

WATER PERMIT NO. 8021-3

Name of Applicant: **Karl M Schenk**

Address: **44352 308th St, Mission Hill SD 57046** Phone: **605 760-0363**

Amount of Water Claimed: **1.78 cfs** Total Acres: **96 acres**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation** County: **Yankton**

Type of Waste Disposal System:

Location: **1 mile northwest of Mission Hill**

PRIORITY Date Received: **6-5-14** Application/License Fee: **\$ 950**

Corrected Application Received: Period of Annual Use: **april 1 – October 31**

Remarks: **Requestion diversion rate greater than statutory limit**

Diversion Point: **center of NE 1/4 Sec 30-T94N-R54W**

Land to be Irrigated: **N 1/2 NE 1/4, SW 1/4 NE 1/4**
Sec 30-T94N-R54W

Depth of Well: ¹⁶
~~22~~ **feet deep**

Well Driller:

Remarks:

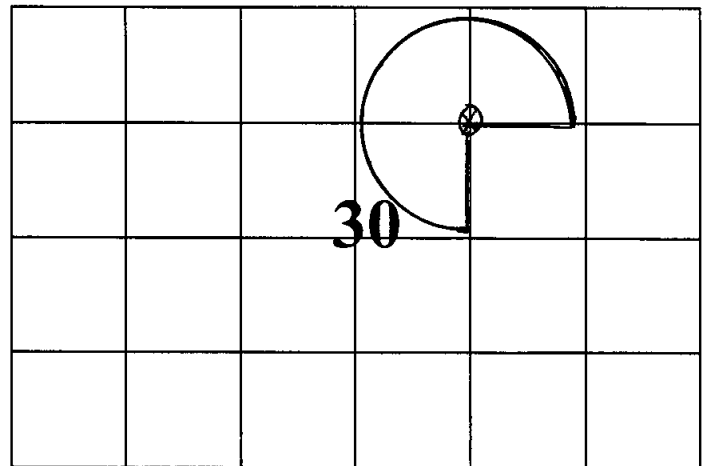
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **6-5-14**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



\$950
Hanson

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8021-3</u> (office use only)	Hydrologic Unit <u>10/20/02</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Daily Press & Dakotan</u> <u>319 Walnut</u>	
	<u>Yankton 57078</u> <u>605-665-7811</u>	

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WATER RIGHTS
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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 Karl M Schenk
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)
- Mailing Address 44352 308th St Mission Hill SD 57046
(Address) (City) (State) (Zip Code)
- Home Phone 605 760 0363 Cell 760 0363 Email KnSchenk@cableone.net
2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 96
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Lower James Missouri Aquifer
4. Location of point of diversion center NE 1/4 Sec 30-94N-54W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
- County Yankton
5. County or counties where water will be used Yankton
6. Annual period during which water is to be used April - October 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
<u>NE 1/4 NE 1/4</u>	<u>32</u>		
<u>NW 1/4 NE 1/4</u>	<u>32</u>		
<u>SW 1/4 NE 1/4</u>	<u>32</u>		
<u>all in Sec 30-94N-R54W</u>			

8. Give a description of the project. (Attach sheet if more space is needed)
Zimmerman 8 tpr center Pivot powered by
a diesel engine or electricity, making a 3/4 circle
with an end gun. Requesting diversion rate greater than
statutory limit

I, Karl Schenk, 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. 8021-3

Date of first receipt of application June 5, 2014.

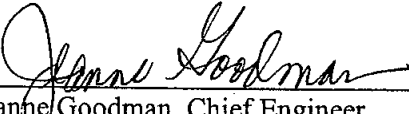
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8021-3 to Karl M Schenk, 44352 308th St, Mission Hill SD 57046 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8021-3 authorizes 1.78 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (160 feet deep) located in the approximate center of the NE 1/4 Section 30 for irrigation of 96 acres located in the N 1/2 NE 1/4, SW 1/4 NE 1/4 Section 30; all in T94N-R54W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is June 5, 2014.
4. The date of approval of Permit No. 8021-3 is August 25, 2014.
5. One-fifth of the construction is to be completed on or before February 25, 2017.
6. All construction is to be completed on or before August 25, 2019.
7. Water is to be put to beneficial use on or before August 25, 2023.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8021-3 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. 8021-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 96 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, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

SEP 04 2014

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 22" Depth 160-180
- b) Casing Type PVC Diameter 16" Thickness 1/2"
- c) Screen Type PVC Diameter 16" Thickness 1/2"
- d) Gravel Pack 1/8 - 3/8 pea rock Length of Gravel Pack 100'
- e) Depth to Top of Water Bearing Material 100'
- f) Depth to Water (ground surface to water level) 100'
- g) Distance to nearest existing domestic well:

On applicant's property noneOn property owned by others as close as 100'. unknown see map. adj. building site

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)

