

WATER PERMIT NO. 8364-3

Name of Applicant: Daniel and Scott Hanson

Address: 47674 327th St, Elk Point SD 57025

Phone: 605 231-1392

Amount of Water Claimed: 2.22 cfs

Total Acres: 93

Source of Water Supply: one well

Water to be used for: irrigation

County: Union

Type of Waste Disposal System:

Location: 1 mile southwest of Elk Point

PRIORITY

Date Received: 7-5-18

Application/License Fee: \$ 950

Corrected Application Received:

Period of Annual Use: May 1 – September 30

Remarks:

Diversion Point: NE 1/4 SW 1/4 Sec 25-T91N-
R50W

Land to be Irrigated: SW 1/4 SE 1/4, E 1/2 SW 1/4
Sec 25-T91N-R50W

Depth of Well: 100 feet deep

Well Driller:

Remarks:

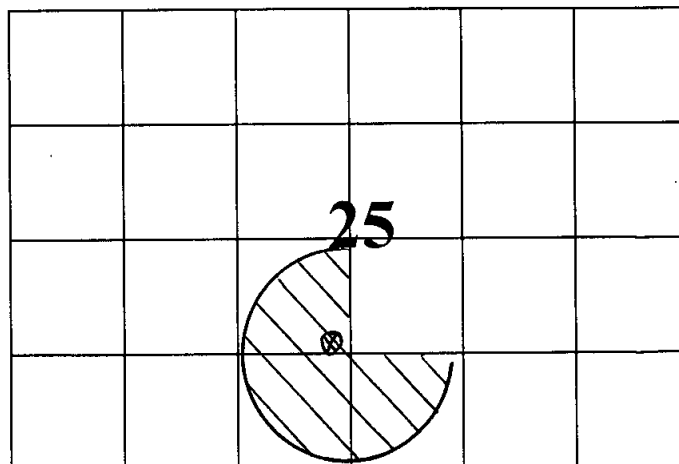
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 7-5-18

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 8364-3**

Date of first receipt of application July 5, 2018.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8364-3 to Daniel and Scott Hanson, 47674 327th 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. 8364-3 appropriates 2.22 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 25 for irrigation of 93 acres located in the SW 1/4 SE 1/4, E 1/2 SW 1/4 Section 25; all in T91N-R50W which is approximately 1 mile southwest of Elk Point SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.
3. The date from which applicant may claim right is July 5, 2018.
4. The date of approval of Permit No. 8364-3 is September 17, 2018.
5. One-fifth of the construction is to be completed on or before March 17, 2021.
6. All construction is to be completed on or before September 17, 2023.
7. Water is to be put to beneficial use on or before September 17, 2027.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Permit No. 8364-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8364-3 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. 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. 8364-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 93 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

SEP 25 2018

date



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

Mail to:	No. <u>8364-3</u> (office use only) Hydrologic Unit <u>10170101</u>
DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182	Basin <u>Missouri River</u>
ph: (605) 773-3352	Newspaper <u>Leader-Courier, Elk Point</u> <u>Press & Dakotan, Yankton</u>

RECEIVED
JUL 05 2018
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit Daniel and Scott Hanson

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

Mailing Address 47674 327th St. Elk Point SD 57025
(Address) (City) (State) (Zip Code)

Phone 605-231-1392 Mobile 605-231-1392 Email Scott@missouririveroutdoors.com

2. Amount of water claimed 2.22 *CFS or 100 **GPM ***AF Total Acreage 93 @
(*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 25-91N-S0W (NE 1/4 SW 1/4)

(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County UNION

5. County or counties where water will be used UNION

6. Annual period during which water is to be used MAY - SEP. 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
SW 1/4 SE 1/4 25-91N-S0W	31.5		
E 1/2 SW 1/4 25-91N-S0W	61.5		

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

DRILL well to irrigate 93 @
see attached

Requesting diversion rate greater
than statutory limit.

I, Scott J. Hanson owner, the applicant, certify under
Name of Person Title (if applicable)

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 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 _____

~~For either Existing or Proposed Wells:~~c) Well Depth (required) 100 ft? Depth to Top of Water Bearing Material N/A Depth to Water from Surface N/Ad) Distance to nearest domestic well on applicant's property 3/4 mile Property owned by others 1.5 miles**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)

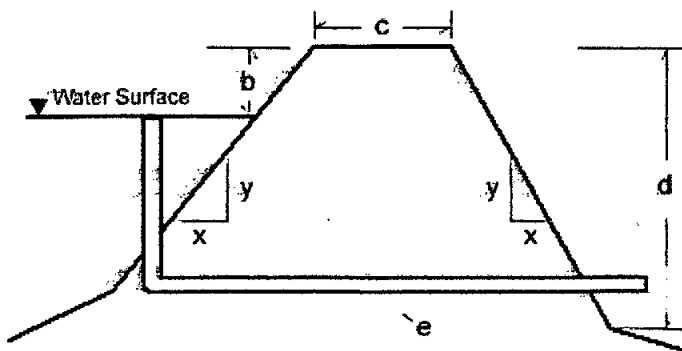
Upstream _____

Downstream _____

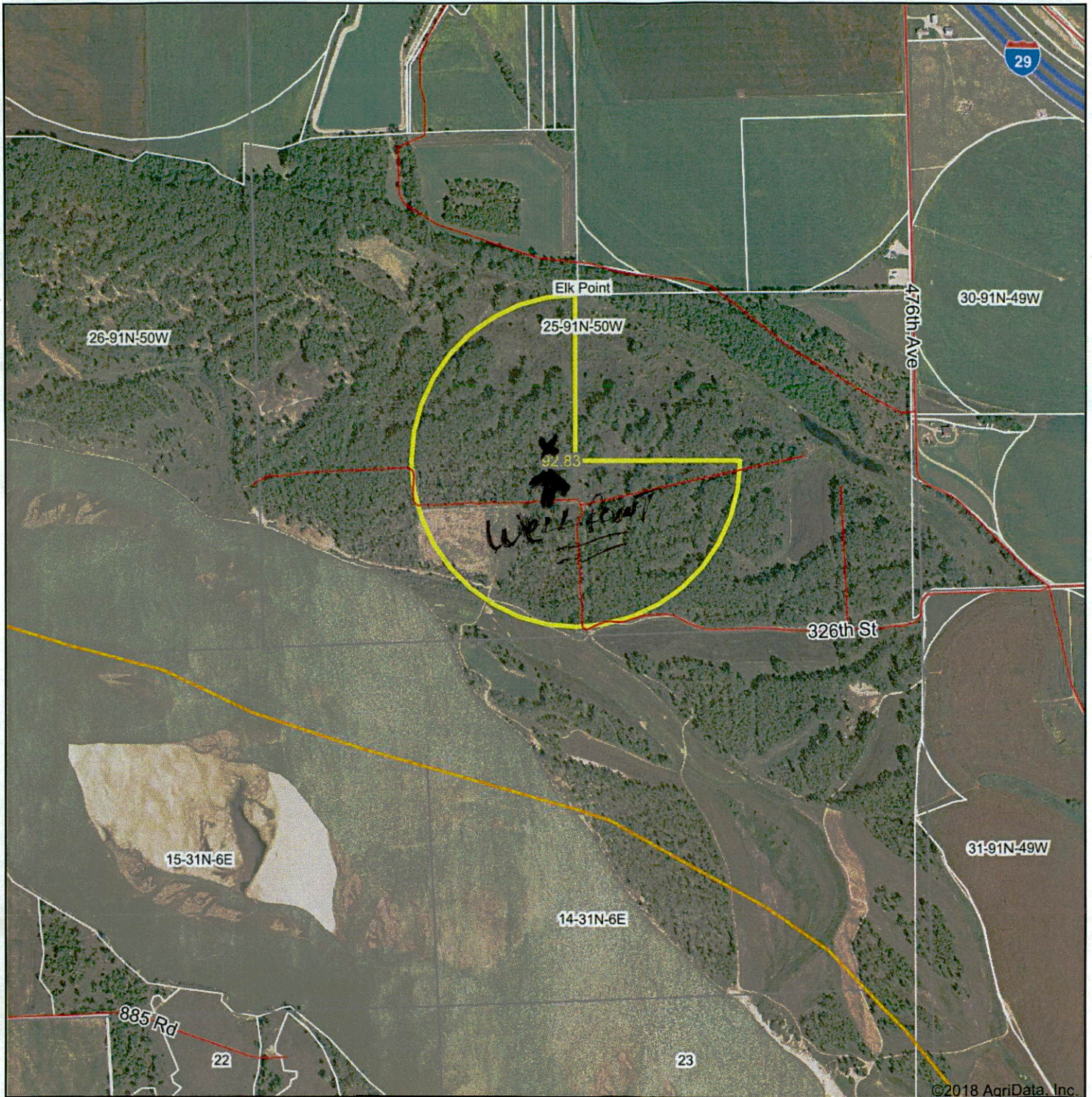
h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Aerial Map



