

WATER PERMIT NO. 7441-3

Name of Applicant: Gary E or Julie A Peterson

Address: 45913 299th St, Centerville SD 57014

Phone: 605 563-2346

Amount of Water Claimed: 1.78 cfs

Total Acres: 140

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Clay

Type of Waste Disposal System:

Location: 4 miles southwest of Centerville

PRIORITY

Date Received: 9-26-12

Application/License Fee: \$ 1050

Corrected Application Received:

Period of Annual Use: May 1 – September 30

Remarks:

Diversion Point: center SE 1/4 Sec 8-T95N-R52W

Land to be Irrigated: SE 1/4 Sec 8-T95N-R52W

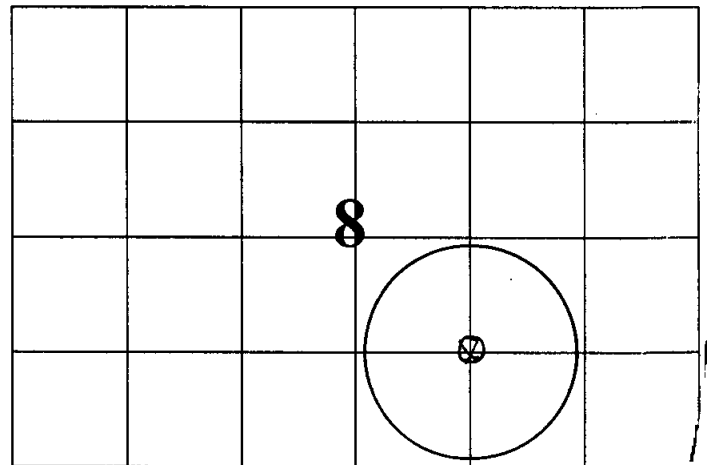
Depth of Well: 175 feet deep

Well Driller: Hammond Wetmore Drilling

Remarks:

Type of Map: aerial

Prepared by:



Reviewed and the Number Assigned on: 9-26-12

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)	
	No. <u>7441-3</u>	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion R.</u>	
	Newspaper <u>Plain Talk</u> <u>Press & Dakotan</u>	

RECEIVED
SEP 26 2012
WATER RIGHTS
PROGRAM

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.)

- Name of Applicant Gary E. or Julie A. Peterson Phone 605-563-2346
 (check one) ☒ Owner ☒ Tenant/lessee
 Mailing Address 45913 299th Street Centerville sd 57014
 (Address) (City) (State) (Zip Code)
- Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 160-140
 (*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Lower Vermillion-Missouri Aquifer
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County clay
1 well in center, se 1/4 section 8, T95N, R50W
52
- County or counties where water will be used Clay
- Annual period during which water is to be used May-September, annually
- List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
 (Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>SE 1/4 of the SE 1/4 Sec 8 95N 52W</u>	<u>35</u>		
<u>SW 1/4 of the SE 1/4 Sec 8 95N 52W</u>	<u>35</u>		
<u>NW 1/4 of the SE 1/4 Sec 8 95N 52W</u>	<u>35</u>		
<u>NE 1/4 of the SE 1/4 Sec 8 95N 52W</u>	<u>35</u>		

8. Give a description of the project. (Attach sheet if more space is needed)
crop irrigation from 1 irrigation well (approximately 175' deep) through center pivot on the above listed properties.

STATE OF SOUTH DAKOTA)

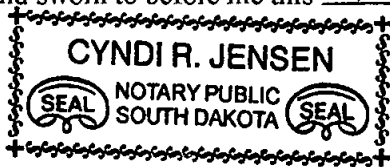
County of Clay) SS

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, Gary Peterson, 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 Gary Peterson

Subscribed and sworn to before me this 24th day of September 20 12



Cyndi R. Jensen
 Notary Public Signature
 My Commission Expires: 8/27/18

SOUTH DAKOTA
WATER PERMIT NO. 7441-3 FOR IRRIGATION

Date of first receipt of application September 26, 2012.

The Water Management Board approved Water Permit No. 7441-3 on March 6, 2014 for Jason R. Knutson, 45935 292nd St, Centerville SD 57014 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. 7441-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the South Management Unit of the Upper Vermillion Missouri Aquifer (approximately 175 feet deep) located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.
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: May 1 – September 30.
3. The date from which applicant may claim right is September 26, 2012.
4. One-fifth of the construction is to be completed on or before September 6, 2016.
5. All construction is to be completed on or before March 6, 2019.
6. Water is to be put to beneficial use on or before March 6, 2023.
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 well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7441-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

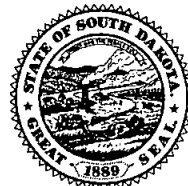
WATER MANAGEMENT BOARD

By: *Jeanne Goodman*

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

APR 11 2014

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 22" Depth 175
- b) Casing Type PVC Diameter 16" Thickness .75"
- c) Screen Type PVC Diameter 16" Thickness .75"
- d) Gravel Pack 1/8-3/8" gravel Length of Gravel Pack 70'
- e) Depth to Top of Water Bearing Material 85'
- f) Depth to Water (ground surface to water level) 65'
- g) Distance to nearest existing domestic well:

On applicant's property none

On property owned by others >3500'

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

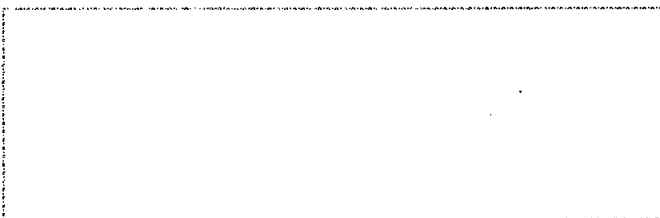
3. Dugout Information

- 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)

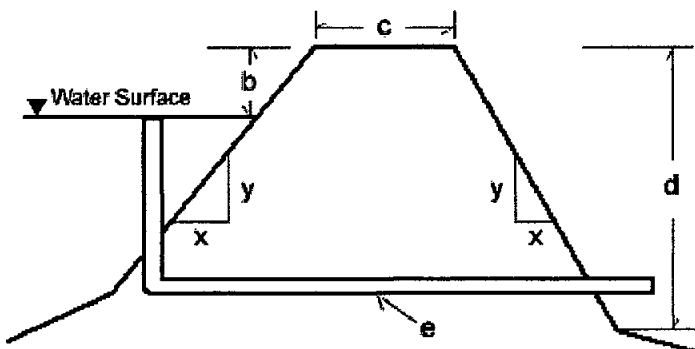
Upstream _____

Downstream _____

- h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



2011
Certification Maps

*Craig Olson
NRCS Tech*

4766

1453

166.65

NHEL



well



United States Department of Agriculture
Farm Service Agency

PLSS: 8_95N_52W
Farm: 4766

Clay County, SD

1:8,652

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January 10, 2011

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Common Land Units

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.

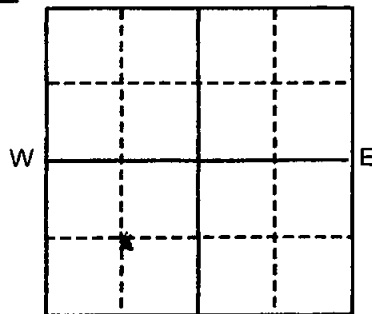
2008 Ortho-Photography - Not to Scale

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location se 1/4 sw 1/4 Sec 9 Twp 95n Rg 52wCounty clay

North

Please mark well
location with an "X"

Well Completion Date

July 27, 2011

 Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
2,900.0 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

direct rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	105.0 FT	22.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
bentonite	18	Lb/gal	0.0 Ft	95.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 16.00 Inches Length 60.0 Feet
Material pvcSlot Size .060 Set From 105.0 Feet to 165.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? hth pellets
☐ No, Why Not?
 Lab to which water
 quality sample sent for analysis
Well Owner: Roger Hansen

Business Name:

Address: PO box bCity, State, Zip: Centerville SD 57014

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Clay, yellow brown, pebbly (Till)	0	30
Clay, gray-brown, pebbly, (Till)	30	73
gravel, coarse to med grained	73	203

STATIC WATER LEVEL 55.0 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: air lift
☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

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SEP 26 2012

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This well was drilled under license # 600 and this report is true and accurate.Drilling firm: Hammond Wetmore Drilling, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: Sept 17, 2011

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

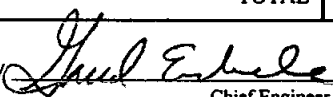
Date 9/26, 20 12

RECEIVED OF Gary Peterson 45913 299th St Centerville SD 57014

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

Fee for Application for Permit No. <u>7441-3</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>7441-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1050 00

No. **05587**

By 
Chief Engineer

Water Rights Program - File Documentation

NAME: Gary or Julie Peterson

ADDRESS: Centerville SD

DATE: 11-26-12 **COUNTY:** CL **TELEPHONE:**

COMMENTS:

Gary Peterson called to say that he and his wife were now the owners and not renters of the land covered on this application located in the SE 1/4 Section 8-T95N-R52W.

Karen Schlaak

Karen Schlaak
Water Rights Program

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JAN 18 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

PLAIN TALK

DENR
Division of Environmental Services
Air Quality Program
Joe Foss Building, 523 East Capitol
Pierre, SD 57501

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

TERA SCHMIDT BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT SHE IS THE CLASSIFIED MANAGER OF YANKTON
MEDIA INC., A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF THE
OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS
AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION FOR AIR QUALITY CONSTRUCTION PERMIT

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 4 DAY OF JANUARY 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$78.28 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 1/4/13

FILED ON: 1/4/13

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____ 2013

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

**NOTICE OF HEARING on Ap-
plication Nos. 7441-3 and 7442-3
to Appropriate Water**

Notice is given that Gary E or
Julie A Peterson, 45913 299th St,
Centerville SD 57014 have filed
the following applications for a
water permit.

Application No. 7441-3 pro-
poses to appropriate 1.78 cubic
feet of water per second (cfs)
from one well to be completed
into the Upper Vermillion Mis-
souri Aquifer (175 feet deep) lo-
cated in the center of the SE 1/4
Section 8 for irrigation of 140
acres located in the SE 1/4 Sec-
tion 8; all in T95N-R52W.

Application No. 7442-3 pro-
poses to irrigate 40 additional
acres. Water Right No. 5982-3
authorizes 1.64 cfs from one well
completed into the Upper Vermil-
lion Missouri Aquifer (165 feet
deep) located in the SE 1/4 NW
1/4 Section 17 to irrigate 115
acres located in the NW 1/4 Sec-
tion 17; all in T95N-R52W. The
application is proposing to irrigate
an additional 40 acres located in
the W 1/2 NE 1/4 Section
17-T95N-R52W from the existing
well. This application, if approved
does not authorize any increase in
the developed diversion rate.

Pursuant to SDCL 46-2A-2, the
Chief Engineer recommends DE-
FERRAL of Application Nos.
7441-3 and 7442-3 because at this
time it is not possible to conclude
that unappropriated water is avail-
able from the Upper Vermillion
Missouri aquifer to satisfy these
proposed appropriations. Signifi-
cant portions of the aquifer have
experienced long term downward
trending water levels. New appro-
priations from the aquifer should
be deferred until it can be deter-
mined if water levels in these ar-
eas will stabilize under steady
withdrawals. Pursuant to SDCL
46-2A-9, a permit to appropriate
water may only be approved if
there is a reasonable probability
that unappropriated water is avail-
able.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendations of the Chief Engineer and no petition to oppose the applications are received, the Chief Engineer shall act on the applications pursuant to the Chief Engineer's recommendations and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications presents important issues of public interest that should be heard by the Water Management Board.

The Water Management Board will consider these applications at 9:00 a.m. on March 7, 2013 in the Matthew Training Center, Joe Foss Bldg, 523 E. Capitol Ave. Pierre SD. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support the applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 25, 2013. The petition may be informal, but shall be in writing and shall 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. 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.

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 applications. The request for an automatic delay must be filed by February 25, 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.

Contact Eric Gronlund by February 25, 2013, at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 January 14, 2013. 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 pro-

2010

Legal and Public Notices

vides 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:02; 74:02:01:03; 74:02:01:35.01.

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

Published once at the total approximate cost of \$78.28.

Published: January 4, 2012

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JAN 11 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

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

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE **MANAGING EDITOR** OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Application Nos. 7441-3 and 7442-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 4th DAY OF January 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID **NOTICE** TO WIT **\$74.97** ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 1/4/2013

FILED ON: 1/4/2013

SUBSCRIBED AND SWORN TO BEFORE ME THIS 4th DAY OF January

2013

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

1-4

NOTICE OF HEARING on
Application Nos. 7441-3 and
7442-3 to Appropriate Water

Notice is given that Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 have filed the following applications for a water permit.

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Application No. 7442-3 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cfs from one well completed into the Upper Vermillion Missouri Aquifer (165 feet deep) located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends DEFERRAL of Application Nos. 7441-3 and 7442-3 because at this time it is not possible to conclude that unappropriated water is available from the Upper Vermillion Missouri aquifer to satisfy these proposed appropriations. Significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendations of the Chief Engineer and no petition to oppose the applications are received, the Chief Engineer shall act on the applications pursuant to the Chief Engineer's recommendations and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications presents important issues of public interest that should be heard by the Water Management Board.

The Water Management Board will consider these applications at 9:00 a.m. on March 7, 2013 in the Matthew Training Center, Joe Foss Bldg, 523 E. Capitol Ave. Pierre SD. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support the applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 25, 2013. The petition may be informal, but shall be in writing and shall 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. 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.

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 applications. The request for an automatic delay must be filed by February 25, 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.

Contact Eric Gronlund by February 25, 2013, at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 January 14, 2013. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at an approximate cost of \$74.97.



**DEPARTMENT of ENVIRONMENT
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PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 19, 2012

Plain Talk
201 W Cherry St
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7441-3 and 7442-3 to Appropriate Water. Please publish the notice once on January 4, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Gary E or Julie A Peterson, 45913 299th St., Centerville SD 57014 (Ph # 605-563-2346).

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

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

denr.sd.gov

December 19, 2012

Daily Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7441-3 and 7442-3 to Appropriate Water. Please publish the notice once on January 4, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Gary E or Julie A Peterson, 45913 299th St., Centerville SD 57014 (Ph # 605-563-2346).

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

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**DEPARTMENT of ENVIRONMENT
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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

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

December 19, 2012

Gary E or Julie A Peterson
45913 299th St
Centerville SD 57014

Dear Petersons:

Water Permit Application Nos. 7441-3 and 7442-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and the Daily Press & Dakotan printed at Yankton (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. The Chief Engineer's recommendation is for DEFERRAL and the notice schedules a hearing before the Water Management Board. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper – Publish the Notice on January 4, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF HEARING on Application Nos. 7441-3 and 7442-3 to Appropriate Water

Notice is given that Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 have filed the following applications for a water permit.

Application No. 7441-3 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri Aquifer (175 feet deep) located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cfs from one well completed into the Upper Vermillion Missouri Aquifer (165 feet deep) located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends DEFERRAL of Application Nos. 7441-3 and 7442-3 because at this time it is not possible to conclude that unappropriated water is available from the Upper Vermillion Missouri aquifer to satisfy these proposed appropriations. Significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendations of the Chief Engineer and no petition to oppose the applications are received, the Chief Engineer shall act on the applications pursuant to the Chief Engineer's recommendations and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications presents important issues of public interest that should be heard by the Water Management Board.

The Water Management Board will consider these applications at 9:00 a.m. on March 7, 2013 in the Matthew Training Center, Joe Foss Bldg, 523 E. Capitol Ave. Pierre SD. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support the applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 25, 2013. The petition may be informal, but shall be in writing and shall 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. 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.

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 applications.

The request for an automatic delay must be filed by February 25, 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.

Contact Eric Gronlund by February 25, 2013, at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 January 14, 2013. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at an approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
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PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

January 30, 2013

Gary Peterson
45913 299th Street
Centerville SD 57014

Dear Mr. Peterson:

As per our phone conversation, please find the following enclosures:

1. Summary of water use reporting for Water Right No. 5982-3
2. A composite map of eastern South Dakota and a blow-up from this map showing the line separating the Upper Vermillion Missouri Aquifer and Lower Vermillion Missouri Aquifer. The staff report on your applications also shows the boundary of the UVM Aquifer.

You also asked about the number of applications pending from the UVM Aquifer. There are currently 7 applications that have been public noticed for deferral and another 11 applications pending from the aquifer which I anticipate a deferral recommendation.

I hope this information is helpful.

Sincerely,

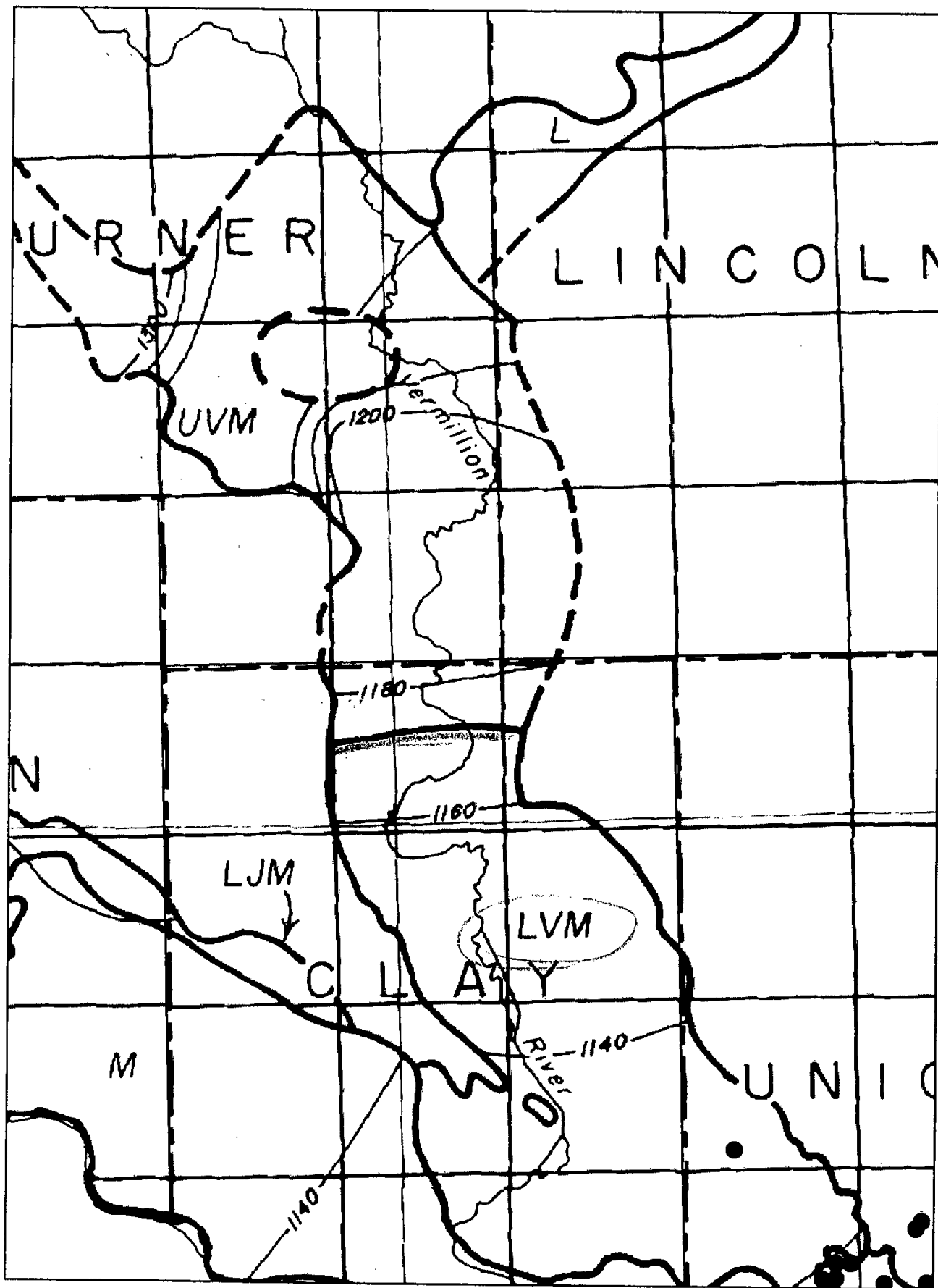
Eric Gronlund

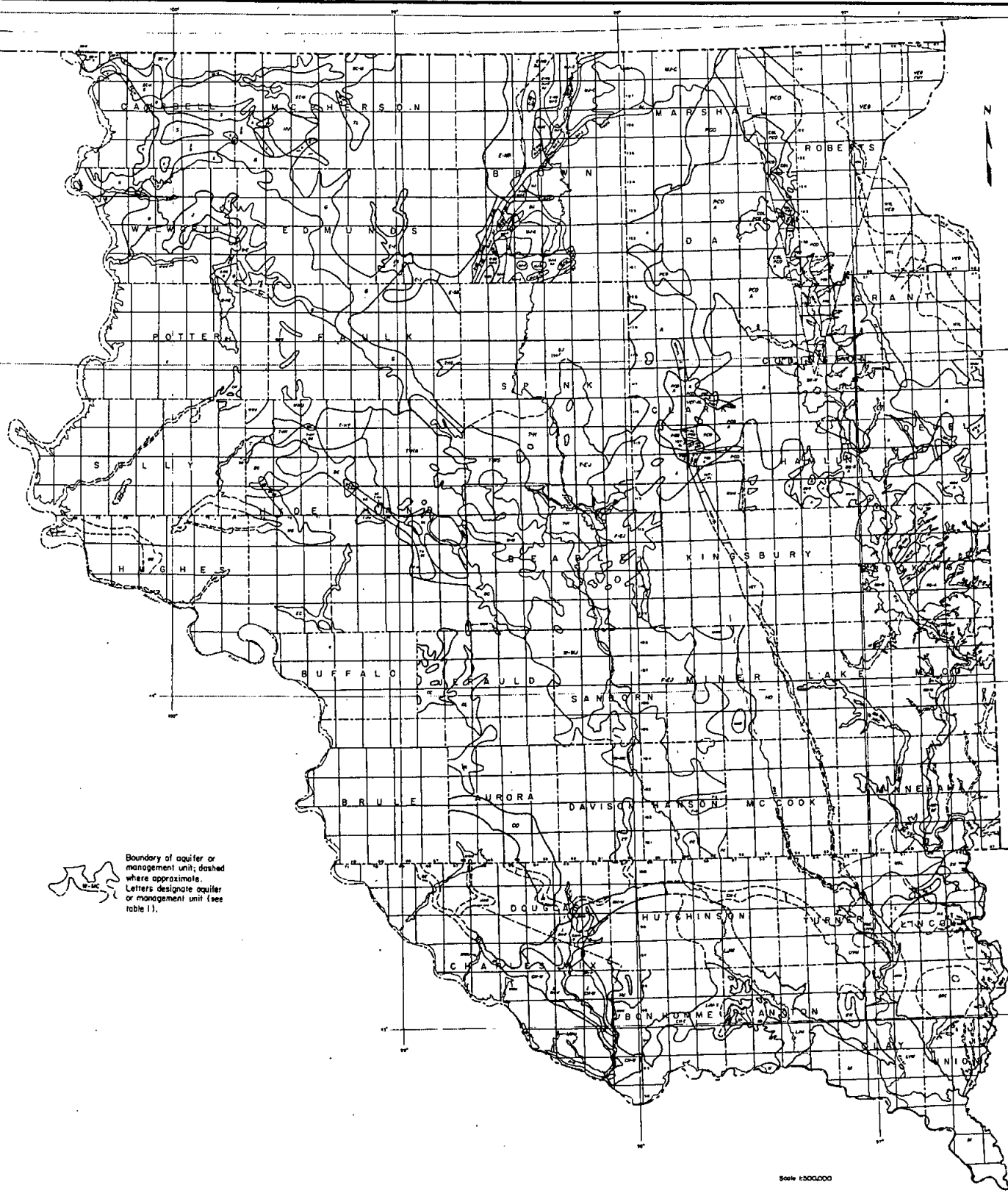
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures

SUMMARY OF IRRIGATION QUESTIONNAIRES
WATER RIGHT NO. 5982-3 – GARY PETERSON
1997-2012

Year	Authorized Annual Appropriation (Acre-Feet)	Acre Feet of Water Reported
1997	320	35.00
1998	320	19.49
1999	320	38.98
2000	320	48.72
2001	320	61.71
2002	320	51.97
2003	320	33.43
2004	230	50.75
2005	230	53.43
2006	230	43.85
2007	230	83.80
2008	230	34.11
2009	230	0
2010	230	0
2011	230	35.40
2012	230	151.04





Boundary of aquifer or management unit; dashed where approximate. Letters designate aquifer or management unit (see table 1).

PLATE 4 COMPOSITE AQUIFER MAP OF EASTERN SOUTH DAKOTA

Scale 1:500,000
Drafted by the South Dakota Geological Survey



**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. 7441-3, Gary E or Julie A Peterson**

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. 7441-3, Gary E or Julie A Peterson, 45913 299th Street, Centerville SD 57014.

The Chief Engineer is recommending DEFERRAL of Application No. 7441-3 because at this time it is not possible to conclude that unappropriated water is available from the Upper Vermilion Missouri aquifer to satisfy this proposed appropriation. Significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

See report on application for additional information.

Garland Erbele, Chief Engineer
December 18, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NOS. 7441-3 & 7442-3, GARY OR JULIE PETERSON
WATER PERMIT APPLICATION NO. 7452-3, JEROME HULT
WATER PERMIT APPLICATION NO. 7466-3, BETHEL HAGEN TRUST
WATER PERMIT APPLICATION NOS. 7467-3 & 7468-3, CLELAND HAGEN TRUST
WATER PERMIT APPLICATION NO. 7535-3, DONALD D BENSON
DECEMBER 11, 2012

Water Permit Application No. 7441-3 proposes to appropriate up to 280 acre-feet of per year (ac-ft/yr) at a maximum diversion rate of 1.79 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 175 feet deep and is to be located in the center of the SE¼ of Section 8, T95N-R52W. This application proposes to irrigate 140 acres located in the SE¼ of Section 8, T95N-R52W.

Water Permit Application No. 7442-3 proposes to appropriate up to 80 ac-ft/yr to irrigate 40 acres located in the W½ NE¼ Section 17, T95N-R52W using an existing well which is authorized by Water Right No. 5982-3. Water Right No. 5982-3 appropriates up to 320 ac-ft/yr at a maximum diversion rate of 2.28 cfs from one well 165 feet deep completed into the Upper Vermillion Missouri aquifer, located in the center of the NW¼ of Section 17, T95N-R52W. This application does not propose to increase the diversion rate authorized for this well.

Water Permit Application No. 7452-3 proposes to appropriate up to 220 ac-ft/yr at a maximum diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 190 feet deep and is to be located in the SW¼ NE¼ of Section 32, T98N-R52W. This application proposes to irrigate 110 acres located in the W ½ NE¼, SE¼ NE¼ of Section 32, T98N-R52W. This application is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Water Permit Application No. 7466-3 proposes to appropriate up to 304 ac-ft/yr at a maximum diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 169 feet deep and is to be located in the approximate center of the NE¼ of Section 5, T96N-R51W. This application proposes to irrigate 152 acres located in the NE¼ of Section 5, T96N-R51W.

Water Permit Application No. 7467-3 proposes to appropriate up to 304 ac-ft/yr at a maximum diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 134 feet deep and is to be located in the approximate center of the NW¼ of Section 13, T96N-R51W. This application proposes to irrigate 152 acres located in the NW¼ of Section 5, T97N-R52W.

Water Permit Application No. 7468-3 proposes to appropriate up to 304 ac-ft/yr at a maximum diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 134 feet deep and is to be located in the

approximate center of the NE¼ of Section 26, T96N-R51W. This application proposes to irrigate 152 acres located in the NE¼ of Section 5, T98N-R52W.

Water Permit Application No. 7535-3 proposes to appropriate up to 130 ac-ft/yr at a maximum diversion rate of 1.78 cfs from one well to be completed into the Upper Vermillion Missouri aquifer. The well is expected to be approximately 220 feet deep and is to be located in the SW¼ NW¼ of Section 30, T98N-R53W. This application proposes to irrigate 65 acres located in the NW¼ of Section 30, T98N-R53W. This application is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

AQUIFER: Upper Vermillion Missouri aquifer (UVM)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Upper Vermillion Missouri aquifer is a buried glacial outwash deposit that consists of fine sand to medium-pebble gravel. The aquifer underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties (see Figure 1). The Upper Vermillion Missouri aquifer blends into the Lower Vermillion Missouri aquifer in northern Clay County. The average thickness of the outwash is estimated to be 68 feet in Turner County (Lindgren and Hansen, 1990) and is estimated to be 100-150 feet thick in the areas proposed by these applications (Stephens, 1967). The aquifer contains an estimated 1.8 million acre feet (ac-ft) of water in storage in Turner and Hutchinson Counties (Lindgren and Hansen, 1990) and an estimated 317,180 ac-ft of recoverable water in storage in Clay and Lincoln Counties (Hedges and others, 1982). The aquifer is primarily under confined conditions although unconfined conditions do occur over a small area where the outwash is at or near ground surface in T96N-R52W at the Clay-Turner County line (Lindgren and Hansen, 1990). Groundwater movement in the aquifer is to the south-southeast at a gradient that Lindgren and Hansen (1990) estimated at approximately four feet per mile (ft/mi). However, based on DENR-Water Rights' observation wells the gradient was 4.3- 4.6 ft/mi in May 2012 (Water Rights, 2012a). The outwash generally overlies the Carlile Shale although Sioux quartzite directly underlies the aquifer in northern portion of the aquifer (Lindgren and Hansen, 1990). The Upper Vermillion Missouri aquifer overlies the Niobrara Formation in western Turner County. The aquifer is generally buried by glacial till; however, in places it is overlain by and is hydraulically connected to the surficial Parker Centerville aquifer.

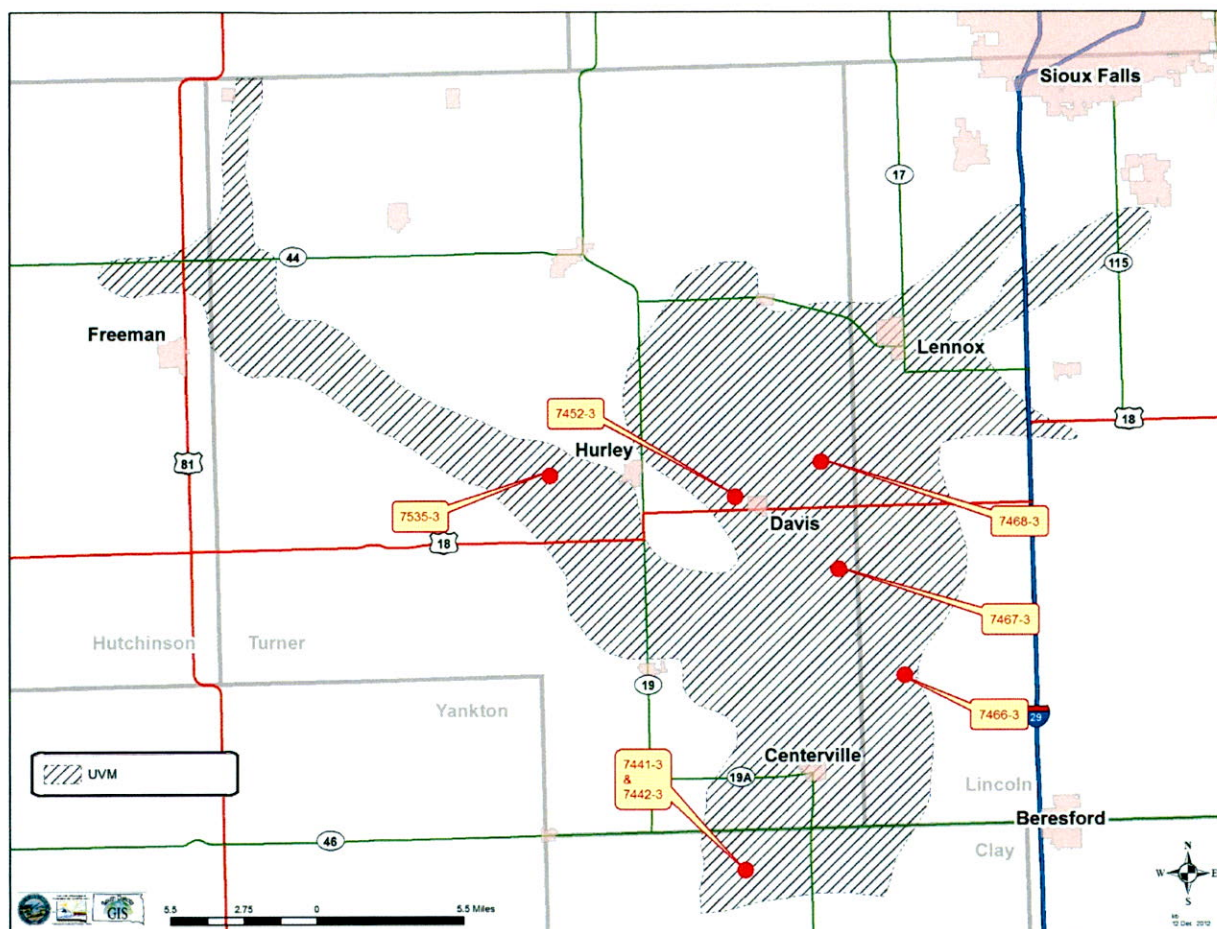


Figure 1. Areal extent of the Upper Vermillion aquifer modified from (Lindgren and Hansen, 1990; Hedges and others, 1982; and Niehus, 1994), and the locations of well sites proposed by Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3 and 7535-3.

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 from the Upper Vermillion Missouri aquifer.

WATER AVAILABILITY:

Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3, and 7535-3 proposes to appropriate up to 1,622 acre-feet annually from the Upper Vermillion Missouri aquifer. The actual water use if these applications are approved will likely be less than the appropriations. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is

probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.”

Recharge versus Discharge:

Recharge:

Recharge to the Upper Vermillion Missouri aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer.

Previous Estimates:

Hedges and others (1985) estimated a recharge rate to the Upper Vermillion Missouri aquifer of 0.25 inches per year calculated from regional flow net analysis. However, Hedges and others (1985) noted:

“It should be noted that recharge rates calculated using flow-net analysis are suspect and conclusions based on this method are questionable”

Given a recharge rate of 0.25 inches per year, average annual recharge to the Upper Vermillion Missouri aquifer is 4,267 ac-ft/yr.

2012 Flow net analysis

The recharge potential of the Upper Vermillion Missouri aquifer was evaluated by interpreting a regional flow net analysis based on the May 2012 water level data from the DENR-Water Rights’ Observation Well Network. A flow net analysis is a calculation of the amount of water flowing through the aquifer according to the equation:

$$Q = TIL$$

Where:

Q= flow in gallons per day

T= Transmissivity in gallons per day per foot

I= Hydraulic gradient in feet per mile

L= Cross sectional length in miles

The average transmissivity for the Upper Vermillion Missouri aquifer was estimated based on the transmissivity calculated from the specific capacities of irrigation wells completed into the aquifer where the data to allow these calculations was available (Water Rights, 2012b; Water Rights, 2012c) (“Transmissivity from Specific Capacity”). These transmissivity values are shown in Table 1.

Permit No.	Type	Drawdown (ft)	Yield (gpm)	Specific Capacity (gpm/ft)	Transmissivity (g/d/ft)
1930-3	A	15	1200	80.0	160000
3784-3	A	92	900	9.8	19600
3901-3	A	9	1000	111.1	222200
4265-3	A	25	900	36.0	72000
4560-3	A	83	800	9.6	19200
5259-3	A	6	1400	233.3	466600
5352-3	WT	20	2100	105.0	157500
5371-3	A	45	860	19.1	38200
5425-3	A	22	1100	50.0	100000
5632-3	A	24	800	33.3	66600
5886-3	A	9	800	88.9	177800
5899-3	A	25	800	32.0	106600
5982-3	A	27	800	29.6	92400
6054-3	A	25	900	36.0	72000
6301-3	A	16	1100	68.8	137600
6810-3	A	6	750	125.0	250000
6868-3	A	10	900	90.0	180000
6922-3	A	11	810	73.6	147200
6968-3	A	11	840	76.4	152800
6984-3	A	7	1200	171.4	342800
7002-3	WT	10.5	720	68.6	102900
7128-3	A	15	750	50.0	100000
<i>Min</i>		6	720	9.64	19200
<i>Max</i>		92	2100	233.33	466600
<i>Average</i>		23	974	72.62	144727

Table 1. Irrigation well data from the Upper Vermillion Missouri aquifer

The hydraulic gradient for the Upper Vermillion Missouri aquifer was estimated to average 4.5 feet per mile based on data from the DENR-Water Rights' Observation Well Network (Water Rights, 2012c).

The cross section length of the Upper Vermillion Missouri aquifer was determined to be approximately eight miles based on the current aquifer delineation.

The amount of water moving through the Upper Vermillion Missouri aquifer is estimated as follows:

$$\begin{aligned}
 Q &= ((144,727 \text{ gpd/ft}) \times (4.5 \text{ ft/mile}) \times (8 \text{ miles})) / (325,851 \text{ gallons/ac-ft}) \\
 &= 15.99 \text{ ac-ft/day} \\
 &= \underline{5,836 \text{ ac-ft/yr}}
 \end{aligned}$$

In order to sustain this estimated volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on an area of the aquifer of 204,832 acres would be 0.34 inches. This recharge rate cannot be considered "average annual recharge" since it used only 2012 data; however the estimate does agree with the average annual recharge estimate from Hedges and others (1985).

The recharge rates estimated for the Upper Vermillion Missouri aquifer should be considered reflective of "existing conditions". Lindgren and Hansen (1990) identified that approximately the southern 19.5 miles of the western boundary of the Upper Vermillion Missouri aquifer in

Turner County is hydraulically connected to and receives recharge from the Niobrara aquifer. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the Upper Vermillion Missouri aquifer.

Discharge:

Discharge for the Upper Vermillion Missouri aquifer occurs through groundwater outflow to the Lower Vermillion Missouri aquifer and by well withdrawals. There are a number of completion reports on file with the DENR-Water Rights Program for domestic use wells that appear to be completed into the Upper Vermillion Missouri aquifer (Water Rights, 2012b); however withdrawals from domestic users are not expected to be significant. There are currently 100 water rights/permits appropriating water from the Upper Vermillion Missouri aquifer. Appropriations authorize municipal, commercial, rural water system and irrigation uses.

Municipal use:

Municipal use appropriations include water rights for: 1) the City of Viborg, 2) the City of Centerville, and 3) the Town of Davis. At this time, Viborg and Davis are supplied completely by TM Rural Water System (Friedeman). The City of Centerville receives 70% of its 64,000 gallons per day average from Lewis and Clark Rural Water System and 30% from the Upper Vermillion Missouri aquifer (Kittay) Therefore the average municipal water use from the Upper Vermillion Missouri aquifer is 21.5 ac-ft/yr.

Commercial use:

There are two water rights appropriating water from the aquifer for commercial use. Water Right No. 6662-3, Vannorsdel's Inc., appropriates water for a concentrated animal feeding operation permitted for 1,800 head of beef cattle (Roth). Assuming an average use of 18 gallons per animal unit per day, the average water use by the permit is estimated to be 36 ac-ft/yr. Water Right No. 5833-3, Advanced Prescription Fertilizer Inc, appropriates water for a fertilizer plant. The average annual use through this appropriation is estimated to be under 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr) (Nelson). Estimated average annual use for commercial use from the Upper Vermillion Missouri aquifer therefore is 40 ac-ft/yr.

Rural Water System Use:

Two rural water systems are supplied by the Upper Vermillion Missouri aquifer: TM Rural Water System and South Lincoln Rural Water System. The water use of the rural water systems as reported to the DENR-Water Rights Program is shown in Table 2.

	TM Rural Water District	South Lincoln RWS
2011	1146	1108
2010	1184	1095
2009	950	987
2008	776	779
2007	2	607
2006	3	599
2005	1	611
2004	12	583
2003	17	354

Table 2. Reported water use in acre-feet per year from TM RWS and South Lincoln RWS (Water Rights 2003-2012)

Irrigation Use:

The majority of the water pumped from the Upper Vermillion Missouri aquifer is for irrigation use. The irrigation water use from the aquifer as reported to the DENR-Water Rights Program is shown in Table 3.

YEAR	NO. OF PERMITS	APPROPRIATION (ac-ft/yr)	PUMPAGE REPORTED (ac-ft/yr)
1979	56	28081.0	3247
1980	54	28081.0	5082
1981	61	30455.0	4159
1982	52	25589.6	3778.57
1983	51	25025.6	2983.12
1984	59	29867.6	2791.00
1985	57	28643.6	2479.00
1986	57	28067.6	3544.00
1987	55	26561.6	3781.00
1988	54	26072.6	6753.10
1989	55	26492.6	5758.60
1990	61	27977.6	6626.20
1991	59	27469.0	6220.00
1992	61	27723.0	1793.20
1993	58	25021.0	534.50
1994	55	23792.0	4313.79
1995	55	23792.0	4484.34
1996	59	24403.6	4672.19
1997	59	24642.6	5408.00
1998	62	24842.6	5343.85
1999	62	25062.6	5056.06
2000	62	25938.6	6181.55
2001	62	25938.6	6195.66
2002	64	26498.6	7169.69
2003	64	26195.6	5930.90
2004	62	25747.6	7414.06
2005	61	25369.6	6856.39
2006	64	26071.6	7906.32
2007	69	27293.6	6983.20
2008	76	28890.2	7467.98
2009	77	28856.9	3878.92
2010	79	29280.9	150.49
2011	79	29280.9	5615.12
Max	79	30455	7906.32
Min	31	23792	150.49
Average	60	26758	4865.42

Table 3. Irrigation from the Upper Vermillion Missouri aquifer (Water Rights, 1980-2012)

Future Use Permits:

A future use permit is a reservation of water and does not authorize withdrawals. However, in theory future use permits can be completely developed. Future use permits reserving water from the Upper Vermillion Missouri aquifer are shown in table 4.

