

WATER PERMIT NO. 7825-3

Name of Applicant: Jeff & Nancy Kirstein

Address: 28318 466th Ave, Lennox SD 57039 Phone: 605 376-0819

Amount of Water Claimed: 0.33 cfs Total Acres: 13 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Lincoln

Type of Waste Disposal System:

Location: 5 miles south of Lennox

PRIORITY Date Received: 4-1-13

Application/License Fee: \$ 700

Corrected Application Received: 4-11-13

Period of Annual Use: June 1 – September 30

Remarks: water a vegetable garden

Diversion Point: Tract 2B of Krogers Addition in
NW 1/4 Sec 28-T98N-R51W

Land to be Irrigated: Tract 2B of Krogers
Addition in NW 1/4 Sec 28-T98N-R51W

Depth of Well: 100 feet deep

Well Driller:

Remarks:

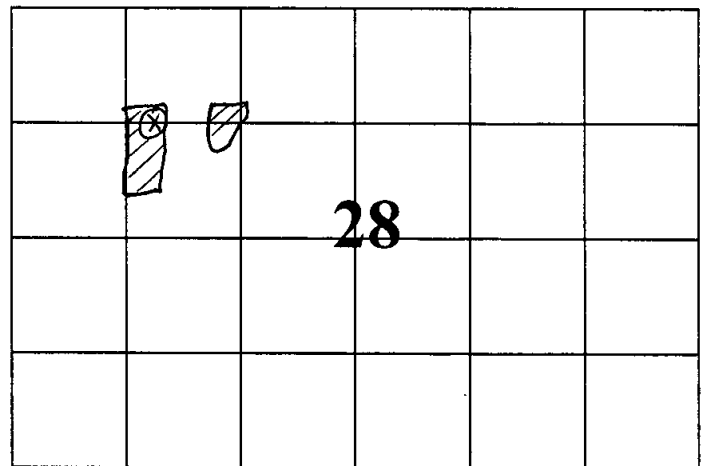
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 4-12-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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APR - 1 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>7825-3</u> (office use only) Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion Basin</u> <u>605-647-2284</u>
	Newspaper <u>Lemmon Independent Box 76 57039</u> <u>605-331-2200</u>
	<u>Argus Leader Box 5034 Sioux Falls 57117</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 to Appear on Irrigation Permit Jeff & Nancy KIRSTEIN
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)
- Mailing Address 28318 466th Avenue Lemmon SD 57039
(Address) (City) (State) (Zip Code)
- Home Phone — Cell 376-0819 Email Jeff@the good earth.us
2. Amount of water claimed 0.33 *CFS or 150 **GPM 10 ***AF Total Acreage 13
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply well
4. Location of point of diversion 1 well in Tract 2B of Krogers Addition in NW 1/4
of Sect 28, Twn 98 N, Range 51 West of 5 pm. County Lincoln
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
5. County or counties where water will be used LINCOLN
6. Annual period during which water is to be used June - September 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
Tract 2B of Krogers Addition in	13		
NW 1/4 of Sect 28 Township 98			
North Range 51 West of 5th			
pm - Lincoln County			

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

This project is to provide occasional irrigation to a
13 Acre vegetable garden

I, [Signature], 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. 7825-3

Date of first receipt of application April 1, 2013.

Date of return to applicant for corrections, amendments or changes April 2, 2013.

Date of receipt of corrected application April 11, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7825-3 to Jeff & Nancy Kirstein, 28318 466th Ave, Lennox SD 57039 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. 7825-3 appropriates 0.33 cubic feet of water per second (cfs) from one well to be completed into the Pleistocene Unknown Aquifer (30 feet deep) located in Tract 2B of Krogers Addition in the NW 1/4 Section 28 for irrigation of 13 acres located in the Tract 2B of Krogers Addition in the NW 1/4 (W 1/2 NW 1/4) Section 28; all in T98N-R51W.
2. The amount of the appropriation may not exceed 3 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: June 1 – September 30.
3. The date from which applicant may claim right is April 1, 2013.
4. The date of approval of Permit No. 7825-3 is July 1, 2013.
5. One-fifth of the construction is to be completed on or before January 1, 2016.
6. All construction is to be completed on or before July 1, 2018.
7. Water is to be put to beneficial use on or before July 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 water source for Water Permit No. 7825-3 is the shallow Pleistocene Series:Unknown Aquifer.
2. 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.
3. The well authorized by Permit No. 7825-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

(continued)

4. 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. 7825-3 authorizes a maximum diversion rate of 0.33 cfs for the irrigation of 13 acres with an annual volume not to exceed 3 acre feet of water per acre per year.
5. 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

AUG 30 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 ____ Have test holes been drilled ☐ Yes ☒ No Drilled by ____
(if yes, please provide copies of logs)

b) If existing wells, how many ____ Provide copy of log(s), if available. Drilled by ____

c) Well Depth 100' Depth to Top of Water Bearing Material ____ Depth to Water from Surface 6'

d) Distance to nearest existing domestic well:

On applicant's property 100 feet On property owned by others ____**2. Wastewater Disposal System Information**a) Type of System (i.e. septic tank, drain field) Septic Systemb) 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)

