

WATER PERMIT NO. 7886-3

Name of Applicant: Wolf Creek Hutterian

Address: 42906 Colony Rd, Olivet SD 57052 Phone: 605 999-4283

Amount of Water Claimed: 0.22 cfs Total Acres: 30 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Hutchinson

Type of Waste Disposal System:

Location: 10 mile west of Freeman

PRIORITY Date Received: 7-18-13

Application/License Fee: \$ 700

Corrected Application Received: 7-25-13

Period of Annual Use: April 1 – October 31

Remarks:

Diversion Point: SE 1/4 SE 1/4 Sec 30-T99N-
R57W

Land to be Irrigated: SE 1/4 SE 1/4 Sec 30-T99N-
R57W

Depth of Well: 147 feet dee

Well Driller: Marion Well Drilling

Remarks:

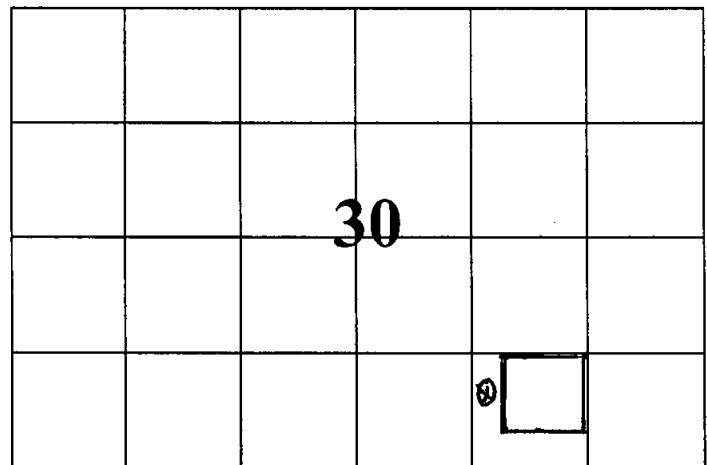
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 7-25-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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

Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

(office use only)
No. 2886-3 Hydrologic Unit 10160011
Basin James River 605-925-7033
Newspaper Freeman Courier Box 950 57029
605-496-5514
Daily Republic Box 1288 Mitchell 57301

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JUL 18 2013
WATER RIGHTS
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Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to Appear on Irrigation Permit Wolf Creek Hutterian

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____

(name and complete address if different than above name)

Mailing Address 42906 Colony Road Olivet ☒ sd ☒ 57052
(Address) (City) (State) (Zip Code)

Home Phone 605-925-7253 Cell 605-999-4283 Email wolfcreek@gwtc.net

2. Amount of water claimed 6.22*CFS or 100 **GPM ***AF Total Acreage 28.30
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply new well

4. Location of point of diversion sec 30 twshp 99n. r 57w CSE 1/4 SE 1/4
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Hutchinson ☒

5. County or counties where water will be used hutchinson

6. Annual period during which water is to be used April through october 30

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>1 SE 1/4 SE 1/4 SEC 30 - 99N-57W 30 X</u>			

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

drill a new well to irrigate the colony's garden.

I, Paul D. Dickson, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 7886-3

Date of first receipt of application July 18, 2013.

Date of return to applicant for corrections, amendments or changes July 18, 2013.

Date of receipt of corrected application July 25, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7886-3 to Wolf Creek Hutterian, c/o Paul Decker, 42906 Colony Road, Olivet SD 57052 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. 7886-3 appropriates 0.22 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (147 feet deep) located in the SE 1/4 SE 1/4 Section 30 for irrigation of 30 acres located in the SE 1/4 SE 1/4 Section 30; all in T99N-R57W.
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 July 18, 2013.
4. The date of approval of Permit No. 7886-3 is September 30, 2013.
5. One-fifth of the construction is to be completed on or before March 30, 2016.
6. All construction is to be completed on or before September 30, 2018.
7. Water is to be put to beneficial use on or before September 20, 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. 7886-3 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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

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

OCT 09 2013

date



Supplemental Information

(type or print)

- 1. Well Information** (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)
- a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by MARION Well DRILLING
(if yes, please provide copies of logs)
- b) If existing wells, how many Provide copy of log(s), if available. Drilled by
- c) Well Depth 147 Depth to Top of Water Bearing Material 90 Depth to Water from Surface 23'
- d) Distance to nearest existing domestic well:
On applicant's property 1/4 MILE On property owned by others 1 MILE

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

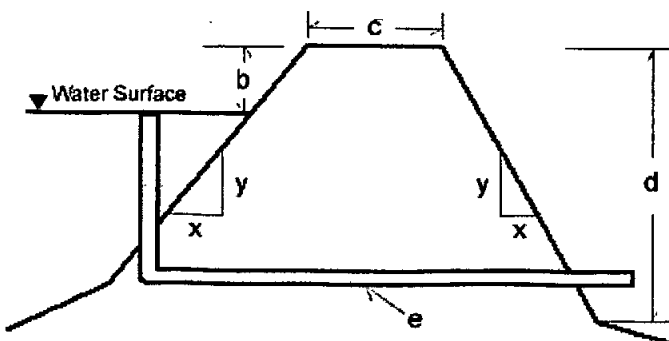
- a) Surface Dimensions Depth
- b) Depth to water (ground surface to water level)

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



NOT TO SCALE

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VITAMIN B12

Helps your body produce red blood cells and promotes a healthy nervous system. It is found in milk, eggs, fish, and poultry.



