

WATER PERMIT NO. 7660-3

Name of Applicant: Gary or Amy Freeburg

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

Amount of Water Claimed: 1.56 Total Acres: 82

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Yankton

Type of Waste Disposal System:

Location: 1/2 miles south of Volin

PRIORITY Date Received: 1-22-13 Application/License Fee: \$ 1050

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

Remarks: Add'l well and acres to Water Right No. 6649-3

Diversion Point: S 1/2 SE 1/4 Sec 24-T94N-R54W

Land to be Irrigated: SE 1/4, S 1/2 NE 1/4 Sec 24
and N 1/2 NE 1/4 Sec 25; all in T94N-R54W

Depth of Well: 100 feet deep

Well Driller: Hammond-Wetmore

Remarks:

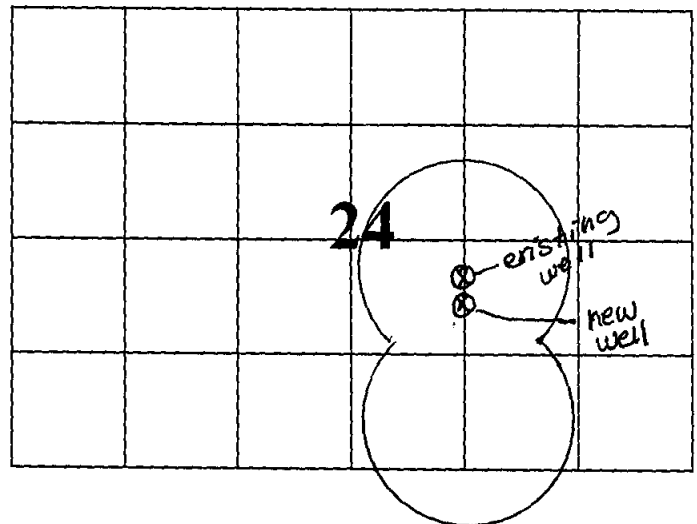
Type of Map: aerial

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>7660-3</u> (office use only) Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>
	Newspaper <u>Press & Dakotan</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.)

add well & AC to WR No. 6649-3

1. Name to Appear on Irrigation Permit GARY AND 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 Iversen St. Gayotille S.D. 57031
(Address) (City) (State) (Zip Code)

Home Phone 605-267-4426 Cell 605-660-2000 Email FREEBURG HAY @ I.W. NET

2. Amount of water claimed _____ *CFS or _____ **GPM 700 ***AF Total Acreage 82
(*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

4. Location of point of diversion 1 well in NW 24-94-54 (N 1/2 SE 1/4)
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County YANKTON

5. County or counties where water will be used YANKTON

6. Annual period during which water is to be used April 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
		NE 1/4 NE 1/4 Sec 25	23
		NW 1/4 NE 1/4 Sec 25	23
		SE 1/4 SE 1/4 Sec 24	18
		SW 1/4 SE 1/4 Sec 24	

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

New Irrigation for crop land in S84-T94N R54W

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. 7660-3**

Date of first receipt of application January 22, 2013.

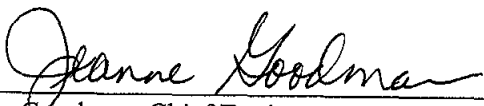
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7660-3 to Gary and Amy Freeburg, Box 188, Gayville SD 57031 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7660-3 appropriates 1.56 cfs from an additional well to irrigate land authorized by Water Right No. 6649-3 and 82 new acres. Water Right No. 6649-3 authorizes 1.78 cfs from one well located in the N 1/2 SE 1/4 Section 24 to irrigate 168 acres located in the SE 1/4, S 1/2 NE 1/4 Section 24; all in T94N-R54W. This permit appropriates 1.56 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the N 1/2 SE 1/4 Section 24 for irrigation of land authorized by Water Right No. 6649-3 and 82 new acres located in the SE 1/4, S 1/2 NE 1/4 Section 24 and N 1/2 NE 1/4 Section 25; all in T94N-R54W. This will allow two pivots to operate simultaneously. This permit and Water Right No. 6649-3 will authorizes 3.34 cfs from two wells to irrigate 250 acres.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: 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. 7660-3 is April 1, 2013.
5. One-fifth of the construction is to be completed on or before October 1, 2015.
6. All construction is to be completed on or before April 1, 2018.
7. Water is to be put to beneficial use on or before April 1, 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. 7660-3 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 25

d) Distance to nearest existing domestic well:

On applicant's property None On property owned by others 5000 + ft.