Future Use Permit No.	Name	Amount of water remaining reserved
5358-3	TM Rural Water District	530 ac-ft/yr
6705-3	TM Rural Water District	210 ac-ft/yr

Table 4. Future Use Permits from the Upper Vermillion Missouri aquifer (Water Rights, 2012c)

Recharge versus Discharge Summary:

The total of well withdrawals from the Upper Vermillion Missouri aquifer plus the amount of water that can be developed from future use permits is estimated to be approximately 7,900 acre-feet per year assuming average municipal, commercial, and irrigation use; 2,250 ac-ft/yr rural water system use; and 740 ac-ft/yr from future use permits. The estimated average annual recharge currently is estimated to be approximately 5,836 ac-ft/yr. Therefore the current estimated average annual withdrawal from the Upper Vermillion Missouri aquifer appears to exceed the estimated average annual recharge to the aquifer.

As stated earlier, the recharge rates estimated for the Upper Vermillion Missouri aquifer should be considered reflective of “existing conditions”. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the Upper Vermillion Missouri aquifer.

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 to the aquifer”.

The DENR-Water Rights Program monitors 29 observation wells completed into the Upper Vermillion Missouri aquifer. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. The aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years.

Hydrographs for two observation wells completed into the Upper Vermillion Missouri aquifer are shown in Figures 2 and 3.

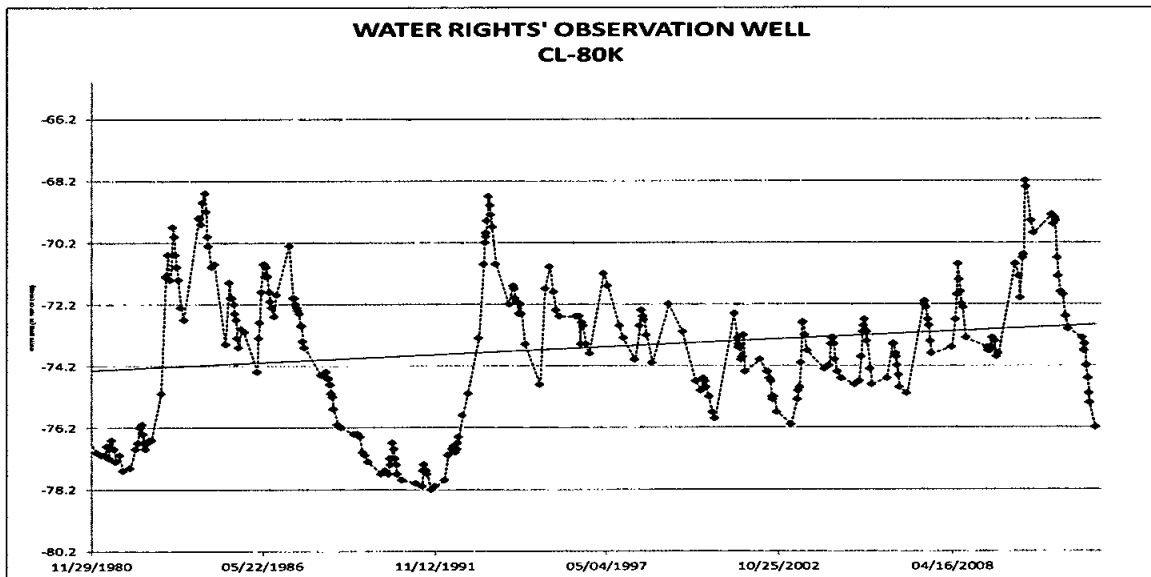


Figure 2. Hydrograph with an upward trending linear trend line for an observation well completed into the Upper Vermillion Missouri aquifer

The hydrograph for CL-80K documents that in the area of the observation well, there is currently more water in storage in the aquifer than when the well was completed and the linear trend line for the data shows a positive slope, indicating that in general, recharge has exceeded discharge in this area over the period of record.

Other observation wells completed into the Upper Vermillion Missouri aquifer document downward trending water levels, such as the hydrograph for TU-77F (see figure 3).

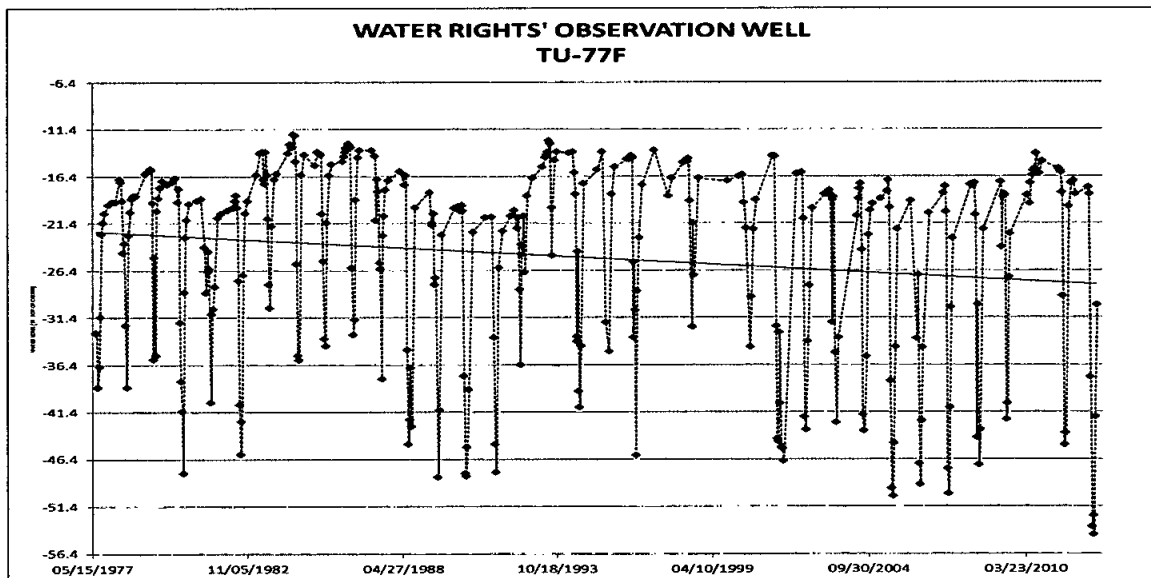


Figure 3. Hydrograph with a downward trending linear trend line for an observation well completed into the Upper Vermillion Missouri aquifer

The slope of the linear trend lines for observation wells completed into the Upper Vermillion Missouri aquifer are shown in Table 5.

OBSERVATION WELL	SLOPE (FT/YR)
CL-80K	0.0365
HT-81A	1.2045
LN-78B	0.073
LN-78E	0.073
MC-83G	-0.219
MC-83JR	-0.292
TU-77B	-0.1095
TU-77D	-0.00183
TU-77F	-0.146
TU-77G	-0.1095
TU-77H	-0.01825
TU-77I	-0.073
TU-77L	0.073
TU-77M	0.073
TU-77P	-0.146
TU-77S	0.3285
TU-77T	0.073
TU-77U	-0.146
TU-77V	0.1095
TU-77W	-0.073
TU-77X	0.1095
TU-77Y	-0.00183
TU-77Z	0.2555
TU-78B	0.0365
TU-80H	0.073
TU-80I	0.03285
TU-82A	-0.657
TU-83A	-0.292
TU-90A	-0.949

Table 5. Slope of the linear trend lines of observation wells completed into the Upper Vermillion Missouri aquifer

From Table 5 it can be seen that the slope of the trend lines for 15 of the 29 observation wells completed into the Upper Vermillion aquifer is negative (i.e. downward sloping). The observation wells with downward trending water levels are concentrated in two areas: an area in the north-central portion of the aquifer and an area in the northwest portion of the aquifer (see Figure 4). The first area is in the vicinity of South Lincoln Rural Water System wells and the second area is in the vicinity of TM Rural Water District wells.

The water use from the two areas of declining water levels has steadily increased (see Table 2). At this time, data is not available to determine if the water levels in these areas will stabilize under steady rural water system withdrawals.

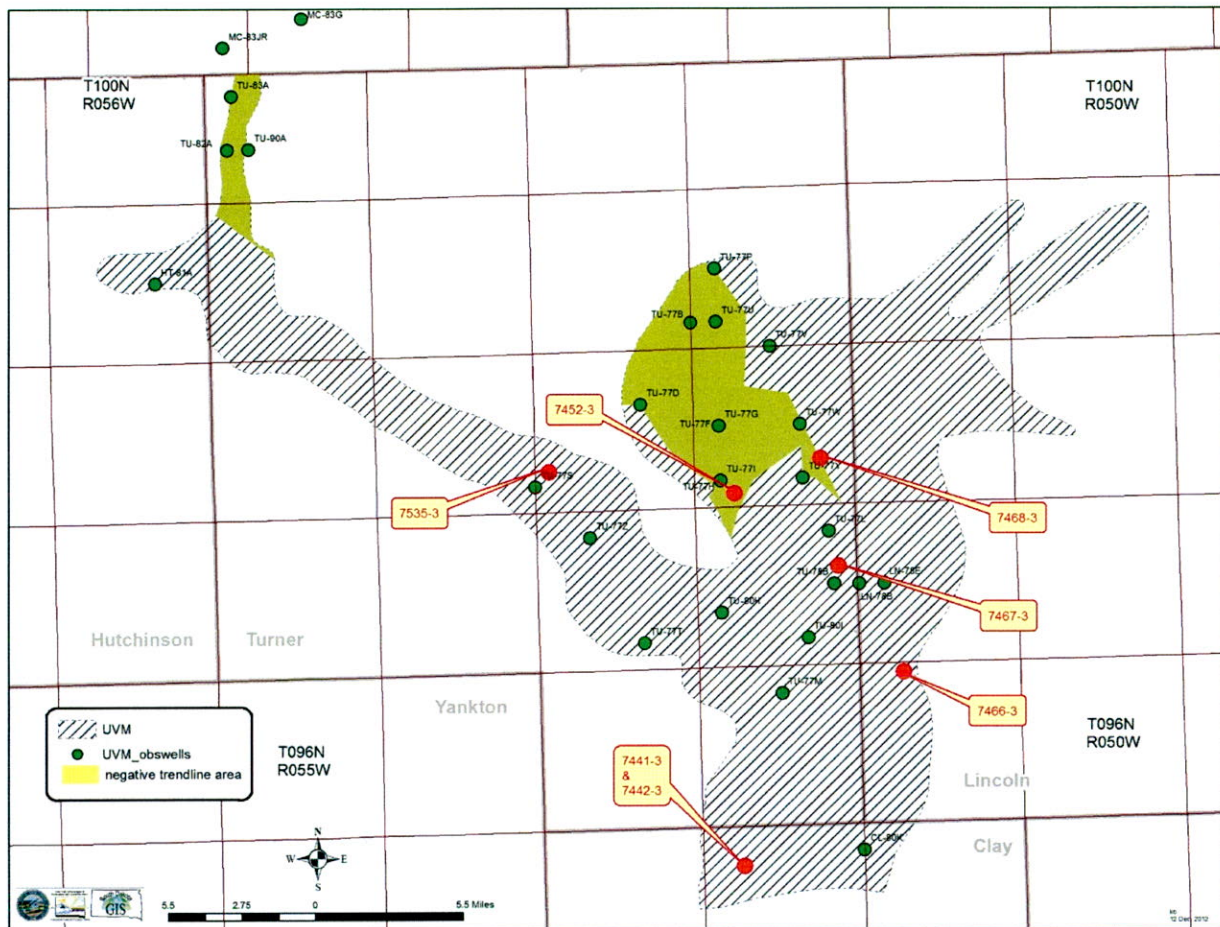


Figure 4. Upper Vermillion Missouri aquifer, locations of the applications discussed in this report, location of DENR-Water Rights' observation wells completed into the Upper Vermillion Missouri aquifer and the areas where water levels trend downward

CONCLUSIONS:

1. Water Permit Application No. 7441-3 proposes to appropriate up to 280 acre-feet per year from the Upper Vermillion Missouri aquifer.
2. Water Permit Application No. 7442-3 proposes to appropriate up to 80 acre-feet per year from the Upper Vermillion Missouri aquifer.
3. Water Permit Application No. 7452-3 proposes to appropriate up to 220 acre-feet per year from the Upper Vermillion Missouri aquifer.
4. Water Permit Application No. 7466-3 proposes to appropriate up to 304 acre-feet per year from the Upper Vermillion Missouri aquifer.
5. Water Permit Application No. 7467-3 proposes to appropriate up to 304 acre-feet per year from the Upper Vermillion Missouri aquifer.
6. Water Permit Application No. 7468-3 proposes to appropriate up to 220 acre-feet per year from the Upper Vermillion Missouri aquifer.
7. Water Permit Application No. 7535-3 proposes to appropriate up to 130 acre-feet per year from the Upper Vermillion Missouri aquifer.

8. The Upper Vermillion Missouri aquifer is a buried glacial outwash that underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties.
9. Recharge to Upper Vermillion Missouri aquifer is through infiltration of precipitation, inflow from the Sioux Quartzite, and leakage from the Niobrara aquifer.
10. The average annual recharge to the Upper Vermillion Missouri aquifer has been estimated to be 0.25 inches per year (4,267 ac-ft/yr).
11. A recharge rate based on a regional flow net analysis of 2012 observation well data was estimated to be approximately 5,836 ac-ft/yr.
12. Average annual discharge from the Upper Vermillion Missouri aquifer is estimated to be approximately 7,260 ac-ft/yr.
13. Future use permits reserve 740 ac-ft/yr from the Upper Vermillion Missouri aquifer which in theory can be fully developed.
14. Anticipated average annual withdrawal under current appropriations is expected to exceed average annual recharge estimates.
15. Since a source of recharge to the Upper Vermillion Missouri aquifer is leakage from the Niobrara aquifer, increased withdrawal from the Upper Vermillion Missouri aquifer will induce additional recharge from the Niobrara aquifer.
16. The amount of recharge that can be induced from the Niobrara aquifer has not been quantified.
17. Data from DENR-Water Rights Program observation wells documents downward trending water levels in 15 of the 29 observation wells completed into the Upper Vermillion Missouri aquifer.
18. Downward trending observation wells are currently concentrated in two areas corresponding to areas of TM Rural Water System pumping and South Lincoln Rural Water System pumping.
19. At this time, data is not available to determine if the water levels in these areas will stabilize under steady withdrawals.



Ken Buhler
DENR-Water Rights Program

REFERENCES:

Friedeman, Barbara. "RE: municipal or rural water system". E-mail to Ken Buhler. 27 Nov.2012

Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185

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- Kittay, Robert. Environmental Scientist III, SD DENR-Drinking Water Office. Personal interview. 26 Nov. 2012
- Lindgren, R.J., Hansen, D.S., 1990, Water Resources of Hutchinson and Turner Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 90-4093, 100 p.
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- Water Rights, 2012b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2012c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 11, 2013

NOTICE

TO: Dr Bruce Hagen Nos. 7466-3 Jerome Hult No. 7452-3
38736 Nasturtium Way 7467-3 45958 Hwy 18
Palm Desert, CA 92211 7468-3 Davis SD 57021

Donald D Benson No. 7535-3 Gary and Julie Peterson Nos. 7441-3
45067 284th Street 7442-3
Hurley SD 57036 Centerville SD 57014

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Change of Hearing Date and Time for Water Permit Applications from the Upper
Vermillion:Missouri Aquifer

The hearing on water permit applications proposing to appropriate water from the Upper Vermillion: Missouri Aquifer were public noticed for 9:00 AM, March 7, 2013. Since the time of public notice in January, there have been additional applications filed to irrigate from this aquifer. In order to provide time to consider all the applications from this aquifer at the same time, the hearing date and time is being changed to the afternoon of Wednesday, March 6, 2013. The Water Management Board's agenda will be dedicated solely that afternoon to consideration of the pending applications from the Upper Vermillion:Missouri Aquifer.

The Water Management Board will consider Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3 and 7535-3 at 1:00 PM, Wednesday, March 6, 2013 meeting in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre SD.

Applicable provisions of the notice for each application published in area newspapers still apply at this hearing. This hearing is an adversarial proceeding. Parties have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

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 these applications: 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:24.01.

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

c: Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on February 11, 2012, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated February 11, 2013, regarding scheduling of hearing on Water Right Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3 and 7535-3, as addressed below:

Dr Bruce Hagen
38736 Nasturtium Way
Palm Desert, CA 92211.

Gary and Julie Peterson
45913 299th Street
Centerville SD 57014

Donald D Benson
45067 284th Street
Hurley SD 57036

Jerome Hult
45958 Hwy 18
Davis SD 57021

Diane Best, Assistant Attorney General
300 N. Dakota Avenue, Suite 403
Sioux Falls SD 57104



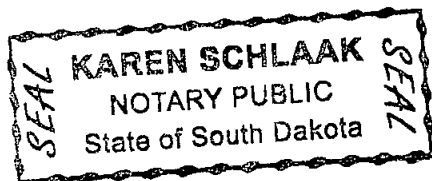
Gail Jacobson
Water Rights Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 19th day of February, 2012.



Karen Schlaak
Notary Public
My Commission expires April 1, 2013



PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

RECEIVED

FEB 25 2013

WATER RIGHTS
PROGRAM

February 21, 2013

Dept. of Environment & Natural Resources
PMB 2020 – Joe Foss Building
523 East Capitol
Pierre, SD 57501

Re: Water Permit Applications Nos. 7441-3 & 7442.3, Gary or Julie Peterson

To Whom It May Concern:

Enclosed please find an original Notice of Appearance with regard to the above-referenced matter. This is intended as service by mail upon you. Thank you.

With best regards, I am

Yours very truly,



A. Jason Rumpca
jason.petersonstuart@gmail.com

AJR:jao

Enclosure

cc: Gary & Julie Peterson

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

103 N. 3rd St. • Beresford, SD 57004
Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

FEB 25 2013

WATER RIGHTS
PROGRAM

**IN THE MATTER OF THE
WATER PERMIT APPLICATIONS
FROM THE UPPER VERMILLION: MISSOURI AQUIFER
WATER PERMIT APPLICATION NOS. 7441-3 & 7442-3,
GARY OR JULIE PETERSON**

NOTICE OF APPEARANCE

The law firm of Peterson, Stuart, Rumpca & Rasmussen, Prof. LLC, hereby gives notice of its appearance in the above-described proceeding as counsel for Gary and Julie Peterson. All further documents, notices, pleadings, orders and other papers required or permitted by applicable law to be served upon Gary or Julie Peterson should be served upon the undersigned.

Dated at Beresford, South Dakota, this 21st day of February, 2013.

PETERSON, STUART, RUMPCA
& RASMUSSEN, PROF. L.L.C.

By: 

A. Jason Rumpca
103 N. 3rd Street
Beresford, SD 57004
Phone: (605)763-5024
Fax: (605)763-8034
jason.petersonstuart@gmail.com
Attorneys for Applicants,
Gary and Julie Peterson

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the Notice of Appearance in the above-entitled matter was served upon:

Dept. of Environment & Natural Resources
PMB 2020 – Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

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

by regular US mail, postage prepaid, on this 21st day of February, 2013.

PETERSON, STUART, RUMPCA
& RASMUSSEN, PROF. L.L.C.

By: 

A. Jason Rumpca
Attorneys for Applicants,
Gary and Julie Peterson

RECEIVED

FEB 27 2013

WATER RIGHTS
PROGRAM

February 25, 2013

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

PETITION IN OPPOSITION TO APPLICATIONS TO APPROPRIATE WATER

Re: WATER PERMIT APPLICATIONS NOS.

7441-3 & 7442-3, Gary or Julie Peterson
7452-3, Jerome Hult
7466-3, Bethel Hagen Trust
7467-3 & 7468-3, Cleland Hagen Trust
7535-3, Donald D. Bensen

Greetings:

We each own real property located at Swan Lake. Swan Lake is located squarely within the Upper Vermillion Missouri aquifer. As residents of Swan Lake, we have observed downward trending water levels at the lake that mirror the downward trending water levels from the observation wells discussed in the Report to the Chief Engineer.

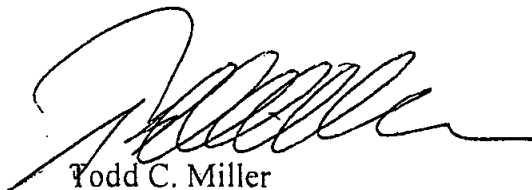
We support of the Chief Engineer's Recommendation that each of the above listed applications be deferred pending further research. Based on existing information, there does not appear to be unappropriated water available to fill these applications. The Chief Engineer's Recommendation wisely indicates a need for further study of the effects of the rural water system withdrawals on the aquifer. We believe additional research must be completed to ensure that the requirements of SDCL §§ 46-2A-9 and 46-6-3.1 are met and to protect all of the South Dakotans served by the Upper Vermillion Missouri aquifer.

Our addresses and contact information follow our signatures below. The Applicants and/or their counsel of record will be served by copy of this Petition. Thank you.

Sincerely,



Carey A. Miller
Woods Fuller Shultz & Smith P.C.
300 S. Phillips Ave., Suite 300
Sioux Falls, SD 57104



Todd C. Miller
Attorney at Law
141 N. Main Ave., Suite 504
Sioux Falls, SD 57104

**SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
WATER MANAGEMENT BOARD**

RECEIVED

FEB 27 2013

**WATER RIGHTS
PROGRAM**

In re: Application Nos. 7441-3 and 7442-3 (Gary or Julie Peterson)
Application No. 7452-3 (Jerome Hult)
Application No. 7466-3 (Bethel Hagen Trust)
Application No. 7535-3 (Donald D. Benson)
Application Nos. 7467-3, 7468-3 and 7558-3 (Cleland Hagen Trust)

I hereby certify that on the 25th day of February, 2013, I sent by United States first-class mail, postage prepaid, a true and correct copy of a Petition in Opposition to Applications to Appropriate Water to the following:

Mr. Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen
103 North 3rd Street
Beresford, SD 57004
Attorneys for Gary and Julie Peterson

Jerome Hult
45958 Hwy 18
Davis, SD 57021

Bethel Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Cleland Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Donald D. Benson
45067 284th Street
Hurley, SD 57036

Mr. Garland Erbele, Chief Engineer
Water Rights Program
Foss Building
523 East Capitol
Pierre, SD 57501

Dated this 25th day of February, 2013.

WOODS, FULLER, SHULTZ & SMITH P.C.

By Carey A. Miller
Carey A. Miller
300 South Phillips Avenue, Suite 300
Post Office Box 5027
Sioux Falls, South Dakota 57117-5027
(605) 336-3890

0-0

0-0

Dated this 4th day of March, 2013.

By:

{01350196.1}

CERTIFICATE OF SERVICE

I hereby certify that on the 4th day of March, 2013, I caused to be served by United States first-class mail, postage prepaid, and by email a true and correct copy of the foregoing Notice of Appearance upon the following:

Mr. Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen
103 North 3rd Street
Beresford, SD 57004
Attorneys for Gary and Julie Peterson

Jerome Hult
45958 Hwy 18
Davis, SD 57021

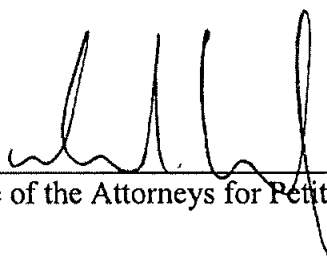
Bethel Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Cleland Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Donald D. Benson
45067 284th Street
Hurley, SD 57036

Mr. Garland Erbele, Chief Engineer
Water Rights Program
Foss Building
523 East Capitol
Pierre, SD 57501

Ms. Diane Best
Office of the Attorney General
1302 E Hwy 14, Suite 1
Pierre SD 57501-8501



One of the Attorneys for Petitioners in Opposition

MICHAEL E. McCANN
RICK A. RIBSTEIN
DONALD M. McCARTY
TIM HOGAN
JENNIFER GOLDAMMER
W.R. McCANN
(1909-2000)

McCANN,
RIBSTEIN &
McCARTY, P.C.

ATTORNEYS AT LAW

STACY L. NESS
PARALEGAL
JENNA K. MILLER
PARALEGAL

South Dakota Water Management Board
SD DENR
Joe Foss Building
523 E. Capitol
Pierre, SD 57501

March 7, 2013

Re: Water Permit Applications for Upper Vermillion Missouri Aquifer.

Please consider the enclosed as a brief closing argument or statement of concern on behalf of Todd Miller and Carrie Miller.

Todd Miller and Carey Miller each own land adjoining Swan Lake, South Dakota. Swan Lake sits directly on top of the Upper Vermillion Missouri Aquifer. Swan Lake is fed directly through a diversion from Turkey Creek. The Turkey Creek watershed generally follows a path to the northwest, again directly on top of the Upper Vermillion Missouri Aquifer. In addition, it is widely believed that the lake is also supported by natural springs from underground aquifers.

Swan Lake is a swallow prairie lake. The lake has several public access points including a public beach, two public fishing areas and a public access boat ramp. Because the lake is shallow any substantial drop in water level will have a dramatic effect on the lake. There are no water studies that would indicate what impact water levels in the Upper Vermillion Missouri Aquifer have on water levels at Swan Lake, South Dakota. However, given the proximity of the lake to the aquifer it is realistic to be concerned about a substantial increase in the potential use of the aquifer and what impact that increased withdraw will have on the lake.

Up to 2011 South Dakota had issued a total 79 permits for the Upper Vermillion Missouri Aquifer. Those 79 permits used approximately 70% of all water pulled from the aquifer. In late 2012, an additional 17 applications were submitted for irrigation wells. The DENR completed a study and recommended that the applications be deferred for further analysis. None of the

317 SIXTH AVENUE • P.O. BOX 78 • BROOKINGS, S.D. 57006-0078 • TEL: 605.692.6163 • FAX: 605.692.9214 • E-MAIL: BROOKINGSLAW@BROOKINGS.NET

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WILLS/TRUSTS • SOCIAL SECURITY DISABILITY • INCOME TAX • CRIMINAL LAW • BUSINESS/REAL ESTATE

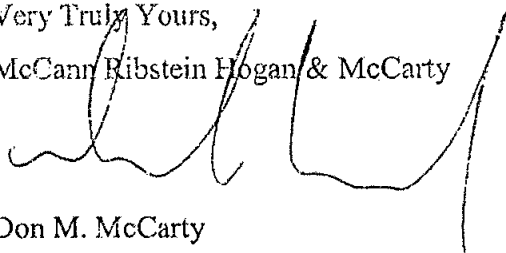
applicants provided a study that would contradict the information or numbers submitted by DENR.

Based on South Dakota law, when considering an irrigation well application for a particular aquifer you are required to compare the annual withdrawal and annual recharge for the aquifer to determine if adequate water exists for purposes of granting the requested permit. A study was done by DENR based on the most current data. The study shows that annual discharge rates exceed annual recharge rates. This deficit is based on the current 79 permits and does not take into account the additional 17 permits currently under consideration. Given that 70% of the discharge comes from the 79 permits currently in use, and that use currently exceeds the recharge rate, it should be expected that an additional 17 wells will impact the aquifer. Based on these simple numbers it would seem that additional study is justified.

Finally, it seems that all parties recognize that the overall demand for irrigation on farmland in South Dakota may drastically change going forward. If the costs associated with farming continue to rise along with the value of land and commodities, it should be expected that this Board will see more and more applications each year. If that is the case, prudence would dictate that the Board take the time necessary to study the issue closely now so that informed decisions can be made going forward.

Thank you for your time and consideration regarding these issues.

Very Truly Yours,
McCann Ribstein Hogan & McCarty



Don M. McCarty



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 12, 2013

NOTICE

denr.sd.gov

TO: A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

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 Deferral of Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3. 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, applicants and the petitioner 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 6 - 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

2013 WATER MANAGEMENT BOARD MEMBERS

Chad Comes **Vice-Chairman**
PO Box 308
Madison SD 57042

Leo Holzbauer
PO Box 877
Wagner SD 57380

Rodney Freeman Jr **Chairman**
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Huron SD 57350

Peggy Dixon
3311 Hogan Court
Rapid City SD 57702

Everett Hoyt
4422 Carriage Hills Dr
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Pierre SD 57501

Jim Hutmacher
802 E 7th Street
Oacoma SD 57365

BOARD ATTORNEY

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

WATER RIGHTS PROGRAM

Department of Environment and
Natural Resources
Garland Erbele Chief Engineer
Water Rights Program
523 East Capitol Ave
Pierre SD 57501-3181

STAFF ATTORNEY

Diane Best - Assistant Attorney General
Office of Attorney General
Natural Resources Section
317 N Main
Sioux Falls SD 57104-6004

CERTIFICATION

I hereby certify that on March 12, 2013, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated March 12, 2013, regarding preparation of findings of fact, conclusions of law and final decision in the matter of Water Right Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3., as set forth below:

A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211
Diane Best, Assistant Attorney General, 317 N Main Avenue, Sioux Falls SD 57104

Sent Inter-Office

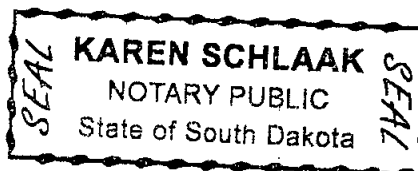
Jeff Hallen, Assistant Attorney General
George S Mickelson Criminal Justice Center
1302 E Hwy 14, Suite 1
Pierre SD 57501


Gail Jacobson
Water Rights Program, DENR

[illegible]

Sworn to, before me, this 12th day of March, 2013

Karen Schlaak
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

April 17, 2013

NOTICE

TO: A Jason Rumpca
103 N 3rd Street
Beresford SD 57004

Donald McCarty
PO Box 78
Brookings SD 57006

FROM: Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Scheduling of Hearing on Deferred Water Permit Application No. 7442-3, Gary or
Julie Peterson

Water Permit Application No. 7442-3 proposes to irrigate 40 additional acres. Water Right No. 5982-3 appropriates 1.64 cubic feet of water per second from one well completed into the Upper Vermillion Missouri Aquifer (165 feet deep) located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application proposes to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. The center pivot is to be enlarged and moved to the east to accommodate full rotation of a standard quarter section pivot capable of irrigating at least 132 acres. On March 6 – 7, 2013, the Water Management deferred this application until information is available to determine if there is a reasonable probability that there is unappropriated water available from the aquifer.

On March 25, 2013, a request was filed to allow the pivot to shift eastward such that a portion of the W 1/2 NE 1/4 of Section 17 will be irrigated as long as no more than 115 acres are irrigated until the study is completed and the deferred application for additional acres is brought back before the Board.

Enclosed is the Chief Engineer's revised recommendation on Deferred Application No. 7442-3 and signed stipulation. The recommendation is to allow for the acres to be irrigated in the W 1/2 NE 1/4 Section 17 that result when the center pivot is moved to the east. The portion of the application dealing with the 40 new acres to be irrigated will remain deferred until the study is completed to determine if there is a reasonable probability that unappropriated water is available for the applicant's proposed use.

The Water Management Board will consider Deferred Application No. 7442-3 at 9:00 AM on Thursday, May 2, 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. 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.

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

Enclosure

c: Diane Best, Assistant Attorney General



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

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REVISED RECOMMENDATION OF CHIEF ENGINEER FOR DEFERRED WATER PERMIT
APPLICATION NO. 7442-3, Gary E or Julie A Peterson

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning DEFERRED Water Permit Application No. 7442-3, Gary E or Julie A Peterson, 45913 299th Street, Centerville SD 57014.

The Chief Engineer is recommending APPROVAL of Application No. 7442-3 for inclusion of the irrigating acreage in the W ½ NE ¼ Section 17, T95N, R52W and continuing DEFERRAL of the additional acres above the 115 total acres authorized by Water Right No. 5982-3 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under Water Right No. 5982-3 and 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. This Permit is ~~approved~~ subject to the irrigation water use questionnaire being submitted each year.
3. Water Permit No. 7442-3 shall be limited to the existing diversion rate authority of 1.64 cfs for irrigation of 115 acres authorized by Water Right No. 5982-3. The issuance of this Permit is for the sole purpose of allowing a change in the location of acres irrigated to include the W ½ NE ¼ Section 17, T95N, R52W. No more than 115 acres may be irrigated under Water Permits 7442-3 and 5982-3 combined.
4. The deferred portion of this application for additional acres will be brought back before the Water Management Board when information is available to determine if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use
5. Although this Permit would require the Applicant to refrain from irrigating some acreage authorized under Water Permit 5982-3 in order to irrigate additional acres in W ½ NE ¼ Section 17, T95N, R52W, the change does not abandon or forfeit any acreage under Water Permit No. 5982-3 at this time. When the deferred portion of Application 7442-3 is addressed before the Board there may be insufficient water available to satisfy the remaining acreage requested under Water Permit 7442-3 and if that occurs the Applicant would need to identify the specific 115 acres it will irrigate under Water Permits 7442-3 and 5982-3 combined and the remaining acreage for either of those permits would be subject to denial (7442-3) or abandonment (5982-3) at that time.

Jeanne Goodman, Chief Engineer
April 17, 2013

NOTE: The existing full quarter section center pivot shall be modified as set forth in the Applicant's March 25, 2013, email to Eric Gronlund which is part of the administrative record. Specifically, the end gun and nozzles on the end span will be turned off or disabled such that only a total of 115 acres are capable of being irrigated. DENR Water Rights Program staff intends to conduct an compliance check in the summer of 2013 to insure the system is irrigating no more than the authorized number of acres.



OFFICE OF ATTORNEY GENERAL

317 N. Main Avenue
Sioux Falls, South Dakota 57104
Phone (605) 367-5880
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www.state.sd.us/atg

MARTY J. JACKLEY
ATTORNEY GENERAL

RECEIVED
APR 11 2013
WATER RIGHTS
PROGRAM
CHARLES D. McGUIGAN
CHIEF DEPUTY

April 9, 2013

Rodney Freeman, Jr.
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Tim Bjork
112 W. Oak St.
Pierre, SD 57501

Jeffrey P. Hallem
Assistant Attorney General
1302 E. Highway 14, Ste. 1
Pierre, SD 57501-8501

Re: Upper Vermillion Missouri Permit Applications

Dear Board Members and Board Counsel.

I am enclosing the DENR's proposed Findings of Fact and Conclusions of Law in the above referenced matter. This matter is scheduled for the Board's consideration on May 2. As scheduled, any responses by Mr. Charging Hawk are to be made on or before April 19.

Consistent with the Board's direction, I am providing a copy of this proposal in Word format to Mr. Hallem and counsel of record via email and am also mailing a copy to all parties.

Sincerely,

A handwritten signature in cursive script, appearing to read "Diane", written over a horizontal line.

Diane Best
Assistant Attorney General

RECEIVED

APR 11 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	FINDINGS OF FACT,
TRUST); 7535-3(DONALD D	)	CONCLUSIONS OF LAW
BENSON); 7558-3 (BENDER HAGEN	)	AND FINAL DECISION
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Hearing was held on March 8, 2013 before Board members Rodney Freeman (Chairman), Tim Bjork, Chad Comes, Peggy Dixon, Everett Hoyt, and Leo Holzbauer.

Applicants Gary and Julie Peterson were represented by A. Jason Rumpca. Applicants Bethel Hagen Trust, Cleland Hagen Trust, and Bender Hagen Trust appeared through an officer or trustee of the trusts, Bruce Hagen. Applicants Hult, Benson, Paul Petersen, Stevens, Osborn, and Farrar appeared without counsel. Applicant Welsh did not appear. The Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") was represented by Diane Best. Intervenors Todd and Carey Miller were represented by Don McCarty.

The Board, having considered the testimony, exhibits and legal argument 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. Each application seeks to appropriate water from the Upper Vermillion Missouri (UVM) aquifer for irrigation in Turner and Clay County. The applications were filed during the period from September 26, 2012 through January 22, 2013, and were heard together.

2. Except for Application No. 7442-3 (discussed separately below), each of the applications seeks authority to divert water under a new water right with a well to be constructed in the UVM.

3. The Chief Engineer recommends that each of the applications be deferred until a pending study of the UVM aquifer is completed, which is expected to occur prior to the spring of 2014. He explained that significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

4. Notice of each application was published in one official daily newspaper and in one official weekly newspaper in each county where the

proposed water wells are to be located, where the water is proposed to be used and where the project works are proposed to be located.

5. The Notices afforded an opportunity for intervention. Todd and Carey Miller intervened and appeared at hearing through counsel.

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

7. 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.

8. If the source of the water is older or lower than the greenhorn formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, the aquifer is younger than and above the greenhorn formation. Also, a public water system is not involved. The withdrawal/recharge issue must be considered.

9. The UVM aquifer is a buried glacial outwash deposit that consists of fine sand to medium-pebble gravel. The aquifer underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties. The aquifer blends into the Lower Vermillion Missouri aquifer in northern Clay County. According to independent studies cited by DENR expert Ken Buhler, the

average thickness of the outwash is estimated to be 68 feet in Turner County and is estimated to be 100-150 feet thick in the areas proposed by these applications. The aquifer contains an estimated 1.8 million ac-ft of water in storage in Turner and Hutchinson Counties and an estimated 317,180 ac-ft of recoverable water in storage in Clay and Lincoln Counties.

10. The UVM aquifer is primarily, but not exclusively, under confined (artesian) conditions. Groundwater movement in the aquifer is to the south-southeast at a gradient that was estimated in independent studies to be approximately four feet per mile (ft/mi). However, based on DENR-Water Rights' observation wells the gradient was 4.3- 4.6 ft/mi in May 2012.

11. The UVM outwash generally overlies the Carlile Shale although Sioux quartzite directly underlies the aquifer in the northern portion of the aquifer. The UVM aquifer overlies the Niobrara Formation in western Turner County. The aquifer is generally buried by glacial till; however, in places it is overlain by and is hydraulically connected to the surficial Parker Centerville aquifer.

12. Recharge to the UVM aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer. Referring to past independent studies, Buhler testified that the recharge rate to the UVM has been estimated at 0.25 inches per acre per year calculated from regional flow net analysis. This would produce an average annual recharge to the overall UVM aquifer of 4,267 ac-ft/yr.

13. Buhler also evaluated the recharge potential of the UVM aquifer by undertaking a regional flow net analysis based specifically on May 2012 water level data from the DENR Observation Well Network. A flow net analysis is a calculation of the amount of water flowing through the aquifer. To do this, Buhler relied on (a) the average transmissivity of the aquifer based on the calculated transmissivity of irrigation wells in the aquifer where the data to allow these calculations was available, (b) the hydraulic gradient for the UVM based on data from the Observation Well Network, and (c) the distance of the appropriate cross section of the UVM. He found that the amount of water moving through the UVM is approximately 15.99 ac-ft/day or 5,836 ac-ft/yr. In order to sustain this volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on the area of the aquifer would be 0.34 inches. This recharge rate cannot be considered “average annual recharge” since it used only 2012 data. The estimate does, however, agree in general with the average annual recharge estimate from the independent studies that Buhler consulted.

14. The recharge rates estimated for the UVM aquifer should be considered reflective of “existing conditions”. Buhler explained that independent studies have found that the southern 19.5 miles of the western boundary of the UVM in Turner County to be hydraulically connected to (and receiving recharge from) the Niobrara aquifer. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the UVM.

15. Discharge from the UVM Missouri aquifer occurs naturally through groundwater outflow to the Lower Vermillion Missouri aquifer and also by well withdrawals. Reports on file with the DENR-Water Rights Program show that domestic use wells are completed into the UVM aquifer, however withdrawals from domestic users are not expected to be significant.

16. In addition to domestic use, there are currently 100 water rights/permits appropriating water from the UVM. Appropriations authorize municipal, commercial, rural water system and irrigation uses.

17. The cities of Viborg and Davis hold water rights to appropriate water from this aquifer, but they are supplied completely by TM Rural Water System. The City of Centerville receives 70% of its 64,000 gallons per day average from Lewis and Clark Rural Water System and 30% from the UVM. The average municipal water use from the UVM is 21.5 ac-ft/yr.

18. There are two commercial water rights from this aquifer. One is a concentrated animal feeding operation permitted for 1,800 head of beef cattle with an estimated average annual water use of 36 ac-ft/yr. The other is a fertilizer plant with an estimated average annual water use of 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr).

19. Two rural water systems are supplied by the UVM aquifer: TM Rural Water System and South Lincoln Rural Water System. The water use for each of these systems has approached or exceeded 1000 ac-ft/yr since 2009.

20. The majority of the water pumped from the UVM aquifer is for irrigation use. In 1979 there were 56 irrigation permits; the number increased

to 79 in 2011. Irrigators report pumping annually and pumping has also increased during this period. Pumping exceeded 7000 ac/ft in some recent years, but the average of reported pumping from 1979- 2011 is 4865.42 ac-ft/yr.

21. There are two future use permits for this aquifer. TM Rural Water System holds both of them and they total 740 ac/ft year. A future use permit is a reservation of water and does not authorize withdrawals. However, in theory future use permits can be completely developed.

22. The total of well withdrawals from the UVM aquifer plus the amount of water that can be developed from future use permits is estimated to be approximately 7, 900 acre-feet per year assuming average municipal, commercial, and irrigation use; 2,250 ac-ft/yr rural water system use; and 740 ac-ft/yr from future use permits. The estimated average annual recharge is currently estimated to be approximately 5,836 ac-ft/yr. So, the current estimated average annual withdrawal from the UVM aquifer appears to exceed the estimated average annual recharge to the aquifer.