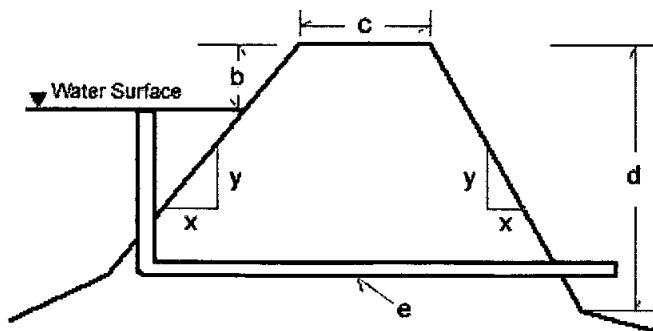
Upstream ____

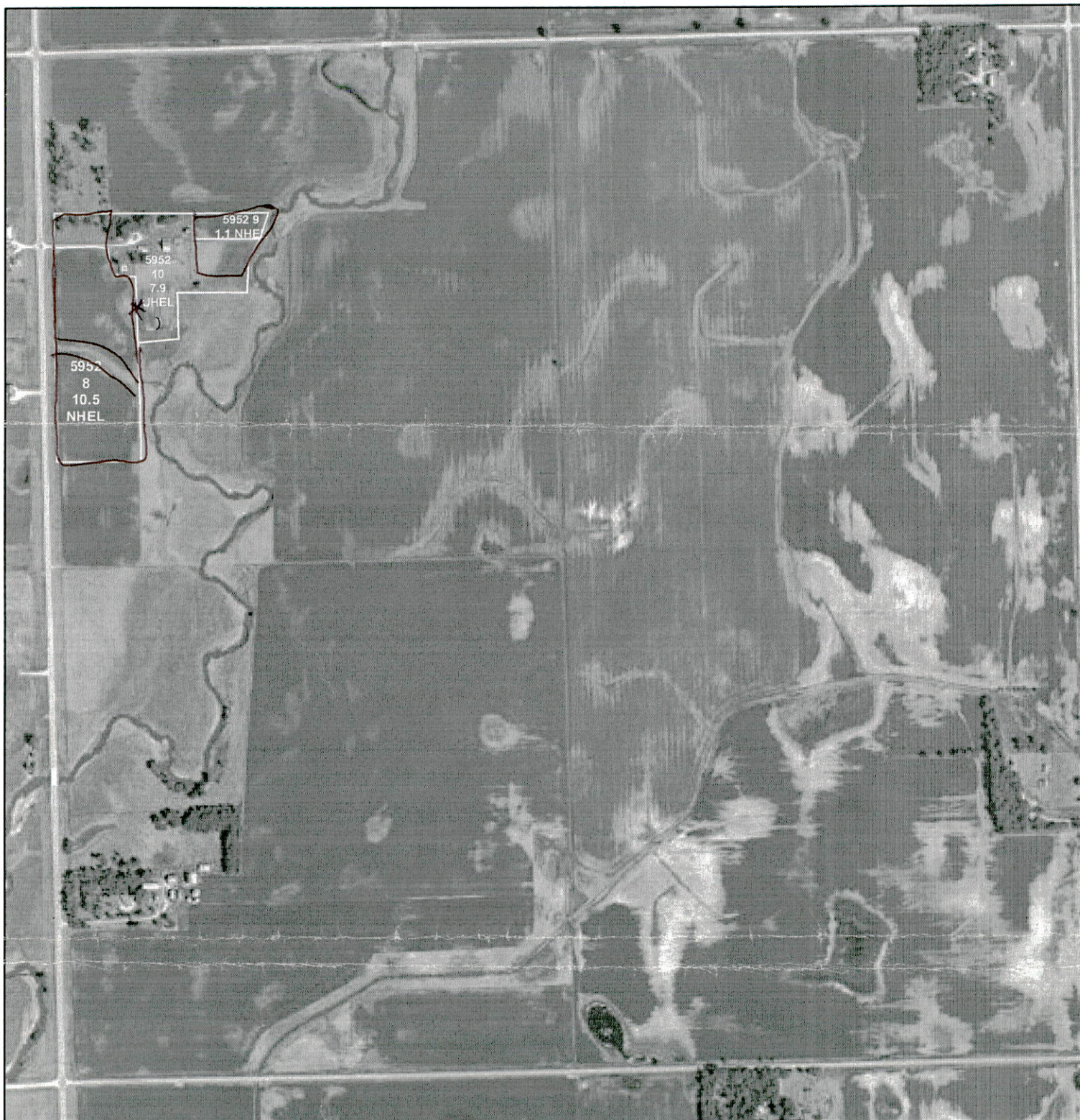
Downstream ____

h) Surface Area of Impoundment ____

i) Storage ____ Acre Feet

j) Drainage Area Above Dam ____ Acres





United States Department of Agriculture
Farm Service Agency

August 30, 2011

Lincoln County, SD

1:8,200

PLSS: 28_98N_51W
Farm: 6983

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Wetland Determination Identifiers

- & Restricted Use
- * Limited Restrictions
-) Exempt from Conservation Compliance Provisions

Common Land Units

/// Non Cropland

Disclaimer: 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.