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) Year Constructed

c) Connected to the City of Sanitary System

3. Dugout Information

a) Surface Dimensions Depth

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

4. Water Storage Dams

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

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

b) Freeboard

c) Crest Width

Crest Length

d) Height

e) Primary Outlet Capacity

If pipe, diameter

f) Secondary Spillway Capacity

Spillway Width

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

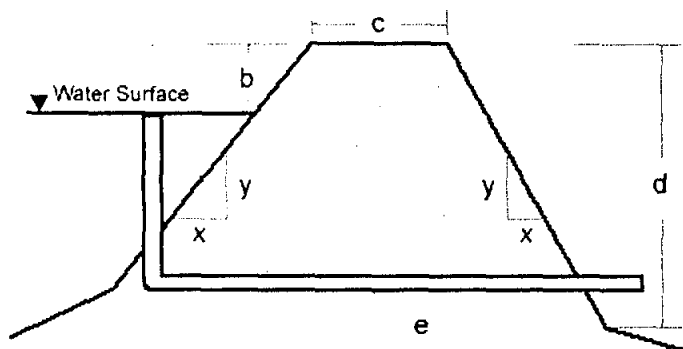
Upstream

Downstream

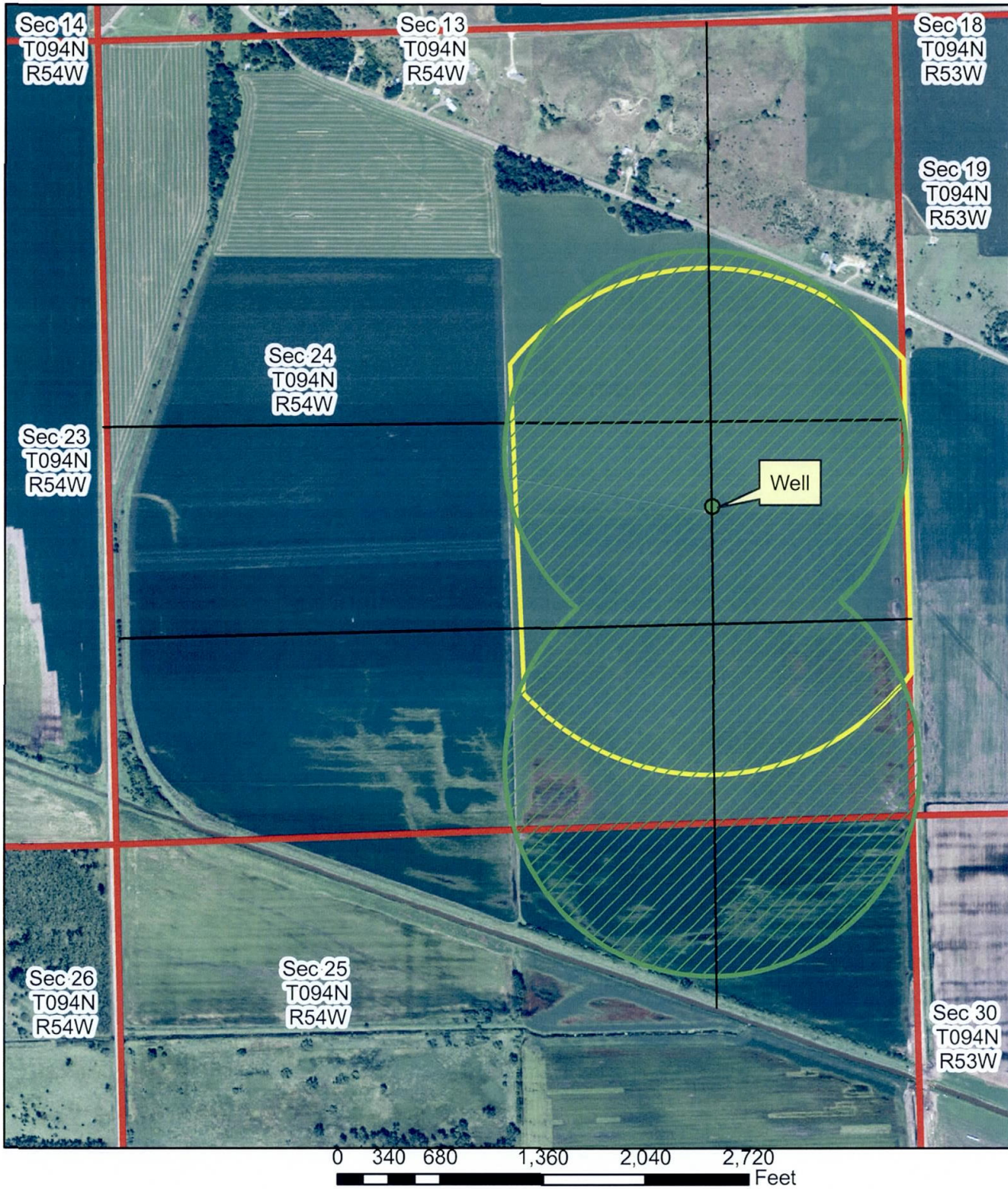
h) Surface Area of Impoundment

i) Storage Acre Feet

j) Drainage Area Above Dam Acres



Freebrg Application in Section 24 and 25, T94N, R54W



Yellow outline is existing acres authorized by Water Right No. 6649-3 totally 168 acres

Green crosshatched area is depiction on application showing totaling approx. 250 acres

Section 24, T94N, R54W

Section 25, T94N, R54W

SW NE	28
SE NE	28
NW SE	37
NE SE	37
SW SE	37
SE SE	37

NW NE	23
NE NE	23
TOTAL	250 acres





United States Department of Agriculture
Farm Service Agency

December 22, 2009

PLSS: 24_94_54
Farm: 5875

Yankton County, SD
1:8,300



2013

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.

Vicki Swensen, PT
Yankton County FSA
1-18-2013



United States Department of Agriculture
Farm Service Agency

February 11, 2011

PLSS: 25_94_54
Farm: 5988

Yankton County, SD
1:10,452



Wetland Determination Identifiers

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

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.

2013 Common Land Units

Vicki Swensen, PT
Yankton County FSA 2010 Ortho-Photography - Not to Scale
1-18-13