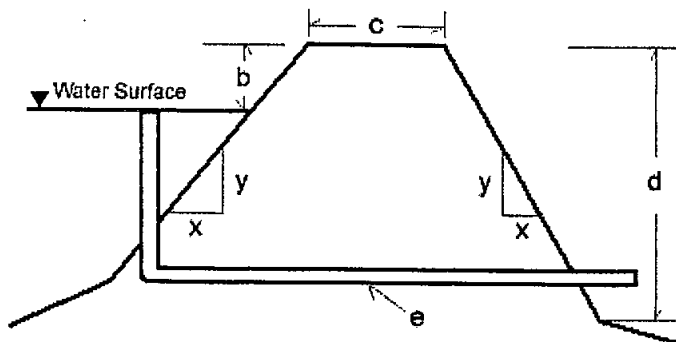
Upstream _____

Downstream _____

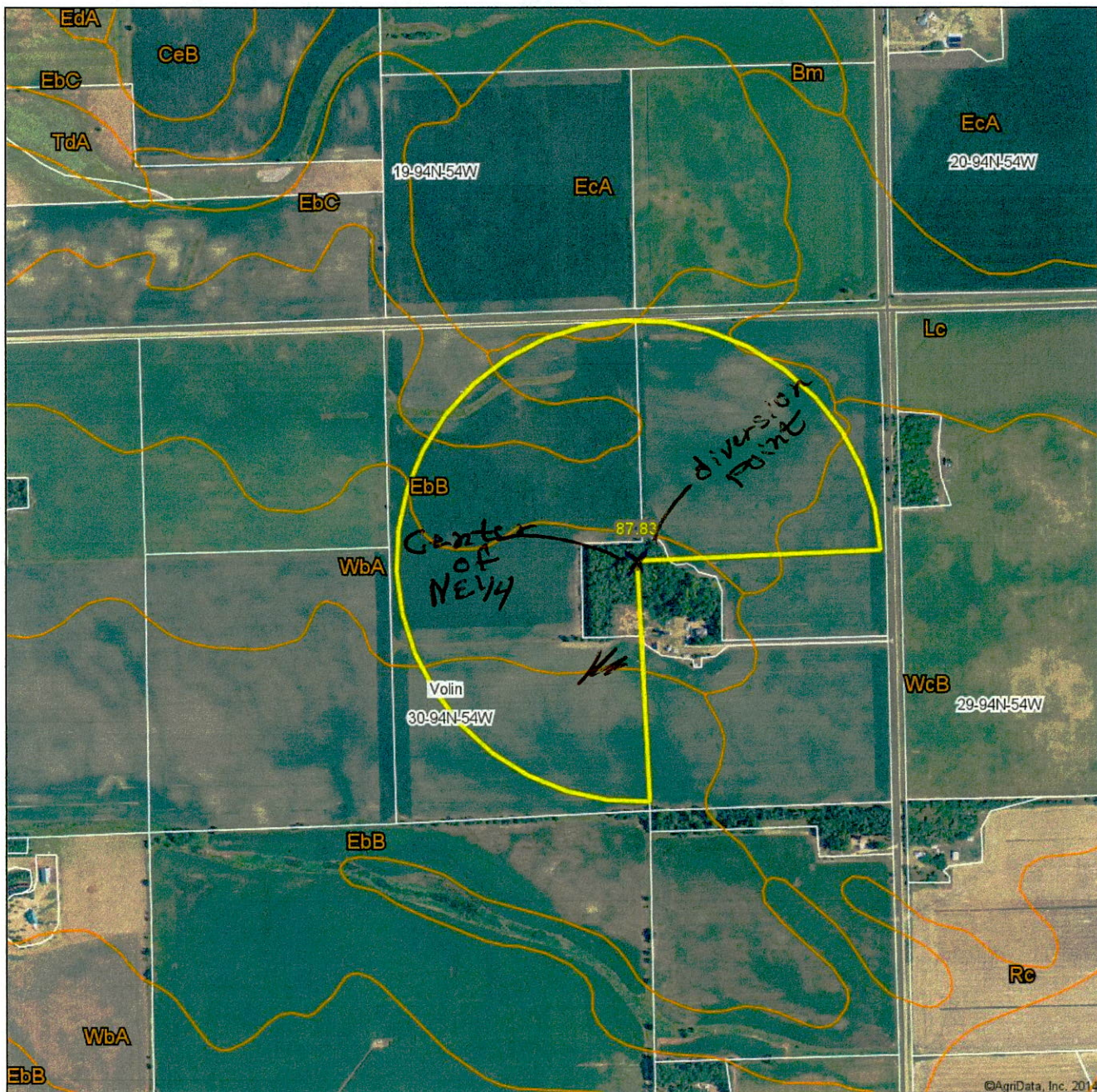
h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Aerial Map



map center: 42° 56' 5.06, 97° 15' 58.86

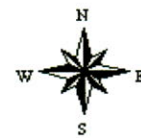
scale: 9475

Maps Provided By:



© AgriData, Inc. 2014 www.AgriDataInc.com

30-94N-54W
Yankton County
South Dakota



6/3/2014

Field borders provided by Farm Service Agency as of 5/21/2008. Aerial photography provided by Aerial Photography Field Office.

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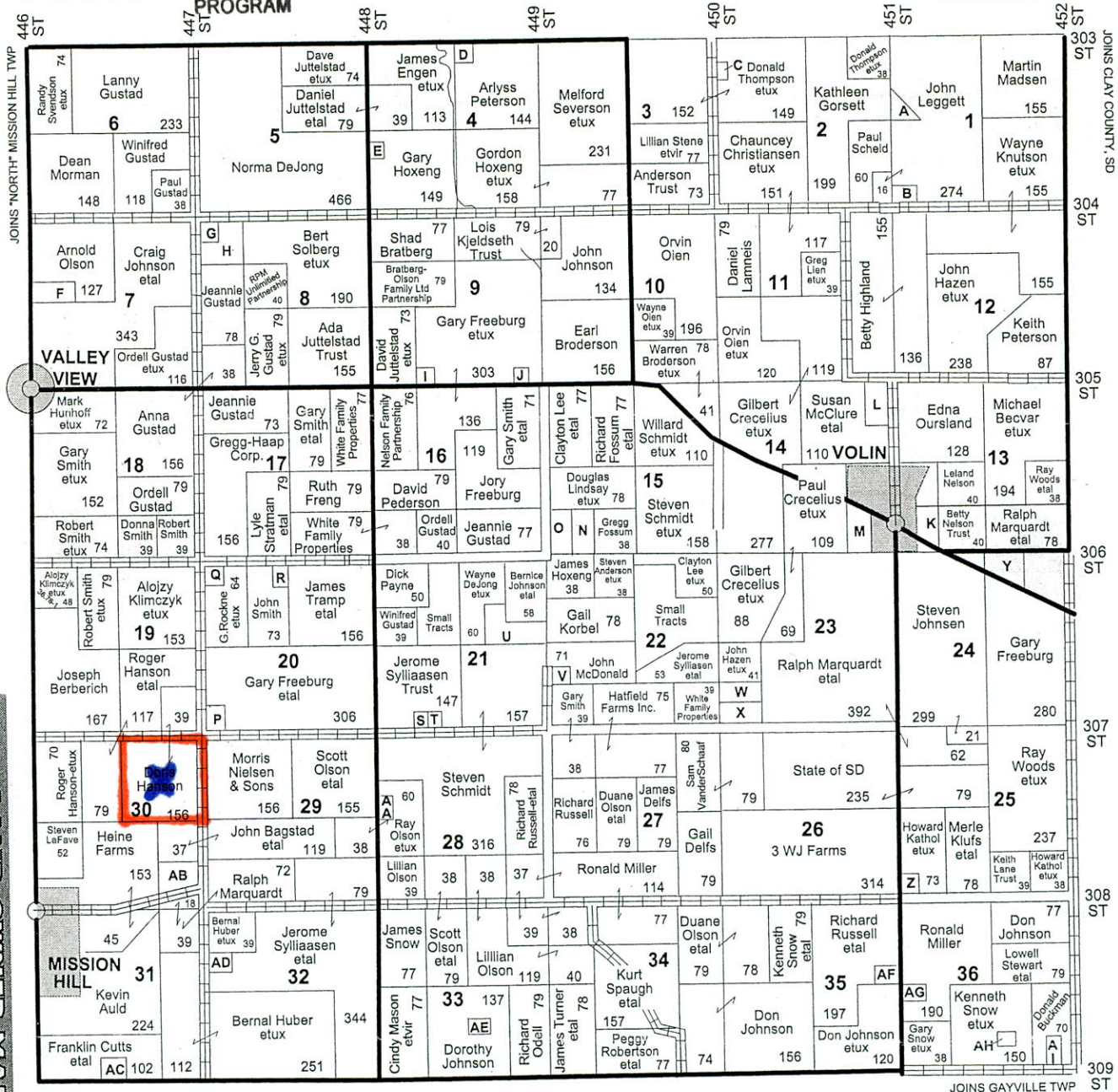
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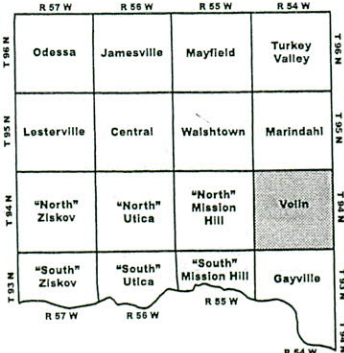
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R 54 W

