

WATER PERMIT NO. 2691-2

Name of Applicant: Chad Kehl

Address: 35632 298th St, Bonesteel SD 57317 Phone: 605 654-2805

Amount of Water Claimed: 2.0 cfs Total Acres: 180 acres

Source of Water Supply: groundwater (2 wells)

Water to be used for: irrigation County: Gregory

Type of Waste Disposal System:

Location: 8 miles west of Bonesteel

PRIORITY Date Received: 8-15-12 Application/License Fee: \$ 1,050.00

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

Remarks:

Diversion Point: NW ¼ SE ¼ Sec 27-T96N-R70W

Land to be Irrigated: S ½ SW ¼ Sec 27 and N ½
NW ¼ Sec 34; all in T96N-R70W

Depth of Well: 100 feet deep

Well Driller:

Remarks:

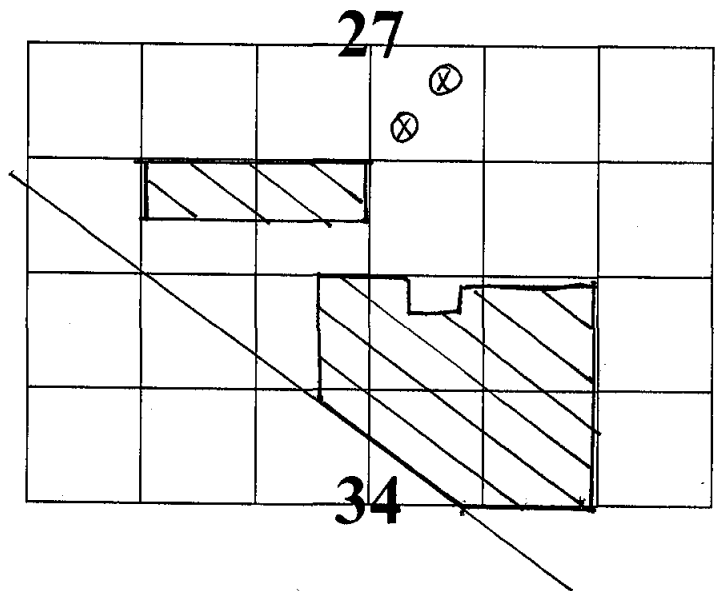
Type of Map: aerial

Prepared by: Eric Gronlund

Reviewed and the Number Assigned on: 8-20-12

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2691-2</u> (office use only) Hydrologic Unit <u>10150001</u>
	Basin <u>Nicholsville</u> <u>605-775-2612</u>
	Newspaper <u>Burke-Loyette Box 359 57523</u>
	<u>Daily Bulletin Box 1286 Mitchell 57301 605-996-5514</u>

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name of Applicant Chad Kehn Phone 605 654-2805
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 35632 298th Street Bonesteel SD 57317
(Address) (City) (State) (Zip Code)

2. Amount of water claimed 2.0 *CFS or 900 **GPM ***AF Total Acreage 180
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply 2 wells

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Gregory
both wells to be located in NW 1/4 SE 1/4 Section 27, T96N, R70W

5. County or counties where water will be used Gregory6. Annual period during which water is to be used April 1 - October 31

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

Land Description	Acres	Land Description	Acres
SW 1/4 SW 1/4 Section 27 T96N, R70W	20	NW 1/4 NE 1/4 Section 34, T96N, R70W	12
SE 1/4 SW 1/4 Section 27, T96N, R70W	20	SW 1/4 NE 1/4 Section 34, T96N, R70W	5
NE 1/4 NE 1/4 Section 34, T96N, R70W	37	NE 1/4 NW 1/4 Section 34, T96N, R70W	25
SE 1/4 NE 1/4 Section 34, T96N, R70W	40	SE 1/4 NW 1/4 Section 34, T96N, R70W	21

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

Develop irrigation. Intend to develop two wells to supply water. May be center pivot irrigation or investigating sub-irrigation technology that would reduce diversion rate and water needed for irrigation. Well may be drilled deeper than 100 feet to allow sand to settle.

STATE OF SOUTH DAKOTA)
County of Hughes) SS

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

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

Applicant's signature Chad KehnSubscribed and sworn to before me this 15 day of Aug 20 12

Sandra Schwellbrock
Notary Public signature

8-8-2016

SOUTH DAKOTA
WATER PERMIT NO. 2691-2 FOR IRRIGATION

Date of first receipt of application August 15, 2012.

The Water Management Board approved Water Permit No. 2691-2 on May 2, 2013 for Chad Kehn, 35632 298th St, Bonesteel SD 57317 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. 2691-2 appropriates 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW ¼ SE ¼ Section 27 for irrigation of 180 acres located in the S ½ SW ¼ Section 27 and the NE ¼, E ½ NW ¼ Section 34; all in T96N-R70W.
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 August 15, 2012.
4. One-fifth of the construction is to be completed on or before November 2, 2015.
5. All construction is to be completed on or before May 2, 2018.
6. Water is to be put to beneficial use on or before May 2, 2022.
7. 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 wells 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 wells authorized by Permit No. 2691-2 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.

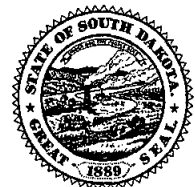
WATER MANAGEMENT BOARD

By: *Jeanne Goodman*

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

JUN 24 2013

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 16 Depth 100 feet
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) approximately 50 feet (estimate)
- g) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others Schmitz well 350 - 400 yd

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

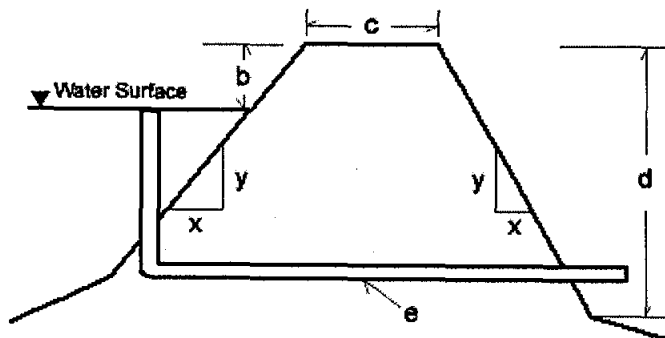
3. Dugout Information

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

4. Water Storage Dams

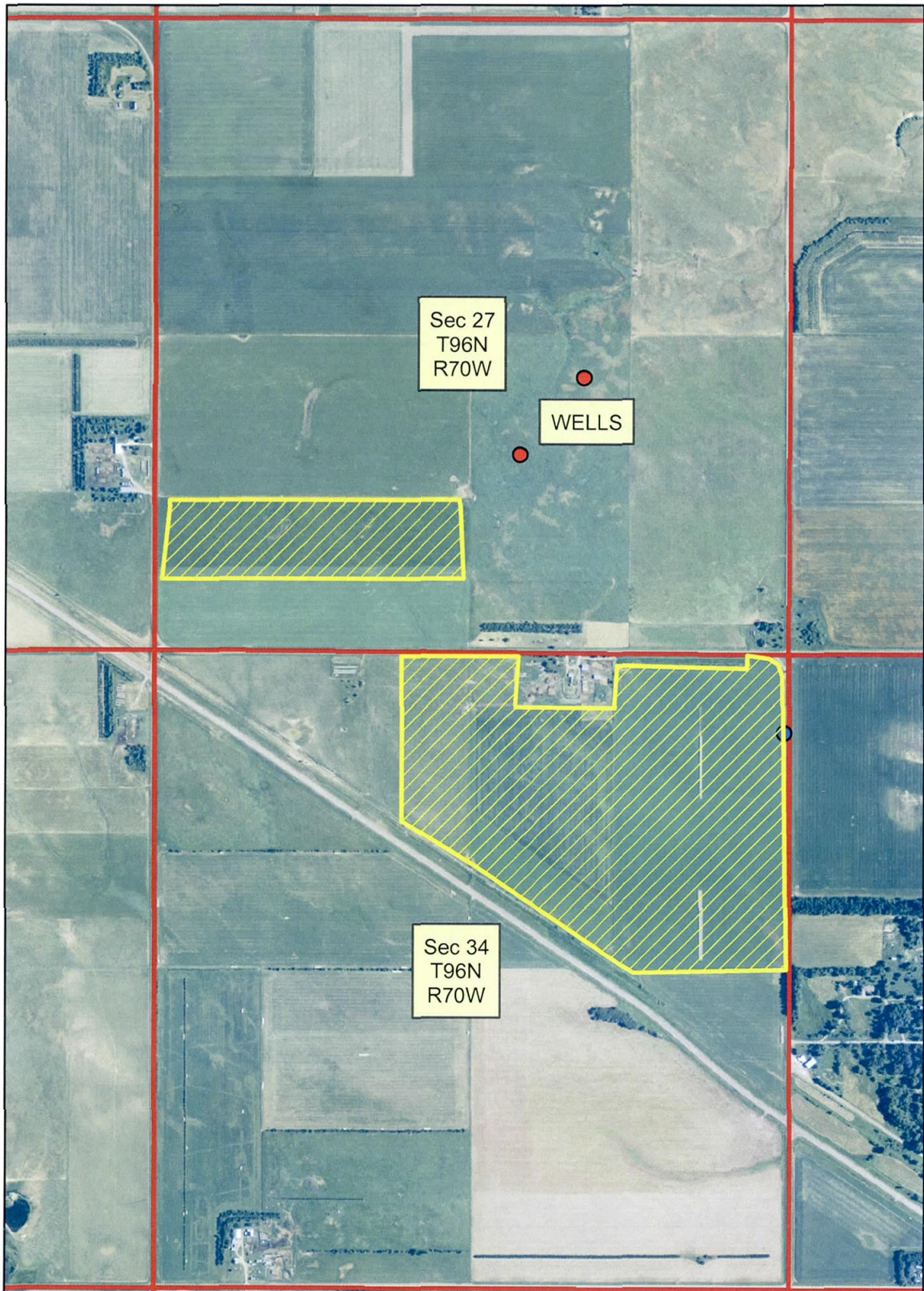
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- 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

Water Permit Application for Chad Kehn



2,500 1,250 0 2,500 Feet



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Eric Gronlund

Eric Gronlund
Water Rights Program, DENR
based on representation by
Chad Kehn on August 15, 2012



United States Department of Agriculture
Farm Service Agency

March 17, 2011

PLSS: 34_96_70
Farm: 2591

Gregory County, SD

1:8,132



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.