23. The DENR-Water Rights Program monitors 29 observation wells in the UVM. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. The aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years.

24. The hydrograph for an observation well in Clay County in the southernmost part of the aquifer area studied (observation well CL-80K) shows

that there is currently more water in storage in the area of the well than when the well was completed. The linear trend line for this well data shows a positive slope, indicating that in general, recharge has exceeded discharge in this area over the period of record since the well was constructed in 1980.

25. Other observation wells in the UVM aquifer document downward trends in water levels. The slope of the trend lines for 15 of the 29 observation wells is negative (i.e. downward sloping). The observation wells with downward trending water levels are concentrated in two areas: an area in the north-central portion of the aquifer and an area in the northwest portion of the aquifer. The first area is in the vicinity of South Lincoln Rural Water System wells and the second is in the vicinity of TM Rural Water District wells.

26. The water use from the two areas of declining water levels has steadily increased. At this time, data is not available to determine if the water levels in these areas will stabilize under steady rural water system withdrawals.

27. This Board also heard evidence on whether the proposed uses would impair existing water rights. The DENR staff was unaware of any claims that any of the proposed uses would impair existing use of water from area wells. Further, no intervenor filed any objection claiming that granting the application would impair any use of wells for existing rights or domestic uses. Todd and Carey Miller did intervene with general concerns about the possible effect of the proposed applications on Swan Lake in Turner County.

28. Beneficial use is also a question. The beneficial use factor involves examining whether the use would be beneficial in the eyes of the appropriator and also 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 applicants. They intend to use the water for irrigation and increasing crop yields, which would be beneficial to them.

30. The Board has previously found that irrigation is in the interest of the public in the utilization of water supplies. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is a beneficial use to the public at present.

31. Public interest is also a question. The Board has previously found that irrigation is in the public interest from the economic perspective of increasing crop yields and enhancing the economy. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is in the public interest at this time.

Application Nos. 7441-3 and 7442-3

32. The foregoing Findings of Fact are incorporated by reference.

33. Application Nos. 7441-3 and 7442-3 were filed on September 26, 2012, by Gary and Julie Peterson (Petersons).

34. Application No. 7441-3 proposes to appropriate up to 280 ac-ft/yr at a maximum diversion rate of 1.79 cfs from one well that would be approximately 175 feet deep. This application proposes to irrigate 140 acres.

35. Application No. 7442-3 proposes to appropriate up to 80 ac-ft/yr to irrigate 40 acres by using an existing well authorized by Water Right No. 5982-3. Water Right No. 5982-3 appropriates water at a maximum diversion rate of 2.28 cfs and the present application would not increase the total diversion rate.

36. Application Nos. 7441-3 and 7442-3 were filed before the rest of the above entitled applications. Petersons claim that these particular applications should be granted even if the other applications are deferred.

37. In particular, Petersons rely on the fact that the DENR issued a similar permit in 2012 for a nearby irrigator. The other permit, less than a mile from the site of Application No. 7441-3, was issued to Roger Hansen.

38. The Hansen application was filed on July 20, 2012, and when it was reviewed it was the only application from the UVM. While DENR's staff engineer, Adam Mathiowetz, questioned whether granting the permit would cause the withdrawal to exceed recharge in UVM based on overall data, he also looked at nearby observation wells and found that they were not trending downward. This conflicting data raised a "yellow flag" but Mathiowetz's report, dated September 18, 2012, favored approval of the Hansen permit. The Mathiowetz report was provided to the Chief Engineer who recommended approval. The Hansen application was published, there were no intervenors, and on October 9, 2012, the permit was granted directly by the Chief Engineer under SDCL 46-2A-23. The Hansen case was not heard by this Board.

39. Although the Petersons ask the Board to reject the Buhler testimony concerning the need for additional study in favor of the Mathiowetz

analysis for the Roger Hansen permit, the Board will not do so. Without impugning the Mathiowetz study, the Board finds that a review of the entire aquifer is necessary and not the local effects associated with one observation well. The data compiled by Ken Buhler shows that 15 of the 29 DENR observation wells are declining in this aquifer and this Board cannot ascertain, at this time, whether the area of declining water levels is expanding. This Board cannot "unring the bell" and determine that the earlier report by Mathiowetz should be accepted for any of these new applications from this aquifer. The Board accepts and relies on the extensive review conducted by DENR expert Ken Buhler.

40. At hearing, Gary Peterson testified that Roger Hansen had been irrigating in the summer of 2012. Based on the Hansen irrigation and Peterson's own favorable past experience in obtaining permits in this aquifer, Peterson purchased nearby property to irrigate and applied for an irrigation permit for the newly purchased property.

41. Hansen was not authorized to irrigate the property in question in the summer of 2012. Also, the DENR made no promises to Peterson that either Application No. 7441-3 or 7442-3 would be granted.

42. Peterson pointed out that review did not begin immediately on the Peterson's September 26 application and that the Chief Engineer's recommendation was not issued until December 18. The Chief Engineer testified that DENR received an extraordinary number of irrigation applications

in the fall of 2012. Other applications for this aquifer were filed on October 1, October 18 (3 applications), and in November while the review was pending.

43. Regardless of the timing of the review, the Peterson's application would not have been considered by this Board earlier. This Board meets five times a year. The application was filed on September 26, only a few days short of this Board's October 3 meeting. The Board met on December 5, but for a case to be heard then the analysis would have to have been completed and the recommendation issued early enough so that the notice could be prepared and submitted to newspapers in time for publication on or before November 15, twenty days before hearing. If the Chief Engineer issued the recommendation even 45-50 days from the date of the application, it would have been too late for publication for the December meeting. The Peterson applications were heard at the Board's next scheduled meeting on March 7, 2013.

44. Petersons' permit application was filed September 26, 2012, but was followed by six other permit applications filed on October 1, October 18 (three applications), and November 30. They were analyzed together. Due to the "yellow flag" raised by Mathiowetz in the earlier Hansen application, Ken Buhler, who is head of the groundwater area in the Water Rights Program, asked another engineer, Joe Stonesifer, to take an independent look at the recharge/withdrawal analysis. Stonesifer reported back to Buhler that he encountered the same issues. Buhler then took over the review and conducted the analysis several ways (as set forth in the foregoing Findings). Ultimately, Buhler's report favored deferral. The Chief Engineer adopted this analysis,

recommended deferral, and provided notice of hearing before this Board. In the meantime, another eleven applications were filed in December and January and a second report was issued on February 4 that contained the same analysis for those new applications. The Chief Engineer also recommended deferral and scheduled hearing.

45. Petersons also claim Application No. 7442-3 should be granted because it seeks no additional water. The applicants request does not seek to transfer an irrigation right or permit away from one of its currently permitted parcels; the applicant clearly intends to maintain the right to irrigate its currently permitted parcel under one water permit and irrigate forty more acres under the new permit.

46. Chief Engineer Garland Erbele testified that this application, if granted, would in fact constitute appropriation of an additional volume of water even if the diversion rate is the same.

47. Under Water Right 5982-3 Petersons are currently entitled to divert water at a diversion rate of 1.64 cfs to irrigate 115 acres. This is the maximum diversion rate allowed by law (1 cfs per 70 acres). It is undisputed that the water right holder does not currently use the maximum diversion rate 24 hours per day throughout the irrigation season, since there is no need for such high diversions at consistent levels. The current application, if granted, would allow the applicant to pump water within the 1.64 cfs authorized diversion rate and for longer periods that it would otherwise do for the existing permit. The center pivot would run at higher levels or for longer periods

because more land would be irrigated. Application 7442-3, if granted, would cause more consistent sustained use of the aquifer than for the existing permit.

48. The Petersons seek to appropriate a greater volume of water, even if the instantaneous diversion rate remains the same. As set forth above, a new permit for a greater volume of water cannot be granted at this time in light of the need for additional study on the recharge/withdrawal analysis.

49. If the Board were to accept the Petersons' position that there is no legal or practical change in individual permits if the diversion rate is used for more acreage, then the Board would need to address the enhanced volume of water withdrawn when analyzing water availability for new permits.

50. To date, the Board has made its recharge/withdrawal analysis based, in significant part, on the volume of actual water withdrawals as reported by irrigators in annual reports. The Board has consistently recognized, that in any given year, a certain number of pivots or other irrigation systems are setting idle or are not pumping water continuously. The practice is that some acreage sits idle due to changes in equipment use, cropping patterns, enrollment in federal programs like CRP, precipitation considerations, and other management considerations. In practice, irrigators do not continuously use water at sustained maximum levels for all permitted acreage.

51. If irrigation permits were to move toward maximum diversion rates for longer periods or for larger acreages, the withdrawal analysis will need to reflect the enhanced sustained withdrawal of water at maximum rates. The existing data shows that the UVM may be close to being fully appropriated

under the existing pattern of use. If actual use moves toward greater, more sustained diversions (even within the peak currently allowed for each permit), the withdrawals would be much more likely to exceed recharge.

Ultimate Finding

52. Based on the entirety of the record and the foregoing Findings of Fact, there is insufficient evidence to grant any of the requested applications.

CONCLUSIONS OF LAW

1. The Board has jurisdiction. The applications fall within the Board's responsibility over water appropriation and regulation in Title 46, more specifically SDCL 46-2A-9.

2. Publication of the Notice of Hearing was properly made pursuant to SDCL 46-2A-4.

3. The published Notice of Hearing also allowed for petitions to intervene. Todd and Carey Miller filed a petition to intervene in Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3, and 7535-

3. At hearing, the Millers made an oral motion to also intervene in the remaining water permit applications that were heard at the same time. The Board granted the request without objection.

4. The Chief Engineer has recommended deferral. The recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

5. The applicants are required to demonstrate by a preponderance of the evidence that the elements in SDCL 46-2A-9 have been met for the permits they are seeking. 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.” The first element in SDCL 46-2A-9 is whether there is water available for the appropriation. The aquifer is currently used extensively for irrigation as well as commercial, municipal, rural water system use and domestic use. The observation well data shows that this use has resulted in downward trends in areas of the aquifer. It is unknown, absent further study, whether the downward trends will expand.

6. 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.”

7. 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 that intend to withdraw water from an aquifer older than or stratigraphically lower than the Greenhorn aquifer. The exception does not apply here.

8. 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 Buhler testimony, is the best information reasonably available on the recharge/discharge issue. Buhler, a groundwater expert with many years of experience, was unable to conclude that recharge was exceeding withdrawals or vice versa.

9. Given the foregoing Findings of Fact and Conclusions of Law, the Board is unable to determine whether there is water available for the proposed water use.

10. The second element in SDCL 46-2A-9 is whether the proposed water use would impair existing rights. The evidence is insufficient to make a full determination at this point.

11. 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).

12. The use of water, as requested, would undoubtedly be beneficial to the applicants since the purpose is to increase crop yields. The other part of the beneficial use test is, however, 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). Given the foregoing determination, it is premature to determine whether the

use of water for the applications at issue is a beneficial use of the water from the UVM aquifer.

13. Under the fourth element of SDCL 46-2A-9, the applicant must demonstrate that the proposed use is in the 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. Given the ruling below, it is premature for this Board to enter a ruling on the public interest issue.

14. No justification was provided by the Applicants for water permits 7452-2, 7535-3, 7603-3, and 7653-3 for their request for diversion rates of greater than 1 cfs per 70 acres. Such justification is required under SDCL 46-5-6. When this matter is heard following further study, the justification must be provided.

15. This Board adopts the Chief Engineer's recommendation of deferral. In light of the evidence presented, it is not possible to conclude that unappropriated water is available from the UVM to satisfy the proposed appropriations. Significant portions of the aquifer have experienced long-term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals.

Application Nos. 7441-3 and 7442-3

16. The Petersons rely on the water permit issued to Roger Hansen in 2012. The Hansen permit was not contested and was granted directly by the

Chief Engineer under SDCL 46-2A-23. The Board did not hear evidence on the Hansen permit, and is not bound by either the permit or the underlying rationale. Moreover, even if the Board had issued the prior permit, neither the prior analysis nor the prior permit would be binding. The Board is an administrative agency with quasi-judicial authority to consider the factors in SDCL 46-2A-9. As such, the Board holds authority to consider each case on its merit and is not bound to accept prior decisions as binding precedent. *Interstate Telephone Cooperative, Inc. v. Public Utilities Commission* 518 N.W.2d 749 (S.D. 1994).

17. Although Gary Peterson invested in land relying on expectations that he would obtain a permit, DENR staff made no promises to him that either of the applications would be granted and there is no laches or estoppel issue. Moreover, based on the Chief Engineer's referral to the Board under SDCL 46-2A-23 and the contested status of this matter, the Board is the sole decision maker for the above entitled applications.

18. The Chief Engineer issued his recommendation more than 60 days after these applications were filed on September 26, but the Petersons were not harmed in a procedural sense, since March 7 is the first Board meeting where the permit would have been considered, due to the times for public notice and opportunity to intervene in SDCL 46-2A-4. If the Chief Engineer issued the recommendation within the usual 60 days, it would have been too late to meet the December meeting.

19. In addition to the foregoing, Petersons' claim that Application No. 7442-3 should be granted because it seeks no additional water. Application No. 7442-3 was, however, filed as a request for a new permit. The purpose of new permits is to *appropriate water* (SDCL 46-5-10; SDCL 46-2A-9). This request does, in fact, seek to use additional water.

20. This is not a request to amend existing permit 5982-3 and was not published as such. This Board could not entertain it as an amendment. Further, existing irrigation permits may be amended only as provided in SDCL 46-5-30.4 through SDCL 46-5-34. Petersons' request does not seek to transfer an irrigation right or permit away from a currently permitted parcel under SDCL 46-5-30.4 and SDCL 46-5-34; the applicant clearly intends to maintain the right to irrigate its currently permitted parcel and also irrigate the new parcel. SDCL 46-5-31 also allows this Board to amend permits for changes in the place of use, but not for adding additional acreage as proposed here.

21. For a new permit, the applicant must prove each element in SDCL 46-2A-9. Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.

22. The first element in SDCL 46-2A-9 is whether there is water available for the appropriation and it requires consideration of the criteria in SDCL 46-6-3.1. As set forth in the Findings of Fact, the Petersons' proposal to irrigate an additional 40 acres would appropriate more water than has been historically used. A new permit cannot be granted at this time for the 40 acres as proposed in Application No. 7442-3 in light of SDCL 46-6-3.1.

23. Based on the entirety of the record and the foregoing Findings of Fact, each of the foregoing applications should be deferred.

ORDER

Each of the above entitled applications is deferred until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. This matter is not final; DENR is directed to notice this matter for hearing once the study is completed. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL 46-2A-15.

Dated this _____ day of May, 2013.

BY THE BOARD:

Rodney Freeman, Chairman
South Dakota Water Management Board

STATE OF SOUTH DAKOTA
SOUTH DAKOTA WATER MANAGEMENT BOARD

RECEIVED
APR 11 2013
WATER RIGHTS
PROGRAM

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	CERTIFICATE OF SERVICE
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (BENDER HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

The undersigned hereby certifies that true and correct copies of the DENR proposed Findings of Fact, Conclusions of Law, and Final Decision in the above entitled matter were served upon each of the following by enclosing the same in envelopes with first class postage prepaid and affixed thereto, and depositing said envelopes in the United States mail at Sioux Falls, South Dakota on this 9th day of April, 2013:

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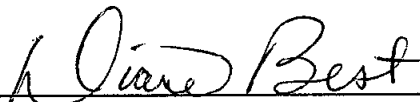
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ATTORNEY GENERAL

RECEIVED

APR 24 2013

**WATER RIGHTS
PROGRAM**

CHARLES D. McGUIGAN
CHIEF DEPUTY ATTORNEY GENERAL

April 23, 2013

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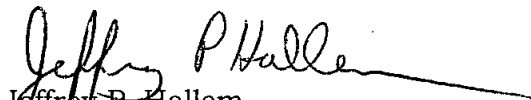
Re: *In the Matter of the Water Permit Application Nos. 7441-3 & 7442-3 (Gary Or Julie Peterson); 7452-3 (Jerome Hult); 7466-3 (Bethel Hagen Trust); 7467-3 & 7468-3 (Cleland Hagen Trust); 7535-3 (Donald D Benson); 7558-3 (Bender Hagen Trust); 7587-3 & 7588-3 (Paul Petersen); 7600-3, 7601-3, 7602-3 & 7603-3 (Michael D. Stevens); 7623-3 (Darrell Osborn); 7633-3 (Brad Farrar); And 7653-3 (Jeremiah Welsh)*

Dear Counsel, Chief Engineer Goodman and Parties:

Enclosed please find the proposed *Water Management Board Rulings on Parties' Submissions and proposed Findings of Fact, Conclusions of Law and Final Decision* I have prepared in the above-entitled matter. The documents were prepared consistent with statements made at the March 7, 2013, South Dakota Water Management Board

meeting. The Board will consider these proposals at its May 2nd meeting. It is within the Board's discretion whether oral argument by the parties will be afforded prior to considering the matter.

Very truly yours,


Jeffrey P. Hallem
Assistant Attorney General

JPH/rar

Enclosures

cc w/encl: Water Management Board Members
Jeremiah Welch

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	CERTIFICATE OF SERVICE
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (BENDER HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

The undersigned hereby certifies that true and correct copies of the proposed Water Management Board Rulings on Parties' Submissions and proposed Findings of Fact, Conclusions of Law and Final Decision in the above-entitled matter were served upon each of the following by enclosing the same in envelopes with first class postage prepaid and affixed thereto, and depositing said envelopes in the United States mail at Sioux Falls, South Dakota on this 23rd day of April, 2013:

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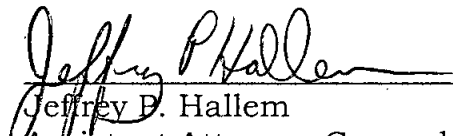
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And on the same date, the original was filed with the Chief Engineer, DENR
Water Rights Program, Joe Foss Building, 523 E. Capitol Avenue, Pierre, SD
57501.



Jeffrey B. Hallem
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STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	WATER MANAGEMENT BOARD
7466-3 (BETHEL HAGEN TRUST);	)	RULINGS ON PARTIES'
7467-3 & 7468-3 (CLELAND HAGEN	)	SUBMISSIONS
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (BENDER HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Pursuant to directions of the Water Management Board, counsel for the Department of Environment and Natural Resources, Water Rights Program (DENR) submitted DENR proposed Findings of Fact, Conclusions of Law and Final Decision. No submissions were received from the Applicants or Intervenors. The Board, upon review of the parties submissions and administrative record, and having orally entered its decision, hereby enters the following rulings:

A. DENR's proposed Findings of Fact Nos. 1-41, 46, 48-52 are accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision. The first introductory paragraph was modified to reflect the hearing was held on March 6-7, 2013.

B. DENR's proposed Findings of Fact Nos. 42, 43 and 45 are accepted by the Board as consistent with and supported by the administrative record

and the Board's oral decision, as modified grammatically to reflect that the Petersons submitted two applications on September 26, 2012.

C. DENR's proposed Finding of Fact No. 44 is substantially accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified to reflect that the Petersons submitted two applications on September 26, 2012, and that there were "five" not "six" other permit applications filed between October 1 and November 30.

D. DENR's proposed Finding of Fact No. 47 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified grammatically to reflect that the Petersons jointly submitted application No. 7442-3 and to insert in proposed Finding of Fact No. 47 "No." before "5982-3" and "7442-3."

E. DENR's proposed Conclusions of Law 1-23 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 rulings.

F. 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.

G. 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 _____ day of May, 2013.

BY THE BOARD:

Rodney Freeman, Jr.
Chairman, Water Management Board

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	FINDINGS OF FACT,
TRUST); 7535-3(DONALD D	)	CONCLUSIONS OF LAW
BENSON); 7558-3 (BENDER HAGEN	)	AND FINAL DECISION
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Hearing was held on March 6-7, 2013 before Board members Rodney Freeman (Chairman), Tim Bjork, Chad Comes, Peggy Dixon, Everett Hoyt, and Leo Holzbauer.

Applicants Gary and Julie Peterson were represented by A. Jason Rumpca. Applicants Bethel Hagen Trust, Cleland Hagen Trust, and Bender Hagen Trust appeared through an officer or trustee of the trusts, Bruce Hagen. Applicants Hult, Benson, Paul Petersen, Stevens, Osborn, and Farrar appeared without counsel. Applicant Welsh did not appear. The Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") was represented by Diane Best. Intervenors Todd and Carey Miller were represented by Don McCarty.

The Board, having considered the testimony, exhibits and legal argument 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. Each application seeks to appropriate water from the Upper Vermillion Missouri (UVM) aquifer for irrigation in Turner and Clay County. The applications were filed during the period from September 26, 2012 through January 22, 2013, and were heard together.

2. Except for Application No. 7442-3 (discussed separately below), each of the applications seeks authority to divert water under a new water right with a well to be constructed in the UVM.

3. The Chief Engineer recommends that each of the applications be deferred until a pending study of the UVM aquifer is completed, which is expected to occur prior to the spring of 2014. He explained that significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

4. Notice of each application was published in one official daily newspaper and in one official weekly newspaper in each county where the

proposed water wells are to be located, where the water is proposed to be used and where the project works are proposed to be located.

5. The Notices afforded an opportunity for intervention. Todd and Carey Miller intervened and appeared at hearing through counsel.

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

7. 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.

8. If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, the aquifer is younger than and above the greenhorn formation. Also, a public water system is not involved. The withdrawal/recharge issue must be considered.

9. The UVM aquifer is a buried glacial outwash deposit that consists of fine sand to medium-pebble gravel. The aquifer underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties. The aquifer blends into the Lower Vermillion Missouri aquifer in northern Clay County. According to independent studies cited by DENR expert Ken Buhler, the

average thickness of the outwash is estimated to be 68 feet in Turner County and is estimated to be 100-150 feet thick in the areas proposed by these applications. The aquifer contains an estimated 1.8 million ac-ft of water in storage in Turner and Hutchinson Counties and an estimated 317,180 ac-ft of recoverable water in storage in Clay and Lincoln Counties.

10. The UVM aquifer is primarily, but not exclusively, under confined (artesian) conditions. Groundwater movement in the aquifer is to the south-southeast at a gradient that was estimated in independent studies to be approximately four feet per mile (ft/mi). However, based on DENR-Water Rights' observation wells the gradient was 4.3- 4.6 ft/mi in May 2012.

11. The UVM outwash generally overlies the Carlile Shale although Sioux quartzite directly underlies the aquifer in the northern portion of the aquifer. The UVM aquifer overlies the Niobrara Formation in western Turner County. The aquifer is generally buried by glacial till; however, in places it is overlain by and is hydraulically connected to the surficial Parker Centerville aquifer.

12. Recharge to the UVM aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer. Referring to past independent studies, Buhler testified that the recharge rate to the UVM has been estimated at 0.25 inches per acre per year calculated from regional flow net analysis. This would produce an average annual recharge to the overall UVM aquifer of 4,267 ac-ft/yr.

13. Buhler also evaluated the recharge potential of the UVM aquifer by undertaking a regional flow net analysis based specifically on May 2012 water level data from the DENR Observation Well Network. A flow net analysis is a calculation of the amount of water flowing through the aquifer. To do this, Buhler relied on (a) the average transmissivity of the aquifer based on the calculated transmissivity of irrigation wells in the aquifer where the data to allow these calculations was available, (b) the hydraulic gradient for the UVM based on data from the Observation Well Network, and (c) the distance of the appropriate cross section of the UVM. He found that the amount of water moving through the UVM is approximately 15.99 ac-ft/day or 5,836 ac-ft/yr. In order to sustain this volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on the area of the aquifer would be 0.34 inches. This recharge rate cannot be considered "average annual recharge" since it used only 2012 data. The estimate does, however, agree in general with the average annual recharge estimate from the independent studies that Buhler consulted.

14. The recharge rates estimated for the UVM aquifer should be considered reflective of "existing conditions". Buhler explained that independent studies have found that the southern 19.5 miles of the western boundary of the UVM in Turner County to be hydraulically connected to (and receiving recharge from) the Niobrara aquifer. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the UVM.

15. Discharge from the UVM Missouri aquifer occurs naturally through groundwater outflow to the Lower Vermillion Missouri aquifer and also by well withdrawals. Reports on file with the DENR-Water Rights Program show that domestic use wells are completed into the UVM aquifer, however withdrawals from domestic users are not expected to be significant.

16. In addition to domestic use, there are currently 100 water rights/permits appropriating water from the UVM. Appropriations authorize municipal, commercial, rural water system and irrigation uses.

17. The cities of Viborg and Davis hold water rights to appropriate water from this aquifer, but they are supplied completely by TM Rural Water System. The City of Centerville receives 70% of its 64,000 gallons per day average from Lewis and Clark Rural Water System and 30% from the UVM. The average municipal water use from the UVM is 21.5 ac-ft/yr.

18. There are two commercial water rights from this aquifer. One is a concentrated animal feeding operation permitted for 1,800 head of beef cattle with an estimated average annual water use of 36 ac-ft/yr. The other is a fertilizer plant with an estimated average annual water use of 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr).

19. Two rural water systems are supplied by the UVM aquifer: TM Rural Water System and South Lincoln Rural Water System. The water use for each of these systems has approached or exceeded 1000 ac-ft/yr since 2009.

20. The majority of the water pumped from the UVM aquifer is for irrigation use. In 1979 there were 56 irrigation permits; the number increased

to 79 in 2011. Irrigators report pumping annually and pumping has also increased during this period. Pumping exceeded 7000 ac/ft in some recent years, but the average of reported pumping from 1979- 2011 is 4865.42 ac-ft/yr.

21. There are two future use permits for this aquifer. TM Rural Water System holds both of them and they total 740 ac/ft year. A future use permit is a reservation of water and does not authorize withdrawals. However, in theory future use permits can be completely developed.

22. The total of well withdrawals from the UVM aquifer plus the amount of water that can be developed from future use permits is estimated to be approximately 7, 900 acre-feet per year assuming average municipal, commercial, and irrigation use; 2,250 ac-ft/yr rural water system use; and 740 ac-ft/yr from future use permits. The estimated average annual recharge is currently estimated to be approximately 5,836 ac-ft/yr. So, the current estimated average annual withdrawal from the UVM aquifer appears to exceed the estimated average annual recharge to the aquifer.

23. The DENR-Water Rights Program monitors 29 observation wells in the UVM. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. The aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years.

24. The hydrograph for an observation well in Clay County in the southernmost part of the aquifer area studied (observation well CL-80K) shows

that there is currently more water in storage in the area of the well than when the well was completed. The linear trend line for this well data shows a positive slope, indicating that in general, recharge has exceeded discharge in this area over the period of record since the well was constructed in 1980.

25. Other observation wells in the UVM aquifer document downward trends in water levels. The slope of the trend lines for 15 of the 29 observation wells is negative (i.e. downward sloping). The observation wells with downward trending water levels are concentrated in two areas: an area in the north-central portion of the aquifer and an area in the northwest portion of the aquifer. The first area is in the vicinity of South Lincoln Rural Water System wells and the second is in the vicinity of TM Rural Water District wells.

26. The water use from the two areas of declining water levels has steadily increased. At this time, data is not available to determine if the water levels in these areas will stabilize under steady rural water system withdrawals.

27. This Board also heard evidence on whether the proposed uses would impair existing water rights. The DENR staff was unaware of any claims that any of the proposed uses would impair existing use of water from area wells. Further, no intervenor filed any objection claiming that granting the application would impair any use of wells for existing rights or domestic uses. Todd and Carey Miller did intervene with general concerns about the possible effect of the proposed applications on Swan Lake in Turner County.

28. Beneficial use is also a question. The beneficial use factor involves examining whether the use would be beneficial in the eyes of the appropriator and also 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 applicants. They intend to use the water for irrigation and increasing crop yields, which would be beneficial to them.

30. The Board has previously found that irrigation is in the interest of the public in the utilization of water supplies. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is a beneficial use to the public at present.

31. Public interest is also a question. The Board has previously found that irrigation is in the public interest from the economic perspective of increasing crop yields and enhancing the economy. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is in the public interest at this time.

Application Nos. 7441-3 and 7442-3

32. The foregoing Findings of Fact are incorporated by reference.

33. Application Nos. 7441-3 and 7442-3 were filed on September 26, 2012, by Gary and Julie Peterson (Petersons).

34. Application No. 7441-3 proposes to appropriate up to 280 ac-ft/yr at a maximum diversion rate of 1.79 cfs from one well that would be approximately 175 feet deep. This application proposes to irrigate 140 acres.

35. Application No. 7442-3 proposes to appropriate up to 80 ac-ft/yr to irrigate 40 acres by using an existing well authorized by Water Right No. 5982-3. Water Right No. 5982-3 appropriates water at a maximum diversion rate of 2.28 cfs and the present application would not increase the total diversion rate.

36. Application Nos. 7441-3 and 7442-3 were filed before the rest of the above entitled applications. Petersons claim that these particular applications should be granted even if the other applications are deferred.

37. In particular, Petersons rely on the fact that the DENR issued a similar permit in 2012 for a nearby irrigator. The other permit, less than a mile from the site of Application No. 7441-3, was issued to Roger Hansen.

38. The Hansen application was filed on July 20, 2012, and when it was reviewed it was the only application from the UVM. While DENR's staff engineer, Adam Mathiowetz, questioned whether granting the permit would cause the withdrawal to exceed recharge in UVM based on overall data, he also looked at nearby observation wells and found that they were not trending downward. This conflicting data raised a "yellow flag" but Mathiowetz's report, dated September 18, 2012, favored approval of the Hansen permit. The Mathiowetz report was provided to the Chief Engineer who recommended approval. The Hansen application was published, there were no intervenors, and on October 9, 2012, the permit was granted directly by the Chief Engineer under SDCL 46-2A-23. The Hansen case was not heard by this Board.

39. Although the Petersons ask the Board to reject the Buhler testimony concerning the need for additional study in favor of the Mathiowetz

analysis for the Roger Hansen permit, the Board will not do so. Without impugning the Mathiowetz study, the Board finds that a review of the entire aquifer is necessary and not the local effects associated with one observation well. The data compiled by Ken Buhler shows that 15 of the 29 DENR observation wells are declining in this aquifer and this Board cannot ascertain, at this time, whether the area of declining water levels is expanding. This Board cannot “unring the bell” and determine that the earlier report by Mathiowetz should be accepted for any of these new applications from this aquifer. The Board accepts and relies on the extensive review conducted by DENR expert Ken Buhler.

40. At hearing, Gary Peterson testified that Roger Hansen had been irrigating in the summer of 2012. Based on the Hansen irrigation and Peterson’s own favorable past experience in obtaining permits in this aquifer, Peterson purchased nearby property to irrigate and applied for an irrigation permit for the newly purchased property.

41. Hansen was not authorized to irrigate the property in question in the summer of 2012. Also, the DENR made no promises to Peterson that either Application No. 7441-3 or 7442-3 would be granted.

42. Peterson pointed out that review did not begin immediately on the Petersons’ September 26 applications and that the Chief Engineer’s recommendation was not issued until December 18. The Chief Engineer testified that DENR received an extraordinary number of irrigation applications

in the fall of 2012. Other applications for this aquifer were filed on October 1, October 18 (3 applications), and in November while the review was pending.

43. Regardless of the timing of the review, the Petersons' applications would not have been considered by this Board earlier. This Board meets five times a year. The applications were filed on September 26, only a few days short of this Board's October 3 meeting. The Board met on December 5, but for a case to be heard then the analysis would have to have been completed and the recommendation issued early enough so that the notice could be prepared and submitted to newspapers in time for publication on or before November 15, twenty days before hearing. If the Chief Engineer issued the recommendation even 45-50 days from the date of the application, it would have been too late for publication for the December meeting. The Petersons applications were heard at the Board's next scheduled meeting on March 7, 2013.

44. Petersons' permit applications were filed September 26, 2012, but were followed by five other permit applications filed on October 1, October 18 (three applications), and November 30. They were analyzed together. Due to the "yellow flag" raised by Mathiowetz in the earlier Hansen application, Ken Buhler, who is head of the groundwater area in the Water Rights Program, asked another engineer, Joe Stonesifer, to take an independent look at the recharge/withdrawal analysis. Stonesifer reported back to Buhler that he encountered the same issues. Buhler then took over the review and conducted the analysis several ways (as set forth in the foregoing Findings). Ultimately,

Buhler's report favored deferral. The Chief Engineer adopted this analysis, recommended deferral, and provided notice of hearing before this Board. In the meantime, another eleven applications were filed in December and January and a second report was issued on February 4 that contained the same analysis for those new applications. The Chief Engineer also recommended deferral and scheduled hearing.

45. Petersons also claim Application No. 7442-3 should be granted because it seeks no additional water. The applicants request does not seek to transfer an irrigation right or permit away from one of its currently permitted parcels; the applicants clearly intend to maintain the right to irrigate their currently permitted parcel under one water permit and irrigate forty more acres under the new permit.

46. Chief Engineer Garland Erbele testified that this application, if granted, would in fact constitute appropriation of an additional volume of water even if the diversion rate is the same.

47. Under Water Right No. 5982-3 Petersons are currently entitled to divert water at a diversion rate of 1.64 cfs to irrigate 115 acres. This is the maximum diversion rate allowed by law (1 cfs per 70 acres). It is undisputed that the water right holders do not currently use the maximum diversion rate 24 hours per day throughout the irrigation season, since there is no need for such high diversions at consistent levels. The current application, if granted, would allow the applicants to pump water within the 1.64 cfs authorized diversion rate and for longer periods that they would otherwise do for the

existing permit. The center pivot would run at higher levels or for longer periods because more land would be irrigated. Application No. 7442-3, if granted, would cause more consistent sustained use of the aquifer than for the existing permit.

48. The Petersons seek to appropriate a greater volume of water, even if the instantaneous diversion rate remains the same. As set forth above, a new permit for a greater volume of water cannot be granted at this time in light of the need for additional study on the recharge/withdrawal analysis.

49. If the Board were to accept the Petersons' position that there is no legal or practical change in individual permits if the diversion rate is used for more acreage, then the Board would need to address the enhanced volume of water withdrawn when analyzing water availability for new permits.

50. To date, the Board has made its recharge/withdrawal analysis based, in significant part, on the volume of actual water withdrawals as reported by irrigators in annual reports. The Board has consistently recognized, that in any given year, a certain number of pivots or other irrigation systems are setting idle or are not pumping water continuously. The practice is that some acreage sits idle due to changes in equipment use, cropping patterns, enrollment in federal programs like CRP, precipitation considerations, and other management considerations. In practice, irrigators do not continuously use water at sustained maximum levels for all permitted acreage.

51. If irrigation permits were to move toward maximum diversion rates for longer periods or for larger acreages, the withdrawal analysis will need to

reflect the enhanced sustained withdrawal of water at maximum rates. The existing data shows that the UVM may be close to being fully appropriated under the existing pattern of use. If actual use moves toward greater, more sustained diversions (even within the peak currently allowed for each permit), the withdrawals would be much more likely to exceed recharge.

Ultimate Finding

52. Based on the entirety of the record and the foregoing Findings of Fact, there is insufficient evidence to grant any of the requested applications.

CONCLUSIONS OF LAW

1. The Board has jurisdiction. The applications fall within the Board's responsibility over water appropriation and regulation in Title 46, more specifically SDCL 46-2A-9.

2. Publication of the Notice of Hearing was properly made pursuant to SDCL 46-2A-4.

3. The published Notice of Hearing also allowed for petitions to intervene. Todd and Carey Miller filed a petition to intervene in Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3, and 7535-

3. At hearing, the Millers made an oral motion to also intervene in the remaining water permit applications that were heard at the same time. The Board granted the request without objection.

4. The Chief Engineer has recommended deferral. The recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

5. The applicants are required to demonstrate by a preponderance of the evidence that the elements in SDCL 46-2A-9 have been met for the permits they are seeking. 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.” The first element in SDCL 46-2A-9 is whether there is water available for the appropriation. The aquifer is currently used extensively for irrigation as well as commercial, municipal, rural water system use and domestic use. The observation well data shows that this use has resulted in downward trends in areas of the aquifer. It is unknown, absent further study, whether the downward trends will expand.

6. 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.”

7. 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 that intend to withdraw water from an aquifer older than

or stratigraphically lower than the Greenhorn aquifer. The exception does not apply here.

8. 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 Buhler testimony, is the best information reasonably available on the recharge/discharge issue. Buhler, a groundwater expert with many years of experience, was unable to conclude that recharge was exceeding withdrawals or vice versa.

9. Given the foregoing Findings of Fact and Conclusions of Law, the Board is unable to determine whether there is water available for the proposed water use.

10. The second element in SDCL 46-2A-9 is whether the proposed water use would impair existing rights. The evidence is insufficient to make a full determination at this point.

11. 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).

12. The use of water, as requested, would undoubtedly be beneficial to the applicants since the purpose is to increase crop yields. The other part of

the beneficial use test is, however, 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). Given the foregoing determination, it is premature to determine whether the use of water for the applications at issue is a beneficial use of the water from the UVM aquifer.

13. Under the fourth element of SDCL 46-2A-9, the applicant must demonstrate that the proposed use is in the 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. Given the ruling below, it is premature for this Board to enter a ruling on the public interest issue.

14. No justification was provided by the Applicants for water permits 7452-2, 7535-3, 7603-3, and 7653-3 for their request for diversion rates of greater than 1 cfs per 70 acres. Such justification is required under SDCL 46-5-6. When this matter is heard following further study, the justification must be provided.

15. This Board adopts the Chief Engineer's recommendation of deferral. In light of the evidence presented, it is not possible to conclude that unappropriated water is available from the UVM to satisfy the proposed appropriations. Significant portions of the aquifer have experienced long-term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals.

Application Nos. 7441-3 and 7442-3

16. The Petersons rely on the water permit issued to Roger Hansen in 2012. The Hansen permit was not contested and was granted directly by the Chief Engineer under SDCL 46-2A-23. The Board did not hear evidence on the Hansen permit, and is not bound by either the permit or the underlying rationale. Moreover, even if the Board had issued the prior permit, neither the prior analysis nor the prior permit would be binding. The Board is an administrative agency with quasi-judicial authority to consider the factors in SDCL 46-2A-9. As such, the Board holds authority to consider each case on its merit and is not bound to accept prior decisions as binding precedent. *Interstate Telephone Cooperative, Inc. v. Public Utilities Commission* 518 N.W.2d 749 (S.D. 1994).

17. Although Gary Peterson invested in land relying on expectations that he would obtain a permit, DENR staff made no promises to him that either of the applications would be granted and there is no laches or estoppel issue. Moreover, based on the Chief Engineer's referral to the Board under SDCL 46-2A-23 and the contested status of this matter, the Board is the sole decision maker for the above entitled applications.

18. The Chief Engineer issued his recommendation more than 60 days after these applications were filed on September 26, but the Petersons were not harmed in a procedural sense, since March 7 is the first Board meeting where the permit would have been considered, due to the times for public notice and opportunity to intervene in SDCL 46-2A-4. If the Chief Engineer issued the

historically used. A new permit cannot be granted at this time for the 40 acres as proposed in Application No. 7442-3, in light of SDCL 46-6-3.1.

23. Based on the entirety of the record and the foregoing Findings of Fact, each of the foregoing applications should be deferred.

ORDER

Each of the above entitled applications is deferred until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. This matter is not final; DENR is directed to notice this matter for hearing once the study is completed. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL 46-2A-15.

Dated this. _____ day of May, 2013.

BY THE BOARD:

Rodney Freeman, Chairman
South Dakota Water Management Board

RECEIVED

APR 25 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NO.)
7442-3, GARY OR JULIE PETERSON)
) STIPULATION
) AND ORDER

STIPULATION

Applicants Gary and Julie Peterson ("Petersons") and the Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") hereby agree as follows:

1. The above entitled application proposes to irrigate 40 additional acres that would complement, but not change, Water Right No. 5982-3. Water Right No. 5982-3 appropriates 1.64 cfs from one well completed into the Upper Vermillion Missouri Aquifer (165 feet deep) located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The above entitled application proposes to irrigate an additional 40 acres in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well.

2. The application was heard by the South Dakota Water Management Board on March 7, 2013, and the Board deferred consideration of the application pending a study to be conducted concerning the Upper Vermillion Missouri Aquifer.

3. The parties agree that until the study is completed, the Petersons should be granted the right to use water to irrigate land within the 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W, so long as the total

acreage from Water Right No. 5982-3 and Water Permit No. 7442-3 does not exceed 115 acres.

4. Consistent with this agreement, the Chief Engineer has revised the recommendation which is attached herewith and incorporated herein.

5. The Water Management Board has final authority to approve Application No. 7442-3 as set forth herein and this Stipulation is not binding on the Board. Further, this Stipulation is not binding on the parties until Approved by the Board. DENR will schedule this matter for hearing on May 2, 2013.

6. As part of this Stipulation, Petersons agree that they will not appeal the deferral of Water Permit No. 7442-3.

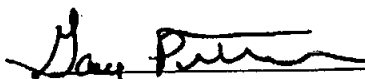
7. This Stipulation is without prejudice to any position either party may make regarding the appropriation of a total of more than 115 acres for the above referenced permits when the Board reconsiders the matter following the study.

8. This Stipulation is without prejudice to any legal arguments that may be made by either party before the Board or the courts regarding any other permits or proposed permits.

