

WATER PERMIT NO. 7668-3

Name of Applicant: Karl M Schenk

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

Amount of Water Claimed: 1.33 cfs Total Acres: 80 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Yankton

Type of Waste Disposal System:

Location: 3 miles northeast of Mission Hill

PRIORITY Date Received: 1-28-13 Application/License Fee: \$ 950

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

Remarks: Requesting div rate greater than statutory limit

Diversion Point: S 1/2 SE 1/4 Sec 22-T94N-R55W

Land to be Irrigated: SE 1/4, SE 1/4 SW 1/4

Section 22-T94N-R55W

Depth of Well: 22 feet deep

Well Driller:

Remarks:

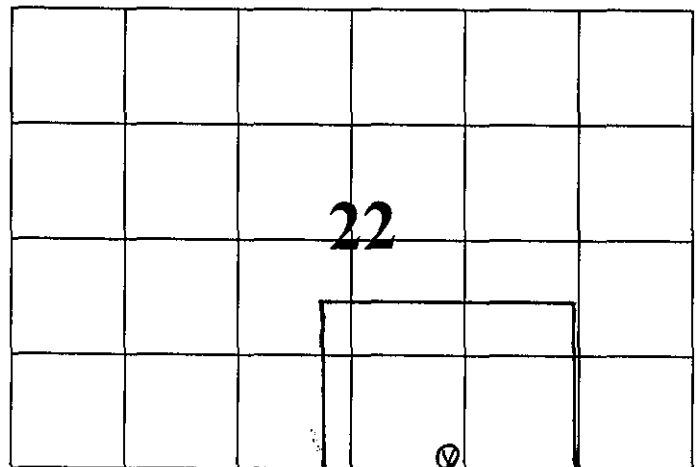
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-30-13

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota
(type or print)450
RECEIVED
JAN 28 2013
WATER RIGHTS
PROGRAM

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7668-3</u>	(office use only) Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>Press & Dakotan</u>	

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 of Applicant Karl M. Schenk Phone 605 760 0363
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 24352 30th St Mission Hill SD 57546
(Address) (City) (State) (Zip Code)
2. Amount of water claimed 1.33*CFS or 600**GPM ***AF Total Acreage 80
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Missouri lower James R
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Yankton
S 1/2 SE 1/4 Sec 22 - T94N - R55W
5. County or counties where water will be used Yankton
6. 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
<u>SE 1/4</u>	<u>70</u>		
<u>SE 1/4 SW 1/4</u>	<u>10</u>		
<u>all in Sec 22 - T94N - R55W</u>			

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

APPROX 1500' USED lockwood center pivot set up as a wheel
half circle system on the south boundary at the mid point
of the east west line the pivot will be supplied with a 60hp
electric or diesel motor.

STATE OF SOUTH DAKOTA)

County of Union)

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, Karl Schenk, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Karl M. SchenkSubscribed and sworn to before me this 17 day of January 20 13

DENISE SCHROEDER
Notarial seal - Iowa
Commission # 764552
My Commission Expires 9-1-2013

Denise Schroeder
Notary Public signature

SOUTH DAKOTA
WATER PERMIT NO. 7668-3

Date of first receipt of application January 28, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7668-3 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. 7668-3 appropriates 1.33 cubic feet of water per second (cfs) from one well to be completed into the Lower James:Missouri Aquifer (200 feet deep) located in the S 1/2 SE 1/4 Section 22 for irrigation of 80 acres located in the SE 1/4, SE 1/4 SW 1/4 Section 22; 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 January 28, 2013.
4. The date of approval of Permit No. 7668-3 is April 1, 2013.
5. One-fifth of the construction is to be completed on or before October 1, 2015.
6. All construction is to be completed on or before April 1, 2018.
7. Water is to be put to beneficial use on or before April 1, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7668-3 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. 7668-3 authorizes a maximum diversion rate of 1.33 cfs for the irrigation of 80 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

MAY 17 2013

date



Supplemental Information

(type or print in ink)

June 7/9

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 22" Depth 200
- b) Casing Type PVC Diameter 16 Thickness 3/4
- c) Screen Type PVC Diameter 16 Thickness 3/4
- d) Gravel Pack 1/2 - 3/8" Pea Rock Length of Gravel Pack 70'
- e) Depth to Top of Water Bearing Material 130
- f) Depth to Water (ground surface to water level) 70
- g) Distance to nearest existing domestic well:
- On applicant's property None On property owned by others 1000' North

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

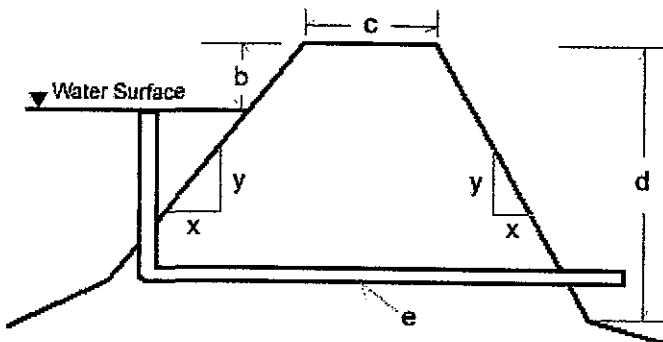
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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





