

WATER PERMIT NO. 7713-3

Name of Applicant: Mike Chicoine

Address: 508 E Clay St, Elk Point SD 57025 Phone: 712 898-9173

Amount of Water Claimed: 2.22 cfs Total Acres: 144.29

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Union

Type of Waste Disposal System:

Location: 2 miles west of Elk Point

PRIORITY Date Received: 2-4-13 Application/License Fee: \$ 1050

Corrected Application Received: 2-25-13 Period of Annual Use: April 1 – October 31

Remarks: Requesting diversion rate greater than statutory limit

Diversion Point: Sec 22-T91N-R50W

Land to be Irrigated: E 1/2 NW 1/4, W 1/2 NE 1/4

Sec 22-T91N-R50W

			22		

Depth of Well: 120 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 2-26-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to: PMB 2020 DENR - Water Rights 523 E. Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7713-3</u> (office use only) Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri River</u>
	Newspaper <u>Leader Courier</u>
	<u>Press & Dakotan</u>

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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 Mike Chicoine Mike Chicoine
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)
- Mailing Address 508 ECLAY ST EIKPOINT S.DAK 57025
(Address) (City) (State) (Zip Code)
- Home Phone _____ Cell 1-712-898-9173 Email _____
2. Amount of water claimed 2.22 *CFS or 1000 **GPM ***AF Total Acreage 144.29
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Sand & Gravel Well
4. Location of point of diversion See Map
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
Well NW NWSE of 27-91-50 County Union
5. County or counties where water will be used Union
6. Annual period during which water is to be used Spring & Summer May 1 - Oct. 31
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
Overlapping Another pivot See map	144.29		
in back			
E 1/2 NW 1/4 - W 1/2 NE 1/4			
Sec 27 - T91N - R50W			

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

requesting diversion rate greater than statutory limit

I, Mike Chicoine, 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. 7713-3**

Date of first receipt of application February 4, 2013.

Date of return to applicant for corrections, amendments or changes February 13, 2013.

Date of receipt of corrected application February 25, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7713-3 to Mike Chicoine, 508 E Clay St, Elk Point SD 57025 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. 7713-3 appropriates 2.22 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SE 1/4 NW 1/4, SW 1/4 NE 1/4 Section 27 to irrigate 144.3 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4, NE 1/4 SW 1/4, NW 1/4 SE 1/4, Lot A in SE 1/4 SW 1/4, Lot A in the SW 1/4 SE 1/4 and Chaussee Tract 1 Section 27; all in T91N-R50W.
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: March 1 – October 31.
3. The date from which applicant may claim right is February 4, 2013.
4. The date of approval of Permit No. 7713-3 is May 28, 2013.
5. One-fifth of the construction is to be completed on or before November 28, 2015.
6. All construction is to be completed on or before May 28, 2018.
7. Water is to be put to beneficial use on or before May 28, 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

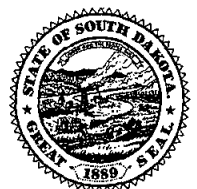
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by this Permit 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7713-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 144.3 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

JUN 20 2013

date



Supplemental Information

(Complete applicable portions only)

(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 _____
(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 120' Depth to Top of Water Bearing Material 75' Depth to Water from Surface 15'

d) Distance to nearest existing domestic well:

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

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

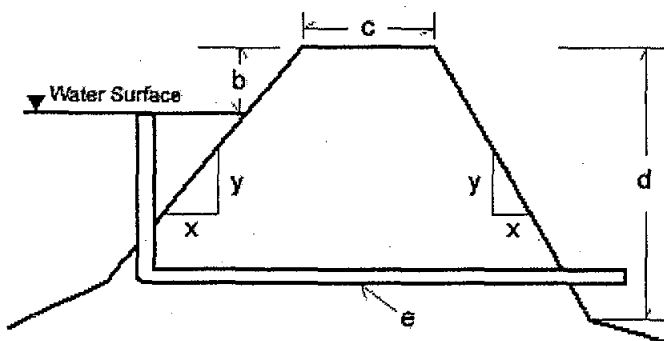
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Mike Chicoine - Application designated "South"

South Center of ~~NW 1/4 of NW 1/4 9-91-50~~ E 1/2 of NW 1/4 and W 1/2 of NE 1/4.