Dated this 19th day of April, 2013


Jeanne Goodman, Chief Engineer
DENR Water Rights Program

Dated this 17th day of April, 2013


Gary Peterson

Date this 22nd April 2013

2 
Donald McCarty
Attorney for Todd Miller & Carey Miller

Dated this 11th day of April, 2013

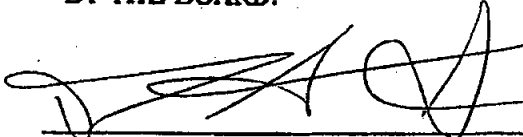

Julie Peterson

ORDER

The foregoing stipulation is hereby approved and the permit may be issued as set forth in the Chief Engineer's revised recommendation attached to the Stipulation.

BY THE BOARD:

Dated this 2 day of May, 2013


Rodney Freeman, Chairman

1 STATE OF SOUTH DAKOTA IN CIRCUIT COURT
2 COUNTY OF CLAY FIRST JUDICIAL CIRCUIT

3
4 =====

5 IN THE MATTER OF THE WATER PERMIT
6 APPLICATION NO. 7441-3
(GARY AND JULIE PETERSON),

7 APPELLANTS
8 =====

9 Transcript of Proceedings
Volume 1 of 2
Wednesday, March 6, 2013
10 =====

11 BOARD MEMBERS PRESENT

12 Mr. Rodney Freeman, Chairman
13 Mr. Everett Hoyt
14 Mr. Leo Holzbauer
15 Ms. Peggy Dixon
16 Mr. Tim Bjork
17 Mr. Chad Comes
18 Mr. Jeff Hallem, Counsel for the Board

19 APPEARANCES (continued on next page)

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Reported by Carla A. Bachand, RMR, CRR, Capital Reporting
Services, P.O. Box 903, Pierre, SD 57501 (605) 224-7611.

COPY

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13 appearing pro se;

14 MR. JEROME HULT,
15 45958 Highway 18, Davis, SD 57021,
16 appearing pro se.

17 * * * * *

18 I N D E X

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4 1 WEDNESDAY, MARCH 6, 2013 2 CHAIRMAN FREEMAN: Next item is the applications from 3 the Upper Vermillion Missouri aquifer. Ms. Best. 4 MS. BEST: Thank you. This involves a situation where 5 a number of applications came in and were processed for 6 basically the same area and you will see a long list of 7 applications there for this item. The number came in, they 8 were processed, Chief Engineer recommended deferral and then -- 9 and in the meantime more applications came in. There's a 10 second report and it also recommends deferral, the analysis is 11 all the same and we scheduled them up for all the same time; so 12 you actually have a number of applicants here in the audience. 13 So I guess they -- I recommend doing like we normally 14 do. Each applicant actually bears the burden of proof on their 15 own application to show that they meet the four-part test 16 required by state law, including whether there's a reasonable 17 probability that there's unappropriated water available, 18 whether the proposed diversion can be developed without 19 unlawful impairment of existing rights and then of course the 20 beneficial use and public interest test. So that's the 21 four-part test. Each applicant bears the burden of proof with 22 respect to that, but of course the practice of this board is to 23 have the Chief Engineer staff make his presentation first to 24 demonstrate what the recommendation is and then the parties can 25 testify and present their evidence from that. And I would	6 1 have additional copies. 2 CHAIRMAN FREEMAN: It is, we have got it. I guess we 3 will have brief opening remarks. Ms. Best, if you would like 4 to begin. 5 MS. BEST: Well, as previously stated, there's a 6 four-part test for determining whether or not a water permit 7 ought to be granted, and then with respect at least to the 8 first part, whether there's a reasonable probability there is 9 unappropriated water available. Of course, as this board is 10 aware, special attention has to be taken to the recharge/ 11 withdrawal analysis, and there have been some recent court 12 decisions involving -- recent administrative appeals involving 13 this board's decision, one in '08 and one in 2012, that address 14 the recharge/withdrawal analysis, and it's very apparent from 15 those court decisions that the board needs to look at average 16 annual use and average annual withdrawal and needs to take a 17 hard look at that issue. 18 That, combined with the overall study of the aquifer, 19 prompted the Chief Engineer's staff, Ken Buhler reviewed the 20 matter and has found that there is not sufficient study 21 available to present to this board to recommend approval at 22 this time and that further study is warranted. 23 I know there is a race to get irrigation systems in 24 place. I know that there is a real desire to get the crops 25 irrigated, but -- and the Chief Engineer's staff fully
5 1 recommend that we go with that usual practice. 2 CHAIRMAN FREEMAN: I think we will, but before we 3 begin, I would like to have appearances from the applicants and 4 anyone else who intends to testify. 5 MR. RUMPCA: Mr. Chairman, I'm Jason Rumpca, I 6 represent Gary and Julie Peterson. Julie is not present; Gary 7 is here with me. Would you prefer to just do notices of 8 appearance at this time and then we can get into any brief 9 opening statements at a later time? 10 CHAIRMAN FREEMAN: That will be fine. Anyone else 11 wish to appear? 12 MR. BENSON: I'm Donald Benson from Hurley and an 13 applicant and I'd like to speak to the issue. 14 CHAIRMAN FREEMAN: Thank you, Mr. Benson. Anyone 15 else? 16 MR. HAGEN: I'm Bruce Hagen, I represent the Cleland 17 and the Bethel Trust and I'd like to speak at a later time. 18 MR. OSBORN: Darrell Osborn, same. 19 MR. HULT: Jerome Hult, same. 20 MR. STEVENS: Mike Stevens, same way. 21 CHAIRMAN FREEMAN: Who? 22 MR. STEVENS: Mike Stevens. 23 MR. McCARTY: I'm Don McCarty, an attorney from 24 Brookings. I'm appearing for Carey Miller and Todd Miller, who 25 filed a petition. It should be in the file; if there is not, I	7 1 appreciates this, and I would represent to you that the request 2 for additional study is not an academic request, it is a 3 request that is based on the need to undertake meaningful water 4 analysis before proceeding with issuing permits. And with that 5 thought in mind, I would just point out that Ken Buhler will be 6 testifying at length regarding his analysis on this matter and 7 then the Chief Engineer's recommendation as well. 8 CHAIRMAN FREEMAN: Thank you, Ms. Best. Mr. Rumpca. 9 MR. RUMPCA: Thank you. Just a matter of 10 housekeeping. I know I had spoken with Ms. Best prior to the 11 hearing. Gary Peterson, we have exhibits, and we would ask if 12 we were going to stipulate to the admission of those exhibits 13 if we could hand those out now so that we are not doing it at a 14 later time, since I think some of it will be relevant even 15 during the testimony that Ms. Best will put on. 16 MS. BEST: No objection. 17 MR. HALLEM: We have a bunch of other individual 18 applicants that are parties as well and so they would have to 19 also have no objection on it, that's one of the issues on it. 20 Everybody that introduced themselves as a party, for the court 21 reporter, identify who they are and whether they have an 22 objection to any of these exhibits being given to the board at 23 this time. 24 CHAIRMAN FREEMAN: Mr. Benson? 25 MR. BENSON: Are you speaking to me? No.

Water Permit Application No. 7441-3

8 1 CHAIRMAN FREEMAN: Mr. Hagen, any objection? 2 MR. HAGEN: No objection. 3 CHAIRMAN FREEMAN: Mr. Osborn? 4 MR. OSBORN: No objection. 5 CHAIRMAN FREEMAN: Mr. Hult is it? 6 MR. HULT: Yes. No objection. 7 CHAIRMAN FREEMAN: Mr. Stevens? 8 MR. STEVENS: No objections. 9 CHAIRMAN FREEMAN: Mr. McCarty? 10 MR. McCARTY: I have no objection and just as a 11 housekeeping matter before we go any further, when my clients 12 filed their petition, there were only a certain number of 13 applications that were on the hearing date. So if we are going 14 to hear all of the applications at one time, I'd ask that the 15 petition that we filed be considered with regard to all 16 applications as well. It's going to all be the same evidence, 17 same arguments, same conclusions, I presume. 18 CHAIRMAN FREEMAN: Unless I hear an objection, we will 19 do it that way. 20 MR. McCARTY: Thank you. 21 CHAIRMAN FREEMAN: I didn't hear any objection. So if 22 you want to have those marked. 23 MR. RUMPCA: I had these previously marked. I have 24 the original here and copies for all the board members. 25 CHAIRMAN FREEMAN: Since the parties have no	10 1 Hansen's permit and application, and it has a specific 2 engineering report from Roger, and Roger's well is actually 3 located about 5,000 feet from where this proposal is. And we 4 are right near where that border is between, we will get into 5 it more, but the upper Vermillion Missouri aquifer and the 6 lower Vermillion Missouri aquifer. We are way down on the 7 south end of this, and the board's approval of his permit will 8 really actually dictate his ability to actually farm that piece 9 of land and the investment that they have already made and the 10 money that they have already invested into it. 11 So I intend to call Gary as a witness to testify to 12 that. I'll also intend to call Mr. Adam Mathlowetz. He's the 13 engineer who actually did the report for Roger Hansen. One of 14 the reasons why we didn't do a specific engineering report for 15 Mr. Peterson is when we actually learned of the deferral 16 recommendation, it would have been too late to have that 17 prepared for today; so that's why we are utilizing that one and 18 because of its close proximity to Mr. Peterson, we believe it 19 to be quite relevant towards his request. Thank you. 20 CHAIRMAN FREEMAN: Mr. Benson, do you wish to make an 21 opening statement or just wait and present your testimony? 22 MR. BENSON: I would present my case when the time 23 comes, I guess. 24 CHAIRMAN FREEMAN: Mr. Hagen. 25 MR. HAGEN: I defer until he's presented his
9 1 objection, we will accept what has been marked GP Exhibits 1, 2 2, 3, 4, 5 and 6. 3 <u>EXHIBITS:</u> 4 (GP Exhibit Nos. 1 through 6 received into evidence.) 5 MR. RUMPCA: Thank you, just a brief opening. I 6 represent Gary and Julie Peterson. You will note on the 7 applications that they are the top two applications on there. 8 And just sort of to clarify, one of the applications is for an 9 existing irrigator and an existing well. Through the 10 application process, it was explained that he is proposing to 11 appropriate 80 acre feet a year to irrigate 40 acres using an 12 existing well which is authorized by Water Right No. 5982-3. 13 I'll get into some of the exhibits with Mr. Peterson, 14 but he's not actually asking for more water on that, just to 15 actually be able to extend that irrigator using the same amount 16 of water. So that's what he had initially intended when he did 17 file that application. 18 The other application that Mr. Peterson has is for 19 7441-3. We will get into where that is, it's actually located 20 very near the current well that he has. With that, it was a 21 \$1.2 million piece of land that he had invested in. They 22 currently have sitting on that a \$100,000 irrigator, it's ready 23 to go, but we need to actually have the permission to use the 24 water, and that's why we are here before the board today. 25 One of the exhibits that we have there is Roger	11 1 information. He may cover some of the things I intend to 2 cover. 3 CHAIRMAN FREEMAN: Mr. Osborn? 4 MR. OSBORN: Wait. 5 CHAIRMAN FREEMAN: Mr. Hult? 6 MR. HULT: I'll wait. 7 CHAIRMAN FREEMAN: Mr. Stevens? 8 MR. STEVENS: Same. 9 CHAIRMAN FREEMAN: Mr. McCarty. 10 MR. McCARTY: Yes, the only thing I would add to it, 11 you can see from the petition that was filed by my clients, 12 they are both landowners in the area on Swan Lake. We really 13 are just taking the position of deferral and study to determine 14 what's going to happen here with regard to water levels on the 15 aquifer before substantial number of irrigation wells are put 16 in. 17 We understand the importance of the irrigation, but in 18 terms of public use and access to the lake, we think it's an 19 issue as well. And so that's why we are joining in the request 20 for a deferral and additional study. 21 CHAIRMAN FREEMAN: Thank you. Ms. Best, I think you 22 may proceed. 23 MS. BEST: First off, I normally put in the file as 24 DENR 1 and I'm going to do it that way this time, too. It 25 might be a little bit awkward. By file, the agency files are

12 1 the application, the original application, the letters to the 2 newspaper regarding publication, the affidavits of publication 3 for each of the applications, the petitions to Intervene, and 4 in the case of Mr. McCarty's client, it would be the files 5 currently have the written petition to intervene on a portion 6 of the files, but of course that was expanded just now so they 7 would intervene in all. And then it includes a copy of the 8 DENR report of Ken Buhler. He prepared, as I indicated, two 9 reports, the first batch and the second batch, and the relevant 10 reports in each one of those and then the Chief Engineer's 11 recommendation. And so what I would like to do is I'll go 12 through each of the DENR files and ask for admission. DENR 1A 13 is Water Permit Application 7535-3, Donald D. Benson. Move for 14 admission. 15 CHAIRMAN FREEMAN: Any objection by any of the 16 parties? What number was that? 17 MS. BEST: DENR 1A. 18 CHAIRMAN FREEMAN: We will accept 1A. 19 EXHIBITS: 20 (DENR Exhibit No. 1A received into evidence.) 21 MS. BEST: Is this the correct procedure or do you 22 want me to just read them all? 23 CHAIRMAN FREEMAN: I think they are all the same, 24 aren't they? 25 MS. BEST: They are all the same. I can run through	14 1 received into evidence.) 2 MS. BEST: At this time I would call DENR witness Ken 3 Buhler. 4 Thereupon, 5 KEN BUHLER, 6 called as a witness, having been previously duly sworn as 7 hereinafter certified, testified as follows: 8 CHAIRMAN FREEMAN: Ken, you were sworn in this 9 morning? 10 THE WITNESS: Yes, sir. 11 DIRECT EXAMINATION 12 BY MS. BEST: 13 Q. For the record, where are you employed? 14 A. I work at DENR, the South Dakota Department of 15 Environment and Natural Resources with the Water Rights 16 Program. 17 Q. And we are going to need you to speak louder, okay? 18 Ken and I have both had some colds this week; so pipe up, 19 Carla, if we have problems speaking. Ken, have you prepared a 20 vita of your expert qualifications? 21 A. Yes, ma'am. 22 Q. And is Exhibit 2 a copy of that? 23 A. Yes. 24 MS. BEST: Move Exhibit 2. 25 CHAIRMAN FREEMAN: Any objection?
13 1 and identify them. DENR 1B is 7441-3, Gary or Julie Peterson. 2 DENR 1C is 7442-3, Gary or Julie Peterson. DENR 1D is 7452-3, 3 Jerome Hult. Water Permit Application 7466-3 is the Bethel 4 Hagen Trust, that file has been marked as DENR Exhibit 1E. 5 DENR Exhibit 1F is No. 7467-3, the Cleland, C-L-E-L-A-N-D, 6 Hagen Trust. DENR Exhibit 1G is Water Permit Application 7 7468-3, also the Cleland Hagen Trust. DENR Exhibit 1H is also 8 the Cleland Hagen Trust and that is 7558-3. DENR Exhibit 1I is 9 Water Permit Application 7588-3, Paul Petersen. DENR Exhibit 10 1J is Water Permit Application 7587-3, Paul Petersen. DENR 11 Exhibit 1K is Water Permit Application 7600-3, Michael D. 12 Stevens. DENR Exhibit 1L is 7601-3, also Michael Stevens. 13 DENR Exhibit 1M is 7602-3, also Michael Stevens. DENR Exhibit 14 1N is 7603-3, also Michael Stevens. There is no DENR 1 O, for 15 obvious reasons. DENR 1P is Application No. 7623-3, Darrell 16 Osborn. DENR Exhibit 1Q is Water Permit Application 7633-3, 17 Brad Farrar. And DENR Exhibit 1R is Water Permit Application 18 7653-3, Jeremiah Welsh. And I would ask that the board admit 19 all of those into evidence at this time. 20 CHAIRMAN FREEMAN: Any objections by any of the 21 parties? Then we will receive -- we have already received 1A; 22 so we will receive DENR Exhibits 1B through 1R, except there is 23 no one zero. Those are accepted. 24 EXHIBITS: 25 (DENR Exhibit Nos. 1B through 1N and 1P, 1Q and 1R	15 1 MR. RUMPCA: No objection. 2 CHAIRMAN FREEMAN: Exhibit 2 will be received. 3 EXHIBITS: 4 (DENR Exhibit No. 2 received into evidence.) 5 Q. (BY MS. BEST) Ken, are you the DENR employee who 6 reviewed the applications that are being heard here today? 7 A. Yes. 8 Q. And you prepared a report; is that correct? 9 A. Yes. Actually, two of them. 10 Q. Two reports. Did you also prepare a PowerPoint? 11 A. Yes, I did. 12 Q. And I'm going to hand you what's marked as DENR 3. Is 13 this a copy of your PowerPoint presentation? 14 A. Yes. 15 MS. BEST: I'm going to move DENR 3 and have him give 16 the presentation. 17 CHAIRMAN FREEMAN: Any objection from any of the 18 parties? Exhibit what is it, 3? Exhibit 3 will be received. 19 EXHIBITS: 20 (DENR Exhibit No. 3 received into evidence.) 21 Q. (BY MS. BEST) Before we get into that, and I already 22 alluded to it, but can you tell the board why you did two 23 different reports? 24 A. There were actually two sets of water permit 25 applications that came in. There were seven or eight

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1 applications that came in, we analyzed those. After the Chief
2 Engineer's recommendation came out on that analysis, then a
3 second group of permits came in and so we had to look at that
4 second set of permits.

5 Q. And then this PowerPoint presentation that you are
6 going to give, that's for all of the applications, correct?

7 A. That's correct.

8 Q. Could you just proceed and provide your PowerPoint
9 presentation to the board?

10 A. Yes. Before we do that, I have one cleanup that needs
11 to be done and there is an error in the second report; so we
12 actually need to go in tab three of your folder, two-thirds of
13 the way through is a second orange spacer. After that second
14 orange spacer on page three of the report, there is a listing
15 in the last paragraph above my signature that says Water Permit
16 Application Nos. 7558-3, 7587-3, 7588-3, 7603-3, 7601, 7602,
17 7623, in that sentence, we should insert the words "7603-3 and
18 7609-3." For some reason that didn't make it into that line,
19 although that was part of the analysis.

20 Something else that we need to talk about, we
21 analyzed, looked at Water Permit Application 7609-3. At the
22 time we did the analysis, Water Permit 7609-3 was proposing to
23 appropriate water from the Upper Vermillion Missouri aquifer.
24 At the end of the day, following recommendation, et cetera,
25 that application was more or less withdrawn and they applied

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1 out of the Parker Centerville; so my report shows -- It should
2 show 7609-3, we looked at things including that, that has since
3 dropped out. I think that's the extent of my housekeeping.

4 Q. Okay. Thank you, Ken. Would you please proceed with
5 your PowerPoint presentation.

6 A. Can we drop that one set of lights? It might help out
7 a little bit.

8 MS. DIXON: On that second report, likewise the first
9 page, it says February 4th of 2012.

10 A. That's correct.

11 MS. DIXON: That's correct?

12 A. Yes. Because we went through a rather lengthy
13 analysis or a fairly detailed analysis of these applications to
14 try to do the right thing, it's fairly involved; so what we
15 wanted to do is walk everybody through this so everybody
16 understands exactly what we went through.

17 There were 18 permit applications. Adam, could you
18 kind of square that guy up just a tad. There were 18 water
19 permit applications out of the Upper Vermillion Missouri
20 aquifer that we looked at all said and done, and that was for
21 2334 acres. Like I said, this is out of the Upper Vermillion
22 Missouri aquifer. The Upper Vermillion Missouri is an aquifer
23 that was first described by Stephens in Clay County in 1967.
24 This is a buried glacial aquifer. It's somewhere like -- It
25 can be up to 100, 150 feet thick. We are looking at average

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1 thickness of the aquifer generally around 68 feet. It's
2 generally a buried aquifer. The top of the aquifer, depending
3 on where you are at, somewhere between 59 and 286 feet below
4 ground surface. We can be talking about in general terms the
5 aquifer is 100 to 150 feet below ground surface. It's
6 generally confined or an artesian aquifer. Ground water
7 movement in this aquifer is generally to the south southeast at
8 something like 4.3 feet per mile, something like that.

9 The aquifer was originally defined by Hedges in -- of
10 course it was originally defined by Stephens, but in 1982 as
11 part of what we call the Corps report, the South Dakota
12 Geologic Survey did an analysis or delineated all the aquifers.
13 What they did was said we got the Upper Vermillion Missouri
14 aquifer here and we got the Lower Vermillion Missouri aquifer
15 here, there's a line between the two right there. The way
16 Hedges described this, he said this aquifer contains 132 -- it
17 underlies 132,900 acres and it contains something like 1.35
18 million acre feet of recoverable water in storage. So that's
19 the aquifer that we are dealing with.

20 Well, in 1994 the USGS went out and did a study, Collin
21 Niehus did it, and he looked at Lincoln County, and with
22 Lincoln County, we ended up with this little modification up
23 here to what Hedges had originally. In 1990 Don Hansen and
24 Rick Lindgren with the USGS, they did Turner County and Hanson
25 County and so we end up with some more modification, presumably

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1 further delineation of the aquifer. So if we take what was
2 done in Lincoln County by Niehus and then take the Lindgren
3 stuff over here and have to fill in down here with what Hedges
4 has, we end up with the current shape of the aquifer with the
5 best information that we have available.

6 MR. HAGEN: Can I ask you a question?

7 CHAIRMAN FREEMAN: Just a minute, please. We have to
8 go in order, otherwise we won't get anything done, but you will
9 have a chance. Just note your questions and you will get a
10 chance to ask Ken later.

11 Q. (BY MS. BEST) Since we are still on direct, Ken, just
12 to make it clear to everybody, are these townships --

13 A. I think I got one that's going to work out later on,
14 but just to make things clear in front of God and everybody, we
15 got Sioux Falls, Lennox, Davis, Centerville, Beresford, each
16 square is a township.

17 MR. HAGEN: That was my question.

18 A. We end up with an aquifer that with the best
19 information we got, this is what it looks like. So again,
20 Lennox, Davis, Hurley, Viborg, Centerville. With the shape of
21 the aquifer right now, the delineation of it, we are talking
22 about an aquifer that underlies around 204,000, 204,832 acres
23 of Clay, Turner, Hutchinson Counties and Lincoln County. So
24 that's about 320 square miles.

25 Kind of a big deal with the Upper Vermillion Missouri

20 1 is this is a basal aquifer, which means it lies -- in general 2 it lies right on top of the bedrock and in this area -- okay, 3 got it -- in this area the bedrock that we are talking about, 4 this is the same background map. This ugly green is the 5 Niobrara Formation. Almost as ugly blue is the Carlile Shale 6 and then we have like the Pierre Shale sitting over here. 7 When we overlay the Upper Vermillion Missouri aquifer 8 onto the bedrock, you can see that it's lying in some channels 9 that were cut into the bedrock, and the big thing about this is 10 Lindgren, in the USGS study on Turner County, pointed out these 11 little green areas right here, and I personally think that he 12 could have pointed out a lot more, but in these green areas 13 he's saying right here we have got the Upper Vermillion 14 Missouri aquifer in direct contact with the Niobrara Formation, 15 which is a bedrock aquifer, and we get recharge from the 16 bedrock to the aquifer there. 17 Q. Ken, if I may, that's slide number 13, correct? 18 A. Yes. 19 Q. Please proceed. 20 A. So we got seven applications in from the Upper 21 Vermillion originally, to appropriate water from the Upper 22 Vermillion Missouri aquifer. These applications came between 23 September 26th and November 30th. We put a rather lengthy -- 24 we put a lot of work into reviewing these. We got that 25 analysis done on December 11th. The Chief Engineer's	22 1 are going to use average annual recharge, you are going to use 2 average annual withdrawal. 3 In 2012 in a case involving Hanson County Dairy, the 4 First Judicial Court said the statute requires us to bring to 5 you a comparison of annual withdrawal with average annual 6 recharge; so that is exactly what we are going to try to do. 7 Average annual recharge to the Upper Vermillion Missouri 8 aquifer, first time anybody looked at it was Lynn Hedges, a 9 hydrologist with the State Geologic Survey, and then we looked 10 at it again based on 2012 numbers. Lynn Hedges came up with an 11 estimate that we are getting recharge of .25 inches per year to 12 the aquifer. With an area of 204,000 and change acres, we are 13 looking at recharge to the aquifer of 4267 acre feet a year. 14 Frankly, that number didn't look real good; so we did 15 another analysis using our observation well data, created a 16 potentiometric surface, tried to calculate how much water is 17 flowing to the aquifer based on what our observation well data 18 shows. That flow net analysis, we did this the past couple 19 aquifers that we had big analysis in here for you on, simply 20 says the amount of water that's flowing through the aquifer 21 equals the transmissivity of the aquifer times the gradient of 22 the aquifer times the length, the cross section length that the 23 water is moving through. 24 So we get water moving through the aquifer. We looked 25 at 22 irrigation wells from the Upper Vermillion Missouri
21 1 recommendation to defer these came out on December 18th. 2 About the time that that recommendation was coming out 3 or shortly thereafter, then we got another 10 applications and 4 those would be the ones that show up in the red. Those 5 applications -- another 11, I'm sorry, they came in between 6 December 13th and December 22nd. We looked at those, got an 7 analysis done on February 4th, and the Chief Engineer's 8 recommendation to defer came out on February 5th. 9 In this analysis, what we are looking at of course is 10 SDCL 46-2A-9. That says that we have to have -- for a permit 11 to be approved, there needs to be a reasonable probability 12 there's unappropriated water available, approval of the permit 13 can't cause unlawful impairment of existing rights, it has to 14 be a beneficial use of water, it has to be in the public 15 interest. So as always, as staff engineers, what we looked at 16 was is there unappropriated water available and is there an 17 impairment of existing rights issue. The big thing on this was 18 the is there availability of water. 19 To look at whether there's unappropriated water 20 available, of course we looked at 46-6-3.1. The statute very 21 simply says withdrawal from an aquifer can't exceed recharge to 22 the aquifer. The courts have kind of helped define things. In 23 2005, the Sixth Judicial Court pretty much said in the Hines 24 decision, okay, when you are looking at average annual recharge 25 and withdrawal, we are going to go average to average; if you	23 1 aquifer in which we were able to calculate or estimate a 2 transmissivity based on those wells, the best information we 3 could come up with, we got a transmissivity of 144,000 and 4 change gallons per day per foot. Based on the observation well 5 data, it was pretty easy to calculate that the gradient of the 6 water table or the potentiometric surface was 4.5 feet per 7 mile, all the water is moving through 8 miles, you throw the 8 conversion into it and you get average annual recharge, which 9 we got something like 5800 acre feet of water per year moving 10 through the aquifer. 11 Okay, we got withdrawals from the aquifer that are 12 both natural withdrawals and withdrawals from wells. Our 2011 13 well withdrawal looks like this. We have a little bit of water 14 use, something like 22 acre feet a year from the city of 15 Centerville. We have a little bit of commercial use, there is 16 a fertilizer plant and there is a confinement operation, a 17 feedlot that they are using like 40 acre feet of water a year. 18 We got rural water systems that are using like 28 percent of 19 the water out of the aquifer and we get irrigation that's using 20 something like 70 percent of the water out of the aquifer. 21 To break down our big users, rural water system use, 22 we got two rural water systems pumping out of the Upper 23 Vermillion Missouri aquifer. The red bars are TM Rural Water 24 System, the blue bars are South Lincoln Rural Water. We are 25 just topping things off with red here. TM isn't using, wasn't

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1 using very much out of the Upper Vermillion Missouri earlier.
2 In about 2007, 2008 they came online. Right now in 2010 and
3 2011 there's about even split between the two. It adds up to
4 around 2250 acre feet of water a year that rural water systems
5 are pumping out of the Upper Vermillion Missouri aquifer.

6 The big user out of the Upper Vermillion Missouri
7 aquifer is irrigation. We went back and looked at the
8 irrigation questionnaires, summaries from 1979 to current and
9 this is how it plots out, with acre feet per year on the left
10 and years on the bottom axis. You can see that the amount that
11 we are irrigating out of the aquifer, it fluctuates not so much
12 with what's appropriated out of the aquifer but mostly with
13 climatic conditions. When it's dry, there's a lot of pumping;
14 when it's wet, there isn't. At the end of the day, the most
15 irrigators have reported pumping out of the aquifer is 7906
16 acre feet a year. The least they pumped was over here in 2010,
17 159 acre feet a year, and the average pumping for irrigation
18 was 4865.42 acre feet a year.

19 Q. Ken, for clarification, the slide you just were
20 testifying off was 26?

21 A. 25.

22 Q. 25, I'm sorry.

23 A. Okay, so on slide number 26, just to make life real
24 easy, we are going to compare average annual recharge with
25 average annual well withdrawals. Recharge estimates between

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1 Hedges and what we did, we got estimates ranging from around
2 4300 acre feet a year to around 5800 acre feet a year.
3 Discharge estimates, when you add up commercial, municipal,
4 rural water and irrigation, we are looking at 7160 acre feet a
5 year. In addition to average discharge, there's also 740 acre
6 feet reserved for future use from the aquifer that needs to be
7 considered 100 percent developable. So you add that 740 acre
8 feet in and we get -- we need to anticipate average annual
9 withdrawal from the aquifer will be 7900 acre feet a year.

10 Again, those numbers, they didn't work; so we looked
11 at the observation well data. We have always come to this
12 board and said the best information we have for you is the
13 observation well data. In addition, Administrative Rule of
14 South Dakota 74:02:05:07 pretty much says the Water Management
15 Board shall rely on this data. So bringing this data into the
16 board, . . . I'm getting lost, I'm sorry.

17 We looked at hydrographs. We have 29 observation
18 wells in the Upper Vermillion Missouri aquifer. Slide number
19 28 shows the distribution of those wells. We looked at the
20 hydrographs on each and every one of them. You know, usually
21 we are seeing a hydrograph -- most of the time I'm going to
22 bring a hydrograph in front of this board that's going to look
23 something like this. We have high water levels when it's wet,
24 lower water levels when it's dry, see some little fluctuation.
25 Almost everything is climatic, the impact. The climatic

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1 conditions mask any well withdrawals and pumping from the
2 withdrawals.

3 A lot of other aquifers we are able to come in here
4 and say, you look at this line right here, what that is is
5 that's a linear trend line based on a linear regression of
6 those points and it shows an upward trend to it. And in fact
7 what that would show with that upward trend is there's actually
8 more water in storage at the end of the day than there was at
9 the beginning of the day. Looking at the water levels -- I'm
10 sorry, at the recharge and discharge estimates from the
11 aquifer, we would have liked to have been able to say the
12 observation well data does not support the recharge estimates
13 because we have upward trending water levels.

14 Well, within the Upper Vermillion Missouri aquifer, we
15 also have hydrographs that look like this. This is observation
16 well TU-77F. Now, as you look at this observation well, the
17 effects of pumping are very evident here, but at the end of the
18 day, the trend of the water level is dictated or dominated by
19 climatic conditions. Those climatic conditions are masking
20 what's happening with the pumping. When you do a linear
21 regression on these water levels, you have a downward trending
22 linear trend line, suggesting that withdrawals are exceeding
23 recharge.

24 Table, I think it's table 5 in your report shows -- is
25 this particular table. I need to point out an error in TU-77Y.

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1 On your report there's an extra zero after the decimal point,
2 it should just be .0183, not two zeros. So with that in mind,
3 it doesn't affect the analysis, simply an error.

4 Okay, so we look at all these observation wells, the
5 29 observation wells within the aquifer, and at the end of the
6 day, all of these in yellow have downward trending water
7 levels, and with those downward trending water levels, we can't
8 say that -- you know, we have got some issues. In fact 15 out
9 of 29 of those observation wells show declining water levels.

10 What we did was looked to see whether there was some
11 sort of aerial distribution to the downward trending water
12 levels, see what was going on with that and plotted things up,
13 and at the end of the day here with this being -- I guess
14 that's slide 31. These areas right here and here show -- these
15 are the areas where we have downward trending water levels.

16 With those two areas of downward trending water
17 levels, we have to look at it and say is that because those are
18 areas where the rural water systems are -- rural water systems
19 are pumping and the amount that they are pumping hasn't -- they
20 haven't stayed constant so as they keep increasing their
21 pumping, that causes the water levels to decline? Are we
22 getting declines from those areas because they are on the edge
23 of the aquifer and when you get on the edge of the aquifer, you
24 get some -- it tends to exacerbate drawdown? Or do we truly
25 have some water short areas here in which recharge is being

28 1 exceeded by withdrawals? 2 Because of that, we had three conclusions that we 3 presented to the Chief Engineer to allow him to make a 4 recommendation. First conclusion is with the information we 5 have available to us right now, we simply cannot conclude that 6 there is unappropriated water available from the aquifer. So 7 we can't recommend approval of these -- didn't feel we could 8 recommend approval. The second thing that we concluded to 9 allow him to make a recommendation was very simply, you know 10 what, I think I'm going to get more water out of the Niobrara. 11 If you pump harder, we are going to be able to induce some more 12 water; so I don't think we should recommend denial of these 13 because we are going to be able to get some more water, simply 14 can't put a number on that. Since we can't put a number on 15 that, the final conclusion is we need to look at this some 16 more. There needs to be some additional studies done to insure 17 that water from the Upper Vermillion Missouri is placed to 18 maximum beneficial use while protecting existing users. We 19 recognize very well that this is a very important thing to 20 everybody sitting in this room. We wouldn't be here if it 21 wasn't, but by the same token, there is nobody here that wants 22 to cause any harm to anybody that's already out there. 23 Those were our conclusions and that led to the Chief 24 Engineer recommending deferral of the water permit 25 applications.	30 1 Q. To try and look for a way to analyze it further. 2 A. Really looked at the observation well data hoping it 3 was going to say forget about the numbers, what we can take to 4 the bank is the observation well stuff, stuff that we have 5 actually measured, that's what we were really trying to do. 6 Q. Ken, another follow-up question. At the very 7 beginning of your presentation, board member Dixon asked you 8 about the date on the top of report number two. 9 A. Okay. 10 Q. It does say February 4, 2012. 11 A. Oh. 12 Q. I'll give you a chance again to correct that. 13 A. The second report is dated February 4th, 2012. The 14 author wishes it would have said February 4th, 2013. 15 Q. And February 4, 2013 is in fact when you submitted 16 your recommendation. 17 A. Is in fact when the report was done. 18 Q. I have another issue to ask you about. One of the 19 intervenors had brought up that there was another water permit 20 application that was recently reviewed by the DENR. Do you 21 need a break, Ken? 22 There was another water permit application that was 23 recently reviewed by the DENR and that was -- he referred to it 24 as Roger Hansen, but Hansen Properties, and he gave exhibits to 25 the board. Are you familiar with that application?
29 1 Q. Okay, Ken, I'm going to ask you some follow-up 2 questions. Can you go back to slide 26. 3 A. Which one are you looking for, Diane? 4 Q. Average annual recharge compared to average annual 5 withdrawal. 6 A. Number 28. 7 Q. That's the one. Okay, it has number 26 on the lower 8 right-hand corner, correct? 9 A. Go back one, Adam. Yes. 10 Q. Ken, when you were testifying, and I know you were 11 kind of trying to do it fairly short form to just review this 12 briefly, but you said that -- you went through this analysis 13 and then you said it didn't work. What did you mean by that? 14 A. I apologize. What I meant by that was looking at the 15 statute, looking at 46-6-3.1 that says average annual 16 withdrawal can't exceed average annual recharge, these numbers, 17 average annual withdrawal is expected to be 7900 acre feet a 18 year, average annual recharge is at best 5836 acre feet a year. 19 We can't comply with that statute 46-6-3.1 if those numbers are 20 right. 21 Q. So if we had to rely on this information alone, you 22 would have to recommend that the permits be denied? 23 A. That's correct. 24 Q. So that's why you went into the other analysis, then? 25 A. That's correct.	31 1 A. Yes. 2 Q. And have you looked at the maps to see where that is 3 with respect to Gary Peterson? 4 A. Yes. 5 Q. Do you have anything on your PowerPoint on that? 6 A. Yeah, first let me back up one, if you don't mind. 7 Q. Sure. 8 A. I think the question is, if you remember, we were 9 talking originally on the Hedges map there's an Upper 10 Vermillion Missouri, a Lower Vermillion Missouri, where is the 11 line, why is the line there. Adam, would you do me a favor, 12 pop me to slide number 10. This is the Upper Vermillion 13 Missouri aquifer. We have got this line right down here that 14 separates Upper Vermillion Missouri from the Lower Vermillion 15 Missouri. Now hit me with number 36, please. 16 What I want to do is try to spend a -- thank you -- 17 what happened, most of these guys -- I owe them an explanation, 18 I owe this board an explanation; so what we are going to do is 19 on February 5th, we met with several of these folks down in 20 Viborg. One of the questions came up was how come the line, 21 where is the line, and at the time I had to say I don't know. 22 Well, I know now where it came from and so I owe you guys -- I 23 wasn't lying to you then. Here is what's up. Down in this 24 area we got what's called the the Parker Centerville outwash. 25 Q. That's slide number 35?

32

1 A. Slide number 35, correct. That Parker Centerville
2 outwash, it's a surficial aquifer, meaning you dig a post pole,
3 you hit the Parker Centerville outwash most of the time.
4 Again, here was Hedges's Upper Vermillion Missouri and Lower
5 Vermillion Missouri. If we pop the Parker Centerville outwash
6 on top of it, it's overlying the Upper Vermillion Missouri
7 aquifer.

8 Q. That's 37?

9 A. At the line right here, the Parker Centerville outwash
10 blends with the Lower Vermillion Missouri aquifer; so we are
11 able to draw a line here saying that's Upper Vermillion
12 Missouri, down below it is Lower Vermillion Missouri, and we
13 end up with this line. We end up looking like this. Now, I am
14 maybe making it really simple, maybe not. There is two test
15 holes drilled by the State Geologic Survey, a north one and a
16 south one. If you look at the north one, and I am not sure how
17 many can actually read this, I apologize, what this shows is
18 from zero to 30, there is sand and gravel. I gotta get a
19 closer look at this. From zero to 30 there is sand and gravel,
20 and then from 54 to 154 there's sand and gravel. That sand and
21 gravel up there is the Parker Centerville outwash. The sand
22 and gravel down below is the Upper Vermillion Missouri aquifer.

23 If we go to this other test hole over here, we got
24 sand from zero all the way down to 145 feet. All of that sand
25 is the Lower Vermillion Missouri aquifer, it's after -- over

33

1 here they haven't blended yet, here they have blended. At this
2 point they have blended; so that is where Lynn Hedges drew this
3 line right here saying that's the difference between the two.
4 Actually in this -- okay, anyway, that's it.

5 Q. Okay, that's where the line is?

6 A. That's where the line is drawn.

7 Q. So --

8 A. Now you --

9 Q. To clarify, I want to make sure we clarify this.

10 There are two aquifers, they meet, they become one aquifer and
11 it's right at that line?

12 A. That's correct, and so they are treated differently.
13 Now, you were asking and I skipped --

14 Q. Let's go back to the question I asked. What is the
15 deal with the Hansen Properties application in that area? They
16 got the application. Were you involved in reviewing that
17 application?

18 A. Yes.

19 Q. Okay, and were concerns raised about the availability
20 of water for that application?

21 A. Let me show you on this slide. Mr. Gary Peterson is
22 the one that raised the concern. His permit application is
23 right here for two permits. Hansen Properties is right here.
24 If you want to zoom in on it, we are actually looking at this.
25 Hansen Properties is right here; the proposed well for 7441-3

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1 is right here. The existing well that Mr. Peterson proposes to
2 use is 7442-3. This is a half mile from here to here; so we
3 are in very close proximity. And when the review -- staff
4 reviewed Hansen Properties, that review, we came up with
5 average annual -- you need to go back one.

6 At the time of the review, we looked at the Upper
7 Vermillion Missouri aquifer in Clay County. In looking at it
8 in Clay County, the average annual recharge, based on Hedges's
9 estimate, was something like 222 acre feet of water a year.
10 Estimated withdrawal due to irrigation from Clay County was 500
11 plus acre feet a year. That threw up the same red flag we are
12 looking at right now, average annual recharge, average annual
13 withdrawal. At the time we looked at some of the observation
14 wells in the area and said the observation wells in this area
15 don't support the recharge numbers, and recognizing that,
16 again, those were the observation wells, those were the three
17 that -- these in blue were the three that we used to say, you
18 know what, these observation wells don't show -- don't support
19 the recharge numbers. So we actually erred on the side of
20 46-1-4 that says put water to maximum beneficial use.

21 Q. Okay, now, actually, it was another engineer within
22 your department that reviewed the Hansen Properties matter.

23 A. That's right. I kind of like doing the we thing
24 rather than I or Adam, but Mr. Adam Mathlowetz did that review.

25 Q. He works directly with you.

35

1 A. Adam is with the ground water program, ground water
2 part of the Water Rights Program, and I assigned the work to
3 him and reviewed the work and then when the red flags came up,
4 we discussed it, we talked about it, we worked on it.

5 Q. So there was one application, it was Hansen
6 Properties, red flags came up, it was granted, then there were
7 a number of other applications here and you recommended
8 deferral at the present time.

9 A. That's right. There's actually kind of an
10 intermediate step there that this application came in and then
11 we -- when the Peterson application came in, we actually
12 assigned that to a different engineer to look at and with some
13 serious -- the idea was, okay, when we looked at just Clay
14 County, the numbers didn't work, let's expand this throughout
15 the entire aquifer and see what the numbers look like with
16 regard to average annual recharge and average annual withdrawal
17 going across the entire aquifer. That's when we got numbers
18 that looked something similar to what we have here, and from
19 there at that point I said I think this is going to have to go
20 to the board, no offense, but I want to take this in front of
21 the board instead of the Chief Engineer.

