

WATER PERMIT NO. 8816-3

Name of Applicant: Karl M Schenk

Address: 44352 308th Street Mission Hill SD 57046

Phone: 605-760-0363

Amount of Water Claimed: 0.44 Total Acres: 62

Source of Water Supply: Groundwater

Water to be used for: Irrigation County: Yankton

Type of Waste Disposal System:

Location: Approx. 1 1/2 miles west of Mission Hill

PRIORITY Date Received: 01-02-24

Application/License Fee: \$500.00

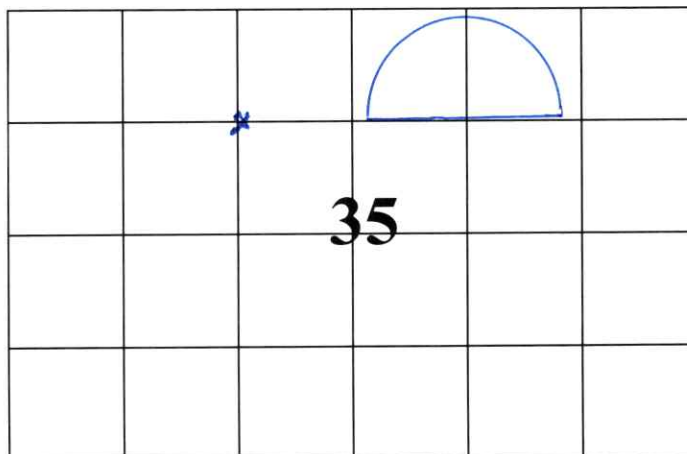
Corrected Application Received:

Period of Annual Use: April – October 31

Remarks: Inspection by DeJong found and additional pivot and 62 additional acres being irrigated

Diversion Point: Near center of the NW 1/4 Sec
35-T94N-R55W

Land to be Irrigated: N 1/2 NE 1/4 Sec 35-T94N-
R55W



Depth of Well: 176

Well Driller: Sam Heine Well Company LLC

Remarks:

Type of Map: aerial

Reviewed and the Number Assigned on: 01-10-24

By: Rachel Rodriguez

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8816-3

Date of first receipt of application January 2, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8816-3 to Karl M. Schenk, 44352 308th Street, 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. 8816-3 appropriates an additional 0.44 cubic feet of water per second (cfs) and adds 62 acres to what is authorized by Water Permit No. 7999-3. Water Permit No. 7999-3 appropriates 1.78 cfs from one well completed into the Lower James: Missouri Aquifer (176 feet deep) located near the center of the NW 1/4 Section 35 for irrigation of 96 acres located in the S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 35; all in T94N-R55W. An investigation of the permit found the system capable of diverting an additional 0.44 cfs from the existing well and an additional 62 acres of irrigation in the N 1/2 NE 1/4 Section 35-T94N-R55W. This permit and Water Permit No. 7999-3 will authorize a combined total of 2.22 cfs and irrigation of 158 acres. This site is located approximately one and one-half miles west of Mission Hill 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: April 1 – October 31.
3. The date from which applicant may claim right is January 2, 2024.
4. The date of approval of Permit No. 8816-3 is April 2, 2024.
5. 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 Water Permit Nos. 7999-3 and 8816-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

APR 24 2024
date



FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8816-3</u> (office use only)
	Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>
	Newspaper <u>Daily Press & Dakotan</u>

PAID

JAN 02 2024

Ck#

Rec't#

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 7999-3
(Use predates Mar 2, 1955)

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

Add 0.44 cfs and 60 acres to what is authorized under No 7999-3.

1. Name to Appear on Irrigation Permit Karl M Schenk

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

Mailing Address 44352 308th St (Address) Mission Hill (City) SD (State) 57046 (Zip Code)

X Phone 605-760-0203 Mobile Add 1 Email X KMSCHENK2@gmail.com

2. Amount of water claimed 0.44 *CFS or Add 1 **GPM ***AF Total Acreage 60-62 Add 1
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply groundwater (Lower James: Missouri Aquifer)4. Location of point of diversion near the center of the NW 1/4 Sec 35 T94N-R55W

(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Yankton5. County or counties where water will be used Yankton6. Annual period during which water is to be used April 1 - 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
new center pivot		existing center pivot	
NW1/4 NE1/4 Sec 35 T94N-R55W	31	SW1/4 NW1/4 Sec 35 T94N-R55W	31
NE1/4 NE1/4 Sec 35 T94N-R55W	31	SE1/4 NW1/4 Sec 35 T94N-R55W	32
		NE1/4 NW1/4 Sec 35 T94N-R55W	31

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

Add additional acres and diversion rate to irrigation authorized by Water Permit No. 7999-3 for a total diversion of 2.22 cfs and 156 acres that have been developed.

RECEIVED

JAN 02 2024

OFFICE OF
WATER

I, Karl M. Schenk Name of Person, Title (if applicable), the applicant, certify under

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.

**SOUTH DAKOTA
WATER PERMIT NO. 7999-3**

Date of first receipt of application April 11, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7999-3 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. 7999-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Lower James:Missouri Aquifer (180 feet deep) located in the center of the NW 1/4 Section 35 for irrigation of 96 acres located in the S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 35; all in T94N-R55W.
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 April 11, 2014.
4. The date of approval of Permit No. 7999-3 is June 16, 2014.
5. One-fifth of the construction is to be completed on or before December 16, 2016.
6. All construction is to be completed on or before June 16, 2019.
7. Water is to be put to beneficial use on or before June 16, 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. 7999-3 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. 7999-3 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*
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 07 2014

date



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Agriculture and Natural Resources

Date January 2, 2024

RECEIVED OF Karl/Nancy Schenk 44352 308th St., Mission Hill SD 57046

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

Fee for Application for Permit No. <u>8816-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>500.00</u>
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 _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law)	TOTAL
	\$ <u>500.00</u>

By Eric Gronlund
Chief Engineer
me



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8816-3, Karl M Schenk**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8816-3, Karl M Schenk, 44352 308th Street, Mission Hill SD 57046.

The Chief Engineer is recommending APPROVAL of Application No. 8816-3 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 7999-3 and 8816-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
March 1, 2024

Report to the Chief Engineer
On Water Permit Application No. 8816-3

Karl M Schenk

March 7th, 2024

Water Permit Application No. 8816-3 proposes to appropriate an additional 0.44 cubic feet per second (cfs) and add 62 acres to what is currently authorized by Water Permit No. 7999-3. Water Permit No. 7999-3 appropriates 1.78 cfs from one well completed into the Lower James Missouri aquifer (176 feet deep) located near the center of the NW 1/4 Section 35 for irrigation of 96 acres located in the S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 35; all in T94N-R55W. A permit licensing investigation found the system capable of diverting an additional 0.44 cfs from the existing well and an additional 62 acres of irrigation in the N 1/2 NE 1/4 Section 35 T94N-R55W. This application, if approved, and Water Permit No. 7999-3 will authorize a combined total of 2.22 cfs for the irrigation of 158 acres. The site of interest is located approximately 1.5 miles west of Mission Hill, SD in Yankton County.