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Sec 16
T091N
R50W

Sec 15
T091N
R50W

Sec 14
T091N
R50W

Sec 21
T091N
R50W

Sec 22
T091N
R50W

Sec 23
T091N
R50W

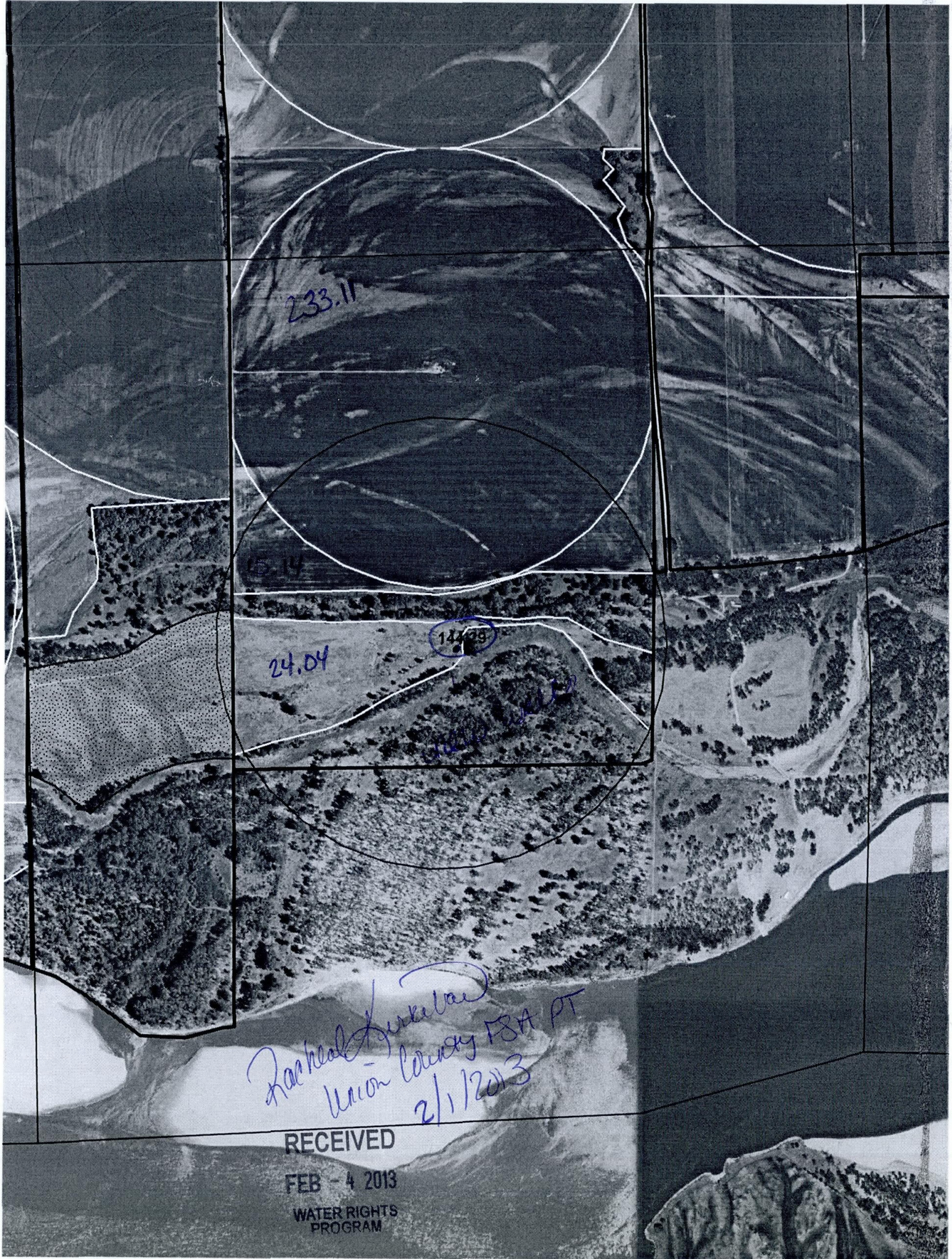
Sec 0
T091N
R50W

Sec 27
T091N
R50W

Sec 26
T091N
R50W

Sec 28
T091N
R50W



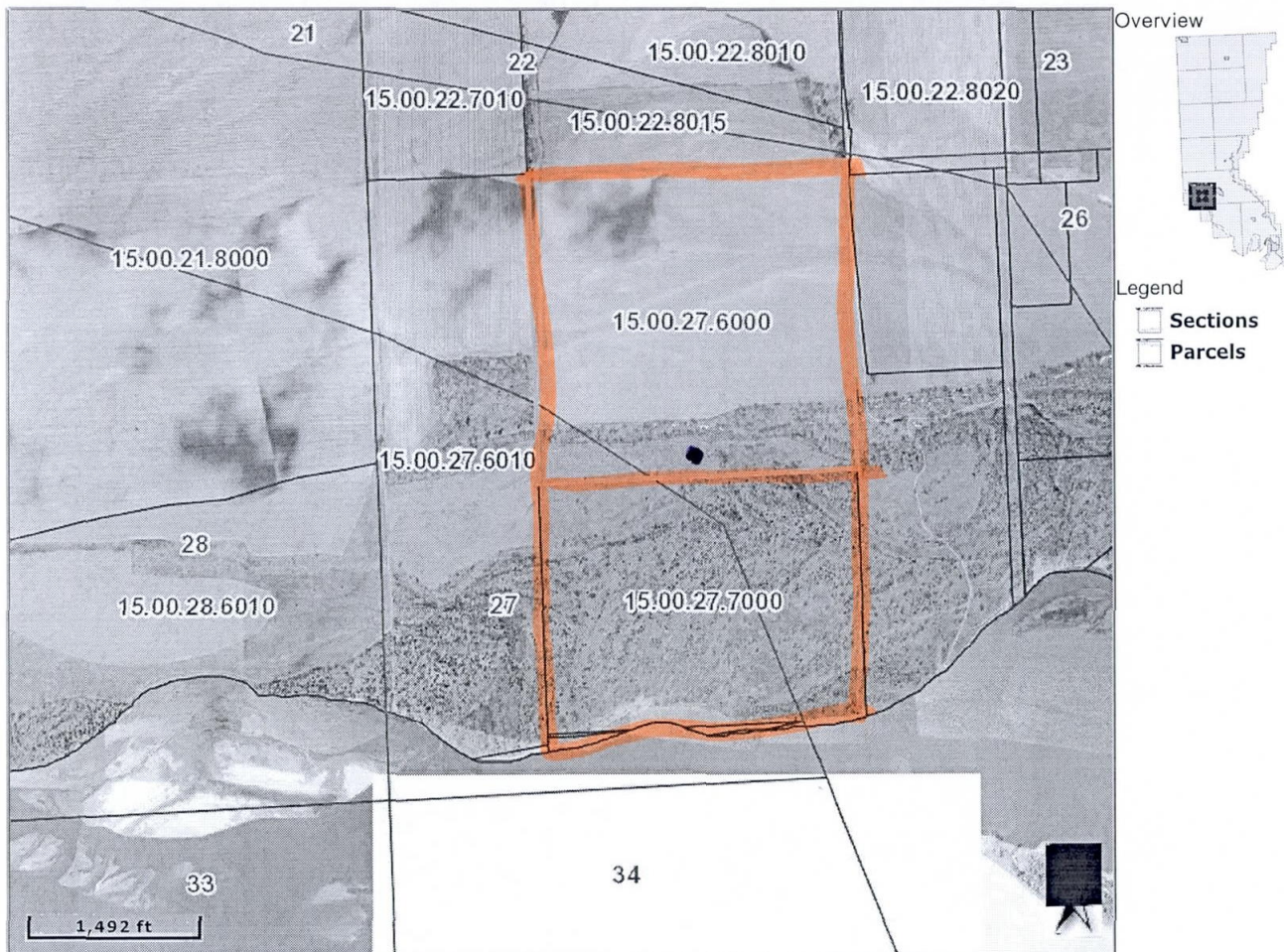


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Date Created: 2/20/2013



Parcel ID	15.00.27.6000	Alternate ID	n/a	Owner Address	FOX, KATHRYN ETAL
Sec/Twp/Rng	27-91-50	Class	AGA		FOX, JOHN & KATHRYN TRUSTEES
Property Address		Acreage	160.00		2614 HARRIS AVE
					RICHLAND WA 99352
District	15617E				
Brief Tax Description	E1/2NW1/4 & W1/2NE1/4				
	(Note: Not to be used on legal documents)				

Last Data Upload: 2/20/2013 8:59:12 AM

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/5, 20 13

RECEIVED OF Michael J Chocoine 508 E Clay Elk Point SD 57025

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

Fee for Application for Permit No. <u>7713-3</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>7713-3</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. 06096

By [Signature]

Chief Engineer



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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 13, 2013

Mike Chicoine
508 E Clay Street
Elk Point SD 57025

Dear Mr. Chicoine:

The Water Rights Program received the four water permit applications filed by for irrigation in Union County. Specifically you designate them by name as the 'Davis', 'North', 'South' and 'est Jeff' properties. Item Nos. 4 and 7 on the applications refer to providing the legal location of the well locations and irrigated acres. The application states to "see maps". The application does require the applicant to provide the legal description of the diversion point and irrigated acres. In this area legal descriptions can be complicated with irregular section size due to the river. It is not uncommon for land to be accretion land due to deposition or reconfiguring of the river channel over the years. Also in some instances the deed actually references the Nebraska survey instead of the South Dakota survey.

Due to the reasons above, the Water Rights Program wants to make sure we have the proper land description so the permit has proper legal standing. Please check with the Union County register of deeds and provide to us the legal description for the areas encircled on the attached maps and provide specific legal locations of the proposed well sites. Specifically each application needs the following.