**Crop
Production
Services**



Maps Provided By:



surety
CUSTOMIZED ONLINE MAPPING

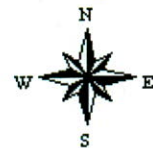
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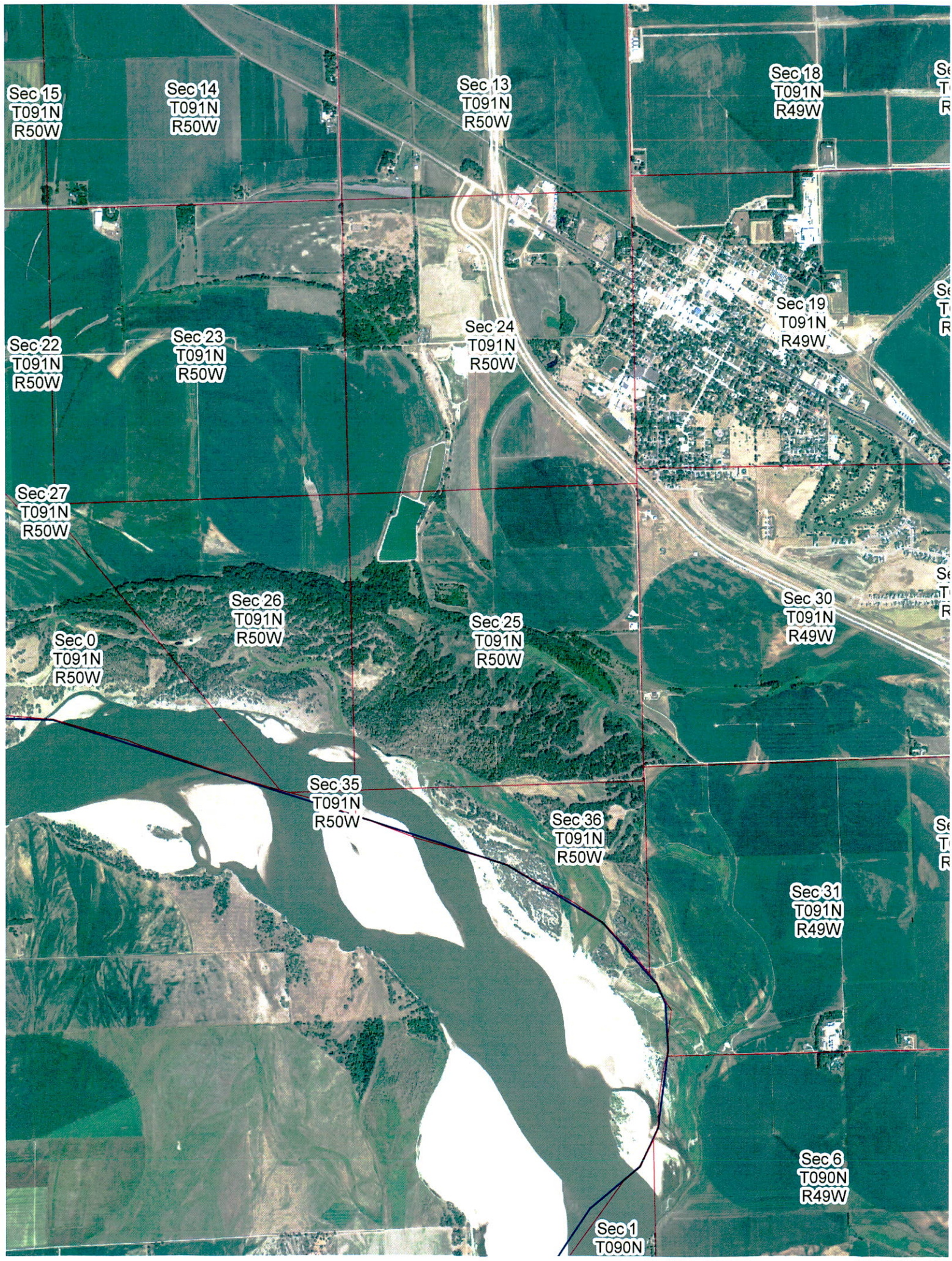
map center: 42° 39' 54.09, -96° 41' 57.71

0ft 1234ft 2467ft

**25-91N-50W
Union County
South Dakota**



6/26/2018



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date JULY 9, 20 18

RECEIVED OF Missouri River Outdoors LLC 47644 327th St Elk Point 57025

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

Fee for Application for Permit No. <u>8364-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>8364-3</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	950 00

No. **08712**

By Jeanne Goodman
Chief Engineer JM



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8364-3, Daniel and Scott Hanson**

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. 8364-3, Daniel and Scott Hanson, 47674 327th Street, Elk Point SD 57025.

The Chief Engineer is recommending APPROVAL of Application No. 8364-3 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 Permit No. 8364-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8364-3 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. 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. 8364-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 93 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
August 28, 2018

REPORT TO THE CHIEF ENGINEER

Water Permit Application No. 8364-3

Daniel and Scott Hanson

August 3, 2018

Water Permit Application No. 8364-3 proposes to appropriate water for irrigation of 93 acres at a maximum diversion rate of 2.22 cubic feet per second (cfs) from one well. The proposed well is to be completed into the Missouri: Elk Point aquifer with an approximate depth of 100 feet and located in NE ¼ SW ¼ Section 25 T91N-R50W. The acres to be irrigated are located in the SW ¼ SE ¼, E ½ SW ¼ Section 25 T91N-R50W. This application is located approximately 1.5 miles southwest of downtown Elk Point, SD in Union County. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

In addition, this application is located entirely within the designated boundaries of the Missouri National Recreational River (designated in 1978 under the Wild & Scenic Rivers Act) and shares a 0.75 mile long border with the 160 acre Warren Wilderness Game Production Area. Land located within the designated boundaries of a Wild & Scenic River is not prohibited from development nor is the federal government given control over private property. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments.

AQUIFER: Missouri: Elk Point (M:EP)

HYDROGEOLOGY

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

Hydrologically, the Elk Point management unit can be found under both confined and unconfined conditions. Near the edge of the floodplain, the Missouri: Elk Point is overlain by relatively impermeable glacial till (Niehus, 1994; Stephens, 1967). A nearby well completion report shows that the aquifer at this location is comprised of gravel from approximately 57 to 160 feet below ground surface, overlain with layers of sand and clay (Water Rights, 2018b). The static water level at the time of completion of this nearby well was 19 feet below ground surface. The glacial outwash deposits in this area are variable, so the area surrounding a well may be technically confined by being overlain by a layer of clay, however the clay deposit may not be laterally extensive, and the aquifer generally behaves as an unconfined aquifer.