AQUIFER: Lower James Missouri (LJM)

HYDROGEOLOGY:

The Lower James Missouri aquifer is a Quaternary aged glacial outwash that consists of fine sand to cobble gravel that is intermixed in some expanses with discontinuous layers of clayey till up to 25 feet thick (Lindgren and Hansen, 1990 and 1993). The Lower James Missouri aquifer is generally underlain by till or Carlile Shale; however, northeast of the James River the aquifer overlies Sioux Quartzite, while north and northwest of the James River the aquifer lies on the Niobrara Formation (Lindgren and Hansen, 1990 and 1993). The depth to the top of the Lower James Missouri aquifer ranges from the land surface in the James River floodplain to 245 feet below land surface (Lindgren and Hansen, 1990 and 1993). In Clay, Hutchinson, and Yankton Counties, the Lower James Missouri aquifer is estimated to underlie approximately 191,700 acres and contain approximately 2,795,400 acre-feet of recoverable water in storage (Hedges et al, 1982) (Table 1). The Lower James Missouri aquifer is hydrologically connected to the Missouri: Elk Point aquifer, Choteau: East aquifer, Niobrara aquifer, and Lower James Missouri: Scotland aquifer, adjacent/underlying bedrock aquifers, and surface water features such as the James River and Missouri River (Hedges et al, 1982; Bugliosi, 1986; Lindgren and Hansen, 1990 and 1993; Water Rights, 2024b). The saturated thickness of the Lower James Missouri aquifer ranges from approximately 50 to 150 ft (Bugliosi, 1986). The Lower James Missouri aquifer is predominantly under confined conditions but can be found to be under unconfined conditions (Bugliosi, 1986; Lindgren and Hansen, 1990).

Table 1. Estimated areal extent and amount of recoverable water stored in the Lower James Missouri aquifer (Hedges et al, 1982)

Counties	Clay	Hutchinson	Yankton	Total:
Areal Extent (acres)	5,400	93,800	92,500	191,700
Recoverable Water in Storage (acre-feet)	81,000	633,150	2,081,250	2,795,400

There was no well completion report submitted with Water Permit Application No. 8816-3 since the well in use is an existing well authorized by Water Permit No. 7999-3. The well was drilled on July 10th, 2015, and is completed into the Lower James Missouri aquifer. The well had an approximate static water level of 72 feet below the ground surface, top of aquifer material was 105 feet below the ground surface, and the saturated aquifer thickness is 65 feet (Water Rights, 2024d). Based on this water well completion report and other reports near the existing diversion point, the Lower James Missouri aquifer is expected to be under confined conditions at the existing diversion point (Water Rights, 2024d).

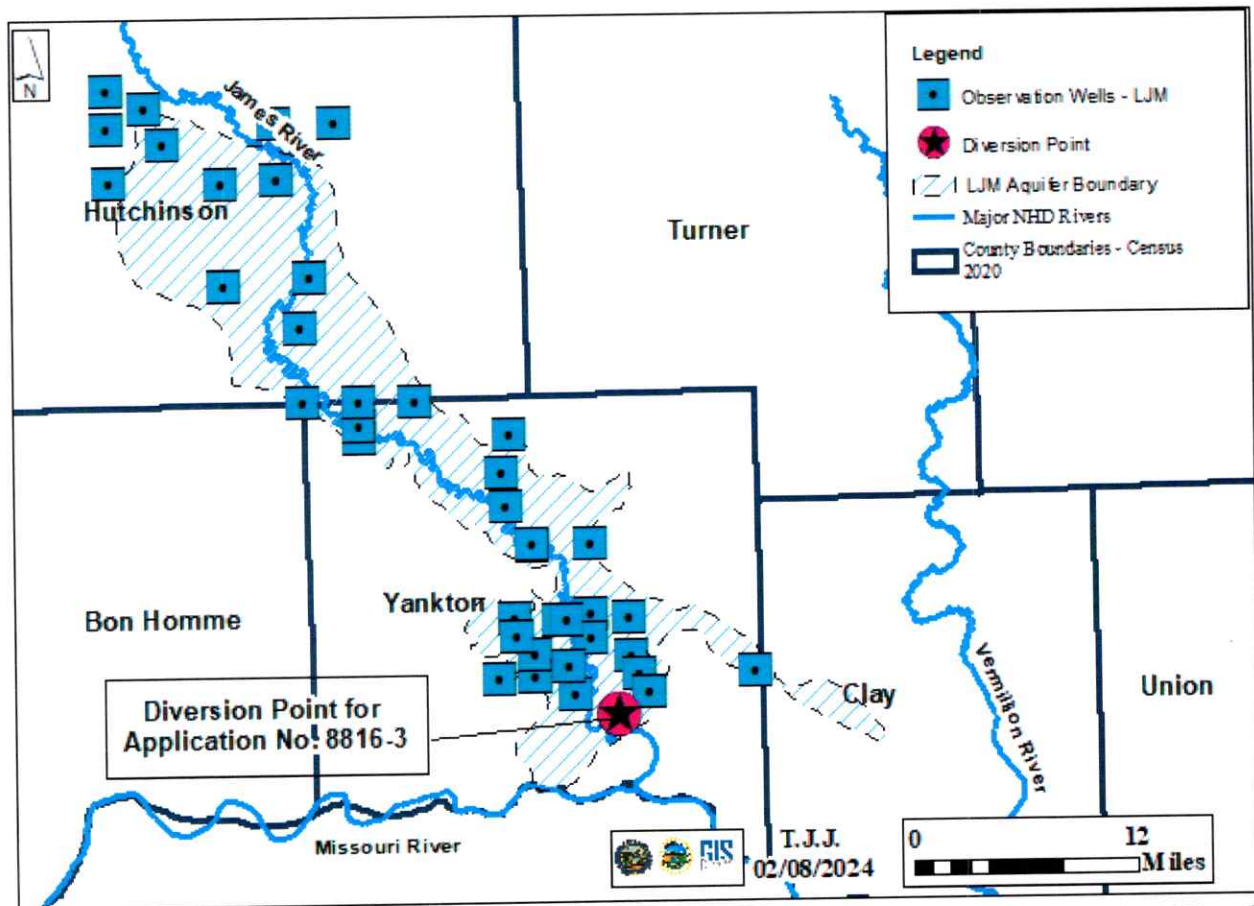


Figure 1. Map of the approximate Lower James Missouri aquifer boundary (modified from Hedges et al, 1982), and the location of observation wells (Water Rights, 2024b) and existing diversion point for Water Permit Application No. 8816-3

South Dakota Codified Law (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 unappropriated water is available for the applicant’s proposed use, the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights, the proposed use is a beneficial use, and the permit is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by SDCL 46-2-9 and 46-2-11.” This report will address the

availability of unappropriated water and the potential for unlawful impairment of existing domestic uses and water rights within the Lower James Missouri aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8816-3 proposes to appropriate water from the Lower James Missouri aquifer. The probability of unappropriated water being available from the 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. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems."