22 Q. When you say the numbers didn't work, you are not
23 saying you were out there searching for reasons to deny
24 permits.

25 A. No, we are actually looking for reasons to comply with

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1 46-1-4, you know, we are out here trying to -- absolutely.

2 Q. You look at the recharge, it raises a red flag, then
3 you go back and you look at observation wells and you got
4 problems also.

5 A. Looked at the observation wells, really, truly,
6 honestly hoping that they were going to say, you know what,
7 look at the observation wells, let's throw out the recharge
8 numbers till we can get better numbers, and the observation
9 well data didn't allow us to do that.

10 Q. Now, the recommendation is for deferring this whole
11 group of applications until more study is done. Is there a
12 likelihood that more study will be done in the near future?

13 A. Yes, we actually, we being Chief Engineer Erbele,
14 myself, Adam Mathlowetz, Joe Stonesifer, met with Tim Cowman
15 and state geologist Derric Iles and pretty much put together,
16 did some scoping, put together a plan of attack on how we are
17 going to look at this aquifer, planning on having everything
18 studied and if people can be irrigating, have things done
19 within a year.

20 Q. If an applicant was -- can applicants hire somebody to
21 do their own study?

22 A. Certainly.

23 Q. And you wouldn't have any problem looking at that,
24 right?

25 A. No, absolutely not. For what it's worth, what we are

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1 talking about doing on a study on this is at the very start,
2 look at every bit of data that's out there for the Upper
3 Vermillion Missouri aquifer, every test hole. You know, when
4 you look at the shape of the aquifer as it's currently
5 delineated, there is some possibilities of poking some holes
6 into that shape and really need to look at every test hole
7 that's been drilled out there, find out whether more test holes
8 need to be drilled, maybe do a couple aquifer tests to
9 determine what the aquifer characteristics are, and then put
10 this onto essentially a digital model, which is going to be
11 able to say if we get this -- if we are pumping this hard, we
12 can induce this much water out of the Niobrara, it means we can
13 get this much recharge out of the Niobrara so we can pump
14 withdrawals out of the aquifer up to this.

15 MS. BEST: No further direct.

16 CHAIRMAN FREEMAN: Mr. Rumpca.

17 CROSS-EXAMINATION

18 BY MR. RUMPCA:.

19 Q. While it's fresh in everybody's mind, I'd like to just
20 ask a few questions about the actual line itself and we will
21 keep that up, if that's okay.

22 A. Where do you want to go, probably slide 10 or which
23 one do you want?

24 Q. Let's start with number 41.

25 A. Hold on a second. 41 is not 41. Try 43.

38

1 Q. That's what I'm looking at. We see the red dot on the
2 left.

3 A. The northern one?

4 Q. Yes.

5 A. Yes.

6 Q. And then we see the other one down on the right.

7 Could you explain again that's a separate aquifer that's moving
8 actually into that or what's the actual difference between the
9 left or the northern most and the southern most red dots there?

10 A. The northern most -- probably more important than
11 northern most, it's westerly, and to the west, the Parker
12 Centerville outwash overlies the Upper Vermillion Missouri
13 aquifer. There is twenty some feet, nearly 20 feet of glacial
14 till between the two aquifers. When you move over to the one
15 on the east, the Parker Centerville isn't there. That is
16 simply the Upper Vermillion Missouri aquifer. And then if you
17 were to go south of that line, the southern boundary of the
18 Upper Vermillion Missouri aquifer, everything would look like
19 the eastern well, except it would be the Lower Vermillion
20 Missouri aquifer.

21 Q. So does that well -- is the southeastern well there,
22 is that the actual -- where the line is, is that well on the
23 line? Is the well on the southeast, is that well on the actual
24 line separating the north and the south?

25 A. No, that's actually up in the Upper Vermillion

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1 Missouri portion of the aquifer.

2 Q. And just for points of clarification, we are talking
3 about the Upper and the Lower Vermillion Missouri aquifer. Is
4 that the same aquifer or is it two separate aquifers? Are we
5 just talking about the north half?

6 A. For water management purposes, we consider it two
7 aquifers. We consider the two aquifers separate.

8 Q. And then so -- and we had previous slides that showed
9 the actual Niobrara in that formation, which would be to the
10 west of the Upper Missouri aquifer, correct?

11 A. Yes, it's to the west, but it's also to the north and
12 to the... There's a trench that's been cut into the bedrock
13 and so this trench on both sides of it, the trench has the
14 Upper Vermillion Missouri aquifer in it and on both sides of it
15 is the Niobrara.

16 Q. To your knowledge, have any permits, water permit
17 applications actually been deferred or denied in the Niobrara
18 aquifer?

19 A. Currently in deferred status or ever? Right now
20 there's nothing deferred out of the Niobrara. Ever ago there
21 was one, the Estabrook thing back in 1978-ish, something like
22 that. There's nothing now.

23 Q. And the Niobrara aquifer recharges, I know in the
24 reports it talks about the 19 miles, the southern most 19 miles
25 of Turner County in the Upper Vermillion Missouri aquifer.

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1 A. I was parroting Lindgren on that. Yeah, I think it's
 2 more than that.
 3 Q. It explains that the more you do pumping in the
 4 Vermillion aquifer gets recharged by the Niobrara. Why is
 5 that? How does that work?
 6 A. The gradient -- the water levels in the Niobrara are
 7 higher than the water levels in the Upper Vermillion Missouri.
 8 Water goes downhill. There is a hydraulic connection between
 9 the two. The potential for leakage is from the Niobrara to the
 10 Upper Vermillion Missouri.
 11 Q. What we are saying is the bottom 19 miles of the Upper
 12 Vermillion Missouri aquifer are being recharged by the
 13 Niobrara, which currently has no actual deferred permits.
 14 A. Yes.
 15 Q. Then I'm sorry I went on sort of a tangent there.
 16 Just to talk a little bit more about the actual line on slide
 17 43. When I'm referencing the number, I'm looking at this. The
 18 7441-3 and 7442-3, you have those both marked as Mr. Peterson's
 19 wells, the one existing and then the new one that he's
 20 requesting, two applications there.
 21 A. Yeah, the two are marked.
 22 Q. If we look at then the following slide --
 23 A. Yes.
 24 Q. -- we see that they are not actually north at all from
 25 the Hansen well but in fact the new proposed well, 441-3, is

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1 actually directly to the west of Mr. Hansen's well and the well
 2 which we are looking to amend and not actually asking for more
 3 water is actually south of there, correct?
 4 A. Yeah, you are right.
 5 Q. If we looked at this slide, then, are we able to
 6 determine where the line is between the north and south part of
 7 the actual aquifer?
 8 A. Between the Upper Vermillion Missouri and the Lower
 9 Vermillion Missouri based on this slide? No.
 10 Q. Is it there?
 11 A. I don't know.
 12 Q. The line that we are referencing, is it like a border
 13 or does it have width? Do we know how wide the actual line is?
 14 A. No.
 15 Q. No, it does not have width?
 16 A. No, it does not have an actual width. I can't tell
 17 you how wide it is.
 18 Q. So basically it's like a border where there's no
 19 actual distance for the actual line itself, no neutral zone?
 20 A. I'm not tracking. It isn't a razor sharp line; it
 21 could be a half mile wide line.
 22 Q. That is my question, whether the actual line itself
 23 has a width to it.
 24 A. No, there's no width assigned to it. There's a line
 25 on the map that Lynn Hedges put on the map and depending on

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1 what scale you make that map, that line gets different sizes.
 2 Q. So that would make sense if you were to zoom way in on
 3 a mark on a map, that line would expand as you zoom in and so
 4 we are --
 5 A. It could, depending how you do it, yeah.
 6 Q. How do you actually determine, when somebody applies
 7 for a well, how do you make the determination as to whether or
 8 not they are actually on the Upper or the Lower Vermillion
 9 Missouri aquifer?
 10 A. Plot the proposed diversion point on the map and see
 11 which side of the line it falls on.
 12 Q. Take the latitude, longitude or GPS coordinates?
 13 A. Yeah. Yeah, let me explain to you, I didn't like
 14 leaving you hanging. Can you back up? I don't know if I can
 15 back up so good. At one point you asked how come I got those
 16 points spotted north rather than west and it's because when I
 17 was putting all the points on the map, the scale of the map
 18 that we were using, I simply let the computer plot it and it
 19 plotted it in the center of the section. And at the scale that
 20 I was dealing with, center of the section worked, you know,
 21 enough to say these permits are all over the aquifer. The
 22 difference between center of section and the southwest quarter
 23 of the section that Mr. Peterson is looking at moves it from
 24 north of the well to straight west of the well. I just had to
 25 bring that up, just at the scale we are within a quarter of a

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1 mile.
 2 Q. Are there other observation wells within a mile or two
 3 radius of where Mr. Peterson is proposing?
 4 A. No. The only observation wells are shown on slide 45,
 5 and the nearest is that 80K well and I think that's in the
 6 several mile neighborhood. About three and a half miles, four
 7 miles-ish is the nearest we have got.
 8 Q. For observation, there are other wells, then, for
 9 actual irrigation.
 10 A. Oh, yes. Adam, would you do me a favor, pop me up
 11 slide number 53, 54, I'm sorry. Slide, it's a very busy slide,
 12 it shows a whole lot. I needed to do some things. The red
 13 dots on that are irrigation wells, the blue dot is the Hansen
 14 well. 7441-3, 7442 are spotted right there. All the red dots
 15 on there are irrigation wells. The yellow dots are commercial,
 16 commercial irrigation, municipal future use, rural water.
 17 That's all the permits from the aquifer.
 18 Q. You had a slide that actually showed where the real
 19 areas of concern or the --
 20 A. This has it on it, too.
 21 Q. Correct. And you would agree -- or what is the -- I'm
 22 trying to think of what word to describe that color.
 23 A. It started yellow.
 24 Q. Your pointer pointed to it. What is that color? I
 25 don't see it in the color code.

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1 **A. Let's call it the color of declining water levels. I**
 2 **don't want to say scours yellow, you know.**
 3 **Q. And you agree that those were the areas of greatest**
 4 **concern when you actually did the full analysis of the Upper**
 5 **Vermillion Missouri aquifer.**
 6 **A. Okay. They were the areas of declining water levels.**
 7 **Q. Correct. So then you are actually looking at, on the**
 8 **areas that are south of there in those two main areas of**
 9 **concern, is it fair to say that those water levels are not**
 10 **declining?**
 11 **A. That's correct. That's the only areas of declining**
 12 **water levels, are right there. Can I add one more thing,**
 13 **though? That is those are the areas of declining water levels,**
 14 **but something came up in between Mr. Mathlowetz's review of**
 15 **this application and my review of the application, and that**
 16 **included we made our last well, our last observation well run**
 17 **of the area.**
 18 **We measured the observation wells after when Adam**
 19 **wrote his report, a fall run. I got 15 out of 29 observation**
 20 **wells and they weren't the same 15 out of 29, this is a**
 21 **different -- in some cases a different 15 out of 29 that had**
 22 **the lowest water levels on record, and we have got wells out**
 23 **there since 1977. So we have these areas up here that there**
 24 **were declining water levels, but there's some sporadic wells in**
 25 **there that we got lower water levels than we have ever had**

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1 **before.**
 2 **Q. That's consistent throughout the nation with the**
 3 **drought, correct?**
 4 **A. Throughout the nation?**
 5 **Q. Over the last two years --**
 6 **A. I can talk to you about our observation well network**
 7 **and I can tell you that there are some aquifers that we have**
 8 **seen lower water -- the lowest water level in 2012 but not**
 9 **every aquifer.**
 10 **Q. You don't actually extend any of the research into,**
 11 **say, Nebraska or Kansas, you can't speak to the actual aquifers**
 12 **that are south of South Dakota?**
 13 **A. I can, but I don't see the relevance. Yes.**
 14 **Q. Relevance being it's no secret that the aquifers**
 15 **throughout the nation are experiencing extremely low levels due**
 16 **to the drought.**
 17 **A. There are some that are.**
 18 **Q. On slide number 15, I believe you had indicated this**
 19 **at the beginning, if we could look at number 15, you indicated**
 20 **that one of the applications has been withdrawn.**
 21 **A. 15, thank you.**
 22 **Q. Just to clarify, is it 7609-37**
 23 **A. Yes, it is. Yes, it was.**
 24 **Q. So the only two actual applications that we have in**
 25 **Clay County would be Mr. Peterson's, correct?**

1 **A. Yes, I believe you are right.**
 2 **Q. And just a point of clarification, the green line**
 3 **that's running east to west on Highway 46, is that the line**
 4 **between Clay and Turner County?**
 5 **A. Yeah, that's Highway 44 and that's also the county**
 6 **line.**
 7 **Q. Highway 46?**
 8 **A. Yeah, my eyes -- yeah.**
 9 **Q. I actually had questions, and I don't know, when you**
 10 **talked about the regional flow net analysis, you had that**
 11 **formula and that's indicated on slide 22.**
 12 **A. Yeah.**
 13 **Q. I think there's actually -- the eight miles, I didn't**
 14 **understand what the eight mile is. Is that an average?**
 15 **A. No. Would you go to slide 10, please. Thank you.**
 16 **Eight miles is right about across here. All of the water flows**
 17 **here and here, when you look at the potentiometric surface.**
 18 **It's roughly eight miles across here; so all the water flows**
 19 **through a cross sectional area across that part of the aquifer.**
 20 **Q. Just to describe to those here, the actual flow of the**
 21 **water from the aquifer, does the aquifer itself hold the water**
 22 **or does it flow more like a river? Is it more of a lake or**
 23 **river when we are talking about the aquifer?**
 24 **A. That's the only choice I get, is lake or river?**
 25 **Q. If you can describe it better, please do.**

1 **A. I'd rather say that it's buried sand and gravel and it**
 2 **holds water and it's in transient storage in that sand and**
 3 **gravel, it's moving. The gradient is like four feet per mile,**
 4 **something like that; so there is some movement to it, but I**
 5 **really don't want to give you lake or river, okay?**
 6 **Q. Would it be true that when you are at a particular**
 7 **spot in the aquifer, if water is underneath you, it is flowing**
 8 **at some level or to some extent, is it not?**
 9 **A. Yes.**
 10 **Q. And so if that water is not actually used, it would**
 11 **continue to move south, correct?**
 12 **A. Okay. Yes.**
 13 **Q. And so with regard to the Upper Vermillion Missouri**
 14 **aquifer, you are sort of in a use it or lose it situation.**
 15 **A. To a certain extent.**
 16 **Q. On slide 29, please.**
 17 **A. I'm sorry, I've got some extra slides that are slipped**
 18 **in here.**
 19 **Q. Okay. What you had explained was the more water in**
 20 **storage at the end of the day than the beginning of the day.**
 21 **Do you mean is it 1980 at the beginning of the day and then**
 22 **present day, is that what you mean when you make that**
 23 **statement?**
 24 **A. I'm saying the observation well was installed in 1980**
 25 **and -- yeah, that's exactly what I mean, compared with 2012,**

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1 with the exception of 2012 was a dry year, you can see the
2 water levels, you know, plummeted, but in general when you have
3 regression, all that stuff, there's more water.

4 Q. And we do the linear line because we are actually
5 required to take an average from those wells and not just
6 particular years, correct?

7 A. Did the linear line because if you go to the next one,
8 it gets really confusing when you see all the pumping; so we
9 did a linear regression to smooth that line and get rid of
10 the -- but yes, we are required to give an average, but I'm not
11 going to talk average water level in an aquifer. My mentor
12 would come back and haunt me for that.

13 Q. So we are dealing with an average. Do we keep the
14 same year or is there a certain amount of years that we are
15 actually blocking off to determine what that average is?
16 Meaning next year do we drop off 1980 and use just a certain
17 period of years or are we using the entire data that we have
18 available to us?

19 A. When we are talking average, we are talking in terms
20 of average use from the aquifer. If I said average in relation
21 to the observation wells, I don't believe I ever did. When we
22 are talking average, averages, that's the quantifiable numbers.

23 Q. So my question, I'll try to ask it another way. We
24 don't have a set of years that we -- we don't say, for example,
25 a 30-year average?

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1 A. No, there's not a moving average or there's not a
2 three-year average, it's average. We interpreted the Hines
3 decision to say you are going to use the entire period of
4 record, you are not going to cherry pick.

5 Q. And so on CL-80K, which is the nearest observation
6 well to Mr. Peterson, even if we consider this drought and this
7 latest well observation, that actually is still higher than the
8 first well observations made back in 1980, correct?

9 A. That's correct.

10 MS. BEST: Can we just -- do you have a lot more
11 cross? Can we take a break?

12 MR. RUMPCA: Ten minutes, 15.

13 CHAIRMAN FREEMAN: We can take a break. We will take
14 about a 10-minute break.

15 (Whereupon, the hearing was in recess at 3:23 p.m.,
16 and subsequently reconvened at 3:34 p.m., and the following
17 proceedings were had and entered of record:)

18 CHAIRMAN FREEMAN: Mr. Rumpca, you can continue.

19 MR. RUMPCA: Thank you, and as I begin, I'd like to
20 apologize for the length of this cross-examination, but just
21 with the understanding that Mr. Peterson has so much money
22 already involved and so we do believe it is important to try to
23 get answers to all the questions that we have.

24 CHAIRMAN FREEMAN: Absolutely.

25 A. I would also like to apologize, it takes me a while to

50

1 answer these, but this is a big deal. Let's get it right.

2 Q. (BY MR. RUMPCA) We had talked about 7609-3 and that
3 that application had been withdrawn. Are you aware if the
4 person who applied with that application has reapplied under
5 the Parker or the Centerville Parker aquifer?

6 A. Yeah, I think I testified to that, that he withdrew
7 his application and applied for -- yeah, I think that's Justin
8 Christenson, yeah, he applied out of the Parker Centerville.

9 Q. And that he was actually approved for that one.

10 A. I don't know where we are at in the process on that.
11 I know that we would have -- yeah, it would have been
12 recommended approval. I don't know whether it's -- whether the
13 process is done yet.

14 Q. So then out -- had he not withdrawn, then we would
15 have had he as a Clay County applicant and Mr. Peterson as the
16 other Clay County applicant, he would have been approved, but
17 then we are still presenting this argument to the board
18 regarding Mr. Peterson.

19 A. Would you repeat that, please?

20 Q. With regard to the people who had applied in Clay
21 County, the Clay County residents who had applied for permits,
22 he would have been the other Clay County applicant along with
23 Mr. Peterson. We would have only had two applicants out of
24 Clay County.

25 A. Okay.

51

1 Q. And what we are saying is he had withdrawn his and
2 reapplied under a different aquifer.

3 A. Yeah.

4 Q. Same well, same location.

5 A. Yeah.

6 Q. And has been since approved or we think he has been
7 approved.

8 A. Yeah. Different aquifer.

9 Q. But it's where it blends in, it's where two aquifers
10 meet, correct, and blend together?

11 A. No, I think it's where you still have separate
12 aquifers where we can distinguish between the Parker
13 Centerville from the Upper Vermillion Missouri.

14 Q. When we are looking at the maps, we are looking at the
15 Upper Vermillion Missouri aquifer and you are saying that that
16 applicant 7609-3 is in a separate aquifer, you are saying
17 there's two aquifers?

18 A. We need to go back to -- yes, I am -- 43. This is
19 slide number 41 and right here there are two aquifers here, the
20 upper one from zero to 30 is the Parker Centerville outwash,
21 the lower one from 54 to 154 is the Upper Vermillion Missouri
22 aquifer. That's the kind of conditions that we are seeing over
23 7609-3, and the aquifer that he was approved from is the
24 Parker -- or that we are recommending approval from is the
25 Parker Centerville outwash, separate aquifer. They have not

52 1 blended yet at this point; they are separate and distinct. 2 Q. Could you explain to us, then, where on that map that 3 they do blend together? 4 A. They blend at the line. Back me up just a little, 5 would you, please. Okay, slide number 38, the gray or bluish 6 thing there, that's the -- that's the Parker Centerville 7 outwash. Where we showed the test holes, that goes from ground 8 surface to 30 feet below ground surface. The striped stuff 9 under there is the Upper Vermillion Missouri aquifer. That 10 doesn't even start until 54 feet at the test hole. So what 11 7609-3 was approved for was a permit out of the Parker 12 Centerville outwash, not out of the Upper Vermillion Missouri. 13 They haven't blended until the south side of the line. Over 14 here on this edge over here, on the east edge, the west edge of 15 the Parker Centerville, you can actually drill a well into the 16 Upper Vermillion and not see the Parker Centerville; so it's 17 going to look like a single aquifer. 18 Q. I'm down to science questions; so just a couple other 19 questions, then. Prior to all these applications being 20 deferred, was it the general practice of the DENR to look at 21 each individual application and do a report on that individual 22 applicant? 23 A. Generally, yes. 24 Q. And would you do that because it's a much more 25 effective way to actually analyze that specific applicant's	54 1 February 4th, recommendation the 5th. 2 Q. Mr. Peterson's application was actually on September 3 26th. 4 A. That's correct. 5 Q. And could you tell us when the Hansen report was 6 actually finished and submitted? I believe it's marked as GP 7 Exhibit 2. 8 A. We received Hansen September 20 (sic), analysis was 9 completed September 18, recommendation came out September 18. 10 Q. So his approval was eight days prior to Mr. Peterson's 11 application? 12 A. That recommendation, yeah, came out. 13 MR. RUMPCA: I have no further questions at this time. 14 CHAIRMAN FREEMAN: Thank you. Mr. Benson, do you have 15 any questions? 16 MR. BENSON: Can I make a few statements? 17 CHAIRMAN FREEMAN: No, that will come later. This is 18 just if you have questions for Ken. 19 MR. BENSON: No, I thank him for a very thorough 20 report. 21 CHAIRMAN FREEMAN: Mr. Hagen. 22 CROSS-EXAMINATION 23 BY MR. HAGEN: 24 Q. I'm wondering if there is a 2000 acre feet deficit per 25 year, how long would it take to completely dry up the aquifer?
53 1 proposal versus lumping everybody together? 2 A. Say that again. 3 Q. Would you do a specific report, engineering report on 4 the applicant's specific location because that is a more 5 accurate way to determine whether or not to approve or defer 6 the permit than doing a whole group of people and considering 7 them all the same? 8 A. No, the reason why we do, in general, we are going to 9 come up with one permit at a time is because we need to look at 10 the impairment of existing rights from that permit, as well as 11 the availability of appropriated water. Availability of 12 appropriated water is an aquifer wide basis. Impairment of 13 existing rights is a point. In this case, by lumping these 14 together, we tripped over availability of water. We never got 15 to the impairment of existing rights. That's why these all 16 came in in one -- in two shots. Does that make sense? 17 Q. I understand what you are saying, yes. And then you 18 would agree then you gave a time frame for the actual reports 19 that have all come in and we have said that's between September 20 26th and November 30th that we had the first group of seven 21 applications and then we had a subsequent 11 group of 22 applications come in. 23 A. Seven from 26 September to 30 November, finished the 24 report December 11th, recommendation the 18th. Next ones came 25 in the 13th of December through the 22nd of January, the report	55 1 How many gallons of water per acre feet of water are in the 2 aquifer? 3 A. I didn't calculate the amount of water in storage. 4 Based on my new delineation, that was 204,000 and change acres. 5 Hedges estimated it based on his -- on his thing, he was. . . 6 Q. The reason I ask that question is I'm looking at the 7 last discharge of the aquifer was 25 years ago; so we have got 8 a pretty good recharge almost every year so we had a surplus 9 rather than a deficit, as on slide number 29. 10 A. We got 1.8 million feet of recoverable water in 11 storage or of water in storage in Turner and Hutchinson County, 12 317,180 in Clay and Lincoln County gives you something like 2.1 13 million acre feet of recoverable water in storage or of water 14 in storage in the aquifer. At a 2000 acre foot deficit, you 15 are looking at 1,050 years. 16 Q. How deep are the test wells that you have where you 17 sampled water, the depth? 18 A. We have got 29 of them. 19 Q. Right, but about how deep are they, are they -- 20 A. Pardon me? 21 Q. Are they mainly for surface or do they go down to the 22 aquifer? 23 A. No, we went down to the aquifer. The depths range 24 from 80 to 389 feet for total depth of the wells of those 29, 25 depending on where you are at in the aquifer.

56 1 Q. Are there any other states that have denied or 2 deferred irrigation permits of late? 3 A. Yes. 4 Q. What state? 5 A. I think Nebraska has set a moratorium -- 6 Q. I just flew over Nebraska yesterday and I'm amazed at 7 thousands of irrigation, center pivot irrigation, and if 8 anybody should run short of water, it would be Nebraska. 9 A. Nebraska has had a moratorium on new well drilling in 10 areas. Their NRDs have some areas that are shut down. I think 11 that Colorado has some stuff. There are western states that -- 12 I know the right answer is yes, but I don't know which states. 13 Q. I have another statement to make later on. Would you 14 admit that most years since 1985 until a couple years ago that 15 there was a surplus of water rather than a deficit, according 16 to the chart that you have on slide number 29? In all 17 likelihood, we will have a recharge over the next few years. 18 A. I will say that we had some really wet years in the 19 nineties, yeah. There was some low water levels. Whether 20 that's going to happen again, it's like the stock market, I'm 21 not going to take past performance and predict the future. 22 That's the way things work. We recharge the aquifer, you 23 borrow off that recharge, whether you are doing it every year 24 or whether you are doing it for several years coming after a 25 big year, yes, I would agree with you.	58 1 ground surface. The water in the aquifer is -- 2 COURT REPORTER: Whoa. 3 CHAIRMAN FREEMAN: Only one at a time can talk. She 4 can't take both down. 5 Q. (BY MR. STEVENS) We are referring to the Upper 6 Vermillion water, the aquifer with an average water depth of 7 150 feet that we have to drill 150 feet to get water out of 8 this aquifer, but yet we are comparing the water levels in the 9 aquifer to a static level of water that's only a few feet deep 10 in an observation well. It's not jibing to me. To me that's 11 saying -- 12 A. I think I have something in here that would answer 13 that, but let me try it this way. The top of the aquifer is 14 generally -- you have between 100 and 150 feet of impermeable 15 material that you need to drill through before you hit the 16 water-bearing material that's going to transmit -- that you can 17 get a well out of. Let's say that's 150 feet below ground 18 surface. The water level rises -- the water in the aquifer is 19 under pressure, causing the water to raise above where the sand 20 and gravel was encountered and it does bring the water up to 20 21 feet below ground surface. So that is an artesian pressure 22 that we are dealing with and that artesian pressure fluctuates 23 with recharge and discharge. 24 Q. So is it fair to say that there is so much water in 25 the aquifer that it's actually bubbling to the surface?
57 1 Q. So in all likelihood, we will have a recharging of the 2 aquifer. 3 A. I'm betting on it. 4 CHAIRMAN FREEMAN: Anything else, Mr. Hagen? 5 MR. HAGEN: No. 6 CHAIRMAN FREEMAN: Mr. Osborn. 7 MR. OSBORN: Nothing at this time, thank you. 8 CHAIRMAN FREEMAN: Mr. Hult. 9 MR. HULT: Nothing right now. 10 CHAIRMAN FREEMAN: Mr. Stevens. 11 CROSS-EXAMINATION 12 BY MR. STEVENS: 13 Q. I do have just one question. I'm getting some 14 conflicting answers in my own head. How reliable is an 15 observation well when you can have static water levels from 180 16 foot well only be a few feet below the surface when they are 17 not being pumped, they are not an active well? I know wells in 18 the area that they are 180 feet deep, but when you look down 19 the hole, the water is a few feet below the surface. In 20 relevance to static level versus aquifer level, is that a fair 21 comparison between the two? 22 A. I missed your comparison, I'm sorry. 23 Q. Static -- 24 A. What we are talking about, Mike, is this is a confined 25 aquifer. The top of the aquifer is let's say 150 feet below	59 1 A. No. You would probably say that it's fair to say that 2 the recharge is higher -- is high enough that it's trying to 3 seek its own level and that's what gives it the pressure that 4 brings it up there. I don't think -- no, it's not fair to say 5 that it's too full. 6 CHAIRMAN FREEMAN: Anything else? Mr. McCarty. 7 CROSS-EXAMINATION 8 BY MR. McCARTY: 9 Q. Can you go to slide seven or at least what I thought 10 was slide seven. Is this Swan Lake right there? 11 A. Yes, sir. 12 Q. And right north of Swan Lake is Turkey Creek and 13 Turkey Creek watershed goes up to the northwest; is that right? 14 A. I believe so. 15 Q. And it runs right along the same line as generally 16 where that aquifer is running up to the northwest; is that a 17 fair statement? 18 A. Yes. 19 Q. I was looking at your report and your first report on 20 page eight and I think it shows a chart of the number of 21 permits that you had starting in 1979 going up through 2011; is 22 that an accurate statement? 23 A. Page who? 24 Q. I'm looking at page eight, I think, of your first 25 report.

60 1 A. Yes. 2 Q. Am I reading that chart right to indicate that in 1979 3 you had 56 permits? 4 A. In 1979? 5 Q. Yes. 6 A. 56. 7 Q. And is this specific to the Upper Vermillion Missouri 8 aquifer? 9 A. Yes. 10 Q. And then am I also correct when I'm looking at it that 11 over the course of the last 30 years or however long that chart 12 is matching, you have only had one or two or three permits 13 increase each year; is that a good way to look at it or none? 14 A. I didn't look at it. I'd say you had more than one or 15 two or three bump from 2007 to 2008, but yeah, in general, it's 16 fairly static. 2007 to 2008 looks like there was a seven bump. 17 Q. How long have you been doing your job with the State 18 that you are currently doing? 19 A. I'm coming on 28 years. 20 Q. Have you ever seen 17 applications in one aquifer in 21 this period of time that we are looking at right now? It's my 22 understanding that there's 17 permits currently pending. 23 A. Yeah. 24 Q. Have you ever seen 17 permits filed before in this 25 amount of time?	62 1 question, the reason why we considered all of them together was 2 because we thought that -- looking at things, it looked like we 3 had to deal with the availability of unappropriated water and 4 that applied to anybody that was applying. 5 Q. Right, but if you only had -- in your number that you 6 use on slide 26, if you can go to that, it's the one where you 7 did the calculation. 8 A. 28. 9 Q. Keep going. Back up one. Right there. That 10 discharge of 7900, is that based on -- when did you get that -- 11 run that calculation of 7900? 12 A. That's 2011 numbers. 13 Q. So that would be based on -- 14 A. Actually, no, this one is -- this is average 15 irrigation from 1979 through 2011, maximum -- well, it's rural 16 water system at last year's level and the other two at last 17 year's level, municipal and commercial at last year's level. 18 Q. So it would be based on those 79 irrigation wells plus 19 municipal use and commercial use; is that a fair way to look at 20 it? 21 A. And rural water. 22 Q. And rural water. Of those different aspects for 23 purposes of discharge, which one is the majority of the pull? 24 A. Irrigation. 25 Q. And that's based on 79 permits, correct?
61 1 A. I don't know if I've seen more or -- 17 or more. I 2 know tomorrow we got one that there's 13. Yeah, we have seen 3 big batches before. 4 Q. Was this a significant number for this aquifer to be 5 applied for in this amount of time is my question? 6 A. It might be; I think that's why we need to study it. 7 Q. Right, you only had -- going up through 2011, you only 8 had 79 active permits in this aquifer, correct? 9 A. There are 79 irrigation permits. 10 Q. Right, 79 active irrigation permits in this aquifer in 11 2011, right? That's what your chart shows. 12 A. Okay. 13 Q. And so if all of these applications -- I'm not a math 14 guy; so I can't figure out that percentage in my head, but if 15 you had 79 in 2011 and you added another 17, what's the -- the 16 percentage increase is significant. 17 A. Okay. 18 Q. Is that right? 19 A. Agreed. 20 Q. Going back to Mr. Rumpca's question about why you are 21 considering them all together, is part of the reason that you 22 are considering them all together is that if 17 of these are 23 granted, the draw will be significant on the aquifer in 24 comparison to the 79 that were out there previously? 25 A. No. In answer to your question and Mr. Rumpca's	63 1 A. Yes. 2 Q. And you are looking at an additional 17 permits. 3 A. Yes. 4 Q. And so that 7900 that results in a -- in what you say 5 is a negative number between recharge and discharge, that 7900 6 doesn't take into account the additional 17 permits that would 7 be added if this wasn't deferred. 8 A. Correct. 9 Q. Have you done a calculation to determine what the 10 additional negative number would be if the 17 additional well 11 permits were added? 12 A. No. 13 Q. Do you not ever get to the question on -- Mr. Hagen 14 had a good question with regard to betting on recharge of the 15 aquifer. Are you allowed under the law to consider the 16 percentage chance that this will recharge in the future? Is 17 that what your standard is or what this board's standard is, to 18 your knowledge? 19 A. The board's standard is average annual recharge and 20 average annual withdrawal; so I think everybody just assumes 21 that average is average, they project -- we project forward. 22 Q. But your standard, the standard is what you have put 23 on this chart. 24 A. I believe so. 25 Q. Is the Upper Vermillion aquifer and the -- is it the

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1 Southern Vermillion aquifer, is that the -- what's that?

2 **A. It's the Upper Vermillion Missouri and the Lower**
3 **Vermillion Missouri.**

4 **Q.** Mr. Rumpca was asking some questions that I'm not sure
5 if I understood the answers to. Are those two completely
6 separate aquifers where they don't run into each other, they
7 are separated by bedrock or something else so they don't flow
8 into each other?

9 **A. No, the Upper Vermillion Missouri discharges to the**
10 **Lower Vermillion Missouri.**

11 **Q.** And the Niobrara flows into the Upper Vermillion as
12 well; is that right?

13 **A. Yes.**

14 **Q.** And then just so I understand, the Parker Centerville
15 washout sits on top of those.

16 **A. The, Parker Centerville outwash overlies the Upper**
17 **Vermillion Missouri and merges with the Lower Vermillion**
18 **Missouri.**

19 **Q.** So all three of them are connected in some fashion,
20 they are just different --

21 **A. No, the Upper Vermillion Missouri is not connected to**
22 **the Parker Centerville.**

23 **Q.** How does the Parker Centerville fit into it, then?
24 What does it connect to?

25 **A. The Parker Centerville connects to the Lower**

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1 **Vermillion Missouri. The Parker Centerville and the Upper**
2 **Vermillion both connect to the Lower Vermillion Missouri, but**
3 **the Parker Centerville does not connect to the Upper Vermillion**
4 **Missouri.**

5 **Q.** They flow to the south so it doesn't come back up into
6 that aquifer; is that a fair statement?

7 **A. That's correct.**

8 **Q.** Correct?

9 **A. Correct.**

10 **Q.** If you have had up to -- you have never had this many
11 applications in this period of time for the Upper Vermillion
12 Missouri aquifer; is that a fair statement?

13 **A. Not in my tenure.**

14 **Q.** Have you ever deferred or denied -- have you ever
15 deferred a permit before for the Upper Vermillion Missouri?

16 **A. I'm getting confused with some things. Right now**
17 **there's nothing deferred in the Upper Vermillion Missouri.**
18 **There might have been one -- I can't answer that.**

19 **Q.** For all the permits that have been applied for, does
20 everybody have their place in line so that if you defer it for
21 a year, do a study and determine that there's sufficient water,
22 the folks that have applied already will still be first in
23 line? Is that how you look at the permits?

24 **A. Yeah, the priority date of their completed**
25 **application.**

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1 **Q.** Do you have any idea or has anybody articulated to you
2 why this large number of applications were submitted in this
3 period of time?

4 **A. There's two.**

5 **Q.** What?

6 **A. You asked me a two-part question. Which one do you**
7 **want, do I have any idea why?**

8 **Q.** You tell me if you have an understanding.

9 **A. Well, it was dry last year and commodity prices are**
10 **higher than a cat's back.**

11 **Q.** Right. It's a combination of you believe the input
12 costs; is that what you are saying? Yes?

13 **A. Yes.**

14 **Q.** Would you expect to see future applications coming in
15 at the same rate as long as the input costs remain high and the
16 price of land remains high?

17 **A. There doesn't seem to be a lot of stop right now.**
18 **Yes, I think so.**

19 **Q.** There's potential, there's potential in the future for
20 a significant number of permits to be submitted if those
21 circumstances remain.

22 **A. Is that a question?**

23 **Q.** Yes, it is.

24 **A. Okay, yes.**

25 **MR. McCARTY:** I don't have any further questions.

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1 **CHAIRMAN FREEMAN:** Thank you. The board have any
2 questions?

EXAMINATION

3 **BY MR. HOYT:**

4 **Q.** I do have a couple. Calling your attention to page 12
5 of your report, I guess it's the first report, which shows
6 figure four.

7 **A. Yes, sir.**

8 **Q.** I agree that Mr. Rumpca asked a number of these
9 questions and I'm not sure I followed it; so just for
10 clarification purposes, we see that the Peterson application is
11 in -- I don't see the section numbers, but it's the red dot
12 towards the bottom of figure four, and I think, can you tell me
13 what observation well that is to the east of the Peterson
14 application?

15 **A. CL-80K.**

16 **Q.** If we look at page 10 of your report, we see that 80K
17 is the observation well which is not declining.

18 **A. Yes.**

19 **Q.** So there we say that recharge is greater than
20 withdrawal --

21 **A. Yes.**

22 **Q.** -- for that well. And I know there's been discussion
23 about the merger line and so forth, but could you draw a
24 conclusion, then, as to the Peterson application based on the
25

68 1 observation well 80K? 2 A. Could I? Yes. Do I want to? No. 3 Q. Let's be serious about this for just a minute. Why 4 would not you draw the conclusion, based on 80K, that there is 5 sufficient water available for 7441-3? 6 A. Because it's been this board's policy, and we have 7 tried to adhere to that, that we look at things on a regional 8 basis rather than cherry pick parts of an aquifer unless there 9 is a good reason to break the aquifer into separate management 10 units, and so without a separate management unit to say I can 11 deal with this portion of the aquifer separately than the rest 12 of the aquifer, we had to include everything together, and one 13 of the questions is we do have these areas with declining water 14 levels, are they going to expand? If this is a water short 15 area that we are dealing with, is that water short area going 16 to expand to be the entire aquifer, including this stuff down 17 south we are discussing? 18 Q. Okay, then if I can restate what I think your answer 19 was is we might see a similarity in the two locations but that 20 we treat the aquifer as a whole. 21 A. Correct. 22 Q. I think in your conclusions, and I think you have said 23 on this slide up here, Mr. Buhler, that essentially withdrawals 24 are exceeding recharge. Does that mean that we should give a 25 shutoff of the junior appropriators in this aquifer so we are	70 1 because I don't think you can say for sure we are mining. I 2 think that was the answer to your question finally. 3 MR. HOYT: Thank you, Mr. Buhler. 4 CHAIRMAN FREEMAN: Any other questions by the board? 5 EXAMINATION 6 BY MR. BJORK: 7 Q. Are the two wells for Petersons over the Parker 8 Centerville aquifer? 9 A. I haven't seen a well log for the northern one. I 10 looked at a well log and I think it's the southern one and it 11 is over the Parker Centerville outwash. 12 CHAIRMAN FREEMAN: Any redirect, Ms. Best? 13 MS. BEST: I do have some, yes. Thank you. 14 REDIRECT EXAMINATION 15 BY MS. BEST: 16 Q. I will try to keep it brief. Ken, there was some talk 17 on slide number 10, and I'm going to give you the paper copy, 18 about slide number 10 was used as -- slide number 10 was used 19 as an example so that you could describe the eight miles across 20 the aquifer, where that is. Would you draw the eight miles 21 that you referred to previously on the paper copy of slide 22 number 10 so the board has that as part of its record. 23 A. I believe I did the cross section right about there. 24 Q. Could you just label it eight miles and put your 25 initials on there on slide number 10.
69 1 not mining the aquifer? 2 A. Not at this time, I don't believe that's necessary. 3 That would -- again, we have two areas with declining water 4 levels. Some of the larger water users out of both of those 5 areas are rural water systems. If you look at the rural water 6 system use back on page seven, we have been seeing rural water 7 system use from 2003 to 2011 in table two on page seven going 8 from 371 acre feet a year to over 2254 acre feet a year in the 9 past eight years. 10 If they were to stabilize their pumping, would those 11 water levels continue to expand? And we feel that we need to 12 study this aquifer some more because I can't tell you for sure 13 that those declining water levels are because it's a water 14 short area. It may in fact just be because we keep increasing 15 pumping. As you keep increasing pumping, you increase drawdown 16 until you have sufficient drawdown to match your pumping. So 17 it's not a given that we are exceeding average annual recharge. 18 I'm not real wild about the recharge estimate numbers 19 that came out here. That's why we spent so much time looking 20 at the observation well data. I'm not saying these -- you 21 know, the recharge numbers right now suggest that we are mining 22 the aquifer. Observation well data also suggests that, but 23 there are some other things that could happen here and I really 24 don't want to hang my hat solely on these estimates. So 25 therefore, I don't think you can go shut off guys right now	71 1 A. (Witness complying.) Shall we show them? 2 Q. So that eight miles is the distance that you used in 3 calculating in the flow net analysis, correct? 4 A. Yes. 5 Q. And why did you use that eight miles? 6 A. Flow net analysis, you assume all the flow is going to 7 go through -- based on the potentiometric surface, the flow of 8 the aquifer, all of the water would have had to flow through 9 that to a cross sectional area at that point, which works out 10 to be eight miles. 11 Q. You had some discussion with Mr. Rumpca about 12 averages. Based on your experience and background and your 13 knowledge of the withdrawal/recharge, the required withdrawal/ 14 recharge analysis, is it appropriate to look at the average 15 volume of water in an aquifer to look at -- when you are 16 looking at withdrawal/recharge? 17 A. No, I think we have always looked at and I think the 18 law says and I think that the Hines decision said you look at 19 average water use versus average annual recharge. 20 Q. Now, you pointed out that on the observation wells for 21 this aquifer that you are seeing declines in a number of them. 22 Are you attributing those declines to drought? 23 A. No. 24 Q. Does the fact -- 25 A. There was a linear regression analysis done on each of

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1 those observation wells. We didn't just take the last reading
2 and compare it with the first reading and say is it up or is it
3 down. There is linear regression analysis of the entire period
4 of record that showed an upward or downward trend.