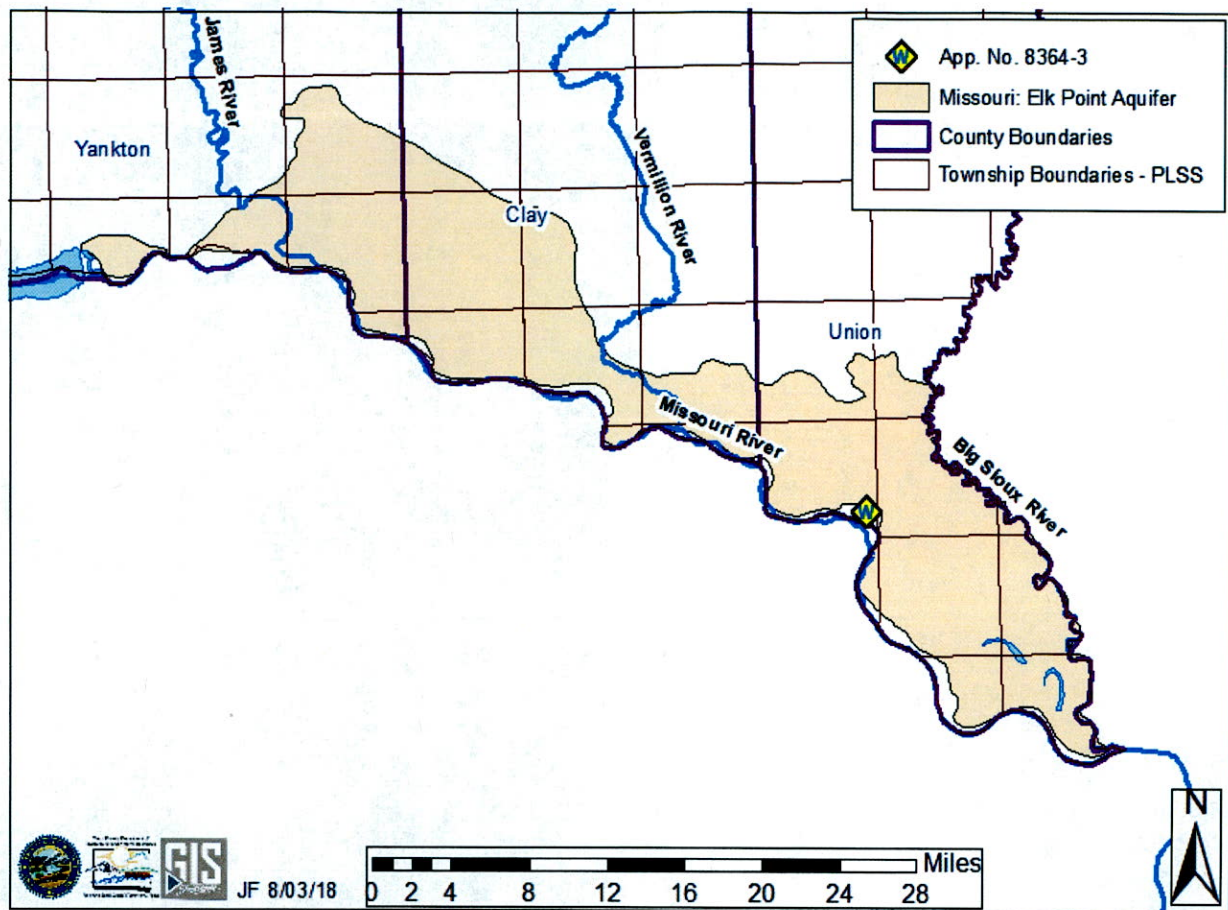


Figure 1. Map showing the location of the proposed diversion and Missouri: Elk Point aquifer boundaries as shown from Hedges et al. (1982).

South Dakota Codified Law 46-2A-9

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

WATER AVAILABILITY

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older than or stratigraphically lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not take into consideration the balance of aquifer recharge and withdrawal. Here, the water source is not older or lower than the Greenhorn Formation and a water distribution system is not involved. Therefore, the balance of withdrawal and recharge must be considered.

Hydrologic Budget

Recharge

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

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

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

Discharge

Discharge from the Missouri: Elk Point aquifer occurs through well withdrawals, evapotranspiration from areas where the aquifer is near the land surface, and outflow to the Missouri and Big Sioux Rivers (Bugliosi, 1986; Niehus, 1994; Stephens, 1967). Currently, there are 617 Water Rights/Permits appropriating water from the Missouri: Elk Point aquifer including future use permits and one pending application (Water Rights, 2018a). Table 1 shows a summary of non-irrigation Water Rights/Permits with their appropriation and estimated annual expected use. The amount of water that can be expected to be withdrawn can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually, water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and future use permits will be fully developed. Water Permit 7059-3 for recreational use is for maintaining the water level in a small lake with a surface area of 17.6 acres; it is assumed that the only consumptive use of this water is due to evaporation. Annual evaporation of water from shallow lakes is estimated to be 42 inches per year at this location (NOAA, 1982) and average annual total precipitation at the Sioux City, IA airport was determined to be 27.74 inches over the 30 year period of 1981 to 2010 (Arguez et al, 2010), resulting in an approximate expected use of 20.9 ac-ft per year.

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

Use Type	No. of Water Rights/Permits	Appropriation (ac-ft)	Appropriation (cfs)	Expected Use (ac-ft)
RWS	4	45,165		45,165.00
SHD	2		0.199	86.50
REC	1		3.11	20.9
COM	10	637	1.539	1,305.96
DOM	2		2.780	1,208.38
IRR*	1	2		2
FWP	4		9.430	4,098.94
IND	5		0.878	381.64
MUN	12	9,111	11.662	14,180.12
Total	41	55,308	26.49	66,449.44
RWS = Rural Water Supply, SHD = Suburban Housing Development, REC = Recreation, COM = Commercial, DOM = Domestic, IRR*=Irrigation (not required to submit irrigation questionnaire), FWP = Fish & Wildlife Propagation, IND = Industrial, MUN=Municipal				

Several of the non-irrigation water rights/permits are required to report their annual water use from the Missouri: Elk Point aquifer. Two of these are recent permits and their systems are considered to be in development. The remaining water rights/permits and their reported water usage from 2006 to 2017 are shown in Table 2.

Table 2: Reported annual water use in acre-feet from non-irrigation water rights/permits for the years 2006 to 2017 (Water Rights, 2018a)

	Clay RWS	Lewis & Clark RWS	City of Vermillion
	5998A-3, 7388-3	6736-3, 7207-3	147-3, 6236-3
2006	170		1,252
2007	217		1,344
2008	213		1,199
2009	215		1,140
2010	183		1,071
2011	137	92	1,127
2012	525	3,836	1,317
2013	301	9,368	1,183
2014	307	11,532	1,121
2015	278	15,591	1,161
2016	231	17,091	1,175
2017	276	18,051	1,215
Max	525	18,051	1,344
Min	137	92	1,071
Average	254.4	10,794.4	1,192

The reported usage for these non-irrigation permits shows that the usage for the City of Vermillion has remained steady over these years. Water Right No. 147-3 has a diversion rate of 2.66 cfs and Water Right No. 6236-3 is limited to an annual volume of 1,161 ac-ft. Combined, these two water rights are estimated to use 2,315 ac-ft/yr, however the average actual reported usage is 1,192 ac-ft/yr. The Clay RWS added Water Permit No. 7388-3 to their system in 2012, so the expected usage from their permits is greater than the average shown. The Lewis & Clark RWS is still under development and the usage will continue to grow. Using the average actual reported use from the City of Vermillion instead of the appropriated amount, reduces the expected use from non-irrigation water rights/permits by 1,123 ac-ft/yr to 65,326.44 ac-ft/yr.

There are a number of domestic wells on file that withdraw water from the Missouri: Elk Point aquifer, however the magnitude of their withdrawals is small, and since the introduction of rural water systems, many of these wells may no longer be in use (Water Rights, 2018b). The annual quantity of water withdrawn for domestic uses is considered to be negligible to the hydrologic budget of the aquifer.

Irrigation data from 2017 shows that there were 567 water rights/permits permitted for irrigation and required to submit an irrigation questionnaire (Water Rights, 2018d). These water rights/permits appropriated 191,366.18 ac-ft of water in 2017, however the actual usage is much less. Farmer (2018) analyzed the irrigation data from 1979 to 2016, and determined that from 1979 to 2005, the number of acres permitted for irrigation in the Missouri: Elk Point aquifer remained steady. Figure 2 shows the acres permitted for irrigation from 1979 to 2016 and the yearly total reported pumpage for the irrigation permits.

After 2006, for a number of reasons, there was an increase in the number of applications for permits, and that increase in permits also adjusted the long term ratio of constructed to unbuilt irrigation systems. For estimating usage from irrigation water rights/permits, the usage from 1979 to 2005 was used. Farmer (2018) calculated that the average application rate on all acres permitted for irrigation is 0.35 ft (a little less than 4.2 inches) from 1979 to 2005.