United States Department of Agriculture Farm Service Agency

KARL M SCHENK - OP

Farm # 5744

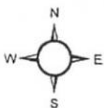
on/og

6930
1
15.86
NHSL

6930
2
25.8
NHSL

6930
4
90.83
NHSL

1500'
Well



1:8,233

South Dakota
Yankton County

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JAN 28 2013
WATER RIGHTS
PROGRAM

Farm Number
5744

Township-Range-Section
94N55W22

Legend

- Restricted Use
- ✓ Limited Restrictions
- Exempt from Conservation Compliance Provisions
- CLU Field Boundary
- Tract Boundary

USDA FSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or the 2008 orthorectified imagery for South Dakota. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Mike Kuefer

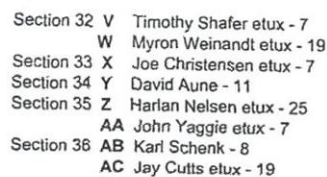
Yankton City
PT

Apr 22, 2009

FSA office

R 55 W

Land Owner



- Section 32 V Timothy Shafer etux - 7
W Myron Weinandt etux - 19
Section 33 X Joe Christensen etux - 7
Section 34 Y David Aune - 11
Section 35 Z Harlan Nelsen etux - 25
AA John Yaggie etux - 7
Section 36 AB Karl Schenk - 8
AC Jay Cutts etux - 19

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/30, 20 13

RECEIVED OF Karl Schenk 946 Wynstone Jefferson SD 57038

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

Fee for Application for Permit No. <u>7668-33</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>7668-3</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. **06056**

By *Harold Erdos*
Chief Engineer

Water Rights Program - File Documentation

NAME: Karl Schenk

ADDRESS: Mission Hill

DATE: 1-30-13

RE: Pending applications

Application for irrigation of 32 acres in Section 27 was okay.

Application for irrigation of 80 acres in Section 22 should include some acres in the SE 1/4 SW 1/4 which will be covered by the pivot making a windshield wipe. The well will be located in the S 1/2 SE 1/4 Section 22. They are requesting 600 gpm (1.33 cfs) from this well to irrigate 80 acres. They are requesting more than statutory limit because it is what is needed to operate the windshield wipe rotation.

Application for irrigation of 70 acres in the E 1/2 NE 1/4 Section 17. Mr. Schenk stated they will be using the existing well located in the N 1/2 SE 1/4 Section 17. This well was authorized by Water Permit No. 6916-3 and was to be located in the approximate center of the SE 1/4. The well was actually constructed in the N 1/2 SE 1/4 Section 17. The well will now longer be used to irrigate the acres authorized by No. 6916-3. They are proposing to run pipe from the well to the pivot (approximate center of the NE 1/4 Sec 17). They are requesting 600 gpm (1.33 cfs) from this well to irrigate 70 acres. They are requesting more than statutory limit because it is what is needed to operate the windshield wipe rotation.

Application for irrigation of 50 acres in the S 1/2 SE 1/4 Section 17. Mr. Schenk stated they are proposing to drill new well in the approximate center of the SE 1/4 Section 17 to irrigate the 70 acres authorized by Permit No. 6916-3 and an additional 50 acres located in the S 1/2 SE 1/4 Section 17 with one pivot making a partial rotation. Permit No. 6916-3 authorizes 800 gpm (1.78 cfs). This application would be for no additional water to irrigate a total of 120 acres.


Karen Schlaak
Water Rights Program



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7668-3, 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. 7668-3, Karl Schenk, 44352 308th Street, Mission Hill SD 57046

The Chief Engineer is recommending APPROVAL of Application No. 7668-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7668-3 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. 7668-3 authorizes a maximum diversion rate of 1.33 cfs for the irrigation of 80 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.

Garland Erbele, Chief Engineer
March 13, 2013

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7667-3 & 7668-3
Karl M. Schenk
February 22, 2013**

Water Permit Application No. 7667-3 proposes to appropriate 64 acre-feet of water per year (ac-ft/yr) at a maximum diversion rate of 0.67 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 27 to irrigate 32 acres located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 27; all in T94N-R55W.

Water Permit Application No. 7668-3 proposes to appropriate 160 acre-feet of water per year (ac-ft/yr) at a maximum diversion rate of 1.33 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer located in the S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 22 to irrigate 80 acres located in the SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 22; all in T94N-R55W. The applicant is requesting diversion rates greater than the statutory limit. The projects are located approximately three miles east and 2.5 miles north of the town of Yankton in Yankton County.

AQUIFER: Lower James Missouri aquifer (LJM)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Lower James Missouri aquifer is a glacial outwash consisting of sand and gravel that can be under water table or artesian conditions depending on location (Bugliosi, 1986). The well sites are located approximately one mile east of the James River on top of the ridge above the flood plain of the James River where the aquifer is most likely under confined conditions. The aquifer extends from Yankton County east into a small portion of Clay County and northwest into central Hutchinson County. In Yankton County alone, the Lower James Missouri aquifer is estimated to underlie 92,500 acres and contain 2,081,250 ac-ft of recoverable water in storage (Hedges and others, 1982). The aquifer is hydraulically connected to the Lower James Missouri: Scotland aquifer in Yankton County which extends into northeastern Bon Homme County, the Lower Vermillion Missouri aquifer in Clay County, the James River to the east, and Missouri River to the south (Bugliosi, 1986).