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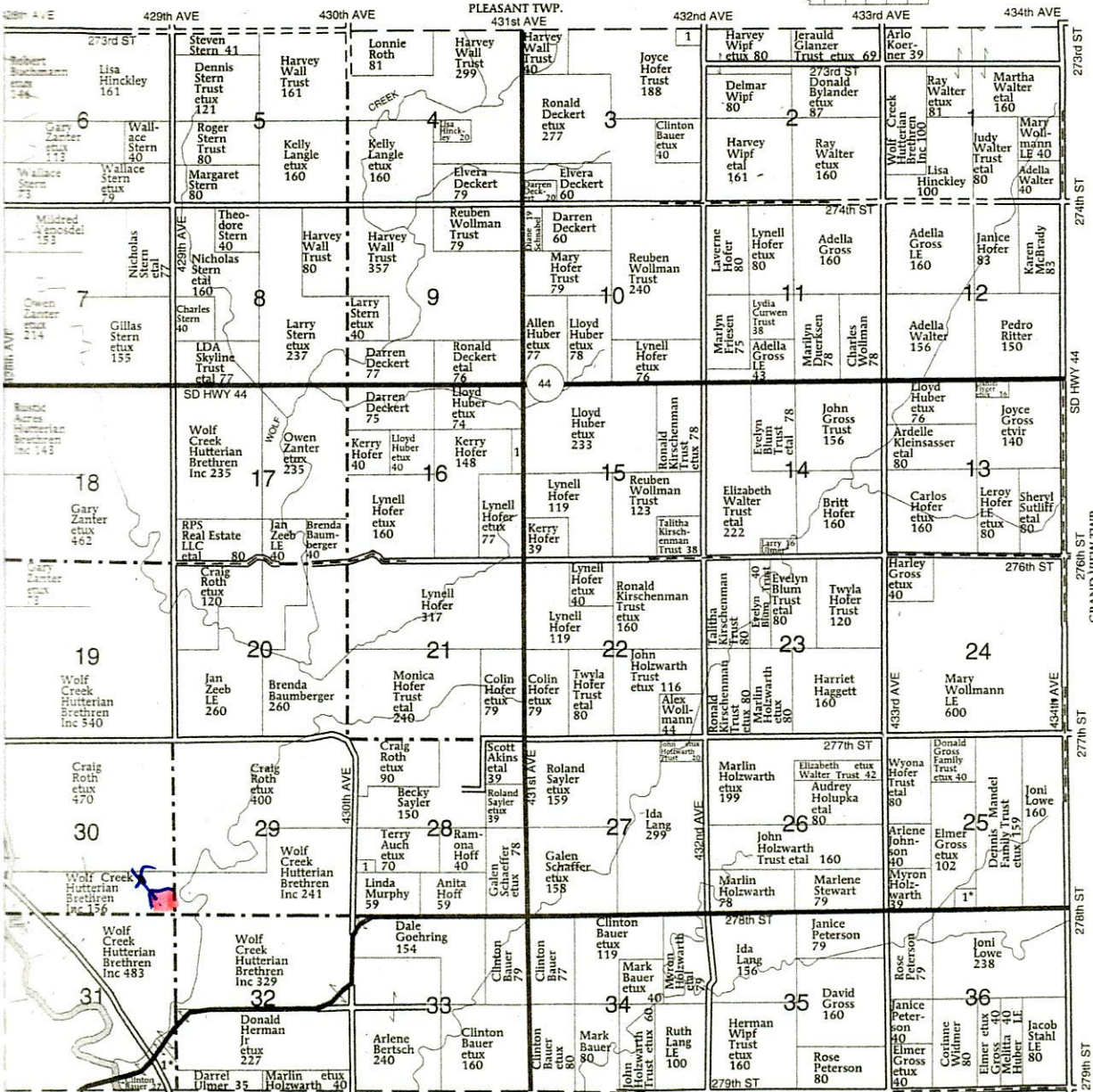
JUL 18 2013

WATER RIGHTS PROGRAM

T-99-N

WOLF CREEK PLAT

R-57-W



KASSEL TWP.

WOLF CREEK

SHIP

IN 3

cky. Herman 13

IN 16

wasant Run Farm

C 12

SECTION 25

1. Jonas, Duane 18

SECTION 28

1. Akins, Scott 10

SECTION 31

1. Herman Jr, Donald 21

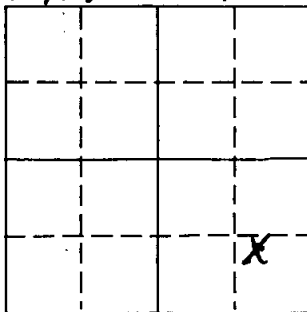
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SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 NE 1/4 Sec 30 Twp 99 Rg 57County HUTCHINSON T-99-N North R-57-W

Please mark well location with an "X"



Well completion Date

6-28-13

1 Mile

Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? 200' ft. from SEPTIC TANK (Identify source)

PROPOSED USE:

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

well

METHOD OF DRILLING:

STRAIGHT ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>25 LB/FT</u>	<u>5 IN</u>	<u>0 FT</u>	<u>147 FT</u>	<u>10 IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>DF</u>	<u>9</u>	<u>Lb/gal</u>	<u>Ft</u>	<u>Ft</u>
		<u>Lb/gal</u>	<u>Ft</u>	<u>Ft</u>

Describe grouting procedure PUMP IN WITH TRENT LIME

SCREEN:

☒ Perforated pipe ☐ Manufactured
Diameter 5 Inches Length 210 FeetMaterial PLASTICSlot Size 1/2 Set From 107 Feet to 147 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? CHLORINATED
☐ No, Why Not?

Lab sample sent to for water quality analysis

STATE HEALTH LAB

Well Owner:

WOLF CREEK HUTTERMAN

Business Name:

Address:

42906 COLONY Rd.

City, State, Zip:

DEVER S.D. 57052

WELL LOG:

DEPTH

FORMATION	FROM	TO
TOP SOIL	0	4
YELLOW CLAY	4	24
BLUE CLAY SAND	24	90
SAND	90	146
SHALE	146	147

STATIC WATER LEVEL

23

FEET

If flowing: closed in pressure

PSI

GPM flow

through

Inch pipe

Controlled by

☐ Valve

☐ Reducers

☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

110

Ft. After

24

Hrs. pumped

80

GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

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This well was drilled under license #

515

And this report is true and accurate.