Prepared By: **Heine Electric and Irrigation, Inc.**

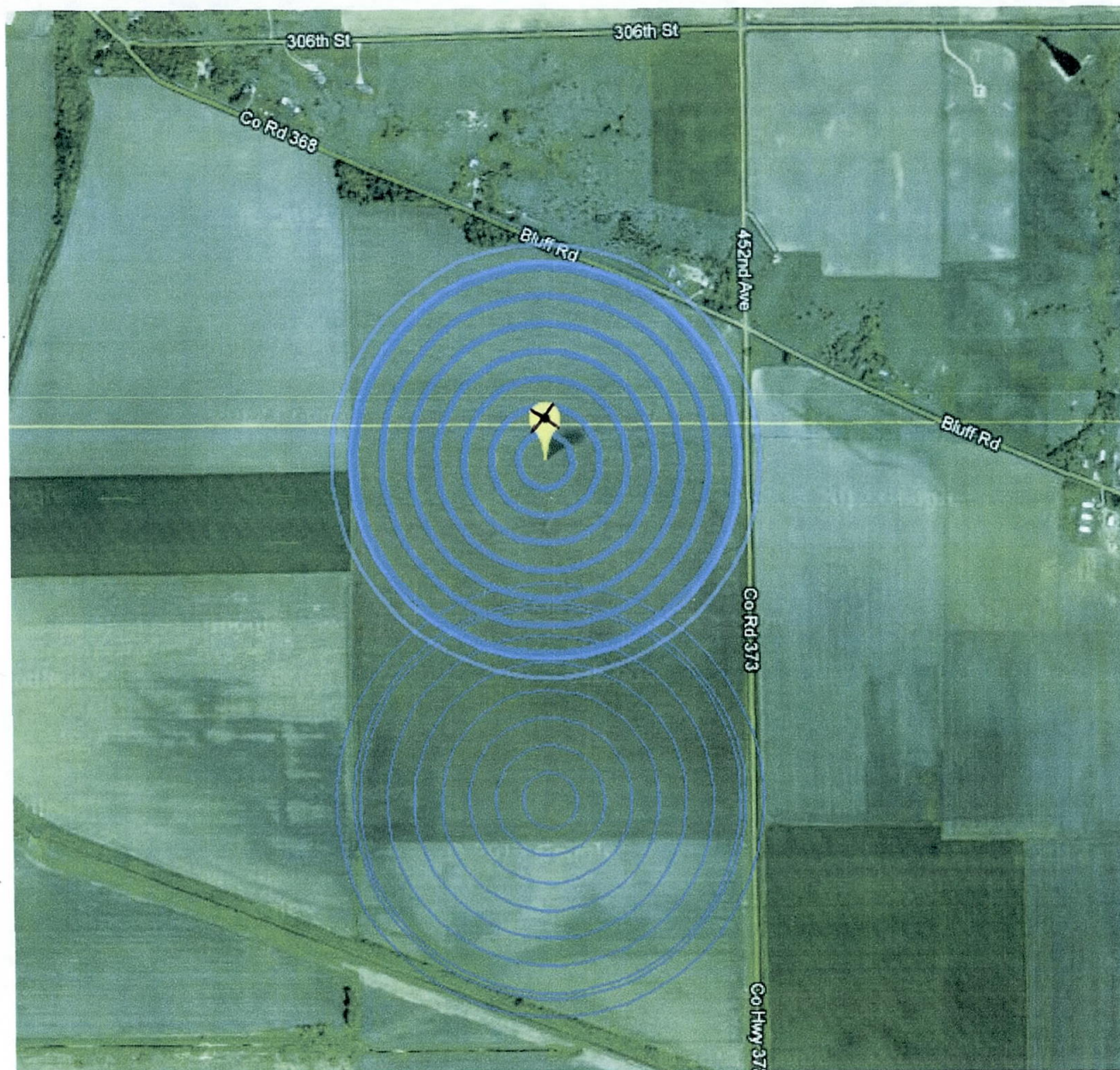
For: **Freeburg Lien north**

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

Lien

Pivot center at 42.945323, -97.165702

- 1 180 ft. Total: 180 ft.
Acreage: 2.34. Total: 2.34 acres.
- 2 180 ft. Total: 360 ft.
Acreage: 7.02. Total: 9.36 acres.
- 3 180 ft. Total: 540 ft.
Acreage: 11.7. Total: 21.06 acres.
- 4 180 ft. Total: 720 ft.
Acreage: 16.38. Total: 37.44 acres.
- 5 180 ft. Total: 900 ft.
Acreage: 21.06. Total: 58.5 acres.
- 6 180 ft. Total: 1080 ft.
Acreage: 25.74. Total: 84.24 acres.
- 7 180 ft. Total: 1260 ft.
Acreage: 30.42. Total: 114.66 acres.
- Overhang** 36 ft. Total: 1296 ft.
Acreage: 6.64. Total: 121.3 acres.
- Spray** 120 ft. Total: 1416 ft.
Acreage: 23.5. Total: 144.81 acres.



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>7660-3</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>7660-3</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. 06015

By

James E. Shale
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 ¼ SE ¼ 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 ¾ 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 ½ NW ¼ Section 4, T92N, R52W and S ½ SW ¼ 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 wipe 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. 7660-3, Gary and 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. 7660-3, Gary and Amy Freeburg, Box 188, Gayville SD 57031.

The Chief Engineer is recommending APPROVAL of Application No. 7660-3 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. 6649-3 and 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 new well authorized by Permit No. 7660-3 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 13, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7660-3
GARY OR AMY FREEBURG
FEBRUARY 25, 2013

Water Permit Application No. 7660-3 proposes to appropriate 1.56 cubic feet of water per second (cfs) from an additional well completed into the Missouri: Elk Point aquifer. The well will be used to irrigate land authorized by Water Right No. 6649-3 and an 82 additional acres. The well will be located in the N $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 24, T94N-R54W, Yankton County. The land to be irrigated is located in the SE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 24 and N $\frac{1}{2}$ NE $\frac{1}{4}$ Section 25, all in T94N-R54W. The proposed well will also supply water to an existing pivot located in the N $\frac{1}{2}$ SE $\frac{1}{4}$ Section 24, T94N-R54W. Water Right No. 6649-3 authorizes 1.78 cfs from one well located 1,320 feet W and 1,930 feet N of the SE corner of Section 24, T94N-R54W to irrigate 168 acres located in the SE $\frac{1}{4}$ and S $\frac{1}{2}$ NE $\frac{1}{4}$ Section 24, T94N-R54W, Yankton County. This application, if approved, when combined with Water Right No. 6649-3 will authorize a total maximum diversion rate of 3.34 cfs for irrigation of a total of 250 acres, with a total appropriation of up to 500 acre feet per year.

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, but is under water-table conditions 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 45,000 acres of Yankton County alone and contains an estimated 675,000 acre-feet of recoverable water in storage in the county (Hedges and others, 1982). The saturated thickness of the aquifer in Yankton County has a range of approximately 50-150 feet (Bugliosi, 1986). 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 wells completed into 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 48 feet as shown in Table 1 (Water Rights 2013a and 2013b).

Well Log Description	Saturated Thickness (ft)
Domestic Christensen	42
Domestic Hult	32
Observation Well YA-57E	59
Well Log for WR 6649-3	80
Well Log for WR 6900-3	69
Well Log for WR 7091-3	32
Well Log for WR 7374-3	28

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 an additional 164 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 Yankton County of 45,000 acres, average annual recharge to the aquifer in Yankton County alone is estimated to be 14,250 acre-feet per year.