Test hole information was not submitted with the two applications; however, sufficient information is available from area water rights/permits and well completion reports to evaluate the aquifer at the proposed well sites. Well completion reports submitted for wells on top of the ridge above the James River flood plain that are also within two miles of the proposed well sites, document the top of aquifer materials ranging from 85 to 135 feet below ground surface, a static water level ranging from 70 to 100 feet below ground surface, and an aquifer thickness of approximately 65 to 115 feet (Water Rights, 2013c).

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 and existing rights from the aquifer pertinent to this application.

WATER AVAILABILITY:

The two applications propose to appropriate a total of 224 ac-ft/yr from the Lower James Missouri aquifer. If the applications are approved, the actual water use will likely be less than the appropriation. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires

“No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable 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.”

OBSERVATION WELL DATA:

Administrative Rule of South Dakota Section 74:02:05:07 requires that “the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.”

The DENR-Water Rights Program monitors 21 observation wells completed into the Lower James Missouri aquifer (Water Rights, 2013a). The nearest of these wells, YA-80IA is located approximately 2 miles northeast of the proposed well sites. Observation well YA-80IA is under confined conditions. The observation well encounters a static water level approximately 100 to 115 feet below the ground surface and the top of the aquifer is found 135 feet below the ground surface. The Hydrograph of the observation well is shown in Figure 1.

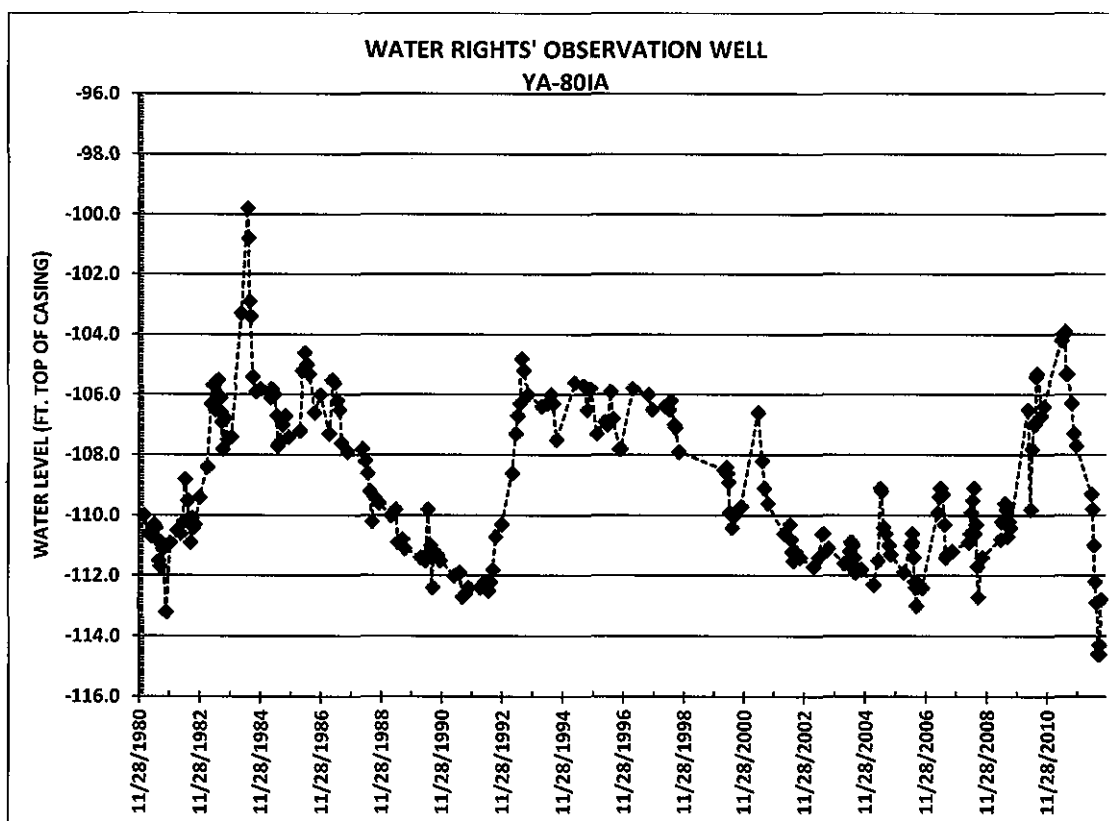


Figure 1- Hydrograph of DENR-Water Rights' observation well CL-80IA, located approximately 2 miles northeast of the proposed well locations (Water Rights, 2013a)

The observation well data documents cyclic conditions of water levels, recharging during wet years and declining during dry years. The hydrograph also shows the effects of nearby pumping on the aquifer. However, at the current level of development, temporal well withdrawal is masked by climatic conditions. Therefore, recharge to and natural discharge from the Lower James Missouri aquifer greatly exceeds well withdrawal. These hydrographs indicate that unappropriated water is available from the Lower James Missouri aquifer to support the proposed appropriation of 224 ac-ft/yr at the proposed well sites.

HYDROLOGIC BUDGET:

Recharge:

Recharge to the Lower James Missouri aquifer occurs due to infiltration of precipitation and seepage from streams, and inflow from aquifers in surrounding counties (Bugliosi, 1986). Hedges and others (1985) estimated the recharge rate, based on a regional flow-net analysis, of the aquifer to be 1.5 inches per year. Using this recharge rate and the area of the aquifer, recharge for the Lower James Missouri aquifer in Yankton County is estimated to equal 11,563 ac-ft/yr.