AUG 15 2012

2010 Ortho-Photography - Not to Scale

WATER RIGHTS
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United States Department of Agriculture
Farm Service Agency

March 17, 2011

PLSS: 27_96_70
Farm: 2591

Gregory County, SD

1:8,158



Wetland Determination Identifiers
 ● Restricted Use
 ▼ Limited Restrictions
 ■ Exempt from Conservation Compliance Provisions

Common Land Units

Non Cropland

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AUG 15 2012

2010 Ortho-Photography - Not to Scale

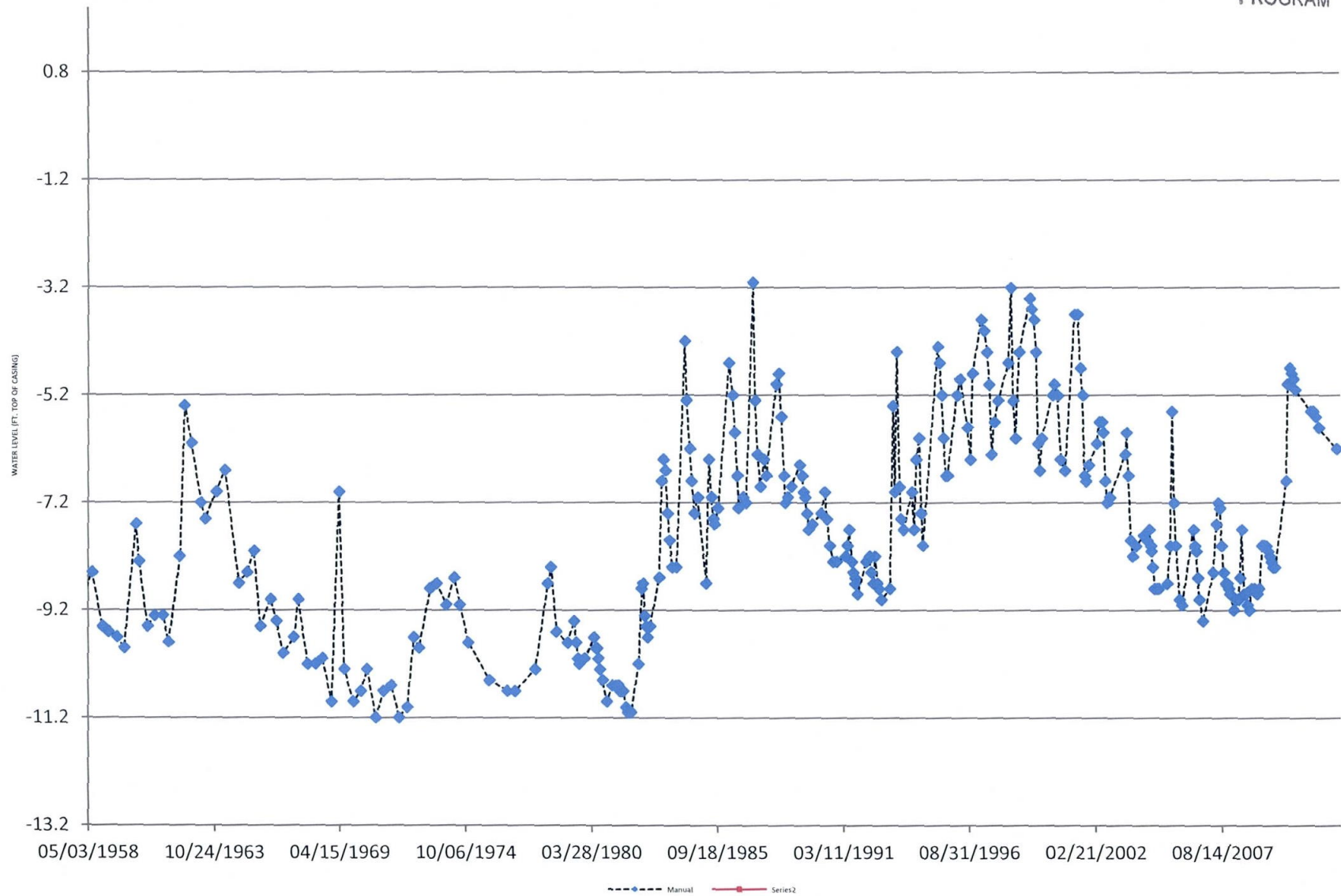
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WATER RIGHTS' OBSERVATION WELL GY-57B

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WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 8/16, 20 12

RECEIVED OF Chad Kehn 35362 298th St Bonesteel SD 57317

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

Fee for Application for Permit No. <u>2691-2</u> to Appropriate Water, to construct and to put water to beneficial use	850	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>2691-2</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	1050 00

No. 05534

By

[Signature]
Chief Engineer



**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. 2691-2, Chad Kehn**

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. 2691-2, Chad Kehn, 35632 298th Street, Bonesteel SD 57317.

The Chief Engineer is recommending APPROVAL of Application No. 2691-2 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 wells 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 wells authorized by Permit No. 2691-2 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.

Garland Erbele, Chief Engineer
October 24, 2012

NOTE: I encourage you to review the report thoroughly. It is likely the Ogallala Aquifer in the area will only provide for low yield wells of less than 100 gallons per minute. The actual production will not be known until you drill the wells but this may limit the ability to fully develop this irrigation project.

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2691-2
CHAD KEHN
OCTOBER 24, 2012

Water Permit Application No. 2691-2 proposes to appropriate up to 360 acre-feet (ac-ft) annually at a maximum diversion rate of 2.0 cubic feet per second (cfs) from two wells to be completed into the Ogallala aquifer. The wells are expected to be approximately 100 feet deep and are to be located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 27 for irrigation of 180 acres located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ Section 27 and the NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 34; all in T96N-R70W in Gregory County.

AQUIFER: Ogallala Group (OGLL)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Ogallala aquifer is part of the High Plains aquifer. The High Plains aquifer is a massive aquifer that underlies eight states from South Dakota to Texas. The Ogallala aquifer consists primarily of fine to medium, poorly graded sandstone with some inter-bedded clay and siltstone (Carter, 1998). The Ogallala underlies approximately 193,280 acres and contains an estimated 1.9 million ac-ft of recoverable water in storage in Gregory County (Allen et.al, 1985). Ground water flows from west to east in the aquifer and the aquifer is generally less than 50 feet thick and is under unconfined conditions in the area of the application (Filipovic, 2004). According to Filipovic (2012) the Ogallala aquifer in the area of this application will likely only support low yield wells, less than 100 gallons per minute. This due primarily to low transmissivity and narrow aquifer thickness in the area of this application.

SDCL 46-2A-9

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

WATER AVAILABILITY:

This application proposes to appropriate 360 ac-ft annually from the Ogallala aquifer. Although, actual water use if this application is approved will most likely be less than 360 ac-ft/yr. 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 that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.

Recharge versus Withdrawals:

Recharge:

Recharge to the aquifer occurs primarily through infiltration of precipitation. Kolm and Case (1983) estimated the recharge rate, 1.3 to 1.8 in/yr for this area, to be approximately eight percent of the annual precipitation. The recharge to the Ogallala aquifer in Gregory County ranges from 20,938.7 to 28,992 ac-ft/yr.

Withdrawals:

There are 19 water rights/permits and two future use permits appropriating water from the Ogallala aquifer in Gregory County (Water Rights, 2012b). There are 11 water rights/permits designated for municipal use, three water rights are designated for rural water systems, and five water rights/permits are appropriating water for irrigation purposes. Water use by the non-irrigation permits is estimated to be 1,437.8 ac-ft annually. That estimate is based on pumping at the maximum allowed diversion rate for 14.4 hours (60 percent) of every day. A summary of water withdrawal from the Ogallala aquifer in Gregory County by irrigation from 1982 to 2011, as reported to the DENR-Water Rights Program through annual irrigation questionnaires, is shown in table 1.

Irrigation Summaries are from 1982 to 2011 irrigation season			
	Number of Permits	Appropriation (ac-ft)	Pumpage (ac-ft)
Min	1	74.4	0
Max	5	2418	131.96
Avg.	3.2	865.1	42.8

Table 1- Summary of irrigation questionnaires for Ogallala aquifer in Gregory County from 1982 to 2011 (Water Rights, 1982-2012).

The estimated average annual withdrawal of water from the Ogallala aquifer in Gregory County is 1,480.6 ac-ft. The future use permits, 1622-2 City of Gregory and 1660-2 City of Burke, reserve 365 and 396 ac-ft of water annually, respectively. Including full development of the future use permits the amount of water withdrawn from the Ogallala aquifer in Gregory County is still much less than the estimated average annual recharge. Therefore, there is a reasonable probability that unappropriated water is available from the Ogallala aquifer in Gregory County.

Observation Well Data:

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

The DENR-Water Rights Program monitors eight observation wells completed into the Ogallala aquifer in Gregory County (Water Rights, 2012a). There are two observation wells within five miles of the proposed well locations; GY-57B is 0.6 miles south and GY-57A is five miles northwest. The water levels rise (recharge) during wet years and gradually decline during dry years. The two observation wells show the seasonal effects of pumping, but it does not appear to be significant over the period of record. Observation well GY-57A has two significant drops in

water level. Those drops are from the test pumping of the well by the DENR-Water Rights Program. GY-57A is a low yield well, but still appears to be representative of the water level in the aquifer and the general trend, as shown by the observation well, is a rise of water level. Therefore, there is a reasonable probability that there is unappropriated water available from the Ogallala aquifer and that this appropriation can be made without adversely impacting existing water rights. Figures 1 and 2 show the hydrographs for observation wells GY-57B and GY-57A, respectively.