Discharge:

Discharge from the Missouri: Elk Point aquifer in Yankton 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 92 water rights/permits appropriating water from this aquifer in Yankton County alone (Water Rights, 2013c). The distribution of these appropriations and their types are shown in Table 2.

Water Rights/Permits	Number
Commercial	4
Fish and Wildlife Propagation	4
Industrial	3
Irrigation	77
Municipal	2
Suburban Housing Development	2

Table 2. Water Rights from the Missouri: Elk Point aquifer in Yankton 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.

The expected water use for non-irrigation purposes from the Missouri: Elk Point aquifer in Yankton County is less than 5,000 acre-feet per year based on current water appropriations.

The annual reported water use in Yankton 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 2,433 acre-feet per year.

YEAR	NO. OF PERMITS	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
1979	22	12010	897
1980	22	12010	2735
1981	32	14405	1975
1982	28	12234.8	1112.97
1983	29	12417.6	1441.23
1984	31	13012.5	999.9
1985	28	12097.6	1078.8
1986	29	12417.6	1328
1987	29	12417.6	1870.7
1988	29	12417.6	2209.05
1989	29	12417.6	4154.7
1990	28	12097.6	3452.5
1991	27	11497.6	3757.7
1992	28	11497.6	675.25
1993	28	11658.8	215.1
1994	27	11396.4	1177.67
1995	25	10964.4	2401.99
1996	26	11176.8	2500.88
1997	27	11176.8	3020
1998	27	10794.4	1928.26
1999	27	11113.4	1960.91
2000	27	11053.4	2834.73
2001	29	11993.4	3364.73
2002	31	12441.4	4397.56
2003	31	12985.4	3243.99
2004	35	13681.4	3462.22
2005	36	13993.4	3588.05
2006	41	15845.4	3964.97
2007	44	16297.4	4580.36
2008	58	21840.2	5212.69
2009	62	22498.2	1323.24
2010	66	23674.2	613.56
2011	70	24858.2	3015.21
MIN	22	10794.4	215.1
MAX	70	24858.20	5212.69
AVE	33.58	13708.9	2439.21

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

Comparison of the estimated average annual withdrawal with the estimated average annual recharge for the Missouri: Elk Point aquifer in Yankton County indicated that the average annual withdrawal from the aquifer is less than the estimated average annual recharge to the aquifer. There are also new permits and pending applications for water use from the Missouri: Elk Point aquifer that is 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 21, 2013, an additional 23 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 41.89 cfs, and 3,148.3 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	2.0	120
7627-3	1.78	67
7630-3	3.34	160
TOTAL	41.89	3148.3

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

The average annual withdrawal is still expected to be less than the estimated annual recharge from seepage, infiltration, discharge from other aquifers, and induced recharge from the Missouri River. Due to this, there is reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer for the 164 acre-feet per year additional appropriation proposed by 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 2.8 miles west of the well site proposed by this application (Water Rights, 2013a). A hydrograph for this well is shown on Figure 1.

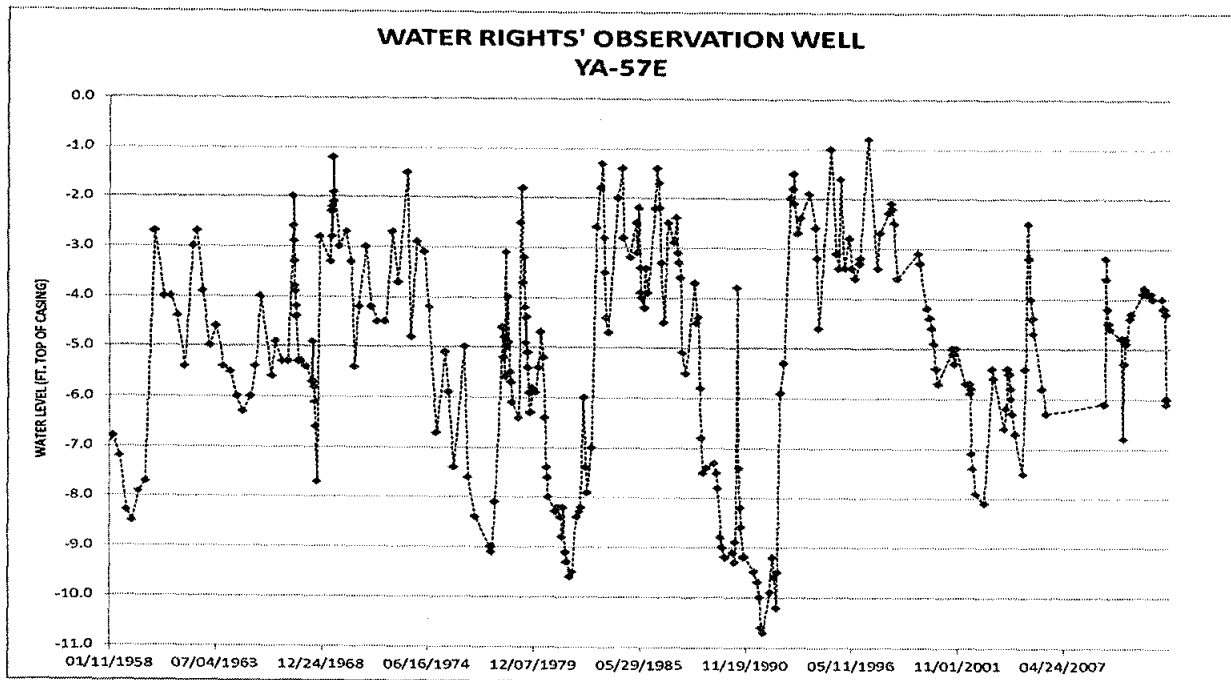


Figure 1. Hydrograph for DENR – Water Rights Observation well YA-57E completed into the Missouri: Elk Point aquifer approximately 2.8 miles west of the well site proposed by Water Permit Application 7660-3 (Water Rights, 2013a).

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), and that drawdown is not significant.