5 Q. Okay, there was some discussion about Peterson
6 Application No. 7442-3 and the position was raised that that
7 was not asking for more water. Did you see that the same way,
8 that it's not asking for more water?

9 A. No, I did not. I'm going to assume that the average
10 application rate down here is something in the neighborhood of
11 six to 12 inches a year; so if you figured on 12 inches a year,
12 somebody is going to irrigate 40 acres, they are going to use
13 40 acre feet more water.

14 Q. So even if -- even if the permit request states, okay,
15 the maximum volume, the maximum volume that I'm asking to have
16 as part of my permit is X and that maximum doesn't change when
17 you add more acres, you are still going to in practice apply
18 more water to the ground; is that what you are saying?

19 A. If what you are saying is the permit application says
20 I'm not going to increase my pump rate, by not increasing the
21 pump rate yet adding acres, will they be pumping more water?
22 The answer is yes, they will be pumping more water. They will
23 be pumping longer at that pump rate over the extra acres.

24 Q. Has the DENR reviewed applications by groups before?

25 A. Oh, absolutely. Yes.

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1 Q. Do you have any reason to think you would have come up
2 with a different result if you had considered these
3 applications separately?

4 A. No.

5 Q. Now, you testified that looking at them individually
6 gives you perhaps more insight on impairment. By that do you
7 mean interference with the neighbor's well?

8 A. Yes.

9 Q. But you didn't get to that point because you were
10 looking at overall --

11 A. Remember, there's got to be four criteria to approve a
12 permit. There needs to be unappropriated water available. If
13 there is unappropriated water available, then let's look and
14 see whether this is going to adversely impact anybody, because
15 there isn't a single guy out here that wants to affect his
16 neighbor, and we don't want that to happen either. Well, we
17 couldn't get past the first of the four criteria with the
18 availability of water.

19 MS. BEST: Just a second. I might have another
20 question. I don't have any further questions, thank you.

21 CHAIRMAN FREEMAN: Mr. Rumpca.

22 MR. RUMPCA: Briefly.

23 RECROSS-EXAMINATION

24 BY MR. RUMPCA:

25 Q. I think I had asked regarding the Niobrara aquifer if

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1 we had any deferrals and I think the answer was no. The next
2 question would be do we have any that have been deferred in the
3 Lower Vermillion Missouri aquifer?

4 A. I can tell you there's none on the table right now
5 that are deferred. I can't tell you whether -- in the history
6 of development of the Lower Vermillion Missouri, I can't tell
7 you if there was ever anything deferred out of that. I can
8 tell you there's nothing now.

9 Q. And one other quick follow-up was that you had
10 indicated we have a whole list of applications and Mr.
11 Peterson's are both the top two. Are the board required to
12 take those -- is it your understanding that the board is
13 required to take those one at a time so they can't just pick
14 somewhere in the middle of the application pool to approve that
15 one? Do they have to start at the top? Do they have to start
16 with the application file 26, 27?

17 A. I think you are asking a legal question.

18 Q. I'm asking your understanding of that.

19 A. No, I don't think that you can skip one because if you
20 were to skip one, you would prejudice the one before that, in
21 my opinion. If you were looking at availability of water and
22 you wanted to skip No. 7441-3 to deal with 755-3, something
23 later on, and you said there was water available for that, I
24 think that necessarily would say there's water available for
25 that and you just approved that one. I don't think you can do

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1 that.

2 Q. I think I agree with you. When asked I believe by Mr.
3 McCarty why the influx of all of the applications now, would it
4 not follow that when somebody -- when it's learned that
5 somebody has been deferred, you better get in line or you are
6 going to lose your turn?

7 A. It could.

8 MR. RUMPCA: I have no further questions.

9 CHAIRMAN FREEMAN: Mr. Benson, any questions?

10 MR. BENSON: No.

11 CHAIRMAN FREEMAN: Mr. Hagen?

12 MR. HAGEN: Yes. My wife and I have spent about
13 \$25,000 applying for permits and we have dug several test
14 wells. We are in the middle of the aquifer.

15 CHAIRMAN FREEMAN: This is just questions for Mr.
16 Buhler.

17 MR. HAGEN: Okay, I'm wondering if there is any
18 provision that the board might be able to issue permits with
19 restrictions that in the event that the aquifer is in imminent
20 danger, that they cut down or shut down the amount of water
21 that they are pumping. I live in Sioux Falls and when there's
22 a shortage of water, you can't water your lawn, you can't wash
23 your car, and I'm just wondering if there might be an
24 application like that for irrigation.

25 MS. BEST: I'm going to object. That does call for a

76 1 legal conclusion. 2 CHAIRMAN FREEMAN: I'm going to sustain that. Do you 3 have any further questions, Mr. Hagen? 4 MR. HAGEN: No. I have a further statement. 5 CHAIRMAN FREEMAN: Sure, you will get your chance for 6 that. Mr. Osborn. 7 MR. OSBORN: No questions. 8 CHAIRMAN FREEMAN: Mr. Hult. 9 MR. HULT: No. 10 CHAIRMAN FREEMAN: Mr. Stevens? 11 MR. STEVENS: Not at this time. 12 CHAIRMAN FREEMAN: Mr. McCarty? 13 MR. McCARTY: No. 14 CHAIRMAN FREEMAN: Thank you, Mr. Buhler. Any other 15 witnesses, Ms. Best? 16 MS. BEST: I do not. Thank you. 17 CHAIRMAN FREEMAN: Mr. Rumpca. 18 MR. RUMPCA: I would call Adam Mathlowetz. 19 CHAIRMAN FREEMAN: You were sworn earlier, weren't 20 you, Adam? 21 THE WITNESS: Yes, sir. 22 Thereupon, 23 ADAM MATHLOWETZ, 24 called as a witness, having been previously duly sworn as 25 hereinafter certified, testified as follows:	78 1 A. Yes. 2 Q. If you will look, it's page 15 of Exhibit 2, which 3 would actually be page three of the engineering report, table 4 one titled irrigation water use from the Upper Vermillion 5 Missouri aquifer in Clay County, then it has the table above 6 there. Would those all be the applications or the amount of 7 actual wells that are in Clay County but considered part of the 8 Upper Vermillion Missouri aquifer? 9 A. This would be the irrigation pumpage as reported 10 through annual irrigation questionnaires from the Upper 11 Vermillion Missouri aquifer in Clay County. That would not 12 include any other type -- that table would not include any 13 other type of wells, that paper or in that county. 14 Q. That table does not include all of the rest of the 15 wells that we have been talking -- a lot of the rest we have 16 been talking about in the whole Upper Missouri, Vermillion 17 Missouri aquifer. 18 A. No, it would not include the remainder of the 19 irrigation wells that were not in Clay County that are 20 completed into the Upper Vermillion Missouri aquifer. 21 Q. But the DENR then deemed it appropriate not to look at 22 the whole aquifer but rather that part of the aquifer that was 23 specific to Clay County, correct? 24 A. At that time, yes. 25 Q. Was there a change in policy between the approval of
77 1 DIRECT EXAMINATION 2 BY MR. RUMPCA: 3 Q. Do you mind if I call you Adam? 4 A. That would be fine with me. 5 Q. Thank you. Adam, I'll refer you to GP Exhibit No. 2. 6 It's the Roger Hansen water permit application. I'll note on 7 some of the beginning pages -- 8 A. To the application? 9 Q. Yes, to the application. 10 A. I do not have a copy of that. 11 Q. I will hand you what's previously been marked GP 12 Exhibits 1 through 6 and in there is Exhibit No. 2 and that's 13 the Roger Hansen application and further back within the same 14 exhibit beginning on page 13 is the actual engineering report. 15 One question I had when I looked at this, I had noted that he 16 had applied it looks like for two different permits, one in the 17 Upper Missouri -- Vermillion Missouri and the second in the 18 Lower. The engineering report is done specifically to the 19 Upper Vermillion Missouri aquifer. Was there a separate 20 engineering report that you did for the Lower? 21 A. Yes, sir. 22 Q. We just have included in this exhibit the Upper. 23 A. It appears to be that way. 24 Q. Was the recommendation on that permit in the Lower, 25 was that to approve that?	79 1 this permit in looking at just Clay County and then this whole 2 lump sum of applicants who are now looking at observation wells 3 and well data that extends the entire Upper Vermillion Missouri 4 aquifer? A change in policy that you are aware of? 5 A. I am not aware of one. I would like to clarify a 6 slightly earlier statement to not the previous question but the 7 one before, when you asked me about the contents of the table, 8 of table one. 9 Q. Yes. 10 A. You asked whether I looked at the irrigation wells. 11 Well, I did not look at beyond Clay County. Later in the 12 report you will notice that several of the observation wells 13 are from outside clay County. 14 Q. I think I was actually going to look there. When we 15 are talking about the existing water rights, in that section, 16 which would be page 19 of Exhibit 2, page seven of the report, 17 the heading to that paragraph is existing water rights, and 18 what we had checked on those was actually three permits within 19 one mile of Mr. Hansen's proposed location, and actually three 20 of those were in the Upper and three were in the Lower 21 Vermillion Missouri aquifer; is that correct? 22 A. According to my report, yes. 23 Q. What is table two, then, which is immediately below 24 that. 25 A. Table two is an explanation of those six water rights

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1 that I talked about, mentioned before within one mile of the
2 proposed well location, the permit number, the name that we
3 have on file associated with that permit number, the status,
4 whether it be a licensed, a water right or a water permit, the
5 type, all irrigation in this case, and then the licensed or
6 permitted cubic feet per second water rate, maximum diversion
7 rate, as well as the acreage covered underneath that permitted
8 water right, then a brief explanation of the abbreviations
9 within that table.

10 Q. Then if we were to jump to page 20 of Exhibit 2, the
11 conclusions, could you explain conclusion number three? It
12 says "The observation well data does not support the recharge
13 estimate from Hedges (1985)." Can you explain why?

14 A. The recharge estimate, which would be back on page two
15 of my report, it would be page 14 of Exhibit GP No. 2, see that
16 the recharge estimate there is one calculated over the aquifer
17 of the area in Clay County is 233 and a third acre feet per
18 year, and then going and looking at the next page, page three,
19 average annual use for the Upper Vermillion Missouri aquifer in
20 that county is 456.4 acre feet per year. You would have
21 discharge exceeding recharge, based on that recharge estimate.

22 But if you continue to follow through the report and
23 look at the various hydrographs in there, they all show an
24 upward trending aquifer, upward trending water level, and that
25 is how I reached the conclusion number three, that the

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1 observation well data, which is real data, does not support the
2 estimate made by Mr. Hedges.

3 Q. So when you are actually taking a look at the wells in
4 that area, they are doing actually better than the overall
5 recharge estimate by Hedges in the 1985 report.

6 A. Clarify better.

7 Q. The linear line is upward sloping.

8 A. Recharging at a higher rate? I'm not certain what you
9 mean by better exactly, even that's not quite clear to me.

10 Q. When you look at those observation wells that you have
11 cited in your report, is there any negative impact or negative
12 effect on the aquifer based on those observation wells?

13 A. In general, looking at the trend line, the general
14 water level in the aquifer in the observation wells listed in
15 my report show an increase over the period of record, whether
16 it be from starting in 1977 or whether they started in 1980 or
17 there was also a 1978 in there. From the day that that well
18 was installed, water levels were starting to be taken through
19 the last reading that I had when I wrote the report, the
20 general trend line was an increase in water level.

21 Q. Did you ever begin a report on Mr. Peterson's wells?

22 A. No.

23 Q. Are you aware of whether one had been started prior to
24 the influx of applications?

25 A. No.

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1 Q. If you were to do a report on Mr. Peterson's
2 application, do you believe it would be close or mirror the
3 Roger Hansen report that we are looking at?

4 A. That would depend on the circumstances at which I
5 received that application to do an engineering analysis on.

6 Q. So you would look at each individual application and
7 do your analysis on that individual?

8 A. If I received one and there were none others in our
9 stack that we had to review, potentially if Mr. Peterson was in
10 the current situation as listed here, most likely I would not
11 have done an individual analysis, but having not done that
12 analysis, I cannot say for certain.

13 Q. Does it take a lot of man hours to actually do one of
14 these engineering reports? I assume it does.

15 A. It can. If you were to write four in one little area,
16 that would cut a little bit out, such as the geology of the
17 aquifer is generally the same, but then you still have the
18 individual impairments, your unappropriated water availability
19 is a lot similar, but yes, it would still take -- it still
20 takes a fair amount of time to do, whether you have one or 10
21 and you are looking at the same time, it still takes a fair
22 amount of man hours per permit.

23 Q. Does the DENR have, to your knowledge, the resources
24 to really be able to do individual engineering reports on every
25 applicant that's here today?

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1 A. I cannot --

2 MS. BEST: I object. There is no foundation to show
3 that Aaron (sic) has any experience and background in the
4 number of total man hours required for department personnel and
5 he's not -- he's not a supervisor. Anyway.

6 CHAIRMAN FREEMAN: What is the relevancy?

7 MR. RUMPCA: I can withdraw the question and I'll be
8 actually done with it.

9 CHAIRMAN FREEMAN: Okay.

10 MR. RUMPCA: I have no further questions.

11 CHAIRMAN FREEMAN: Thank you. Mr. Benson, any
12 questions?

13 MR. BENSON: No.

14 CHAIRMAN FREEMAN: Mr. Hagen, any questions?

15 MR. HAGEN: No.

16 CHAIRMAN FREEMAN: Mr. Osborn?

17 MR. OSBORN: No.

18 CHAIRMAN FREEMAN: Mr. Hult?

19 MR. HULT: No.

20 CHAIRMAN FREEMAN: Mr. Stevens?

21 MR. STEVENS: No, sir.

22 CHAIRMAN FREEMAN: Mr. McCarty?

23 MR. MCCARTY: No.

24 CHAIRMAN FREEMAN: Ms. Best, do you have any questions
25 of Adam?

84 1 MS. BEST: You know, it might be fun to cross-examine 2 the department witness for once, but no, I'm not going to ask 3 any questions, thank you. 4 CHAIRMAN FREEMAN: Does the board have any questions? 5 Thank you. 6 MR. HOYT: Excuse me, Mr. Chairman. 7 EXAMINATION 8 BY MR. HOYT: 9 Q. Adam, I'd like to call your attention to Mr. Buhler's 10 report on this application at page 12. Do you have that 11 report? 12 A. I do not have a copy of that report on hand. Okay. 13 Q. It's very hard to read the observation well numbers on 14 that cross-hatching, but there would appear to be at page 17 in 15 your report, I'm sorry, page five in your report, page 17 in 16 Mr. Rumpca's exhibit, can you tell us which of those wells show 17 up in the cross-hatching, which of your observation wells? 18 A. On page four of my report, CL-80K is the bottom most 19 right-hand observation well, that's the only one in Clay 20 County. I can keep working up the list if you like. 21 Q. Please. 22 A. As you head north on Mr. Buhler's map, the next one 23 north is TU-77M, that is figure number two in my report. 24 Q. And that shows recharge exceeding withdrawal. 25 A. It shows an increasing water level.	86 1 Q. Okay. And that shows increasing? 2 A. It also shows increasing water levels. 3 Q. Are you familiar with any of the other observation 4 wells shown on Mr. Buhler's figure four? 5 A. Can you define familiar a bit more? 6 Q. Familiar enough to tell us whether they are increasing 7 or decreasing. 8 A. By looking at Mr. Buhler's map, I can tell you which 9 ones are increasing or decreasing because the ones that are 10 decreasing are in the highlighted zone. If you were to take 11 away the highlights, I would not have been able to point that 12 out. 13 MR. HOYT: Thank you. I knew that Mr. Buhler was 14 saying these are the areas of concern, but I didn't realize 15 that all of the others were increasing. That's it, thank you. 16 CHAIRMAN FREEMAN: Any other board member have 17 questions? 18 EXAMINATION 19 BY MR. BJORK: 20 Q. I'm sensing a little contradiction here. What was the 21 date of the Peterson application? I know it's in here 22 somewhere, but I don't have it right at my fingertips. Maybe 23 somebody out there does. 24 A. I do not know myself. 25 MR. RUMPCA: We have the date showing September 26th
85 1 Q. Pardon me? 2 A. It shows an increasing water level. 3 Q. Yes. 4 A. As you head straight north of TU-77M, you will find 5 TU-80I, which is figure five in my report. 6 Q. And that indicates? 7 A. Increasing water level as well. If you were to head 8 west from TU-80I, the first one to the west or the left hand on 9 the map will be TU-80H, figure four in my report. That also 10 shows an increasing water level. 11 Q. I'm sorry, I can't find that observation well on the 12 cross-hatching. Which one is it? 13 A. Do you know where TU-80I is? 14 Q. Yeah. 15 A. The first one to the left. I shouldn't say the first 16 one to the left. If you were to go straight west of it or 17 left, you will find that nearly in line. 18 Q. Right here? 19 A. That one. 20 Q. I couldn't read it. 21 A. That covers four of them, and the other one, if you 22 look to the red dot that represents Water Permit Application 23 7467-3, straight south and just a tiny, tiny bit west is 24 TU-78B, which is the observation well I have represented in 25 figure three of my report.	87 1 of 2012. 2 MS. BEST: That's accurate. September 26th, 2012. 3 Q. (BY MR. BJORK) We have heard testimony that the 4 application following this Peterson application and several 5 others included the entire aquifer in the discussion in the 6 report, including of course those wells that showed a declining 7 level. Is there any reason those wells weren't addressed in 8 your report on the Hansen application? 9 A. At the time that I wrote my report would have been -- 10 I started with the recharge analysis done by Mr. Hedges and 11 used that to calculate that and seeing that that was not 12 favorable to granting the permit, I then proceeded to, as we 13 say in our department, print the hydrographs from our database. 14 I printed the hydrographs and then I started looking at the 15 nearest. Also as part of that is that's also used to determine 16 impairment of existing rights. The impacts of pumping will be 17 potentially evident in those observation wells as well. And I 18 started with the nearest and I circled out, and by the time I 19 reached those I believe they were the five closest, I had 20 satisfied what I thought was enough to justify concluding that 21 there was unappropriated water available. 22 Q. Mr. Buhler has testified that there are potentially 23 wells outside of this shaded area that may have declining water 24 levels, didn't know for sure, but he testified to that effect. 25 Using that as a rationale for saying that we may very well be

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1 overappropriating this particular aquifer, if that's the case,
2 if that is indeed the case, then there are potentially areas
3 outside of that shaded area, I think we know what we are
4 referring to, that may have the same problem, that may have
5 declining water levels, we just haven't seen them yet.

6 A. Is there a question?

7 Q. The question is -- I guess my question -- my basic
8 question is why were these two treated differently? Why was
9 Hansen treated differently from Peterson? We are getting a
10 little Nordic here, Hansens and Petersons.

11 A. The Peterson report, when it was written, threw up, I
12 am going to use racetrack terms, a yellow flag, a caution flag
13 that there may be issues, but at that time the further analysis
14 was not done to determine that there was, and then the larger
15 number of permits came in together and when looking at them
16 across that larger area, the red flags started coming up, the
17 stop the race, we are done, that kind of came up, and then Mr.
18 Buhler continued with his analysis at that point and reached
19 the conclusions that he reached.

20 MR. BJORK: Thank you.

21 CHAIRMAN FREEMAN: Any other questions? Thank you,
22 Adam. Mr. Rumpca, any other witnesses?

23 MR. RUMPCA: Yes, Mr. Chairman, I would call Gary
24 Peterson.
25 Thereupon,

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1 GARY PETERSON,
2 called as a witness, being first duly sworn as hereinafter
3 certified, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. RUMPCA:

6 Q. I am looking for some notes that we had. Mr.
7 Peterson, could you please state your name for the record,
8 please?

9 A. Gary Peterson.

10 Q. And is Julie Peterson your wife?

11 A. Yes, she is.

12 Q. Could you just give us some background about who you
13 are, how long you have been in the actual area farming down
14 there?

15 A. I started farming in 1976 and have been a lifelong
16 farmer and that's my only occupation. I don't have another job
17 outside of farming. My wife works in Centerville as the office
18 manager for Fort Randall Telephone. I employ a part-time
19 helper in the spring and the fall for peak seasons to help me,
20 but otherwise I'm everything on our farm for doing the work.

21 I've always had a philosophy that I don't want to be a
22 big farmer, I just want to intensively farm smaller acreage,
23 and I think that's the most efficient way to produce as much as
24 I can from an acre versus chasing more acres. Some may
25 disagree, but in the past that's worked for us. We moved to

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1 where we live in the fall of 1984, we purchased that farm in
2 1987 and put an irrigator on it in 1997, I believe.

3 I had experience with irrigation prior to putting that
4 irrigator on the farm that I own on rented land; so I seen the
5 benefits of irrigation. So that's why we decided to pursue it
6 on our own ground rather than just on rented ground. And long
7 story short, it's been beneficial to us. It just helps us
8 manage a little bit, it's kind of an insurance policy to take
9 some of the lack of rain out of the equation.

10 Q. Gary, you said you rented some land. Whose land did
11 you actually do the renting on?

12 A. I rented from the Mary Paddock Rigg Trust originally.
13 I no longer farm that land, that was sold to someone else, and
14 then I have two rental properties right now that have
15 irrigators on it and that's the Larry Erickson land, and they
16 are included on that one comparison.

17 Q. Is that GP's Exhibit No. 5, that plat map down there,
18 just for reference point so we can actually see where your
19 operation is?

20 A. Yeah, GP Exhibit 5, that's correct.

21 Q. So we have the Rigg Trust, that's something that you
22 have rented?

23 A. I rented that, but it was dry land at that time. They
24 had another piece that was down in Section 26, pardon me, 23,
25 if you look at the northwest quarter of Section 23 on Exhibit

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1 5, that piece of ground had an irrigator on it.

2 Q. On the Larry Erickson, there's a circle on Larry
3 Erickson. Does that have an irrigator right there?

4 A. Yes.

5 Q. That was actually, that was referenced in the Roger
6 Hansen report, and so we actually have the acres there as far
7 as the existing water rights go, correct?

8 A. That's correct.

9 Q. When we started today, I had indicated that there was
10 some kind of confusion with regard to your two applications.
11 One I said we are not really asking for any more actual water.
12 Can you explain the process and explain that in a little more
13 detail?

14 A. If you look at GP Exhibit 4, it's an aerial map with
15 some circles drawn on it. The smallest circle in there is what
16 I have a water permit for right now and that's for 115 acres
17 and I believe the diversion rate is 750, 735, somewhere in
18 there, I can't quote it off the top of my head, and two acre
19 feet per year on each acre.

20 We bought 40 acres to the east of that original
21 circle. If you see where there's a flat side on the east side,
22 that was the fence line; so we bought a long 40 to the east of
23 our original property so we could expand this irrigator to
24 reach north to south, east to west, and basically we have 160
25 acres of tillable ground east of our farmstead so we could use

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1 the full length pivot to irrigate those acres.

2 When my application went in, it was for 40 additional
3 acres. The net gain is 18 that will be irrigated over the
4 original 115. It will go from 115 to 133 acres. We do not
5 need any more water appropriated for this piece of ground. The
6 water that's appropriated to us now and the diversion rate
7 that's appropriated to us now is sufficient for expanding this
8 system to cover 133 acres.

9 Q. Gary, I'll sort of direct you to GP Exhibit 3, page
10 two. Is that a summary of the acre feet of water pumped out of
11 that particular irrigator?

12 A. That's correct.

13 Q. So when we actually look at that, are you using a lot
14 less -- are you using less than what you are actually
15 authorized and appropriated?

16 A. Yes. Can I expand on that?

17 Q. Yes, please do.

18 A. This summary came from the State. I send in an annual
19 water report and I have all these records in a file, but I
20 don't have them condensed into one graph that's nice and tidy
21 like this. I requested from the State a summary of my water
22 use since 1997 through 2012, and if you notice, starting in '97
23 I was appropriated 320 acre feet. That's because my original
24 application was for 160 acres so they gave me two acre feet per
25 acre. When they actually came out and inspected my system,

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1 measured my system, they determined that it would water 115
2 acres, not 160; so my appropriation was reduced to 230 acre
3 feet per year.

4 Over on the right-hand column, that shows the actual
5 pumpage of each year. If you average them, the average
6 appropriation over those 16 years is 269.375 acre feet average
7 over those 16 years. My average actual pumping over those 16
8 years is 46.355 acre feet. So that's why I'm saying I don't
9 need any more water on this water permit; I just need it
10 amended to include an additional 18 acres of land. There's
11 plenty of water appropriated to that well, we are not going to
12 change the well, we are not going to make it pump faster, the
13 well stays exactly like it is.

14 Q. So basically rough math would say that approximately
15 somewhere around 20 percent of the water you are appropriated
16 you are actually using there?

17 A. Correct, over the average.

18 Q. And explain, we are talking about irrigators, and can
19 you explain the two types of irrigators that you are familiar
20 with? You have explained it to me as one would be the
21 windshield wiper and the other would actually be more the full
22 circle.

23 A. Originally when we were going to develop our home
24 farm, we were going to center a full length pivot on that farm
25 and it would come to the south side of my place and then have

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1 to be reversed and then it would come around and it would end
2 up on the east side of my place, but it could not make a full
3 circle as a quarter mile long irrigator.

4 What happens when you are irrigating and you are
5 windshield wiping, where you stop is where you start; so you
6 make a pass and you have got the ground nice and wet there.
7 You can wait four, five days before you have to water again,
8 but where you started, it takes a certain amount of time to get
9 back and you end up over watering on one end and kind of
10 starving it on the other. So we just decided it was the
11 smartest thing to do to put a smaller pivot in that could go
12 around and around and not over water, under water, but then
13 when we got the opportunity to buy the additional 40 acres,
14 then we could make it reach north to south, east to west and be
15 more efficient with watering.

16 Q. You are not actually a new irrigator, you are getting
17 more extensions to that.

18 A. We added one extension, one tower, went from a
19 six-tower machine to a seven-tower machine.

20 Q. One final question on that would be the acre feet of
21 water reported, now, is that based on the actual water or is
22 that engine hours?

23 A. That is engine hours on my John Deere diesel engine.
24 Some of those hours are moving the machine dry because we do
25 not have a parking lane that we park the machine on that we

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1 don't farm. We farm underneath where the irrigator is; so for
2 tillage operations, it has to be moved so we can till where it
3 was. For planting, it has to be moved to plant; so it's a
4 little bit overstated on my actual pumpage because I read off
5 engine hours versus off of watering hours. It's not a lot, you
6 know, but there are a few hours every year that we have to run
7 that engine just to provide electricity to the pivot to move it
8 dry, to get it out of the way for field operations.

9 Q. Let's talk a little about then your other application
10 because you have two of them and the other is for what would be
11 a new well.

12 A. That's correct.

13 Q. Can you just give a little bit of background on
14 whether or not that has been farmed or who owned that, how you
15 came to purchase that land and when.

16 A. The same family that we bought the land that we live
17 on several years ago owned this other quarter section of
18 ground. There was three brothers originally.

19 Q. If I interrupted, is it on the McMurchie land?

20 A. That's correct.

21 Q. If you look at that plat on Exhibit 5.

22 A. That's correct. Where we live we bought from Malcolm
23 McMurchie. His brother Boyd McMurchie owned where we want to
24 put a new pivot, where we have the new pivot. I farmed all of
25 this ground since 1985. Boyd McMurchie, Sr., passed away

96 1 several years ago, he left the land to his two sons and they 2 have owned it since then. One was a circuit court judge here 3 in South Dakota, the other one lived on the west coast or east 4 coast, forgive me. Both of those fellas are retirement age. I 5 have wanted to irrigate this piece for quite a while, but they 6 kept saying no, we don't want to invest money and I didn't want 7 to invest money in ground that I didn't own. 8 So this fall they came to me and called me, told me 9 they wanted to sell the farm. We started negotiation to buy 10 the farm from them privately, which I very much appreciated. 11 Roughly at the same time is when I sent in an application for a 12 water permit because the only way to make this farm fly at 13 these record levels or to insure that it's going to fly is to 14 have some water, and we knew we had water available; so we did 15 it kind of the same time and that's what brought us here. 16 Q. And so you didn't actually have \$1.2 million cash 17 laying around in your pocket. 18 A. No, I didn't. 19 Q. And so it's quite important to you to actually be able 20 to fully utilize this land that you had just purchased and farm 21 it intensely with proper irrigation, correct? 22 A. Yes. 23 Q. You went so far as to actually purchase a \$100,000 24 irrigator for that land, correct? 25 A. Irrigator and engine to run the well.	98 1 A. That's correct. 2 Q. Can you just kind of go down that time line in a quick 3 manner? 4 A. Starting at the top, 7-20 of 2012 Roger Hansen applied 5 for a water permit on the 80 directly east of where we are 6 applying for a water permit for a new well. The next entry is 7 9-10 of '12, that's when we started the negotiations on 8 purchasing the additional property, the McMurchie property. 9 The next entry is 9-18 of '12 is when the Roger Hansen water 10 permit is dated, the engineer dated it, recommending approval. 11 The next entry is 9-26 of '12, that's when the DENR in Pierre 12 here received the applications from myself and my wife for the 13 two water permits or I shouldn't say water permits, one water 14 permit, one amendment to a water permit. 15 11-19 Ken Buhler came to Viborg and gave us an 16 informational meeting. Excuse me, I need some water. Gave us 17 an informational meeting concerning our aquifer and their 18 concerns. I asked him at the meeting what the date was that he 19 first was aware of a concern in our aquifer, and he didn't have 20 a specific date in the public meeting, but then I asked him 21 after the meeting if he could be more specific. He called his 22 office and he came back and told me 11-19 of '12 is when he was 23 first aware of a potential concern. 24 Next entry is 11-26 of '12, I called the water board 25 here and asked on the status of my water permit and I was told
97 1 Q. And it's sitting out there right now. 2 A. It's available right now. 3 Q. You just don't got a well. 4 A. It does not have a well. 5 Q. Why did you rush to actually purchase the irrigator 6 itself? 7 A. We decide every year what is the best investment that 8 gives us the most bang for the buck because I don't have an 9 unlimited budget on what I can buy for equipment or what I need 10 to farm. This year we identified, since we were buying the 11 land, that buying an irrigator was in our best interest to 12 insure that this land would be productive; so tax laws say in 13 order to deduct and depreciate an asset on the farm, you have 14 to have physical possession of it and it has to be ready for 15 service by year end. 16 Our plan was a pivot, an engine to run the well, and a 17 well. That would be a hundred twenty-eight to thirty thousand 18 dollars, give or take. Well, we have completed two of three. 19 We have the pivot, it's erected, it was done prior to the first 20 of the year, and we have the engine, which is available to run 21 the well. 22 Q. And so just then to give us sort of an idea as to the 23 time frame that we are dealing with, you had prepared, which 24 would be Petitioner's Exhibit 1 or GP's Exhibit 1 and that's 25 sort of a time line, correct?	99 1 to be patient. The reason I called is I hadn't closed on this 2 land yet, I wanted to know where we were at, and the reason I 3 called on that date is that's 60 days after I applied; so they 4 have had it in their possession for 60 days. 12-11-12 is the 5 date that's on the engineering report that I received. We 6 closed on the McMurchie ground on 12-14-12. 12-18-12 I made 7 another call to the water board and that's when I was verbally 8 told of the concerns with our aquifer and the decision to defer 9 the water permits. I received the notice in the mail the 21st 10 of '12, 12-21-12, and then the public meeting in Viborg was on 11 2-5 of '13. 12 Q. And did you have any other input from any other -- I 13 know you mentioned Greg -- you haven't yet. Who is Greg 14 Merrigan? 15 A. Greg Merrigan is the manager of our local rural water 16 plant, Clay County Rural Water. As the crow flies, they are 17 roughly five miles from my home place. It's where their wells 18 and where their plant is. 19 Q. And actually, you subscribe and are a member of the 20 Clay Rural Water System, it's a magazine called Quality on Tap; 21 is that correct? 22 A. That's correct. 23 Q. And then Greg has a summary or sort of an update in 24 the January letter there. 25 A. Every month the manager writes comments that are

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1 relevant to our water system, and I found it very interesting
2 that his comments highlight that we are very, very fortunate to
3 live over an abundant supply of water and they have monitoring
4 wells of their own, they are not -- that they are looking at
5 all the time. And after I received this newsletter, I called
6 Greg and I said, okay, Greg, I want to talk to you because I
7 have a water permit that's being deferred and you are the
8 closest commercial user to me, do you have a concern with me
9 having another irrigation permit, and he said none whatsoever.

10 Q. So you didn't go into this blind, you had been
11 consulting with others, and at the beginning we talked about
12 you do have the opportunity to have a separate report done for
13 you specifically, correct? You could have --

14 A. That's correct.

15 Q. Did you actually -- were you actually given a couple
16 names of engineering firms when you called up here in December?

17 A. When I got the verbal news the recommendation was
18 going to be for deferral, I talked to Eric on the phone and he
19 gave me a couple of names, and I'm not sure I have those, it
20 was a couple of engineering firms and he told me, you know, if
21 I wanted to contract my own engineering study, I was sure
22 welcome to.

23 Q. And why -- to your understanding, would it have been
24 available for this hearing today to present to the board if
25 they would have done it?

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1 A. I highly doubt it, but I didn't check on it. I
2 thought about checking on it, but then I stumbled onto the
3 Roger Hansen, just by going on the Internet, looking at area
4 water permits and doing the research kind of that I'm probably
5 not real qualified to do, it took a long time to navigate the
6 Web site, but then I found the -- or I found the Roger Hansen
7 report and it's 5,000 feet from where I am applying for and
8 it's in basically the same time frame and it looked like they
9 come from two different states. So I didn't feel there was a
10 reason to spend more money on another engineering report.

11 Q. And so when we look at the application lists, you are
12 on the top, you are the top two actually; so you didn't
13 actually jump in line after getting word of the deferral,
14 correct?

15 A. No, I did not.

16 Q. And you are here before the board because your
17 livelihood depends on this.

18 A. Absolutely.

19 Q. The actual benefit to having or to being able to
20 irrigate land, do you see that there's an actual public benefit
21 to being able to efficiently farm the farm ground?

22 A. The demand for food, fuel and fiber is ever
23 increasing, and that's why we have commodity prices where we
24 have it, because we didn't happen to raise a big crop in the
25 United States last year. I think not just me but all of these

1 guys, everybody has to get more efficient at producing because
2 we are not making more land, as they say, and irrigation is one
3 way to produce more crop. That's my philosophy, is I don't
4 want to tear down trees or clear rain forest to produce more
5 crop. I think we have the ability with all the tools available
6 to us to produce more crop, and irrigation is one of those
7 tools.

8 Q. I know the board has heard much about the impact of
9 agriculture, but were you aware that KSFY did something last
10 month, \$21.4 billion worth of economic impact to South Dakota's
11 economy?

12 A. Yep, I heard the story.

13 Q. And do you I guess believe, then, that your ability to
14 efficiently farm both has not only a personal, huge personal
15 interest to yourself and to Julie, but also then to South
16 Dakota?

17 A. Yes.

18 Q. Do you believe that there is unappropriated water for
19 that well that you are proposing and that you have applied for
20 to be able to actually utilize water without drawing down the
21 aquifer?

22 A. I do, for both wells, not just one.

23 MR. RUMPCA: Thank you. I have no other questions at
24 this time.

25 CHAIRMAN FREEMAN: Mr. Benson, do you have any

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1 questions?

2 MR. BENSON: No.

3 CHAIRMAN FREEMAN: Mr. Hagen?

4 MR. HAGEN: No.

5 CHAIRMAN FREEMAN: Mr. Osborn?

6 MR. OSBORN: No, sir.

7 MR. HULT: No.

8 CHAIRMAN FREEMAN: Mr. Stevens?

9 MR. STEVENS: No.

10 CHAIRMAN FREEMAN: Mr. McCarty?

11 MR. MCCARTY: I don't have any questions.

12 CHAIRMAN FREEMAN: Ms. Best?

13 MS. BEST: Yes, I have something.

14 CROSS-EXAMINATION

15 BY MS. BEST:

16 Q. I want to understand this time frame, Mr. Peterson.
17 You became aware of the Roger Hansen, the water permit had been
18 granted to Mr. Roger Hansen when?

19 A. I can't hear you, ma'am.

20 Q. When did you become aware that a permit had been
21 granted to Mr. Roger Hansen?

22 A. Well, I became aware when he started irrigating this
23 summer because he's right next door to me, but then I
24 researched it on the Internet as to when it was officially, you
25 know, given to him.

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1 Q. So he jumped the gun on the irrigation permit?

2 A. Pardon me?

3 Q. He jumped the gun on the irrigation permit, he

4 irrigated before he was authorized; is that what you are

5 saying?

6 A. I'm not saying that, no.

7 Q. You saw him irrigating in --

8 A. This summer.

9 Q. But then you did the research later and found out that

10 on September 18, 2012, the Chief Engineer had recommended

11 approval of a water permit for Mr. Hansen?

12 A. That's what I found on the Internet, yes.

13 Q. So you didn't know on September 18, 2012, whether Mr.

14 Hansen had a permit or not?

15 A. No, I had no reason to check whether he had a permit

16 or not.

17 Q. You saw he was irrigating?

18 A. I saw he was irrigating.

19 Q. And so in reliance on that, you went ahead and applied

20 for a permit and put earnest money down on the McMurchie

21 property?

22 A. Not just solely on that. I am the first one that's

23 ever been denied in our area; so that was really the last of

24 our concern on whether we got a permit or not.

25 Q. So you assumed a permit would be granted because your

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1 neighbor was irrigating?

2 A. Absolutely. Well, and we all are irrigating. There's

3 been several systems that have been built recently in our area.

4 We are not the only two by any means.

5 Q. Your time line indicates -- your time line indicates

6 that Mr. Roger Hansen applied for a permit and then 60 days

7 later he got the permit?

8 A. That's according to the Internet. I looked at his

9 records on the Internet and that's the date that the State

10 shows receiving the application is 7-20 and the engineering

11 report is dated 9-18.

12 Q. That doesn't account for any time that would have been

13 spent then advertising the permit or allowing for petitions to

14 intervene or holding a possible hearing, would it?

15 A. No, it doesn't.

16 Q. And in fact your permit, when you applied for it, you

17 applied 9-26-12 and if Mr. Hansen were to look on the Internet,

18 he would see or we are seeing here today that the

19 recommendation on your permit was 12-11-12, correct?

20 A. That would be correct.

21 Q. And that's not 60 days, it's 76 days.

22 A. Okay.

23 Q. And the additional time is associated with

24 advertising, allowing for people an opportunity to intervene

25 and going to hearing, correct, till we get here today?

1 A. But when the engineering report comes out, it has a

2 recommendation of approval, deferral or denial, and before the

3 advertising you know what the recommendation is from the

4 engineer.

5 Q. Now, are you -- are you saying -- you aren't saying

6 that you would have had a chance to -- that if -- never mind.

7 So you will not be using additional water with that additional

8 18 acres?

9 A. With amending the water permit at my home place, I

10 won't use any additional beyond what's appropriated to me.

11 Yes, I will use more water than irrigating the 115 acres, but I

12 won't exceed what's appropriated to me at 230 acre feet.

13 Q. You are saying that because the maximum potential

14 amount of acreage or maximum potential amount of water you can

15 apply per acre, is this where you are going, the volume of

16 water, you won't --

17 A. Based on our history, we are pumping I think it's 730,

18 please don't hold me to this, but I think it's 735 gallons per

19 minute and that's adequate to cover the 133 acres on my soil

20 type. It may not be adequate if I was on sugar sand or another

21 soil type, but history has proven to us that actually this year

22 I pumped about 12 hours of each day. I tried to pump at night

23 to conserve more water and not lose water to evaporation; so if

24 I can keep up pumping 12 hours a day, I know I can keep up with

25 24 hours a day on our soil type.

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1 Q. Now, but the fact is you will be using more water than

2 you have been using.

3 A. Than I have been using, that's correct.

4 Q. And you applied for 40 acres, but you are saying today

5 now it's only 18 that you need?

6 A. Yeah.

7 Q. Because of the pivot.

8 A. The net increase is 18 acres over what we are already

9 appropriated for.

10 Q. The DENR -- I'm trying to picture this. You are

11 negotiating on the McMurchie property, you are buying

12 irrigation equipment, you are calling the DENR. They didn't

13 promise you they would grant you a permit, did they?

14 A. They did not.

15 Q. Okay, so the problem is we don't know if granting you

16 a permit would cause diminishment in water in this aquifer,

17 okay? You are saying -- you are not saying you want to -- that

18 you are -- that you want the water even if it causes harm to

19 others, are you?