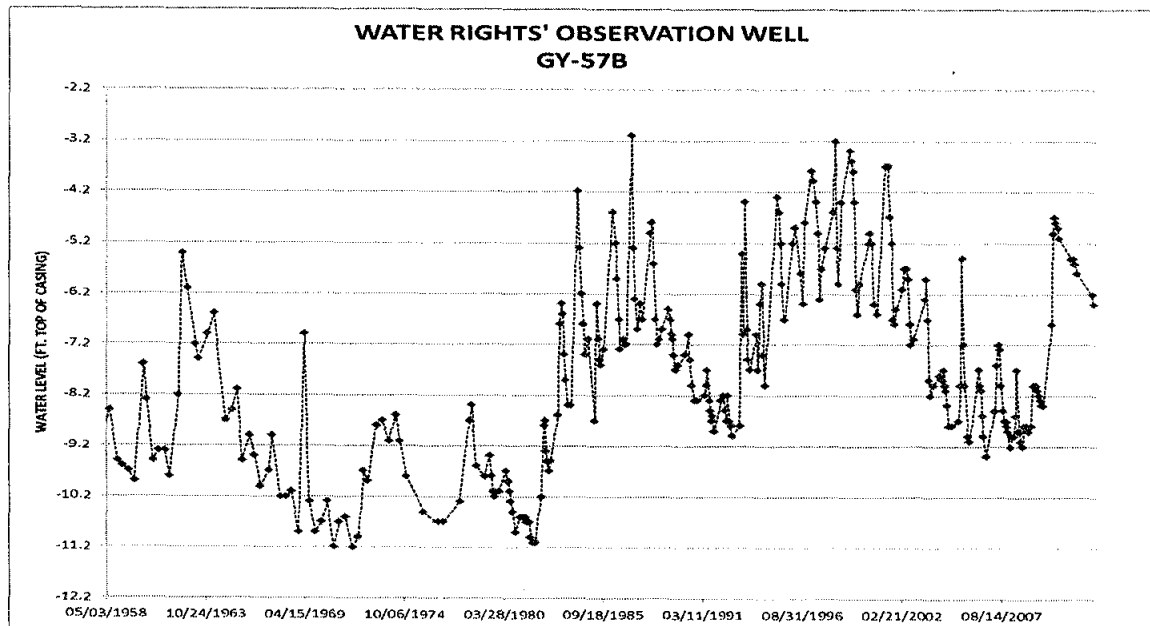


Figure 1- Hydrograph of DENR-Water Rights' observation well GY-57B, located approximately 0.6 miles south of the proposed well locations (Water Rights, 2012a)

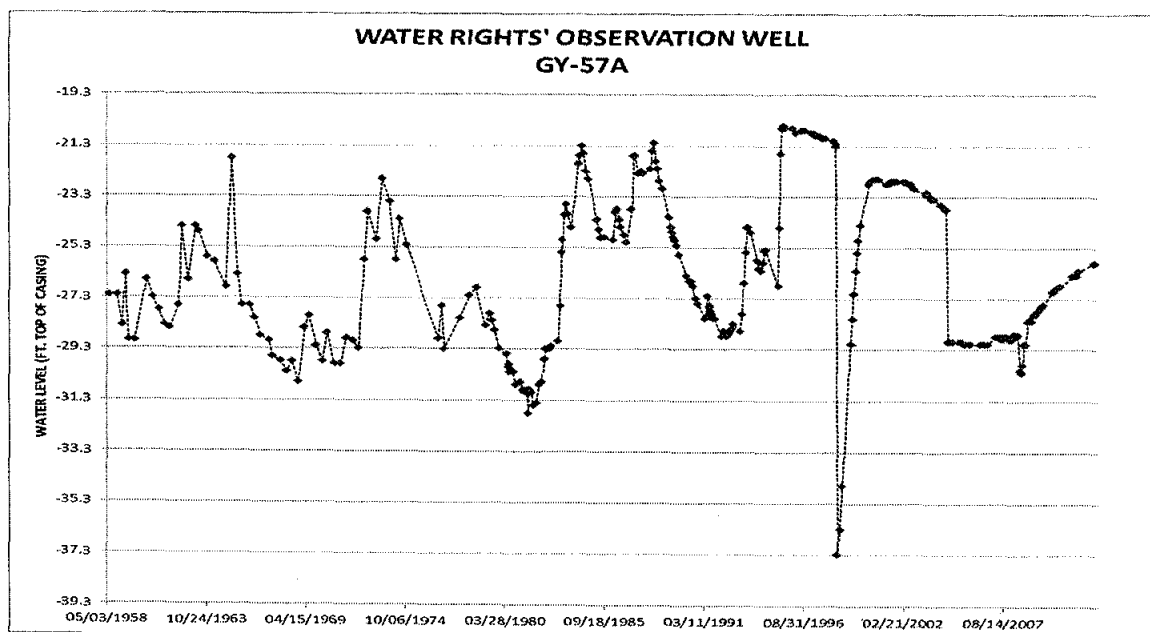


Figure 2- Hydrograph of DENR-Water Rights' observation well GY-57A, located approximately five mile northwest of the proposed well locations (Water Rights, 2012a).

EXISTING WATER RIGHTS:

There are 19 water rights/permits and two future use permits appropriating water from the Ogallala aquifer in Gregory County (Water Rights, 2012b). The nearest, Water Right Nos. 1842-2 and 2339-2 City of Herrick, are four miles northwest and are the only wells authorized by water rights within five miles of the proposed well locations. There are 22 domestic wells within five miles, and four of those are within two miles of the proposed well locations. At these distances there is a reasonable probability that this appropriation can be made without adversely impacting existing water rights or domestic wells.

CONCLUSIONS:

1. This application proposes to appropriate 360 acre-feet annually for the irrigation of 180 acres at a maximum diversion rate of two cfs from two wells from the Ogallala aquifer.
2. There is a reasonable probability that unappropriated water is available from the Ogallala aquifer to supply this proposed diversion based on observation well data and estimated recharge rates.
3. It may not be possible to obtain a diversion rate of 2.0 cfs from the Ogallala aquifer at the proposed well locations due to low transmissivity and limited aquifer thickness.
4. There is a reasonable probability that the diversion rate requested by this application can be made without adversely impacting existing water rights or domestic wells.



Adam Mathiowetz
SD DENR-Water Rights Program

REFERENCES:

- Allen, J.C., D.L. Iles, and A.K. Petres. 1985. Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota, Task 3A.B.C. and 4A.B.:Groundwater Resource Inventory: Final Report. U.S. Army Corp of Engineers Contract DAWC 45-82-C-015. SD DENR-Geological Survey. Vermillion, South Dakota.
- Carter, J.M. 1998. Water Resources of Mellette and Todd Counties, South Dakota. Water Resources Investigation Report 98-4146. U.S. Geological Survey, Rapid City, South Dakota
- Filipovic, D. 2004. Hydrogeologic Assessment of the High Plains Aquifer in Tripp and Gregory Counties, South Dakota.
- Filipovic, D. 2012. Personal Communication; Phone Call. Sepetember 27, 2012.
- Kolm, K.E. and H.L. Case III. 1983. A Two-Dimensional, Finite-Difference Model of the High Plains Aquifer in Southern South Dakota. Water-Resources Investigations Report 83-4175. U.S. Geological Survey. Lakewood, Colorado
- Water Rights. 1982-2012. "1982-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2012a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

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WATER RIGHTS
PROGRAM

**NOTICE OF
APPLICATION
NO. 2691-2**

to Appropriate Water

Notice is given that Chad Kehn, 35632 298th St, Bonesteel, SD 57317 has filed an application for a water permit to appropriate 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW 1/4 SE 1/4 Section 27 for irrigation of 180 acres located in the S 1/2 SW 1/4 Section 27 and the NE 1/4, E 1/2 NW 1/4 Section 34; all in T96N-R70W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2691-2 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. If a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation, 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 November 12, 2012.

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 \$62.55

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, October 31, 2012

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: \$62.55

Signed:

Penny Hohbach

Subscribed and sworn to before me this 31 day of October

Kathy Hoffman

Notary Public

County of Nansom

My Commission Expires: 10.8.2015

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

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NOV - 6 2012

Form 8

WATER RIGHTS
PROGRAM

**NOTICE OF APPLICATION
NO. 2691-2 TO APPROPRIATE
WATER**

Notice is given that Chad Kehn, 35632 298th St., Bonesteel SD 57317 has filed an application for a water permit to appropriate 2.0 cubic feet of water per second from two wells to be completed into the

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Gregory) SS

I, C.J. Fahrenbacher

certify that the attached printed Notice was taken

from the The Burke Gazette

printed and published in Burke, SD

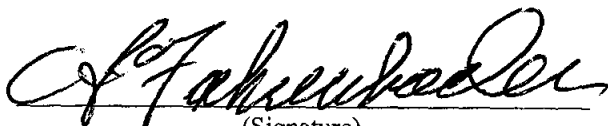
County of Gregory and

state of South Dakota. The notice was published

in the newspaper on the following date:

10/31/12

Cost of Printing 25.76

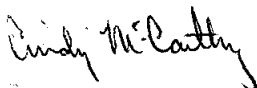

(Signature)

Owner

(Title)

11/1/12

(Date Signed)



Commission Expires
October 17, 2015

Ogallala Aquifer (100 feet deep) located in NW 1/4 SE 1/4 Section 27 for irrigation of 180 acres located in the S 1/2 SW 1/4 Section 27 and the NE 1/4, E 1/2 NW 1/4 Section 34; all in T96N-R70W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2691-2 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.

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Steven M. Pirner,
Secretary, Department of
Environment and Natural
Resources
13-1tc
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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

October 24, 2012

Daily Republic
PO Box 1288
Mitchell SD 57301

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2691-2 to Appropriate Water. Please publish the notice once on October 31, 2012. 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 Chad Kehn, 35632 298th St., Bonesteel SD 57317 (Ph # 605-654-2805).

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

October 24, 2012

Burke Gazette
PO Box 359
Burke SD 57523

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2691-2 to Appropriate Water. Please publish the notice once on October 31, 2012. 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 Chad Kehn, 35632 298th St., Bonesteel SD 57317 (Ph # 605-654-2805).

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Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

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

October 24, 2012

Chad Kehn
35632 298th St
Bonesteel SD 57317

Dear Mr. Kehn:

Water Permit Application No. 2691-2 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 Burke Gazette printed at Burke SD (Ph # 605-775-2612) 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 October 31, 2012. 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. 2691-2 to Appropriate Water

Notice is given that Chad Kehn, 35632 298th St, Bonesteel SD 57317 has filed an application for a water permit to appropriate 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW ¼ SE ¼ Section 27 for irrigation of 180 acres located in the S ½ SW ¼ Section 27 and the NE ¼, E ½ NW ¼ Section 34; all in T96N-R70W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2691-2 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 November 12, 2012.

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 _____.

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NOV - 8 2012

WATER RIGHTS
PROGRAM

Nov. 6, 2012

X

The drilling of wells near St. Charles, S.D.

In about 1967 the town of Fairfax, S.D. Wanted to get more water. They decided to test drill about twelve holes on 400 acres owned by my father Esli Bailey and maybe his neighbors. T66N R70 + 69W St Charles township sections 27 + 28. These test holes did not produce much water. My sister and her husband who live on and farmed the land remembers they didn't get much water maybe 80 gallons per minute. It was not enough to continue.

Do you have a copy of this test?

If someone could pump enough water to irrigate it would dry up the springs that provide water to our 400 acre pasture.

1 Tom Bailey had one lawsuit over a dam that shut off our water to this pasture and dried it up the creek so we can't put cattle in it most of the summer.

We are on the very edge of this water and any lowering of the water table we couldn't use the pasture at all.