Discharge:

Discharge from the Lower James Missouri aquifer occurs due to evapotranspiration in areas where the aquifer is near land surface, seepage to the James River, outflow to the aquifers in surrounding counties, and well withdrawals. Currently there are 63 water rights/permits appropriating water from the Lower James Missouri aquifer in Yankton County. All but four of these water rights/permits are for irrigation use. The distribution of appropriation types are shown in table 1 (Water Rights, 2013b).

Water Rights/Permits	Number
Commercial	2
Industrial	1
Geothermal	1
Irrigation	59

Table 1 – Water Rights from the Lower James Missouri aquifer in Yankton County
(Water Rights, 2013b).

From the Lower James Missouri aquifer in Yankton County, the total maximum diversion rate for non-irrigation use is 1.941 cfs (Water Rights, 2013b).

The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming:

1. Water rights/permits limited by an annual volume will pump the entire volume appropriated.
2. Water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time.
3. Future use permits can be fully developed.

At the current appropriation amount, the total annual withdrawal from the Lower James Missouri aquifer in Yankton County by non-irrigation use is expected to total less than 843 ac-ft/yr (Water Rights, 2013b).

Figure 2 shows the Lower James Missouri aquifer's historic irrigation data. The development of this aquifer has been steadily increasing for the last five years, and could continue to increase at this rate for at least the next few years. Notably in 2007, the number of permits increased from 30 to 46. The annual withdrawal due to irrigation use fluctuates greatly, which is probably due mostly to yearly climatic conditions. The average pumpage reported equals 1,412 ac-ft/yr. The maximum pumpage reported was in 2008 for 2,837 ac-ft/yr (Water Rights, 1979-2011).

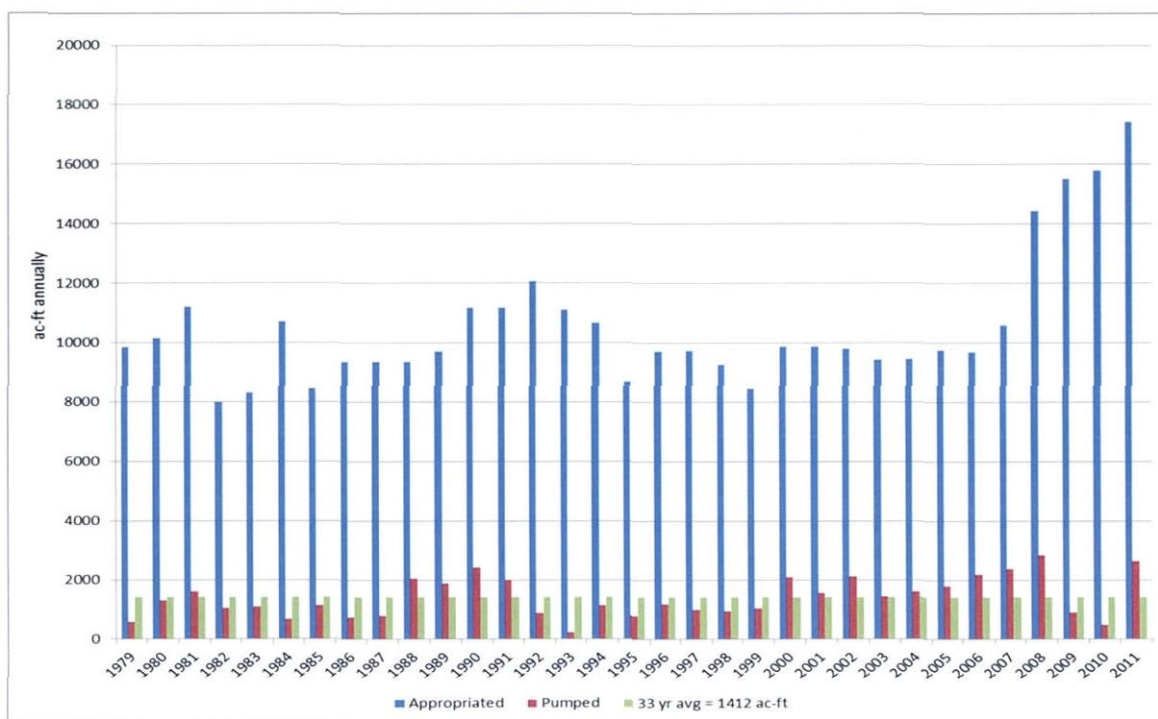


Figure 2: Historic irrigation water use from the Lower James Missouri aquifer in Yankton Co. (Water Rights, 1979-2011)

As indicated by Figure 1, historically actual water use has not exceeded the average annual recharge. Comparing the average annual recharge calculated by Hedges (1985), 11,562.5 ac-ft in Yankton County, to the estimated average annual withdrawal from the aquifer, 2,255 ac-ft in Yankton County, there is a reasonable probability that unappropriated water is available for the proposed appropriations of 224 ac-ft from the Lower James Missouri aquifer.