Drilling firm:

MARTON Well Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

7-12-13

Please return WHITE COPY to: DENR Water Rights

523 E Capitol Ave.

Pierre SD 57501

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 7/18, 20 13

RECEIVED OF Wolf Creek Hutterian Brethren 42906 Colony Rd Olivet SD 57052

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

Fee for Application for Permit No. <u>71886-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	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>7886-3</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	700 00

No. **06388**

By Jeanne Goodman
Chief Engineer



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AUG - 7 2013
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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

July 18, 2013

Wolf Creek Hutterian
c/o Paul Decker
42906 Colony Road
Olivet SD 57052

Dear Mr. Decker:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Hutchinson County. In order to complete the application, the following is required.

- The application lists the location of the well in the NE 1/4 Section 30 and the acreage to be irrigated in the NW 1/4 NE 1/4 Section 30; all in T99N-R57W. These legal descriptions do not match the area outlined on the aerial map.
- The aerial map and other maps submitted with the application indicate the outlined acreage to be irrigated and the well located in the SE 1/4 SE 1/4 Section 30-T99N-R57W. Do you agree the location should be the SE 1/4 SE 1/4 Section 30-T99N-R57W? Please let me know.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures

Hi Karen,

you are Right.

that was my mistake.

Please correct

*thanks
Paul*

Water Rights Program - File Documentation

NAME: Wolf Creek Hutterian

ADDRESS: Olivet SD

DATE: 7-25-13 **COUNTY:** HT **TELEPHONE:** 605 999-4283

RE: Pending application

COMMENTS:

Paul Decker called regarding my letter dated July 18, 2013. Mr. Decker stated the land to be irrigated and the well are both located in the **SE 1/4 SE 1/4 Section 30-T99N-R57W** as stated in my letter.



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. 7886-3, Wolf Creek Hutterian**

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. 7886-3, Wolf Creek Hutterian, c/o Paul Decker, 42906 Colony Road, Olivet SD 57052.

The Chief Engineer is recommending APPROVAL of Application No. 7886-3 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. 7886-3 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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
September 11, 2013

REPORT TO THE CHIEF ENGINEER

WATER PERMIT APPLICATION NO. 7886-3

Wolf Creek Hutterian, c/o Paul Decker

August 12, 2013

Water Permit Application No. 7886-3 proposes to appropriate groundwater at a maximum diversion rate of 0.22 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer. The well is expected to be 147 feet deep and located in the SE¼ SE¼ of Section 30, T99N-R57W. Water will be used to irrigate 30 acres located in the SE¼ SE¼ of Section 30, T99N-R57W in Hutchinson County.

AQUIFER: Lower James Missouri aquifer (LJM)

HYDROGEOLOGY:

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

Bugliosi (1986) mapped the Lower James Missouri aquifer in Yankton County. Lindgren and Hansen (1990) mapped the aquifer in Hutchinson County. Hansen (1983) identified the Plum Creek aquifer in Hanson County, which is likely an extension of the Lower James Missouri aquifer. The aquifer appears to extend into McCook and Clay Counties, also. Hedges and others (1982) determined management units of South Dakota aquifers based on hydrogeologic features. From these investigations the Lower James Missouri aquifer was delineated, shown in Figure 1.

The Lower James Missouri aquifer underlies approximately 286,000 acres. The average thickness of the Plum Creek aquifer, assumed to be an extension of the Lower James Missouri aquifer, is estimated to be 18 feet. The average thickness of the Lower James Missouri aquifer in Hutchinson County is estimated to be 69 feet, and the average thickness of the aquifer in Yankton County is estimated to be 150 feet. Applying the aquifer area in each county, the weighted average thickness of the Lower James Missouri aquifer is estimated to be 94 feet (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990). Applying an expected specific yield of 20 percent, the aquifer contains approximately 5.3 million ac-ft of water in storage (Bugliosi, 1986).

The well completion report submitted with the application recorded sand from 90 to 146 feet below ground surface and a June 2013 static water level of 23 feet below ground surface. This information generally agrees with other nearby wells (Water Rights, 2013a; Water Rights, 2013c).