My family has owned and used this creek for water since 1907.

(over)

Our home and farmstead is on section 30-96-68
on the very edge of this water.
I thank you for our concerns.

x Sincerely
Tom Bailey
36220 Bobcat Drive
Bonesteel, S.D.
57317

phone 605-654-2624

** Tim Peppel*
620 Main Avenue
St. Charles, SD 57571

RECEIVED
NOV 14 2012
WATER RIGHTS
PROGRAM

Telephone: (605) 654-2887

November 8, 2012

Chief Engineer
Water Rights Program
Foss Building
523 E Capitol
Pierre, SD 57501

Re: Application No. 2691-2

To Whom It May Concern:

Enclosed is a Petition In Opposition To Application No. 2691-2 To Appropriate Water.

If you have any questions concerning this matter, feel free to contact me.

Yours truly,



Tim Peppel

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NOV 14 2012

WATER RIGHTS
PROGRAM

X James R. Krier
35158 296th St
Herrick, SD 57538
November 8, 2012

Chief Engineer
Water Rights Program – Foss Building
523 E. Capitol
Pierre, SD 57501

Subject: Water Permit Application No. 2691-2

Dear Chief Engineer:

I will preface my petition with some personal information. I have operated a diversified farm and ranching operation for the past 26 years adjacent to the proposed well site. Nearly two thousand of the acres of land we currently own/rent and operate lie within two miles of the proposed well location. Attachment 1 shows the tracts we operate highlighted in yellow in relation to the proposed well location in red. I am also a licensed professional civil engineer. My license status is currently "inactive" as I chose not to maintain a license while farming/ranching full time. I am currently serving as chairman of the Gregory County Planning Commission and also as chairman of the Gregory County Soil Conservation District.

I have three main concerns in opposition to this permit application. First, the availability of unappropriated water under Kehn's property; second, the potential resulting drawdown of the aquifer and its effects on surrounding water users; and finally, some inaccuracies in the report to the Chief Engineer on domestic water users. The time allowed between the publication of the permit application and the petition filing hasn't been adequate for me to gather all the data I would like to have considered in your decision. I will continue to gather data to be prepared for the hearing.

I'm not questioning whether unappropriated water is available in the county as often referred to but that the quantity of water Kehn's have requested is not available under their property. This is supported by Filipovic (2012) in the Report to the Chief Engineer indicating one could expect flows less than 100 gpm, due to low transmissivity and narrow aquifer thickness. This is far less than the 900 gpm requested by Kehn's. Additionally, through interviews with family members owning the N1/2 of Sec. 27-96-70, the city of Fairfax, SD tried to source water from the N1/2-27-96-70 in the late 1960's. Over 10 test wells were drilled parallel to Kehn's property line approximately 200 feet north of the property line. The well flows were less than 90 gpm. The project was abandoned. We will research more data prior to the hearing.

Observation well GY-57A referenced in the report appears to be the only observation well that was test pumped. Two significant drops were noted when pumped. The report does not state if this is the only times the well was pumped. If Kehn's two wells also result in significant drops in the area water level, our domestic and livestock watering well levels could and probably would also drop, some below pumping levels. Additionally, if recharge isn't faster than "seasonal", we will have existing water users without water. The extra water needed to irrigate in dry years will compound this problem. The effect could also be extended to the springs in the area that are critical to livestock watering in some pastures. I also visited with a rancher north of Bonesteel who stated his water, and much of the water in that large grazing area, comes from the same aquifer as it moves west to east. A drop in the aquifer water level, prior to recharge, could leave them without water for both domestic and livestock use. Pastures without water when the grass is growing are not in the public's interest in an area so dependent on livestock.

The section of the report on the existing water rights doesn't appear to be accurate. A listing of domestic wells, provided by Adam Mathiowitz, DENR, is included as Attachment 2. The report states there are only four domestic wells within two miles. I myself am using five domestic wells within the two miles that are not included in the document. They are highlighted in Attachment 1. I'm confident that including the small town of St. Charles and area residents within two miles, there are additional domestic wells not considered. I will gather this data prior to the hearing.

Attachment 3 is an additional signed petition.

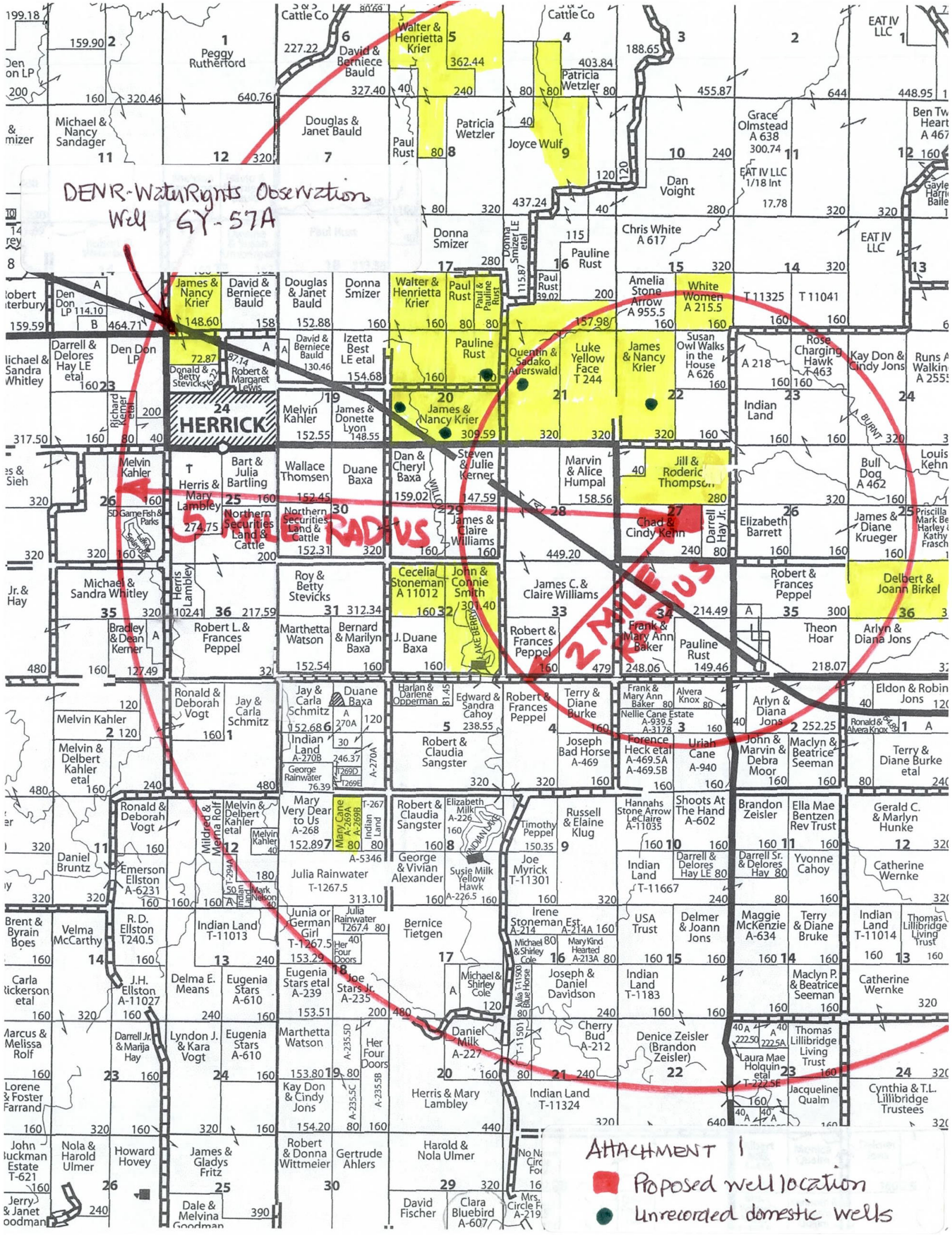
I am opposed to irrigation wells being permitted with only "reasonable probability" of unappropriated water being available. Adequate water needs to be available, under the proposed well field area, not just at the county level. Well flow rates should be adequate to support the intended use and recharge of the well drawdown should be sufficient to minimize immediate effects. If this water permit application is approved, I see no reason why additional permits wouldn't be approved similarly. As a livestock and crop producer, it would appear to me that my next action should be to pursue irrigation well permits to protect my livelihood.

Thank you for your consideration.



James R. Krier

CC: Chad Kehn



DENR-Water Rights Observation
Well GY-57A

2 MILE RADIUS

ATTACHMENT 1

- Proposed well location
- Unrecorded domestic wells

DATE_RECEI	BUSINESS	LAST_NAME	FIRST_NAME	COUNTY	QSEC	SECTION	NSHIP	N_S	RANGE	E_W	WELL_COMPL	WELL_TYPE	DEPTH
		HEIN	WALTER	GY	WNW	7	95 N	69 W			2/13/1974	Domestic	30
		KEHN	CLARK	GY	NWNE	18	96 N	69 W			2/12/1974	Domestic	75
3/27/1985		KLUNDT	EMIL	GY	NWNW	29	96 N	70 W			12/20/1984	Domestic	45
4/13/1999		WILLIAMS	JIM	GY	NENE	33	96 N	70 W			3/1/1999	Domestic	80
10/13/2000		LAMBLEY	HERRIS	GY	SENE	36	96 N	71 W			9/18/2000	Domestic	48
		GODFREY	ED	GY	NW	3	95 N	70 W			9/10/1975	Domestic	49
		BUCKMAN	CHARLES	GY	SW	8	95 N	70 W			9/12/1975	Domestic	26
		ANDREWS	HAMPTON	GY	NWNW	23	95 N	70 W			9/19/1975	Domestic	75
1/4/2005		ZEISLER	BRANDON	GY	SWSW	14	95 N	70 W			12/3/2004	Domestic	35
1/4/2005		ZEISLER	BRANDON	GY	SWNW	11	95 N	70 W			12/16/2004	Domestic	37
9/22/1994	MASH RANCH (ZN INC)	DEAN	JOHN	GY	SENW	13	96 N	70 W			8/25/1994	Stock	70
4/18/1994		SCHMITZ	RAY	GY	SENE	27	96 N	70 W			3/23/1994	Stock	60
9/16/1997		NORTON	JOYCE	GY	NW	16	96 N	70 W			8/11/1997	Stock	50
6/16/1980		SCHONEBALUM	WALTER	GY	NWSE	5	95 N	69 W			6/14/1980	Stock	73
8/5/1982		BERKAL (BIRKEL)	DELBERT	GY	NWNW	6	95 N	69 W			6/10/1982	Stock	64
10/7/1981		BURKE	BERNARD	GY	SESE	1	95 N	70 W			9/29/1981	Stock	62
		CAHOY	DON	GY	NESE	2	95 N	70 W			4/13/1981	Stock	81
2/10/1992		COLE	MICHAEL J.	GY	NESE	17	95 N	70 W			6/7/1991	Stock	25
2/10/1992		ZEISLER	LEONARD	GY	SE	22	95 N	70 W			6/13/1991	Stock	50
2/10/1992	MASH RANCH	DEAN	JOHN	GY	SENE	29	96 N	69 W			6/19/1991	Stock	50
		KEHN	CLARK	GY	SWNW	1	96 N	70 W			4/21/1981	Stock	60
1/4/1990		KEHN	LOUIS L.	GY	SESW	14	96 N	70 W			9/16/1989	Stock	74

Attachment 2

WE, THE UNDERSIGNED, petition to deny the application for a water permit to appropriate 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 27 for irrigation of 180 acres located in the S $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 27 and the NE $\frac{1}{4}$, E $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 34; all in T96N-R70W; filed by Chad Kehn, 35632 298th Street, Bonesteel, South Dakota 57317.