The Lower James Missouri aquifer is not older than or stratigraphically lower than the Greenhorn Formation, and the applicant's proposed use is not for use in a water distribution system as defined by SDCL 46-1-6(17). Therefore, the average annual recharge and average annual withdrawal rates to and from the Lower James Missouri aquifer must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Lower James Missouri aquifer is mostly by seepage from streams/surface water features, infiltration of precipitation, and inflow from hydrologically connected aquifers such as the Choteau: East, Niobrara, and Lower James Missouri: Scotland aquifers (Bugliosi, 1986). Most of the recharge occurs in the spring and early summer months in the northern area of the Lower James Missouri aquifer (Bugliosi, 1986).

Using flow-net analysis, Hedges et al (1985) estimated a recharge rate of 1.5 inches per year for the Lower James Missouri aquifer. The Lower James Missouri aquifer has an estimated areal extent of approximately 191,700 acres (Hedges et al, 1982). Therefore, the average annual recharge rate (based on Hedges et al, 1982 and 1985) is approximately 23,963 acre-feet/year.

Using observation well analysis, Hedges et al (1985) estimated a recharge rate of 3.9 inches per year for the unconfined portions of the Lower James Missouri aquifer. Stonesifer's report (2014) estimated the unconfined portion of the aquifer to be 82,200 acres. However, this large areal extent includes portions of Plum Creek and Choteau: East aquifers, identified by Hedges et al (1982), for both the entire areal extent and the unconfined portions of the Lower James Missouri aquifer. The average annual recharge rate for unconfined portions of the Lower James Missouri aquifer based on Hedges et al (1985) estimated recharge rate of 3.9 inches per year and Stonesifer's (2014) unconfined portion, is estimated to be 26,715 acre-feet/year. Since the unconfined portion of the aquifer recharge rate does not necessarily account for any recharge that enters through the confined portion of the aquifer, it is possible that recharge to the aquifer

exceeds 26,715 ac-ft/yr. From this data, the average annual recharge rate to the Lower James Missouri aquifer has a range between 23,963 to possibly in excess of 26,715 acre-feet/year (Hedges et al, 1982 and 1985; Stonesifer, 2014).

Discharge

Discharge from the Lower James Missouri aquifer in South Dakota primarily occurs through well withdrawals, leakage to the James River, and evapotranspiration in areas where the aquifer is at or near land surface (Bugliosi, 1986; Lindgren and Hansen, 1990).

Currently, there are 136 water rights/permits authorized to appropriate water from the Lower James Missouri aquifer, and one pending application (Application No. 8786-3) besides this application (Water Rights, 2024c). There are no future use permits reserving water from the Lower James Missouri aquifer (Water Rights, 2024c).

Table 2 summarizes the 8 non-irrigation water rights/permits authorized to appropriate water from the Lower James Missouri aquifer with the estimated annual use for each water right/permit as determined by their limiting diversion rate or annual volume. The amount of water that can be withdrawn was estimated by assuming the non-irrigation water rights/permits limited by an annual volume will withdraw their entire appropriated volume every year. It is estimated that non-irrigation water rights/permits limited only by a diversion rate will pump at their maximum permitted diversion rate for 60 percent of the time. The 60 percent estimation was established by Water Rights Staff to be a reasonable and safe estimate of average annual withdrawals by non-irrigation appropriations. Historically, the 60 percent estimate has been accepted by the Water Management Board. Overall, the average annual withdrawal rate for the Lower James Missouri aquifer non-irrigation water rights/permits is approximately 1,595 acre-feet/year (Table 2) (Water Rights, 2024c).

Table 2. Estimated annual use for non-irrigation water rights/permits authorized to divert water from the Lower James Missouri aquifer (Water Rights, 2024c)

Permit No.	Name	Status	Uses	Authorized Diversion Rate (cfs)	Authorized Annual Volume (acre-feet)	Estimated Use (acre-feet/year)
4556-3	KNIFE RIVER	LC	COM	0.440	N/A	191.14
840-3	STUELPNAGELS INC	LC	COM	1.110	N/A	482.18
6264-3	YANKTON LAND & CATTLE CO	LC	COM, LCO	0.560	N/A	243.26
6320-3	WOLF CREEK HTRN BRTH	LC	COM, DOM	0.080	N/A	34.75
6925-3	TSCHESTER COLONY	LC	COM, LCO	0.070	N/A	30.41
7827-3	MAXWELL COLONY	PE	COM, LCO	0.330	N/A	143.35
1288-3	NATIONAL FOOD STORES INC	LC	IND	0.160	N/A	69.5
8412-3	KNIFE RIVER	LC	IND	7.800	400	400
COM Commercial, IND Industrial, LC Licensed Water Right, PE Water Permit, LCO Livestock Confinement Operation, DOM Domestic					TOTAL:	1,595

Currently, there are 128 irrigation water rights/permits appropriating water from the Lower James Missouri aquifer (Water Rights, 2024c). Irrigation water rights/permits have been

typically required to report their annual usage on an irrigation questionnaire since 1979. The average annual withdrawal rate for the Lower James Missouri aquifer irrigation water rights/permits that have reported over the period of record (1979 to 2022) is approximately 3,114 acre-feet per year (Table 3) (Water Rights, 2024a). To reflect the current development of irrigation water rights/permits more accurately, the average annual withdrawal rate for irrigation appropriations from 2013 to 2022 is approximately 5,106 acre-feet per year (Table 3) (Water Rights, 2024a).

There are seven water permits that were approved in 2023 that are not accounted for in Table 3: Water Permit Nos. 8736-3, 8740-3, 8762-3, 8765-3, 8780-3, 8786-3, and 8796-3 (Water Right, 2024c). Combined, these seven water permits are authorized to irrigate 1,032.98 acres (Water Rights, 2024c). This application is requesting 62 acres in addition to what is already authorized by Water Permit No. 7999-3. Generally, irrigators in eastern South Dakota apply less than one foot of water per acre per year. However, the one foot of water per acre per year application rate will be used to somewhat overestimate the annual withdrawal rate for these irrigation water rights/permits. Therefore, the estimated average annual withdrawal rate for the seven water permits approved in 2023 is approximately 1,033 acre-feet per year. The estimated average annual withdrawal rate for this application is approximately 62 acre-feet per year. Collectively, the average annual withdrawal rate for the irrigation appropriations from 2013 to 2022 (5,106 acre-feet/year), plus the estimated average annual withdrawal rate for the irrigation water rights/permits approved in 2023 (1,033 acre-feet/year), this application (62 acre-feet per year), is approximately 6,201 acre-feet per year.