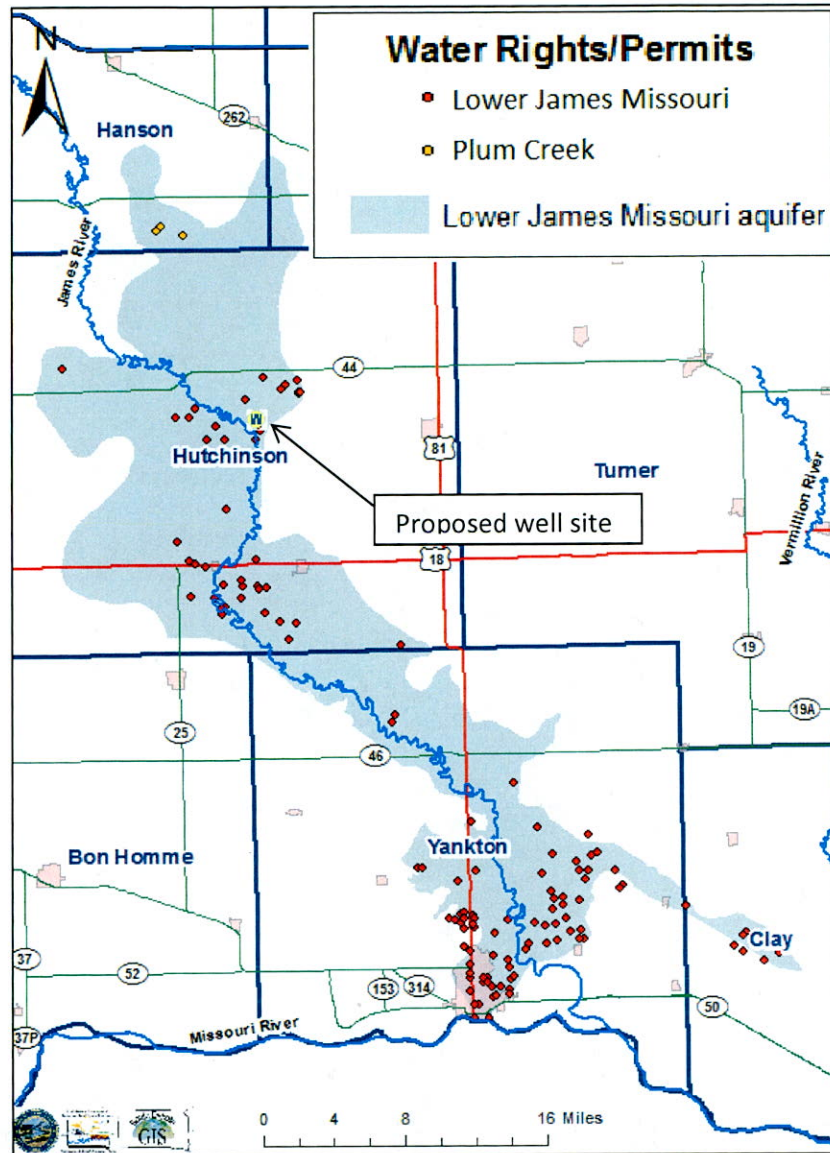


Figure 1: Delineation of the Lower James Missouri aquifer (modified from Bugliosi, 1986; Hedges and others, 1982; Hansen, 1983; Lindgren and Hansen, 1990) and Water Rights (Water Rights, 2013b)

SDCL 46-2A-9

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

WATER AVAILABILITY:

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be

approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older or lower than the greenhorn formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a public water system is not involved and the aquifer is not older or lower than the Greenhorn Formation therefore withdrawal/recharge issue must be considered.

Hydrologic Budget:

Recharge:

Recharge to the Lower James Missouri aquifer occurs through infiltration of precipitation where the aquifer is at or near land surface in the James River flood plain, upward leakage from the bedrock Niobrara, Dakota, and Sioux Quartzite aquifers, inflow from area rivers and streams specifically the James River, and inflow from the surrounding glacial aquifers such as the Choteau and Lower James Missouri: Scotland aquifers (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990).

Hedges and others (1985) estimated recharge rate to the southern portion of the Lower James Missouri aquifer through regional flow-net analysis to be 1.5 inches per year (in/yr). Applying this estimate to the total area of the aquifer, recharge is estimated to be 35,750 acf-t/yr. The recharge rate to unconfined portions of the aquifer was estimated to be 3.9 in/yr from observation well data (Hedges and others, 1985).

Discharge:

Discharge from the Lower James Missouri aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface in the James River flood plain, seepage to the James River, and well withdrawals (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990). Currently there are 125 water rights/permits appropriating water from the Lower James Missouri aquifer and three water rights/permits appropriating water from the Plum Creek aquifer (Water Rights, 2013b).

The amount of water that can be expected to be withdrawn by non-irrigation use water rights/permits at the current appropriation amount, which are all limited by diversion rate, can be estimated by assuming these water rights/permits pump at the maximum authorized diversion rate 60 percent of the time. This amounts to 1,323 ac-ft/yr. There are no non-irrigation water rights/permits authorized to the Plum Creek aquifer (Water Rights, 2013b).

The historic irrigation water use from water rights/permits authorized to the Lower James Missouri aquifer together with the Plum Creek aquifer is shown in Figure 2. The average irrigation pumpage over the period of record from Lower James Missouri aquifer water rights/permits is 2,528 ac-ft/yr. When also including water rights/permits from the Plum Creek aquifer, average irrigation pumpage is 2,616 ac-ft/yr. While the irrigation appropriation of the Lower James Missouri aquifer has increased in recent years, annual pumpage seems to be more dependent on climatic conditions (Water Rights, 1980-2013). The expected use of irrigation water rights/permits is estimated to be the average pumpage reported over the entire period of record.