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 six and one half miles east of the James River and seven miles north of the Missouri River in a portion of the Missouri: Elk Point aquifer that extends north of the Missouri River for approximately seven and one half miles to the edge of the aquifer. 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
6649-3	Gary and Amy Freeburg	LC	IRR	1.78	168
6900-3	Wade Larson	PE	IRR	4.57	320
7091-3	Logue Partnership	PE	IRR	1.44	138
7374-3	Logue Partnership	PE	IRR	1.44	268
LC = Water Right, PE = Water Permit, IRR = Irrigation					

Table 5. Water rights / permits within about one and one half miles of the well site proposed by Water Permit No. 7659-3 (Water Rights, 2013c).

Additional drawdown caused by the proposed well could be measurable in wells that supply Water Permit 7091-3 (0.9 miles northeast) and Water Right 7374-3 (0.9 miles east), as well as the nearest domestic well (0.9 miles north) on file with the DENR – Water Rights Program. Drawdown levels could also increase in the applicants own well under Water Right 6649-3. The precise drawdown cannot be quantified without aquifer testing. With that in mind, a standard permit qualification to most groundwater permits/rights states that:

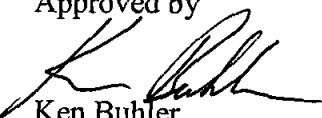
“The well approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having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

SDCL 46-6-6.1 and ARSD 74:02:04:20(7) ensure that interference will not be adverse to domestic well users and those with existing appropriative rights with adequate wells. 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. This application proposes to appropriate 1.56 cfs from the Missouri: Elk Point aquifer for the purpose of irrigating land covered under Water Right No. 6649-3 and an additional 82 acres.
2. The total appropriation from Water Right No. 6649-3 and this application, if approved, is 3.34 cfs and 500 acre feet per year.
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. "Annual Irrigation Summary by Aquifer": 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

MAR 25 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

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, YANKT
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUN
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Application No. 7659-3 and 7660-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 22nd DAY OF March 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICAT
OF SAID NOTICE TO WIT \$42.87 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HA
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THERE
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 3/22/2013

FILED ON: 3/22/2013

SUBSCRIBED AND SWORN TO BEFORE ME THIS 22nd DAY OF March 2013

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

plications 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 1, 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. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$42.87.

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

Application No. 7659-3 proposes to appropriate 2.0 cubic feet of water per second (cfs) from an additional well to irrigate land authorized by Water Right No. 5971-3 and 37.25 new acres. Water Right No. 5971-3 authorizes 1.88 cfs from one well located in the center of the S 1/2 Section 9 to irrigate 238 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4, S 1/2 NE 1/4, SE 1/4 Section 9; all in T94N-R54W. This application proposes to appropriate 2.0 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the SE 1/4 SE 1/4 Section 9 for irrigation of 37.25 acres located in the SE 1/4 Section 9; all in T94N-R54W. The well will supply water to the existing pivot located in the N 1/2 SE 1/4, S 1/2 NE 1/4 Section 9-T94N-R54W authorized by Water Right No. 5971-3. This application, if approved, and Water Right No. 5971-3 will authorize a total diversion rate of 3.88 cfs from 2 wells for irrigation of 275.25 acres.

Application No. 7660-3 proposes to appropriate 1.56 cfs from an additional well to irrigate land authorized by Water Right No. 6649-3 and 82 new acres. Water Right No. 6649-3 authorizes 1.78 cfs from one well located in the N 1/2 SE 1/4 Section 24 to irrigate 168 acres located in the SE 1/4, S 1/2 NE 1/4 Section 24; all in T94N-R54W. This application proposes to appropriate 1.56 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the N 1/2 SE 1/4 Section 24 for irrigation of land authorized by Water Right No. 6649-3 and 82 new acres located in the SE 1/4, S 1/2 NE 1/4 Section 24 and N 1/2 NE 1/4 Section 25; all in T94N-R54W. This will allow two pivots to operate simultaneously. This permit, if approved, and Water Right No. 6649-3 will authorize 3.34 cfs from two wells to irrigate 250 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7659-3 and 7660-3 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 ap-



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 14, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7659-3 and 7660-3 to Appropriate Water. Please publish the notice once on March 22, 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 and 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

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

March 14, 2013

Gary and Amy Freeburg
PO Box 188
Gayville SD 57031

Dear Sir:

Water Permit Application Nos. 7659-3 and 7660-3 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 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 22, 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. 7659-3 and 7660-3 to Appropriate Water

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

Application No. 7659-3 proposes to appropriate 2.0 cubic feet of water per second (cfs) from an additional well to irrigate land authorized by Water Right No. 5971-3 and 37.25 new acres. Water Right No. 5971-3 authorizes 1.88 cfs from one well located in the center of the S 1/2 Section 9 to irrigate 238 acres located in the E 1/2 SW 1/4, W 1/2 SE 1/4 NE 1/4, S 1/2 NE 1/4, SE 1/4 Section 9; all in T94N-R54W. This application proposes to appropriate 2.0 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the SE 1/4 SE 1/4 Section 9 for irrigation of 37.25 acres located in the SE 1/4 Section 9; all in T94N-R54W. The well will supply water to the existing pivot located in the N 1/2 SE 1/4, S 1/2 NE 1/4 Section 9-T94N-R54W authorized by Water Right No. 5971-3. This application, if approved, and Water Right No. 5971-3 will authorize a total diversion rate of 3.88 cfs from 2 wells for irrigation of 275.25 acres.

Application No. 7660-3 proposes to appropriate 1.56 cfs from an additional well to irrigate land authorized by Water Right No. 6649-3 and 82 new acres. Water Right No. 6649-3 authorizes 1.78 cfs from one well located in the N 1/2 SE 1/4 Section 24 to irrigate 168 acres located in the SE 1/4, S 1/2 NE 1/4 Section 24; all in T94N-R54W. This application proposes to appropriate 1.56 cfs from a well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the N 1/2 SE 1/4 Section 24 for irrigation of land authorized by Water Right No. 6649-3 and 82 new acres located in the SE 1/4, S 1/2 NE 1/4 Section 24 and N 1/2 NE 1/4 Section 25; all in T94N-R54W. This will allow two pivots to operate simultaneously. This permit, if approved, and Water Right No. 6649-3 will authorize 3.34 cfs from two wells to irrigate 250 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7659-3 and 7660-3 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 1, 2013.