JOINS MARINDAHL TWP



- | | | | |
|------------|-----------------------------------|------------|------------------------------------|
| Section 1 | A Kathleen Gorsett - 22 | Section 21 | S David Hovden etux - 9 |
| | B Cecil Clay etux - 20 | | T 3 WJ Farms - 10 |
| Section 2 | C Kevin Brunke - 7 | | U Melanie Solem etal - 40 |
| Section 4 | D David Hoxeng etux - 10 | Section 22 | V Virgil Schmidt etux - 8 |
| | E Patrick McDonald etux - 6 | Section 23 | W Lillian Olson - 20 |
| Section 7 | F Chip Horton etux - 24 | | X Scott Olson - 19 |
| Section 8 | G Lonny Lee etux - 14 | Section 24 | Y Delmar Adamson etux - 29 |
| | H Chauncey Christiansen etux - 24 | Section 25 | Z Monte Davis etux - 5 |
| Section 9 | I Shannon Goeden etal - 6 | Section 28 | AA Jon Gunderson - 16 |
| | J Barbara Schnider - 7 | Section 30 | AB Andrew Nielsen - 22 |
| Section 13 | K Steve Gustad etux - 29 | Section 31 | AC James Busch etux - 11 |
| Section 14 | L Merle Ludwig etux - 24 | Section 32 | AD Jim Lyons etux - 18 |
| | M Holly Madsen - 23 | Section 33 | AE David Hicks etux - 18 |
| Section 15 | N Brian Hoxeng etux - 19 | Section 35 | AF Christopher Bornitz etux - 8 |
| | O Gordon Hoxeng etux - 19 | Section 36 | AG Gerald Johnson - 5 |
| Section 20 | P Kenton Wathier etux - 6 | | AH Richard Chirstopherson etux - 8 |
| | Q George Wathier etux - 13 | | AI Brian Beach etux - 7 |
| | R Roger Olson etux - 6 | | |



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WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6/5, 20 14

RECEIVED OF Karl M Schenk 948 Wynstone Dr Jefferson SD 57038

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

Fee for Application for Permit No. <u>8021-3</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>8021-3</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. **06876**

By J. M. Goodman
Chief Engineer



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8021-3, Karl M Schenk**

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. 8021-3, Karl M Schenk, 44352 308th Street, Mission Hill SD 57046.

The Chief Engineer is recommending APPROVAL of Application No. 8021-3 for 1.78 cfs 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 Permit No. 8021-3 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. 8021-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 96 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 6, 2014

**REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NO. 8021-3**

Karl M Schenk

July 18, 2014

Water Permit Application No. 8021-3 proposes to appropriate groundwater at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer. The well is expected to be 160 to 180 feet deep and located in the center of the NE ¼ of Section 30, T94N-R54W. Water will be used to irrigate 96 acres located in the NE¼ of Section 30, T94N-R54W in Yankton County. The applicant is requesting a diversion rate greater than the statutory limit.

AQUIFER: Lower James Missouri aquifer (LJM)

GEOLOGY AND AQUIFER CHARACTERISTICS:

No test hole logs were submitted with this application. However, nearby well logs indicate that aquifer materials in the area occur from approximately 80 to at least 200 feet below ground surface. Water levels in the aquifer in the area of interest are expected to be approximately 30 to 40 feet below ground surface (Water Rights, 2014c).

The Lower James Missouri aquifer and the Missouri: Elk Point aquifer are a continuous groundwater bearing unit that has been separated into management units geographically at the bluff created by the Missouri River trench (Hedges and others, 1982). The Missouri: Elk Point aquifer, which is on the floodplain, is typically surficial and predominately under unconfined conditions. The Lower James Missouri aquifer, which is above the floodplain, is typically buried and predominately under confined conditions. Near the geographic boundary, as is the case of the proposed well site, the hydrogeologic conditions of the water bearing unit defines the aquifer. Because the aquifer is located above the flood plain at this location, it is expected to be buried by till and under predominately confined conditions. Therefore, this well will be considered as completed into the Lower James Missouri aquifer (Water Rights, 2014c).

The Lower James Missouri aquifer is a glacial outwash consisting of fine sand to cobble gravel. The aquifer is hydraulically connected to the Choteau, Lower James Missouri: Scotland, Missouri: Elk Point, and Niobrara aquifers, and the James and Missouri Rivers. Water in the aquifer moves south and locally toward the James River (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990).

Hansen (1983) mapped a glacial aquifer in southern Hanson County and named it the Plum Creek aquifer. Bugliosi (1986) mapped a glacial aquifer in Yankton County and named the portion covered by till the Lower James Missouri aquifer. Lindgren and Hansen (1990) mapped a glacial aquifer in Hutchinson County and named it the Lower James Missouri aquifer. Based on elevations of the aquifer materials, the Plum Creek aquifer and the Lower James Missouri aquifer appear to be connected (SD Geological Survey, 2014). Water levels in these aquifers are at a similar elevation, further indicating a connection (Water Rights, 2014a). The chemical analyses of water in the Plum Creek aquifer and the Lower James Missouri aquifer document many constituents often at the similar concentrations, also indicating a connection (Hansen,

1983; Lindgren and Hansen, 1990). Furthermore, Lindgren and Hansen (1990) specifically state subsurface inflow to the Lower James Missouri aquifer occurs from Hanson County, implying the Plum Creek aquifer is in hydraulic connection with the Lower James Missouri aquifer to an unknown degree.

Stonesifer (2013) constructed a composite map based on delineations of the Lower James Missouri aquifer produced from Bugliosi (1986), Lindgren and Hansen (1990), Hansen (1983), and Hedges and others (1982). Small portions of the aquifer were delineated in McCook and Clay Counties based on lithologic logs (SD Geological Survey, 2014). The Lower James Missouri aquifer underlies approximately 191,700 acres and contains an estimated 2,795,400 acre-feet (ac-ft) of recoverable water in storage (Hedges et al., 1982)

SDCL 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 from the aquifer and the potential for impairment of existing rights.

While the water bearing unit is continuous at this aquifer boundary, the proposed well is considered as completed into the Lower James Missouri aquifer due to hydrogeologic conditions. Therefore, water availability is only considered for the Lower James Missouri aquifer. However, due to the continuous and connected nature of the water bearing unit, existing rights in both the Lower James Missouri and Missouri: Elk Point aquifers will be considered below in the Existing Water Rights section.

WATER AVAILABILITY:

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires that no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge. If the source of the groundwater is older or lower than the Greenhorn formation and will be used for a public water system, recharge and withdrawal does not need to be considered. Here, a public water system is not involved and the aquifer is above the Greenhorn formation. So, recharge and withdrawal must be considered. This will be considered by two methods: a hydrologic budget considering quantified values of recharge and withdrawal and an observation well analysis considering water levels.

Recharge:

Recharge to the Lower James Missouri aquifer occurs through infiltration of precipitation where the aquifer is at or near land surface in the James River flood plain, upward leakage from the bedrock aquifers, inflow from surface water, and inflow from the surrounding glacial aquifers (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990).

Hedges and others (1985) estimated recharge rate of the Lower James Missouri aquifer through regional flow-net analysis to be 1.5 inches per year (in/yr). In applying this total recharge rate estimate to the total area of the aquifer (191,700 acres (Hedges et al., 1982)) recharge is estimated to be 24,000 ac-ft/yr.

The recharge rate to unconfined portions of the aquifer was estimated to be 3.9 inches per year (in/yr) from observation well analysis (Hedges and others, 1985). The unconfined portion of the aquifer was determined from lithologic logs, observation wells, and ArcMap 10.2 mapping software and was determined to be 82,200 acres (Stonesifer, 2014). Applying Hedges and others (1985) recharge rate, recharge is estimated to be 26,700 ac-ft/yr in the unconfined portion of the aquifer.