Davis application (Mike Chicoine)

- The application lists a portion of the proposed pivot overlaps with Water Permit No. 7221-3. That may mean that the 125 acres to be irrigated is greater than the new acres to be irrigated.
↳ 113 acres
- The map shows that some of the acreage on the southern portion of the pivot may be accretion lands. If so the application should reflect how they are described on the deed for this property.
- Provide legal location of proposed well and acres to be irrigated.

✓ North application (Mike and Brad Chicoine) James Chicoine

- Application requests 800 gpm for 74.54 acres. That is above the amount allowed by water rights law. However, there is the ability to request greater than the statutory limit. I presume this is a standard quarter section pivot that only make a windshield wipe rotation and needs 800 gpm to operate efficiently. Is that correct? Yes

- Well appears to be in the approximate center of the NW ¼ Section 22 (may be slightly into the NE ¼ NW ¼). Is that correct? *yes*
- Overlap of acres due to Water Right No. 2620-3 is represented on map. Is this a fair representation? *yes*
- Provide acreage breakdown under Item No. 7.

South application (Mike Chicoine)

- Well location can not be readily identified on map. Mark location of well on map and provide legal description under Item No. 2 on application.
- Application states a diversion rate of 1000 gpm. Statutory limit for this many acres is 925 gpm. Please concur with this amount or provide reason for greater amount. *Light, sand ground*
- Appears that there is overlap with Water Right No. 2621-3 and only about 104 new acres will be irrigated. It is okay to be high on the acreage estimate and let that issue be addressed at licensing. *yes*
- This is an area of very complex legal description involving accretion lands and the Nebraska Survey. Please provide legal descripts for the pivot location and breakdown of acres as appropriate.

Est Jeff Application (James Chicoine)

- Requested rate is 750 gpm for irrigation of 59.32 acres. Statutory limit is 380 gpm for 59.32 acres. Please provide justification for greater amount.
- Submitted map does not outline the acres to be irrigated or the location of the proposed well. Please mark the well location and outline acres to be irrigated and complete Item Nos. 4 and 7 on the application. Section 8 appears to be a normal section that follows standard designation of quarter-quarters in describing legal locations.

2 W 1/2 NW 8-90-48

I understand that other water rights in this vicinity may have used the standard quarter-quarter designation. It is the Water Rights Program's goal to insure that all future permitting use the proper legal description as listed on the deed for the property. DENR can not complete the application based on "see map" for determining the legal locations. That must be provided by the applicant.

Please let me know if you have any questions.

Sincerely,

Eric Gronlund
Eric Gronlund

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

enclosure



**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. 7713-3, Mike Chicoine**

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. 7713-3, Mike Chicoine, 508 E clay Street, Elk Point SD 57025.

The Chief Engineer is recommending APPROVAL of Application No. 7713-3 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 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 this Permit 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7713-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 114.3 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
May 9, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NOS. 7711-3 AND 7713-3
MIKE CHICOINE
MARCH 26, 2013

Water Permit Application No. 7711-3 proposes to appropriate water at a maximum diversion rate of 1.67 cubic feet of water per second (cfs) from one well to be completed into the Missouri: Elk Point aquifer located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 20 for irrigation of 115 acres located in the S $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 29; all in T91N-R50W, Union County. The well is expected to be 143 feet deep. The application seeks a diversion rate greater than the statutory limit of 1.0 cfs per 70 acres.

Water Permit Application No. 7713-3 proposes to appropriate water at a maximum diversion rate of 2.22 cfs from one well to be completed into the Missouri: Elk Point aquifer located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 6 for irrigation of 144.29 acres, all in T91N-R50W, Union County. The well is expected to be 120 feet deep. The application seeks a diversion rate greater than the statutory limit of 1.0 cfs per 70 acres. The 144.29 acres to be irrigated is within the area described as follows:

“Government Lots Two (2) and Three (3) and the West Half of the North Half of the Southeast Quarter of Section Twenty-two (22), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., less a tract conveyed in Book 53 of Deeds, on page 69 described as follows: Commencing at the Northeast corner of the NW $\frac{1}{4}$ SE $\frac{1}{4}$, thence West 30 rods, thence South 22 rods, thence East 30 rods, thence North 22 rods to the place of beginning, Union County, South Dakota;

Chaussee Tract 2 in the Southeast Quarter of the Southwest Quarter (SE $\frac{1}{4}$ SW $\frac{1}{4}$) and the Southwest Quarter of the Southeast Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$) of Section Twenty-two (22), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., Union County, South Dakota, according to the recorded plat Book 22 of Plats, on page 22.

The East Half of the Northwest Quarter (E $\frac{1}{2}$ NW $\frac{1}{4}$), the West Half of the Northeast Quarter (W $\frac{1}{2}$ NE $\frac{1}{4}$) of Section Twenty-seven (27), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., Union County, South Dakota, according to the recorded plat recorded in Book 6 of Plats on page 139;

The Northeast Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$) and the Northwest Quarter of the Southeast Quarter (NW $\frac{1}{4}$ SE $\frac{1}{4}$) of Section Twenty-seven (27), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., Union County, South Dakota, according to the recorded plat in Book 6 of Plats on page 139.

Lot A in the Southeast Quarter of the Southwest Quarter (SE $\frac{1}{4}$ SW $\frac{1}{4}$) and Lot A in the Southwest Quarter of the Southeast Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$) of Section Twenty-seven (27), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., Union County, South Dakota, according to the recorded plat in Book 6 of Plats on Page 139.

Chaussee Tract 1 in the Southeast Quarter of the Southwest Quarter ($SE\frac{1}{4}SW\frac{1}{4}$) and in the Southwest Quarter of the Southeast Quarter ($SW\frac{1}{4}SE\frac{1}{4}$) of Section Twenty-seven (27), Township Ninety-one (91) North, Range Fifty (50) West of the 5th P.M., Union County, South Dakota, according to the recorded plat in Book 13 of Plats on page 92.

The East Half of the Northwest Quarter ($E\frac{1}{2}NW\frac{1}{4}$) of Section 22, Township 91 North, Range 50 West of the 5th P.M. less the North 10 rods of the East 20 rods of the Northeast Quarter of the Northwest Quarter ($NE\frac{1}{4}NW\frac{1}{4}$), Union County, South Dakota. ”

In order to clarify this description, a map of the area to be irrigated under 7713-3 is included below as Figure 1. The proposed well is about 1,320 feet northeast of the southwest corner of Section 9, T31N-R6E of the 6th Principal Meridian, Union County. The City of Elk Point is about three miles east of the proposed application.

