW: Water Permit Applications
Attachments: Freeburg Sect 24&25.pdf; Freeburg Sect30.pdf; Pages from 6895-3.pdf

This email is to act as file documentation of my conversation with Mr. Freeburg.

Item No. 1 from below – Mr. Freeburg indicated that this well will be use to irrigate the 37.25 acres represented on the map as well as the acres covered by the pivot to the north authorized by WR No. 5971-3. No. 5971-3 appropriates water from one well to serve two pivots, this application is for 1000 gpm to irrigate the new 37.25 acre pivot and the pivot to the north to more efficiently irrigate the land.

Item No. 2 – this is a reinstatement since the works are not completed. Receipt the submitted check and refund the appropriate amount.

Item No. 3 – this application is for 24 acres and a new well as they are reconfiguring the system and making it so they can operate the two pivots independently.

Item No. 4 – this application is for 82 additional acres and a new well to the system authorized by Water Right No. 6649-3. Existing pivot will be moved to the north and a new pivot installed. The new well will be approximately 100 feet south of the existing well as he has power available at the site. Two system will operate independently.

From: Gronlund, Eric
Sent: Wednesday, January 23, 2013 8:29 PM
To: 'freeburghay@iw.net'
Cc: Schlaak, Karen
Subject: Water Permit Applications

Gary and Amy

DENR received your four applications for irrigation. Based on the submittal, we have a few questions. I will identify each application by the section and a brief description and provide detail in reference to our question. I know Mark Rath with Water Rights was out there last February and in a few cases you are reconfiguring systems for better coverage of the land.

1. Application for irrigation of 37.25 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 9, T94N, R54W from a well located in this same quarter-quarter section. The application requests 900 gpm diversion rate authority. This appears to be a new well and new acreage by separate system from the existing neighboring pivots to the north & west. This is a 4 tower system that will make $\frac{3}{4}$ rotation due to a farm yard. The question on this application is the diversion rate. Is 900 gpm necessary to operate this smaller pivot as that quantity is amount commonly associated with a full quarter section pivot? There is a statutory limit on the diversion rate based on the acreage to be irrigated. This application greatly exceeds that amount but there is the ability to request a greater amount if adequate justification is provided. What is the needed diversion rate to operate this center pivot machine?
2. Application to irrigate 135.5 in the N $\frac{1}{2}$ NW $\frac{1}{4}$ Section 4, T92N, R52W and S $\frac{1}{2}$ SW $\frac{1}{4}$ Section 33, T93N, R52W from one well. Water Permit No. 6895-3 is in place to irrigate these same acres. The time to complete construction of works on this permit expired November 26, 2012. Is this application to get a permit back in place on these acres since the well and system had not been constructed by Nov. 26, 2012 and you wish to still develop this

irrigation? Or is there something else I'm missing. If works were not constructed, we can process as a reinstatement – which is all the same to you except the application filing fee is reduced. I just need an explanation of what exactly is planned.

3. Application for irrigation in Section 30, T93N, R52W. This application states and appropriation of 1000 gpm from a well to irrigate 143.4 acres. What appears to occurring is you plan to reconfigure the system in place by moving the existing pivot authorized by WR No.6644-4 slightly south and putting a new pivot with a separate well to the north that will make a windshield wiper rotation. Please take a look at the attachment Freeburg Sect30.pdf. What that attempts to portray is the pivot configuration based on Mark's inspection last February (in yellow) and the configuration intended based on the recently submitted map with the application (in green). The existing water right No. 6644-3 is for 1450 gpm from the existing well as show on the map to irrigate a total of 378 acres. The green area on the map represents a total acreage of 402 acres. This is 24 acres more than what is authorized by the existing water right. I assume you applied for 143.4 acres based Heine representation of the system's coverage and based on the fact that a new well will be drilled to serve this well. However, is a better representation of what is planned that the following will occur 1) a new well will be drilled so the two system can operate independent of each other; 2) claiming additional diversion rate authority of 1000 gpm, and 3) actually only irrigating 24 – 30 more acres than is currently authorized by WR No. 6644-3.
4. Application for irrigation in Section 24 and 25, T94N, R54W. See attached pdf file Freeburg Sect24&25.pdf. Currently water right No. 6649-3 appropriates 800 gpm from one well to irrigate 168 acres in the E ½ Section 24. The outline of the submitted map appears to show two pivots will now operate and the southern pivot will extend into Section 25. The attached map shows how the system was in place based on Mark's inspection (yellow) and what is intended. Is this a fair representation? Will only one well be used to serve both pivot? What will the diversion rate be? – it is currently authorized for 800 gpm and the new request is for 700 gpm. The submitted application states 144.81 acres which I again presume is based off of Heine's estimate. However, the existing water right is for 168 acres and my estimate of the reconfigured system (in green on the map) totals 250 acres. This is 82 additional acres. Please clarify the amount of new acres to be irrigated. Also do you agree that the southern pivot will have coverage into Section 25 as that was not included on the application.

I realize this may be somewhat confusing, please do not hesitate to contact me if you have questions. My goal is to get the permitting in place that accurately reflect what is occurring in the field.

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6895A-3, Gary or Amy 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. 6895A-3, Gary or Amy Freeburg, Box 188, Gayville SD 57031.