August 30, 2011

2010 Ortho-Photography - Not to Scale

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 4/2, 20 13

RECEIVED OF The Good Earth 28818 466th Ave Lennox SD 57039

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

Fee for Application for Permit No. <u>7825-3</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>7825-3</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. **06276**

By Jeanne Goodman
Chief Engineer



April 2, 2013

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APR 11 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

Jeff & Nancy Kirstein
28318 466th Ave
Lennox SD 57039

Dear Mr. & Mrs. Kirstein:

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

- Enclosed is the aerial photo map submitted with the application. Please outline the 13 acres to be irrigated.
- State Statutes limit diversions to 1 cubic feet of water per second (cfs) for each 70 acres irrigated. This would mean that you are allowed approximately 0.18 cfs or 81 gallons per minute to irrigate the total 13 acres. We understand that in order to accommodate certain irrigation methods, a greater diversion rate is required. Please justify in writing your request for a diversion rate greater than the statutory limit (please explain diversion rate requirement for the project).

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

April 4, 2013

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APR 11 2013

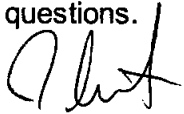
WATER RIGHTS
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Dear Department of Environment and Natural Resources:

Our vegetable gardens have a need for a higher diversion rate than standard crops because we utilize a drip-tape irrigation system. The higher volume of water allows us to pressurize the plastic soaker hose and allows us to irrigate more of our fields simultaneously. For instance, 125 GPM allows us to pressurize 36,000 feet of hose simultaneously, allowing us to water more crops for a shorter period of time.

Typically drip tape systems are 90% (or more) more efficient than overhead systems because they are situated either directly on top of the plant or in most cases, buried 5 inches below the surface of the soil-directly in the root zone.

The larger volume of water allows us to run pumps for much shorter periods of time and minimizes the number of zones that we must build. Please call me if you have any additional questions.



Jeff Kirstein
The Good Earth Farm
Lennox, SD

**Water Rights Program
File Documentation**

NAME OF PERSON OR FILE: Jeff Kirstein

ADDRESS:

DATE: May 1, 2013 TELEPHONE: 605.376.0819

RE: Target aquifer intended to supply Application No. 7825-3

COMMENTS:

I contacted Mr. Kirstein to aid in determining what aquifer that the permit application proposes as a water source. Mr. Kristein informed me that he installed a shallow (25 feet deep) 2-inch pvc, driven well on the property and intended to utilize the same aquifer. Therefore, he anticipated the total depth of the proposed well he is seeking a water permit for will be less than 30 feet.

I told Mr. Kristein we would evaluate the application for a well 30 feet deep


Ken Buhler

**Water Rights Program
File Documentation**

NAME OF PERSON OR FILE: Jeff Kirstein

ADDRESS:

DATE: June 11, 2013

TELEPHONE: 605.376.0819

RE: Well Construction

COMMENTS:

I contacted Mr. Kirstein regarding the well he intends to use to supply Water Permit No. 7825-3. Mr. Kirstein indicated that ultimately he intends to hire a licensed well driller to construct a well. The well that Mr. Kirstein installed is constructed with 2-inch diameter PVC casing and a 36-inch sand point. He jetted the casing down using a "trash" pump. The total depth of the well is 22 feet and the static water level is ground surface. He intends to pump this 2-inch well using the trash pump.

From the information provided, the well appears to be an adequate well pursuant to ARSD 74:02:04:20(6). The casing of the well Kirstein constructed was not grouted, nor was dry bentonite poured around the casing as it was advanced. Pursuant to ARSD 74:02:04:28, the casing of a well completed into an unconfined aquifer such as this PS:U aquifer, is to be grouted from no more than four feet above the top of the aquifer to ground surface. Since the top of this aquifer is less than four feet below grade, technically, there would be no grouting required at this well site. This well would be considered a "Driven Well" pursuant to ARSD 74:02:04:20(24). ARSD 74:02:04:28 exempts driven wells from the minimum grouting requirements. According to ARSD 74:02:04:31, driven well casing is to be sealed with bentonite as the casing was advanced by pouring dry granular bentonite around the casing at the ground surface.

If the DENR-Water Rights Program received a Well Completion Report for a well constructed like this we would not cite a well construction violation.



Ken Buhler



**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.
7825-3, Jeff and Nancy Kirstein**

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. 7825-3, Jeff and Nancy Kirstein, 28318 466th Avenue, Lennox SD 57039.

The Chief Engineer is recommending APPROVAL of Application No. 7825-3 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 water source for Water Permit No. 7825-3 is the shallow Pleistocene Series:Unknown Aquifer.
2. 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.
3. The well authorized by Permit No. 7825-3 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.
4. 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. 7825-3 authorizes a maximum diversion rate of 0.33 cfs for the irrigation of 13 acres with an annual volume not to exceed 3 acre feet of water per acre per year.
5. 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
June 12, 2013

NOTE: This water permit if approved is from the shallow Pleistocene Series:Unknown (PS:U) Aquifer and does not authorize diversion of water from any aquifer but the PS:U Aquifer (eg. the deeper Upper Vermillion:Missouri Aquifer or Dakota Aquifer). A new water permit will be required to divert from a water source other than what is authorized by this permit.

The relatively thin nature of the outwash may limit the permit holder from obtaining the desired diversion rate of 0.33 cfs.

DENR encourages the permit holder record and maintain records of the water level in the well by measuring from the top of casing to the water level at least three times each year including: 1) prior to irrigation, 2) in the middle of the irrigation season and 3) at the conclusion of the irrigation season.

REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NO. 7825-3
Jeff & Nancy Kirstein
May 3, 2013

Water Permit Application No. 7825-3 proposes to withdraw groundwater at a maximum diversion rate of 0.33 cubic feet of water per second (cfs) from one well. The well is expected to be 30 feet deep, located in Tract 2B of Krogers Addition in the NW¼ of Section 28, T98N-R51W. Water will be used to irrigate 13 acres located in Tract 2B of Krogers Addition in the NW¼ and W½ NW¼ of Section 28, T98N-R51W, in Lincoln County. The application proposes a diversion rate in excess of the statutory limit.

The applicant has indicated the utilization of a drip-tape irrigation system as defined in SDCL 46-5-50. However, the application does not meet the conditions contained in SDCL 46-5-51 that defines drip irrigation systems not requiring a permit, specifically irrigation must be for noncommercial purposes and water use does not exceed 18 gallons per minute (gpm).

AQUIFER: Pleistocene Series: Unknown (PS:U)

AREA HYDROGEOLOGY:

A test hole log was not submitted with this application as required by ARSD 74:02:01:08.01; however, information is available to evaluate the area of the proposed well site. In the area of the proposed well site are several known aquifers. The best information currently available indicates that the Upper Vermillion Missouri aquifer occurs from approximately 100 to 180 feet below ground surface. The Dakota aquifer occurs from approximately 350 to 650 feet below ground surface. Southwest of this area, the Parker Centerville aquifer occurs from just below ground surface up to 100 feet below ground surface; however, the Parker Centerville aquifer is not present at the proposed well site (McCormick and Hammond, 2004; SD Geological Survey, 2013). The proposed well site is at the areal location and appropriate depth of an outwash deposit occurring along Long Creek (McCormick and Hammond, 2004; McCormick, 2007). The areal extents are shown in the map in Figure 1.

The Pleistocene Series: Unknown is a generic name for an aquifer of glacial origin that cannot be included into a previously mapped aquifer. Historically, the Water Management Board has approved water permit applications to appropriate water from these Pleistocene Series: Unknown aquifers. In interpreting 46-6-3.1, the First Judicial Circuit Court ruled in *Hanson County Dairy v. Bender* that evidence needs to show that water is available for proposed appropriations. In other words, data must be presented to show that the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (Memorandum Decision, April 11, 2012). This could be interpreted as necessitating the identification and quantification of recharge and discharge of an individual aquifer material deposit from which the applicant proposes to withdraw water.

To determine this information, the areal extent and altitude interval of the individual outwash deposit must be identified. This individual outwash was previously mapped and cross-sectioned (McCormick and Hammond, 2004; McCormick, 2007). The areal extent of the outwash is

determined to be 295 acres and is found from ground surface down to at most 60 feet below ground surface (Water Rights, 2013c). Note that the actual presence of water or ability to divert water at the proposed rate at the well site cannot be determined.

Water in this outwash is principally hydraulically connected to Long Creek, and the other outwash deposits along the creek. The outwash could be hydraulically connected to Parker Centerville aquifer as the creek eventually overlies this aquifer. Also, the underlying Upper Vermillion Missouri and Lennox aquifer could be hydraulically connected to this outwash.