Table 3. Reported historic irrigation use from the Lower James Missouri aquifer (Water Rights, 2024a)

Year	No. of Permits Reporting	Reported Pumpage (acre-feet)
1979	22	588
1980	23	1,299
1981	27	1,835
1982	23	1,301.25
1983	27	1,306.54
1984	28	1,360
1985	27	1,483
1986	30	989.6
1987	30	1,041.60
1988	31	2,744.90
1989	31	2,144.80
1990	35	2,928.10
1991	42	2,599
1992	45	1,159
1993	45	230.44
1994	45	1,918.17
1995	41	1,483.32
1996	49	2,102.99
1997	50	2,320
1998	53	2,787.30
1999	50	2,102.15
2000	51	3,751.08
2001	53	2,940.09
2002	53	4,061.52
2003	53	2,843.15
2004	47	2,886.65
2005	48	2,866.63
2006	50	3,630.92
2007	56	3,425.91
2008	79	4,494.03
2009	84	1,463.27
2010	85	665.37
2011	89	4,147.47
2012	93	13,058.45
2013	118	7,855.75
2014	125	3,347.27
2015	127	4,822.86
2016	126	5,747.01
2017	126	5,727.12
2018	126	1,035.87
2019	127	328.01
2020	121	3,864.53
2021	120	8,195.56
2022	122	10,131.70
Max	127	13,058.5
Min	22	230.4
Avg (1979-2022)	64	3,114
Avg (2013-2022)	124	5,106

There are domestic wells completed into the Lower James Missouri aquifer that do not require a water right/permit, so the withdrawal amount from those wells is unknown (Water Rights, 2024d). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the Lower James Missouri aquifer is the uppermost aquifer available, it is likely some domestic users may have transitioned to rural water. Therefore, the quantity of water withdrawn by domestic wells is estimated to be negligible to the hydrologic budget for the Lower James Missouri aquifer.

Hydrologic Budget Summary

The average annual recharge rate to the Lower James Missouri aquifer has a range between 23,963 to possibly in excess of 26,715 acre-feet/year (Hedges et al, 1982 and 1985; Stonesifer, 2014). The average withdrawal rate from the Lower James Missouri aquifer totals to approximately 7,796 acre-feet/year; (non-irrigation: 1,595 acre-feet/year; irrigation (avg. 2013 to 2022 plus the water rights/permits approved in 2023, this application): 6,201 acre-feet/year). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

OBSERVATION WELL DATA:

Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires that the Water Management Board shall rely upon 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 average annual recharge of the aquifer.

The DANR-Water Rights Program monitors 34 observation wells completed into the Lower James Missouri aquifer (Water Rights, 2024b). These observation wells provide data on how the aquifer reacts to regional climatic conditions and local pumping. The 3 closest observation wells to the existing diversion point are YA-78I (approximately 2.1 miles northeast), YA-80IA (approximately 2.5 miles northeast), and YA-80O (approximately 3.6 miles northwest) (Water Rights, 2024b). It should be noted that YA-78E is closer to the diversion point; however, it is a special consideration well due to an iron bacteria issue and may not be currently representative of the Lower James Missouri aquifer. Consequently, YA-78E is not included in this report. Observation well YA-57C is an older well that was last measured in 2012 and is located approximately 2.4 miles northwest of the existing diversion point (Water Rights, 2024b) (Figure 2). The water level data for these observation wells are displayed in Figure 2 (Water Rights, 2024b). The data points utilized to construct the hydrographs are measurement of the static water level in the observation wells from the top of the well casing. The data shown on Figure 2 share a similar trend to most of the other observation wells in the Lower James Missouri aquifer.

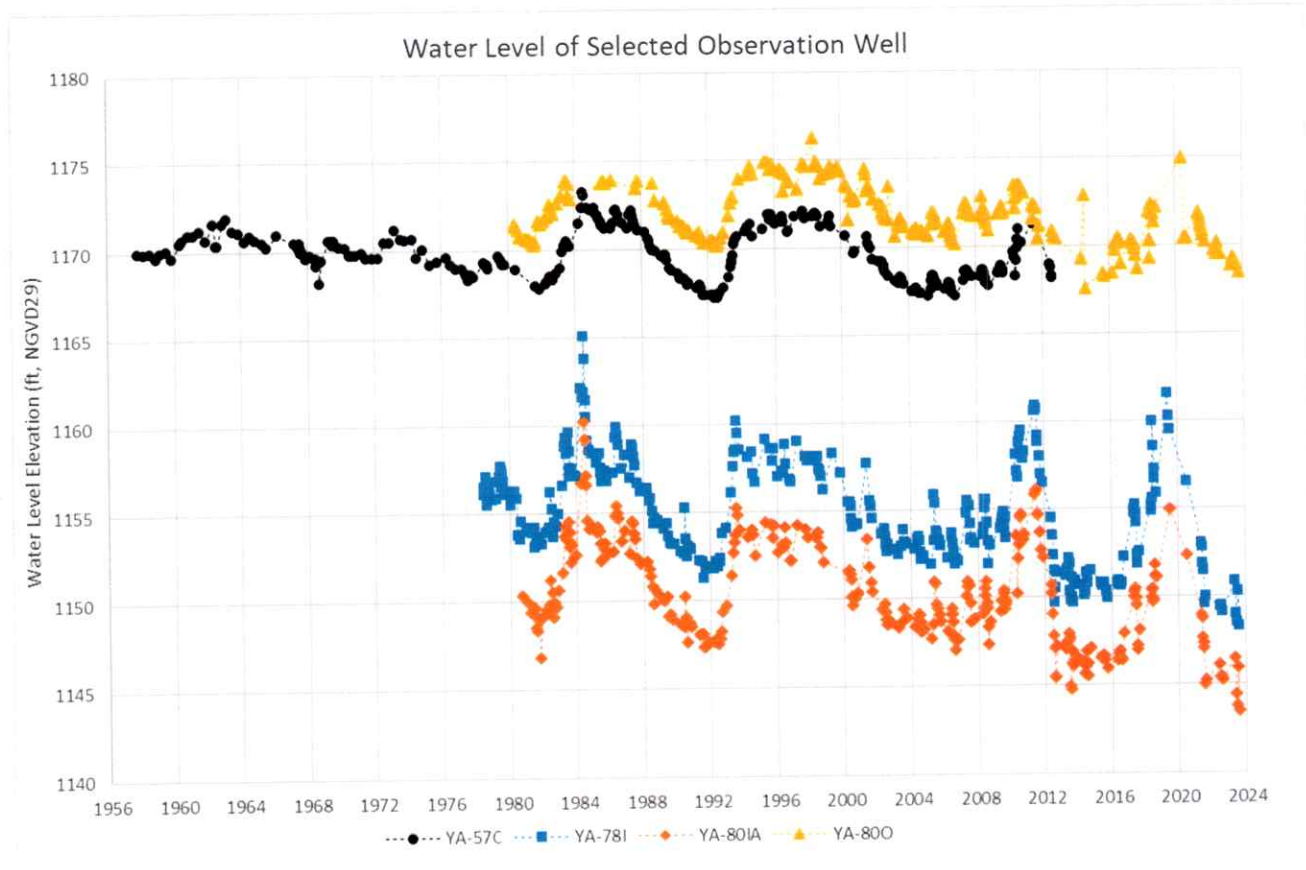


Figure 2. A graph showing the elevation of water levels of observation wells YA-57C, YA-78I, YA-80IA, and YA-80O (Water Rights, 2024b)