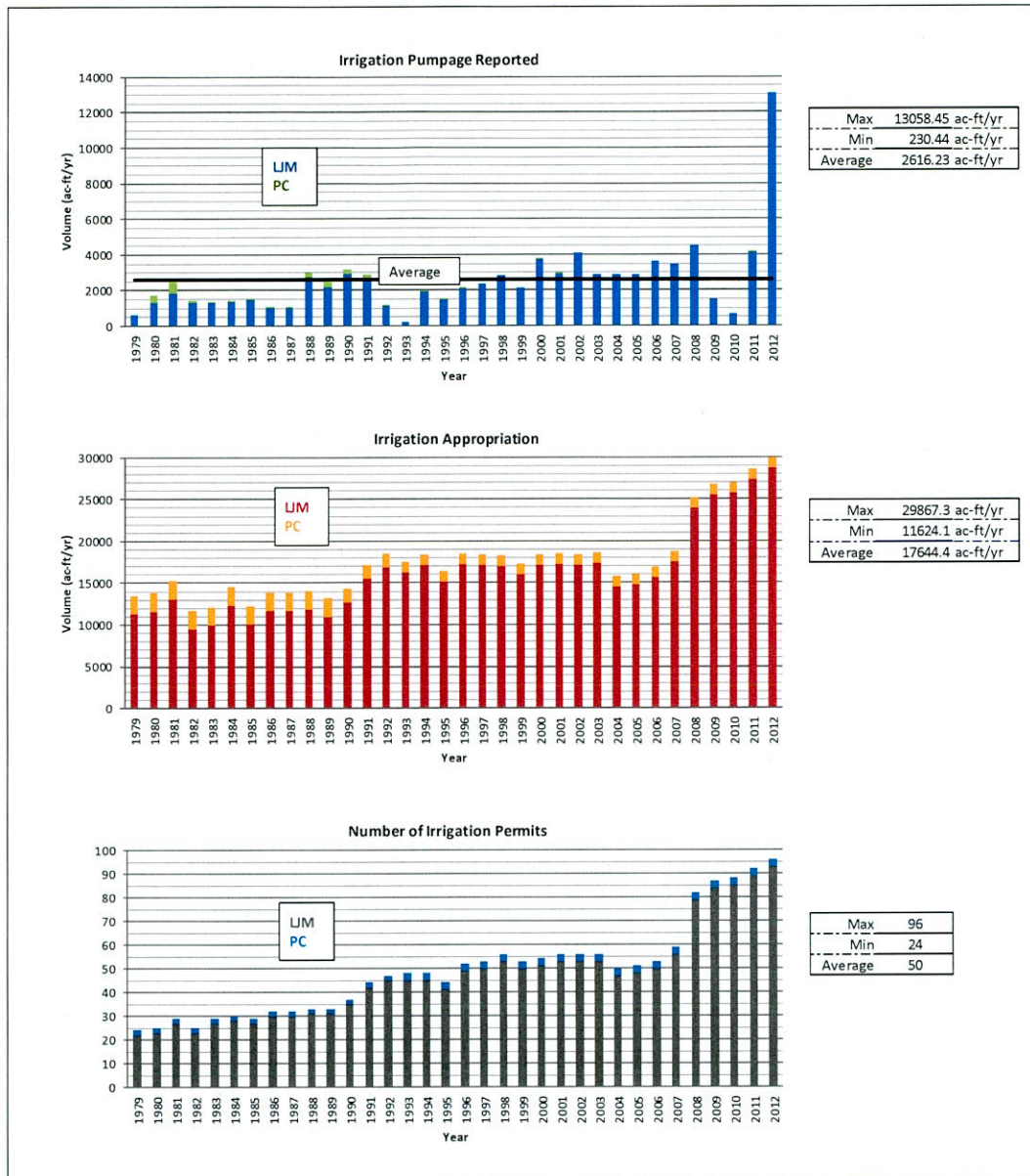


Figure 2: Historic irrigation water use from the Lower James Missouri aquifer including the Plum Creek aquifer (Water Rights, 1980-2013)

While there are many domestic wells on file, many are no longer used as primary sources since rural water systems have been introduced in the area. Considering this, and the relatively small withdrawal ability and authorization of a domestic well, the annual quantity of water withdrawn due to domestic wells is not significant to the hydrologic budget of the Lower James Missouri aquifer (Water Rights, 2013c).

Water Balance:

Total withdrawal from the Lower James Missouri aquifer is estimated to be 3,939 ac-ft/yr. To balance a hydrologic budget, recharge must equal withdrawal. Considering the area of the Lower James Missouri aquifer and the average annual withdrawal of existing water rights/permits plus the proposed appropriation, the overall recharge rate must equal at least 0.17 in/yr. This is much

less than the previous recharge rate estimates for unconfined portions of the aquifer and can be considered low for expected recharge rates of confined aquifers in similar geographic settings. Therefore, unappropriated water is available from the Lower James Missouri aquifer to support the proposed appropriation.

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 SD DENR-Water Rights Program monitors 33 observation wells completed into the Lower James Missouri aquifer and none labeled as completed into the Plum Creek aquifer. The nearest observation wells, HT-82B, HT-82C, and HT-81D, are located approximately 2.1 miles southwest, 2.5 miles northwest, and 2.3 miles northeast of the proposed well site, respectively. The hydrographs for these observation wells are shown in Figures 3, 4, and 5.

These hydrographs are typical of many observation wells recording water levels in the Lower James Missouri aquifer. Observation well data documents cyclic yet somewhat linear water levels. Temporal well withdrawal is evident but generally masked by climatic conditions. Most Lower James Missouri aquifer observation wells record increasing trending water levels, indicating that withdrawals have not exceeded recharge, and unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

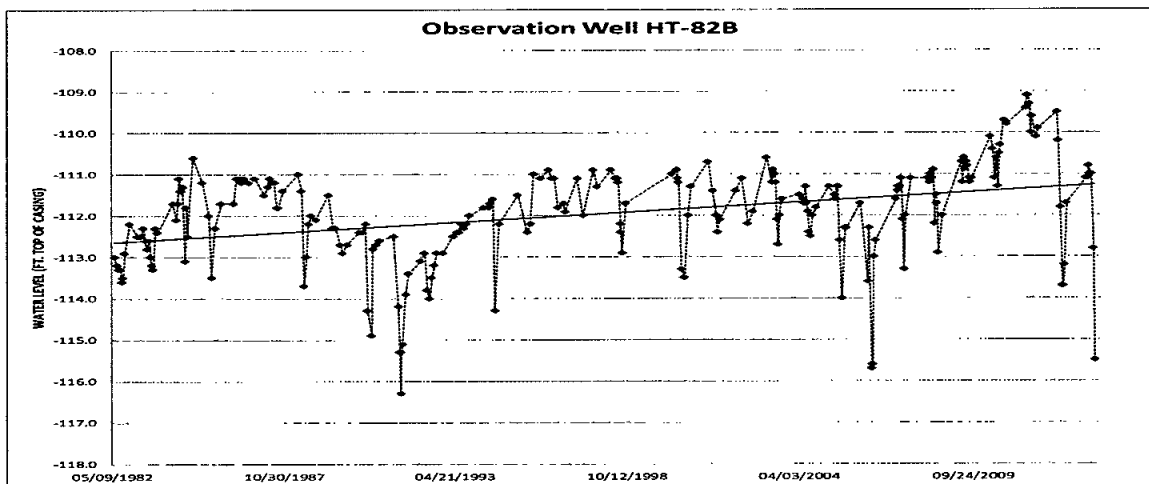


Figure 3: Hydrograph of observation well HT-82B with trend line (Water Rights, 2013a)