1. There is not sufficient unappropriated water available;
2. Owners of surrounding land and their existing wells will be unlawfully impaired;
3. We all have real estate located in the area of this requested permit and it would jeopardize our existing wells; and
4. It is not in the public interest to approve a permit that would jeopardize surrounding wells being used for domestic use and for livestock watering.

Based on all of the following the application needs to be denied.

[illegible]

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NOV 14 2012

WATER RIGHTS
PROGRAM

PETITION IN OPPOSITION TO APPLICATION NO. 2691-2 TO APPROPRIATE WATER

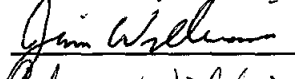
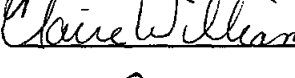
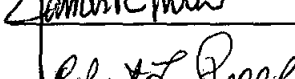
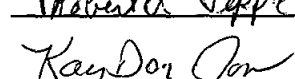
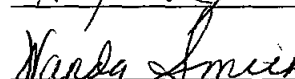
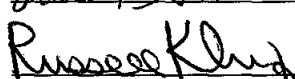
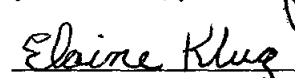
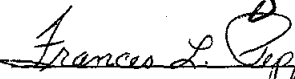
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We oppose the application and recommend that Application No. 2691-2 be denied for the following reasons:

1. There is not sufficient unappropriated water available;
2. Owners of surrounding land and their existing wells will be unlawfully impaired;
3. We all have real estate located in the area of this requested permit and it would jeopardize our existing wells; and
4. It is not in the public interest to approve a permit that would jeopardize surrounding wells being used for domestic use and for livestock watering.

The petitioners have contacted a hydrologist who has indicated that there is not sufficient water to use for irrigation and further, if approved, irrigation wells would jeopardize existing domestic wells.

Based on all of the following the application needs to be denied.

NAME:	SIGNATURE:	RESIDENCE:	DATE OF SIGNING:
X Tim Peppel		620 Main Ave., St Charles, SD	11-8-12
X Jim Williams		29667 353 rd Ave, Herrick, SD	11-9-12
X Claire Williams		29667 353 rd Ave, Herrick, SD	11/9/12
X Darrell Hay Jr.		29679 348 th Ave, Herrick, SD	11-8-12
X Marija Hay		29679 348 th Ave, Herrick, SD	11-8-12
X James R. Krier		35158 296 th St., Herrick, SD	11-8-12
X Robert L. Peppel		35239 298 th St., Herrick, SD	11-8-12
X Kay Don Jon		35891 301 st St., Bonesteel	11-8-12
X Wanda Smith		34616 296 th St Burke	11-8-12
X Russell Klug		35267 299 th St. Herrick	11-8-12
X Elaine Klug		35267 299 th St Herrick	11-8-12
X Frances L. Peppel		35239 298 th St. SD	11-8-12

PETITION IN OPPOSITION TO APPLICATION NO. 2691-2 TO APPROPRIATE WATER

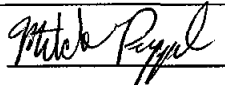
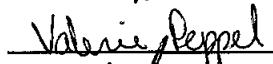
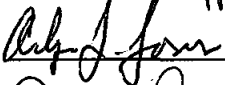
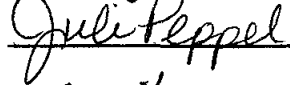
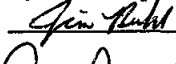
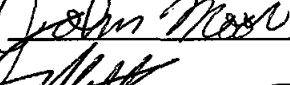
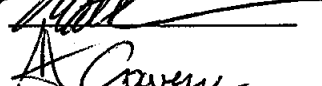
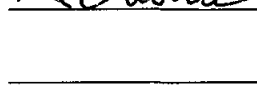
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Based on all of the following the application needs to be denied.

NAME:	SIGNATURE:	RESIDENCE:	DATE OF SIGNING:
X Mitch Peppel		35314 298 th St. St. Charles	11/8/12
X Valerie Peppel		35314 298 th St. St. Charles	11/8/12
X Arlyn Jons		35515 298 th St Bonesteel	11/8/12
X Juli Peppel		620 Main St Charles	11/8/12
X Jim Birkel		34170 292 nd St. Bonesteel	11/8/12
X John Moor		205 1st Ave S. Bonesteel	11-8, 2012
X Matt Cavenee		29861 355 th Ave Bonesteel	11/8/12
X Stephanie Cavenee		29861 355 th Ave Bonesteel	11/8/12

Joseph P. Rust
2700 Pine St.
Yankton, SD 57078
November 8, 2012

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WATER RIGHTS
PROGRAM

Chief Engineer
Water Rights Program – Foss Building
523 E Capitol
Pierre, SD 57501

CC: Chad Kehn
35632 298th St.
Bonesteel, SD 57317

Subject: Water Permit Application No. 2691-2

Dear Chief Engineer:

I am writing to express my opposition to the water permit application #2691-2. As a land owner of property located close to the proposed well sites I have some concerns that I feel should be reviewed prior to deciding if the permit should be granted or rejected. I have contacted the DENR about some of my concerns and they have shared some of the data that will be used in the approval/rejection process and I feel some of this information is incomplete and not well defined.

One of my concerns is the effect this could have on the existing wells in the area. The DENR has a list of 22 wells located within five miles of the proposed drilling site. From what I understand, this list was created from records which appear to start in 1974. I know there are a lot more wells in the area than the ones on the list. We have one well in the SE corner of the NE $\frac{1}{4}$ of section 20 (T96N-70W) that is within two miles of the proposed site; this well was installed in 1968 or 1969. We also have one active well at the building site in the SE $\frac{1}{4}$ of section 17 (T96N-70W) that is just over two miles from the proposed site and has been in use for over sixty years.

I feel a complete list of active wells in the area should be created to help understand current water usage in this area. Please let me know if this is a task the DENR would research or if this data needs to be collected and submitted by the local property owners.

I am also concerned about the water table in the St. Charles area. We own the SE $\frac{1}{4}$ of section 34 (T96N-70W) and this property benefits from the high water table in the area. If the water table is lowered the production capability of this property would be reduced. This area might have a high water table but a thin aquifer. I have reviewed the map of the Hydrogeologic Assessment of the High Plains Aquifer in Tripp and Gregory Counties in South Dakota dated 2004. The thickness of the High Plains aquifer in the proposed drill site is given as "less than 50 feet" but it does not indicate a minimal thickness.

[Recipient Name]
November 8, 2012
Page 2

Based on these concerns, I am enclosing the petition I have signed which is in opposition to the application #2691-2 to appropriate water. I feel more research needs to be completed to protect the rights of the surrounding property owners.

I would like to thank the members of the DENR for taking their time to explain how the system works and explaining what data is used in this process.

If you have any questions, please feel free to call me at work at 605-668-2525. If I am not available, please leave a message and I will return your call.

Sincerely,

A handwritten signature in black ink, appearing to read 'J P Rust', with a long horizontal flourish extending to the right.

Joseph P. Rust, P.E.

WE, THE UNDERSIGNED, petition to deny the application for a water permit to appropriate 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW¼SE¼ of Section 27 for irrigation of 180 acres located in the S½SW¼ of Section 27 and the NE¼, E½NW¼ of Section 34; all in T96N-R70W, filed by Chad Kehn, 35632 298th Street, Bonesteel, South Dakota 57317.

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Based on all of the following the application needs to be denied.

[illegible]



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

November 16, 2012

NOTICE OF HEARING

TO: Chad Kehn
35632 298th Street
Bonesteel SD 57317
And Parties of Record (see attached list)

FROM: Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Notice of Hearing on Water Permit Application No. 2691-2, Chad Kehn

Petitions opposing approval of Water Permit Application No. 2691-2 have been filed in response to the Notice of Application published in the Burke Gazette and Mitchell Daily Republic. This notice schedules a hearing on the application before the South Dakota Water Management Board.

Application No. 2691-2 proposes to appropriate 2.0 cubic feet of water per second from two wells to be completed into the Ogallala Aquifer (100 feet deep) located in NW ¼ SE ¼ Section 27 for irrigation of 180 acres located in the S ½ SW ¼ Section 27 and the NE ¼, E ½ NW ¼ Section 34; all in T96N-R70W.

The Water Management Board will consider Application No. 2691-2 at 10:30 AM on Thursday, March 7, 2013 in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. Parties will be provided written notice if there is a change to the hearing time or date.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2691-2 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. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application after it reaches a conclusion based on the facts presented at the public hearing.

The March 7, 2013 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition to oppose or support the application. The request for an automatic delay must be filed by February 22, 2013. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to all petitioners regarding the time, date and location.

The hearing is an adversary proceeding and any party has the right to be present at the hearing and to be represented by a lawyer. These and other due process rights will be forfeited if they are not

exercised at the hearing and decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

Contact Eric Gronlund at the above Chief Engineer's address to request copies of the recommendation, application or any other information. Notice is given to individuals with disabilities that this hearing is being held in a physically accessible place. Please notify the Department of Environment and Natural Resources at least 48 hours before the hearing if you have a disability for which special arrangements must be made at the hearing. The telephone number for making arrangements is (605) 773-3352.

Enclosed is a copy of the report, recommendation, affidavit of publication and petitions in the matter of Water Permit Application No. 2691-2. State law directs the Chief Engineer to provide Water Management Board members with a copy of all pleadings including petitions for each proceeding. This same information will be sent to the Board members in advance of the hearing. In addition, enclosed are two documents intended to acquaint parties with the hearing process entitled "Procedure for Hearings before the Water Management Board" and "Summary of South Dakota Water Laws and Rules". You are encouraged to review these documents prior to the hearing.