The Chief Engineer is recommending REINSTATEMENT of Application No. 6895A-3 because there is reasonable probability that there is unappropriated water available for the applicant's proposed use with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 6895A-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
March 14, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 6895A-3
GARY OR AMY FREEBURG
FEBRUARY 26, 2013

Water Permit Application No. 6895A-3 proposes to reinstate Water Permit No. 6895-3, which appropriates up to 280 acre feet per year at a maximum diversion rate of 1.56 cubic feet per second (cfs) from a well completed into the Missouri: Elk Point aquifer. Application 6895A-3 also proposes a reduction in permitted acres from 140 to 135.5, which will reduce the maximum appropriation from 280 acre feet per year to 271. The well is located in the N $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 4, T92N-R52W, Clay County. The land to be irrigated is located in the N $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 4, T92N-R52W and the S $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 33-T93N-R52W, all in Clay County. The permit was approved on November 26, 2007 and the project was to be completed by November 26, 2012 with water being put to beneficial use by November 26, 2016. Water Permit Application No. 6895A-3 proposes to reinstate Water Permit No. 6895-3 since the project has not been completed. Approval of Water Permit No. 6895A-3 will cancel Water Permit No. 6895-3.

Water Permit Application No. 6895A-3 to reinstate Water Permit No. 6895-3 is made pursuant to SDCL 46-2A-8.1, which allows for reinstatement with a new priority date if unappropriated water is available when construction necessary to put water to beneficial use, is not completed within five years of approval of the permit.

AQUIFER: Elk Point management unit of the Missouri aquifer (M: EP)

GEOLOGY AND AQUIFER CHARACTERISTICS:

Bugliosi (1986) refers to the Elk Point management unit of the Missouri aquifer as the southern portion of the Lower James- Missouri aquifer. For water management purposes, the Water Management Board and the SD DENR-Water Rights Program refer to this aquifer as the Missouri: Elk Point. The aquifer is an alluvium mantled glacial outwash composed of fine sand to coarse gravel material (Bugliosi, 1986). The aquifer generally lies below the flood plain of the Missouri River, lies directly over and is hydraulically connected to the Dakota aquifer, and is hydraulically connected to the Lower James Missouri and the Lower Vermillion Missouri aquifer as well as the Missouri and Vermillion Rivers (Bugliosi, 1986). The aquifer can be under either water-table or artesian conditions, both conditions exist in the area of this application. The Elk Point management unit of the Missouri aquifer encompasses regions of Clay, Union, and Yankton Counties. The Missouri: Elk Point aquifer underlies approximately 74,500 acres of Clay County alone and contains an estimated 1,117,500 acre-feet of recoverable water in storage in the county (Hedges and others, 1982). The saturated thickness of the aquifer in Clay County has a range of approximately 45-65 feet (Water Rights, 2013a). The transmissivity of the aquifer ranges from 20,700 to 24,700 square feet per day (ft^2/d) (Bugliosi, 1986). The specific capacity of the aquifer ranges from approximately 124 to 173 gallons per minute per foot ($(\text{gal}/\text{min})/\text{ft}$) (Bugliosi, 1986). Logs of nearby wells completed into the Missouri: Elk Point aquifer show an average saturated thickness of 66 feet, as shown in Table 1 (Water Rights 2013a and 2013b).

Well Log Description	Saturated Thickness (ft)
Domestic Johnson	26
Observation Well CL-80G	60
Well Log for WR No. 3655-3	59
Well Log for WR No. 6643-3	65
Well Log for WR No. 6768-3	75
Well Log for WR No. 6898-3	70
Well Log for WR No. 6940-3	107

Table 1. Saturated thickness for nearby domestic wells, observation wells and lithologic logs completed in the Missouri: Elk Point aquifer (Water Rights, 2013a and 2013b).

SDCL 46-2A-9

In accordance with SDCL 46-2A-9, a permit may be issued to appropriate water 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 review the availability of unappropriated water and existing rights within the Missouri: Elk Point aquifer.

WATER AVAILABILITY:

This application proposes to appropriate up to 271 acre-feet per year from the Missouri: Elk Point aquifer. If this application is approved, it is likely that the actual water use will be less than the appropriated amount. The probability of unappropriated water available from the aquifer can be evaluated using 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."

Recharge versus Discharge:

Recharge:

Recharge to the Missouri: Elk Point aquifer occurs through seepage from streams and by infiltration of precipitation (Bugliosi, 1986). Recharge is also provided to the aquifer from the Lower Vermillion-Missouri and Dakota aquifers as well as during times of high flow, from the Missouri River. The average annual recharge rate to the Missouri: Elk Point aquifer is estimated to be 3.8 in/yr based on observation well analysis (Hedges and others, 1985). Given the area of the management unit in Clay County of 74,500 acres, average annual recharge to the aquifer in Clay County alone is estimated to be 23,592 acre-feet per year.

Discharge:

Discharge from the Missouri: Elk Point aquifer in Clay County is by evapotranspiration, discharge to the Missouri River and underlying Dakota aquifer, and withdrawal from wells (Bugliosi, 1986). There are a number of completion reports on file with the SD DENR-Water Rights Program for domestic use wells completed into the Missouri: Elk Point aquifer (Water Rights, 2013b) and there are currently 507 water rights/permits appropriating water from the Missouri: Elk Point aquifer (Water Rights, 2013c). There are 120 water rights/permits appropriating water from this aquifer in Clay County alone (Water Rights, 2013c). The distribution of these appropriations and their types are shown in Table 2.