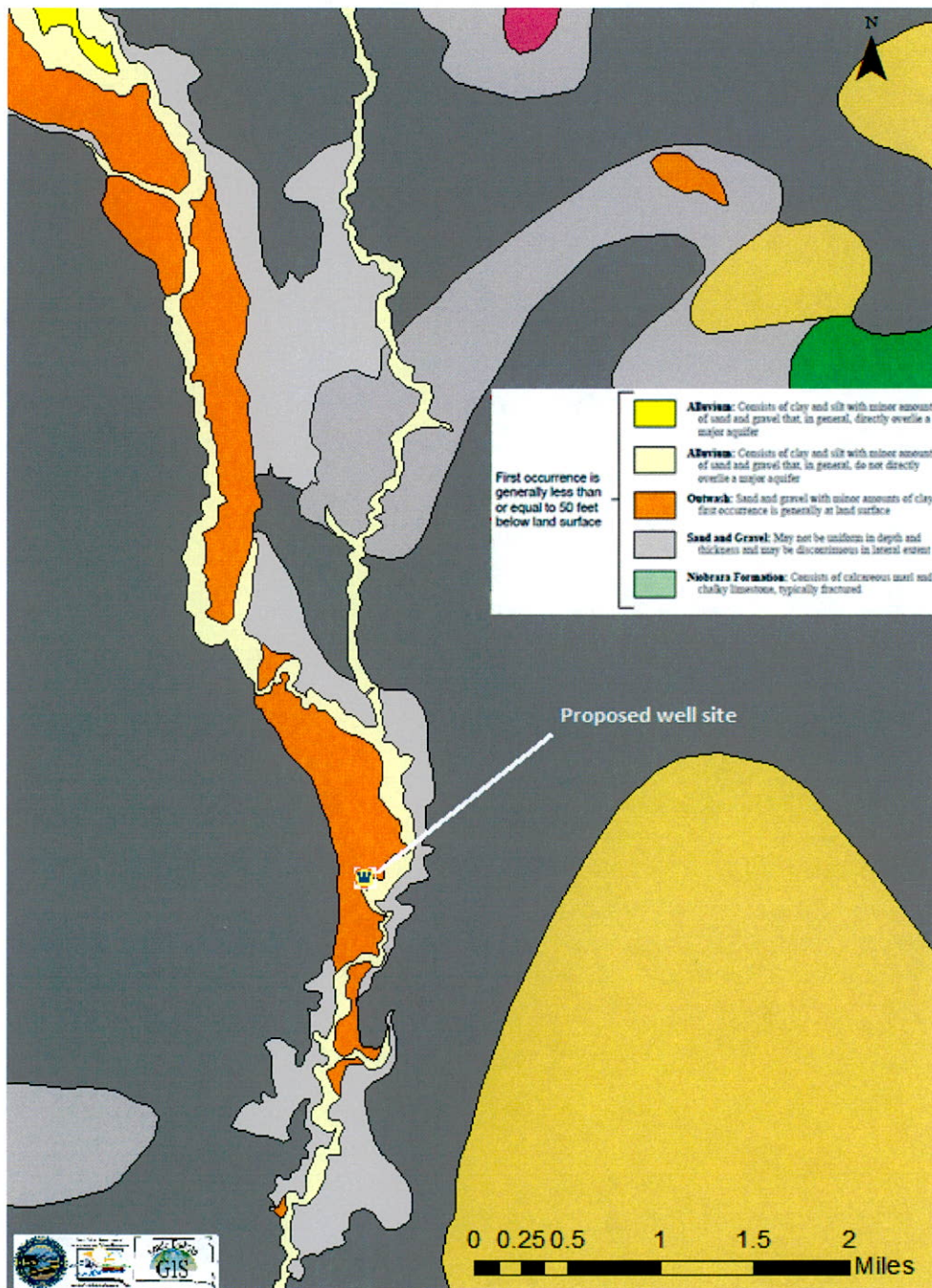


Figure 1: Map of aquifer materials at proposed well site (modified from McCormick, 2007)

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 outwash is likely through infiltration of precipitation and from Long Creek. Recharge for this portion of the aquifer has not been quantified. However, the Parker Centerville aquifer is characteristically (water-table and surficial) and geographically (a few miles north) similar to this outwash deposit. The Parker Centerville aquifer has an estimated recharge rate of 4.9 inches per year (Hedges and others, 1985). In applying the area of this outwash deposit and the Parker Centerville recharge rate, recharge to this outwash is estimated to be 120 ac-ft/yr.

Discharge:

Discharge from this outwash likely occurs via Long Creek. There are no appropriative rights and no domestic wells on record completed into this outwash deposit (Water Right, 2013b; Water Rights, 2013c). Water Right Nos. 4692-3 and 4693-3 appropriate water from outwash deposits located along Long Creek; however, these deposits appear to be separate from the outwash pursued by this application (McCormick, 2007).

Conclusion:

The outwash likely has a recharge source, and recharge was quantified. There are no known well withdrawals. Therefore, water is available from this Pleistocene Series: Unknown aquifer to supply the proposed appropriation.

EXISTING WATER RIGHTS:

Currently there are no appropriative rights and no domestic wells on record completed into this outwash deposit (Water Rights, 2013b; Water Rights, 2013c). If other domestic wells are currently, or in the future, completed into this outwash, these domestic wells would have precedence over water rights/permits of the same aquifer.

Water Right Nos. 4692-3 and 4693-3 appropriate water from outwashes, also classified as Pleistocene Series: Unknown, located along Long Creek that appear to be separate from the outwash pursued by this application. These water rights are located approximately three and six and a half miles north-northwest of the proposed well site (Water Rights, 2013b). While the outwash of the proposed appropriation and Water Rights Nos. 4692-3 and 4693-3 could be hydraulically connected to some extent, impairment issues are not expected at these distances. Also, these water rights are located up gradient of the proposed appropriation.

The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. The water table conditions of the outwash dictate that drawdown due to pumping would not be significant far from the proposed well site. At the distances involved, a nearby adequate well defined by ARSD 74:02:20(7), which states that the pump intake must be set 20 feet below the top of the aquifer or, if the aquifer is less than 20 feet thick, as near to the bottom of the aquifer as is practical, is not expected to be adversely or unlawfully impaired.

However, consider also that while withdrawals would not exceed recharge of the aquifer as a whole, the close proximity of high capacity wells pumping from this relatively thin aquifer could lead to water level declines being compounded and magnified. It may be considered an adverse impact if this cumulative effect of withdrawals leads to a reduction of water levels to the extent that local water rights/permits can no longer pump at their developed, or “historically established,” diversion rates. If this is the case, “shut off” orders may be necessary on a priority basis.

SDCL 46-5-6

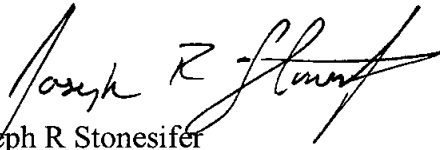
Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every 70 acres, or “the equivalent thereof.” The statute provides that the Water Management Board may allow a greater diversion if the method of irrigation so requires.