20 A. No, I'm not.

21 MS. BEST: I don't have anything else.

22 CHAIRMAN FREEMAN: Does the board have any questions?

23 EXAMINATION

24 BY MS. DIXON:

25 Q. Mr. Chairman, I do. On GP Exhibit 2, page eight, just

108 1 I think point of clarification on the time line. Item number 2 four at the mid page says that Mr. Hansen's permit was approved 3 on October 9th. Is that the same permit you were talking about 4 that he had approved on -- you believe to be approved on 5 September 18th? 6 A. Forgive me, ma'am. You gotta speak up. 7 Q. I'm sorry. Exhibit 2, page eight. 8 A. Exhibit 2? 9 Q. It's the big, thick Hansen. 10 A. That must be an engineering report. 11 Q. It's from the Hansen's application. 12 A. Okay. Yap. 13 Q. Page eight? 14 A. Correct. 15 Q. In the first list at the top of the page, item four. 16 It says date of approval was October 9th; so that's the date 17 you were referring to here and believed to be September 18th. 18 A. Right. 19 Q. When in fact it was October 9th. 20 A. The date that I am referring to is when the engineer's 21 report was stamped recommending approval. 22 Q. Recommending approval, okay. 23 A. So when he actually was granted his water permit would 24 have been after he went through the public period of 25 advertising and all of that.	110 1 Mr. Peterson. Do you have any other witnesses? 2 MR. RUMPCA: No, Mr. Chairman. 3 CHAIRMAN FREEMAN: This might be an appropriate time 4 to take a 10-minute break. I want to let everybody know that 5 this board as a rule does not go for long evenings. We find 6 that people make mistakes when they get tired. We have been 7 here since eight o'clock this morning, so has the staff. A lot 8 of you have been here for a while. I want everybody to have a 9 fair opportunity to have their say, but I want you to know we 10 are not going to go late tonight and if we have to carry over 11 to tomorrow morning, if we need to do that. So why don't we 12 take a 10-minute break. 13 MS. BINEGAR: Don't go outside because the doors are 14 going to be locked. 15 (Whereupon, the hearing was in recess at 5:28 p.m., 16 and subsequently reconvened at 5:38 p.m., and the following 17 proceedings were had and entered of record:) 18 CHAIRMAN FREEMAN: I have talked to the board counsel 19 and a couple board members, and in my judgment, I don't think 20 it's fair for you folks and for everybody to feel like they 21 need to rush through things, speed things up. In any event, 22 even if we got through the testimony, we still have closing 23 arguments, we have potential rebuttal testimony and the board 24 needs to deliberate. 25 I don't see there's any way possible we can do that
109 1 Q. And it would have had to have gone through this board; 2 is that correct? 3 CHAIRMAN FREEMAN: If it's not opposed or they don't 4 want to bring it to our attention, they just approve it. 5 MS. DIXON: Thank you. So it went through this board 6 on October 9th; is that what you are saying? I don't know if 7 it matters. 8 Q. (BY MS. DIXON) Do you know if Mr. Hansen's permit was 9 opposed? 10 A. I am not aware that it was. I assume not since -- I 11 guess I don't know. I can't tell you whether it was or not. 12 Q. But you said he was watering in the summer of '12? 13 A. Yes, he was. 14 MS. DIXON: Thank you. 15 CHAIRMAN FREEMAN: Any other board members? 16 EXAMINATION 17 BY MR. HOYT: 18 Q. I think your counsel had implied or perhaps stated 19 that the listing here, I'm sorry, I don't know if you have 20 that, that the listing on the report would indicate that your 21 applications are the earliest in time. Do you know that to be 22 a fact? 23 A. Yes, I do. 24 MR. HOYT: Thank you. 25 CHAIRMAN FREEMAN: Any other questions? Thank you,	111 1 without actually rushing through it or either trying to make 2 decisions when everybody is worn out. What I would like to do 3 is if there are applicants who cannot be here for some reason 4 tomorrow morning at eight o'clock, to let you folks go out of 5 order, so to speak, and try and get that part done tonight and 6 then tomorrow morning start at 8:00 rather than at 8:30 and 7 give everybody a fair chance. So is there an applicant who is 8 on my list to make a statement, testify, who would like to do 9 it tonight? Mr. Hagen. I am assuming that's acceptable with 10 everybody. I guess I don't need permission. I would like it 11 to be acceptable to everybody. Come up here, she will have to 12 swear you in, Mr. Hagen. 13 MR. McCARTY: Before he starts, my consideration of 14 the applications are really two groups, one by Mr. Peterson, 15 the remainder of them thereafter, that may be different. If I 16 did not come back tomorrow, would I be allowed to submit a 17 closing argument, brief closing argument in writing and get it 18 up to you tomorrow morning right away? 19 CHAIRMAN FREEMAN: If you got it to us tomorrow 20 morning, yeah, that would be fine, we would certainly put that 21 in the record. I'm assuming that would be acceptable. 22 MR. HALLEM: Argument would be argument before on it 23 unless one of the parties objected on it. You said it would be 24 appropriate acceptance on it. 25 MS. BEST: No objection.

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1 MR. HALLEM: Without any party doing it, it would just
2 need to be here in time for consideration on it and you would
3 need to make arrangements so the board has it for
4 consideration. Then what we would do is we would make it a
5 part of the record. It wouldn't be an exhibit, but it would be
6 part of the record to be incorporated with it. The chair would
7 make that ruling and have it be part of the official record so
8 if something came up, it would be an equivalent of you
9 testifying, or excuse me, making statements at the conclusion
10 of the evidence.

11 MR. McCARTY: Thank you.

12 CHAIRMAN FREEMAN: Mr. Hagen, she will need to put you
13 under oath.
14 Thereupon,

15 BRUCE HAGEN,
16 called as a witness, being first affirmed as hereinafter
17 certified, testified as follows:

18 MR. HAGEN: Bruce Hagen from Sioux Falls, South
19 Dakota. My wife and I have land entitled Bethel Trust and the
20 Cleland Trust, that's C-L-E-L-A-N-D. I first became interested
21 in irrigation in 1967 after several years of drought in the
22 state of Iowa. We had a couple of farms with gravel pits on
23 it; so I applied for permits to irrigate, and the natural
24 resources called me and said you got 100 people going against
25 you so you better get a lawyer. Well, I went and talked to a

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1 lawyer. He didn't know as much about irrigation as I did; so I
2 represented myself. Every farmer in the area and every town
3 thought I was going to drain the entire county so there would
4 be no water. Anyway, they granted me my permits, then it
5 rained for 19 years, I never had to irrigate. I'm hoping that
6 happens again.

7 My wife and I decided to irrigate last summer. We
8 started researching the possibility in the month of July and we
9 dug several test wells, actually five in total. One we found
10 water at 33 feet, 7 feet to 33 feet; one we found water at 229
11 to 257 feet; and one, 139 to 169 feet; and one 168 to 207 feet.
12 One farm we hit granite at 207 feet; so we decided not to go
13 any farther. But we ordered equipment, we were supposed to
14 have four units delivered in the month of February.
15 Fortunately they haven't held me to that obligation, but we
16 have spent a lot of money applying for the permits and digging
17 the test wells.

18 And I'm considering the fact that a lot of this water
19 runs out of this aquifer into the Missouri River; is that
20 correct? We lose some surplus water, it goes into the Missouri
21 River so we have a deficit from the aquifer running away from
22 us, and the fact that the 15-year study from 1985 to 2000,
23 let's see, 2008 showed a surplus of water rather than a
24 deficiency; so I'm wondering if there could be some way that
25 permits could be granted with certain limitations that if we do

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1 have a problem that threatens the water for wells and for water
2 companies, that we would have to modify our use of the water.

3 We have also spent quite a bit of time with the
4 electrical company, rural electrification, to see about putting
5 lines in so we can run the equipment. Any further questions?

6 CHAIRMAN FREEMAN: Let's see. Mr. Rumpca, do you have
7 any questions?

8 MR. RUMPCA: No questions.

9 CHAIRMAN FREEMAN: Mr. Benson? Mr. Osborn?

10 MR. OSBORN: No.

11 CHAIRMAN FREEMAN: Mr. Hult?

12 MR. HULT: No.

13 CHAIRMAN FREEMAN: Mr. Stevens?

14 MR. STEVENS: No.

15 CHAIRMAN FREEMAN: Mr. McCarty?

16 MR. McCARTY: No.

17 CHAIRMAN FREEMAN: Ms. Best?

18 CROSS-EXAMINATION

19 BY MS. BEST:

20 Q. What's the 1985 to 2000 something study?

21 A. Ma'am?

22 Q. What is the 1985 to 2000 something study that you
23 quoted?

24 A. It shows on a graph that there was a surplus of water,
25 that we had more coming in than we had going out.

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1 Q. You are talking about the DENR testimony that Ken
2 Buhler provided?

3 A. Right.

4 MS. BEST: Thank you. Nothing further.

5 CHAIRMAN FREEMAN: Any questions by the board?

6 EXAMINATION

7 BY MR. HOYT:

8 Q. Do you know the dates of your applications?

9 A. The dates of the application were in October, I
10 believe. We dug the test wells and then we had to wait for the
11 report to come back to see whether we had a viable well in
12 order to proceed.

13 MR. HOYT: Thank you.

14 EXAMINATION

15 BY MR. COMES:

16 Q. Mr. Hagen, have you made any -- have any expenditures
17 on the irrigation equipment yet?

18 A. No. But we have ordered the equipment and it was
19 supposed to be delivered in February, and then he advised me
20 they put a moratorium on new permits.

21 Q. Any expenses on the electrical?

22 A. No. But we did research through the REA.

23 MR. COMES: Thank you.

24 A. Anything else?

25 CHAIRMAN FREEMAN: Thank you, Mr. Hagen. Appreciate

116 1 it. Anyone else want to testify? Yes, Mr. Benson. 2 Thereupon, 3 DONALD BENSON, 4 called as a witness, being first duly sworn as hereinafter 5 certified, testified as follows: 6 MR. BENSON: I am here on behalf of my son and 7 grandson. I don't know, I looked down this line, there's a few 8 gray haired ones that sometimes you would wonder why you keep 9 going. But anyway, our application, on page seven of this 10 report shows we are in the first seven that applied is the way 11 I understand that, and we are straight west of Hurley three 12 miles in that finger or leg that goes up there. Above it is a 13 fancy colored picture, which would kind of indicate that to me, 14 the way I interpret that, is the Niobrara feeds into this where 15 our well would be pretty much so, and there has none been 16 denied in the Niobrara and the fella that's here in regard to 17 Swan Lake, the Niobrara west of my house flows into the Turkey 18 Ridge Creek many places, artesian wells and stuff, and that 19 Turkey Ridge Creek runs right through Swan Lake. I don't know. 20 We are irrigating, have irrigated for 36 years five 21 and a half miles west of Hurley and we are in the Turkey Ridge 22 aquifer, which is a very shallow aquifer. I think probably we 23 are the only ones that are irrigating out of that well. But we 24 raised some 220 bushel corn. A mile east of my house the young 25 fella never combined the corn. To me we talk a lot in Pierre	118 1 Thereupon, 2 MICHAEL STEVENS, 3 called as a witness, being first duly sworn as hereinafter 4 certified, testified as follows: 5 MR. STEVENS: I just wanted to touch on one of the 6 permits that I filed. I believe it's 7600-3 in reference to 7 being, quote, jumping on the bandwagon, beings I'm one of the 8 later filers instead of one of the earlier ones. On this 9 particular permit, I'm working with Paul Shoebeck. I wish all 10 neighbors could get along as well as him and I do. He has an 11 80-acre parcel that he is currently permitted for. He would 12 like to irrigate his, he contacted me wondering if I would be 13 interested in irrigating mine. I said I would, what do you do? 14 I went about getting a water permit. 15 Ahead of that, talk about spending a little bit of 16 money to get ready for this, we spent close to \$50,000 putting 17 drainage tile underneath the land so as not to harm it with 18 things that you could pump on top, don't flood it, different 19 things like that. Also in works with the electrical company. 20 In the meantime, from starting the project till today, they 21 informed me they could now put electricity in \$12,000 cheaper 22 than they could have back in September when we started this 23 process. So as far as costing money, we are somewhat in the 24 same boat, but yet I would not like to be considered that. Is 25 it Mr. Miller?
117 1 about economic development, but I don't know anything bigger in 2 economic development in agriculture and that's the engine that 3 pulls this whole state, than irrigation. Thank you. 4 CHAIRMAN FREEMAN: Thank you. Just a moment, Mr. 5 Benson. There may be questions. Mr. Rumpca. 6 MR. RUMPCA: No questions. 7 CHAIRMAN FREEMAN: Any questions? Mr. Stevens? 8 MR. BENSON: They all want to go home, too. 9 MR. McCARTY: I have no questions. 10 MS. BEST: I have none, thank you. 11 CHAIRMAN FREEMAN: Does the board have any questions? 12 EXAMINATION 13 BY MR. HOLZBAUER: 14 Q. You have been irrigating 30 years you say? 15 A. 36 years ago we started, 1976. 16 Q. You have a permit and you irrigate from that -- 17 A. I have a permit and we have irrigated for 36 years and 18 that's on a different farm than there, all together different 19 place. It's only two and a half miles away, but it's in an 20 absolutely different aquifer. It's a shallow aquifer, but it's 21 treated us good. 22 MR. HOLZBAUER: Thank you. 23 CHAIRMAN FREEMAN: Thank you, Mr. Benson. Mr. Osborn 24 and Mr. Hult, Mr. Stevens, any of you all want to go now? 25 MR. STEVENS: I have just got a couple statements.	119 1 MR. McCARTY: McCarty. 2 MR. STEVENS: As far as being thrown in all the same 3 basket, I was not notified of any protest by the 25th of 4 February against mine. If you are filling for something against 5 Swan Lake, I would just as soon be excluded from that. 6 And Mr. Peterson stated that it would definitely 7 affect his livelihood. If it affects his livelihood, I think 8 it goes to just plainly state it affects everybody's 9 livelihood. Thank you. 10 CHAIRMAN FREEMAN: Any questions? 11 MR. RUMPCA: No questions. 12 CHAIRMAN FREEMAN: Gentlemen, any questions? Mr. 13 Benson? Mr. Hagen? 14 MR. McCARTY: No questions. 15 CHAIRMAN FREEMAN: Ms. Best? 16 MS. BEST: None. 17 CHAIRMAN FREEMAN: Does the board have any questions? 18 Thank you, Mr. Stevens. Appreciate it. Mr. Osborn, would you 19 like to -- 20 MR. OSBORN: I can make a quick statement. 21 CHAIRMAN FREEMAN: Our whole purpose is so that you 22 don't have to make a quick statement, if you want to make a 23 slow statement, that's okay with us, too. 24 MR. OSBORN: I am okay with a quick statement. 25 CHAIRMAN FREEMAN: Come on up, then.

120 1 Thereupon, 2 DARRELL OSBORN, 3 called as a witness, being first duly sworn as hereinafter 4 certified, testified as follows: 5 MR. OSBORN: Just a question on the wells that are out 6 of the test wells, there's 15 out of the 29 that were pulled 7 down; so there's 14 out of 29 that were actually higher. I did 8 the math one day on that and the net down was, if I'm correct, 9 .67 feet was the net down on the averages on that. I did the 10 math on your test wells, and I could stand to be corrected, but 11 that's very close, if it's not accurate. 12 The 15 wells that are down, are they in the TM water, 13 that green area that you outlined, the yellow green area you 14 outlined around the rural water wells, is that where most of 15 the test wells are down? 16 CHAIRMAN FREEMAN: You can't really ask questions of 17 him, but I think I saw a thumbs up. 18 MR. OSBORN: Okay. That's my question and I guess it 19 kind of alludes to if the rural water, if that's where the 20 wells are down because of the drawdown you get from when you 21 are running a well, the rural water wells are running 24/7 and 22 you get a pretty significant drawdown, and this could be 23 leading to some erroneous test well or we are not getting 24 enough recharge or to get an accurate read on those test wells 25 in that area, the rural water wells just about have to be shut	122 1 MS. BEST: None. 2 CHAIRMAN FREEMAN: Does the board have any questions? 3 MR. HOYT: Just a clarification. You referred to the 4 29 as test wells. Are those the same as the observation wells? 5 MR. OSBORN: Yes, the observation wells, yes. 6 MR. HOYT: Thank you. 7 CHAIRMAN FREEMAN: I do have one question I want it 8 clear on the record. If your permit is granted, you intend to 9 use it for irrigation? 10 MR. OSBORN: Absolutely. 11 CHAIRMAN FREEMAN: Thank you. Irrigation for farming 12 purposes? 13 MR. OSBORN: Absolutely, yes. 14 CHAIRMAN FREEMAN: Thank you. Mr. Hult, would you 15 like to present? 16 MR. HULT: Are we coming back tomorrow? 17 MR. HALLEM: Yes. 18 MR. HULT: I'm riding with Mr. Peterson; so I'll 19 probably be here in the morning. 20 CHAIRMAN FREEMAN: Diane, so we have a general idea 21 about tomorrow, you are going to have rebuttal? 22 MS. BEST: Very short I think at this point. I know 23 that's kind of -- it's not really saying anything, but yeah, we 24 will try and keep it short and we will have one witness, I 25 believe.
121 1 down for an extended period of time to get an accurate read on 2 that drawdown, which it's not possible to do that. 3 I'm just -- this is part of the gray area you are 4 talking about, Ken is talking about on recharge, and again, get 5 an accurate read in that area. But most of the rest of the 14 6 out of 29 wells have actually increased, you know, and so I am 7 just questioning the data, and Ken, you have questioned your 8 own data. I'm not trying to shoot you in the foot here. I 9 appreciate all the work you have done and you have been very 10 fair, and I'm just -- because of the drawdown in the wells, you 11 know, is this truly accurate? And you have said yourself you 12 were trying to improve on your data and to get a more accurate 13 read on this. So that's my only point. 14 Where my wells, where my well would go in, I'm below 15 the Niobrara aquifer, I'm south of 18. Most of the wells 16 around me have a higher reading, that's my point. I think 17 everything has pretty much been said. Thank you for your time 18 and patience. 19 CHAIRMAN FREEMAN: Thank you. Just a moment. Any 20 questions? 21 MR. RUMPCA: I have no questions. 22 CHAIRMAN FREEMAN: Any questions, Mr. Benson? Any 23 questions, Mr. Hult? Mr. Hagen? Mr. Stevens? Mr. McCarty? 24 MR. McCARTY: No questions. 25 CHAIRMAN FREEMAN: Ms. Best?	123 1 MR. RUMPCA: Can we break for just a second? Some of 2 these folks car pooled together; so they are making the 3 decision on whether or not to testify tonight versus tomorrow 4 on if they have a ride home. So I know I drove separate. 5 CHAIRMAN FREEMAN: We will take a couple minutes; we 6 will just stick around. 7 (Whereupon, the hearing was in recess at 5:58 p.m., 8 and subsequently reconvened at 6:03 p.m., and the following 9 proceedings were had and entered of record:) 10 CHAIRMAN FREEMAN: We will take Mr. Hult's testimony 11 before we shut down tonight and then we will proceed, we will 12 start tomorrow, unless you have something to present. 13 MR. McCARTY: No, I'll submit something and have it 14 here before 7:30. 15 CHAIRMAN FREEMAN: We will begin tomorrow with 16 rebuttal. 17 MS. BEST: Okay. I am hearing that they have one more 18 witness and I have one more witness; so if there is any thought 19 about finishing testimony and then sending the lawyers to write 20 briefs and deciding this in May, I'm okay with that, but I'm 21 going to be here tomorrow anyway; so I am just throwing it out. 22 CHAIRMAN FREEMAN: I think we ought to decide it while 23 it's fresh in everybody's mind. At least that's my thought on 24 it. Mr. Hult. 25 Thereupon,

124 1 JEROME HULT, 2 called as a witness, being first duly sworn as hereinafter 3 certified, testified as follows: 4 MR. HULT: I am Jerome Hult, I farm by Davis, South 5 Dakota. My story is a little different, I guess. I've got 6 more of a water problem, my problem is too much water, put it 7 that way. I am living right next to the Vermillion River, you 8 probably heard the Vermillion River does flood a lot and you 9 tend to lose a lot of crops, but last year was a really good 10 year, I mean, I got the crops in and what did they do, they 11 dried, and it would have been an excellent beneficial year to 12 have irrigation. As you are combining and watching all the 13 zeros on the monitor, things start going that it's time to 14 irrigate. 15 And I started looking into it and applied for the 16 permit, did some research, as Gary did, and didn't think there 17 would be a problem. As time went on, I too -- I decided to 18 purchase a used irrigator because of the fact there is some wet 19 years, there is some flood years, you are not going to use it 20 every year. It's basically for the dry years, you would like 21 to get a crop on a dry year. And I purchased a used irrigator, 22 got it home, actually put one tower up and got a letter on 23 December 19th and I quit until this is decided. That was my 24 story. 25 CHAIRMAN FREEMAN: Any questions?	126 1 off the shoot I'll tell you this, the actual numbers you see, 2 the highest number is the latest application that come in so 3 you know the priorities looking at those 17 numbers on your 4 agenda. 5 MR. BJORK: Mr. Chairman, it seems we don't have a map 6 that shows the -- 7 MS. BEST: Subject to check. We will get you a table. 8 We want to make sure we got that right. 9 MR. BJORK: Ms. Best, I don't think we have in our 10 packet a map that shows the second batch of applications, where 11 they are. 12 MS. BEST: We will provide additional maps. 13 CHAIRMAN FREEMAN: With that, we will see everybody or 14 some of you tomorrow morning; some of you drive carefully, 15 (Whereupon, the hearing was in recess at 6:08 p.m., 16 and subsequently reconvened on Thursday, March 7, 2013 at 8:00 17 a.m.) 18 19 20 21 22 23 24 25
125 1 MR. RUMPCA: I have none. 2 CHAIRMAN FREEMAN: Gentlemen? Mr. McCarty? 3 MR. McCARTY: None. 4 MS. BEST: Nothing. 5 CHAIRMAN FREEMAN: Does the board have any questions 6 of Mr. Hult? 7 MR. HOYT: One or two. Had you drilled any test wells 8 or done anything other than purchase the irrigator? 9 MR. HULT: No, I didn't because I'm surrounded by 10 other wells, other irrigators. I am surrounded by other wells 11 so there's plenty of -- there's water there, either the Upper 12 or Lower, and I'm right next to the river. 13 MR. HOLZBAUER: What aquifer are you going to go after 14 to get the permit? 15 MR. HULT: Well, all of us are the Upper, yeah. 16 MR. HOLZBAUER: Upper Vermillion, okay. 17 CHAIRMAN FREEMAN: Anything else? Thank you, Mr. 18 Hult. Appreciate it. And we will reconvene at eight o'clock 19 tomorrow morning. Thank you to those who aren't going to be 20 here tomorrow morning and we will hopefully have a decision. 21 MR. HOYT: Before we conclude, may I make a request of 22 Ms. Best or Mr. Buhler or Eric? Could we get the dates of the 23 applications or at least a priority order, priority ranking 24 tomorrow? 25 MS. BEST: The actual numbers that you see, just right	127 1 <u>CERTIFICATE</u> 2 3 STATE OF SOUTH DAKOTA) 4) ss. 5 COUNTY OF HUGHES) 6 7 I, Carla A. Bachand, RMR, CRR, Freelance Court 8 Reporter for the State of South Dakota, residing in Pierre, 9 South Dakota, do hereby certify: 10 That I was duly authorized to and did report the 11 testimony and evidence in the above-entitled cause; 12 I further certify that the foregoing pages of this 13 transcript represents a true and accurate transcription of my 14 stenotype notes. 15 Dated this 6th day of June 2013. 16 17 18 19 20 21 22 23 24 25 Carla A. Bachand, RMR, CRR Freelance Court Reporter

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NOTICE OF SERVICE

Clay County Clerk of Courts
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In re: In the Matter of the Water Permit Application No. 7441-3 (Gary and Julie Peterson)
Clay County No.

You are hereby notified that the following original transcript(s) has/have been sealed and served upon you for filing:

Hearing: Water Board hearing
Volumie 2

Date taken: March 7, 2013

() The deposition has been read and signed by the witness(es) and attached correction sheet reflects corrections, if any, made to the deposition.

() The witness(es) and/or counsel have not notified this office with regard to signature; therefore, the original deposition has been forwarded without signature.

() Signature(s) was/were waived or not required.

Dated this 15th day of June 2013.

Stephanie L. Moen, RPR
Notary Public

cc: Mr. A. Jason Rumpca
✓ Ms. Diane Best

1 STATE OF SOUTH DAKOTA)

IN CIRCUIT COURT

2 COUNTY OF CLAY)

:SS

FIRST JUDICIAL DISTRICT

3
4 In the Matter of the Water Permit
5 Application No. 7441-3
(GARY AND JULIE PETERSON),

6 Appellants.

COPY

7
8 Transcript of Proceedings
9 Volume 2 of 2
Thursday, March 7, 2013

10
11 BOARD MEMBERS PRESENT:

12 Mr. Rodney Freeman, Chairman
13 Mr. Everett Hoyt
14 Mr. Leo Holzbauer
15 Ms. Peggy Dixon
16 Mr. Tim Bjork
17 Mr. Chad Comes
18 Mr. Jeff Hallem, Counsel for the Board

19 APPEARANCES:

20 For DENR:

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ATTORNEY GENERAL'S OFFICE
317 North Main Avenue
Sioux Falls, SD 57104

21 For the Appellants: A. JASON RUMPCA

PETERSON, STUART, RUMPCA & RASMUSSEN
103 North 3rd Street
Beresford, SD 57004

22 PROCEEDINGS:

23 The above-entitled proceeding reconvened at
24 approximately 8:02 a.m. on the 7th day of
25 March 2013 in a meeting room of the
Matthews Training Center, 523 East Capitol
Avenue, Pierre, South Dakota.

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EXHIBIT NO.

MARKED RECEIVED

DENR 4	130	131
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1 (Whereupon the following proceedings were had, to wit:)

2 (DENR Exhibit Nos. 4 through 6 marked for identification.)

3 CHAIRMAN FREEMAN: We'll call this back to order,
4 and we will begin where we left off yesterday, which I think
5 we had concluded the testimony, so we will have rebuttal.
6 Miss Best?

7 MS. BEST: Thank you. I will call Ken Buhler at
8 this time.

9 CHAIRMAN FREEMAN: And just for the record, Ken,
10 you are still under oath.

11 EXAMINATION BY MS. BEST:

12 Q Okay, Ken, at the close of yesterday's hearing, the Board
13 asked for a couple of different items, and one was a copy of
14 all the permit applications that were being heard here
15 today. I mean a copy of a list of the date they were filed.

16 A Correct.

17 Q And did you prepare a list?

18 A Yeah, I did. It's a list of the permits, when we received
19 them, when the report was completed, when the chief's
20 recommendation came out.

21 Q Okay, and on the - I just handed you DENR4. Is that the
22 list?

23 A Yes.

24 Q And on our DENR 4, there's a little handwritten note by
25 permit 76 - 7609-3. Can you explain what that handwritten

1 note is.

2 A When I was putting the list together, I couldn't find that
3 permit, and at the end of the day, it turns out that permit
4 was ultimately changed to Parker/Centerville, so it was
5 essentially withdrawn, although technically not withdrawn.
6 At any rate that permit is no longer - isn't an Upper
7 Missouri application.

8 MS. BEST: Move admission of DENR 4.

9 CHAIRMAN FREEMAN: Any objection, counsel?

10 MR. RUMPCA: No objection.

11 CHAIRMAN FREEMAN: DENR 4 will be received.

12 (DENR Exhibit No. 4 offered and received in evidence.)

13 Q (By Ms. Best) Okay, Ken, also the Board asked to make sure
14 that they had available to them a list or a map that showed
15 the permit applications, and I'm handing you DENR 5. Did
16 you prepare that?

17 A Yes. As a matter of fact, I think Mr. Buhler commented that
18 the second set of applications didn't show up or weren't on
19 the map, so there - Exhibit 5 is - it's actually a blowup
20 of - it would be slide 15 from my Powerpoint presentation
21 that shows all of the applications.

22 Q Okay, and DENR 5 shows two different colors for the
23 applications.

24 A Correct. The - the diversion points labeled in black are
25 the old - were the first set of applications, and the

1 diversion points labeled in red were the second set of
2 applications.

3 MS. BEST: Move admission of DENR 5.

4 CHAIRMAN FREEMAN: Any objection?

5 MR. RUMPCA: No objection.

6 CHAIRMAN FREEMAN: 5 will be received.

7 (DENR Exhibit No. 5 offered and received in evidence.)

8 Q (By Ms. Best) Okay finally, Ken, during the testimony
9 yesterday, you were cross-examined, and during
10 cross-examination, you actually put up a slide that had not
11 been in the Powerpoint previously admitted into evidence, so
12 I wanted to get that cleared up. I'm going to hand you
13 what's marked DENR 6, and could you tell us what that
14 document is.

15 A DENR 6 is a - is a map of the aquifer - of the Upper
16 Vermillion aquifer - Vermillion Missouri aquifer showing all
17 of the proposed diversion points that - that the Board has
18 in front of them now; in addition to that, all of the water
19 rights and water permits from the aquifer - the existing
20 water rights and water permits from the aquifer color coated
21 by use.

22 MS. BEST: Okay. Move admission of DENR 6.

23 CHAIRMAN FREEMAN: Any objection?

24 MR. RUMPCA: No objection.

25 CHAIRMAN FREEMAN: 6 will be received.

1 (DENR Exhibit No. 6 offered and received in evidence.)

2 MS. BEST: Again I'll hand out copies to the Board.
3 I'm going to examine the witness a little bit more about
4 this.

5 A I need to say Exhibit 6 also includes the areas that we've
6 identified declining water levels. It's similar to what's -
7 I believe it's "I" in your report.

8 MS. BEST: I'll wait until it's passed out.

9 CHAIRMAN FREEMAN: The original is up here.

10 Q (By Ms. Best) Okay, Ken, looking at Exhibit 6, there is sort
11 of a bright blue colored dot in the lower right-hand side of
12 the - lower left-hand side of the aquifer. What's that
13 bright blue dot?

14 A That bright blue dot was the location of the Roger Hansen
15 permit where the Hansen property's permit, which was the
16 last permit that was - was approved out of the Upper
17 Missouri, and so during cross yesterday, I brought up this
18 slide showing where the Roger Hansen place was in relation
19 to the other - to the other permits from the aquifer.

20 Q Okay, and then the - just to refresh the Board's
21 recollection from yesterday, what's the bright green color?
22 Is it --

23 A Again, the greenish color is the areas of the aquifer in
24 which the observation wells in those areas are showing
25 declining water levels.

1 Q Okay. And then the rest of these - all them numbers are the
2 permit application numbers, correct?

3 A Correct.

4 Q Okay, and black again is the --

5 A Again, black was the original set of applications received
6 and then Y is the - the W is labeled with red or the second
7 set of applications.

8 Q Okay, and there was some questioning yesterday, Ken, about
9 the observation wells. Are the observation well readings
10 accurate?

11 A Oh, yes. If by "accurate" do you mean do they accurately
12 reflect the aquifer? Yes, they do. We're getting enough
13 readings where we're reading these observation wells every
14 other week throughout - well, from May through October.

15 And, you know, there was some question about "what
16 happens if they're pumping or not pumping"? Well, we're
17 getting enough readings over the course of the past 30 years
18 that that comes out in the wash whether they were pumping or
19 not pumping. So they are representative and - and, you
20 know, something to note they are throughout - most of our
21 readings are coming through the irrigations - made during
22 the irrigation season.

23 Q So if they reflect pumping, they would reflect pumping not
24 only of rural water systems but also of irrigation systems.

25 A Their total pumping, yes.

1 Q You heard testimony yesterday, Ken, did you not, about the
2 pumping by rural water system wells might somehow skew
3 observation well analysis? Did you hear that testimony from
4 one of the witnesses?

5 A Yeah, and that kind of was what we were talking about a
6 little earlier whether the well was pumping or not pumping.
7 We're getting enough measurements that were designated
8 pumping or not pumping, and the rural water systems aren't
9 pumping 24-7, and - you know, and so we're seeing what's
10 happening with the aquifer not necessarily just their
11 pumping.

12 Q Okay. And on map - on Exhibit No. 6, Ken, you identify
13 where the rural water system wells are located?

14 A The - there's a legend on the left-hand side, lower left
15 side of Figure 6, in which I color-coated each of the water
16 uses. As you can see, the bright blue one is for rural
17 water system use. You look for the bright blue dots on
18 the - on the map.

19 The upper left-hand corner of the aquifer, the little
20 finger up there, has - is TM Rural Water System's diversion
21 points. And kind of in the center of the right hand area of
22 declining water levels, there's some blue dots, and that's
23 South Lincoln Rural Water System's diversion points.

24 MR. HOYT: Mr. Chairman, if I might just for
25 clarification, I mislabeled, then, your indication of the

1 Hansen permit. Could you tell me where that is.

2 THE WITNESS: The Hanson permit is an eighth of an
3 inch from the bottom line of the aquifer, 16th of an inch
4 from the bottom line of the aquifer. It's kind of a new age
5 kind of blue thing.

6 MR. HOYT: Okay, I interpreted that to be a future
7 use.

8 THE WITNESS: It's not the dark blue; it's the
9 aqua-ish blue.

10 Q (By Ms. Best) I'm glad you cleared that up, because I think
11 I had used "light blue" or "bright blue" to discuss Hansen,
12 but it's the - it's the next darker blue color that is the
13 rural water system.

14 A The real blue is rural water system; this aqua-ish thing is
15 the Hanson.

16 Q So, Ken, is it fair to say the observation wells in the
17 area, the larger area where there's a downward trend or
18 seeing declines in those observation wells, they're not only
19 rural water systems but also significant irrigation?

20 A That's correct.

21 MS. BEST: No further questions.

22 CHAIRMAN FREEMAN: Thank you. Mr. Rumpca?

23 MR. RUMPCA: I'll keep it limited to the rebuttal
24 testimony today. Thank you.

25 ///

EXAMINATION BY MR. RUMPCA:

1 Q I was having trouble following. We talked about which ones
2 were actually on decline. Does the map actually show us
3 which wells are on decline here?
4

5 A The areas in --

6 Q It's not the dots; it's the shaded.

7 A Correct, correct. The dots are diversion points of existing
8 appropriations. The W - the little yellow Ws are proposed
9 diversion points by the applications in front of the Board,
10 and the - the ugly color is - there are two zones, and those
11 are the zones in which our observation wells are showing
12 downward trend in levels.

13 Q So it would be consistent with Mr. Mathiowetz's testimony
14 yesterday that the - that we're not actually seeing the
15 downward trend below the green areas but rather up here?

16 A We don't have any observation wells documenting a downward
17 trend outside of those areas.

18 Q And then with regard to Mr. Hansen's, we pointed that out as
19 ugly down here; that would be Roger Hansen's. But Gary
20 Peterson's application, as we pointed out in the other slide
21 yesterday, should actually be south more and due west of
22 Mr. Hansen's and not north at all, correct? And that was
23 just a - an issue that you had said when you were putting it
24 into the computer system didn't allow you to put it straight
25 west?

1 A That's correct. The diversion points, the W for 7441-2 and
2 7442-3 should - should be directly west. It's a quarter
3 mile too far north of where it's supposed to be. That's the
4 way I brought it up.

5 Q And then actually the one that he's asking to amend that
6 there already is an existing bank, that actually goes south
7 even of Roger Hansen's, correct?

8 A Yeah. I think it's a quarter mile south.

9 Q And you indicated that the - it's just the observation wells
10 that you're testing during the irrigation season? Is it
11 just the observation wells that are tested during the
12 irrigation season?

13 A That's all we're testing, yes.

14 Q And do you agree that those numbers would - are lowered
15 during the irrigation season due to the pumping?

16 A I don't know that you can - I don't know whether it
17 coincides with the pumping or is due to the pumping.

18 Q Do the wells - does the aquifer recharge during sort of the
19 off-season where we're not actually pumping?

20 A That's my point exactly. The aquifer recharges primarily
21 this time of year on - you know, until mid-June. And then,
22 if you will, we're borrowing from that recharge the rest of
23 the year, and so the water levels decline throughout the
24 year. Whether it's caused by the pumping or is coincidental
25 to the pumping is a 64,000-dollar question.

1 Q So then you would agree that if you were to actually test
2 the wells at this point right now today, it would likely
3 just be higher than what they were at when you tested during
4 the irrigation system.

5 A I don't think you could do that today. I think you could do
6 it in May and get it but not today.

7 Q So at some point prior to the next season of irrigation use,
8 you'll see them recharge.

9 A Yes, sir.

10 MR. RUMPCA: I have no further recross.

11 CHAIRMAN FREEMAN: Does the Board have any
12 questions?

13 MR. COMES: Mr. Chairman, I have a few questions.
14 Thank you.

15 EXAMINATION BY MR. COMES:

16 Q Ken, I was - could you maybe touch on for me again - and
17 maybe you mentioned it yesterday - what triggered the more
18 comprehensive study in your December 2012 report versus
19 the - versus the September 2018 - excuse me - September 18,
20 2012, report by Mr. Mathiowetz. Just kind of explain what
21 triggered this to get a more comprehensive look at that.

22 A I'll try to. At the conclusion of the September 18th review
23 by Adam, we - we had some consternation over the review - we
24 being Adam and I reviewing that - in that, the average
25 annual recharge number was something like 220ish -

1 approximately 220. The average annual irrigation withdrawal
2 from Clay County was just over 500.

3 So with the numbers we had available at the time,
4 average annual recharge was going to be - was exceeded by
5 average annual use. So taking into account the whole
6 picture that we had - there's the potential for a Niobrara
7 aquifer connection inducing more water from the Niobrara and
8 looking at the observation wells and saying, you know, with
9 the few observation wells that we looked at at the time,
10 the - it looks like - it looks like we need to look at the -
11 that the observation well data does not support the recharge
12 numbers.

13 And so going with the observation well numbers with the
14 recognition that - that we do have a potential for an
15 increased recharge, we - if you will, we erred on the side
16 of "let's give them this permit," but the flags were up.

17 So then about November 14th, I assigned the next
18 permit, which was the Gary Peterson permit, to - to Joe
19 Stonesifer to do a review and said when Adam reviewed just
20 Clay County, the numbers didn't work, you know, if you can
21 use that terminology; the numbers didn't add up.

22 So let's look at the entire aquifer. And, typically,
23 this Board looks at things by aquifer basis anyway. And
24 let's look at the entire aquifer and see if - see if our
25 numbers get any better looking at the entire aquifer, and so

1 Joe did a real quick and dirty - you know, thorough numbers
2 thing and came back, and the numbers - we now went from a
3 300-acre foot or so deficit to something like a 2,000-acre
4 foot deficit. And that's when - that's when we went from a
5 yellow flag to a red flag. Did I answer that?

6 Q Yeah, it does. Thank you.

7 Another question: you had mentioned, I believe, that
8 the recommendation is for the deferral and then there will
9 be some additional study of this that you - you, I think,
10 testified or that you worked with the geologists, you know,
11 upstate geologists, you talked with their staff and that you
12 will be recommending some more study of this aquifer which
13 may affect deferrals in the future.

14 First, if I didn't get any of that right, please let me
15 know. But my main question is: what kind of time frame are
16 you anticipating for a study to be completed so - so a more
17 thorough - a sufficient knowledge is gained about this
18 aquifer to take action on these permits?

19 A We're committed to - we want to have this thing taken care
20 of so that anybody that wasn't able to irrigate this year
21 because of the deferral, if we're able to recommend
22 approval, they can be irrigating in 2014.

23 Q And then I just have one other more specific question
24 related specifically to Permit Application 7442-3?

25 A Yes.

1 Q It would be the Gary Peterson. He had provided,
2 Mr. Peterson I believe, testimony that - and commentary that
3 this is related to an existing water right 5908-3?

4 A 5982-3.

5 Q Okay. I'm trying to understand - Peterson had talked about
6 what I would refer to as maybe amending this permit - he
7 maybe even used those words - amending his permit, the
8 5982-3 permit, to include this extra - I think he referred
9 to probably 18 acres or so, but that's not really an
10 option - is that correct - because these need - that's an
11 additional water right; that would require its own separate
12 permit. Is that correct?

13 A You're exactly right. Well, he called it an amendment. It
14 is new water, and so new water needs a new permit.

15 Q And the question I had to follow up that is: can he - can he
16 get a new water permit just for the amended acres or can -
17 and then retain the existing permit, or does it all have to
18 be together with an entirely new permit?

19 A 598 - 5982-3 isn't on the table. Nothing that this Board
20 does today would affect 5982-3. The additional acres is
21 additional. It's a brand new permit. It's more or less an
22 aside that we're using the same well, but the - so they are
23 separate. If I was following you right, you were wondering
24 the tie between the two.

25 Q Right.

1 A There is no tie between the two of them.

2 Q So if 7442-3 is deferred, Mr. Peterson would still be able
3 to irrigate under 5982-3?

4 A That's correct.

5 Q With a smaller acreage.

6 A With his current acreage.

7 Q Current permit.

8 A Right.

9 MR. COMES: I think that answers my questions.

10 MR. HOYT: Mr. Chairman, I'd like to follow up on
11 that line of questions.

12 EXAMINATION BY MR. HOYT:

13 Q Have we not at times, Mr. Buhler, entertained a change in
14 delivery point within - in using the same water right? It
15 seems that we have had some flexibility in dealing with a
16 water right and its delivery point or its use.

17 A Yes. There is that flexibility to change - change diversion
18 point. I - I think that we can amend a permit by adding a
19 diversion point as long as there isn't new water, new
20 acreage. You start talking increasing a diversion rate or
21 increasing acreage, then it becomes a new permit, a new
22 appropriation. So yes, there is that latter two that you
23 suggested.