Water Rights/Permits	Number
Domestic	1
Irrigation	113
Municipal	4
Rural Water System	2
Future Use Permits	Number
Lewis and Clark Rural Water System	4
City of Vermillion	1

Table 2. Water Rights from the Missouri: Elk Point aquifer in Clay County (Water Rights, 2013c).

The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming:

1. Water rights/permits limited by an annual volume will pump the entire volume appropriated.
2. Water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time.
3. Future use permits can be fully developed.

The expected water use for non-irrigation purposes, including that reserved for future use, from the Missouri: Elk Point aquifer in Clay County is less than 50,600 acre-feet per year based on current water appropriations.

The annual reported water use in Clay County from the Missouri: Elk Point aquifer for irrigation purposes is displayed in Table 3. The average pumpage reported over the 1979 to 2011 period of record is 2,706 acre-feet per year.

Year	Number of Permits	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
1979	31	17660	1896
1980	30	17660	1788
1981	38	19644	2699
1982	32	18221.2	2279.53
1983	33	18546.2	2871.9
1984	39	20120.2	2448.1
1985	39	20120.2	2552.4
1986	42	21178.2	1732.8
1987	36	19604.2	2211
1988	35	19120.2	3780.2
1989	37	20089.2	2839
1990	39	20499.2	3242
1991	42	19805.2	3439.3
1992	29	19721.2	196.1
1993	40	20135.2	114.9
1994	42	20863.2	1322.31
1995	41	20116.4	2119.3
1996	41	20746.4	1790.32
1997	41	20698.4	2756
1998	42	20856.4	1939.36
1999	41	20238.4	2045.96
2000	42	20478.4	3436.29
2001	42	20478.4	3422.53
2002	43	20702.4	3795.69
2003	43	20702.4	3837.68
2004	43	20702.4	3849.75
2005	48	21731.6	3054.05
2006	56	25393.6	5860.14
2007	65	27554.6	7084.7
2008	77	32059.6	4907.57
2009	84	33832.6	1582.91
2010	86	33128.6	592.3
2011	89	34722	1802.64
Max	89	34722	7084.7
Min	29	17660	114.9
Average	46	22034	2706

Table 3. Irrigation from the Missouri: Elk Point aquifer in Clay County (Water Rights, 1980-2012).

There are also new permits and pending applications for water use from the Missouri: Elk Point aquifer that are expected to significantly increase the total volume of water appropriated for irrigation. Since January 1, 2012 45 new permits were issued authorizing the irrigation of 5,546.1 acres. As of February 25, 2013, an additional 24 permit applications have been submitted for appropriation of water from the Missouri: Elk Point. The pending permits are shown in Table 4 and have a total diversion rate of 43.56 cfs, and 3,268.3 acres of coverage.

Permit No.	Diversion Rate	Acres
7447-3	1.78	160
7454-3	1.78	171
7460-3	3.11	264
7527-3	1.11	117.5
7552-3	0.61	49
7553-3	1.55	136
7554-3	1.89	136
7563-3	2.22	95
7565-3	1.89	160
7566-3	2.22	160
7576-3	3.33	400
7577-3	2	70
7578-3	2	80
7579-3	2	152
7580-3	2	60
7593-3	1.5	105
7606-3	N/A	78.8
7608-3	N/A	105
7621-3	1.89	160
7622-3	1.89	142
7624-3	2	120
7625-3	1.67	120
7627-3	1.78	67
7630-3	3.34	160
TOTAL	43.56	3268.3

Table 4. List of pending permits and their appropriations from the Missouri: Elk Point aquifer (Water Rights, 2013c).

Lewis and Clark Rural Water System (LCRWS) currently reserves 13,000 acre feet per year for future use and has permits appropriating 32,165 acre feet per year (Water Rights, 2013b). This accounts for a significant portion of the annual water usage in Clay County and the aquifer as a whole, and most of the water from these wells will be induced from the Missouri River. That is, more recharge can be induced with more pumping, in particular from the Missouri River because it is hydraulically connected to the aquifer. Recognizing that LCRWS withdraws water from the Missouri: Elk Point aquifer that is induced from the Missouri River, and considering the remaining hydrologic budget, there is reasonable probability that unappropriated water is available for this application.

Observation Well Data:

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

The DENR-Water Rights Program monitors 37 observation wells completed into the Missouri: Elk Point aquifer. The nearest observation well is located about two miles northeast of the well site proposed by this application (Water Rights, 2013a). A hydrograph for this well is shown on Figure 1.