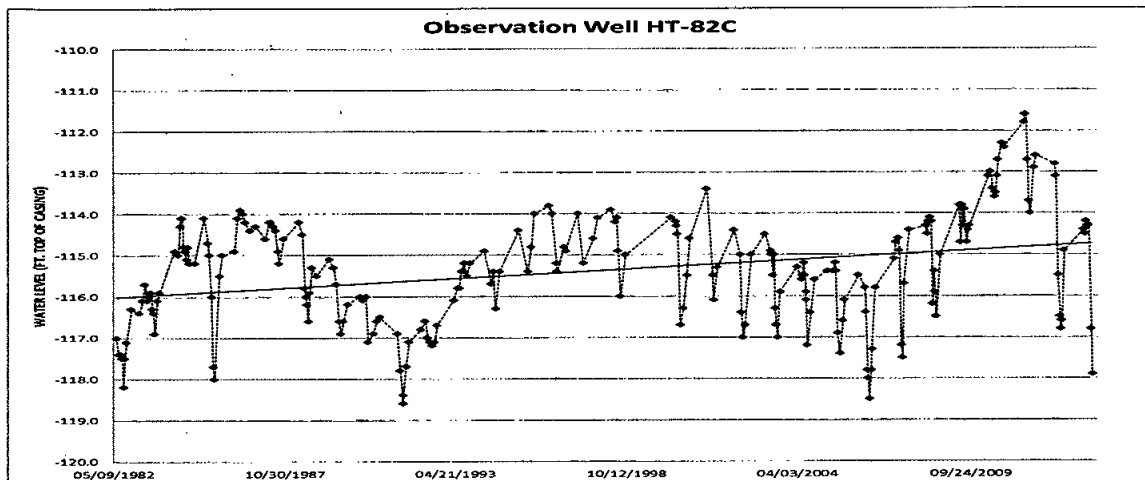


Figure 4: Hydrograph of observation well HT-82C with trend line (Water Rights, 2013a)

Temporal well withdrawal is clearly evident in observation well HT-81D. The irrigation development in this area of the aquifer increased beginning in the year 2000, which coincides with the water level declines recorded in the observation well. During pumping, water levels decline rapidly and when pumping stops, water levels readily recover (Water Rights, 2013a; Water Rights, 2013b). The decreasing trend line does not reflect an overall decrease in water levels in the aquifer, but instead are a record of the increase of the extent of drawdown. Discounting the temporal effects of pumpage, overall water levels have remained steady over the period of record at this observation well, indicating that withdrawals have not exceeded recharge, and unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

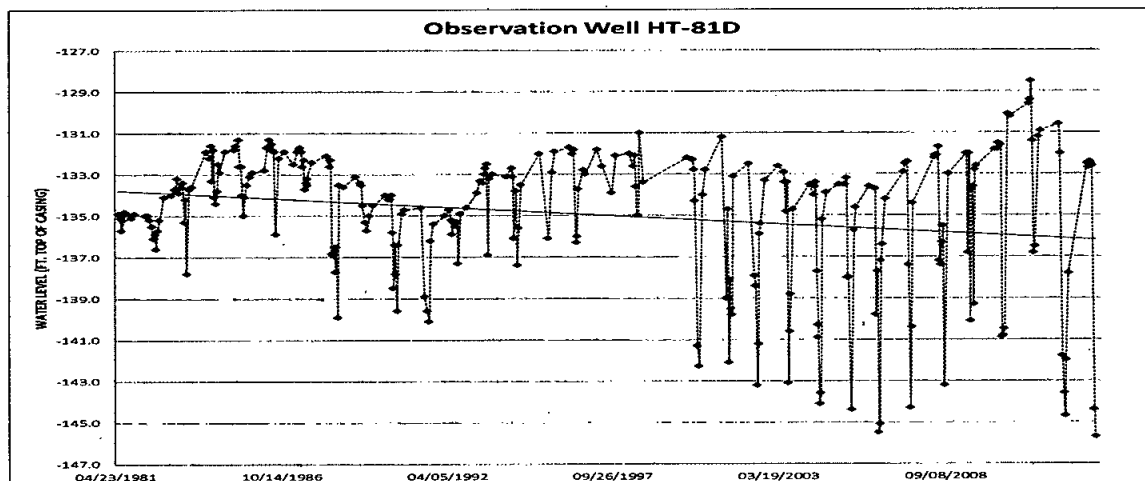


Figure 5: Hydrograph of observation well HT-81D with trend line (Water Rights, 2013a)

Some observation wells completed into the Lower James Missouri aquifer record strong cyclic conditions of water levels, as shown in Figure 6. If the data is linear, increasing or decreasing trends are often obvious when visually examining a graph of water levels over time, and can be solidified by a negative slope of a regression analysis equation and trend line. However, labeling

an overall trend in water levels as increasing or decreasing is not applicable to largely cyclic data over time.

Consider that recent water levels in these observation wells are relatively similar to water levels at the beginning of the period of record. While development of the aquifer has increased over the period of record, the amount of water in storage in the aquifer has remained relatively unchanged. Therefore, withdrawals have not exceeded recharge, and unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