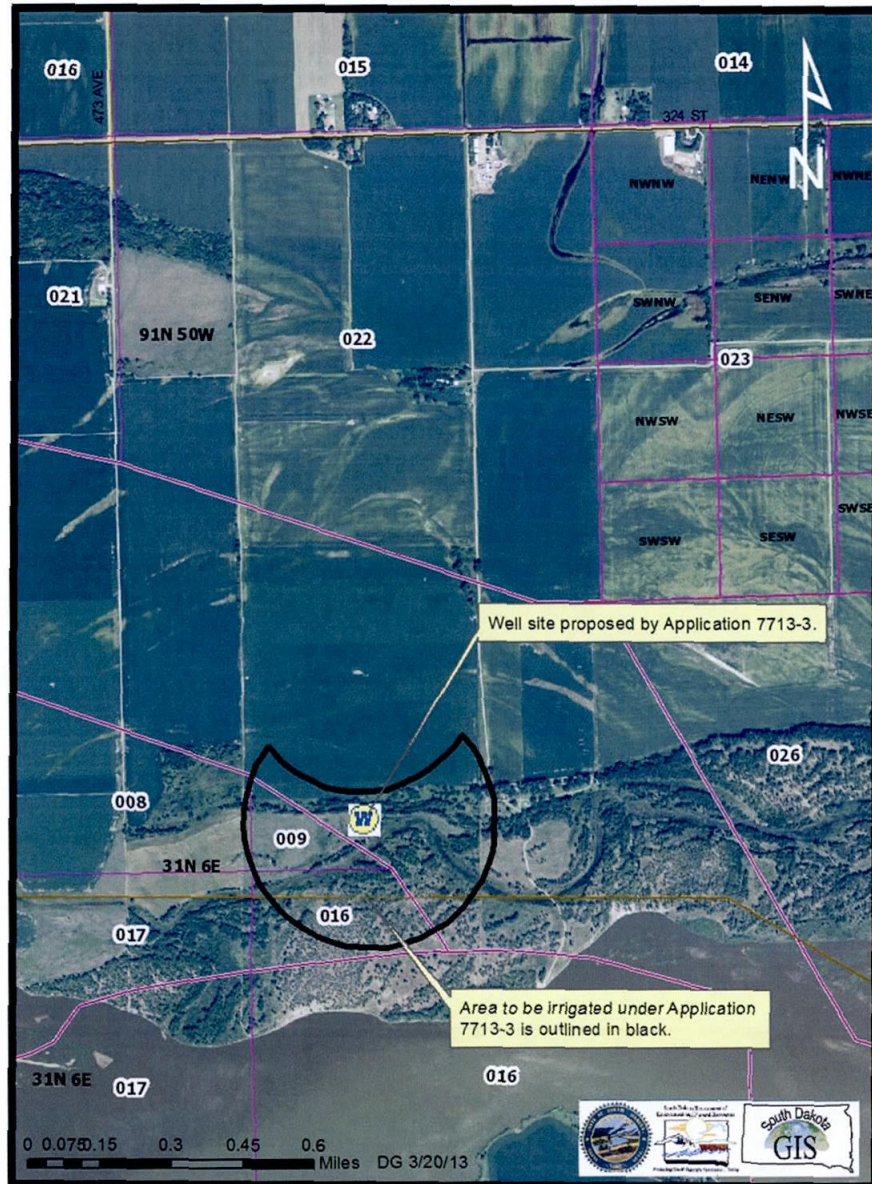


Figure 1. Location of land to be irrigated under Water Permit Application 7713-3.

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

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Elk Point management unit of the Missouri aquifer encompasses approximately 234,700 acres of Clay, Union, and Yankton Counties, as determined by Hedges and others (1982), and Niehus (1994). The aquifer is a surficial aquifer composed of unconsolidated glacial outwash material ranging from fine sand to coarse gravel (Niehus, 1994). The aquifer generally lies below the flood plain of the Missouri River, and also below the flood plain of the Big Sioux River in the southern part of Union County. In places, the aquifer directly overlies and is hydraulically connected to the Dakota aquifer and is hydraulically connected at its northern boundary to the Lower James-Missouri and the Lower Vermillion-Missouri aquifers. Niehus (1994) reported the aquifer is also hydraulically connected to the Big Sioux aquifer in Union County. The aquifer contains an estimated 3,287,100 acre feet of recoverable water, of which an estimated 1,494,600 acre-feet of recoverable water is in storage in Union County (Hedges and others, 1982). Aquifer thickness averages 84 feet in Union County (Niehus 1994). The transmissivity of the aquifer in Yankton County ranges from 20,700 to 24,700 square feet per day (ft²/d) (Bugliosi, 1986), and it is reasonable to assume a similar transmissivity in this area as well. The aquifer is generally under unconfined (water-table) conditions and is under water-table conditions in the area of this application.

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:

These applications propose to appropriate water from the Missouri: Elk Point aquifer. If these applications are approved, it is likely that the water use will be less than 518.58 acre-feet per year (ac-ft/yr). 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." Also, "If the source of the water is older or lower than the Greenhorn formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue." Here, a public water system is not involved and the aquifer is not older or lower than the Greenhorn formation, therefore withdrawal/recharge issue must be considered.

Recharge versus Discharge:

Recharge:

Recharge to the Missouri: Elk Point aquifer occurs through seepage from streams and by infiltration of precipitation (Niehus, 1994). Recharge is also provided to the aquifer from the Big

Sioux, Lower Vermillion-Missouri, and Dakota aquifers as well as during times of high flow, from the Big Sioux and Missouri Rivers. 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 total area of the management unit of 234,700 acres, average annual recharge to the aquifer is estimated to be 74,322 ac-ft/yr. Recharge in Union County is estimated to be 36,480 ac-ft/yr.

Discharge:

Discharge from the Missouri: Elk Point aquifer is by evapotranspiration, discharge to the Big Sioux and Missouri Rivers during low flow, to the underlying Dakota aquifer, and withdrawal from wells (Niehus, 1994). 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). As of March 26, 2013, there are 543 water rights/permits appropriating water from the Missouri: Elk Point aquifer of which 307 are in Union County alone (Water Rights, 2013c). In addition, there are five future use permits in Clay County reserving water from the aquifer. The distribution of these appropriations for the entire aquifer and their types are shown in Table 1.

Water Rights/Permits	Number
Commercial	7
Domestic	2
Fish and Wildlife Propagation	4
Industrial	5
Irrigation	505
Municipal	10
Recreational	1
Rural Water System	2
Suburban Housing Development	2
Future Use Permits	Number
Lewis and Clark Rural Water System	4
City of Vermillion	1

Table 1. Water Rights from the entire Missouri: Elk Point aquifer (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 is less than 61,300 ac-ft/yr based on current water appropriations. Union County accounts for less than 5,700 ac-ft/yr of this based on current water appropriations.

The annual reported water use from the Missouri: Elk Point aquifer for irrigation purposes in Union County is displayed in Table 3. The average irrigation pumpage reported over the 1979 to 2011 period of record for the entire aquifer is 15,922.6 ac-ft/yr.