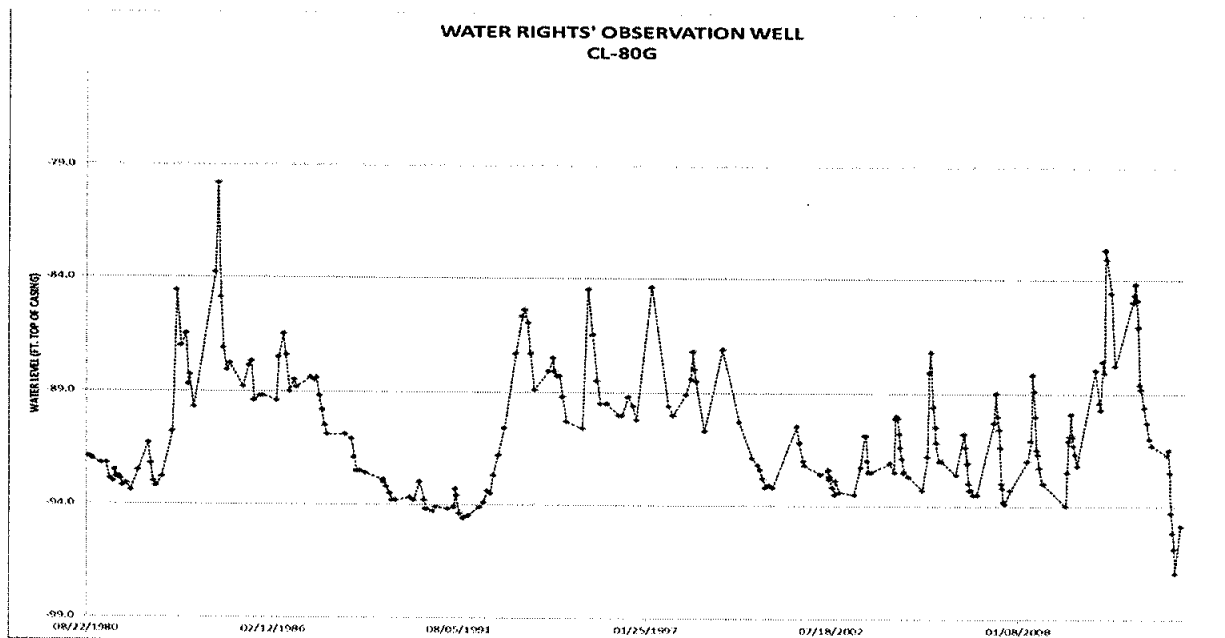


Figure 1. Hydrograph for DENR – Water Rights Observation well CL-80G completed into the Missouri: Elk Point aquifer approximately two miles northeast of the well site proposed by Water Permit Application 6895A-3 (Water Rights, 2013a).

The observation well data shows the aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years; and that at the current level of development, climatic conditions mask the temporal effects of well withdrawals. The observation well data documents the hydraulic connection between the Missouri: Elk Point aquifer and the Missouri River (e.g. in particular, high groundwater levels associated with flooding in 2011).

Because of this obvious hydraulic connection between Missouri: Elk Point aquifer and the Missouri River and the availability of water in the Missouri River, there is a reasonable probability that additional recharge to the Missouri: Elk Point will be induced from the Missouri River with additional pumping. Therefore, there is reasonable probability that unappropriated water is available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

The well site proposed by this application is located approximately two and one half miles northwest of the Vermillion River and four and one half miles north of the Missouri River. The Missouri: Elk Point aquifer's boundary with the Lower Vermillion-Missouri aquifer is about $\frac{1}{2}$ to $\frac{3}{4}$ miles east of the proposed well site; this boundary extends to the southeast and north. There are four water rights/permits within a one and one half mile radius from the proposed well site, as listed on Table 5.

Permit No.	Name	Status	Type	CFS	Acres
6643-3	Gary and Amy Freeburg	LC	IRR	4.68	555
6768-3	Gary and Amy Freeburg	LC	IRR	2.67	194.5
6898-3	Bottolfson Bros	PE	IRR	5.79	405
6940-3	Ken Less	PE	IRR	1.11	52
LC = Water Right, PE = Water Permit, IRR = Irrigation					

Table 5. Water Rights / Permits within about one mile and one half of the well proposed by Water Permit No. 6895A-3 (Water Rights, 2013c).

Additional drawdown caused by the proposed well could be measurable and is most likely to affect the Applicants' own permitted wells, but could also be measurable in a well supplying Water Permit 6898-3 (about 1.1 miles southwest) and a domestic well on file with the DENR – Water Rights Program that is about 0.9 miles to the northeast. The precise drawdown cannot be quantified without aquifer testing. With that in mind, a standard permit qualification to most groundwater permits/rights states that:

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

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, the Water Management Board has defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”

SDCL 46-6-6.1 and ARSD 74:02:04:20(7) ensure that interference will not be adverse to domestic well users and those with existing appropriative rights. Depending on the characteristics of the Missouri: Elk Point aquifer at the proposed well site, some existing well owners may need to lower their pumps to accommodate for lower water levels. When considering SDCL 46-6-6.1 and ARSD 74:02:04:20(7) in combination with observation well measurements and the expected aquifer transmissivity, the proposed increase in diversion rate is not likely to lead to significant interference or adversely affect existing wells.

CONCLUSIONS:

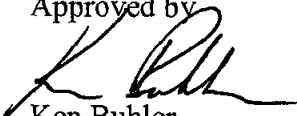
1. Water Permit Application No. 6895A-3 proposes to reinstate Water Permit No. 6895-3.
2. SDCL 46-2A-8.1 allows the Water Management Board to reinstate water permits if unappropriated water is available.
3. There is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer to supply this proposed appropriation.