In 2016, there was a total of 80,279.54 acres permitted for irrigation. Between the 2016 irrigation season and August 2018, a total of 13 permits for irrigation have been approved with a total of 979 permitted acres with one pending permit requesting irrigation of 85 acres. The total permitted acres for irrigation is 81,358.54 acres. Of these permitted acres, there are 13 Water Rights/Permits shown in Table 3 that are irrigating a total of 747.1 acres of turf, and due to the water requirements of turf, the estimated usage should be determined separately from crop irrigation. For the purposes of estimation, it is assumed that turf irrigation will use their full appropriation, resulting in an estimated average annual use of 1,911.2 ac-ft per year. Applying the average application rate of 0.35 ft on the remaining 80,611.44 permitted acres results in an estimated average annual use for crop irrigation purposes of 28,214 acre-feet per year. The total estimated average annual use for both types of irrigation is 30,125.2 acre-feet per year. This application, if approved, is for the irrigation of 93 acres of crops, and using the average application rate, the estimated average annual use is 32.55 ac-ft per year.

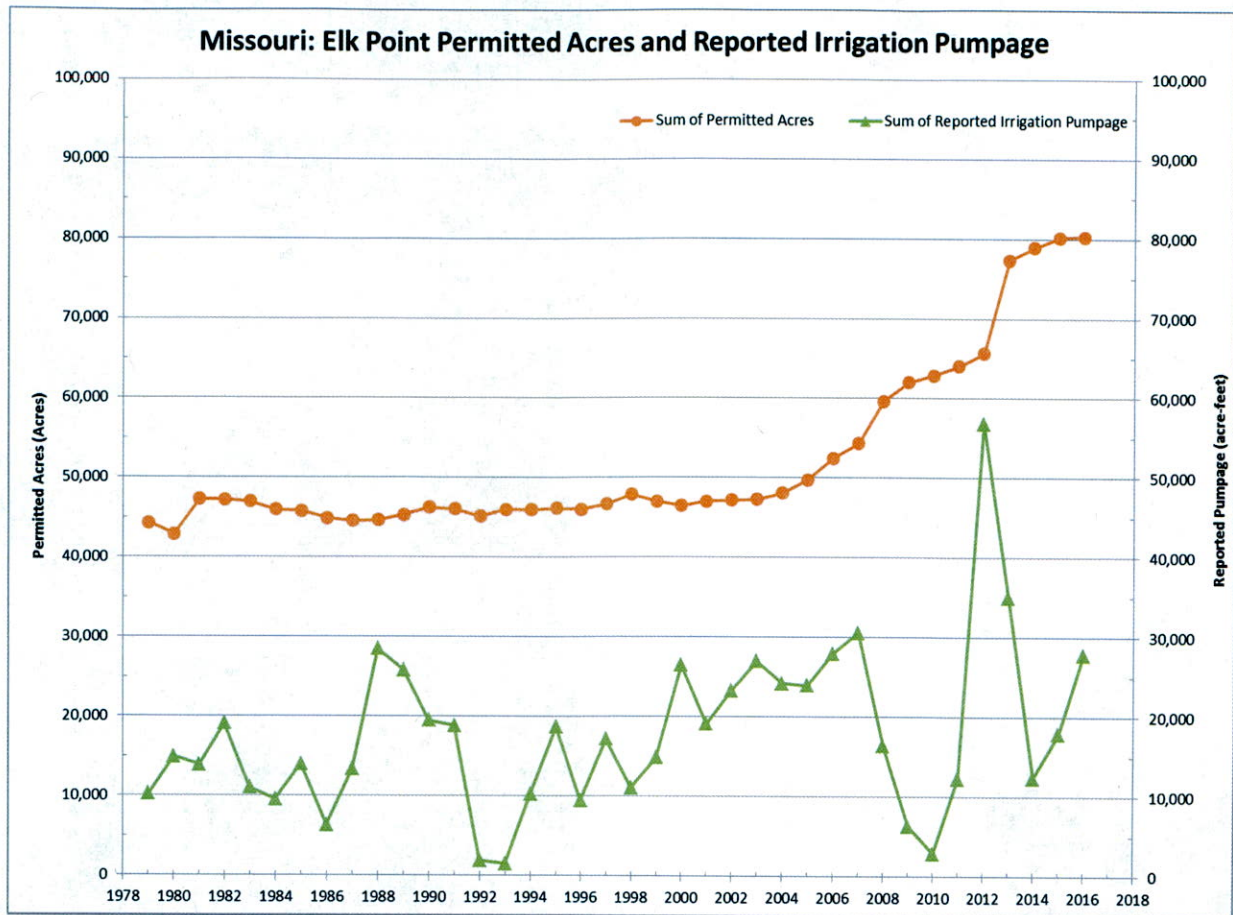


Figure 2: Acres permitted for irrigation and reported irrigation pumpage (taken from Farmer, 2018)

Table 3: Water Permits/Rights for Irrigation of Turf (Water Rights, 2018a)

Permit No.	Name	Acres	Appropriation (ac-ft)
1294-3	Recreation Dev Assn Inc	102	306
1961C-3	Yankton Missouri River KOA	17	51
2011-3	Two Rivers Golf Club	95	285
5786-3	Dakota Dunes Golf Course	173	519
5935-3	Ted Waitt	1	2
5936-3	Applied Engineering Inc	1.8	3.6
5998-3	Clay Rural Water System Inc	300	600
7225-3	National Field Archery Assoc	2	4
8010-3	Ryan Rusher	2.5	5
8029-3	Dakota Dunes Community Improvement District	17.8	35.6
8040-3	Heine Electric & Irrigation Inc	1	2
8175-3	Gayville-Volin School District 63-1	4	8
8354-3	Two Rivers Inc	30	90
Total		747.1	1,911.2

Hydrologic Budget

The estimated withdrawals from the Missouri: Elk Point aquifer are 65,326.44 ac-ft/yr from non-irrigation users, and 30,125.2 ac-ft/yr from irrigation. Including an estimated 32.55 ac-ft/yr from this application, and an estimated 29.75 ac-ft/yr from a pending application, the estimated average annual withdrawal from the Missouri: Elk Point aquifer is 95,513.94 ac-ft/yr.

The estimated annual recharge to the Missouri: Elk Point aquifer is approximately 92,000 ac-ft/yr. This estimated annual recharge does not include the recharge induced by well withdrawals aside from Lewis and Clark RWS; the actual recharge is likely to be greater than 92,000 ac-ft/yr. The estimated annual withdrawals equate to roughly three percent of the available water in storage. Due to the relatively small development of this large resource and the ability to induce recharge to the aquifer from nearby bodies of surface water, there is a reasonable probability there is unappropriated water available from the Missouri: Elk Point aquifer for the proposed appropriation.

Observation Well Data

In determining the availability of unappropriated water for a permit application Administrative Rule 74:02:05:07 requires the Water Management Board to rely on the record of observation well measurements, in addition to other data, to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated annual recharge.

The Water Rights Program monitors 37 observation wells completed in the Missouri: Elk Point aquifer (Water Rights, 2018c). The nearest observation well is UN-78A, located approximately 0.6 miles east of the proposed well location. As shown in Figure 3, the location of this application is within a reasonable distance of several other observation wells. By using these other observation wells in this analysis, an idea of how the water table reacts to local pumping and regional climatic conditions can be obtained. The other nearby observation wells that were analyzed include UN-77M (2.6 miles northeast), UN-80E (2.8 miles east), and UN-77L (3.0 miles northwest). Observation well UN-57B was not included in this analysis even though it is located next to UN-80E and is identified as a Missouri: Elk Point observation well. UN-57B appears to have been developed into a perched sand pocket and does not react to aquifer conditions like the other observation wells in the area.