Under SDCL 1-26-17(7) notices must state that "if the amount in controversy exceeds \$2,500.00 or if a property right may be terminated, any party to the contested case may require the agency to use the Office of Hearing Examiners by giving notice of the request to the agency no later than ten days after service of a notice of hearing issued pursuant to SDCL 1-26-17." This is a Notice of Hearing, service is being provided by publication, and the applicable date to give notice to the Chief Engineer is November 26, 2012. However, since this particular matter is a water permit application and not a monetary controversy in excess of \$2,500.00 or termination of a property right the Chief Engineer disputes the applicability of this provision and maintains that the hearing must be conducted by the Board.

As applicable, the following provides the legal authority and jurisdiction under which the hearing will be held and the particular statutes and rules pertaining to this application: SDCL 1-26-16 thru 1-26-28; SDCL 46-1-1 thru 46-1-9, 46-1-13 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-17; 46-2A-1 thru 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21, 46-2A-23; 46-5-1.1, 46-5-2 thru 46-5-26, 46-5-30.2 thru 46-5-30.4, 46-5-31 46-5-32 thru 46-5-34.1, 46-5-38 thru 46-5-39, 46-5-46, 46-5-47, 46-5-49; 46-6-1 thru 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-21, 46-6-26; Board Rules ARSD 74:02:01:01 thru 74:02:01:24.02 and ARSD Chapter 74:02:04.

Questions regarding the hearing process may be directed to Eric Gronlund, Water Rights Program at (605) 773-3352 or eric.gronlund@state.sd.us.

c: Diane Best, Assistant Attorney General

enclosures

Parties of Record List for Water Permit No. 2691-2 – Chad Kehn

Applicant: Chad Kehn
35623 298th St
Bonesteel SD 57317

Petitioners:

James R Krier
35158 296th St
Herrick SD 57538

Russell & Elaine Klug
35267 299th St
Herrick SD 57538

John S Smith
1208 Country Club
Boone IA 50036

Frances L Peppel
35239 298th St
Herrick SD 57538

Mike Duerfeldt
29576 350th Ave
Herrick SD 57538

Mitch & Valerie Peppel
35314 398th St
St Charles SD 57571

Tim & Julie Peppel
620 Main Ave
St Charles SD 57571

Arlyn Jons
35515 298th St
Bonesteel SD 57317

Jim & Claire Williams
29667 353rd Ave
Herrick SD 57538

Jim Birkel
34170 292nd St
Bonesteel SD 57317

Darrell & Marija Hay Jr
29679 348th Ave
Herrick SD 57538

John Moor
205 1st Ave S
Bonesteel SD 57317

Robert L Peppel
35239 298th St
Herrick SD 57538

Matt & Stephanie Cavenue
29861 355th St
Bonesteel SD 57317

KayDon Jons
35891 301st St
Bonesteel SD 57317

Joseph P Rust
2700 Pine St
Yankton SD 57078

Wanda Smith
34616 296th St
Burke SD 57523

Tom Bailey
36220 Bobcat Dr
Bonesteel SD 57317

CERTIFICATION

I hereby certify that on November 16, 2012, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice of Hearing dated November 16, 2012, regarding scheduling the hearing for Water Right Permit Application No. 2691-2, as addressed below and on the parties of record list:

Chad Kehn
35632 298th Street
Bonesteel SD 57317

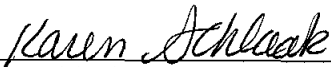
Diane Best, Assistant Attorney General
317 North Main Avenue
Sioux Falls SD 57104



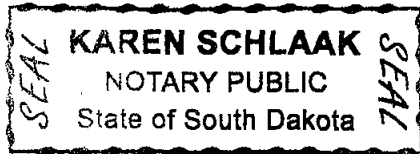
Gail Jacobson
Water Rights Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 16th day of November, 2012.



Karen Schlaak
Notary Public
My Commission expires April 1, 2013





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

March 11, 2013

NOTICE

TO: Chad Kehn
35632 298th Street
Bonesteel SD 57317

James Krier
35158 296th Street
Herrick SD 57538

Jim and Claire Williams
29667 353rd Avenue
Herrick SD 57538

FROM: Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Preparation of Findings of Fact, Conclusions of Law and Final Decision

The Water Management Board directed Diane Best to prepare proposed Findings of Fact, Conclusions of Law and a Final Decision in the matter of the approval of Water Permit Application No. 2691-2 filed by Chad Kehn. The Board will consider adoption of Findings, Conclusions and Final Decision at 8:30 AM, on Thursday, May 2, 2013, in the Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol Avenue, Pierre SD. Notice will be provided if there is a change in the hearing date or time.

The Board requested that a copy of the proposed Findings, Conclusions and Final Decision be mailed to each Board member and parties by April 9, 2013. Written objections or comments in support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision are to be mailed to each Board member, the Board attorney (mailing list enclosed) and parties of record by April 19, 2013. Board counsel requests that the draft findings or alternative findings be provided in a WORD format file via email to jeff.hallem@state.sd.us.

At the Board's discretion, oral arguments by parties who timely filed written comments in opposition or support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision may be made on May 2, 2013. The public hearing was completed on March 7, 2013. No additional testimony will be received.

If you have questions about the findings process, please contact Diane Best at (605) 367-5880.

Enclosure

c: Jeff Hallem, Assistant Attorney General
Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on March 11, 2013, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated March 11, 2013 regarding preparations of findings of fact, conclusions of law and final decision in the matter of Water Right Permit Application No. 2691-2, Chad Kehn as set forth below:

Chad Kehn
35623 298th Street
Bonesteel SD 57317

James Krier
35158 296th St
Herrick SD 57538

Diane Best, Assistant Attorney General
317 N Main Ave
Sioux Falls SD 57104

Jim and Claire Williams
29667 353rd Avenue
Herrick SD 57538

Sent Inter-Office

Jeff Hallem, Assistant Attorney General
George S Mickelson Criminal Justice Center
1302 E Hwy 14, Suite 1
Pierre SD 57501



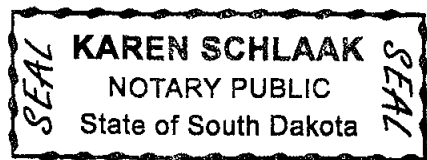
Gail Jacobson
Secretary/Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 11th day of March, 2013.



Karen Schlaak
Notary Public
My Commission expires April 1, 2013





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

May 6, 2013

NOTICE

TO: Chad Kehn
35632 298th Street
Bonesteel SD 57317

James Krier
35158 296th Street
Herrick SD 57538

Jim and Claire Williams
29667 353rd Avenue
Herrick SD 57538

FROM: Jeanne Goodman, Chief Engineer,
Water Rights Program

SUBJECT: Adoption of Finding of Fact, Conclusion of Law and Final Decision in the matter
of Water Permit Application No. 2691-2, Chad Kehn

This is to notify you that the Water Management Board Rulings and the Final Decision, including Findings of Fact and Conclusions of Law, were adopted May 2, 2013, by the Water Management Board in the matter of Water Permit No. 2691-2, Chad Kehn. A copy of the Board Rulings and signed Findings of Fact, Conclusions of Law and Final Decision are enclosed.

South Dakota statutes provide that decisions of the Board may be appealed to the Courts. Notice of appeal of the Board's decision must be filed within thirty days of this notice and be in accordance with procedures established in SDCL 1-26-31.

Enclosures

c: Jeff Hallem, Assistant Attorney General
Diane Best, Assistant Attorney General

RECEIVED

APR 24 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF WATER	)	WATER MANAGEMENT BOARD
PERMIT APPLICATION No. 2691-2,	)	RULINGS ON PARTIES'
CHAD KEHN	)	SUBMISSIONS

Pursuant to directions of the Water Management Board, counsel for Department of Environment and Natural Resources, Water Rights Program (DENR) submitted proposed Findings of Fact, Conclusions of Law and Final Decision. Neither Applicant Chad Kehn, nor Intervenors Jim and Claire Williams and Jim Krier (the only Intervenors who appeared at the hearing) submitted additional proposed Findings of Fact and Conclusions of Law or objections to DENR proposed Findings of Fact, Conclusions of Law and Final Decision. The Board, upon review of DENR's submission and the administrative record, and having orally entered its decision, hereby enters the following rulings:

A. DENR's proposed Findings of Fact Nos. 1-33 are accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision.

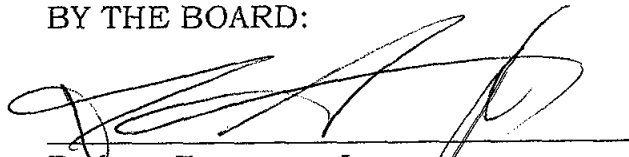
B. DENR's proposed Conclusions of Law 1-28 are accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision and the Findings of Fact adopted by the Board in the above ruling.

C. DENR's proposed Final Decision is accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision, and the Findings of Fact and Conclusions of Law adopted by the Board in the above rulings.

The Board's attorney is directed to prepare Findings of Fact, Conclusions of Law and Final Decision consistent with the above rulings to be executed by the chairman of the Board or the Board's designee without further notice or hearing.

Dated this 2nd day of May, 2013.

BY THE BOARD:



Rodney Freeman, Jr.
Chairman, Water Management Board

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF WATER	)	FINDINGS OF FACT,
PERMIT APPLICATION No. 2691-2,	)	CONCLUSIONS OF LAW
CHAD KEHN	)	AND FINAL DECISION

Hearing was held on March 7, 2013 before Board members Rodney Freeman (Chairman), Tim Bjork, Chad Comes, Peggy Dixon, Everett Hoyt, and Leo Holzbauer.

Applicant Chad Kehn appeared without counsel. The Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") was represented by Diane Best. Interveners Jim and Claire Williams and James Krier (referred to collectively as "Intervenors") appeared without counsel.

The Board, having considered the testimony and exhibits presented and all records and documents on file and having entered its oral decision and rulings on the parties' submissions, now enters the following:

FINDINGS OF FACT

1. The Applicant seeks to appropriate water at a maximum diversion rate of 2.0 cubic feet of water per second (cfs) from two wells to be completed into the Ogallala aquifer. The wells are expected to be approximately 100 feet deep and are to be located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 27 for irrigation of 180 acres located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ Section 27 and the NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 34; all in T96N-R70W in Gregory County.

2. The Applicant proposes to appropriate 360 acre feet annually from the Ogallala aquifer, although actual water use will most likely be less than 360 acre feet per year.