This water permit application proposes to divert at a rate of 0.33 cfs per 13 acres, equaling 1.78 cfs per 70 acres. The applicant has indicated a drip-tape irrigation system will be used, which needs a higher diversion rate than standard systems. Using a higher diversion rate allows for pressurization of greater hose lengths, resulting in irrigating more fields simultaneously, reducing irrigation time and zones.

CONCLUSIONS:

1. The water permit application proposes to withdraw groundwater at a maximum diversion rate of 0.33 cfs from one well to be completed into the Pleistocene Series: Unknown aquifer for the irrigation of 13 acres.
2. Based on an estimated hydrologic budget, there is a reasonable probability that unappropriated water is available from this aquifer to supply the proposed appropriation.
3. There is a reasonable probability that the proposed appropriation will not adversely or unlawfully impair existing users.

4. This application has requested an additional diversion rate in excess of one cfs per 70 acres.



Joseph R Stonesifer
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

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, South Dakota.

In the Matter of Water Permit Application No. 7239-3, by Hanson County Dairy v. Robert Bender and Stace Nelson, South Dakota First Judicial Court Civ. No. 11-54 (Memorandum Decision, April 11, 2012)

McCormick, K.A., and Hammond, R.H. 2004. Geology of Lincoln and Union Counties, South Dakota. SD DENR-Geological Survey- Bulletin 39. Vermillion, South Dakota

McCormick, K.A. 2007. First Occurrence of Aquifer Materials in Lincoln County, South Dakota. SD DENR-Geological Survey-Aquifer Materials Map 26. Vermillion, South Dakota.

SD Geologic Survey. 2013. Lithologic Logs Database, SD DENR-Geological Survey, Vermillion, 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.

**AFFIDAVIT OF PUBLICATION
RECEIVED**

**STATE OF SOUTH DAKOTA }
COUNTY OF LINCOLN }**

SS. **JUN 24 2013**

**WATER RIGHTS
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Debbie Schmidt

being first duly sworn, disposes and says: That (he) (she) is a resident of the County of Lincoln and State of South Dakota; that the LENNOX INDEPENDENT is a weekly legal newspaper of general circulation, printed and published in Lennox, in said County and State, and is now, and has been such newspaper continuously, during all the times herein-after mentioned; that the affiant is affiliated with said newspaper as employer or employee and has personal knowledge of all the facts stated in this affidavit, and the notice and advertisement headed _____

Notice of application #7825-3

a printed copy of which is hereonto attached and made a part hereof, was printed and published in the said newspaper 1 successive issues. That the first publication of said notice in said newspaper aforesaid was on Thursday, the 20 day of June A.D., 20 13 and that the succeeding publication was severally

on Thursday the ____ day of _____ A.D., 20 ____
on Thursday the ____ day of _____ A.D., 20 ____
on Thursday the ____ day of _____ A.D., 20 ____
on Thursday the ____ day of _____ A.D., 20 ____
on Thursday the ____ day of _____ A.D., 20 ____
on Thursday the ____ day of _____ A.D., 20 ____

that the fees charged for the printing and publication of said notice and advertisement in said newspaper as aforesaid were 22 Dollars 75 Cents, and that said fees for the printing and publishing of said notice and advertisement, and for the affidavit as aforesaid, have been fully paid; that the full amount of the fee charged for the publishing of the said attached and annexed notice and advertisement inures to the benefit of the publishers of the said Lennox Independent, 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.

Subscribed and sworn to before me this 21 day of June, 20 13.

[Signature]
Notary Public

Lincoln County, South Dakota

My Commission expires July 9, 20 15.

MISCELLANEOUS

**NOTICE OF APPLICATION NO.
7825-3 to Appropriate Water**

Notice is given that Jeff & Nancy Kirstein, 28318 466th Ave, Lennox SD 57039 has filed an application for a water permit to appropriate 0.33 cubic feet of water per second from one well to be completed into the Pleistocene Unknown Aquifer (100 feet deep) located in Tract 2B of Krogers Addition in the NW 1/4 Section 28 for irrigation of 13 acres located in the Tract 2B of Krogers Addition in the NW 1/4 (W 1/2 NW 1/4) Section 28; all in T98N-R51W. The applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7825-3 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 July 1, 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 \$22.75.

CUSTOMER NUMBER:	078200	Argus Leader P.O. Box 677349, Dallas, TX 75267-7349	
AD ORDER NUMBER:	1418269		
	6/20, 2013		\$65.62

RECEIVED
JUN 21 2013
WATER RIGHTS PROGRAM

Jeff & Nancy Kirstein
28318 466th Ave
Lennox, SD 57039

RECEIVED
JUN 21 2013
WATER RIGHTS PROGRAM

PAYMENT DUE UPON RECEIPT

AFFIDAVIT OF PUBLICATION-

Customer Number: 078200
Invoice Number: 1418269

Argus Leader
AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

Linda Schulte being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

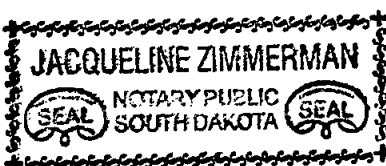
Thursday the 20 day of June 2013 ,
the day of 2013 ,
,the day of 2013
,the day of 2013 ,
,the day of 2013 ,
,the day of 2013 ,
,the day of 2013 ,
,the day of 2013 ,

and that \$65.62 was charged for publishing the same

Linda Schulte
Subscribed and sworn to before me 6/20/2013

J. Zimmerman
Notary Public, South Dakota

My Commission expires December 22, 2015



NOTICE OF APPLICATION NO. 7825-3 to Appropriate Water

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Published once at the total approximate cost of \$65.62.
1418269 June 20, 2013



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

June 13, 2013

Lennox Independent
PO Box 76
Lennox SD 57039

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7825-3 to Appropriate Water. Please publish the notice once on June 20, 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 Jeff & Nancy Kirstein, 28318 466th Ave, Lennox SD 57039 (Ph # 605-376-0189).