Since the reporting of the 2011 irrigation questionnaires, eight new irrigation permits have been issued for withdrawals from the Lower James Missouri aquifer in Yankton County. Combined, these permits appropriate 2,600 acre-feet/year at a maximum diversion rate of 15.31 cubic feet per second of water. There are five permits pending approval to appropriate 934 acre-feet/year at a maximum diversion rate of 8.34 cubic feet per second of water. The actual water use will likely be less than the combined appropriations of the recent permits and the pending applications. With the addition of the permits issued in the past year, the permits pending approval, and these two applications it is still expected that average annual withdrawal will not exceed average annual recharge to the Lower James Missouri aquifer in Yankton County.

In addition, there are many completion reports on file with the SD DENR-Water Rights Program for domestic wells that appear to be completed into the Lower James Missouri aquifer (Water Rights, 2013c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer. Even assuming the maximum irrigation pumpage reported results in an annual withdrawal less than the average annual recharge to the aquifer.

Hydrologic Budget:

Assuming the non-irrigation water rights/permits divert at the maximum expected rate and irrigation water rights/permits withdraw the maximum pumpage reported, the annual withdrawal from the Lower James Missouri aquifer would still be much less than the estimated annual recharge. Therefore, there is a reasonable probability that unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation of 224 ac-ft/yr.

EXISTING WATER RIGHTS:

There are 63 water rights/permits appropriating water from the Lower James Missouri aquifer in Yankton County. Within two miles of the proposed well site, there are twelve water rights/permits and six well completion reports on record with the SD DENR-Water Rights Program for domestic wells that appear to be completed into the Lower James Missouri aquifer. These water right/permits and domestic wells are shown in Table 2. The nearest wells are two irrigation wells located 0.4 miles and one domestic well located 0.25 miles from the proposed well sites (Water Rights, 2012b; Water Rights, 2013c).

PERMIT NO.	NAME	STATUS	TYPE	CFS	ACRES
4556-3	Concrete Materials	LC	COM	0.44	
4251-3	Morris Nelson	LC	IRR	1.56	152
4997-3	Dale & Rena Hebda	LC	IRR	0.28	32
4443-3	Dennis & Darrell Nelson	LC	IRR	1.78	148
4506-3	Karl M. Schenk	LC	IRR	2.45	203
4855-3	Karl M. Schenk	LC	IRR	1.78	206
6838-3	Karl M. Schenk	PE	IRR	2.22	120
6917-3	Karl M. Schenk	PE	IRR	1.78	140
6918-3	Karl M. Schenk	PE	IRR	1.33	55
6919-3	John & Jacqueline Smith	LC	IRR	2.0	327
7145-3	Delos Warriner	PE	IRR	1.78	140
7521-3	John & Jacki Smith	PE	IRR	1.44	101
7522-3	John & Jacki Smith	PE	IRR	1.33	94
	Bob Bartling		DOM		
	Guy Chaney		DOM		
	Albert Frick		DOM		
	Karl M. Schenk		DOM		
	Karl M. Schenk		DOM		
	Tom & Karen Thorson		DOM		
7611-3	Dan Hacecky	PENDING	IRR	2.22	77
LC = Water Right, PE = Water Permit, COM = Commercial, DOM = Domestic, IRR = Irrigation					

Table 2: Water rights/permits and domestic wells completed into the Lower James Missouri aquifer within two miles of the proposed well sites (Water Rights, 2013b; Water Rights, 2012c)

Specific capacity in high capacity irrigation wells in the area, as indicated on the well completion reports, ranges from 50 - 100 gallons per minute per foot. Assuming a specific capacity of 75 gallons per minute per foot at the well sites, results in a transmissivity of 112,500 gallons per day per foot (Aqtesov.com, 2013). Calculating drawdown using transmissivity and a storage coefficient of 0.001, results in 7 feet of drawdown at the proposed well site for 7667-3 and 14.5 feet for the proposed well site for 7668-3. Drawdown reduces to 3 and 6 feet, respectively, 660 feet from the proposed well sites (icalcul8.com, 2013). Well interference has not been a problem with the Lower James Missouri aquifer. At an aquifer thickness of 65 to 115 feet and the distances involved between the proposed well sites and wells of existing water rights/permits and domestic users, interference is not expected to be a concern.

Water Management Board rules 74:02:04 and 74:02:05, which were promulgated pursuant to SDCL 46-6-6.1, provide protection for existing wells only to the degree necessary to maintain an adequate depth of water in wells that have the ability to produce water independent of artesian pressure. Hence, the pump placement in a prior appropriator's well is not necessarily protected. The Water Management Board, in the past, has concluded that if increased cost or decreased production is considered an adverse impact, it could be in conflict with SDCL 46-1-4. South Dakota Codified Law 46-1-4 requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable. Therefore, well interference is not likely to adversely impact existing appropriative or domestic users.

SDCL 46-5-6

Pursuant to SDCL 46-5-6, the amount allowed may not be in excess of the rate of one cubic foot of water per second for each seventy acres. The Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires. Water Permit Application 7667-3 proposes to divert 0.67 cfs to irrigate 32 acres and Water Permit Application No. 7668-3 proposes to divert 1.33 cfs to irrigate 80 acres. The applicant needs the diversion rates in order to operate the irrigation equipment.

The applicant is limited to the maximum statutory limit of 2 acre feet per acre on land irrigated.