3. The Chief Engineer recommends approval.

4. Notice was published in the Burke Gazette (weekly newspaper) and Mitchell Daily Republic (daily) the same day: October 31, 2012.

5. The Notice provided that petitions to intervene were to be filed by November 12, 2012. Several people filed letters of protest or signed petitions protesting this application: James R. Krier, John S. Smith, Mike Duerfeldt, Tim and Julie Peppel, Jim and Claire Williams, Darrell and Marija Hay, Jr., Robert L. Peppel, KayDon Jons, Wanda Smith, Russell and Elaine Klug, Frances L. Peppel, Mitch and Valerie Peppel, Arlyn Jons, Jim Birkel, John Moor, Matt and Stephanie Cavenee, Joseph P Rust, and Tom Bailey.

6. On November 16, 2012, the DENR issued its Notice scheduling the hearing for March 7, 2013, and sent the Notice to the Applicant as well as all the foregoing people who filed letters of protest or signed petitions.

7. Other than the Applicant and DENR, the only people that appeared at the hearing on March 7, 2013 were James R. Krier and Jim and Claire Williams.

8. The Board considers whether (a) there is a reasonable probability there is unappropriated water available for the proposed use, (b) the proposed diversion can be developed without unlawful impairment of existing rights, (c) the use would be a beneficial use and (d) the use is in the public interest.

9. The Ogallala aquifer is part of the High Plains aquifer system. The High Plains aquifer system underlies eight states from South Dakota to Texas. The Ogallala underlies approximately 193,280 acres and contains an estimated 1.9 million acre feet of recoverable water in storage in Gregory County. Water flows from west to east in the aquifer and the aquifer is generally less than 50 feet thick and is under unconfined conditions in the area of the application. The Ogallala aquifer in the area of this application is expected to support low yield wells, less than 100 gallons per minute. This is due primarily to low transmissivity and limited aquifer thickness in the area.

10. Based on the size and scale of this aquifer it is clear that, in general, there is sufficient water to support the proposed water use. DENR witness Ken Buhler, an expert with 28 years of experience in groundwater hydrology, testified that while there are areas of the Ogallala that are declining in other states, that is not the case in the area involved here.

11. In considering water availability this Board must also examine whether the quantity of water withdrawn annually from the groundwater source would exceed the quantity of the average estimated annual recharge of water to the groundwater source if this permit was granted.

12. 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 whether the withdrawals would exceed the average annual recharge. Here, a public water system is not applying for the permit. In

addition, the Ogallala aquifer is not older or lower than the Greenhorn Formation. Therefore, the withdrawal/recharge issue must be considered.

13. Recharge to the aquifer occurs primarily through infiltration of precipitation. Based on expert studies cited by DENR expert witness Adam Mathiowetz, the estimated recharge rate is 1.3 to 1.8 inches per year per acre for this area. The total recharge to the Ogallala aquifer in Gregory County ranges from 20,938.7 to 28,992 acre feet per year.

14. Mathiowetz also provided testimony about withdrawals. There are 19 water rights/permits and two future use permits appropriating water from the Ogallala aquifer in Gregory County. Of these, there are 11 water rights/permits for municipal use, three water permits for rural water systems, and five water rights/permits for irrigation. Water use by the non-irrigation permits is estimated to be less than 1,437.8 acre feet annually. Mathiowetz made this estimate based on pumping at the maximum allowed diversion rate for 14.4 hours (60 percent) of every day. The 60 percent rate is a standard used to represent maximum municipal/rural water system use since such systems do not pump continuously.

15. Based on the Mathiowetz calculations, the estimated average annual withdrawal of water from the Ogallala aquifer in Gregory County is 1,480.6 acre feet. In addition, future use permits for the Cities of Gregory and Burke reserve 365 and 396 acre feet of water annually, respectively. Assuming full development of the future use permits the amount of water

withdrawn from the Ogallala aquifer in Gregory County is expected to be much less than the estimated average annual recharge.

16. The DENR monitors eight observation wells completed into the Ogallala aquifer in Gregory County. There are two observation wells within five miles of the proposed well locations; GY-57B is 0.6 miles south and GY-57A is five miles northwest of the proposed well locations. The water levels rise (recharge) during wet years and gradually decline during dry years. The two observation wells show the temporal effects of pumping, but it does not appear to be significant over the period of record. Observation well GY-57A has two significant drops in water level. Those drops are from the test pumping of the well by the DENR-Water Rights Program and subsequently, the slow recovery of the well. GY-57A is a low yield well, but still appears to be representative of the water level in the aquifer and the general trend, as shown by the observation well, is a rise of water level.

17. Based on the foregoing findings, there is a reasonable probability that unappropriated water is available from the Ogallala aquifer to supply this proposed diversion and withdrawals would not be likely to exceed the average annual recharge.

18. It may not be possible for Kehn to obtain a diversion rate of 2.0 cfs from the Ogallala aquifer at the proposed well locations due to low transmissivity and limited aquifer thickness. Although this Board finds that water is available in the aquifer, such finding does not guarantee that water can be obtained at specific locations and diversion rates.

19. This Board also considers whether the proposed use would impair existing water rights. Of the 19 water rights/permits from the Ogallala aquifer in Gregory County, the nearest to the Applicant's proposed wells are those held by the City of Herrick. The Herrick wells are four miles northwest and are the only wells authorized by water rights within five miles of the proposed well locations. No existing water rights/permits will be adversely affected, given the distances.

20. Domestic wells are considered in examining the impairment question. There are 22 domestic wells reported within five miles, and four of those are within two miles of the proposed well locations. The parties that intervened and testified are concerned that if the Applicant uses water for irrigation the drawdown will impact their nearby domestic wells.

21. Since the 1970's well drillers have been required by SDCL 46-6-11 to file reports of wells completed in South Dakota aquifers. The DENR has those logs and Mathiowetz considered them in his written report. Intervenor Krier's petition to intervene pointed out that there are additional nearby domestic wells. Mathiowetz subsequently met with a group of people who had filed protests or signed petitions against the Applicant's permit and obtained information about the additional well sites. The well sites had not been on record with the DENR and which were probably constructed prior to the DENR well log reporting requirement. During this meeting, Mathiowetz also obtained information correcting the location of one of the wells.

Mathiowetz located all these domestic wells on a map presented as DENR Exhibit 3.

22. It is undisputed that the nearest identified domestic well is approximately 1100 feet from the Applicant's proposed well site.

23. Witness Mathiowetz testified that well interference is unlikely to occur. The anticipated maximum yield from the Applicants well would be approximately 140 gallons per minute (gpm). After considering the transmissivity rate for water flowing through this aquifer, Mathiowetz calculated that the cone of influence for drawdown at the 140 gpm would extend less than 530 feet from the Applicant's well. Even considering the maximum allowed rate under this application (2.0 cubic feet per second) which would require an unrealistically high transmissivity, the cone of influence would extend approximately 550 feet from the aquifer. Given that the nearest domestic well is approximately 1100 feet from the Applicant's proposed well site, the distance between wells is sufficient that there should not be well interference.

24. There is no evidence that any domestic right would be affected or impaired, given the cone of influence involved.

25. Although there is unlikely to be interference with any domestic use in the area, the Board qualifies this permit to protect possible domestic use from adequate wells (as defined by Board rules). The condition would protect against adverse interference if there are nearby adequate domestic

wells still operating that were constructed prior to the 1970's or adequate domestic wells drilled in the future that are close to the Applicant's well.

26. There is a reasonable probability that the diversion rate requested by this application can be made without adversely impacting existing water rights or domestic wells, particularly when considering the domestic use qualification.

27. Given the foregoing Findings, the proposed use will not adversely impair existing rights.

28. The beneficial use question involves examining whether the use would be beneficial in the eyes of the appropriator as well as in terms of the interest of the public in the best use of water supplies.

29. The use of water, as requested, would undoubtedly be beneficial to the appropriator, Chad Kehn. He intends to use the water for irrigation and increasing crop yields would be beneficial to him.

30. The Board has repeatedly found that irrigation is in the interest of the public in the utilization of water supplies. So far as beneficial use is involved, this matter is no different than the dozens (or hundreds) of irrigation applications the Board has considered in the past. In particular, the Board is mindful that water use should be put to the maximum beneficial use given the arid climate in South Dakota.

31. Considering the foregoing beneficial use factors, the proposed irrigation is a beneficial use.

32. Irrigation is also in the public interest. The public interest is better served by allowing Ogallala aquifer water to be used for a beneficial use than to allow the water to remain unused.

33. There is (a) a reasonable probability that there is unappropriated water available for the applicant's proposed use, (b) that the proposed diversion can be developed without unlawful impairment of existing rights and (c) that the proposed use is a beneficial use and (d) in the public interest.

Based on the foregoing findings of fact, the Board makes the following:

CONCLUSIONS OF LAW

1. The Board has jurisdiction over this matter. The present application falls within the Board's responsibility over water appropriation and regulation in Title 46, more specifically SDCL 46-2A-9.

2. Publication was properly made in the Mitchell Daily Republic and the Burke Gazette pursuant to SDCL 46-2A-4.

3. Under ARSD 74:02:01:12.04 the deadline for filing petitions to intervene in this matter was November 12, 2012. This intervention date was published as required by SDCL 46-2A-4.

4. A number of people filed petitions to intervene or signed petitions circulated by others, as set forth in the Findings of Fact. Notice of Hearing was properly given to the Applicant and to all persons that filed letters of protest or signed petitions. Notice was proper under SDCL 46-2A-4 and SDCL 1-26-17.

5. The people who filed letters of protest or signed petitions, but did not appear at hearing have waived further rights to participate in this proceeding. Under SDCL 1-26-17 they were advised in the Notice of hearing that due process rights would be forfeited if they did not appear at hearing. Further, SDCL 1-26-20 specifically provides for default rulings.

6. The Chief Engineer has recommended approval. Adam Mathiowetz, a DENR engineer with expertise in water issues, testified in support of the recommendation. The recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

7. Each of the elements in SDCL 46-2A-9 must be proven in order for this Board to grant the requested permit. SDCL 46-2A-9 provides that a permit to appropriate water may be issued “only if there is 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.”

8. The first element in SDCL 46-2A-9 is whether there is water available for the appropriation. The aquifer is large and capable of sustaining additional withdrawals, as explained in the Findings of Fact.

9. Consideration of water availability also includes consideration of the criteria in SDCL 46-6-3.1 pertaining to recharge/withdrawal: whether “according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed

the quantity of the average estimated annual recharge of water to the groundwater source.”