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

June 13, 2013

Argus Leader
PO Box 5034
Sioux Falls SD 57117

ATTENTION: Legal Public Notice

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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 Jeff & Nancy Kirstein, 28318 466th Ave, Lennox SD 57039 (Ph # 605-376-0189).

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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.

June 13, 2013

Jeff & Nancy Kirstein
28318 466th Ave
Lennox SD 57039

Dear Sir:

Water Permit Application No. 7825-3 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 Lennox Independent printed at Lennox SD (Ph # 605-647-2284) and the Argus Leader printed at Sioux Falls SD (Ph # 605-331-2200). 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 June 20, 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. 7825-3 to Appropriate Water

Notice is given that Jeff & Nancy Kirstein, 28318 466th Ave, Lennox SD 57039 has filed an application for a water permit to appropriate 0.33 cubic feet of water per second from one well to be completed into the Pleistocene Unknown Aquifer (100 feet deep) located in Tract 2B of Krogers Addition in the NW 1/4 Section 28 for irrigation of 13 acres located in the Tract 2B of Krogers Addition in the NW 1/4 (W 1/2 NW 1/4) Section 28; all in T98N-R51W. The applicant is requesting a diversion rate greater than the statutory limit.

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Published once at the total approximate cost of_____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

AUG 30 2013

Jeff & Nancy Kirstein
28318 466th Ave
Lennox SD 57039

Dear Sir:

Enclosed is Water Permit No. 7825-3 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

enclosures

**Water Rights Program
File Documentation**

NAME OF PERSON OR FILE: Jeff & Nancy Kirstein

ADDRESS: 28318 466th Ave, Lennox, SD

DATE: 10/30/2013 TELEPHONE: 605-376-0819

RE: 2013 Irrigation Questionnaire

COMMENTS: The permit holder stated on the questionnaire that they “did not construct a shallow well...we could not find a well driller to do the work. We irrigated occasionally from a pond”. Water Permit No. 7825-3 authorizes pumping from a well approximately 30 feet deep to be completed into the Pleistocene Series: Unknown aquifer. I spoke with Mr. Kirstein on 10/30/2013 to discuss the “pond”. He stated that the “pond” was more of a stock dam or dugout (based on the description dugout would be the most accurate term). The “pond” is approximately six feet deep. The water table in the area, including in a 25 foot deep driven well installed by Mr. Kirstein, is generally between one inch above ground to 12 inches below ground. However due to the drought in 2012, the static water level has lowered to approximately three feet below grade after the occasional pumping.

When considering the location and elevation of the “pond” with the topography of the area and the nearby presence of Long Creek, it was determined that the “pond” is in fact a dugout that intersects the Pleistocene Series: Unknown aquifer. Therefore, they are pumping from the same water source, but from a different diversion point. No action is necessary at this time.



Adam Mathiowetz

Engineer I

DENR-Water Rights Program



7825-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 16, 2015

NOTICE

TO: JEFF & NANCY KIRSTEIN, 28318 466TH AVE, LENNOX, SD 57039
FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2014 Irrigation Questionnaire(s)

Our records indicate your 2014 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7825-3. The request for the Questionnaire was dated October 17, 2014. The Water Management Board has directed that owners of water permits who have not submitted the 2014 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7825-3 qualification:

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

The hearing will be held at **10:00 am, March 4, 2015** 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) 7825-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. 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 questionnaire(s) is (are) received in this office before the **March 4, 2015** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

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 ENVIRONMENT
and NATURAL RESOURCES**

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

January 23, 2015

7825-3

Jeff & Nancy Kirstein
28318 466th Ave
Lennox SD 57039

Dear Mr. & Mrs. Kirstein:

I am writing to acknowledge receipt of your 2014 irrigation questionnaire.

You may disregard the January 16, 2015, "Notice" concerning reporting requirements for Water Permit No. 7825-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

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



DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 20, 2023

NOTICE

TO: JEFF & NANCY KIRSTEIN, 28318 466TH AVE, LENNOX, SD 57039
FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2022 Irrigation Questionnaire(s)

Our records indicate your 2022 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7825-3. The request for the Questionnaire was dated October 21, 2022. The Water Management Board has directed owners of water permits who have not submitted the 2022 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7825-3 qualification:

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

The hearing will be held at **Wednesday, March 8, 2023 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) 7825-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. 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 questionnaire(s) is (are) received in this office before the **March 8, 2023** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: ZKJFVU**

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 25, 2023

7825-3

Jeff & Nancy Kirstein
28318 416th Ave
Lennox SD 57039

Dear Mr. & Mrs. Kirstein:

Thank you for calling concerning the 2022 irrigation questionnaire. As search of the record found you submitted the questionnaire on November 2nd. Enclosed is a copy.