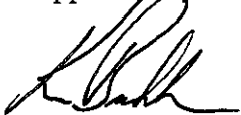
CONCLUSIONS:

1. Combined the applications propose to appropriate 224 acre-feet annually for the irrigation of 112 acres, but the amount of water that actually will be used is expected to be less than 224 acre-feet annually.
2. There is a reasonable probability that unappropriated water is available from the Lower Vermillion Missouri aquifer to supply the proposed diversions.
3. There is a reasonable probability that the diversion rates requested by the two applications can be made without adversely affecting existing water rights and domestic use.
4. Water Permit Application 7667-3 proposes to divert 0.67 cfs to irrigate 32 acres and Water Permit Application No. 7668-3 proposes to divert 1.33 cfs to irrigate 80 acres. The applicant is requesting diversion rates greater than the statutory limit of 1 cfs per 70 acres due to the method of irrigation.



Ex Lynn Beck
Natural Resources Engineer III
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Bugliosi, E.F. 1986. Water Resources of Yankton County, South Dakota. Water Resources Investigations Report 84-4241. U.S. Geological Survey, Huron, SD.
- 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: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J., and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 7: Ground Water Recharge. South Dakota DENR-Geological Survey, Vermillion, SD.
- McCormick, K.A. 2003. First Occurrence of Aquifer Materials in Yankton County, South Dakota, SD-DENR Geological Survey, Vermillion, SD.
- Water Rights. 1979-2011. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Icalcul8.com, This page was developed with information from the *Civil Engineering Handbook: Second Edition* edited by *W.F. Chen & J.Y. Richard Liew*. Accessed January, 2013.
- Aqtesov.com, All contents of his page are: Copyright © 1998-2012 Hydrosolve, Inc., 2303 Horseferry Court, Reston, Virginia 20191. Accessed January, 2013.

RECEIVED

MAR 25 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES AND SAYS THAT HE IS THE **MANAGING EDITOR** OF, YANKTON MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID 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. 7667-3 thru 7670-3**

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE NEWSPAPER ON THE 22nd DAY OF March 2013 THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION OF SAID **NOTICE** TO WIT \$45.18 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: 3/22/2013

FILED ON: 3/22/2013

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

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 8/19/2015

Interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 1, 2013.

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

Published once at the total approximate cost of \$45.18.

NOTICE OF APPLICATION
NOS. 7667-3 thru 7670-3 to
Appropriate Water

Notice is given that Karl M Schenk, 44352 308th St, Mission Hill SD 57046 has filed the following applications for a water permit.

Application No. 7667-3 proposes to appropriate 0.67 cubic feet of water per second (cfs) from one well to be completed into the Lower James:Missouri Aquifer (140 feet deep) located in the center of the SE 1/4 SE 1/4 Section 27 for irrigation of 32 acres located in the SE 1/4 SE 1/4 Section 27; all in T94N-R55W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7668-3 proposes to appropriate 1.33 cfs from one well to be completed into the Lower James:Missouri Aquifer (22 feet deep) located in the S 1/2 SE 1/4 Section 22 for irrigation of 80 acres located in the SE 1/4, SE 1/4 SW 1/4 Section 22; all in T94N-R55W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7669-3 proposes to appropriate 1.33 cfs from one existing well completed into the Missouri:Elk Point Aquifer (22 feet deep) located in the N 1/2 SE 1/4 Section 17 for irrigation of 70 acres located in the E 1/2 NE 1/4 Section 17; all in T94N-R54W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7670-3 proposes to irrigate 50 acres and drill a new well. Water Permit No. 6916-3 authorizes 1.78 cfs from one well to be completed into the Missouri:Elk Point Aquifer located in the approximate center of the SE 1/4 Section 17 to irrigate 70 acres located in the N 1/2 SE 1/4 Section 17; all in T94N-R54W. This application proposes to irrigate the 70 authorized acres and 50 new acres located in the S 1/2 SE 1/4 Section 17-T94N-R54W from a new well to be located in the center of the SE 1/4 Section 17-T94N-R54W. The existing well authorized by Water Permit No. 6916-3 will now be used under Application No. 7669-3. This application, if approved, and Water Permit No. 6916-3 will authorize a total of 1.78 cfs to irrigate 120 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7667-3, 7668-3, 7669-3 and 7670-3 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.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 14, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7667-3 thru 7670-3 to Appropriate Water. Please publish the notice once on March 22, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Karl M Schenk, 44352 308th St, Mission Hill 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**

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

denr.sd.gov

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

March 14, 2013

Karl M Schenk
44352 308th St
Mission Hill SD 57046

Dear Mr. Schenk:

Water Permit Application Nos. 7667-3 thru 7670-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish the Notice on March 22, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NOS. 7667-3 thru 7670-3 to Appropriate Water

Notice is given that Karl M Schenk, 44352 308th St, Mission Hill SD 57046 has filed the following applications for a water permit.