4. There is a reasonable probability that the well proposed by this application will not adversely impact existing water rights or domestic users.



Dan Gerhardt
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Bugliosi, E.F., 1986, Water Resources of Yankton County, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 84-4241. 41 p.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Water Rights, 1980-2012, "Irrigation Questionnaire Summaries by County", SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

APR - 5 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

PLAIN TALK

**NOTICE OF APPLICATION
NOS. 7661-3 and 6895A-3 to
Appropriate Water**

Notice is given that Gary or Amy Freeburg, Box 188, Gayville SD 57031 has filed the following applications for a water permit.

DENR

Division of Environmental Services

Water Rights Program

Joe Foss Building, 523 East Capitol
Pierre, SD 57501

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

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

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 29 DAY OF MARCH 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$45.35 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: 3/29/13

FILED ON: 3/29/13

Application No. 7661-3 proposes to appropriate 2.22 cubic feet of water per second (cfs) from an additional well to irrigate land authorized by Water Right No. 6644-3 and 24 new acres. Water Right No. 6644-3 authorizes 3.22 cfs from one well located in the SW 1/4 NW 1/4 Section 30 to irrigate 378 acres located in the W 1/2, W 1/2 NE 1/4, W 1/2 SE 1/4 Section 30; all in T93N-R52W. This application proposes to appropriate 2.22 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 NW 1/4 Section 30 for irrigation of 24 acres located in the W 1/2, W 1/2 NE 1/4, W 1/2 SE 1/4 Section 30; all in T93N-R52W. This will allow two pivots to operate simultaneously. This permit, if approved, and Water Right No. 6644-3 will authorize 5.44 cfs from two wells to irrigate 402 acres.

Application No. 6895A-3 proposes to reinstate Permit No. 6895-3. Permit No. 6895-3 appropriates 1.56 cfs from one well to be completed into the Missouri:Elk Point Aquifer (approximately 90-120 feet deep) located in the S 1/2 SW 1/4 Section 33 to irrigate 140 acres located in the S 1/2 SW 1/4 Section 33-T93N-R52W and N 1/2 NW 1/4 Section 34-T92N-R52W. The permit was approved November 26, 2007, and the project was to be completed November 26, 2012, with water being put to beneficial use by November 26, 2016. Application No. 6895A-3 proposes to reinstate Water Permit No. 6895-3 since the project has not been completed. Approval of No. 6895A-3 will cancel No. 6895-3.

Application No. 6895A-3 to reinstate Permit No. 6895-3 is made pursuant to SDCL 46-2A-8.1 which allows for reinstatement with a new priority date, if unappropriated water is available when construction, necessary to put water to beneficial use, is not completed within five years of approval of the permit.

Tera A Schmidt
SUBSCRIBED AND SWORN TO BEFORE ME, THIS 15th DAY OF April

[Signature]
NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7661-3 and 6895A-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. The Chief Engineer's address is Water Rights Program, Foss Building, 523 E Capitol, Pierre, SD 57501 (605 773-3352) and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 8, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$45.35

Published: March 29, 2013

RECEIVED

APR - 3 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

NOTICE OF APPLICATION
NOS. 7661-3 and 6895A-3 to
Appropriate Water

Notice is given that Gary or Amy Freeburg, Box 188, Gayville SD 57031 has filed the following applications for a water permit.

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This application proposes to appropriate 2.22 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 NW 1/4 Section 30 for irrigation of 24 acres located in the W 1/2, W 1/2 NE 1/4, W 1/2 SE 1/4 Section 30; all in T93N-R52W. This will allow two pivots to operate simultaneously. This permit, if approved, and Water Right No. 6644-3 will authorize 5.44 cfs from two wells to irrigate 402 acres.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7661-3 and 6895A-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applica-

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

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSE AND SAYS THAT HE IS THE MANAGING EDITOR OF, YAN MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAP PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID CO AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SA COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXE Notice of Application No 7661-3 and 6895A-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE NEWSPAPER ON THE 29th DAY OF March 2013 THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLIC OF SAID NOTICE TO WIT \$43.86 ENSURES TO THE BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THERE HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 3/29/2013

FILED ON: 3/29/2013

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Published once at the total approximate cost of \$43.86.

SUBSCRIBED AND SWORN TO BEFORE ME THIS 29th DAY OF March 2013

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 18, 2013

Plain Talk
201 W Cherry St
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7661-3 and 6895A-3 to Appropriate Water. Please publish the notice once on March 29, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Gary or Amy Freeburg, PO Box 188, Gayville SD 57031 (Ph # 605-267-4426).

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

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

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 18, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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

March 18, 2013

Gary or Amy Freeburg
PO Box 188
Gayville SD 57031

Dear Sir:

Water Permit Application Nos. 7661-3 and 6895A-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish the Notice on March 29, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NOS. 7661-3 and 6895A-3 to Appropriate Water

Notice is given that Gary or Amy Freeburg, Box 188, Gayville SD 57031 has filed the following applications for a water permit.

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Application No. 6895A-3 to reinstate Permit No. 6895-3 is made pursuant to SDCL 46-2A-8.1 which allows for reinstatement with a new priority date, if unappropriated water is available when construction, necessary to put water to beneficial use, is not completed within five years of approval of the permit.