The hydrographs for the observation wells completed into the Lower James Missouri aquifer display generally stable water levels over their respective periods of record. The hydrographs for the Lower James Missouri aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. Observation wells YA-78I and YA-80IA are at all-time lows due to drought conditions and the entrenchment of the Missouri River. Entrenchment of the Missouri River riverbed and in some places a widening of the channel leading to lower water levels despite the river having the same rate of flow (Elliott and Jacobson, 2022). The lowering of the water level in the Missouri River downstream of the Gavins Point Dam, 9.8 miles southwest from this application, and the subsequent lowering of the water level of Lower James Missouri aquifer observation wells in close proximity to the Missouri River shows the strong hydrologic connection between the Missouri River, the hydrologically connected Missouri: Elk Point aquifer, and the southern portions of the Lower James Missouri aquifer. Additionally, the water levels in the observation wells display that the amount of recharge to and natural discharge from the aquifer greatly exceeds pumping with the aquifer returning to pre-pumping conditions between irrigation seasons. Aquifer recovery indicates that climatic conditions and therefore, the effects of recharge to and natural discharges from the aquifer govern the long-term fluctuations of waters levels in the aquifer rather than the impacts of pumping from the Lower James Missouri aquifer. By recognizing that both recharge to and

natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Water rights/permits appropriating water from the Lower James Missouri aquifer in the general vicinity of the existing well site for this application are shown in Figure 3 and summarized in Table 4. The closest water right/permit, not held by the applicant, to the diversion point is Water Right No. 8762-3, as shown on Figure 3, which is held by James D Gunderson. The diversion point for Water Right No. 8762-3 is located approximately 0.7 miles west of the existing diversion point for this application (Water Rights, 2024c). It should be noted that Water Rights Nos. 6917-3 and 7667-3 are closer to the diversion point but are also held by Karl M Schenk (Water Rights, 2024c). There are domestic wells on file with the DANR-Water Rights Program that are completed into the Lower James Missouri aquifer, with the closest domestic well on file (not held by the applicant) approximately 0.6 miles north of the diversion point (Water Rights, 2024d). The locations of the domestic wells are provided by the well driller at the time of well completion.

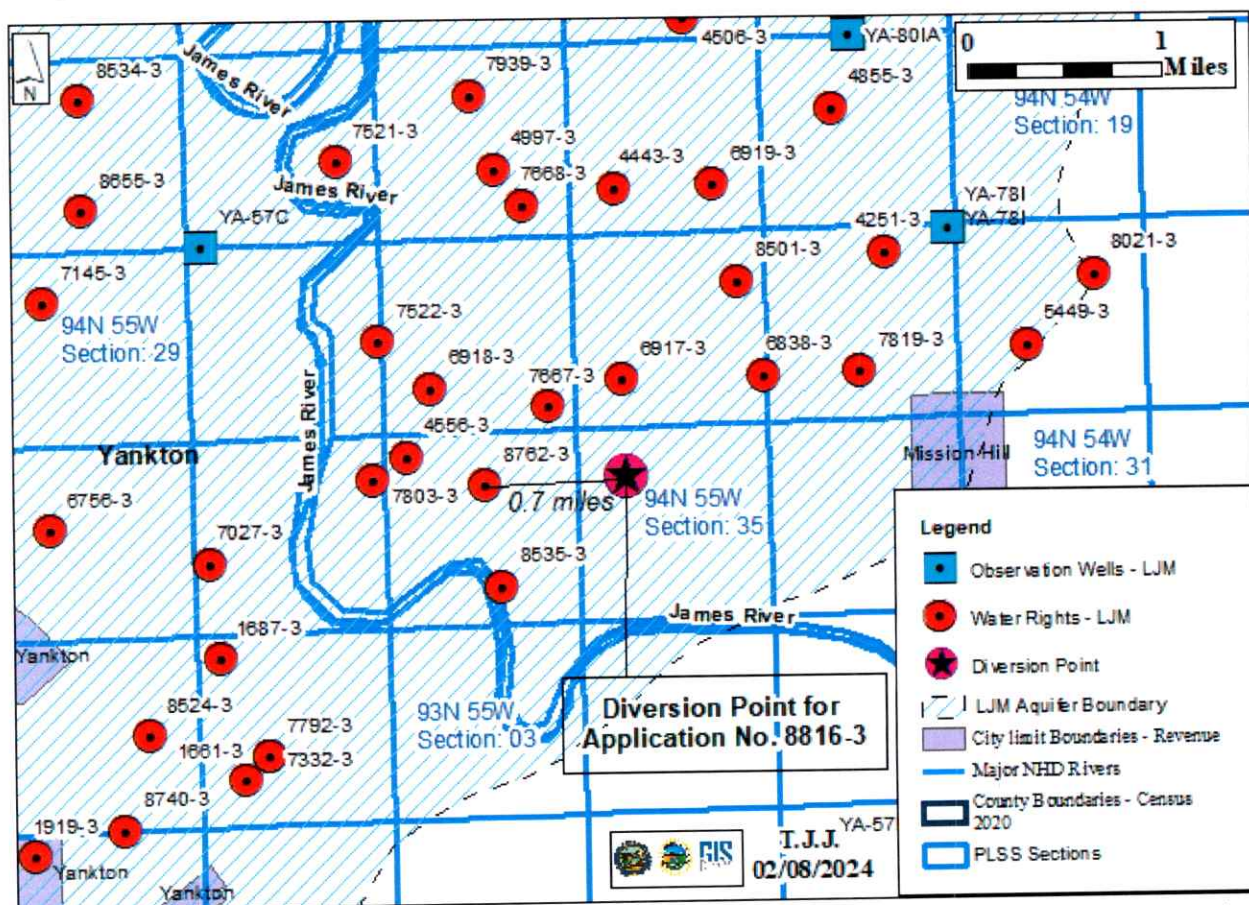


Figure 3. Map of the approximate Lower James Missouri aquifer boundary (modified from Hedges et al, 1982), the Lower James Missouri aquifer water rights/permits within 2 miles of the existing diversion point (Water Rights, 2024c), and the location of existing diversion point for Water Permit Application No. 8816-3

Table 4. List of Lower James Missouri aquifer water rights/permits within 2 miles of the existing diversion point, shown on Figure 3 (Water Rights, 2024c)