YEAR	NO. OF PERMITS	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
1979	206	93,310.02	7,066.00
1980	210	94,734.88	10,063.00
1981	227	100,428.62	8,422.00
1982	209	91,841.78	15,429.85
1983	211	90,519.28	6,520.91
1984	211	93,088.86	5,746.30
1985	215	92,328.88	10,087.30
1986	215	91,724.88	3,191.30
1987	216	91,579.88	9,082.00
1988	218	92,063.68	22,195.30
1989	226	93,847.88	18,658.20
1990	230	95,368.88	12,730.50
1991	231	95,168.88	11,601.60
1992	238	94,037.88	1,010.60
1993	230	93,782.30	1,145.20
1994	226	90,715.45	7,721.45
1995	226	90,563.45	13,798.95
1996	229	92,683.00	5,121.58
1997	237	94,643.00	11,406.00
1998	244	96,211.80	7,259.62
1999	240	93,873.80	10,741.15
2000	240	93,320.40	20,369.10
2001	242	93,065.60	12,284.62
2002	241	92,412.00	15,353.97
2003	240	91,692.00	19,653.00
2004	244	92,572.00	16,550.28
2005	251	94,321.60	17,322.40
2006	256	95,252.60	18,149.43
2007	257	95,974.60	18,817.78
2008	261	97,230.60	6,141.62
2009	264	98,914.60	3,214.82
2010	267	99,102.60	1,518.01
2011	272	100,120.60	7,289.70
MIN	206	90519.3	1010.6
MAX	272	100428.6	22195.3
AVE	234.2	94136.3	10777.7

Table 2. Irrigation from the Missouri: Elk Point aquifer in Union 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, 71 new permits were issued authorizing the irrigation of

8,954.4 acres. As of March 26, 2013, an additional 19 permit applications have been submitted for appropriation of water from the Missouri: Elk Point. The pending permits are shown in Table 3 and have a total proposed diversion rate of 33.55 cfs, and 2,311.1 acres of coverage.

Permit No.	Diversion Rate (CFS)	Acres
6895A-3	1.56	135.5
7634-3	2.0	296
7635-3	2.0	320
7644-3	1.78	160
7659-3	2.0	37.25
7660-3	1.56	82
7661-3	2.22	24
7663-3	1.44	132
7669-3	1.33	70
7670-3	1.78	120
7671-3	1.55	92.25
7675-3	3.56	115
7676-3	2.0	157.1
7677-3	2.55	200
7684-3	1.78	160
7686-3	1	70
7687-3	1	70
7689-3	1	70
7703-3	1.44	N/A
TOTAL	33.55	2311.1

Table 3. List of pending permits and their proposed 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. There are two observation wells within three miles of the well sites proposed by this application (Water Rights, 2013a). A hydrograph for each well is shown on Figures 2 and 3.

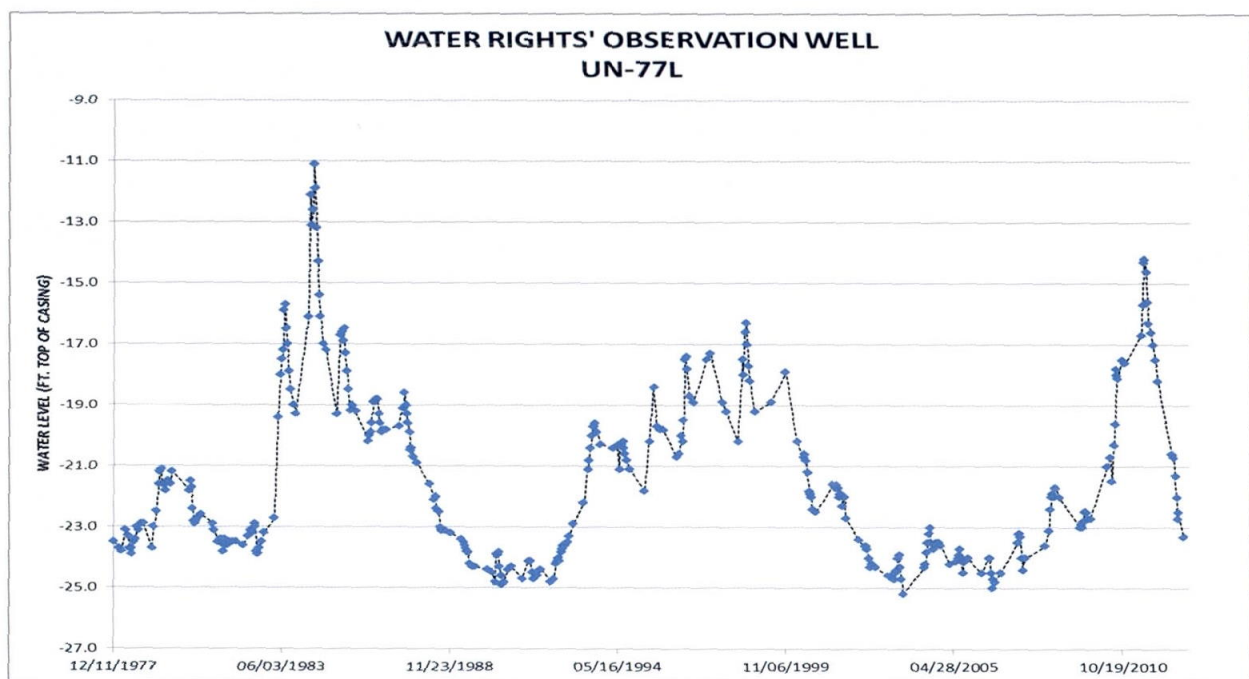


Figure 2. Hydrograph for DENR – Water Rights Observation well UN-77L completed into the Missouri: Elk Point aquifer approximately 1.3 miles east-northeast of the well site proposed by Water Permit Application 7711-3 (Water Rights, 2013a).

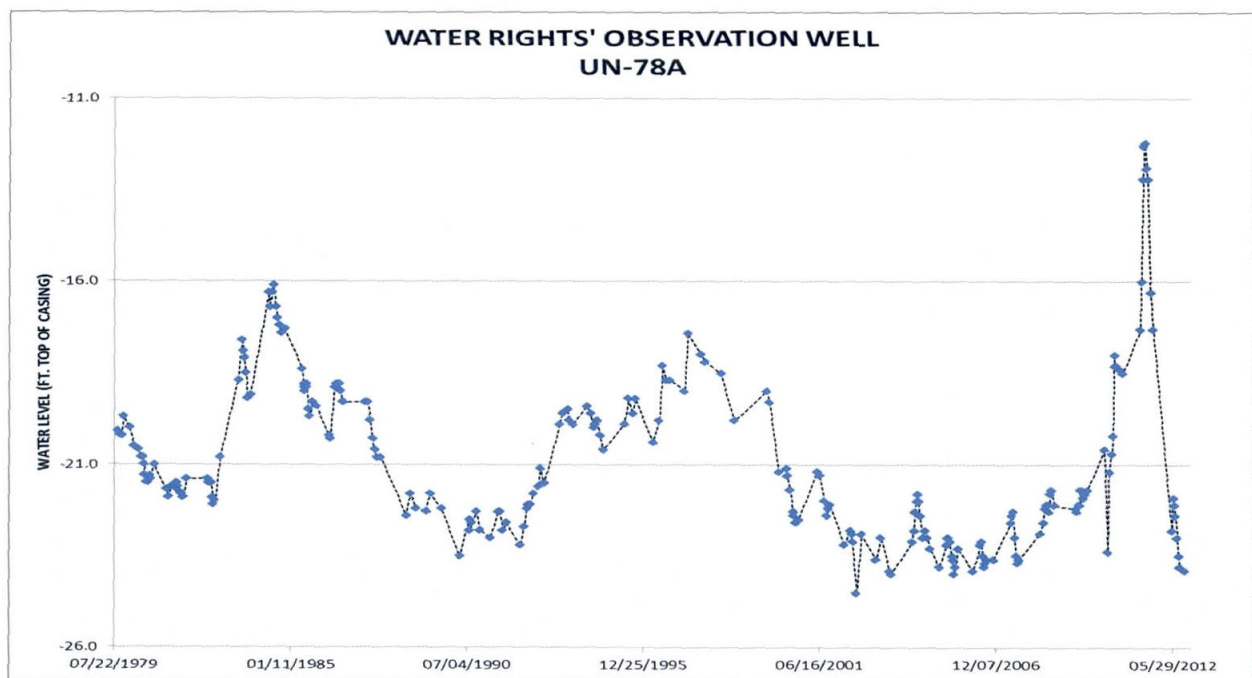


Figure 3. Hydrograph for DENR – Water Rights Observation well UN-78A completed into the Missouri: Elk Point aquifer approximately 2.5 miles east of the well site proposed by Water Permit Application 7713-3 (Water Rights, 2013a).