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The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

MAY 17 2013

Gary or Amy Freeburg
Box 188
Gayville SD 57031

Dear Mr. & Mrs. Freeburg:

Enclosed are Water Permit Nos. 6895A-3, 7659-3, 7660-3 and 7661-3 authorizing construction of the water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

An overpayment of the application/license fees for Water Permit No. 6895A-3 and 7661-3 was submitted. Water Permit No. 6895A-3 was submitted with a fee of \$1050.00. The correct fee to reinstate a water permit is \$100.00; therefore \$950.00 will be refunded. Water Permit No. 766-3 was submitted with a fee of \$1050.00. The correct fee for this water permit is \$700.00; therefore \$350.00 will be refunded. A refund check for \$1300.00 should be received within the next couple of weeks.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the 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 licenses may be issued, thus completing the acquisition of a water right.

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

Sincerely,

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

enclosures

PAYMENT REQUEST FORM

PAYEE: Gary or Amy Freeburg
PO Box 188
Gayville SD 57031

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

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Refund on water permits. (overpayment)

AMOUNT: \$1,300.00

FUNDING SOURCE:

GENERAL: X

FEDERAL:

COMMENTS:

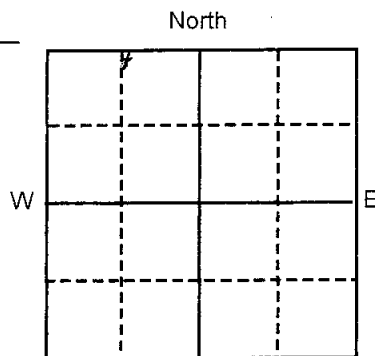
AUTHORIZATION:

Jeanne Goodma

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 NW 1/4 Sec 4 Twp 92N Rg 52WCounty ClayPlease mark well
location with an "X"

Well Completion Date

December 8, 2012

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
5,000.0 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	<u>16.00</u> IN	<u>0.0</u> FT	<u>40.0</u> FT	<u>28.00</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>		<u>9.5</u> Lb/gal	<u>0.0</u> Ft	<u>40.0</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie Method

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 16.00 Inches Length 57.0 FeetMaterial PVCSlot Size .080 Set From 40.0 Feet to 97.0 Feet

Other information

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?
☒ No, Why Not? Not Required
 Lab to which water quality sample sent for analysis
Well Owner: Gary Freeburg

Business Name:

Address: PO Box 188City, State, Zip: Gayville SD 57031

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	2
Gray-Brown Clay	2	56
Coarse Gravel	56	97

STATIC WATER LEVEL 22.0 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

29.0 Ft. After 4.0 Hrs. pumped 700.0 GPM38.0 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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

January 7, 2015

Gary & Amy Freeburg
PO Box 188
Gayville SD 57031

RE: Water Permit or Right Nos. 2584-3, 5971-3, 6643-3, 6644-3, 6645-3, 6646-3, 6647-3, 6648-3, 6649-3, 6650-3, 6651-3, 6767-3, 6768-3, 6858-3, 6895A-3, 7659-3, 7660-3, 7661-3 (Gary and Amy Freeburg) Water Right No. 3399-3, Ada Juttelstad

Dear Mr. & Mrs. Freeburg:

I am writing in follow-up to my phone conversation with Amy on January 6th concerning the above listed water permits and rights.

Enclosed are partially completed Notice of Transfer of Ownership forms for filing ownership changes. Please review the forms, make any necessary corrections and complete as needed. Upon completion, please sign and return them to our office with a required filing fee of \$50.00 **each**. The check or money order for the fee can be made payable to the Water Rights Program.

We also discussed the ownership change needed for 3399-3 currently listed in the name of Ada Juttelstad. I believe you already have a transfer of ownership form for that one. I have included the 2014 irrigation questionnaire for that specific water right. It originally was sent to Steve Anderson as a renter of the property. Please complete the form and return it by January 23rd.

To recap, the following materials are needed:

- irrigation questionnaire for 3399-3;
- 19 transfer of ownership forms (18 of yours and the one you have for the former Juttelstad land);
- A total filing fee of \$950 (19 transfers x \$50 each)

If I can answer any questions, please let me know.

Sincerely,

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

enclosures

NOTICE OF TRANSFER OF OWNERSHIP

RECEIVED

JAN 22 2015

WATER RIGHTS
PROGRAM

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 6895A-3

Date: 1-19-15

I/We request that Water Permit No. 6895A-3

formerly owned by: Gary & Amy Freeburg

be transferred to: (name & address)

Freeburg Limited Partnership
P.O. Box 188 Gayville SD 57031

Telephone No. 605 267 4426

Title to the following described land(s)/property has been transferred as described above:

140 acres - N 1/2 NW 1/4 Section 4, T92N, R52W and S 1/2 SW 1/4 Section 33, T93N, R52W

I/We understand that the validity of Water Permit No. 6895A-3 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We Freeburg Limited Partnership the new owner, certify that the above information is true and correct.