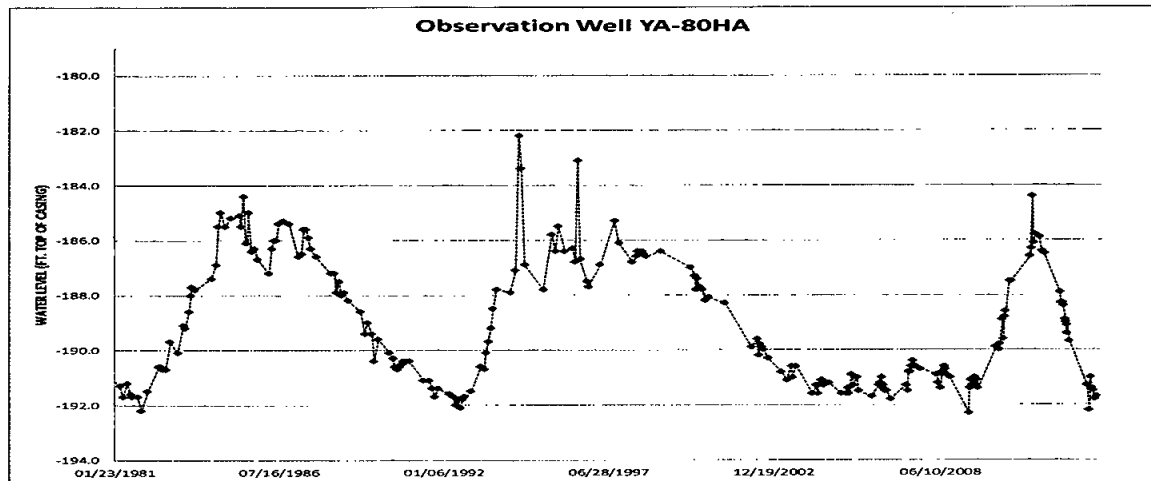


Figure 6: Hydrograph of an observation well completed into the Lower James Missouri aquifer showing three complete cycles of wet and dry years water levels (Water Rights, 2013a)

EXISTING WATER RIGHTS:

There are several wells completed into the Lower James Missouri aquifer in the area of the proposed well site, as shown in Figure 7. The aquifer appears to be under artesian conditions at the proposed well site; therefore, drawdown due to pumping is expected. As previously discussed, temporal well withdrawal is clearly evident in observation well HT-81D. The maximum drawdown created by these wells over the period of record appears to have occurred in 2012. Considering the likely maximum level of irrigation use due to the climatic and economic conditions, and the relatively short distances from the high capacity wells, the drawdown recorded in this observation well can be considered a maximum expected drawdown condition, or worst case scenario, of the aquifer (Water Rights, 2013a; Water Rights, 2013b).

The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. All wells within one mile of the proposed well site are authorized to the applicant. Adequate wells located further than one mile are not expected to be adversely or unlawfully impaired by the proposed diversion.

CONCLUSIONS:

1. The water permit application proposes to withdraw groundwater at a maximum diversion rate of 0.22 cfs from one well to be completed into the Lower James Missouri aquifer for the irrigation of 30 acres in Hutchinson County.

2. Unappropriated water is available from the Lower James Missouri aquifer to supply the proposed appropriation.
3. The proposed diversion will not adversely or unlawfully impair existing nearby wells.

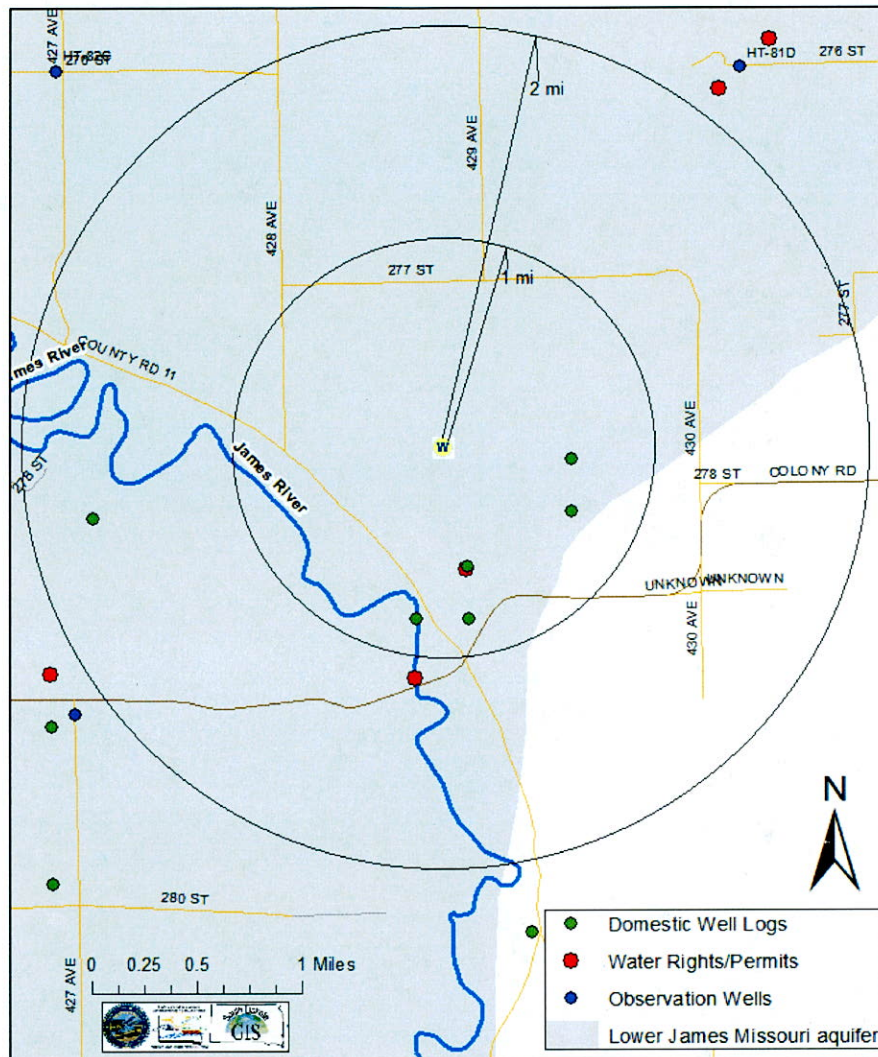


Figure 7: Existing wells in the area of the proposed well site (Water Rights, 2013a; Water Rights, 2013b; Water Rights, 2013c)

Joseph R. Stonesifer
 Joseph R Stonesifer
 SD DENR-Water Rights Program

Approved by

Ken Buhler
 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, South Dakota.
- Hansen, D.S. 1983. Major Aquifers in Hansen and Davison Counties, South Dakota. Information Pamphlet No. 26. S.D. Geological Survey, Vermillion, South Dakota.
- 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. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Lindgren, R.J. and D.S. Hansen. 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey, Huron, South Dakota.
- Water Rights, 1980-2013. "Irrigation Report Summaries." SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

SEP 20 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

County of Hutchinson)

) ss.