Permit	Name/Business	Priority	Status	Use Type	CFS	Acres
4251-3	Morris Nelson	03/10/1978	License	Irrigation	1.56	152
4443-3	Dennis, Darrell, Nelson	10/10/1979	License	Irrigation	1.78	148
4556-3	Knife River	09/15/1980	License	Commercial	0.44	0
4997-3	Dale Hebda	12/19/1983	License	Irrigation	0.28	32
6838-3	Karl M Shenk	03/22/2007	License	Irrigation	2.00	120
6917-3	Karl M Shenk	12/07/2007	License	Irrigation	1.78	140
6918-3	Karl M Shenk	12/07/2007	License	Irrigation	1.33	55
6919-3	John & Jacqueline Smith	12/07/2007	License	Irrigation	2.00	327
7522-3	John & Jacki Smith	11/16/2012	License	Irrigation	1.24	87
7667-3	Karl M Shenk	01/28/2013	License	Irrigation	0.67	31
7668-3	Karl M Shenk	01/28/2013	License	Irrigation	1.33	80
7803-3	Ralph Marquardt	02/27/2013	License	Irrigation	1.56	67
7819-3	Karl M Shenk	03/25/2013	License	Irrigation	1.78	70
8501-3	John & Jacki Smith	03/19/2021	License	Irrigation	1.33	77
8535-3	Jay Cutts	08/02/2021	License	Irrigation	1.78	92
8762-3	James D Gunderson	05/15/2023	Permit	Irrigation	1.78	120

The Lower James Missouri aquifer varies between confined and unconfined conditions (Bugliosi, 1986; Lindgren and Hansen, 1993). Based on water well completion reports near the existing diversion point, the existing diversion point is expected to be under confined conditions. In a confined aquifer, drawdown from a pumping well can extend some distance from the well. The exact drawdown behavior of a well cannot be known without an aquifer performance test.

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

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

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). Water Permit No.

7999-3 has been in place since 2015 with no reported instances of interference (Water Rights, 2024e). When considering the statutes (SDCL 46-1-4 and 46-6-6.1), rules (ARSD 74:02:04:20(6) and (7)), and the lack of well interference complaints for adequate wells completed into the Lower James Missouri aquifer in Yankton County, any drawdown created from the diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells (Water Rights, 2024e).

CONCLUSIONS:

1. Water Permit Application No. 8816-3 proposes to appropriate an additional 0.44 cfs and irrigate an additional 62 acres to what is authorized by Water Permit No. 7999-3. The site of interest is located approximately 1.5 miles west of Mission Hill, SD in Yankton County.
2. Water Permit No. 7999-3 authorizes 1.78 cfs from one well for irrigation of 96 acres. This application, if approved, and Water Permit No. 7999-3 will authorize a combined total of 2.22 cfs and irrigation of 158 acres.
3. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Lower James Missouri aquifer to supply the proposed appropriation.
4. There is a reasonable probability that the diversion by Water Permit Application No. 8816-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic uses.



Tyler Jensen
Natural Resources Engineer I
SD DANR - Water Rights Program

Reviewed by:



Adam Mathiowetz, PE
Natural Resources Engineer IV
SD DANR -Water Rights Program

References

- Bugliosi., E.F., 1986. Water Resources of Yankton County, South Dakota. USGS Water-Resources Investigations Report 84-4241. USGS. Huron, SD.
- Elliott, C.M., and Jacobson, R.B. 2022. Sixty years of channel adjustments to dams in the two segments of the Missouri National Recreational River, South Dakota and Nebraska. U.S. Geological Survey Scientific Investigations. Report 2022-5087. 75 p.
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- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bed rock Topography and Distribution, Task 2: Extent of Aquifers, Task 3 Ground-Water Storage, Task 4: Computerized Data Base. United States Army Corps of Engineers Contract DACW 45-80-C-0185.
- Lindgren, R.J., and Hansen, D.S., 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey, Huron, South Dakota.
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- Stonesifer, J.R., 2014. Report to the Chief Engineer, Water Permit Application No. 7977-3, Dahlerup Family Trust, April 25, 2014. SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
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- Water Rights, 2024c. Water Right/Permit Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024d. Well Completion Reports, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2024e. County Files, SD DANR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

March 11, 2024

Karl M Schenk
44352 308th Street
Mission Hill SD 57046

Dear Mr. Schenk:

Water Permit Application No. 8816-3 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 Daily Press & Dakotan printed in Yankton SD (Ph # 605 665-7811). You will need to contact the newspaper 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper 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,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(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. 8816-3 to Appropriate Water

Notice is given that Karl M Schenk, 44352 308th Street, Mission Hill SD 57046 has filed an application for a water permit to appropriate an additional 0.44 cubic feet of water per second (cfs) and add 62 acres to what is authorized by Water Permit No. 7999-3. Water Permit No. 7999-3 appropriates 1.78 cfs from one well completed into the Lower James: Missouri Aquifer (176 feet deep) located near the center of the NW 1/4 Section 35 for irrigation of 96 acres located in the S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 35; all in T94N-R55W. An investigation of the permit found the system capable of diverting an additional 0.44 cfs from the existing well and an additional 62 acres of irrigation in the N 1/2 NE 1/4 Section 35-T94N-R55W. This application, if approved, and Water Permit No. 7999-3 will authorize a combined total of 2.22 cfs and irrigation of 158 acres. This site is located approximately one and one-half miles west of Mission Hill SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8816-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by April 2, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by April 2, 2024.

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.

Published once at the total approximate cost of__

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 11, 2024 8:59 AM
To: Kelly Kronaizl
Subject: 8816-3 Karl M Schenk - Public Notice
Attachments: 8816-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 19, 2024 in the Daily Press & Dakotan.

Karl M Schenk, 44352 308th Street, Mission Hill SD 57046, 605-760-0363 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 Ave, Pierre SD 57501.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

KARL SCHENK SWINE OPERATION
KARL SCHENK
45352 308TH ST
MISSION HILL SD 57046

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
NOTICE OF APPLICATION NO.

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 19th DAY OF March, 2024
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$44.16 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: 03/19/2024

FILED ON: - 03/19/24



SUBSCRIBED AND SWORN TO BEFORE ME THIS 19th DAY OF March, 2024

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 12/15/2029

RECEIVED

MAR 21 2024

OFFICE OF
WATER

NOTICE OF APPLICATION NO. 8816-3 to Appropriate Water

Notice is given that Karl M Schenk, 44352 308th Street, Mission Hill SD 57046 has filed an application for a water permit to appropriate an additional 0.44 cubic feet of water per second (cfs) and add 62 acres to what is authorized by Water Permit No. 7999-3. Water Permit No. 7999-3 appropriates 1.78 cfs from one well completed into the Lower James: Missouri Aquifer (176 feet deep) located near the center of the NW 1/4 Section 35 for irrigation of 96 acres located in the S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 35; all in T94N-R55W. An investigation of the permit found the system capable of diverting an additional 0.44 cfs from the existing well and an additional 62 acres of irrigation in the N 1/2 NE 1/4 Section 35-T94N-R55W. This application, if approved, and Water Permit No. 7999-3 with authorize a combined total of 2.22 cfs and irrigation of 158 acres. This site is located approximately one and one-half miles west of Mission Hill SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8816-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineers recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by April 2, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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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.