Discharge:

Discharge from the Lower James Missouri aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface, seepage to surface waters, and well withdrawals (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990). Currently there are 151 water rights/permits appropriating water from the Lower James Missouri aquifer and one water right appropriating water from the Plum Creek aquifer (Water Rights, 2014b).

While there are many domestic wells on file, many are no longer used as primary sources since rural water systems have been introduced in the area. Considering this, and the relatively small withdrawal of a domestic well, the annual quantity of water withdrawn due to domestic wells is not significant to the hydrologic budget of the aquifer (Water Rights, 2014c).

The amount of water that can be expected to be withdrawn by non-irrigation water rights/permits at the current appropriation amount, which are all limited by diversion rate, can be estimated by assuming these water rights/permits pump at the maximum authorized diversion rate 60 percent of the time. This amounts to 1,323 ac-ft/yr pumped from the Lower James Missouri aquifer. There are no non-irrigation water rights/permits authorized from the Plum Creek aquifer (Water Rights, 2014b).

The historic irrigation water use from water rights/permits authorized from the Lower James Missouri aquifer together with the Plum Creek aquifer is shown in Figure 1. The average irrigation pumpage over the period of record from Lower James Missouri aquifer water rights/permits is 2,680 ac-ft/yr. When also including water rights/permits from the Plum Creek aquifer, average irrigation pumpage is 2,766 ac-ft/yr. The expected use of irrigation water rights/permits is estimated to be the average pumpage reported over the entire period of record for water rights/permits authorized prior to 2014.

Hydrologic Budget:

The average total withdrawal from the Lower James Missouri aquifer is estimated to be 4,089 ac-ft/yr. Hedges and others' (1985) flow net analysis determined a recharge estimate of 24,000 ac-ft/yr. Applying Hedges and others (1985) unconfined recharge rate to the determined unconfined area yields a recharge estimate of 26,700 ac-ft/yr to the unconfined portion of the aquifer with an unknown and likely negligible recharge from the remaining confined portions of the aquifer. Both recharge estimates are much greater than withdrawals. Therefore, there is a reasonable

probability that unappropriated water is available from the Lower James Missouri aquifer to support the proposed appropriation.

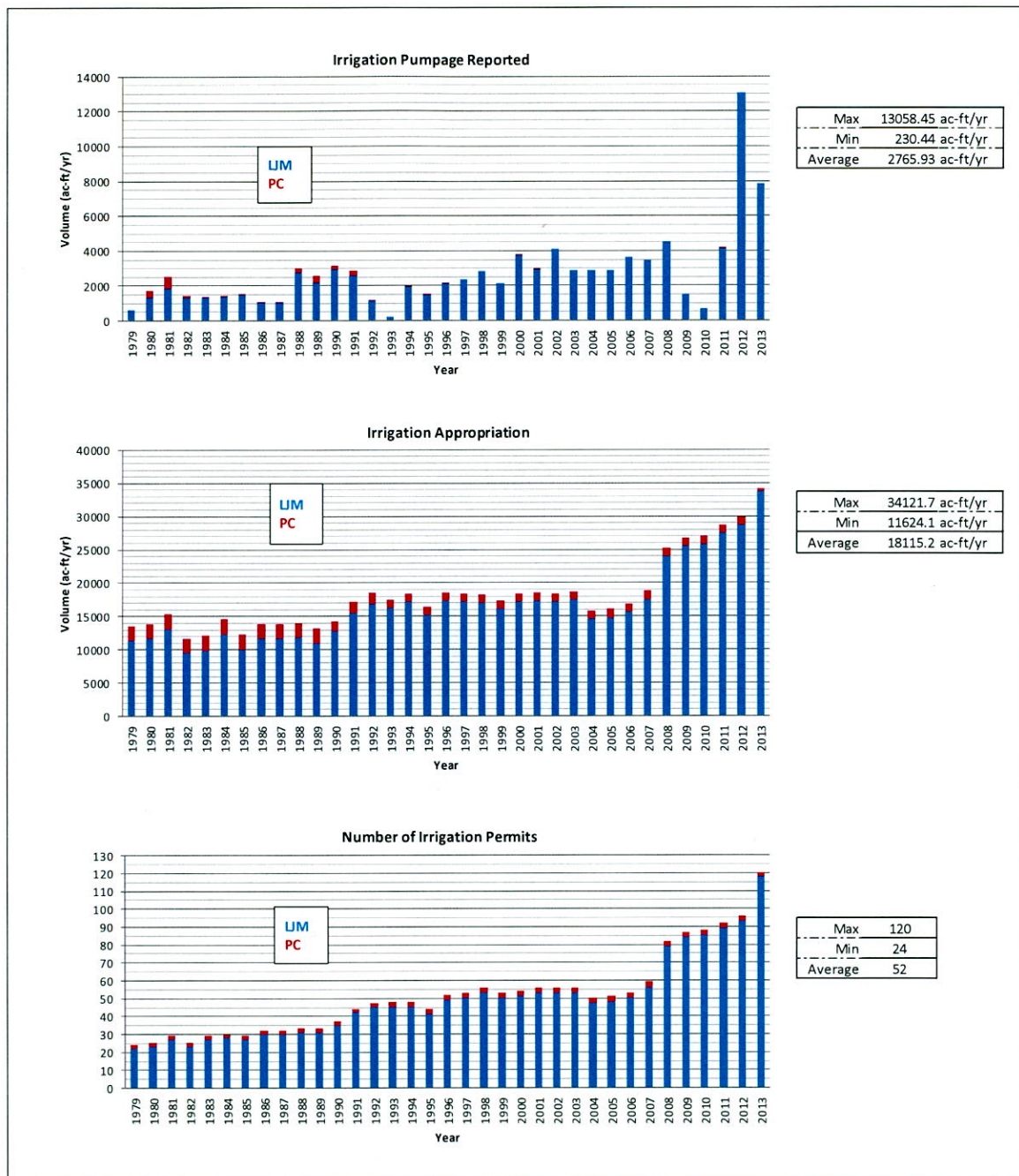


Figure 1: Historic irrigation water use from the Lower James Missouri aquifer including the Plum Creek aquifer (Water Rights, 1980-2014)

Observation Well Data:

Administrative Rule of South Dakota (ARSD) 74:02:05:07 states the Board will rely on the record of observation well measurements to determine that the annual withdrawals from the aquifer does not exceed the estimated average annual recharge.

The Water Rights Program monitors 31 observation wells completed into the Lower James Missouri aquifer. Currently hydrographs for 13 of the observation wells have a declining trend line across the period of record. These decreasing trend lines can be explained in one of two ways:

Observation wells with decreasing trend lines in the northern portion of the aquifer have had recent development nearby, and the water level has yet to equilibrate. Also, the temporal effects of pumping are skewing the trend line downward as can be seen in Observation Wells HT-81D and HT-82C. These wells are approximately three miles apart. Observation well HT-81D has a decreasing trend line, and HT-82C has an increasing trend line, as shown in Figure 2. There are seven water rights/permits within one mile of HT-81D. The nearest water rights/permits to HT-82C are more than two miles away. Overlays of the hydrographs of these wells shows that the only difference in water levels is from the effects of local pumping at HT-81D, as shown in Figure 3. And so, the decreasing trend line of these observation wells is attributed to the localized pumping and does not indicate overall annual water levels in the aquifer are decreasing.