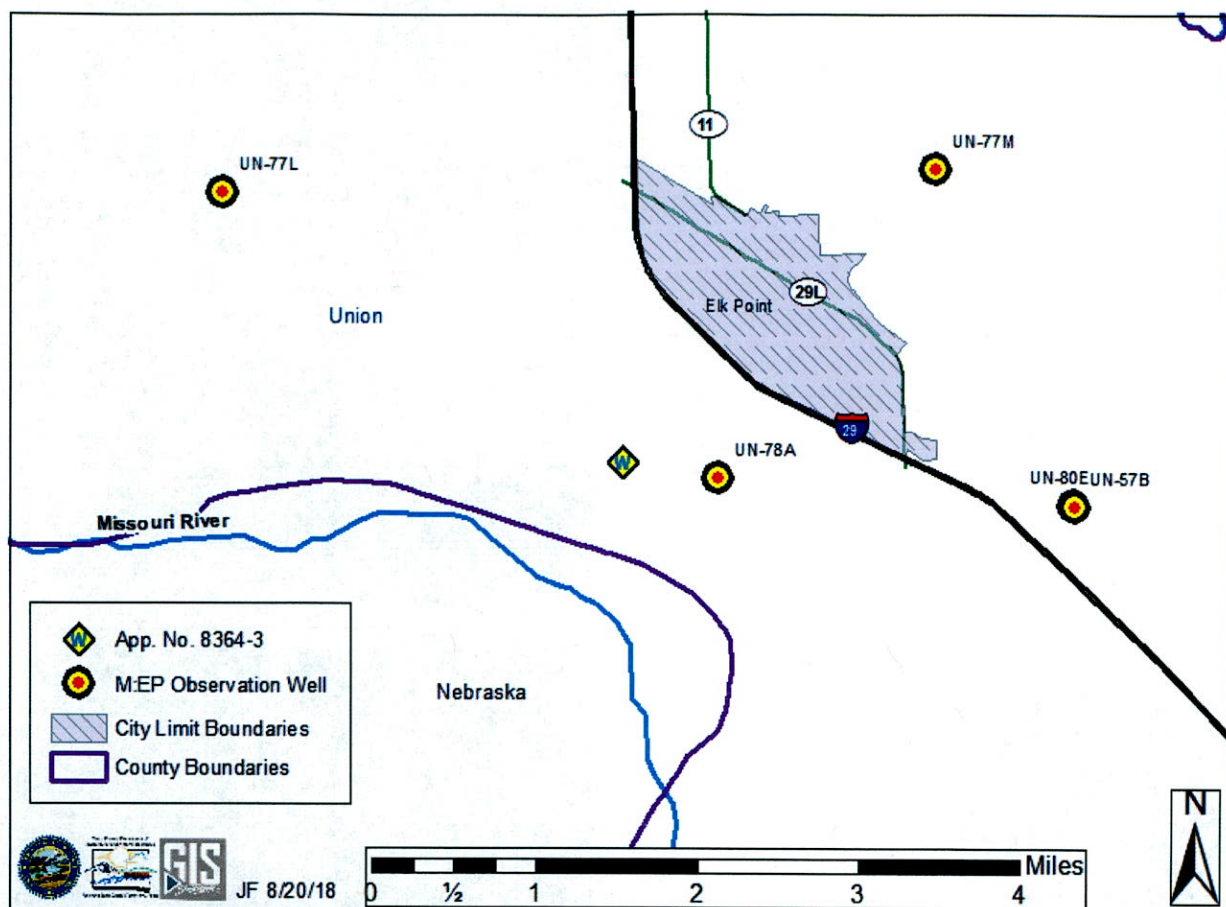


Figure 3. Map showing the location of nearby observation wells in the Missouri: Elk Point aquifer (Water Rights, 2018a; Water Rights, 2018c)

The hydrographs for these observation wells are shown in Figure 4. These observation well hydrographs are representative of the Missouri: Elk Point aquifer. The hydrographs show that the aquifer responds well to hydrologic conditions, recharging during wetter periods and declining during drier periods. The hydrographs of the Missouri River (Figure 5 and 6) generally show the same peaks, rising periods, and declining periods as the hydrographs of the Missouri: Elk Point aquifer, indicating that the aquifer is hydraulically connected to the Missouri River. Observation wells UN-77M and UN-80E are under locally confined conditions, and observation wells UN-77L and UN-78A are under water table conditions. Figure 5 is the hydrograph of the Missouri River at Sioux City, Iowa, approximately 40 miles downstream from the USGS stream gage Missouri River near Maskell, Nebraska (Figure 6), located across the Missouri River from Vermillion, SD. There are slight differences between these hydrographs as the confluences of the Vermillion and Big Sioux Rivers are located between these gages. Due to the availability of information, Figure 5 shows discharge, whereas Figure 6 shows gage height. The peaks on these hydrographs generally do not correspond with local precipitation events, as in the case of the peak in 2011, which was generated from the effects of snowmelt and rainfall far upstream and the controlled release of water from upstream dams. The observation well measurements show that the effects from pumping are temporal, and that the aquifer generally returns to pre-pumping conditions. There is a downward trend in these observation wells due to the construction of the Gavins Point Dam in Yankton, SD; the Missouri River is entrenching below the dam, lowering

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

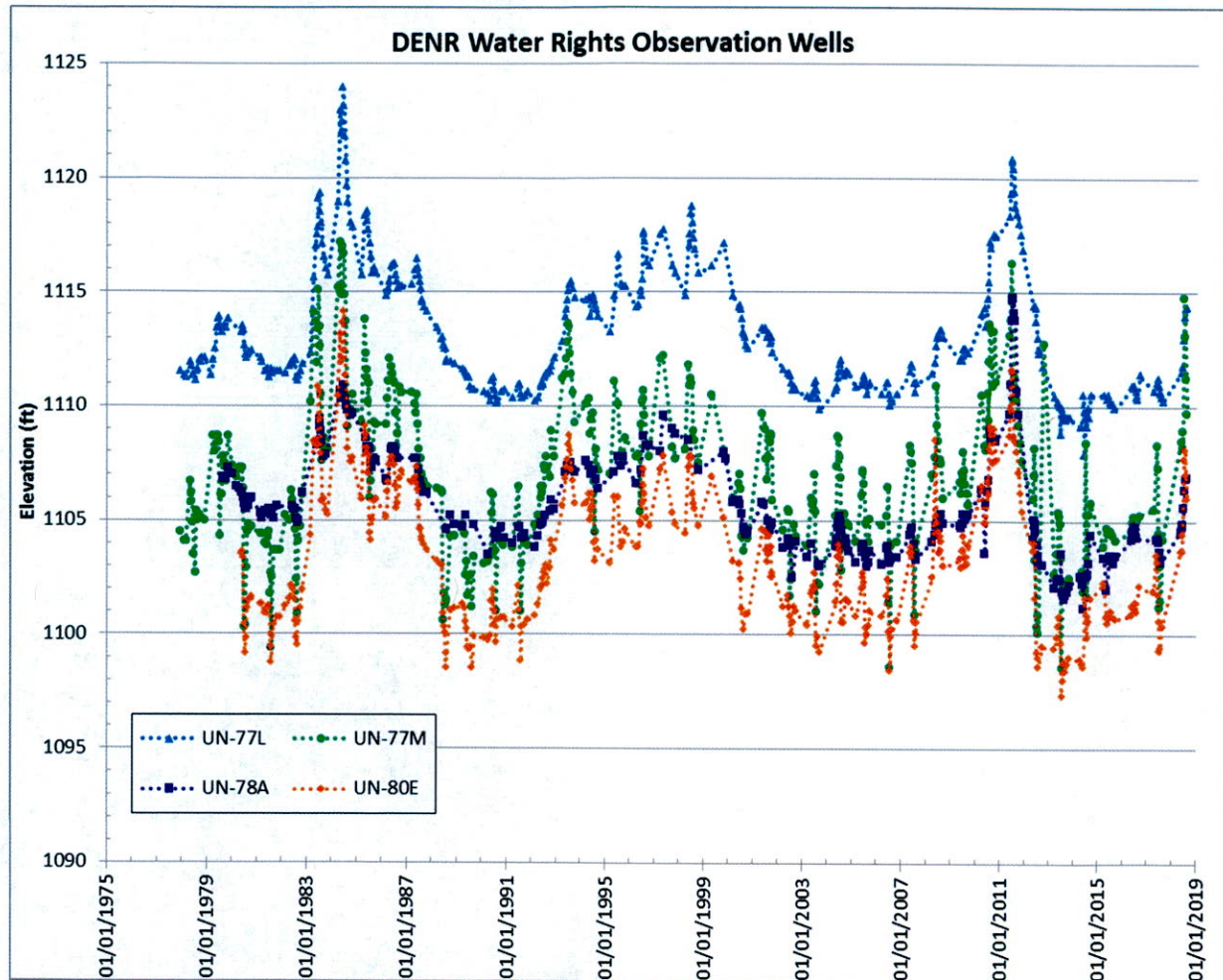


Figure 4: Hydrographs for Observation Wells UN-77L, UN-77M, UN-78A, and UN-80E (Water Rights, 2018c)