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

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

Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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:

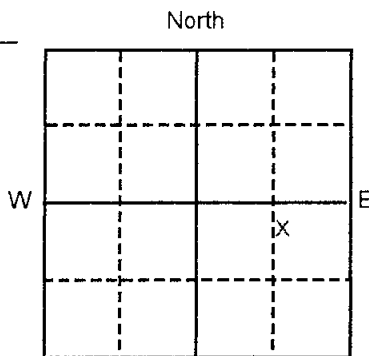
COMMENTS:

AUTHORIZATION: *Jeanne Goodman*

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 SE 1/4 Sec 24 Twp 94N Rg 54WCounty YanktonPlease mark well
location with an "X"

Well Completion Date

June 7, 2013

 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:

Direct Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	73.0 FT	24.00 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	20	9.5 Lb/gal	0.0 Ft	60.0 Ft
		Lb/gal	Ft	Ft

 Describe grouting procedure
 Tremie Method

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 16.00 Inches Length 30.0 Feet
 Material PVC
 Slot Size .050 Set From 73.0 Feet to 103.0 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 or Amy Freeburg

Business Name:

Address: POB 188City, State, Zip: Gayville SD 57031

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	2
Clay	2	38
Silty Sand	38	40
Clay Gravel Mix	40	46
Dirty Gravel	46	55
Sandy Fine Gravel	55	75
Gravel	75	103

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow through

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

RECEIVED

OCT - 4 2013

WATER RIGHTS

PROGRAM

This 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: 9/20/13

7660-3



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

RECEIVED

JAN 22 2015

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

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

No. 7660-3

Date: 1-19-15

I/We request that Water Permit No. 7660-3

formerly owned by: Gary & Amy Freeburg

be transferred to: (name & address) Freeburg Limited Partnership
P.O. Box 188 Gayville SD 57031
Telephone No. _____

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

82 acres – SE ¼, S ½ NE ¼ Section 24 and N ½ NE ¼ Section 25, T94N, R54W

I/We understand that the validity of Water Permit No. 7660-3 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>7660-3</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. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No. 07166

By *James Handman Jr*
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

Permit No. 6649-3
Vermillion River - Water District

Contact Person & Address: **Tom Dreesen, 45916 W Hwy 50, Vermillion SD**

Report Of Examination Of Works

On, **February 8, 2012**, I made a thorough examination of the water use system constructed by **Gary and Amy Freeburg** holder of Permit No. **6649-3**, bearing the priority of **August 10, 2005** authorizing the diversion of **2.0** cu. ft. per second of the waters of **ground water - Missouri:Elk Point** for **irrigation** purposes, in **Yankton** County.

The system is in the following condition **good**. The point of diversion is located the **from the SE corner of Sec 24 T94N-R54W: 1320 ft W and 1930 ft N** with a longitude of **-97.165622** and a latitude of **42.943802** as determined using **GPS**. The works are capable of diverting and conveying to the place of use **1.78** cu. ft. per second of water which is to be used for **irrigation**. Water has been put to beneficial use to the maximum extent as follows:

All land is located in **Sec 24 T94N-R54W**

SE ¼ NE ¼ - 22 ac **SW ¼ NE ¼ - 22 ac**
NW ¼ SE ¼ - 40 ac **NE ¼ SE ¼ - 40 ac** **SE ¼ SE ¼ - 22 ac** **SW ¼ SE ¼ - 22 ac**

comprising a total of **168** acres of land and the license should be issued for **1.78** cfs.

Review of Permit Qualifications And Regulations:

- 1) Special qualifications to permit being abided by **yes**
- 2) All structures, wells and lands on map **yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period **yes**.
- 4) Exceptions to compliance are: **none**

Report On the Specifics of the System

Diversion Point Information:

Well Information:

- 1) Well Drilling Firm: **Hammond Wetmore** 2) No. of Wells **1** 3) Depth(s) **112** feet 4) Well log is available **yes**

Casing:

- 1) Diameter **16** inches 2) Length **55** feet 3) Type **pvc**

Screen:

- 1) Type **pvc** 2) Length **57** feet 3) Static water level **21** feet

Pump:

- 1) Make Flow Serve 2) Model Submersible 3) Capacity 800 GPM

Motor:

- 1) Make Flow Serve 2) Model No. submersible 3) Horsepower rating 40 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type pvc

SYSTEM TYPE:

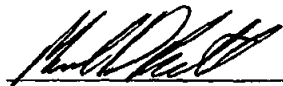
Center pivot:

- 1) Make Valley 2) Overall length 1450 feet
3) Number of towers 8 with corner unit 4) End gun yes
5) High or low pressure low 6) Capacity 800 GPM

CHEMIGATION EQUIPMENT:

- 1) Does chemigate no

Comments : none



Mark D. Rath
Natural Resources Engineering Specialist
DENR, Water Rights Program

5-23-12

Date

**Permit No. 7660-3
Yankton County**

Report of Examination of Works and/or Application of Water to Beneficial Use

To: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, June 23, 2015 made a thorough examination of the water system used by the Freeburg Limited Partnership, PO Box 188, Gayville, SD 57031, holder of Water Permit No. 7660-3, bearing the priority date of January 22, 2013. Water Permit No. 7660-3 authorizes the diversion of 1.56 cubic feet per second (cfs) or 700 gallons per minute (gpm) from one well completed into the Missouri: Elk Point aquifer for the purpose of irrigating 82 acres in Yankton County as follows: 23 acres in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 25, 23 acres in the NW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 25, 18 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, and 18 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, all in T94N-R54W. This increase in acreage brings the total amount of land irrigated by Water Permit No. 7600-3 and Water Right No. 6649-3 to 250 acres.

I have the following conditions to report for the system in question:

- 1) Works used to divert water:
One turbine pump, manufactured by Grundfos.
- 2) Works used to transport water to a place of use:
Underground and above ground pipes, 8 inch diameter.
- 3) Works used to apply water to beneficial use:
Two Valley Pivots.

Information regarding the existing pivot and well (authorized by Water Right No. 6649-3) can be found in the Report of Examination and Works for Water Right No. 6649-3.