Published once at the total approximate cost of \$44.16 and can be viewed free of charge at www.sdpublicnotices.com

Published March 19, 2024.

RECEIVED

MAR 21 2024

OFFICE OF
WATER

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, March 11, 2024 9:06 AM
To: kmschenk2@gmail.com
Subject: 8816-3 Karl M Schenk - Public Notice
Attachments: 8816-3 Rec.pdf; 8816-3 Ltr.pdf; 8816-3 PubNotice.pdf

Good morning,

Attached is a copy of the report, chief engineer's recommendation, and information regarding the public notice for your water permit application. As stated in the letter, **please contact the paper(s) as soon as possible to authorize publication and arrange for payment.** This information is also being mailed to you today.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8816-3**

(1) Karl Schenk; 44352 308th St, Mission Hill SD 57046, made Application No. 7999-3, April 11, 2014, for a water permit to divert 1.78 cubic feet of water per second (cfs) from groundwater, one well (Lower James: Missouri Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 7999-3, with a priority date of April 11, 2014, was approved June 16, 2014, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 16, 2019, and for the application to beneficial use of water on or before June 16, 2023.

Upon inspection for the purpose of licensing Permit No. 7999-3, it was found that the system was developed to appropriate and irrigate 0.44 cfs and 60 acres more than what was authorized. Application No. 8816-3 was made on January 2, 2024, to bring the irrigation system into compliance. Permit No. 8816-3 was approved April 2, 2024.

The applicable portions of Water Permit No. 7999-3 have been incorporated into this license.

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

- 1,330 ft E & 1,350 ft S of the NW corner Section 35, T94N, R55W (approximate center NW ¼)
(Latitude 42.91980 & Longitude -97.31332)

(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 35, T94N, R55W			
NE ¼ NE ¼	31 acres	NE ¼ NW ¼	31 acres
NW ¼ NE ¼	31 acres	SW ¼ NW ¼	31 acres
		SE ¼ NW ¼	32 acres
TOTAL: 156 acres			

(5) Pursuant to South Dakota Water Law 46-5-30.1 Karl Schenk, the holder and/or owner of Water Right No. 8816-3 is issued a license to appropriate water, the right to use 2.22 cubic feet of water per second from groundwater, one well (Lower James: Missouri Aquifer), with priority dates of April 11, 2014, for 96 acres & 1.78 cfs and January 2, 2024, for 60 acres & 0.44 cfs, 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. 8816-3 and subject to the following qualifications:

continued

Qualifications

1. The well approved under Water Permit Nos. 7999-3 & 8816-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This 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

APR 24 2024

date



Well Location
From the NW corner of
Sec 35 T94N-R55W

1,330 Ft. East
1,350 Ft. South

Well Coordinates
Lat: 42.91980
Long: -97.31332

Water Permit No. 7999-3

Center of Sec 35
T94N-R55W

Total = 156 acres

Quadrants:
NE NW 31 acres
NW NE 31 acres
NE NE 31 acres
SW NW 31 acres
SE NW 32 acres

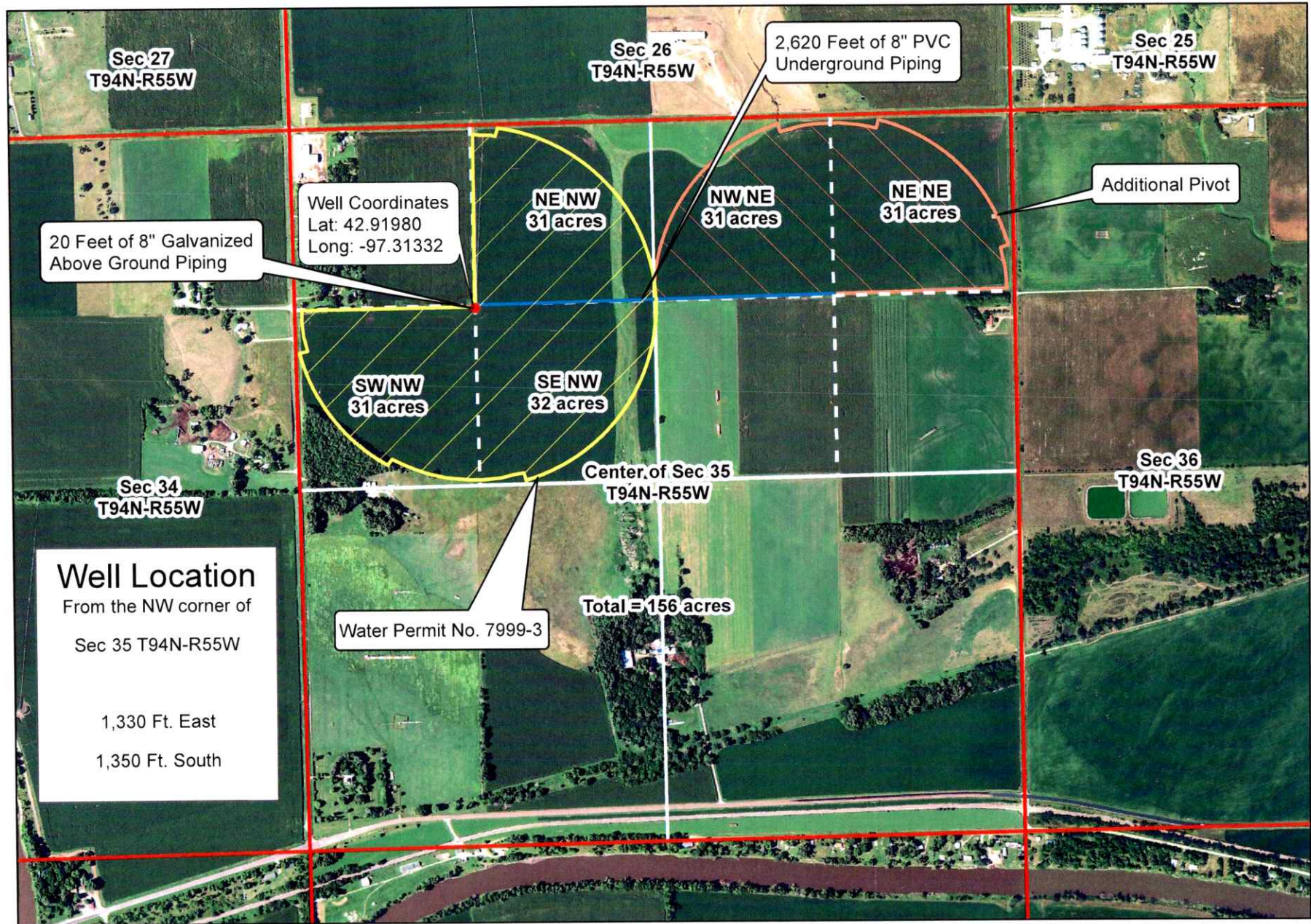
Infrastructure:
20 Feet of 8" Galvanized Above Ground Piping
2,620 Feet of 8" PVC Underground Piping
Additional Pivot