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 also 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. Hydrograph UN-78A may show a general gradual decline; this gradual decline could be attributed to entrenching of the Missouri River (Goodman, 2007).

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 sites proposed by these applications are located in the southeast portion of the Missouri: Elk Point aquifer. The aquifer lies between the Missouri and Big Sioux Rivers in this area and varies from five to nine miles wide. Proposed Application No. 7711-3 is approximately 1.5 miles east of the Missouri River while Proposed Application No. 7713-3 is approximately 0.4 miles north of the river. There are several water rights/permits within a one mile radius of the proposed well sites. Figures 4 and 5 show water rights/permits located within this one mile radius. The locations of the water rights/permits were determined using the best data reasonably available.

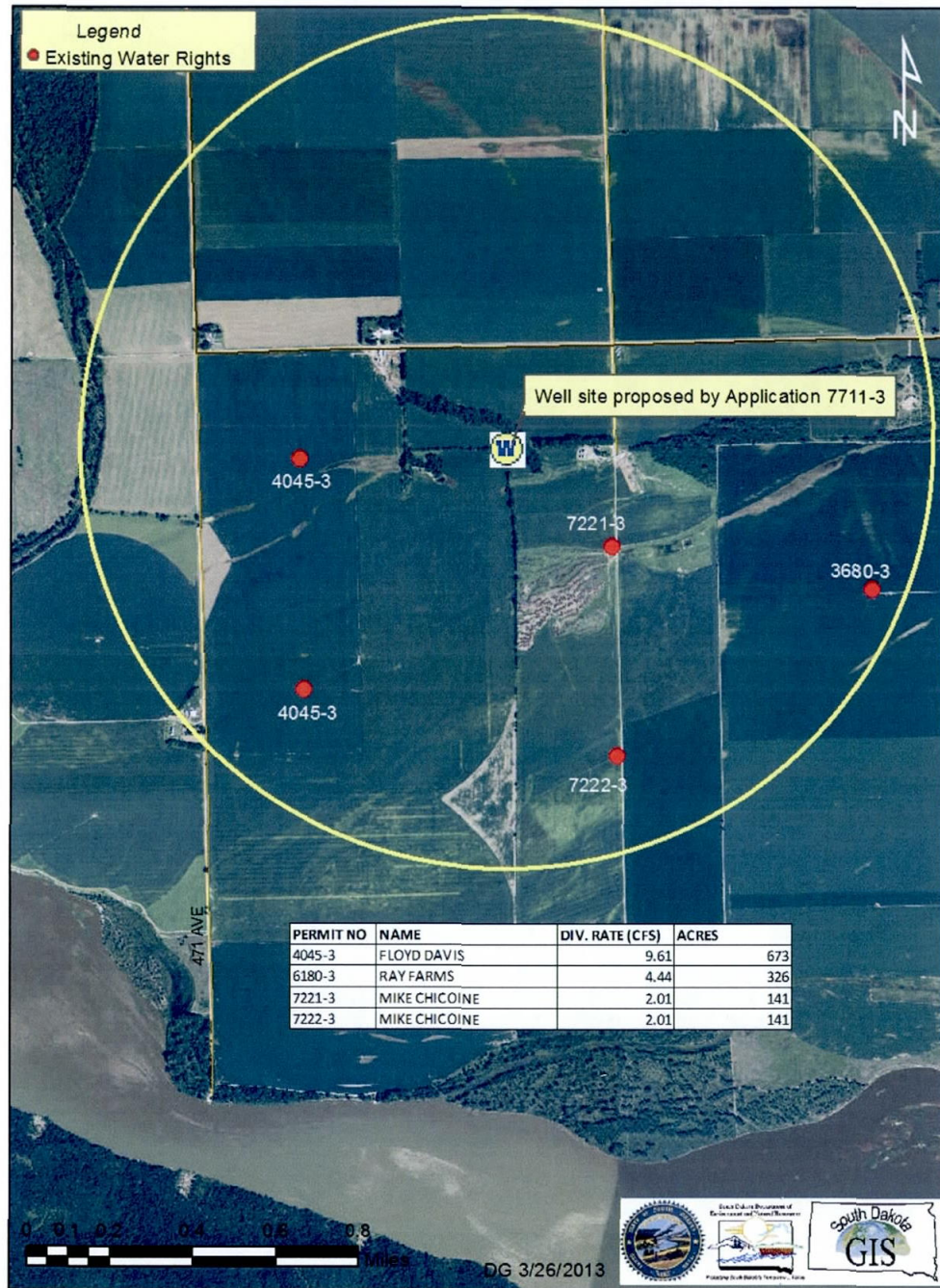


Figure 4. Water Rights / Permits within about one mile of the well proposed by Water Permit No. 7711-3 (Water Rights, 2013c).