Amy Freeburg
(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/22, 20 15

RECEIVED OF Freeburg LP PO Box 188 Gayville SD 57031

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>6895A-3</u>		
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. _____	50	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No. 07164

By *Jeanne Hochman*
Chief Engineer



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

January 23, 2015

Gary & Amy Freeburg
Freeburg Limited Partnership
PO Box 188
Gayville SD 57031 0188

RE: Water Permit or Right Nos. 2584-3, 3399-3, 5971-3, 6643-3, 6644-3, 6645-3, 6646-3,
6647-3, 6648-3, 6649-3, 6650-3, 6651-3, 6767-3, 6768-3, 6858-3, 6895A-3, 7659-3, 7660-3,
7661-3

Dear Mr. & Mrs. Freeburg:

I am writing to acknowledge receipt of the completed transfer forms, filing fees and the irrigation questionnaire for 3399-3.

The ownership changes have been completed. The above listed water permits or rights have all been transferred and are now listed in the name of "Freeburg Limited Partnership".

Enclosed are the various receipts for the filing fees you submitted. If I can answer any questions, please let me know.

Sincerely,

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

enclosures

SD EForm - 1311LD V1

Form 10

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

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

Date 10-27-16

FROM:

Frederburg Land Partnership

(name)

PO Box 188

(address)

Gayville

(city)

SD

(state)

57031

(zip)

605-267-4426

(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. 6895A-3 states that the water use system is to be constructed by

April 8, 2018, and water is to be put to beneficial use by April 8, 2022

(date)

(date)

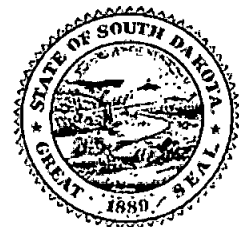
The water use system was completed on May 1 2013

(date)

Applying the water to beneficial use was completed on July 2013

(date)

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



**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 6895A-3**

I have this day, October 27, 2016, made a thorough examination of the water use system constructed by Freeburg Limited Partnership, PO Box 188, Gayville, SD 57031 of Permit No. 6895A-3, bearing the priority of January 22, 2013 authorizing the diversion of 1.56 cu. ft. per second of the waters of Missouri:Elk Point Aquifer for irrigation purposes, of 140 acres, in Clay County.

Inspection contact & relationship to permit holder, if applicable: **Jory Freeburg, partner of Freeburg Limited Partnership**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Hammond-Wetmore Drilling, LLC
- 2) No. of Wells 1
- 3) Depth(s) 97 feet
- 4) Well log is available Yes

Casing:

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

Screen:

- 1) Type PVC Manufactured
- 2) Length 57 feet
- 3) Static water level 22 feet

Pump:

- 1) Make Grundfos Submersible
- 2) Model 625S300-2aa
- 3) Capacity 700 GPM

Motor:

- 1) Make Grundfos
- 2) Model No. Submersible
- 3) Horsepower rating 30 hp

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

- 1) Type PVC 2) Size 8 inches 3) Length 100 feet

Comments: See map for approximate location.

C. Works used to apply water to beneficial use:

Center pivot (N ½ NW ¼ Sec 4-T92N-R52W):

- 1) Make Valley 8000
2) Overall length 1297 feet
3) Number of towers 7
4) End gun Yes
5) Capacity 700 GPM

Center pivot (S ½ SW ¼ Sec 33-T93N-R52W):

- 1) Make Valley 8000
2) Overall length 1297 feet
3) Number of towers 7
4) End gun Yes
5) Capacity 700 GPM

Comments: System is set up so that only one center pivot can be operated at a time.

Chemigation Equipment:

- 1) Does chemigate No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes, began irrigating in 2013.
3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: East 1320', South 50' from NW Corner of Sec 4-T92N-R52W; Lat 42.82256/Long -96.99802; N ½ NW ¼ Sec 4-T92N-R52W.
2. The works are capable of diverting and conveying to the place of use 1.56 cfs or 700 gpm of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

Sec 4-T92N-R52W
NW ¼ NW ¼ - 33 ac
NE ¼ NW ¼ - 33 ac

Sec 33-T93N-R52W
SW ¼ SW ¼ - 33 ac
SE ¼ SW ¼ - 33 ac

comprising a total of 132 acres of land and the license should be issued for 1.56 cfs or 700 gpm.