Please ignore our January 20th certified letter. I appreciate you calling to check on it and I apologize for the error.

If you have any questions, please contact me.

Sincerely,

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

enclosure



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JUN 28 2023

7825-3

Jeff & Nancy Kirstein
28318 466th Ave
Lennox SD 57039

Dear Mr. & Mrs. Kirstein:

Enclosed is Water License No. 7825-3. 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.

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

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7825-3

(1) Jeff & Nancy Kirstein, 28318 466th Ave., Lennox SD 57039 made Application No. 7825-3, April 1, 2013 for a water permit to divert 0.33 cubic feet of water per second from ground water, one well (Pleistocene Unknown Aquifer), Lincoln County, South Dakota for irrigation purposes. Permit No. 7825-3, with a priority date of April 1, 2013 was approved July 1, 2013 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before July 1, 2018 and for the application to beneficial use of water on or before July 1, 2022.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and are entitled to divert 0.33 cubic feet of water per second for beneficial use. The location of the dugout is as follows:

- 1,215'S and 545'W of the NW corner of Section 28, T98N, R51W (NW ¼ NW ¼)
Latitude 43.28356, Longitude -96.88399

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

Section 28, T98N, R51W NW ¼ NW ¼ 8 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Jeff & Nancy Kirstein, 28318 466th Ave., Lennox SD 57039 the holders and/or owners of Water Right No. 7825-3 are issued a license to appropriate water, the right to use 0.33 cubic feet of water per second from ground water, (dugout), Pleistocene Unknown Aquifer with a priority date of April 1, 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. 7825-3 and subject to the following qualifications:

- The water source for Water Right No. 7825-3 is the shallow Pleistocene Series Unknown Aquifer.
- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights. *A dugout is used to supply water.*
- The well authorized by Permit No. 7825-3 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. *Qualification is no longer applicable. A dugout is used to supply water to the acreage.*

Continued

- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints or type of soils so requires, Water Right No. 7825-3 authorizes a maximum diversion rate of 0.33 cfs for the irrigation of 8 acres with an annual volume not to exceed 3 acre feet of water per acre per year. *(Acreage was reduced from the permitted 13 acres down to 8 acres based on the level of development)*
- 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 Agriculture and Natural Resources

JUN 28 2023

date



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7825-3

I have this day, April 17, 2023, made a thorough examination of the water use system constructed by Jeff & Nancy Kirstein, 28318 466th Ave, Lennox, SD 57039 of Permit No. 7825-3, bearing the priority of April 1, 2013 authorizing the diversion of 0.33 cu. ft. per of the waters of the Pleistocene Aquifer (dugout) for irrigation purposes, in Lincoln County.

A. Works used to divert the water:

Using a trash pump on the north side of a dugout pond

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

1) Type Buried pipe 2) Size Unknown inches 3) Length Unknown feet

C. Works used to apply water to beneficial use: Subsurface drip irrigation system

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point of diversion located as follows:
dugout location: From the NW corner Section 28, T98N, R51W, 1215 ft S & 545 ft W, Lat 43.28356
Long -96.88399 (NW ¼ NW 1/4).
2. The works are capable of diverting and conveying to the place of use 0.33 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
Section 28, T98N, R51W
NW ¼ NW 1/4 – 8 acres

comprising a total of 8 acres of land and the license should be issued for 0.33 cfs (150 gpm)
3. All structures, wells and lands on map Y

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

The irrigated varies from year to year based on rainfall, etc. They are operating a commercial garden that produces vegetables for sale.

The mailing address and the telephone number in the permit materials are current.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: April 19, 2023

May 22, 2023: The annual irrigation questionnaires vary in the number of acres irrigated and the pump rate. I called and spoke with Nancy Kirstein to verify the location and number of acres. Ms. Kirstein indicated that due to the drought, they are not able to irrigate all the acres all the time. They have a trash pump they use at the dugout and irrigate as much as possible based on the amount of water in the dugout. Upon forwarding her a map showing the location of the acres the inspector found they had recently irrigated (4 acres); Ms. Kirstein outlined 8 acres they could supply water to if they had enough water. The license will be issued for the 8 acres she described with the diversion rate of 0.33 cfs. A qualification on the water permit allows a greater diversion rate with a volume of up to 3 acre feet per acre per year.

Genny McMath



0 0.05 0.1 0.2 0.3 0.4 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

McMath, Genny

From: Nancy Kirstein <nancymeendering@gmail.com>
Sent: Tuesday, May 23, 2023 8:52 AM
To: McMath, Genny
Subject: Re: [EXT] Map of irrigated acres



This is what we would potentially irrigate if we have enough water. The field to the north is 5 acres, the field to the south is 2, the field in the back to the east is 1/2 an acre.

Nancy

On Mon, May 22, 2023 at 2:35 PM McMath, Genny <Genny.McMath@state.sd.us> wrote:

Nancy,

Thanks for visiting with me about the water permit .

I have attached two maps. The first map is a blank one for you to outline the acreage you could irrigate if water were available. The second map is the one Darrell DeBoer created from his inspection.

As we discussed, there may be acreage that you irrigated when water was available that is not on his map. Keep in mind, it would have to be acreage that is currently authorized and was developed as part of your system. We do not want to short you on acreage or diversion rate.

Let me know if you have questions.

Genny McMath

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