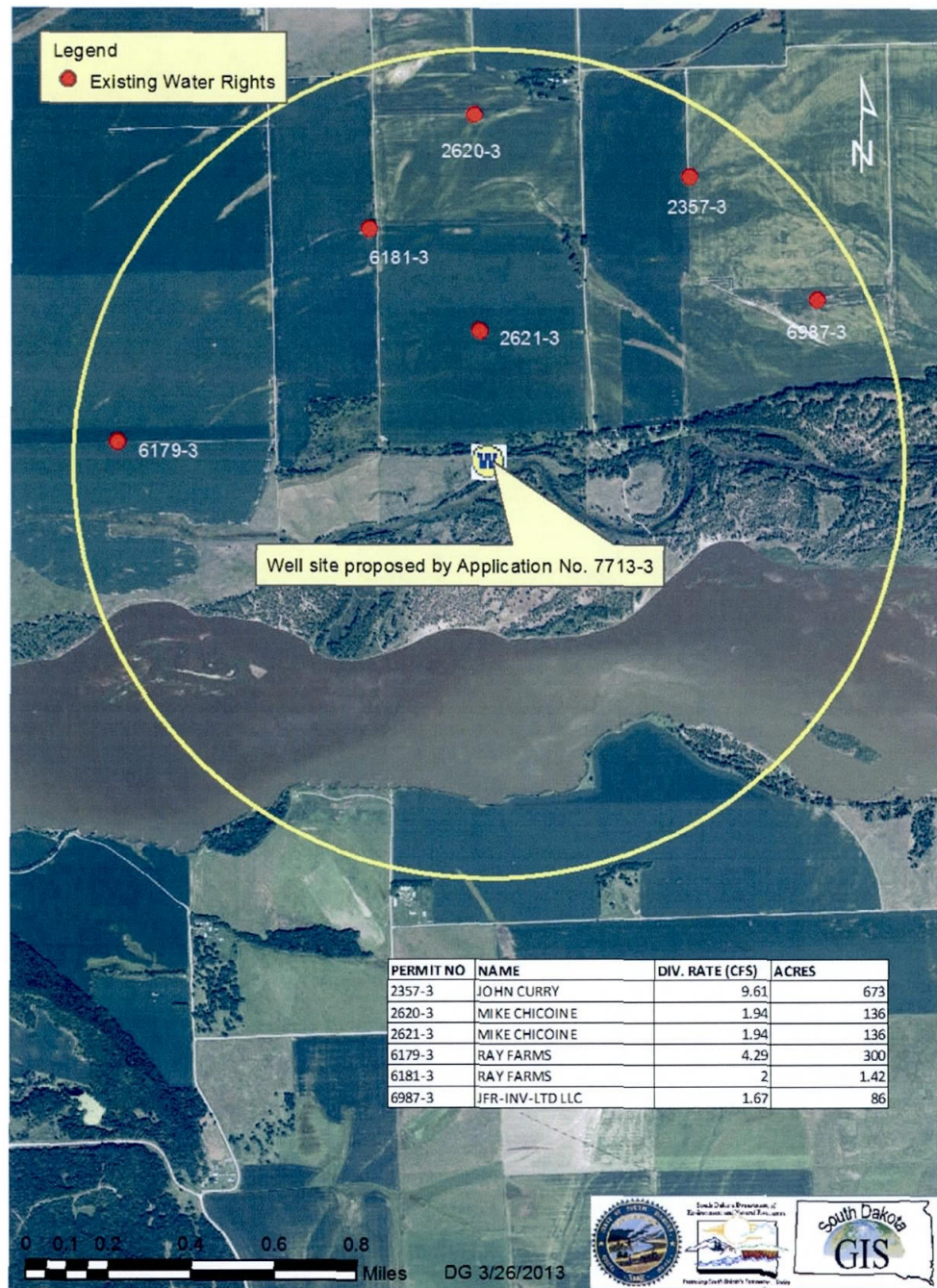


Figure 5. Water Rights / Permits within about one mile of the well proposed by Water Permit No. 7713-3 (Water Rights, 2013c).

Additional drawdown caused by the proposed well could be measurable in nearby wells. The nearest domestic well on file with the DENR – Water Rights Program is more than 2.2 miles away; however, domestic wells that are closer than this could exist and could have measurable drawdown, as well. Based on probable transmissivity, drawdown would not be significant at distances greater than about 600 feet when recognizing there is approximately 80 feet of saturated thickness in the area. 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 well 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 well or in adequate wells having prior rights.”

In reality, the assurance of reasonable domestic use provided by SDCL 46-6-6.1 and ARSD 74:02:04:20(7) generally ensures 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 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.

SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or “the equivalent thereof.” The statute provides that the Water Management Board may allow a greater diversion if the method of irrigation so requires. The applicant has indicated the higher diversion rate is needed due to the sandy nature of the accretion soil in this area.

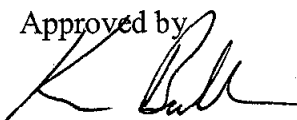
CONCLUSIONS:

1. Water Permit Application Nos. 7711-3 and 7713-3 propose to appropriate water from the Missouri: Elk Point aquifer at a combined maximum diversion rate of 3.89 cfs for the irrigation of a combined 259.29 acres.
2. The applicant is seeking a diversion rate that would be in excess of the statutory limit of 1.0 cfs per 70 acres for both permit applications.
3. There is reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer to supply these proposed appropriations.
4. The Missouri: Elk Point is under unconfined (water-table) conditions in the proposed areas, and drawdown is not expected to be significant very far from a production well.
5. 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.
- Goodman, J.A. 2007. Report on Water Permit Application No. 6869-3 for Lewis and Clark RWS: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- 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
- Niehus, C.A., 1994, Water Resources of Lincoln and Union Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 93-4195, 57p.
- 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.

AFFIDAVIT OF PUBLICATION

State of South Dakota)

:SS

County of Union)

Kelly Kruthoff,

an employee of the Leader-Courier, deposes and says that

The Leader-Courier

is a legal weekly newspaper of a general circulation, printed and published in Elk Point, County of Union, State of South Dakota, and has been such legal newspaper during the time hereinafter mentioned, and that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

Notice of Application

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in

each week for 1 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two hundred paid copies weekly, and had been published in the said County of Union for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Elk Point, the said place of publication; that the first publication of said notice in said newspaper was

on Thursday, the 16 day of May, 2013

and that the succeeding publications were

on Thursday, the _____ day of _____,

on Thursday, the _____ day of _____,

on Thursday, the _____ day of _____,

that the fees for the printing and publishing of said notice and advertisement in said newspaper as aforesaid were

\$ 28.60, that the full amount of the fee charged insures to the benefit of the publisher of the said newspaper, that no agreement or understanding for the division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Kelly Kruthoff
Subscribed and sworn to before me

this 16 day of May, 2013

My commission expires 6-21-17

SUSAN ODSON
NOTARY PUBLIC
SOUTH DAKOTA

Notary Public

NOTICE OF APPLICATION NOS. 7711-3 AND 7713-3 TO APPROPRIATE WATER

Notice is given that Mike Chicoine, 508 E Clay St, Elk Point SD 57025 has filed the following applications for a water permit.

Application No. 7711-3 proposes to appropriate 1.67 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (143 feet deep) located in the NE 1/4 NE 1/4 Section 20 for irrigation of 115 acres located in the NE 1/4, NW 1/4 SE 1/4 Section 20; all in T91N-R50W.

Application No. 7713-3 proposes to appropriate 2.22 cfs from one well to be completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SE 1/4 NW 1/4, SW 1/4 NE 1/4 Section 27 to irrigate 144.3 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4, NE 1/4 SW 1/4, NW 1/4 SE 1/4, Lot A in SE 1/4 SW 1/4, Lot A in the SW 1/4 SE 1/4 and Chaussee Tract 1 Section 27; all in T91N-R50W. The applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7711-3 and 7713-3 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 May 28, 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.

Publish May, 16, 2013

Published once at the total approximate cost of \$28.60
20-9-95

RECEIVED

MAY 20 2013

WATER RIGHTS PROGRAM

NOTICE OF APPLICATION
NOS. 7711-3 and 7713-3 to
Appropriate Water

RECEIVED

MAY 20 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Notice is given that Mike Chicoine, 508 E Clay St, Elk Point SD 57025 has filed the following applications for a water permit.