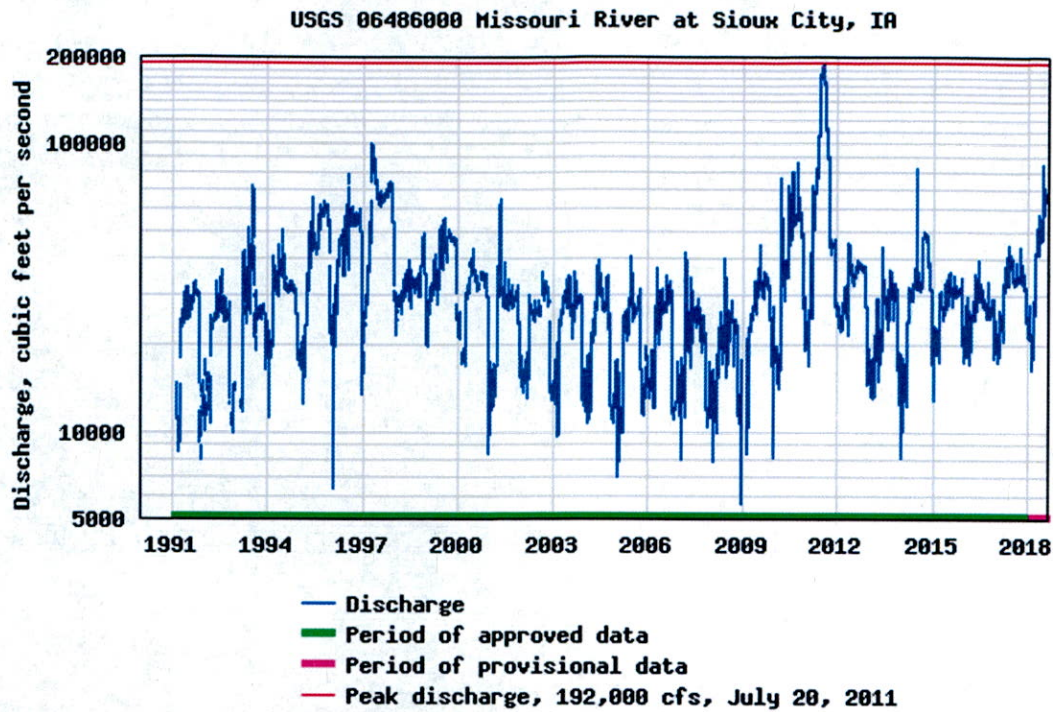


Figure 5: Hydrograph for USGS Stream Gage 06486000 Missouri River at Sioux City, IA (USGS, 2018)

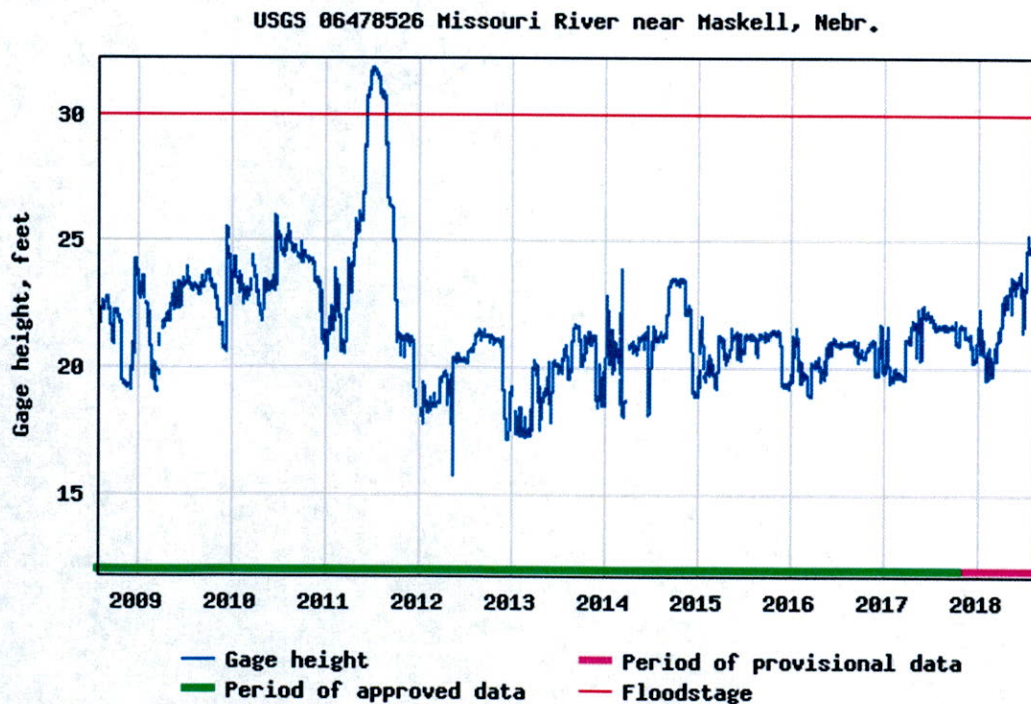


Figure 6: Hydrograph for USGS Stream Gage 06478526 Missouri River near Maskell, NE (USGS, 2018)

EXISTING WATER RIGHTS

There are 617 water rights/permits appropriating water including 4 future use permits reserving water from the Missouri: Elk Point area along with 1 application pending approval and 2 deferred applications (Water Rights, 2018a). The location of the diversion points for water rights/permits authorized to withdraw water from the Missouri: Elk Point aquifer in the vicinity of this application are shown in Figure 7. The areas reserved for the future use permits within the map boundaries are also shown.

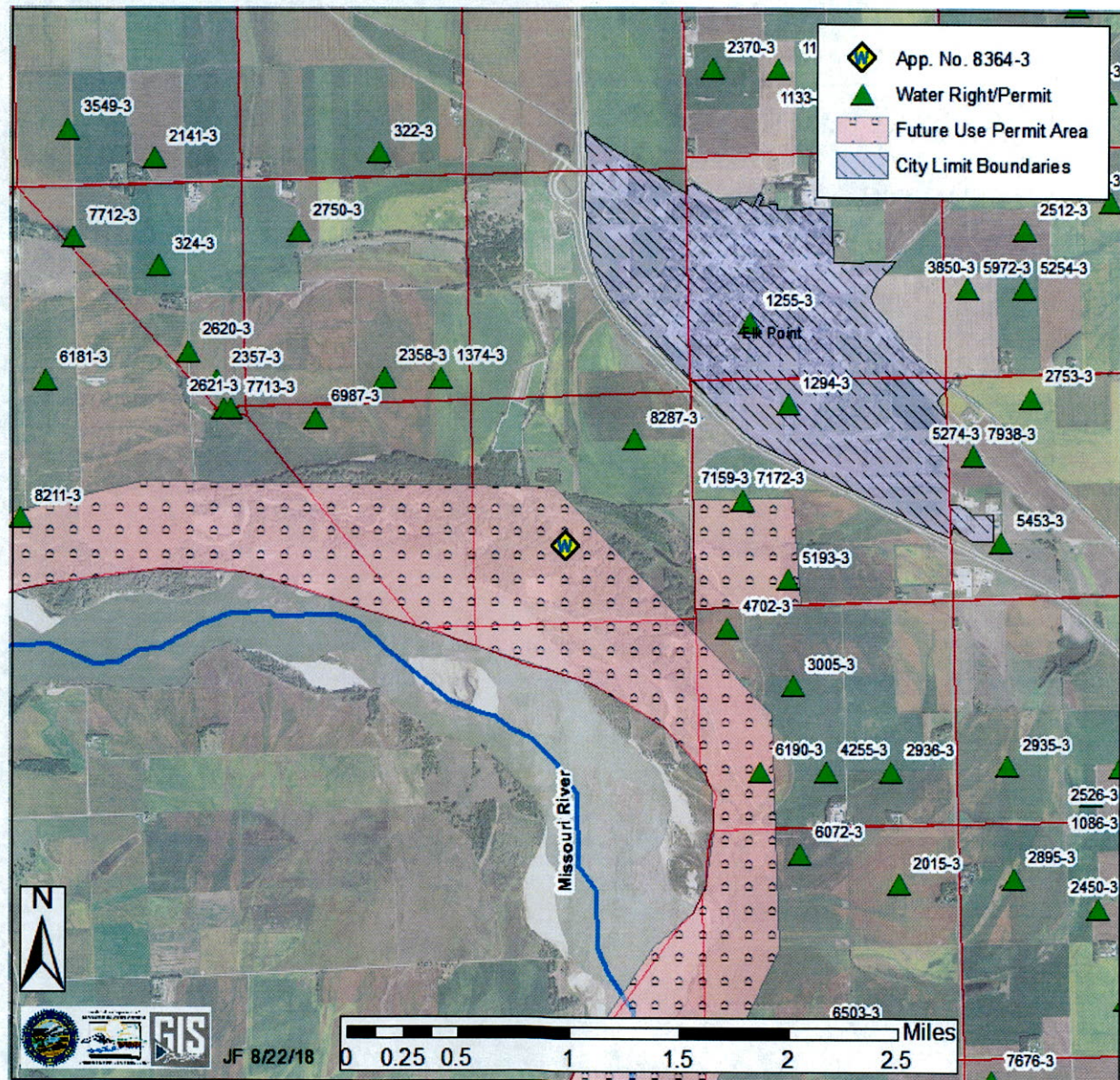


Figure 7: Map of the vicinity of Application No. 8364-3 including Missouri: Elk Point aquifer water rights/permits and future use areas (Water Rights, 2018a)