Surrounding Sections:
Sec 27 T94N-R55W
Sec 26 T94N-R55W
Sec 25 T94N-R55W
Sec 34 T94N-R55W
Sec 36 T94N-R55W



Keith DeJong, PE
Staff Engineer
August 30, 2021

Water Right No. 8816-3



Keith DeJong
Keith DeJong, PE
Staff Engineer
August 30, 2021

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 7999-3**

I have this day, August 12, 2021 made a thorough examination of the water use system owned by Karl M. Schenk, 44352 308th St., Mission Hill, SD 57046, holder of Permit No. 7999-3, bearing the priority of April 11, 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: Karl Schenk

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Sam Heine Well Company, LLC
- 2) No. of Wells: 1
- 3) Depth(s): 176 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 16 inches
- 2) Length: 100 feet
- 3) Type: Plastic

Screen:

- 1) Diameter: 16 inches
- 2) Length: 40 feet
- 3) Type: PVC
- 4) Static water level: 72 feet

Pump:

- 1) Make: Jensen Wholesale Pump and Repair
- 2) Serial No.: 17013-15
- 3) Capacity: 1,000 gpm

Motor:

- 1) Make: General Electric
- 2) Model No.: 5 KE365 DTT6019 A
- 3) Horsepower rating: 75 hp

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

- | | | |
|-----------------------|--------------------------|--|
| 1) Type: <u>Steel</u> | 2) Size: <u>8</u> inches | 3) Length: <u>20</u> feet to the west pivot |
| 1) Type: <u>PVC</u> | 2) Size: <u>8</u> inches | 3) Length: <u>2,620</u> feet to the east pivot |

C. Works used to apply water to beneficial use:

West Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 1262 feet
- 3) Number of towers: 8
- 4) End gun: Yes
- 5) Capacity: 1,000 gpm

Chemigation Equipment:

- 1) Does chemigate: No

East Center Pivot:

- 6) Make: Zimmatic
- 7) Overall length: 1254 feet
- 8) Number of towers: 7
- 9) End gun: Yes
- 10) Capacity: 1,000 gpm

Chemigation Equipment:

- 2) Does chemigate: No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: No
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: Yes
- 3) Exceptions to compliance are: Additional pivot and acres irrigated, and a higher flow than permitted.

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows:
The well is 1,330 feet east and 1,350 feet south of the northwest corner of Section 35-T94N-R55W (Latitude 42.91980, Longitude -97.31332 – SE1/4 of the NW1/4).
- 3) The works are capable of diverting and conveying to the place of use 2.22 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 35-T94N-R55W:

<u>NE1/4NW1/4</u>	<u>31 acres</u>
<u>SW1/4NW1/4</u>	<u>31 acres</u>
<u>SE1/4NW1/4</u>	<u>32 acres</u>
<u>NW1/4NE1/4</u>	<u>31 acres</u>
<u>NE1/4NE1/4</u>	<u>31 acres</u>

comprising a total of 156 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: An application will be needed to add 62 acres in the N1/2 of the NE1/4 of Section 35, T94N-R55W to the water right. The flow rate could also be considered for adjustment.

Keith DeJong

Keith DeJong
Water Rights Inspector
DENR, Water Rights Program

Date report completed: August 30, 2021



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

APR 24 2024

7999-3
8816-3

Karl Schenk
44352 308th St
Mission Hill SD 57046

Dear Schenk:

Enclosed is Water License No. 8816-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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 applicable portions of Permit No. 7999-3 have been incorporated into Water Right No. 8816-3.

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8816-3

Name of Applicant: Karl M. Schenk

Date of Posting: 3/18/2024

Date of Removal: 4/24/2024



Ron Duvall, Engineer III

4/24/2024

Date

Subscribed and sworn to before me, a notary public, this 24th day of April, 2024.



Notary Public - South Dakota
My commission expires: **Rachel Rodriguez**
My Commission Expires
May 16, 2029

(SEAL)





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 14, 2025

NOTICE

TO: KARL M SCHENK, 44352 308TH ST, MISSION HILL, SD 57046

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

SUBJECT: Reporting Requirement for 2024 Irrigation Questionnaires

Our records indicate your 2024 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 23, 2024. The Water Management Board has directed owners of water permits who have not submitted the 2024 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) 4506-3 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) 4855-3, 6838-3, 6839-3, 6917-3, 6918-3, 7017-3, 7667-3, 7668-3, 7670-3, 7819-3, 7842-3, 7939-3, 7955-3 & 8816-3 qualification:

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

The hearing will be held on **Wednesday, March 5, 2025, 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) 4855-3, 6838-3, 6839-3, 6917-3, 6918-3, 7017-3, 7667-3, 7668-3, 7670-3, 7819-3, 7842-3, 7939-3, 7955-3 & 8816-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 4506-3 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 5, 2025**, 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 Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: ESGTCO**

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.



**DEPARTMENT of AGRICULTURE
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PIERRE SD 57501-3182
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January 17, 2025

4506-3, 4855-3, 6838-3, 6839-3
6917-3, 6918-3, 7017-3, 7667-3
7668-3, 7670-3, 7819-3, 7842-3
7939-3, 7955-3, 8192-3 & 8816-3

Karl Schenk
44352 308th St
Mission Hill SD 57046

Dear Mr. Schenk:

I am writing to acknowledge the receipt of your 2024 irrigation questionnaire(s).

You may disregard the January 14, 2025, "Notice" concerning the reporting requirements for Water Permit No(s). 4506-3, 4855-3, 6838-3, 6839-3, 6917-3, 6918-3, 7017-3, 7667-3, 7668-3, 7670-3, 7819-3, 7842-3, 7939-3, 7955-3 & 8816-3. The information was received prior to the March 5, 2025, Water Management Board meeting and the above listed permit number(s) have been removed from the agenda. However, the 2024 reporting has not been completed for 8192-3, held by Stop Lock Drop Inc.

Please contact our office to report 2024 irrigation water use for Water Right No. 8192-3, prior to March 5, 2025.

If you have any questions or concerns, please contact me.

Sincerely,

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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 29th, 2025

8816-3

7939-3

Karl M Schenk
44352 308th St
Mission Hill, SD 57046

Dear Mr. Schenk:

The Water Rights Program received the 2025 Irrigation Questionnaires you submitted for Water Right No. 8816-3 & 7939-3.

A review of the submission has found them to be incomplete. You filled out both Questionnaires but missed filling out the "Total Hours for the Month" on each of them. For your convenience I have provided the Link and password to be able to do this online.

LINK: <https://danr.sd.gov/iq>

PASSWORD: RQYLAL

Sincerely,

Shannon Konst
Water Rights Program
605 773-8204
Shannon.konst@state.sd.us

enclosure