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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 DE
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Application Nos. 7711-3 & 7713-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 16th DAY OF May 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$32.27 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: 5/16/2013

FILED ON: 5/16/2013

SUBSCRIBED AND SWORN TO BEFORE ME THIS

16th

DAY OF

May

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

May 9, 2013

Leader Courier
PO Box 310
Elk Point SD 57025

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7711-3 and 7713-3 to Appropriate Water. Please publish the notice once on May 16, 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 Mike Chicoine, 508 E Clay St, Elk Point SD 57025 (Ph # 712-898-9173).

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

May 9, 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.**

May 9, 2013

Mike Chicoine
508 E Clay St
Elk Point SD 57025

Dear Mr. Chicoine:

Water Permit Application Nos. 7711-3 and 7713-3 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 Leader Courier printed at Elk Point SD (Ph # 605-356-2632) 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 May 16, 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. 7711-3 and 7713-3 to Appropriate Water

Notice is given that Mike Chicoine, 508 E Clay St, Elk Point SD 57025 has filed the following applications for a water permit.

Application No. 7711-3 proposes to appropriate 1.67 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (143 feet deep) located in the NE 1/4 NE 1/4 Section 20 for irrigation of 115 acres located in the NE 1/4, NW 1/4 SE 1/4 Section 20; all in T91N-R50W.

Application No. 7713-3 proposes to appropriate 2.22 cfs from one well to be completed into the Missouri:Elk Point Aquifer (120 feet deep) located in the SE 1/4 NW 1/4, SW 1/4 NE 1/4 Section 27 to irrigate 144.3 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4, NE 1/4 SW 1/4, NW 1/4 SE 1/4, Lot A in SE 1/4 SW 1/4, Lot A in the SW 1/4 SE 1/4 and Chaussee Tract 1 Section 27; all in T91N-R50W. The applicant is requesting a diversion rate greater than the statutory limit.

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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

JUN 20 2013

Mike Chicoine
508 E Clay St
Elk Point SD 57025

Dear Mr. Chicoine:

Enclosed are Water Permit Nos. 7711-3, 7712-3, 7713-3 and 7714-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems 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

SOUTH DAKOTA WATER WELL COMPLETION REPORT

7713-3

07-92

Location SW 1/4 NW 1/4 Sec 21 Twp 91N Rg 50W

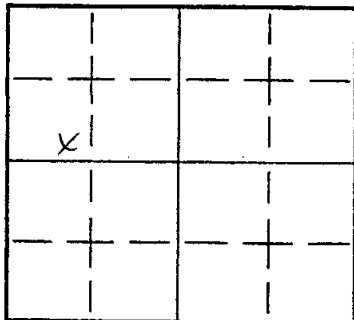
County

Union

North

Please mark well location with an "X"

W



Well Completion Date

6-12-12

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1300 ft. from Septic (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Mud Rotary

CASING DATA:

- ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>5CH 40 LB/FT</u>	<u>12 IN</u>	<u>0 FT</u>	<u>143 FT</u>	<u>17 1/2 IN</u>
_____ 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>	_____	_____ lb./gal	<u>30 ft</u>	<u>10 ft</u>
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Pumped in from bottomSCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 12 IN Length 60 FEETMaterial PVCSlot Size 1/60 Set From 83 Feet to 143 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: _____

Laboratory sent to for water quality analysis

NO, Why Not?IrrigationWell Owner: Mike Chicaine

Business Name: _____

Address: 508 E. Clay
Elk Point, SD 57025

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Clay</u>	<u>0</u>	<u>15</u>
<u>Sugar sand</u>	<u>15</u>	<u>35</u>
<u>Med to coarse blue sand</u>	<u>35</u>	<u>72</u>
<u>Large gravel & rocks</u>	<u>72</u>	<u>80</u>
<u>Fine to med. gravel</u>	<u>80</u>	<u>136</u>
<u>Shale</u>	<u>136</u>	<u>143</u>

STATIC WATER LEVEL 21 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

48 ft. After 1 Hrs. pumped 900 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 750 GPM

REMARKS

RECEIVED

FEB 11 2013

WATER RIGHTS PROGRAM

This well was drilled under license # 667

And this report is true and accurate.

Drilling firm Dakota Drilling & Backhoe, Inc.

Signature of License Representative:

Vernon Valdez

Signature of Well Owner or Equitable Property Holder:

Date: _____

7713-3

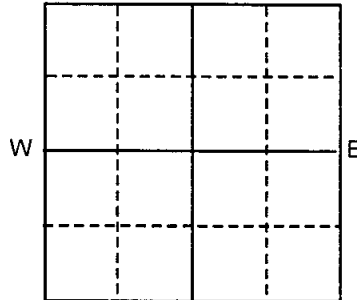
SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SW ¼ Sec 23 Twp 91N Rg 50WCounty Union

North

Please mark well
location with an "X"

Well Completion Date

August 7, 2013

← 1 Mile →

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>16.00</u> IN	FT	<u>50.0</u> FT	<u>21.00</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>20</u>	Lb/gal	<u>0.0</u> Ft	<u>48.0</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☒ Perforated pipe ☒ Manufactured
 Diameter 16.00 Inches Length 40.0 Feet
Material PVC 20' / Stainless Steel 20'Slot Size .060/.080 Set From 50.0 Feet to 90.0 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? chlorinated
☐ No, Why Not?
Lab to which water
quality sample sent for analysisn/aWell Owner: Mike Chicoine

Business Name:

Address: 508 East ClayCity, State, Zip: Elk Point SD 57025

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Brown silty clay	0	3
Fine sand	3	45
Fine-medium sand	45	50
Medium-coarse sand	50	65
Coarse sand w/rocks	65	95
Silty gray clay	95	100

STATIC WATER LEVEL 10.0 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

17.0 Ft. After 2.0 Hrs. pumped 900.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N 42 40.262

W 096 44.239

Well # 2This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

RECEIVED

NOV - 7 2013

WATER RIGHTS
PROGRAM

Signature of Well Owner or Equitable Property Holder:

Date: _____

12-11-13

My places editor

My places Actions

 You must Sign in to save your list of places

Unsaved places

1 42.68845, -96.74205
Well #1 - 103' well
Mike Chicoine

2 42.67103333333333, -96....
Well #2 - 90' well
Mike Chicoine



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

October 20, 2025

*8474-3,*8475-3,*8476-3,*1096-3
*2620-3,*2621-3,*3451A-3,*4558-3
*6557-3,*7218-3,*7221-3,*7222-3
*7223-3,*7711-3,*7713-3

Michael Chicoine
32427 472nd Ave
Elk Point SD 57025

Dear Mr. Chicoine:

Enclosed is a "Notice" dated October 8, 2025, concerning the 2025 Irrigation Questionnaires.

The notice was originally mailed to you at 32926 482nd Ave, Jefferson SD 570383. The post office notified our office that your address has changed, and your records have been updated accordingly.

This is a time sensitive matter. Please complete and return the enclosed questionnaire or submit your report online at <https://danr.sd.gov/iq/> using this password **GSPMVA**.

If this change of address is in-correct, please contact our office immediately to update your contact information.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

enclosures

CHIC926 570382006-1425
RETURN TO SENDER
CHICOINE, MICHAEL JAMES
32427 472ND AVE
ELK POINT SD 57025-6712
RETURN TO SENDER

10/14/25