10. Although there is an exception to the recharge/withdrawal consideration in SDCL 46-6-3.1, it applies only to applications filed by public water supply systems and for aquifers older than or lower than the Greenhorn Formation and is not applicable here.

11. 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 observation well data, along with the other testimony provided by Adam Mathiowetz at hearing is the best information reasonably available on the recharge/discharge issue. In this regard, the Board notes that Mathiowetz relied on independent recharge studies of the aquifer and also used information concerning actual permits and reports of water use to estimate the volume of water withdrawn from the aquifer under water permits/rights.

12. Intervenor Krier is opposed to the irrigation wells being permitted with only “reasonable probability” as a standard for water being available. However, the standard under SDCL 46-2A-9 is “reasonable probability” and SDCL 46-2A-9 is controlling law.

13. There is unappropriated water available for the proposed water use.

14. The second element in SDCL 46-2A-9 is whether the proposed water use would impair existing rights. The proposal here would not impair existing water rights as is addressed at length in the Findings of Fact and as set in the following Conclusions.

15. The Intervenor's claims of potential diminishment sometime in the future do not constitute "impairment of existing rights" under SDCL 46-2A-9. Their domestic water wells are sufficiently far from the proposed use that they are unlikely to be impaired by this application.

16. Out of an abundance of caution, this Board imposes a condition on the permit to protect domestic users who have adequate wells. Due to the distance involved this condition is likely to be necessary only for new wells that would be located within 550 feet of the proposed wells, if such wells are ever constructed in the future. Under the Board rule ARSD 74:02:04:20, such new wells would need to be "adequate wells" meaning that they must be constructed so that the inlet to the pump is not less than 20 feet below the top of the aquifer at the time of construction (or if the aquifer is less than 20 feet thick the pump is to be as near the bottom of the aquifer as practical). Such new domestic wells would be afforded priority as against the Applicants' wells if they are for domestic use.

17. Intervenor's point out that their wells may have been constructed before the well construction standards were adopted in the 1970's. This Board finds that rules requiring new permit holders to refrain from interference with domestic use are rules that protect all domestic wells that

meet the definition of adequate wells regardless of when the existing domestic wells were constructed. In other words, the type of construction is considered, not the date the existing domestic well is drilled. In this case, the evidence shows that Intervenor's wells, regardless of whether they are inadequate, will not be harmed due to the distance between the Applicant's proposed well and the Intervenor's wells.

18. The application, when conditioned as recommended by the Chief Engineer, would not impair any existing rights or domestic uses.

19. The third element in SDCL 46-2A-9 is whether the use of water would be a beneficial use. In this context a beneficial use of water is one that is reasonable and useful and beneficial to the appropriator and that is consistent with the interest of the public in the best utilization of water supplies. SDCL 46-1-6(3).

20. The use of water, as requested, would be beneficial to the Applicant; the purpose is to increase crop yields and provide feed for livestock.

21. The other part of the beneficial use test is whether the water use is in the interest of the public in terms of the best utilization of water supplies. SDCL 46-1-6(3). This Board considers three factors in this case:

- a. Irrigation is, in general, a beneficial use since enhanced production is an economic benefit to the state and local economy. This benefit is no different here than the dozens (or hundreds) of irrigation applications the Board has previously considered in the past.
- b. The maximum that the Applicant could legally use for this permit would be 2 AF per acre and one cfs per 70 acres pursuant to SDCL 46-5-6. This proposed permit does not authorize waste of water.

- c. Water should be put to the maximum beneficial use given the arid climate in South Dakota. SDCL 46-1-4. Reserving water in an aquifer and keeping it from being applied to maximum beneficial use is generally inconsistent with SDCL 46-1-4 and SDCL 46-1-2.

22. This application meets the beneficial use criteria.

23. The fourth element of SDCL 46-2A-9 pertains to public interest.

The public interest element requires weighing the general public interest in the local economy associated with farming and irrigation along with any other public interest issues presented.

24. The Intervenors questioned whether the application should be approved in light of their right to use water for domestic purposes. In doing so, the Intervenors pointed out that one or more of their wells may not be considered “adequate” within the meaning of the Board’s administrative rules and may not be automatically protected by the domestic use qualification. As such, they seek denial of the permit (or additional protection for their domestic wells even if they are not deemed adequate). To the extent that the Intervenors make this request as a public interest matter, the distance between the Applicant’s proposed well site and the Intervenors’ wells must still be considered. The facts show the Intervenor’s wells will not be adversely affected by Applicant’s use of water under the permit. Intervenor’s concern over impairment does not require additional conditions on the permit or denial of the permit to meet public interest concerns.

25. In considering the public interest factor, the Board considers the economic benefit in irrigation to increase crop yields.

26. Having considered the public interest positions addressed by all parties, this Board finds that the application is in the public interest.

27. Based on the entirety of the record, the application meets the standard in SDCL 46-2A-9 and should be granted, subject to the recommendations proposed by the Chief Engineer.

28. Based on the foregoing Findings of Fact and Conclusions of Law, the Board enters the following:

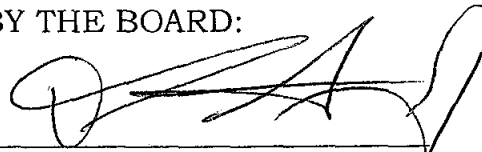
FINAL DECISION AND ORDER

Application No. 2691-2 is granted subject to the following permit qualifications:

1. The wells approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The owner of the wells 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 wells authorized by Permit No. 2691-2 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.

Dated this 2 day of May, 2013.

BY THE BOARD:

A handwritten signature in black ink, appearing to read 'Rodney Freeman', is written over a horizontal line.

Rodney Freeman, Chairman
South Dakota Water Management Board

CERTIFICATION

I hereby certify that on May 6, 2013, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated May 6, 2013, regarding adoption of findings of fact, conclusions of law and final decision in the matter of Water Right Permit Application No. 2691-2, Chad Kehn, as set forth below:

Chad Kehn
35632 298th Street
Bonesteel SD 57317

James Krier
35158 296th Street
Herrick SD 57538

Diane Best, Assistant Attorney General
317 N Main Avenue
Sioux Falls SD 57104

Jim and Claire Williams
29667 353rd Avenue
Herrick SD 57538

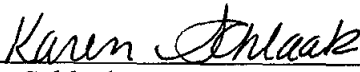
Sent Inter-Office

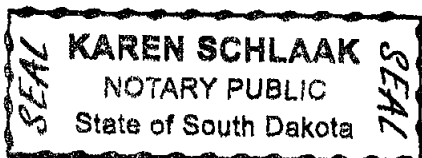
Jeff Hallem, Assistant Attorney General
George S Mickelson Criminal Justice Center
1302 E Hwy 14, Suite 1
Pierre SD 57501


Gail Jacobson
Water Rights Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 6th day of May, 2013


Karen Schlaak
Notary Public
My Commission expires April 1, 201~~3~~⁹





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

JUN 24 2013

Chad Kehn
35632 298th St
Bonesteel SD 57317

Dear Mr. Kehn:

Enclosed is Water Permit No. 2691-2 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

Well #1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

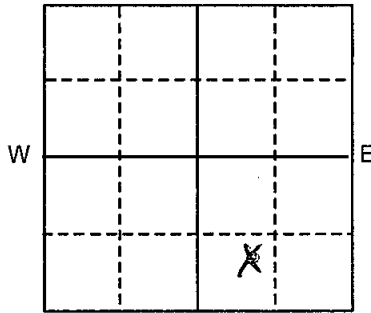
Location ~~SE~~ 1/4 SE 1/4 Sec 27 Twp 96 Rg 70

SW

County Gregory

North

Please mark well location with an "X"



Well Completion Date

July 8, 2015

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
ft. from None/NA (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse-circulation Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
19.3 LB/FT	16.00 IN	0.0 FT	53.0 FT	28.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
7 Cubic Yard		Lb/gal	0.0 Ft	53.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

The concrete was pumped with a tremie pipe.

SCREEN:

☒ Perforated pipe ☐ Manufactured

Diameter 16.00 Inches Length 40.0 Feet

Material SDR 26 PVC

Slot Size 0.050" Set From 53.0 Feet to 93.0 Feet

Other information Jet Stream Casing

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine

☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: Chad Kehn

Business Name:

Address: 35648 298th Street

City, State, Zip: Bonesteel SD 57317

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	00	03
Gravel and sand	03	17
Clay	17	20
Gravel and coarse sand	20	70
Gravel	70	79
Sand and gravel	79	91
Quartzite	91	93

STATIC WATER LEVEL 59.0 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

80.0 Ft. After 4.0 Hrs. pumped 425.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: 200.0 GPM

REMARKS

This well will be used for commercial agriculture.

This well was drilled under license # 577 and this report is true and accurate.

Drilling firm: Dietz Well & Pump Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 12-20-15

RECEIVED

JAN - 5 2016

WATER RIGHTS PROGRAM

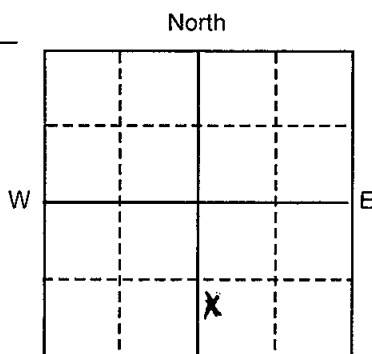
11-02

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Well #2

Location SW 1/4 SE 1/4 Sec 27 Twp 96 Rg 70County Gregory

Please mark well location with an "X"



Well Completion Date

July 8, 2015

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
ft. from None/NA (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse-circulation Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
19.3 LB/FT	16.00 IN	0.0 FT	48.0 FT	28.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
6 Cubic Yard		Lb/gal	0.0 Ft	48.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

The concrete was pumped with a tremie pipe.

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 16.00 Inches Length 40.0 Feet
Material SDR 26 PVCSlot Size 0.050" Set From 48.0 Feet to 88.0 FeetOther information Jet Stream Casing

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine
☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: Chad Kehn

Business Name:

Address: 35648 298th StreetCity, State, Zip: Bonesteel SD 57317

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	00	03
Gravel and sand	03	14
Sandy clay	14	17
Sandy to coarse gravel	17	78
Sand with clay layers	78	88

STATIC WATER LEVEL 58.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

82.0 Ft. After 4.0 Hrs. pumped 400.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM
If pump installed, pump rate: 200.0 GPM

REMARKS

This well will be used for commercial agriculture.

Ogallala 1B
 This well was drilled under license # 577 and this report is true and accurate.
Drilling firm: Dietz Well & Pump Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 12-20-15
RECEIVED
JAN - 5 2016
WATER RIGHTS
PROGRAM