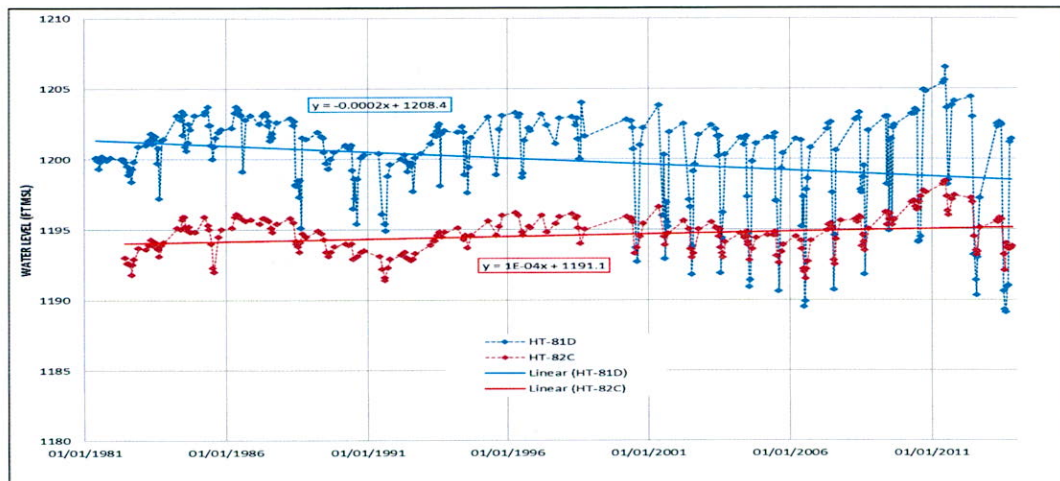


Figure 2: Hydrographs for observation wells HT-81D and HT-82C (Stonesifer, 2014)

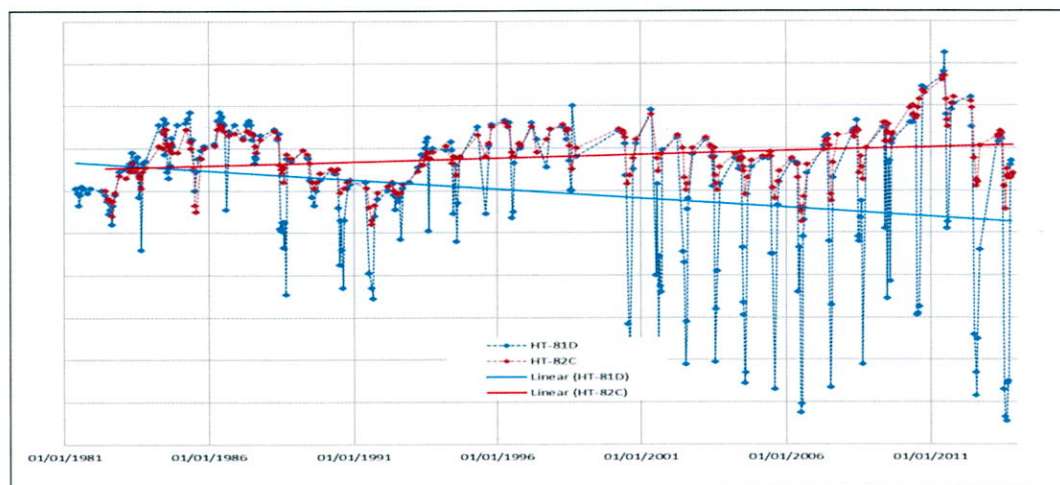


Figure 3: Overlay of observation wells HT-81D and HT-82C (Stonesifer, 2014)

Observation wells with decreasing trend lines in the southern portion of the aquifer have a significant hydraulic connection to the Missouri: Elk Point aquifer, which has a significant hydraulic connection to the Missouri River. Since the Gavins Point Dam was closed off, the Missouri River has entrenched approximately 10 feet (Cowman, 2014). As the Missouri River has entrenched, the water levels in the hydraulically connected aquifers have declined (Water Rights, 2014a). And so, the declining water levels in these observation wells can be attributed to the entrenchment of the Missouri River and do not indicate decreasing water levels in the aquifer overall.

The nearest observation wells to the proposed well site in this application and which are completed into the Lower James Missouri aquifer, YA-80IA and YA-78I, are located approximately 1.75 miles and 0.75 miles (respectively) northwest of the well site. The hydrographs for these observation wells are shown in Figures 4 and 5. These hydrographs are typical of many observation wells recording water levels in the Lower James Missouri aquifer. Observation well data documents cyclic yet somewhat linear water levels. Temporal well withdrawal is visible but is generally masked by climatic conditions, indicating that natural discharge is available for capture. Most Lower James Missouri aquifer observation wells record increasing trends in water levels, indicating that withdrawals have not exceeded recharge. Observation wells with declining water level trend lines have been explained above and are generally thought to be a result of recent increases in local pumping and not overall declining aquifer levels. Therefore, unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

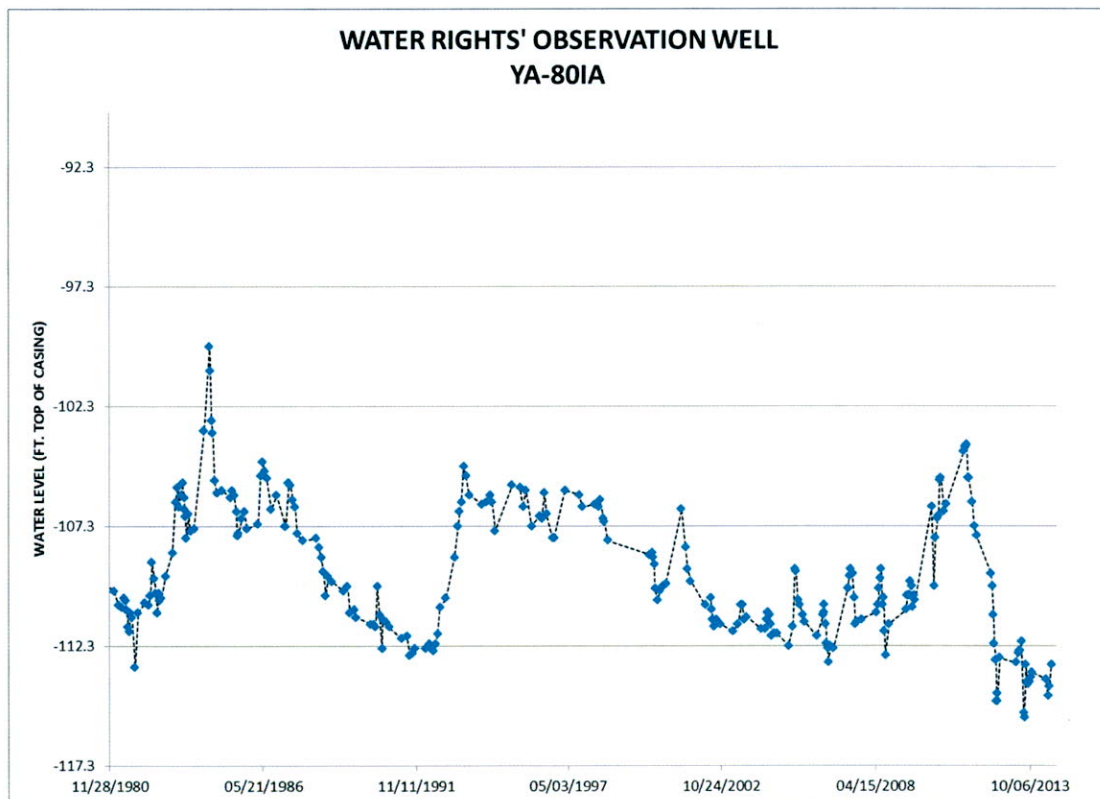


Figure 4: Historic water levels in Observation Well YA-80IA (Water Rights, 2014a)