Drawdown from well withdrawals within the Missouri: Elk Point aquifer is generally not significant at distances far from the pumping well. Examination of the hydrographs of

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

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

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

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

SPECIAL CONSIDERATIONS

The applicant is requesting a diversion rate greater than the statutory limit. This request was presumably made due to the irrigation system requirements. SDCL 46-5-6 allows that the “Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires.”

CONCLUSIONS

1. Water Permit Application No. 8364-3 proposes to irrigate 93 acres with a maximum diversion rate of 2.22 cfs from one well to be completed into the Missouri: Elk Point aquifer in Union County.
2. This application is seeking a diversion rate that exceeds the statutory limit of 1 cfs for every 70 acres. This application is seeking an equivalent rate of 1.67 cfs per 70 acres presumably due to irrigation system requirements.
3. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer.
4. There is a reasonable probability that the diversion proposed by this application will not adversely impact adequate wells for existing water rights and domestic uses.



John Farmer
SD DENR – Water Rights Program

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

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

Water Rights. 2018d. Irrigation Questionnaire Database. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

AFFIDAVIT OF PUBLICATION

State of South Dakota)

:ss

County of Union)

Bruce L. Odson,

the publisher 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 No. 8364-3

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 6 day of September, 2018

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

\$ 27.35, 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.

Subscribed and sworn to before me

this 6 day of September, 2018

My commission expires 7-12-23

SUSAN ODSON
NOTARY PUBLIC
SOUTH DAKOTA

Notary Public

NOTICE OF APPLICATION NO. 8364-3 TO APPROPRIATE WATER

Notice is given that Daniel and Scott Hanson, 47674 327th St, Elk Point SD 57025 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 25 for irrigation of 93 acres located in the SW 1/4 SE 1/4, E 1/2 SW 1/4 Section 25; all in T91N-R50W which is approximately 1 mile southwest of Elk Point SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8364-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the ap-

plicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 17, 2018.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

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

Publish Sept. 6, 2018
Published once at the total approximate cost of \$27.35
36-2-89

RECEIVED

SEP 10 2018

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

RECEIVED

SEP 10 2018

WATER RIGHTS
PROGRAM

DANIEL & SCOTT HANSON
47674 327TH ST
ELK POINT SD 57025

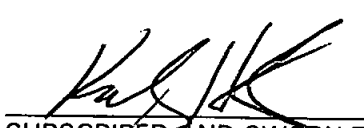
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

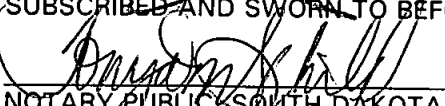
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT (S)HE IS THE MANAGING EDITOR OF YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
9 + 6 NOTICE OF APPLICATION

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 6th DAY OF September, 2018
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$27.21 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: 09/06/2018

FILED ON: 09/07/2018


SUBSCRIBED AND SWORN TO BEFORE ME THIS 7th DAY OF September, 2018


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

Ad text : 9+6

NOTICE OF APPLICATION NO. 8364-3 to Appropriate Water

Notice is given that Daniel and Scott Hanson, 47674 327th St, Elk Point SD 57025 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 25 for irrigation of 93 acres located in the SW 1/4 SE 1/4, E 1/2 SW 1/4 Section 25; all in T91N-R50W which is approximately 1 mile southwest of Elk Point SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

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Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352) and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 17, 2018.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$27.21

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, August 28, 2018 12:41 PM
To: Jackie Lammers (jackie.lammers@yankton.net)
Subject: 8364-3, Daniel and Scott Hanson
Attachments: 8364-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on September 6, 2018.

Daniel and Scott Hanson, 47674 327th St, Elk Point SD 57025 (605 231-1392) has been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak

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



Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, August 28, 2018 12:40 PM
To: G5 (leader1@iw.net)
Subject: 8364-3, Daniel and Scott Hanson
Attachments: 8364-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on September 6, 2018.

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

Karen Schlaak

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





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPERS RIGHT AWAY.**

August 28, 2018

Daniel and Scott Hanson
47674 327th St
Elk Point SD 57025

Dear Sirs:

Water Permit Application No. 8364-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the 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 newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

NOTICE OF APPLICATION NO. 8364-3 to Appropriate Water

Notice is given that Daniel and Scott Hanson, 47674 327th St, Elk Point SD 57025 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the NE 1/4 SW 1/4 Section 25 for irrigation of 93 acres located in the SW 1/4 SE 1/4, E 1/2 SW 1/4 Section 25; all in T91N-R50W which is approximately 1 mile southwest of Elk Point SD. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8364-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 17, 2018.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

SEP 25 2018

Daniel and Scott Hanson
47674 327th St
Elk Point SD 57025

Dear Sirs:

Enclosed is Water Permit No. 8364-3, authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures



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SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 22, 2021

NOTICE

TO: SCOTT HANSON, MGR, 47674 327TH ST, ELK POINT, SD 57025

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2020 Irrigation Questionnaires

Our records indicate your 2020 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 23, 2020. The Water Management Board has directed that owners of water permits who have not submitted the 2020 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 179-3, 306A-3, 1374-3, 2357-3 & 2358-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 6878-3, 8364-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 3, 2021 at 10:00 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 6878-3, 8364-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 179-3, 306A-3, 1374-3, 2357-3 & 2358-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaires are received in this office before the **March 3, 2021** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://denr.sd.gov/iq> using this password: HCHCEY**

C; TOM CURRY, 32306 477TH AVE, ELK POINT SD 57025

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 9, 2021

Scott Hanson
47674 327th St
Elk Point SD 57025

RE: Water Permit/Right Nos. 179-3, 306A-3, 1374-3, 2357-3, 2358-3, 6878-3, 8364-3

Dear Mr. Hanson:

I am writing to acknowledge receipt of your 2020 irrigation questionnaires.

You may disregard the January 22, 2021, "Notice" concerning reporting requirements for the above listed water permits and rights. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 20, 2022

NOTICE

TO: SCOTT HANSON, MGR, 47674 327TH ST, ELK POINT, SD 57025

FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2021 Irrigation Questionnaires

Our records indicate your 2021 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 22, 2021. The Water Management Board has directed that owners of water permits who have not submitted the 2021 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 179-3, 306A-3, 1374-3, 2357-3 & 2358-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 6878-3, 8364-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 2, 2022 at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 6878-3, 8364-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 179-3, 306A-3, 1374-3, 2357-3 & 2358-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaires are received in this office before the **March 2, 2022** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: XNXFOM**

c: TOM CURRY, 32306 477TH AVE, ELK POINT SD 57025

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

8364-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

March 1, 2022

Scott Hanson
47674 327th St
Elk Point SD 57025

RE: Water Permit/Right Nos. 179-3, 306A-3, 1374-3, 2357-3, 2358-3, 6878-3 & 8364-3

Dear Mr. Hanson:

I am writing to acknowledge receipt of your 2021 irrigation questionnaires.

You may disregard the January 20, 2022, "Notice" concerning reporting requirements for Water Permit/Right Nos. 179-3, 306A-3, 1374-3, 2357-3, 2358-3, 6878-3 & 8364-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

**Report of Examination of Works and/or Application of Water to
Beneficial Use
For Permit No. 8364-3**

I have this day, March 25, 2025, made a thorough examination of the water use system constructed by Dan and Scott Hanson of 47674 327th St, Elk Point SD 57025 holder of Permit No. 8364-3, bearing the priority of May 18, 2017 authorizing the diversion of 2.22 cu. ft. per second of the waters of groundwater, Missouri:Elk Point Aquifer for irrigation purposes, in Union County.