The system is in the following condition: well maintained. The wells associated with Water Permit No. 7660-3 and Water Right No. 6649-3 are located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T94N-R54W. The exact locations the wells are as follows:

- 1) **2,050 feet north and 1,300 feet west of the southeast corner of Section 24, T94N-R54W. Lat 42.94414N Lon 97.16566W. (7660-3)**
- 2) **2,600 feet north and 1,300 feet west of the southeast corner of Section 24, T94N-R54W. Lat 42.94504N Lon 97.165658W. (6649-3)**

The lands irrigated by the fore mentioned well are as follows:

- 1) 29 acres in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 24, T94N-R54W.
- 2) 29 acres in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 24, T94N-R54W.
- 3) 40 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T94N-R54W.
- 4) 40 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T94N-R54W.
- 5) 40 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T94N-R54W.
- 6) 40 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 24, T94N-R54W.
- 7) 18 acres in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 25, T94N-R54W.
- 8) 14 acres in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 25, T94N-R54W.

For a total of 250 acres under Water Right No. 6649-3 and Water Permit No. 7660-3

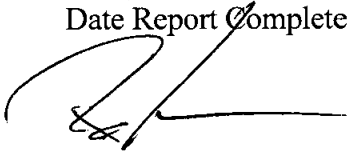
License should be issued for the developed diversion rates of: ~~1.56 cfs or 700 gpm for a total of~~
~~3.34 cfs or 1,500 gpm, 1.78 cfs or 800 gpm of which is authorized under Water Right No.~~

~~6649-3.~~

Applicable permit qualifications have been complied with: **Yes**

Exceptions to compliance are: **None**

Date Report Completed: **June 29, 2015**



Bracken Capen

Natural Resources Engineer

DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR WATER PERMIT NO. 7660-3

DATE OF INVESTIGATION:	June 23, 2015
NAME & ADDRESS OF PERMIT HOLDER	Freeburg Limited Partnership PO Box 188 Gayville, SD 57031
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Jory Freeburg
DIVERSION POINT LEGAL LOCATIONS	2,050 feet north and 1,300 feet west of the southeast corner of Section 24, T94N-R54W. Lat 42.94414N Lon 97.16566W. (7660-3) 2,600 feet north and 1,300 feet west of the southeast corner of Section 24, T94N-R54W. Lat 42.94504N Lon 97.165658W. (6649-3)

WELL INFORMATION:

For the new well, Water Permit No. 7660-3

- 1) Well Drilling Firm:
Hammond Wetmore Drilling
- 2) Number of Wells: **1**
- 3) Depth: **103 feet**
- 4) Well Logs Available: **Yes**
- 5) Comment:

Pumps

- 1) Make:
- 2) Model:
- 3) Size:
- 4) Capacity: **700 gpm (1.56 cfs)**

Casing

- 1) Diameter: **16 inches**
- 2) Length: **73 feet**
- 3) Type: **Plastic**

Screen

- 1) Type: **Manufactured**
- 2) Length: **40 feet**
- 3) Static Water Level: **Unknown**

Motor

- 1) Make:
- 2) Model No:
- 3) Power: **20 hp**

System Type

- 1) Make: **Valley**
- 2) Overall length: **1,300 feet**
- 3) Number of Towers: **7 towers**
- 4) Distance Between Towers:
- 5) End Gun: **Yes**
- 6) Pressure:
- 7) Capacity: **700 gpm**

CHEMIGATION EQUIPMENT: No

- 1) Mainline Check Valve:
- 2) Low Pressure Drain:
- 3) Inspection Port/Air Relief:
- 4) Discharge 20 Feet Away:
- 5) Injection Line Check Valve or Positive
Displacement Pump:
- 6) Injection Check Valve:
- 7) Properly Installed:

PERMIT QUALIFICATIONS:

- 1) Special qualifications to permit being abided by: **N/A**
- 2) All structures, wells, and lands on map: **Yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by end of construction period: **Yes, irrigation from 2013 to present.**
- 4)

COMMENTS: Information regarding the existing pivot and well (authorized by Water Right No. 6649-3) can be found in the Report of Examination and Works for Water Right No. 6649-3.

RECEIVED

JUL 06 2015

WATER RIGHTS
PROGRAM

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

Date 6-30-15

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

FROM: Jory Freeburg
(name)
30874 457th Ave
(address)
Volin, SD 57072
(city, state, zip)

605-661-0363
(phone)

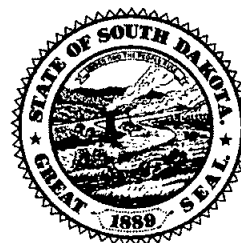
I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