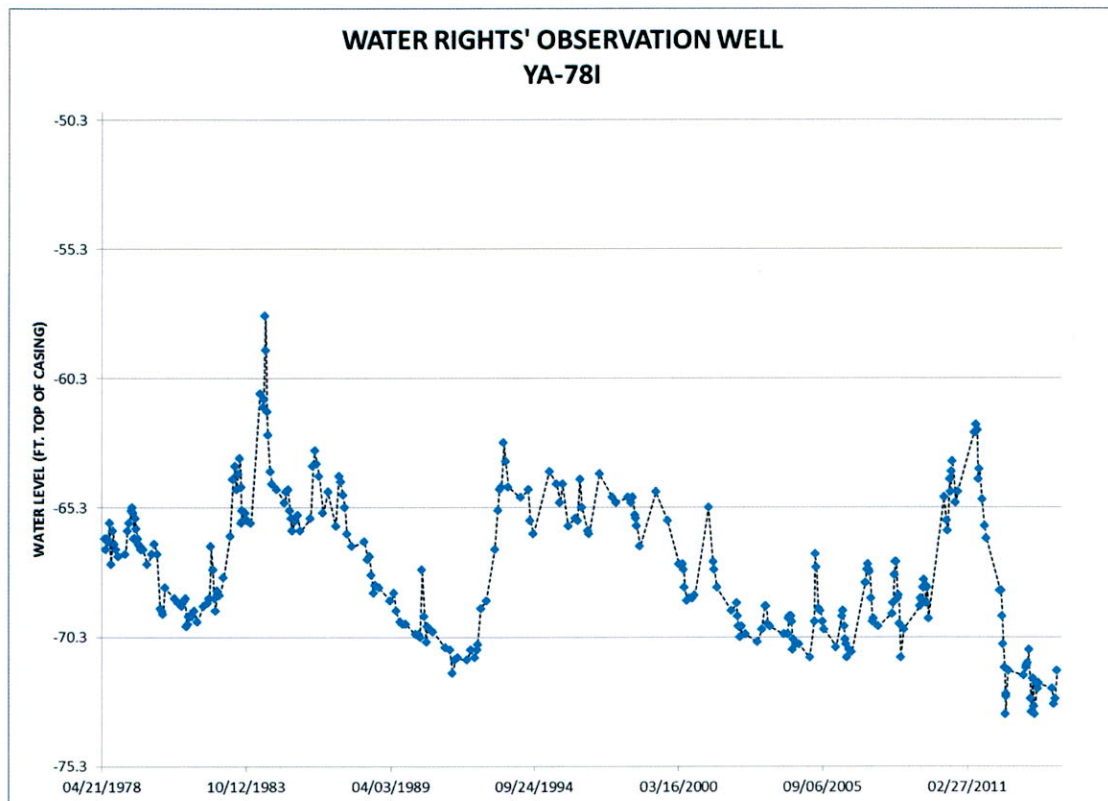


Figure 5: Historic water levels in Observation Well YA-78A (Water Rights, 2014a)

EXISTING WATER RIGHTS:

In evaluating this application, the water rights database was reviewed for the nearest water rights/permits and domestic wells on file. Because of the interconnectedness of the Lower James Missouri and Missouri: Elk Point aquifers, water rights and domestic wells in both formations were considered in terms of potential interference. The nearest water rights/permit to the proposed diversion site (7008-3) is located approximately 0.5 miles to the west of the proposed well site. Static water levels in the aquifer are approximately 40 feet above the actual water bearing formation. The predominately confined conditions of the aquifer at the well site dictate some drawdown due to pumping is expected (Water Rights, 2014a). The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. In addition, SDCL 46-6-6.1 does not require protection of artesian head pressure as a means of groundwater delivery. Therefore, approval of this application is not expected to result in unlawful impairment of nearby water rights/permits. The nearest domestic well completed into the Lower James Missouri or Missouri: Elk Point aquifer is located approximately one mile to the south of the proposed well site. Given the distance and the thickness of the formation at this location (approximately 35 feet), unlawful interference is not expected to occur.

Karl Schenk has made the Water Rights Program aware of a small “spring” located approximately 100 feet from the proposed well site. This water is not currently utilized by any existing water rights or domestic uses. In addition, it is assumed that this water is not flowing from the Lower James Missouri aquifer since water levels in the aquifer are approximately 30 to 40 feet below ground surface (Water Rights, 2014c). The source of the water could be the

remnant of a former domestic well which is still flowing, completed into the Dakota Formation. This indicates that the water level is at or above the ground surface. For these reasons this source of water should not be impacted by the proposed irrigation.

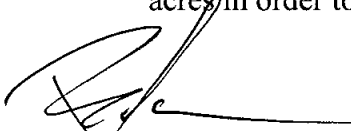
SDCL 46-5-6

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.

This water permit application proposes to divert at a rate of 1.78 cfs per 96 acres, equating to 1.30 cfs per 70 acres. This request was made in order to operate the pivot at the required 800 gallons per minute or 1.78 cfs.

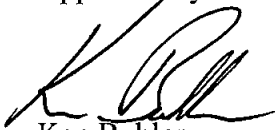
CONCLUSIONS:

1. Water Permit Application No. 8021-3 proposes to appropriate groundwater at a maximum diversion rate of 1.78 cfs from one well to be completed into the Lower James Missouri aquifer for the irrigation of 96 acres.
2. There is a reasonable probability that unappropriated water is available from the Lower James Missouri aquifer to supply the proposed appropriation.
3. The proposed diversion is not expected to adversely impact existing nearby adequate wells.
4. The application has requested an additional diversion rate in excess of one cfs per 70 acres in order to properly supply the irrigation pivot.



Bracken Capen
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

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- Stonesifer, J.R. 2014. Report on Water Permit Application No. 7999-3 for Karl M Schenk: SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
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- Water Rights. 2014c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

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AUG 18 2014

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
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 DEPOSES
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 No. 8021-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 15th DAY OF August 2014
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$26.81 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: 8/15/2014

FILED ON: 8/15/2014

SUBSCRIBED AND SWORN TO BEFORE ME THIS 15th DAY OF August

2014

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

Notice is given that Karl M Schenk, 44352 308th St, Mission Hills SD 57046 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (160 feet deep) located in the approximate center of the NE 1/4 Section 30 for irrigation of 96 acres located in the N 1/2 NE 1/4, SW 1/4 NE 1/4. Section 30; all in T94N-R54W. 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 No. 8021-3 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 this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

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 August 25, 2014.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$26.81.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



August 6, 2014

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 8021-3 to Appropriate Water. Please publish the notice once on August 15, 2014. 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 Karl M Schenk, 44352 308th St, Mission Hills SD 57046 (Ph # 605-760-0363).