Inspection contact & relationship Scott Hanson, owner

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Unknown
- 2) No. of Wells 1
- 3) Depth(s) NA feet
- 4) Well log is available no
- 5) Comments: **The driller the permit holder reported as completing the well was incorrect.**

Casing:

- 1) Diameter NA inches
- 2) Length NA feet
- 3) Type plastic

Screen:

- 1) Type NA
- 2) Length NA feet
- 3) Static water level NA feet

Pump:

- 1) Make Grundfos
- 2) Model Submersible
- 3) Capacity 800 GPM

Motor:

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

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

- 1) Type steel
- 2) Size 10 inches
- 3) Length 20 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1280 feet
- 3) Number of towers 6
- 4) End gun Y
- 5) Capacity 800 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
If no, describe: none
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
List any extended period of nonuse: none
- 3) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good, condition with the point(s) of diversion located as follows: from the SE corner of Sec 25 T91N-R50W 2650 ft W and 1320 ft N, latitude of 42.66687 and longitude of -96.69830, NE 1/4 SW 1/4.
2. 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 use. Water has been put to beneficial use to the maximum extent as follows: Land is located in
3. Land is located in Sec 25 T91N-R50W
NE 1/4 SW 1/4 - 27 ac SE 1/4 SW 1/4 - 29 ac SW 1/4 SE 1/4 - 21 ac
comprising a total of 77 acres of land and the license should be issued for 1.78 cfs.
4. All structures, wells and lands on map Y/N
If no, describe: none

F. Comments or other permit(s) associated with the project:

Copies of the license should be sent to:

Scott Hanson

Dan Hanson

47674 327th St.

47644 327th St.

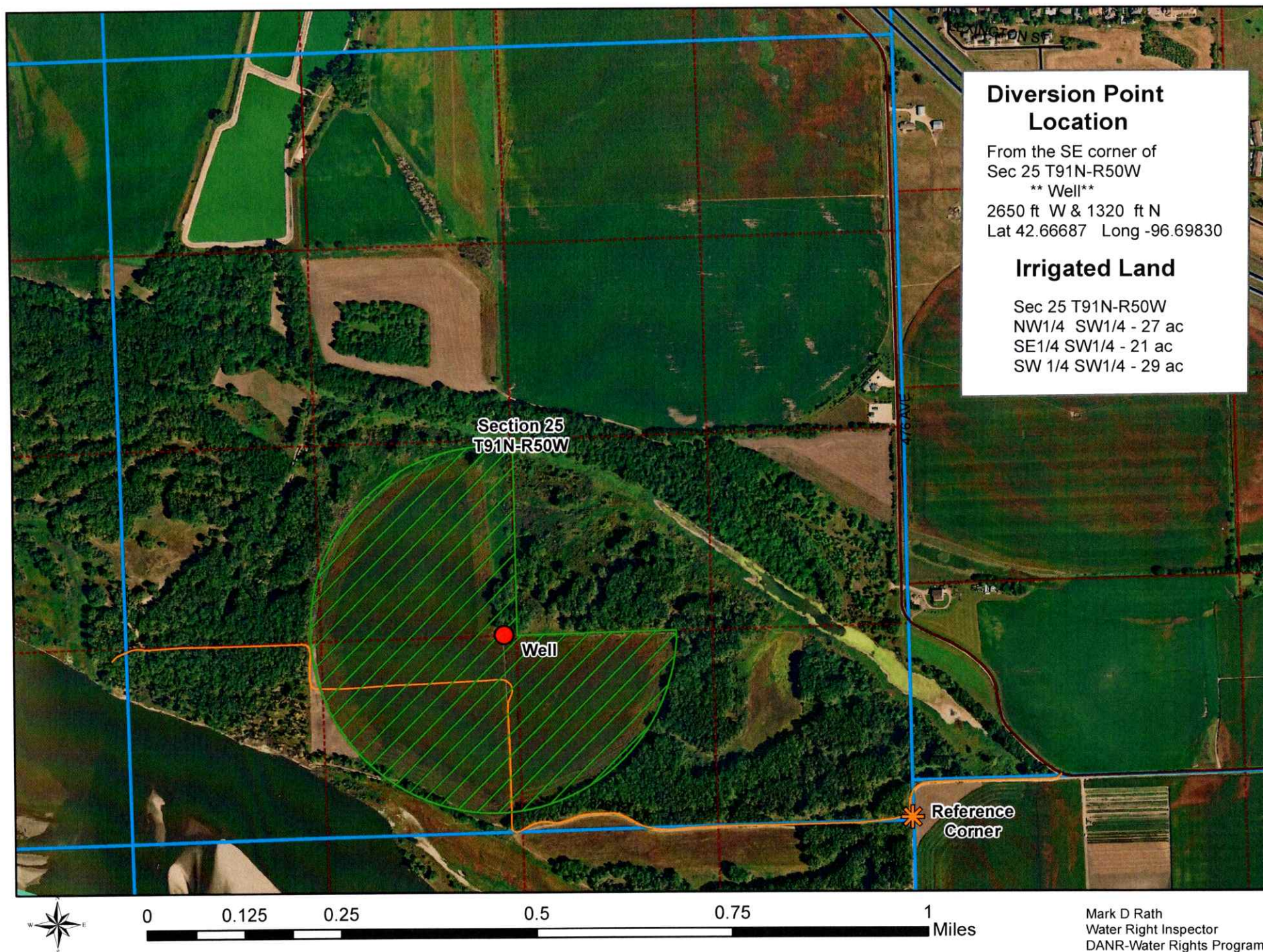
Elk Point SD 57025.

Elk Point SD 57025



Mark D Rath
Water Right Inspector
DANR, Water Rights Program

Date report completed: **May 12, 2025**





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 06 2025

Dan Hanson & Scott Hanson
47644 327th St
Elk Point, SD 57025

No. 8287-3 & 8364-3

Dear Mr. Hanson:

Enclosed is Water License No. 8287-3 & 8364-3. These are the final water right documents completing your process of obtaining a Water Right. Included with each license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

Mark Mayer, PE
Director of Office of Water
(605) 773-3352

Note: (The maximum diversion rate authorized for irrigation under Water Right No. 8287-3 has been reduced to 1.78 cfs (800 gpm), based on the system as constructed.)

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8364-3

(1) Daniel Hanson & Scott Hanson, 47674 327th St, Elk Point, SD 57025, made Application No. 8364-3, July 5, 2018, for a water permit to divert 2.22 cubic feet of water per second from groundwater, one well (Missouri: Elk Point Aquifer), Union County, South Dakota for irrigation purposes. Permit No. 8364-3, with a priority date of July 5, 2018, was approved September 17, 2018, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before September 17, 2023, and for the application to beneficial use of water on or before September 17, 2027.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 2,650 feet W and 1,320 feet N from the SE corner of Section 25, T91N, R50W (NE $\frac{1}{4}$ SW $\frac{1}{4}$)
(Latitude 42.66687 and Longitude -96.69830)

(3) The amount of appropriation may not exceed 2 acre-feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.

(4) The permit holders have complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate to following land:

Section 25, T91N, R50W
NE $\frac{1}{4}$ SW $\frac{1}{4}$ - 27 acres
SW $\frac{1}{4}$ SE $\frac{1}{4}$ - 21 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 29 acres
Total – 77 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Daniel Hanson & Scott Hanson, the holders and/or owners of Water Right No. 8364-3 are issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, one well (Missouri: Elk Point Aquifer), with a priority date of July 5, 2018, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8364-3 and subject to the following qualifications:

1. The well approved under Permit No. 8364-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8364-3 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.

continued

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. 8364-3 authorizes a maximum diversion rate of 2.22 cfs for the irrigation of 93 acres with an annual volume not to exceed 2 acre-feet of water per acre per year. *(The number of acres authorized for irrigation under Water Right 8364-3 was reduced to 77, and the maximum diversion rate was reduced to 1.78 cfs, based on the system as constructed.)*

4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

Mark Mayer

Mark Mayer, PE
Director of Office of Water

6/6/25

date