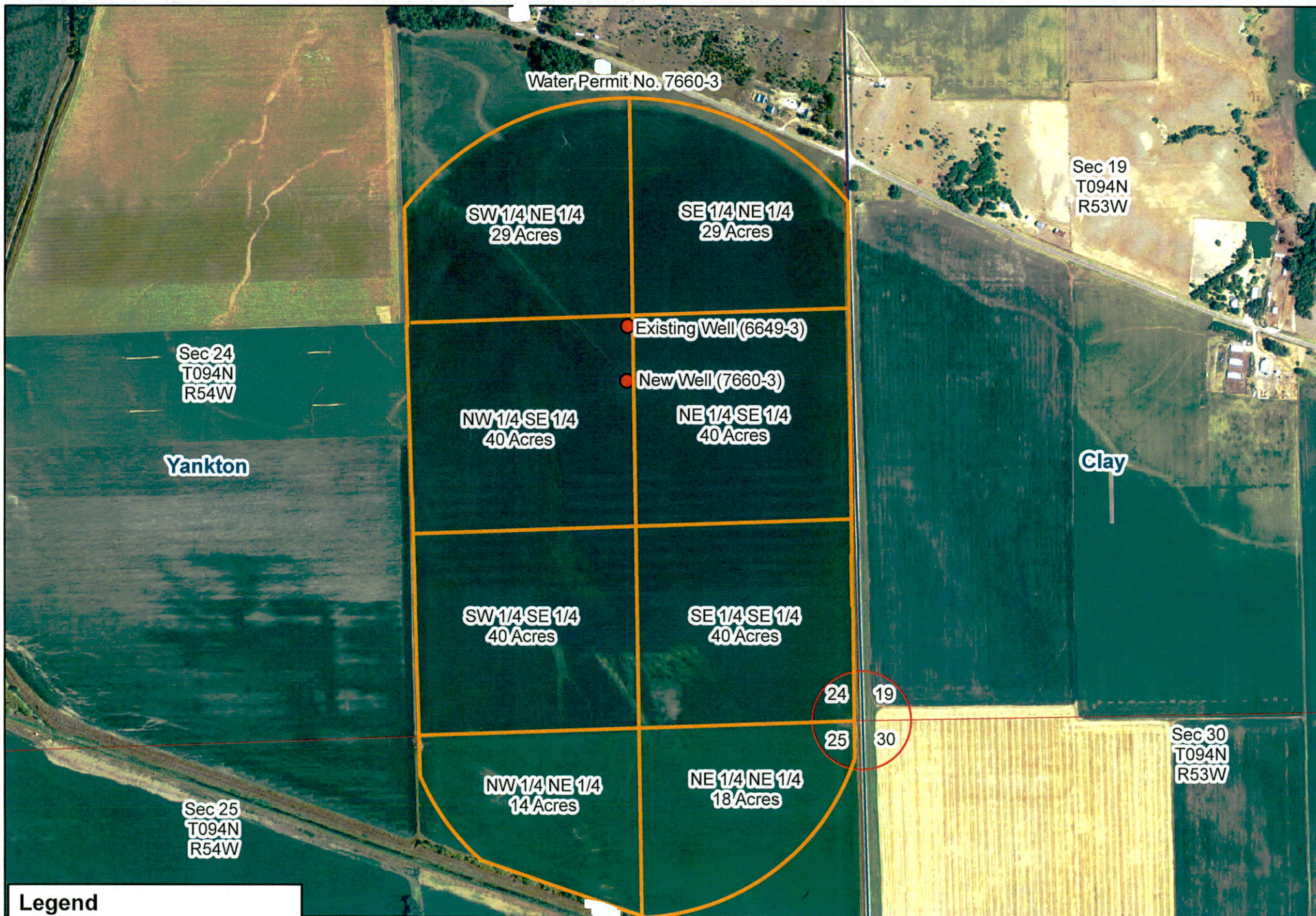
Water Permit No. 7660-3 states that the water use system is to be constructed by April 1, 2018, and water is to be put to beneficial use by April 1, 2022.
(date) (date)

The water use system was completed on June 2013.
(date)

Applying the water to beneficial use was completed on June 2013.
(date)

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





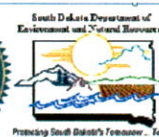
Legend

- Irrigated_Acres
- Section Boundaries - PLSS
- Well Location



0 0.05 0.1 0.2 Miles

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





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

AUG 27 2015

6649-3

7660-3

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

Dear Mr. & Mrs. Freeburg:

Enclosed is Water License No. 7660-3. 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 the owner of an existing well, such as the wells authorized by Water Right No. 7660-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

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

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

enclosures

c: Upon licensing, the applicable portions of Water Right No. 6649-3 were incorporated into Water License No. 7660-3.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7660-3**

(1) Gary and Amy Freeburg, PO Box 188, Gayville SD 57031 made Application No. 7660-3, January 22, 2013 for a water permit to divert 1.56 cubic feet of water per second (cfs) from ground water – one additional well (Missouri Elk Point Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 7660-3, with a priority date of January 22, 2013 was approved April 1, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 1, 2018 and for the application to beneficial use of said water on or before April 1, 2022.

Water Right No. 6649-3, with a priority date of August 10, 2005, authorizes diversion of 1.78 cfs from one well to irrigate 168 acres. Water Permit No. 7660-3 authorized an additional well, 1.56 cfs diversion authority and an additional 82 acres to the existing system authorized under Water Right No. 6649-3.

On January 22, 2015, Water Right No. 6649-3 and Water Permit No. 7660-3 were transferred to Freeburg Limited Partnership.

The Permit holder submitted a *"Notice of Completion of Works and Application of Water to Beneficial Use"* for Permit No. 7660-3 on July 6, 2015. The *"Notice"* stated the water use system was completed and the water placed to beneficial use in June, 2013.

The applicable portions of Water Right No. 6649-3 are incorporated into this water license. The original well and 1.78 cfs diversion authority retain a priority date of August 10, 2005. The second well and 1.56 cfs diversion authority retain a priority date of January 22, 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 3.34 cubic feet of water per second for beneficial use. The location of the diversion points are:

- 2,050 feet north & 1,300 feet west of the SE corner of Section 24, T94N, R54W (**priority date of January 22, 2013 as established under Water Permit No. 7660-3**)
- 2,600 feet north and 1,300 feet west of the SE corner of Section 24, T94N, R54W (**priority date of August 10, 2005 as established under Water Right No. 6649-3**).

(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 24, T94N, R54W		Section 24, T94N, R54W		Section 25, T94N, R54W	
SE ¼ NE ¼	29 acres	NE ¼ SE ¼	40 acres	NE ¼ NE ¼	18 acres
SW ¼ NE ¼	29 acres	NW ¼ SE ¼	40 acres	NW ¼ NE ¼	14 acres
		SW ¼ SE ¼	40 acres		
		SE ¼ SE ¼	40 acres		

Total irrigated acres - 250

continued

(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 Incorporated Water Right No. 7660-3 is issued a license to appropriate water, the right to use 3.34 cubic feet of water per second from ground water – two wells (Missouri Elk Point Aquifer) with priority dates of January 22, 2013 (1.56 cfs) and August 10, 2005 (1.78 cfs) from the locations specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Incorporated Water Right No. 7660-3 and subject to the following qualifications:

- The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The wells authorized by Permit Nos. 6649-3 and 7660-3 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 wells were constructed by Hammond-Wetmore Drilling LLC in February 2006 (No. 6649-3) and June 2013 (No. 7660-3). Copies of the well logs are 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

AUG 27 2015

date