State of South Dakota)

Tim L. Waltner, of said county and state, being duly sworn, on his oath, deposes and says: That the Freeman Courier is a weekly newspaper of general circulation and a legal newspaper as required by law, printed and published in the town of Freeman in said county and state by Tim L. Waltner, and has been such newspaper during the time hereinafter mentioned. That I, Tim L. Waltner, the undersigned, am publisher of said newspaper in charge of the advertising department thereof and have personal knowledge of all the facts stated in this affidavit and that the advertisement headed Appropriate Water

a printed copy of which is hereto attached, was printed and published in the said newspaper for one successive issue.

The first publication on:
September 18, 2013

the second publication on:
and the third publication on:

That the full amount of the fees charged for publishing this affidavit to-wit: The sum of \$23.06 insures solely to the benefit of the publisher of the Freeman Courier, that no agreement or understanding for any division thereof has been made with any other person whomsoever, and the amount of \$23.06 is for publishing legal notices.



Subscribed and sworn to before me this 18th day of September, 2013.



Notary Public
Commission expires: 10/9/18

Publication fee: \$23.06
Notary fee:
Total: \$23.06

**NOTICE OF APPLICATION NO. 7886-3
to Appropriate Water**

Notice is given that Wolf Creek Lutheran, c/o Paul Decker, 42906 Colony Road, Olivet SD 57052 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (147 feet deep) located in the SE 1/4 SE 1/4 Section 30 for irrigation of 30 acres located in the SE 1/4 SE 1/4 Section 30; all in T99N-R57W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7886-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 30, 2013.

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

Published once at the total
approximate cost of \$23.06
1-24FC

RECEIVED

SEP 19 2013

WATER RIGHTS
PROGRAM

**NOTICE OF
APPLICATION
NO. 7886-3**

to Appropriate Water

Notice is given that Wolf Creek Hutterian, c/o Paul Decker, 42906 Colony Road, Olivet SD 57052 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second from one well to be completed into the Lower James: Missouri Aquifer (147 feet deep) located in the SE 1/4 SE 1/4 Section 30 for irrigation of 30 acres located in the SE 1/4 SE 1/4 Section 30; all in T99N-R57W.

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

Published once at the total approximate cost of \$55.20

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF DAVISON)

Penny Hohbach of said county, being, first duly sworn, on oath, says; that he/she is the publisher or an employee of the publisher of The Daily Republic, a daily newspaper, published in the City of Mitchell, in said County of Davison, and State of South Dakota; that he/she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4 inclusive; that said newspaper has been published within the said County of Davison and State of South Dakota, for at least one year next prior to the first publication of the attached public notice, and that the notice, order or advertisement, a printed copy of which, taken from the paper in which the same was published, and which is hereto attached and made a part of this affidavit, was published in said newspaper for 1 issues(s), to wit:

Wednesday, September 18, 2013

That the full amount of the fee charged for the publication of the attached public notice insures to the sole benefit of the publisher or publishers; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever, that the fees charged for the publication thereof are: \$58.10

Signed: Penny Hohbach

Subscribed and sworn to before me this 18th day of September, 2013.

Deb Townsend

Notary Public
County of Davison

My Commission Expires: 9-21-18

Prepared by: The Daily Republic, P.O. Box 1288, Mitchell S.D. 57301 605-996-5515

DEB TOWNSEND
Notary Public
SEAL
South Dakota



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

September 12, 2013

Freeman Courier
PO Box 950
Freeman SD 57029

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7886-3 to Appropriate Water. Please publish the notice once on September 18, 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 Wolf Creek Hutterian, c/o Paul Decker, 42906 Colony Rd, Olivet SD 57052 (Ph # 605-925-7253).

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

September 12, 2013

Daily Republic
PO Box 1288
Mitchell SD 57301

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

September 11, 2013

Wolf Creek Hutterian
Paul Decker
42906 Colony Rd
Olivet SD 57052

Dear Mr. Decker:

Water Permit Application No. 7886-3 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 Freeman Courier printed at Freeman SD (Ph # 605-925-7033) and the Daily Republic printed at Mitchell SD (Ph # 605-996-5514). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,


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

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

Instruction to Newspaper - Publish the Notice on September 18, 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 NO. 7886-3 to Appropriate Water

Notice is given that Wolf Creek Hutterian, c/o Paul Decker, 42906 Colony Road, Olivet SD 57052 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (147 feet deep) located in the SE 1/4 SE 1/4 Section 30 for irrigation of 30 acres located in the SE 1/4 SE 1/4 Section 30; all in T99N-R57W.

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Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
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denr.sd.gov

OCT 09 2013

Wolf Creek Hutterian Brethren
Paul Decker
42906 Colony Rd
Olivet SD 57052

Dear Mr. Decker:

Enclosed is Water Permit No. 7886-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

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DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



7886-3

December 16, 2014

Paul Decker
Wolf Creek Hutterian Brethren
42906 Colony Rd
Olivet SD 57052

Dear Mr. Decker:

The annual irrigation questionnaire for Water Permit No. 7886-3 filed by the colony indicated irrigation did not take place and the use was abandoned. The front page of the submitted form is enclosed. In our phone conversation, you stated that the colony did indeed irrigate in 2014 and stating the use as abandoned on the questionnaire was in error.

Enclosed in another irrigation questionnaire for the colony to complete regarding their water use for irrigation under this permit in 2014. Complete the form fully (front and back) and return in the self-addressed stamped envelope.

Please understand that DENR uses the information submitted on questionnaires to manage the water for that specific water source.

If you have any questions when completing the form, please contact Genny McMath or myself at (605) 773-3352.

Sincerely,

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

enclosure