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Application No. 7668-3 proposes to appropriate 1.33 cfs from one well to be completed into the Lower James:Missouri Aquifer (22 feet deep) located in the S 1/2 SE 1/4 Section 22 for irrigation of 80 acres located in the SE 1/4, SE 1/4 SW 1/4 Section 22; all in T94N-R55W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7669-3 proposes to appropriate 1.33 cfs from one existing well completed into the Missouri: Elk Point Aquifer (22 feet deep) located in the N 1/2 SE 1/4 Section 17 for irrigation of 70 acres located in the E 1/2 NE 1/4 Section 17; all in T94N-R54W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7670-3 proposes to irrigate 50 acres and drill a new well. Water Permit No. 6916-3 authorizes 1.78 cfs from one well to be completed into the Missouri:Elk Point Aquifer located in the approximate center of the SE 1/4 Section 17 to irrigate 70 acres located in the N 1/2 SE 1/4 Section 17; all in T94N-R54W. This application proposes to irrigate the 70 authorized acres and 50 new acres located in the S 1/2 SE 1/4 Section 17-T94N-R54W from a new well to be located in the center of the SE 1/4 Section 17-T94N-R54W. The existing well authorized by Water Permit No. 6916-3 will now be used under Application No. 7669-3. This application, if approved, and Water Permit No. 6916-3 will authorize a total of 1.78 cfs to irrigate 120 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7667-3, 7668-3, 7669-3 and 7670-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 1, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

MAY 17 2013

Karl M Schenk
44352 308th St
Mission Hill SD 57046

Dear Mr. Schenk:

Enclosed are Water Permit Nos. 7667-3, 7668-3, 7669-3 and 7670-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses may be issued, thus completing the acquisition of a water right.

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

Sincerely,

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

enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

SD EForm - 1621LD V1

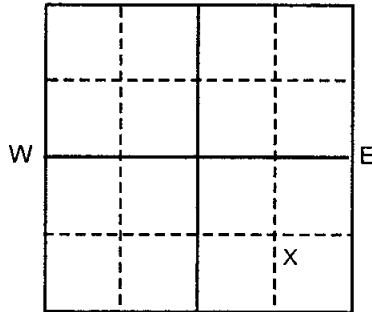
11-02

Location SE ¼ SE ¼ Sec 22 Twp 94N Rg 55W

County Yankton

North

Please mark well location with an "X"



Well Completion Date

4-4-2015

← 1 Mile →

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1,800.0 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
160.0 LB/FT	16.00 IN	0.0 FT	100.0 FT	28.00 IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	80	9.4 Lb/gal	0.0 Ft	80.0 Ft

Describe grouting procedure
Tremie Pipe & Grout Pump

SCREEN:

☒ Perforated pipe ☐ Manufactured

Diameter 16.00 Inches Length 40.0 Feet

Material PVC

Slot Size 85 Set From 100.0 Feet to 140.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine Tablets

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: Karl Schenk

Business Name:

Address: 44352 308th St.

City, State, Zip: Mission Hill SD 57046

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	3
Clay	3	75
Gravel	75	80
Clay	80	95
Gravel	95	145

STATIC WATER LEVEL 75.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: Turbine Pump and Motor

☐ Bailed

☐ Other

Pumping Level Below Land Surface

80.0 Ft. After 3.0 Hrs. pumped 1,000.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

This well was drilled under license # 805 and this report is true and accurate.

Drilling firm: Sam Heine Well Company, LLC

Signature of License Representative

Signature of Well Owner or Equitable Property Holder: **RECEIVED**

JUN 12 2015

Date: 4-4-15

WATER RIGHTS PROGRAM

4-10-15

McMath, Genny

From: McMath, Genny
Sent: Monday, June 24, 2019 12:52 PM
To: 'knschenk@cableone.net'
Subject: inspection and licensing of 7668-3
Attachments: 7668-3 report for Karl.pdf

Karl,

Attached are the permit, inspection report and map we discussed. Please review everything and see if it fits with what you currently have out there.

Our staff engineer looked at your system 4 years before the construction date was supposed to be up so we wanted to make sure everything was right.

No rush on this, but let me know when you have a few minutes if changes need to be made or if we need to come out there again. If everything is good, we can issue a license for the project and call it good.

Thank you!!

Genny McMath
DENR - Water Rights Program
773-3352 (main phone)
773-5455 (desk phone)
Website: <https://denr.sd.gov/des/wr>

5/29/2020: Spoke with Karl - he indicated
everything was the same as the inspection.
Gm

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

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

I have this day, September 22, 2014 made a thorough examination of the water system used by the Karl M Schenk, 44352 308th St., Mission Hill, SD 57046, holder of Water Permit No. 7668-3, bearing the priority date of January 28, 2013. Water Permit No. 7668-3 authorizes the diversion of 1.33 cubic feet per second (cfs) from one well completed into the Lower James Missouri aquifer at approximately 200 feet below ground surface for the purposes of irrigating 80 acres in Yankton County as follows: 70 acres in the SE $\frac{1}{4}$ Section 22, 10 acres in the E $\frac{1}{2}$ SW $\frac{1}{4}$ Section 22, all in T94N-R55W.

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

- 1) Works used to divert water:
One irrigation pump, manufactured by Kroy-Midwest
- 2) Works used to transport water to a place of use:
Underground pipes, 8 inch diameter.
- 3) Works used to apply water to beneficial use:
One Reinke Pivot

The system is in the following condition: well maintained. The exact location the well is as follows:

- 1) **SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 22, T94N-R55W, 1,000 feet north and 1,300 feet west of the southeast corner of Section 22. Lat 42.94048N Lon 97.32299W.**

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

- 1) 10 acres in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T94N-R55W.
- 2) 10 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T94N-R55W.
- 3) 30 acres in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T94N-R55W.
- 4) 30 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 22, T94N-R55W.

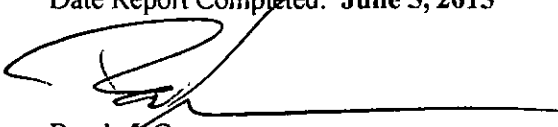
For a total of 80 acres.