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

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



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

August 6, 2014

Karl M Schenk
44352 308th St
Mission Hills SD 57046

Dear Mr. Schenk:

Water Permit Application No. 8021-3 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 Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
enclosures

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

Instruction to Newspaper - Publish the Notice on August 15, 2014. 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 NO. 8021-3 to Appropriate Water

Notice is given that Karl M Schenk, 44352 308th St, Mission Hills SD 57046 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (160 feet deep) located in the approximate center of the NE 1/4 Section 30 for irrigation of 96 acres located in the N 1/2 NE 1/4, SW 1/4 NE 1/4 Section 30; all in T94N-R54W. The applicant is requesting a diversion rate greater than the statutory limit.

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Published once at the total approximate cost of _____.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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denr.sd.gov



SEP 04 2014

Karl M Schenk
44352 308th St
Mission Hill SD 57046

Dear Mr. Schenk:

Enclosed is Water Permit No. 8021-3 authorizing construction of your 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,

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

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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

January 27, 2016

8021-3

Jay Cutts
44681 309th St
Mission Hill SD 57046

Dear Mr. Cutts:

Recently we were notified by Karl Schenk that he sold the land authorized for irrigation under Water Permit No. 8021-3 to you. I have included a copy of the water permit for your records.

Enclosed is a partially completed Notice of Transfer of Ownership form for filing an ownership change. Please review the form and make any necessary corrections. Upon completion, please sign the form and return it to our office with a required filing fee of \$50.00. The check or money order for the fee can be made payable to the Water Rights Program.

Also enclosed is the 2015 irrigation questionnaire pertaining to this property. Please complete and return the form along with the transfer form and filing fee.

If I can answer any questions for you, please give me a call. Thank you in advance.

Sincerely,

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

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FEB 10 2016

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

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

No. 8021-3

Date: _____

I/We request that Water Permit No. 8021-3

formerly owned by: Karl M Schenk

be transferred to: (name & address) JAY CUTTS

44681 309th ST

MISSION HILL SD 57046

Telephone No. 6056659693

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

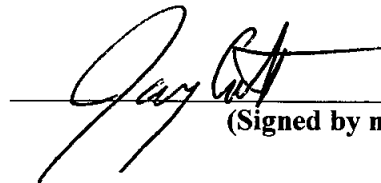
96 acres in the N ½ NE ¼ and SW ¼ NE ¼ Section 30, T94N, R54W

I/We understand that the validity of Water Permit No. 8021-3 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

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

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

I/We JAY CUTTS, the new owner, certify that the above information is true and correct.



(Signed by new owner)

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

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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/10, 20 16

RECEIVED OF Cutts Farms 44681 309th St Mission Hill SD 57046

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>8021-3</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No. 07753

By

Jeanne Goodman
Chief Engineer



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 10, 2016

8021-3

Jay Cutts
44681 309th St
Mission Hill SD 57046

Dear Mr. Cutts:

I am writing to acknowledge receipt of the transfer form and filing fee you submitted for changing ownership on Water Permit No. 8021-3.

The ownership change has been completed. The water permit formerly held by Karl Schenk is now listed in your name.

Enclosed for your records is Receipt No. 07753 in the amount of \$50. If I can answer any questions for you, please give me a call.

Sincerely,

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

enclosures

8021-3

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

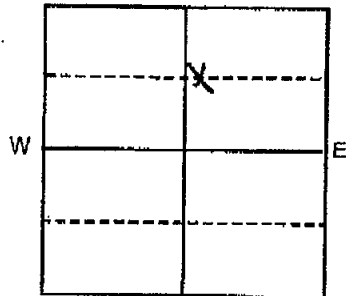
11-02

Location NW ¼ NE ¼ Sec 30 Twp 94N Rg 54W

County Yankton

North

Please mark well location with an "X"



Well Completion Date

10-27-16

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1000 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Circulation

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16 IN	0 FT	64 FT	30 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
BentCement	60	Lb/gal	0 Ft	60 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Tremie

SCREEN:

☒ Perforated pipe ☐ Manufactured

Diameter 16 Inches Length 40 Feet

Material PVC

Slot Size .80 Set From 60 Feet to 104 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☐ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How?

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Chlorine

Well Owner: Jay Cutts

Business Name:

Address: Po Box 7056

City, State, Zip: Yankton SD 57078

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	6
Glacial Till "Brown"	6	27
Blue Clay	27	52
Med to coarse Sand	52	61
Blue Clay	61	68
Gravel Med To Coarse	68	90
Gravel And Rocks	90	104

STATIC WATER LEVEL

41 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: Well Yields Over 1000 Gpm

☐ Bailed

☐ Other

Pumping Level Below Land Surface

55 Ft. After 2.5 Hrs. pumped 800 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

RECEIVED

NOV 30 2016

WATER RIGHTS PROGRAM

Lower James: Missouri

This well was drilled under license # 773 and this report is true and accurate.

Drilling firm: Quality Well Service LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 11/30/16

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 8021-3**

I have this day, November 6, 2023, made a thorough examination of the water use system constructed by Jay Cutts, 44681 309th St, Mission Hill, SD 57046, holder of Permit No. 8021-3, bearing the priority of June 5, 2014 authorizing the diversion of 1.78 cu. ft. per second of the waters of groundwater (Lower James Missouri Aquifer) for the irrigation of 96 acres located in Yankton County.

Inspection contact: Jay Cutts

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Quality Well Service LLC
- 2) No. of Wells: 1
- 3) Depth(s): 104 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 64 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 40 feet
- 3) Type: PVC
- 4) Static water level: 41 feet

Pump:

- 1) Make: Borer Wholesale
- 2) Model: 12KS HF
- 3) Capacity: 900 GPM

Motor:

- 1) Make: BMR
- 2) Model No.: 6504HSWP1-PF
- 3) Horsepower rating: 50 hp

Diesel Generator:

- 1) Make: LIMA MAC
- 2) Model No.: 440MSL0886

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

- 1) Type: PVC Size: 8 inches Length: 130 feet

C. Works used to apply water to beneficial use:**Center Pivot:**

- 1) Make: Valley
- 2) Overall length: 1,269 feet
- 3) End gun range: 107 feet
- 4) Number of towers: 8
- 5) End gun: Yes
- 6) Capacity 800: GPM

Chemigation Equipment:

- 1) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: The pump is capable of 2.01 cfs but the pivot is nozzled for 1.78 cfs.

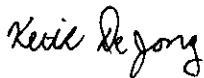
E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 1,340 feet west and 1,470 feet south of the northeast corner of Section 30-T94N-R54W (Latitude 42.93407, Longitude -97.26460 – SW1/4 of the NE1/4).
- 2) The works are capable of diverting and conveying to the place of use 2.01 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows:

All in Section 30-T94N-R54W**NW1/4NE1/4 32 acres****NE1/4NE1/4 32 acres****SW1/4NE1/4 32 acres**

comprising a total of 96 acres of land and the license should be issued for 1.78 cfs.