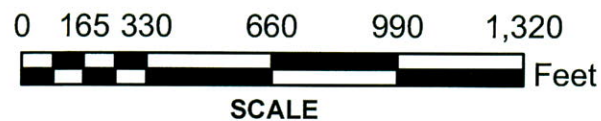
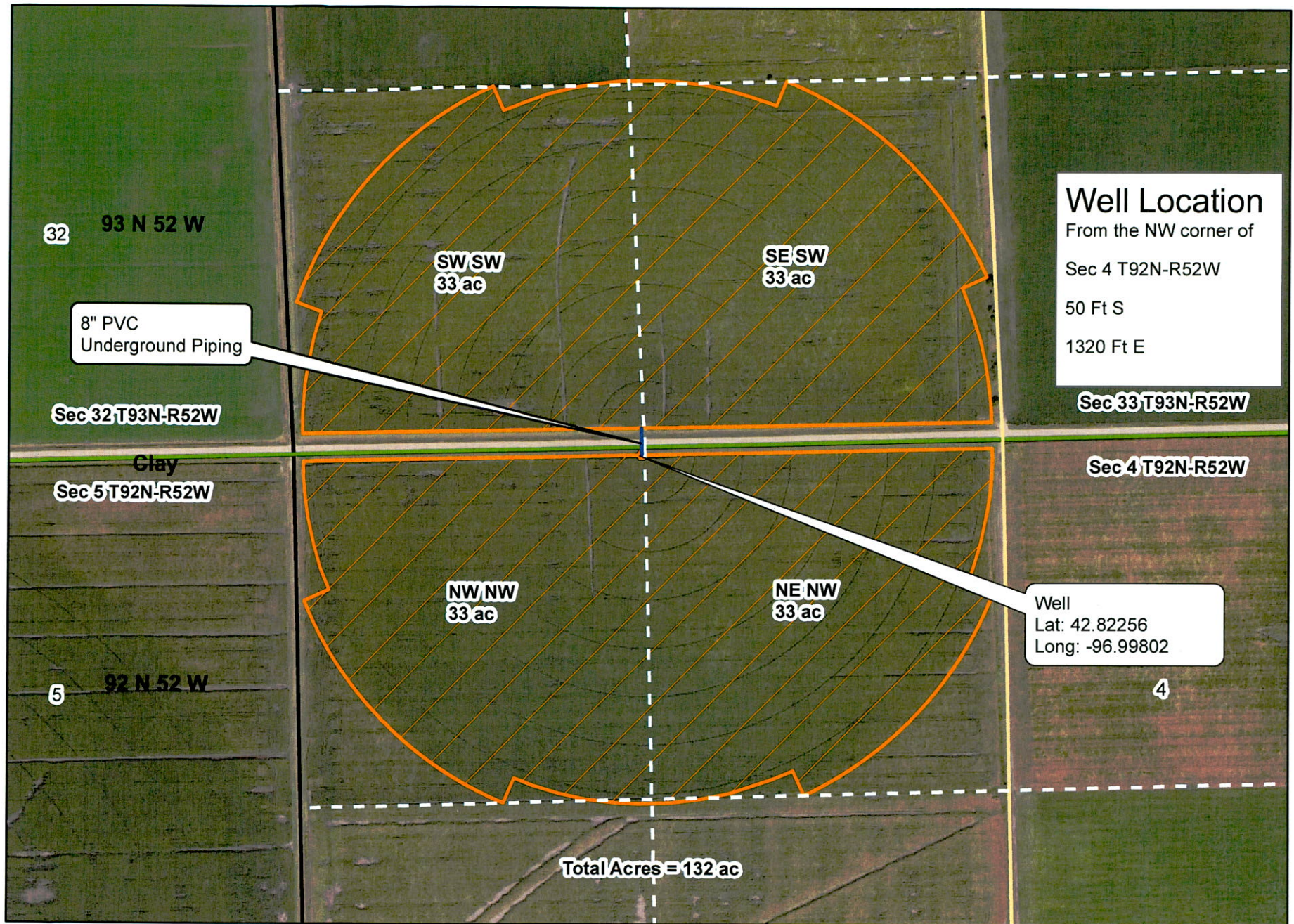
3. All structures, wells and lands on map Yes

Harold Holoch

Harold Holoch, PE
Staff Engineer
DENR, Water Rights Program

Date report completed: December 6, 2017

6895A-3



Harold Holoch
Harold Holoch, PE
Staff Engineer
June 28, 2017



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 19 2018

6895A-3

Gary & Amy Freeburg
Freeburg Limited Partnership
PO Box 188
Gayville SD 57031-0188

Dear Mr. & Mrs. Freeburg:

Enclosed is Water License No. 6895A-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, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 6895A-3**

(1) Gary or Amy Freeburg, Gayville SD made Application No. 6895A-3, January 22, 2013 for a water permit to divert 1.56 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 6895A-3, with a priority date of January 22, 2013 was approved April 8, 2013 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before April 8, 2018 and for the application to beneficial use of said water on or before April 8, 2022.

On January 22, 2015, Water Permit No. 6895A-3 was transferred to Freeburg Limited Partnership, PO Box 188, Gayville SD 57031.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on October 27, 2016. The "*Notice*" stated the water use system was completed in May, 2013 and the water placed to beneficial use in July, 2013.

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

- 1320'E and 50'S of the NW Corner of Section 4, T92N, R52W (N ½ NW ¼ Section 4)
Latitude 42.82256, Longitude -96.99802

(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, T92N, R52W		Section 33, T93N, R52W	
NW ¼ NW ¼	33 acres	SW ¼ SW ¼	33 acres
NE ¼ NW ¼	33 acres	SE ¼ SW ¼	33 acres

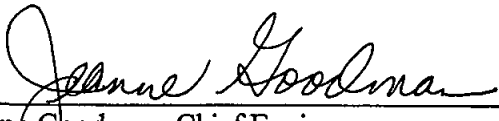
Total 132 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Freeburg Limited Partnership, PO Box 188, Gayville SD 57031 the holder and/or owner of Water Right No. 6895A-3 is issued a license to appropriate water, the right to use 1.56 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of January 22, 2013 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. 6895A-3 and subject to the following qualifications:

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

- The well authorized by Permit No. 6895A-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *The well was drilled by Hammond Wetmore Drilling LLC in December, 2012. A copy of the well completion report is on file with the Water Rights Program.*
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

MAR 19 2018

date