License should be issued for the ~~developed~~ diversion rate of: **1.33 cfs or 600 gpm**

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

Exceptions to compliance are: **None**

Date Report Completed: **June 5, 2015**



Bracken Capen
Natural Resources Engineer
DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR WATER PERMIT NO. 7668-3

DATE OF INVESTIGATION:	September 22, 2014
NAME & ADDRESS OF PERMIT HOLDER	Karl M Schenk 44352 308 th St. Mission Hill, SD 57046
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Karl M Schenk
DIVERSION POINT LEGAL LOCATIONS	SE ¼ SE ¼ Section 22, T94N-R55W, 1,000 feet north and 1,300 feet west of the southeast corner of Section 22. Lat 42.94048N Lon 97.32299W.

WELL INFORMATION:

- 1) Well Drilling Firm:
Sam Heine Well Company, LLC
- 2) Number of Wells: **1**
- 3) Depth: **145 Feet**
- 4) Well Log Available: **Yes**
- 5) Comment: **Completion date on well
log is incorrect**

Motor

- 1) Make: **General Electric**
- 2) Model No:
- 3) Power: **75 hp**

System Type

- 1) Make: **1 Reinke Pivot**
- 2) Overall length: **1,300 feet**
- 3) Number of Towers: **7 towers**
- 4) End Gun: **Yes**
- 5) Pressure:
- 6) Capacity: **800 gpm**

Pumps

- 1) Make: **Kroy Midwest**
- 2) Model: **CVMW8**
- 3) Size:
- 4) Capacity: **800 gpm**

Casing

- 1) Diameter: **16 Inches**
- 2) Length: **100 Feet**
- 3) Type: **Plastic**

Screen

- 1) Type: **Perforated Pipe**
- 2) Length: **40 Feet**
- 3) Static Water Level: **75 Feet**

CHEMIGATION EQUIPMENT: No

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

PERMIT QUALIFICATIONS:

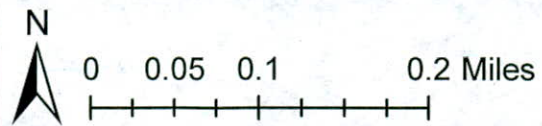
- 1) Special qualifications to permit being abided by: **N/A**
- 2) All structures, wells, and lands on map: **Yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by end of construction period: **Yes, irrigation in 2013.**

COMMENT:

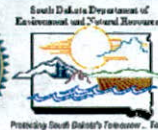
Irrigation questionnaires for this system indicate a diversion rate of 1.78 cfs or 800 gpm. However, the original permit only authorizes a maximum diversion rate of 1.33 cfs or 600 gpm, which already exceeds the statutory limit of 1.0 cfs per 70 acres. Consequently, the license will be issued for the permitted diversion rate of 1.33 cfs or 600 gpm.



- Legend**
- Irrigated_Acres
 - Section Boundaries - PLSS
 - Well Location



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





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

JUN 01 2020

7668-3

Karl M Schenk
44352 308th St
Mission Hill SD 57046

Dear Mr. Schenk:

Enclosed is Water License No. 7668-3. 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.

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

Sincerely,

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

enclosures

NOTE: The investigation found your irrigation system is capable of diverting 1.78 cubic feet of water per second (cfs) which is equivalent to approximately 800 gallons per minute. Diversion of water under this water license is limited to 1.33 cfs or 600 gallons per minute as originally approved and permitted.

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7668-3**

(1) Karl M Schenk, 44352 308th St, Mission Hill SD 57046 made Application No. 7668-3, January 28, 2013 for a water permit to divert 1.33 cubic feet of water per second from ground water, one well (Lower James Missouri Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 7668-3, with a priority date of January 28, 2013 was approved April 1, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 1, 2018 and for the application to beneficial use of water on or before April 1, 2022.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 1.33 cubic feet of water per second for beneficial use. The location of the diversion point is as follows:

- 1,000' N and 1,300' W of the SE corner of Section 22, T94N, R55W (SE $\frac{1}{4}$ SE $\frac{1}{4}$)
Latitude 42.94048, Longitude -97.32299W

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

T94N, R55W Section 22	NE $\frac{1}{4}$ SE $\frac{1}{4}$	10 acres
	NW $\frac{1}{4}$ SE $\frac{1}{4}$	10 acres
	SE $\frac{1}{4}$ SE $\frac{1}{4}$	30 acres
	SW $\frac{1}{4}$ SE $\frac{1}{4}$	30 acres
	Total	80 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Karl M Schenk, 44352 308th St, Mission Hill SD 57046 the holder and/or owner of Water Right No. 7668-3 is issued a license to appropriate water, the right to use 1.33 cubic feet of water per second from ground water, one well (Lower James Missouri Aquifer) with a priority date of January 28, 2013 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. 7668-3 and subject to the following qualifications:

- 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 Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The well authorized by Permit No. 7668-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *The well was drilled in April, 2015 by Sam Heine Well Company, LLC. A copy of the well completion report is on file with the Water Rights Program.*

Water License No. 7668-3

Page 2

- 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, No. 7668-3 authorizes a maximum diversion rate of 1.33 cfs for the irrigation of 80 acres with an annual volume not to exceed 2 acre-feet of water per acre per year.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

JUN 01 2020

date





**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
and NATURAL RESOURCES**

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

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