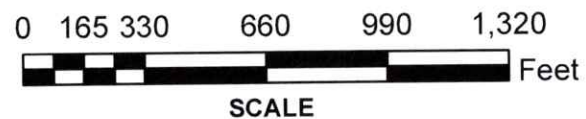
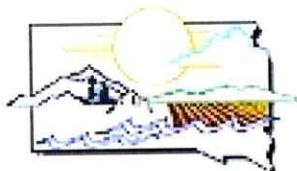
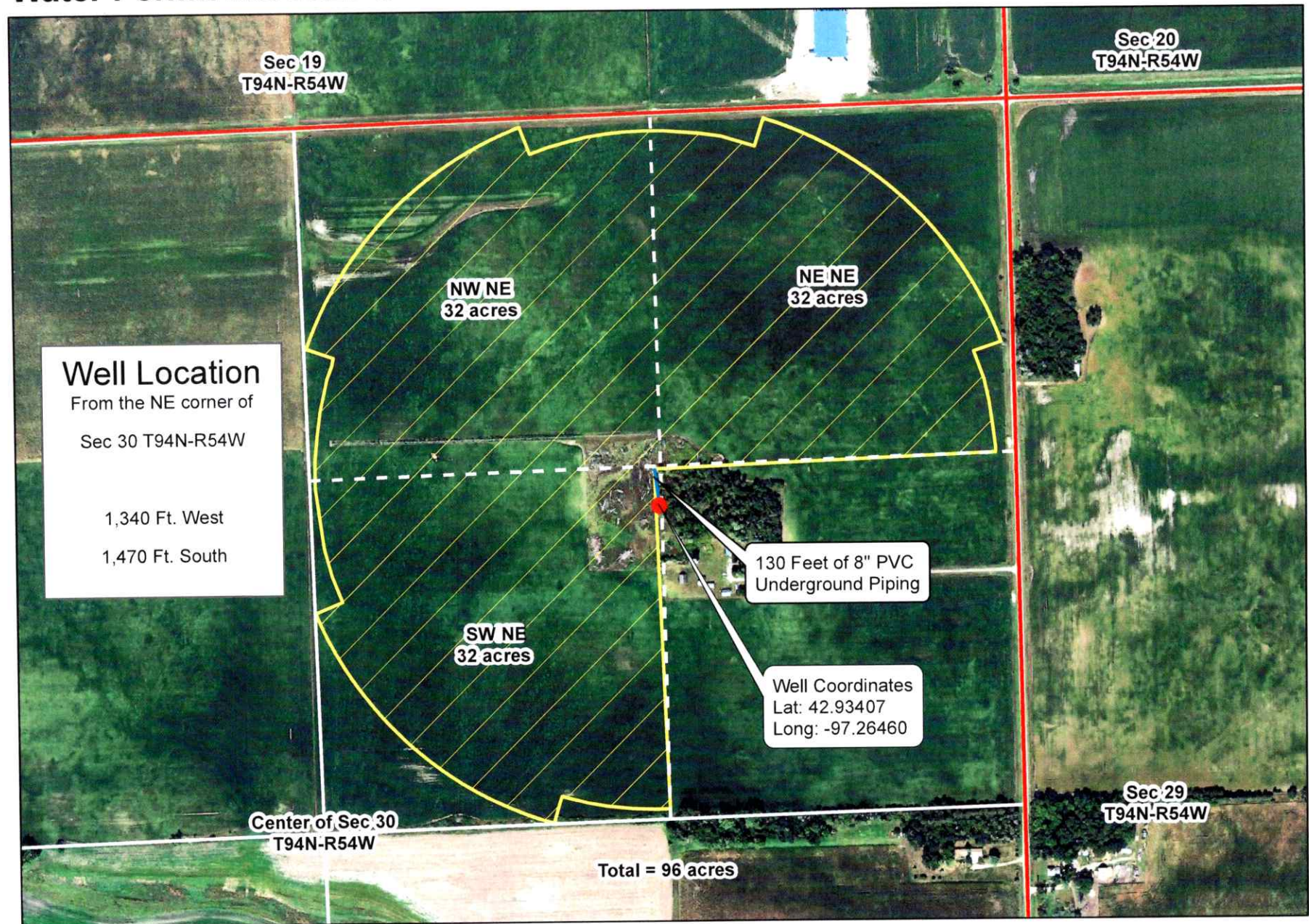
- 4) All structures, wells and lands on map: Yes

F. Comments or other permit(s) associated with the project: The pump is capable of 2.01 cfs but the pivot is nozzled for 1.78 cfs. The original length of the pivot was 1,289 feet. Mr. Cutts is in the process of shortening the pivot length by twenty feet. When I was on site, the last section of the pivot beyond the eighth tower had been removed and it is being replaced with a shorter section.

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

Date report completed: November 6, 2023

Water Permit No. 8021-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
November 6, 2023

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8021-3**

(1) Karl M Schenk; 44352 308th St, Mission Hill SD 57046, made Application No. 8021-3, June 5, 2014, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (Lower James Missouri Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 8021-3, with a priority date of June 5, 2014, was approved August 25, 2014, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before August 25, 2019, and for the application to beneficial use of water on or before August 25, 2023.

Ownership of Water Permit No. 8021-3 was transferred to Jay Cutts, 44681 309th St, Mission Hills SD 57046 on February 10, 2016.

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

- 1,340 ft W & 1,470 ft S of the NE corner of Section 30, T94N, R54W (SW $\frac{1}{4}$ NE $\frac{1}{4}$)
(Latitude 42.93407 & Longitude -97.26460)

(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: April 1 – October 31.

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

Section 30, T94N, R54W
NE $\frac{1}{4}$ NE $\frac{1}{4}$ 32 acres
NW $\frac{1}{4}$ NE $\frac{1}{4}$ 32 acres
SW $\frac{1}{4}$ NE $\frac{1}{4}$ 32 acres
TOTAL: 96 acres

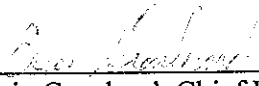
(5) Pursuant to South Dakota Water Law 46-5-30.1 Jay Cutts, the holder and/or owner of Water Right No. 8021-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, one well (Lower James Missouri Aquifer), with a priority date of June 5, 2014, 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. 8021-3 and subject to the following qualifications:

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

continued

2. The well authorized by Water Right No. 8021-3 shall be constructed by a licensed well driller and construction of the wells 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. *(The well was drilled in 2016 by Quality Well Services LLC. A copy of the well completion report is on file with the Water Rights Program.)*
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, Water Right No. 8021-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 96 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. The Water Right is approved subject to the irrigation water use questionnaire being submitted each year.



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

NOV 09 2023

date



8021-3 + 8535-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

NOV 09 2023

8021-3
8535-3

Jay Cutts
44681 309th St
Mission Hill SD 57046

Dear Mr. Cutts:

Enclosed are Water License Nos. 8021-3 & 8535-3. These are the final water right documents completing your process of obtaining Water Rights. Included with your licenses are maps prepared by the staff engineer who conducted the field investigations.

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,

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

NOTE: The investigation found your irrigation system covered under No. 8535-3 is capable of diverting 2.01 cubic feet of water per second (cfs) which is equivalent to approximately 900 gallons per minute. Permit No. 8535-3 authorized 1.78 cfs (equivalent to approximately 800 gpm). Diversion of water under this water license is limited to 1.78 cfs.

enclosures