24 Q I'm not sure I see the logic in that position. If, in fact,
25 the water usage proposed is within the - the terms of the

1 water permit, why would we make someone apply for a new
2 permit to change the configuration of his delivery?

3 A Because we deal with and the Board deals with actual water
4 use. We - we actually have two numbers, a paper number
5 which is appropriation and the - the actual use number that
6 we deal with with looking at availability of water.

7 The actual use number would change by irrigating more
8 acres. Again, if the application were 12 inches per year by
9 irrigating 18 more acres this year than last year, that
10 would be 18 additional acre feet of water used.

11 Q If a user had, for an extended period of time under a water
12 permit - water right, used an application rate of 8 inches
13 annually, which was, let's say, 50 percent of his
14 authorization and he increased that by 10 percent so that
15 he's now using 60 percent of his authorization, are you
16 saying - are you saying he - he cannot do that because of
17 his past history of use?

18 A No.

19 Q Well, then if Mr. Peterson stays within his authorized use,
20 though he irrigates a few more acres, 18 acres, why are we
21 being so inflexible when he stays within the parameters of
22 his authorization to take water, which is what we're
23 concerned about, right, the amount of water withdrawn from
24 the aquifer?

25 A I - I think our biggest concern as staff is the precedence

1 that would establish and the - if you will, everybody could
2 just - I mean, statutes say "you get 2-acre feet of water
3 per acre." That's - that's the paper appropriation. Nobody
4 uses 2-acre feet per acre. If they did, it would probably
5 be a waste of water in violation of water law. So if we
6 were going to say "you're allowed 2-acre feet per acre" -
7 I'm not answering very well.

8 If you would look on my report on Page 8 - I'm going to
9 try doing it this way - Table 3 of Page 8, there are four
10 columns. The second-from-the-last column is the
11 appropriation. In 2011, we had to appropriate 29,280.9-acre
12 feet of water to pump 5615-acre feet. If we were to say
13 "everybody can pump" - you know, and so we are - we are
14 going with actual water use. 5916 is how we're figuring
15 whether there's any aquifer water available.

16 That - what would happen if - if we said "you, sir,
17 have 40 acres. You get 80-acre feet" and he says "on a 40,
18 I'm only putting on 40-acre feet so I want 40 more acres
19 because on paper I got 80," that's going to put us all the
20 way up to - you know, ultimately that would put us up to
21 using the entire appropriation, and water law courts have
22 affirmed - everything has said, you know, "we're going with
23 actual use rather than appropriation." It's the idea of
24 the --

25 Q And I understand that, Mr. Buhler, but on the other hand, if

1 it was an extraordinarily dry year or whatever the
2 circumstances were that created the situation and, that
3 particular year, they pumped exactly what the appropriation
4 was, would there be any illegality to it?

5 A No, sir.

6 Q But I think, just to back up, would you agree that this
7 Board has entertained changes in delivery points and has
8 exercised some flexibility in working with farmers or
9 ranchers in the configuration of their irrigation systems?

10 A Yes, sir.

11 Q Mr. Buhler, when - and I'm sorry; I'm - I'm always a step
12 behind you so I was trying to catch up yesterday with your
13 shading of the - what I'll call the impaired regions of the
14 aquifer.

15 A Okay.

16 Q And I did not realize that your testimony was that, outside
17 those regions, that recharge exceeded withdrawals. Isn't
18 that what you later said?

19 A That's correct. Again, 15 of 29 observation wells show
20 declining water wells. Those 15 are in the shaded areas in
21 the exhibit. I think you got 6 there.

22 Q Yeah.

23 A The remaining 14 observation wells, 14 of 29, are in the
24 rest of the aquifer that's not shaded.

25 Q Yes, and I'm sorry; I missed that point yesterday. And

1 that's why we went through that exercise examining wells in
2 the Hansen report - observation wells in the Hansen report
3 and the one which you show closest to the Peterson
4 application.

5 You had indicated in response to my question about the
6 observation well closest to the Peterson application that it
7 did show, of course, that recharge exceeded withdrawal in
8 the aquifer as measured at that observation well. Okay, 80
9 was it?

10 A I think it's CL-80K, yes.

11 Q And when I asked "well, wouldn't that indicate that in that
12 area of the aquifer, there would be water sufficient for the
13 Peterson application," you indicated that the Board had a
14 policy to look at the entire aquifer. And later then we saw
15 in the Hansen application and report that only those
16 observation wells in the proximity of the Hansen proposed
17 well were considered. In fact, I think the report indicated
18 the observation wells in Clay County.

19 A I think that included some of - I believe that the
20 Mathiowetz report included the two observation wells - two
21 or three observation wells up in Turner County in addition
22 to the Clay County.

23 Q Excuse me; just a moment.

24 A Yeah, that also included TU-77M, TU-78E, TU-80H and TU-80I
25 up in Turner County.

1 Q Well, in any event, it was not a representation of the
2 northern part of the aquifer, then, was it?

3 A That is correct.

4 Q So it would appear that, based on staff selection of
5 observation well data in this report to the Board, we have
6 based our decisions on the - on the conclusions that might
7 be drawn from those observation wells.

8 A Yes.

9 Q So that a policy, as you may have referred to it yesterday,
10 of considering the entire aquifer, while that policy may be
11 true, a decision might be based on data from less than the
12 entire aquifer.

13 A Yes, sir.

14 Q I don't know whether this was covered yesterday, but let me
15 just ask for confirmation: were either of Mr. Peterson's
16 applications 7441-3 or 7442-3 opposed, contested?

17 A No. Not only were neither of these permits opposed, but we
18 didn't receive current petitions in opposition in their use
19 in any of the applications.

20 MS. BEST: Wait a minute.

21 A We do have a petition from Swan Lake agreeing with the
22 deferral recommendations or - yeah, but nothing - not
23 opposing - not opposing approval of those.

24 Q (By Mr. Hoyt) Yeah, so if it were not for the concern about
25 the aquifer that has been raised, these applications would

1 have been most likely approved by the chief engineer
2 pursuant to delegated authority of the Board?

3 A Likely. Likely, yes.

4 Q I mean, if it --

5 A Well, I'm going to say "likely" but only because, remember,
6 we didn't review these applications for impairment to
7 existing rights. We looked at the four criteria available
8 necessary to approve the permit, decided that we had an
9 issue with the availability of unappropriated water and
10 didn't move to Step 2, which was the impairment of existing
11 rights, but --

12 Q Well, in my recollection of proceedings, sir, or
13 applications for water rights that have been brought before
14 the Board, most generally there's a qualification to protect
15 prior rights, and I don't know, Mr. Buhler, if I recall an
16 instance where we have denied a permit on the basis that it
17 would interfere with existing rights.

18 A Sir, what you just said was the "but" that I was going to
19 include on the "it's likely that," you know, we didn't get
20 there, but it's likely that we would have been able to
21 recommend approval of these for exactly the reasons you
22 gave.

23 Q And, again, I'm sorry to be redundant here, but the flow in
24 the aquifer in the upper - Upper Vermillion Missouri
25 aquifer, could you again indicate that directional flow?

1 A To the south-southeast.

2 Q And the Peterson water rights are at what end of the
3 aquifer?

4 A About as far south as you can get.

5 Q But not quite to the Lower Missouri?

6 A I don't believe they're at the Lower Vermillion Missouri
7 level.

8 Q Nor are they in the merger point between the two aquifers?

9 A I don't believe so.

10 MR. HOYT: Thank you, Mr. Chairman. I have no
11 further questions.

12 CHAIRMAN FREEMAN: Any other Board members?

13 EXAMINATION BY MR. BJORK:

14 Q I seem to have conflicting questions. First of all, is it
15 my understanding that the courts had said that we'll use
16 annual average recharge and discharge to determine the
17 quantity of water that may be available for use in the
18 aquifer?

19 A That's how I'm interpreting it, yes.

20 Q Okay, then in the case of the Hansen permit, we diverted
21 from that; in that, we used our well data instead because it
22 didn't match with what we found in the discharge and
23 recharge data. Or am I misleading myself on that? Didn't
24 we indeed find --

25 A Yes. Indeed the courts in the Hines decision said "okay,

1 when you're looking at 46" - I'm an engineer not an
2 attorney, but I think that it said "you're going to look at
3 average annual recharge and average annual withdrawal."

4 The Hanson County dairy thing - decision said "you need
5 to compare average annual recharge and average annual
6 withdrawal;" however, Water Management Board rule
7 74-02-05-07 says "the Board shall rely on observation well
8 data to determine whether unappropriated water is available.

9 Q Doesn't that put you in kind of a tough spot?

10 A I think it gives us two tools to deal with - to use.

11 Q Wait a minute. Which one is right?

12 A I think we have always told this Board, told anybody that's
13 ever asked, anybody that's ever listened, the reason why we
14 have 1553 observation wells out there is because they don't
15 lie. That's the stuff we - those are real measurements.
16 It's what's really happening. We don't need to argue about
17 "was the right number used in this assumption to get this
18 recharge estimate."

19 Q And I - and I have a tendency to agree with you on that,
20 because given the situation, if you look at Table 3 that you
21 just showed us, if we go by annual average recharge and
22 discharge and, like Mr. Hoyt said, we have a perfect storm
23 worst case scenario and everybody uses - if we based all of
24 our applications on average annual and worst case scenario
25 occurs where we need it all, we're going to be in - we're

1 going to be pumping water unlawfully because we will be
2 above what we've allocated, won't we? We will allocate
3 eventually more than what we have if we use only the
4 average.

5 A I'm sorry; I didn't track that.

6 Q Well, that's where I'm having trouble too, because the
7 annual average thing just doesn't fit for me, but I guess
8 maybe that's my own problem I have to deal with.

9 But one other question, then - and I believe you talked
10 about it yesterday - if we have drawdown, apparently, in one
11 portion of the aquifer up here in the ugly green color,
12 wouldn't that indeed indicate to us that there may be a
13 drawdown, although the wells don't indicate that, within the
14 entire aquifer because it's all connected?

15 A I think I'm almost connecting with you with the exception of
16 when you said "although the wells don't show it." We
17 start --

18 Q The wells in central part don't show a decline.

19 A They haven't shown it yet. If we want to say "they haven't
20 shown it yet," I would agree.

21 At this point, the ugly green color on figures - on
22 that figure is where we've got declining water levels. I
23 don't know whether those water levels are going to stabilize
24 if the - if rural water systems, for example, start pumping
25 at a constant rate rather than increasing their rate. I

1 don't know whether those declining water levels are because
2 that's near the edge of the aquifer and we've got some -
3 being on the edge of the aquifer kind of exacerbates
4 drawdown issues or whether that ugly green color is because
5 we have a water short area, and that water short area is
6 going to continue to expand until the drawdown cone from
7 that area, cumulative area, is large enough to capture water
8 from a large enough area to accommodate that use.

9 Is it going to take the entire aquifer to accommodate
10 that? You know, is that water - is it going to turn out
11 that that green area covers the whole aquifer because the
12 whole aquifer's water short started here? That's the
13 question.

14 But in answer to your first thing, I want to continue
15 on that. I think that you're - the quandary between the
16 courts say one thing and the Board rule says another, we've
17 just looked at that and said "that means we owe you two
18 analyses. We owe you a set of numbers, and we owe you an
19 observation well as well."

20 Q Should we, however, decide to go with the observation wells,
21 can we be sued? I mean, this is a legal question I probably
22 shouldn't have asked.

23 MR. COMES: Any decision can be appealed, so any
24 decision the Board makes can be appealed.

25 Q (By Mr. Bjork) Let me get off this line of questioning. I

1 kind of wasted myself on this. The Parker/Centerville, are
2 all the wells in this - that I see on this map into the
3 Upper Vermillion Missouri?

4 A Figure 6 or Exhibit 6, yes, all of the diversion points on
5 there are Upper Vermillion.

6 Q Do we also have wells into the Parker/Centerville?

7 A Yes.

8 Q Irrigation wells?

9 A Yes, they're irrigation wells. I think there's a municipal
10 well or two and, of course, observation wells.

11 MR. BJORK: Thank you, Mr. Buhler.

12 MR. HOYT: Mr. Chairman, I'm sorry.

13 MR. HOLZBAUER: If you want to follow up on that,
14 go ahead.

15 EXAMINATION BY MR. HOYT:

16 Q Well, as it relates to the court decision that we're now
17 following that we've used averages for recharge and
18 withdrawals, wasn't that a different case than Hanson County
19 dairy?

20 A No. That was the Hines decision.

21 Q Yes. It seems to be my recollection of the Hanson County
22 dairy case - and I haven't read it within the last year or
23 so - was that simply that our record was not good on the
24 recharge of the aquifer; in fact, I'm - I think we had some
25 real question during the hearing about whether that recharge

1 had ever been established. And so I believe that decision
2 said "you'd better establish the recharge for the aquifer."

3 But yesterday, Mr. Buhler, I - I asked you whether,
4 because we're in a 2000 deficit between recharge and
5 withdrawals - that is, withdrawals exceed based on the
6 calculations that you - that you made - I said "should we
7 cut off the junior priorities from their withdrawals in
8 order to bring the aquifer into balance, recharge and
9 withdrawal"? And you said no, that the 2000 was actually
10 insignificant, as I recall. I'm wondering about that
11 position.

12 A I don't recall saying the 2000 was significant.

13 Q I'm sorry; let me bring that question back to you then.

14 A Yeah.

15 Q We're 2000 out of balance based on the calculation that
16 yields the highest recharge rate and your withdrawal rate
17 and the development of the future use and so forth. In your
18 conclusions, you indicate - in Conclusions 12 and 13 that
19 the withdrawals could be 7900-acre feet per year while the
20 recharge rate in Conclusion 11 is 5836, so we're out of
21 balance, which, of course, is the point of your testimony,
22 the point of your deferrals. Should we be taking any action
23 because of that? Yesterday you said no.

24 A I'll say no again today. The reason why I'll say no is the
25 recharge estimates - I feel pretty good about the withdrawal

1 estimates. I think the irrigation question in your stuff is
2 good data. Recharge estimates? They aren't, if you will,
3 state of the art, state of the science estimates. I think
4 that once we study this and come up with, like, a computer
5 model, we're going to come up with more accurate recharge
6 numbers, and I think we're going to find better numbers, you
7 know, that - we're using the best numbers available, best
8 information available to come to this Board, and I say "this
9 is recharge with the best information available."

10 I wish there was better available. When there is
11 better available, I don't - I think that - I think we're
12 going to find that we aren't going to have a 2000 deficit,
13 but I don't have anything to bring in front of the Board
14 right now that says that we - these are the best numbers
15 that - I like the observational stuff better. I can
16 rationalize what - we have some areas with declining water
17 levels, but that might be something besides - that we're -
18 that we're overdrafting the aquifer.

19 We don't need to pull the plug on anything right now.
20 The observational data in general says "let's work with
21 these numbers on recharge." So that's why I would say it
22 would be premature to say "based on these numbers, let's do
23 a water control area," that sort of thing it.

24 MR. HOYT: Excuse me, Mr. Chairman. You've been
25 patient, and I'll try to be brief.

1 Q (By Mr. Hoyt) I'm recalling from your report, I believe,
2 that there are 1.8 million plus 200-some thousand acre feet
3 of water in this aquifer, so with the 2000 deficit - I think
4 you responded yesterday - it's going to take us hundreds of
5 years to dry up the aquifer. So it's not a position of
6 placing the aquifer in jeopardy. It's refining our
7 estimates of recharge rate, particularly the recharge rate,
8 and that's why you're suggesting deferral.

9 A Spot on. That - that is exactly what I wish I would have
10 been able to tell you a half hour ago.

11 MR. HOYT: Thank you, Mr. Chairman.

12 CHAIRMAN FREEMAN: Leo?

13 EXAMINATION BY MR. HOLZBAUER:

14 Q Yeah, that helped me a little bit there, being an old farmer
15 not being an educated lawyer or an engineer. It looked like
16 to me that if one or two - I'll just say one; I'll just say
17 Mr. Peterson come in, because he was the first one to come
18 in for this permit and he was the only one. There wasn't 17
19 of them. He got the permit and away we go. But since there
20 was a flurry of 17 permits, we said "Whoa. We'd better hold
21 back here and find out - before we open that big flood gate,
22 we'd better find out what the possibilities are." So that's
23 why we put a deferral of the whole works until we know. Is
24 that kind of, in a nutshell, an old farmer's thinking idea
25 of what really happened here?

1 A That's really close. The only --

2 Q Or not what happened, what's happening.

3 A The only - the only little difference there is: when
4 Mr. Mathiowetz wrote his report, we got yellow flags. On
5 November 14th, I assigned the Gary Peterson report 7441-3 to
6 a different engineer, Joe Stonesifer, and said "we got a
7 yellow flag off the last time we looked at this. You look
8 at this and see if you can come up with anything better."

9 While he was looking at it - we had singled out
10 Peterson's already at that point, "You look at this and see
11 what happens." And it didn't take very long to say, "yeah,
12 Adam was right." And that's when the flurry came in. So
13 there's that little intermediate step, just to be
14 technically right.

15 MR. HOLZBAUER: Okay, thank you.

16 EXAMINATION BY CHAIRMAN FREEMAN:

17 Q Mr. Buhler, are you in a position at this time to say on the
18 record whether or not the granting of these permits would
19 interfere with existing water rights - would or would not?

20 A I believe at this time I could say with the standard well
21 permit application that we put on every ground water permit
22 that said that - that says the order of this permit shall
23 control its withdrawals so he doesn't cause adverse impact
24 on adequate domestic wells. With that permit qualification,
25 there would not be an impairment of existing rights. At

1 this time I can't tell you the likelihood of us having to
2 enforce that qualification, but with that qualification on,
3 I would be able to say that.

4 Q And my second question is: what was advertised and the
5 public was given notice of was the chief engineer's
6 recommendation to defer these 17 permits?

7 A Yes, sir.

8 Q And we, of course, have no knowledge of whether or not there
9 would have been any opposition, had the engineer recommended
10 approval.

11 A Yes, sir.

12 CHAIRMAN FREEMAN: Thank you.

13 MR. HOYT: Good point.

14 CHAIRMAN FREEMAN: Miss Best?

15 MS. BEST: I have nothing further. I'm going to
16 point out that I do intend to call a second rebuttal
17 witness. I'll have to call the chief engineer.

18 CHAIRMAN FREEMAN: Mr. Rumpca?

19 MR. RUMPCA: Thank you.

20 EXAMINATION BY MR. RUMPCA:

21 Q A point of clarification: you probably had tried to touch on
22 it yesterday. And did you indicate that there was a Joe
23 Stonesifer who had actually started a report on Peterson?

24 A Yes, on November 14th. And by November 19th, we had - Joe
25 had looked at it, and by November 19th, we conferred on it

1 and said we - we can't go down that - this road.

2 Q So then it was not until - if you had received
3 Mr. Peterson's application on the 26th of September, it's
4 your testimony that a report was not even - or engineering
5 study was not even begun until November 14th?

6 A That's when - yeah, right about the November 14th.

7 Q And you did - did Mr. Stonesifer complete a report?

8 A No.

9 Q You indicated that it's your policy that you basically have
10 two tools to use in your determination as to whether or not
11 to approve or disapprove or defer it and you stated that was
12 both the administrative rule and statute?

13 A No. I think the statute - administrative rule is - yeah,
14 they're the same. I mean, the administrative rule is
15 promulgated from the statute.

16 Q The administrative rule allows you to look at well data, and
17 what we learned from Mr. Mathiowetz's report was that he
18 looked at the localized well data, and your explaining of
19 the statute allows you to look at the entire aquifer to come
20 to the conclusions that estimated discharge exceeds
21 recharge. You're saying there's two tools that you can use
22 to come to your conclusion, correct?

23 A Yes.

24 MR. RUMPCA: I have no further questions.

25 MS. BEST: I'm sorry; I'm going to have an

1 additional question here.

2 EXAMINATION BY MS. BEST:

3 Q Can - the questioning here, the application for Petersons
4 was filed on - I mean, counsel here went into some testimony
5 from yesterday. The application was filed on September 26,
6 2012. Did or did not the application - I mean, this is
7 making it look like it appeared the application sat around
8 from September 26, 2012, until November 14, 2012 before
9 anybody at DENR looked at it. Is that - that's not
10 accurate, is it?

11 A It's not inaccurate.

12 Q Pardon me?

13 A It's not inaccurate.

14 Q So Joe Stonesifer - Joe Stonesifer looked at it and
15 approached you on 11/19 - when you say he didn't --

16 A Oh, yes, yes.

17 Q And previous to that, he had done some analysis and had not
18 written up a study yet --

19 A Right, right.

20 Q -- or written up a report?

21 A Yeah, he got started on it probably on the 14th.

22 Q But he had done some analysis?

23 A Right. On the 14th to the 19th.

24 MS. BEST: I just wanted to make sure.

25 Nothing further from Ken. I do intend to call chief

1 engineer.

2 EXAMINATION BY MR. HOYT:

3 Q Just one question that might be answered with a yes or a no.
4 Do you know whether the Hansen application 7383-3 and 7383-4
5 were opposed, contested?

6 A No.

7 Q They were not contested or you don't know? I didn't ask the
8 question very well.

9 A I do not believe they were opposed. I believe that they
10 were approved through the authority grant of the chief.

11 MR. HOYT: Thank you.

12 CHAIRMAN FREEMAN: Any other questions? Thank you,
13 Mr. Buhler. Miss Best?

14 MS. BEST: Thank you. I'd call Garland Erbele,
15 chief engineer.

16 CHAIRMAN FREEMAN: Were you sworn in yesterday,
17 Garland?

18 THE WITNESS: I was not.

19 GARLAND ERBELE called as a witness, having
20 been first duly sworn
testified as follows:

21 EXAMINATION BY MS. BEST:

22 Q Garland, you are the chief engineer appointed to make
23 recommendations to this Board; is that correct?

24 A That is.

25 Q And you are a registered professional engineer, correct?

1 A Correct.

2 Q And you have how many experience - how many years of
3 experience in the water field?

4 A Well, I've been chief engineer for 13 plus years.

5 Q And previous to that, you have experience in --

6 A This July will be 35 years of water experience.

7 Q Okay. Can you tell the Board why an application would come
8 in on September 26 and the ground water staff would not be
9 able to work it in to their analysis - or work an analysis
10 in until several weeks later?

11 A The - I think there's - there's - last summer - last summer
12 really going into fall with the drought that South Dakota
13 has experienced in the last year, high commodity prices that
14 we have, the impact that's having on land prices, the
15 Department started receiving a tremendous number of
16 applications for water - new water permits. In fact, I have
17 a chart here that I intended to pass out later today, but it
18 shows that - that in 2012, we issued 172 permits. We
19 received - that's irrigation permits. We received 335
20 irrigation permits.

21 So if you do the math, that tells you that we had a
22 significant backlog of applications that we weren't able to
23 process by the end of the year. That trend has continued
24 into this year. We received 106 applications in January.
25 February through the beginning of this week, we received

1 another 106. So the Department had a tremendous number of
2 applications on hand that we're trying to process.

3 The - going back to your question there, it was simply
4 a matter of logistics for us. We weren't able to get to all
5 the permits as quickly as we normally would.

6 Q This 335 applications, so that we have some perspective on
7 it, what does that compare with from, say, 2 years ago?

8 A On average we'll process a hundred to 110, 120 permits per
9 year.

10 Q And so it's - so it's clear to the Board, the analysis in
11 this case was not - it was - it was begun later, but is it
12 in any way more - is it in any deficient as compared to
13 those analyses that you would see in - 2 years ago or any
14 other time?

15 A Not at all.

16 Q You're recommending that the Peterson permit that - for the
17 additional 18 acres be deferred. Is that consistent with
18 the past practice of your recommendations to this Board?

19 A It is.

20 Q And have you actually had situations before where people
21 have come in and said, "look. I want a permit. I know I
22 only use part of this water permit, but technically,
23 legally, I'm authorized to apply 2-acre foot per acre to
24 land. I want to use that top half of it that normally isn't
25 used, some of that, and apply it over to some other ground"?

1 Have we had that happen before?

2 A You know, as - as water becomes more scarce in South Dakota
3 and we see aquifers becoming fully appropriated, we're
4 finding irrigators becoming very ingenious in their effort
5 to find new water. And the appropriation that allows them
6 2-acre feet per acre seems like a very logical place to find
7 that water.

8 As you know, the permits all appropriate 2-acre feet
9 per acre of water. What, in fact - that means that on any
10 given year an irrigator can apply 24 inches of water. Now,
11 we know for fact that that doesn't happen. On average
12 across the State, we're probably going to see somewhere
13 between 6, 8, 10, 12 inches depending on where you are in
14 this state in terms of average application of water. That
15 number is important, because that number is the number we
16 use in determining whether an aquifer is fully appropriated.

17 The Hines decision told us that if we used average
18 annual recharge, we have to use average annual application
19 rate to calculate when an aquifer is fully appropriated. If
20 we opened up a can of worms that we're allowing them to
21 utilize this unused water up to 2-acre feet of water there,
22 that changes the whole dynamics of how we determine when and
23 where water is used.

24 If we start using 2-acre feet appropriation amount,
25 then I can say - I haven't looked at the numbers and I can't

1 say every single aquifer in the state is - but I can
2 guarantee you that just about every aquifer in the state is
3 fully appropriated at this point.

4 Now, that conflicts with the statute that said we need
5 to place water at a maximum beneficial use in this state,
6 and this Board has determined that in order to place water a
7 maximum beneficial use in this state, we're going to use the
8 actual water use figures as opposed to the appropriated
9 amount. So that's really the basic, the logic, the
10 reasoning behind doing that.

11 Q I want to make sure that it's understood then: today when we
12 look at actual use for calculating the average withdrawals
13 in the withdrawal/recharge analysis, we look at the amount
14 that is actually used, but what you're saying is that if the
15 2-acre feet is sitting there as sort of a future use or
16 also-used area where farmers are going to start using more
17 acreage, we really ought to consider the 2-acre feet per
18 acre as what the actual withdrawal is when we do the
19 recharge/withdrawal analysis; is that correct? Am I
20 summarizing that correctly?

21 A I mean, what irrigators are trying to do is they're saying,
22 you know, "look. My permit for appropriation is based on 24
23 inches of water. I only applied" - I'll take it easy here
24 in the math. "I only applied an average of 12 inches per
25 year, so I should have an additional foot of water there

1 that I can use someplace else.

2 Well, using that other foot of water someplace else is
3 going to be an increase in water. Remember now, we're
4 looking at the whole period of record when we calculate
5 water use for an aquifer. So all of a sudden, we start
6 allowing these irrigators to take that unused 12 inches of
7 water and start applying that someplace else, we're, in
8 essence, going to be increasing and probably doubling our
9 water use in the aquifers, so, you know, that's going to
10 throw the water use and water recharge calculation
11 completely out the window.

12 Q To your knowledge, has the Board denied a request like this
13 in the past?

14 A Yeah.

15 Q And can you refresh their recollection as to who it would
16 have been?

17 A I'm not - I don't recall - the Riverside Colony came to us
18 several years ago with a - with this fact - exact example
19 wanting to do that. I'm not familiar with all the details,
20 but I know essentially they wanted to use that unused
21 portion of their appropriation, and this Board said no.

22 Q Now, Garland, there's a map that's been presented by Ken
23 Buhler of your staff that shows you where he basically
24 mapped what the observation wells were showing as a downward
25 trend area in this aquifer. Now - and, of course, the

1 recharge studies would show a decline and then this
2 downward - but the downward area in the maps is just where
3 these observation wells are showing it. Why not just defer
4 or deny the permits in the areas where the observation wells
5 are declining and then go ahead and recommend granting the
6 rest of the permits?

7 A I don't think there's really a basis to do that. The - the
8 statutes require that we look at recharge of the whole
9 aquifer, compare the water use of the aquifer rather than -
10 we can't - I mean, I have no way to know where to draw that
11 line. I can't say "this guy we can approve. That guy we
12 can't." If we're going to be piecemealing aquifers, it's
13 going to be a very difficult task for us to start drawing
14 that line.

15 Q After hearing the testimony of all of the parties and
16 questions asked of your staff by the Board, have you - have
17 you changed your recommendation with respect to these
18 permits in any aspect?

19 A I think it's important that the Board recognize that - that
20 we're not opposed to the use of this water. In fact, we're
21 trying to figure out how we can award the permits, but the
22 fact of the matter is we're also required by law to make the
23 numbers work as far as recharge and water reuse - or water
24 use, not reuse - excuse me.

25 So all we're saying here is that our recommendation is

1 to defer the permit to give us an opportunity to study this
2 thing so that we can gain additional numbers to look more
3 closely at what the actual values are.

4 We know there's additional recharge coming in from the
5 Niobrara aquifer. We don't know how much that is. We've
6 set out a scope and a plan of work to try to find those
7 numbers. We're committed to come up with that so that these
8 permittees that want to irrigate can do that next year, but
9 at this point, we don't have the numbers and the data that
10 tells us we can award these permits.

11 MS. BEST: No further direct.

12 CHAIRMAN FREEMAN: Mr. Rumpca?

13 MR. RUMPCA: Thank you.

14 EXAMINATION BY MR. RUMPCA:

15 Q Just to clarify, the policy we talked about, the
16 administrative rules allowing the local wells and then the
17 statute, said to provide for the entire aquifer to be looked
18 at. Do you agree that both of those are tools that you can
19 use in making your decision?

20 A Certainly.

21 Q With regard to use, GP Exhibit No. - the one that shows the
22 summary use, he - I'm going to hand you what's been marked 1
23 through 6. I believe his is on GP No. 3, and we have on
24 Page 2 there his use. And that's for the aquifer that we're
25 asking - or the - excuse me - the well that we're asking for

1 the additional use on. So he's had that from 1997 to
2 present, --

3 A Um-hmm.

4 Q -- and the total amount that he's been appropriated versus
5 the total amount that he's used - he's actually used
6 17 percent of what he's appropriated. Would that throw a
7 yellow flag to you when you looked at somebody's water use?

8 A If I looked at just these numbers here, probably not, but
9 when we look at - when we do an evaluation, it is - it is
10 broader than just a single irrigator, so in the evaluation
11 of - in a broader context, we did start to see flags arise
12 with these evaluations.

13 Q But if you're looking at strictly his numbers and his track
14 record, that would not throw up a flag.

15 A Just looking at this data on Page 2 here, no.

16 Q And do you take into consideration, when somebody applies,
17 their soil types on where, specifically, they are located?

18 A Not as a rule, no. I mean, they're --

19 Q Do you believe that it has - that it impacts the amount of
20 water that they actually need to utilize?

21 A Does it impact?

22 Q Yes.

23 A Oh, absolutely.

24 Q So if we have different soil types up north in Turner County
25 as compared to what we have down under Clay County, some -

1 if you have better soil down in Clay, you may not actually
2 need to utilize as much water due to the soil type, correct?

3 A That's correct.

4 Q We had looked at the actual line between the north and the
5 south, and my understanding it was drawn in 1982.

6 A When you say "line between north and south," you're talking
7 about Upper and Lower Vermillion aquifer.

8 Q Yes, I am. Thank you.

9 A I think that was the testimony.

10 Q And - well, do you - do you know why the line was drawn
11 where it was drawn?

12 A Based on aquifer studies. I think the testimony yesterday
13 was that the - it has to do with the merger of the Upper
14 Vermillion Missouri and the Parker-Centerville into the
15 Lower Vermillion Missouri. In that transition zone there,
16 that's where the line gets drawn.

17 Q Do you know if it considered the recharge from the Niobrara
18 aquifer when they considered that line?

19 A I can't answer that.

20 Q But you did testify that you are aware that there is
21 recharge - we know that the Niobrara is recharging along
22 that western side of --

23 A That's correct. We know that - that the Lower Vermillion
24 Missouri aquifer receives recharge from the Niobrara aquifer
25 along that western flank, and that's precisely what - we

1 don't have an idea of how much it is, though. That's
2 precisely what we want to study here in the coming year
3 because it does impact the amount of recharge to that
4 aquifer.

5 MR. HALLEM: You said "Lower Vermillion" in your
6 response.

7 THE WITNESS: Excuse me. It should be "Upper."

8 MR. HALLEM: Thank you.

9 Q (By Mr. Rumpca) Are you aware of deferrals or - on any water
10 applications out of the Niobrara aquifer?

11 A There are no applications on deferral status at present on
12 the Niobrara.

13 MR. RUMPCA: Thank you. I have no further
14 questions.

15 CHAIRMAN FREEMAN: Board have any questions?

16 MR. BJORK: Mr. Chairman, I do have - I do have one
17 scenario that I'd like to throw out and - in an attempt, I
18 guess, to kind of cover the Board.

19 EXAMINATION BY MR. BJORK:

20 Q If we take a particular aquifer, if we use annual average
21 recharge and discharge to approve permits in that particular
22 aquifer and, in using that methodology, we reach a fully
23 appropriated aquifer based on the average annual recharge
24 and discharge and then we run into the perfect storm of 2 or
25 3 years of drought, which is - could certainly happen here,

1 and these users use the fully allocated amount of water that
2 they have instead of this average, having allocated these
3 permits based on an average, won't we then begin mining the
4 aquifer?

5 A Absolutely. What - what - and that's exactly the reason we
6 use the average is we know that over our period of record,
7 there are years when it's dry where our water use on an
8 individual year certainly exceeds our recharge, and for that
9 particular year, you are mining water, but we also know that
10 during periods of wet weather, our water use is very low,
11 and that's where we're going to recharge that aquifer. And
12 on average, over a period of records, we're looking at
13 comparing the average annual recharge with average annual
14 use. You've got a puzzled look.

15 Q No, that's fine. That's what I wanted to hear. Let me ask
16 another question. It wasn't an intent of mine, but I'll ask
17 it anyway. Why was the Hansen - considering we had so many
18 applications at this time - 300-some odd you said - it seems
19 to me that the Hansen application was done in a timely
20 manner. 60 days?

21 A Yeah. I think that's an important - the Board understand
22 that, what happened there. Really the sequence of the
23 events and the timing of the applications coming in is
24 critical, I think, to how we evaluated this whole process.

25 Now, your Hansen application came in, I think, sometime

1 in July. You know, it happened to be when we - when we
2 could get to it right away. You know, it went in, evaluated
3 it, and that's about the same time when our backlog started
4 building. And then we got into fall, and we had a backlog
5 of applications we were working on, and we had this cluster
6 of additional applications from - for that aquifer and - you
7 know, in looking at how to best maximize our time and be
8 most efficient, we said "let's just visit this whole cluster
9 here and evaluate them as a whole as opposed to an
10 individual application."

11 MR. BJORK: Okay, thank you.

12 CHAIRMAN FREEMAN: Any other questions of the
13 Board? I do have one, Garland.

14 EXAMINATION BY CHAIRMAN FREEMAN:

15 Q Correct me if I'm wrong, but when you get a request for an
16 irrigation permit, it is specific to the area described in
17 the application.

18 A If I understand your question, that's correct.

19 Q All right.

20 A I mean, it is specifically for a location, a spot, in a
21 aquifer?

22 Q And a specific number of acres.

23 A That's correct.

24 Q And you cannot amend that permit to include additional
25 acres.

1 A That's correct.

2 Q You have to apply for a new permit.

3 A That's correct. Increase is a new permit.

4 Q Yeah, but now, can you move the acres? Let's say my permit
5 is for 115 acres and I specify this quarter. Can I come in
6 and amend my permit --

7 A You can do that.

8 Q -- to change my 115 acres to another quarter?

9 A That's correct.

10 Q And you can amend a different diversion point as well.

11 A Change of diversion point is also amended.

12 Q But you cannot amend to increase the number of acres.

13 A That's correct.

14 CHAIRMAN FREEMAN: Any other questions?

15 MR. BJORK: Mr. Chairman.

16 EXAMINATION BY MR. BJORK:

17 Q Does statute say that, when you grant a permit for so much
18 water, you also grant the permit for so many acres?

19 A Correct.

20 Q Do they go together?

21 A Correct.

22 CHAIRMAN FREEMAN: Any other questions?

23 MS. BEST: I have none.

24 CHAIRMAN FREEMAN: Thank you. Any other rebuttal
25 testimony?

1 MS. BEST: None. Thank you for your patience.

2 CHAIRMAN FREEMAN: Do you have any other rebuttal
3 testimony?

4 MR. RUMPCA: None.

5 CHAIRMAN FREEMAN: Well, with that, we will have
6 closing statements. But did we get something from
7 Mr. McCarty? Maybe we'll take a moment to read this, and
8 then, Diane, we'll let you start.

9 I'd like the record to reflect that the Board and
10 counsel have been given a closing argument or statement from
11 Don McCarty who represents Todd Miller and Carry Miller, and
12 that the Board has reviewed that and it will be made part of
13 the record. It's on Mr. McCarty's firm stationery.

14 And with that, then, Ms. Best, if you'd like to
15 proceed.

16 MS. BEST: Thank you for your patience on this.
17 First off, you know, I want to point out that this - that
18 the applications that you've heard yesterday and today
19 involve 17 applications, and the chief engineer is
20 recommending that they be deferred to complete a study on
21 the water resource involved - on the aquifer involved to
22 look at whether there's the extent of recharge and to
23 account for some of these trends on declines.

24 Now, the 17 applicants came and applied, and you heard
25 at least one say that he more or less assumed he would get a

1 permit. He invested in equipment. In fact, he bought some
2 ground, and part of it was, because there had been a lot of
3 irrigation in the area, they assumed that the aquifer would
4 sustain more irrigation. In fact, you know, one of the
5 neighbors had actually come in and got a permit. And the
6 neighbor, it sounded like, jumped the gun and actually
7 irrigated before he even got a permit. And I respect the
8 fact that these folks have irrigated in the past and they
9 think more water is available.

10 The bottom line is that they applied for new permits.
11 Well, 17 of them did. Each of those 17 landowners bears the
12 burden when they pay to get a new permit to show that the
13 4-part test and SDCL 46-2A-9 has been met.

14 Now, the chief engineer makes a recommendation, and his
15 expert with 28 years of experience studies the matter, but
16 the bottom line is: the applicants have to show you, the
17 Board, that there is unappropriated water available with
18 special consideration for the withdrawal -
19 withdrawal/recharge statute in SDCL 46-6-3.1 that we've
20 talked about extensively.

21 Now, sometimes the DENR staff is able to look at that
22 and, on their recommendation on its face, we can say "it
23 meets the risk with the recharge/withdrawal statute. There
24 is no problem." We're able to help them out. We recommend
25 granting the permit. In this case, we don't have the

1 evidence to support granting those permits. We don't.

2 So if they - if they - they looked at getting another
3 expert; they didn't do it. I don't know that another expert
4 is going to show that - show one thing or another, but the
5 bottom line is: they haven't met the burden of proof. We
6 can't meet it for them. The 4-part standard hasn't been
7 met. The water availability criteria with special
8 consideration for the withdrawal/recharge, that burden
9 hasn't been met. I don't - granting these permits is
10 improper at this time.

11 Now, particularly - now, this deferral business, we're
12 not asking you to defer off into the future and there might
13 be some information. Both chief engineer and witness Buhler
14 testified that there actually is a study that's in the works
15 and that they - that the goal is to have those analyses -
16 that analysis done in 2014, not the promise but the goal is
17 to have it done in 2014 so that we can bring this matter
18 back to the Board and see if the - see if there is
19 sufficient water available for these irrigation permits.

20 We're not - obviously not disputing the public interest
21 in granting more irrigation permits for farming. That's -
22 you know, there are a lot of irrigation permits out there,
23 and we're not going into that kind of thing. We're not
24 asking for denial. We think there's a real question.

25 When you look at the recharge/withdrawal analysis as

1 Mr. Bjork pointed out, there are - there are different ways
2 to look at the recharge analysis. We look at studies that
3 experts have completed in the 1980s and '90s that show the
4 mapping of the aquifer and the inches - the inches of
5 recharge per acre in the aquifer and then look at
6 withdrawals against that based on actual use, which is, of
7 course, what was done here. Do you do a region of flow net
8 analysis, which was done here? Do you do a - do you look at
9 the observation wells in the trends? Well, what you do is
10 you look at all those things and you decide what is the best
11 available evidence. And I would submit to you that the
12 concurrence of factors here, the study here that Ken has
13 performed will tell you that the - that based on the best
14 available evidence, what we can tell you is that this matter
15 needs to be deferred until more study is done.

16 So that's where we're at. The DENR is not out to jerk
17 people around. That's not what this is about. They're not
18 about "well, we'd like to do some more academic study, and
19 we don't care if these guys can make more money farming."
20 We know - we're around irrigators. These guys deal with
21 irrigators every day. They know the very real concerns that
22 irrigators have. They know what equipment costs. They know
23 what it costs to drill a well, and they understand that, but
24 we have a statute here that we just have to comply with.

25 Of course, the statute is not just to consider "well,

1 you know, what if we grant a permit and then if it's
2 mining - granting more permits and then, if the aquifer is
3 being mined, we can look at it 50 years from now." The
4 statute doesn't say that. It's a lot more restrictive than
5 that. We have to look at whether the withdrawals exceed the
6 recharge rate.

7 Now, it's sort of like the state budget, and thank
8 goodness we're not across the road before the legislature,
9 but the statute - the South Dakota law requires the
10 legislature to develop a balanced budget, and it doesn't say
11 "well, you know," - and it requires you to look at it from
12 the various perspectives, the Federal money, the State
13 money, the other funds, and to do a serious study, but the
14 bottom line is: they've got to balance. The law doesn't
15 allow them to say "well, we're going to go ahead and
16 appropriate more this year because we're going to catch up
17 down the road." It doesn't allow that, and we ought not be
18 getting in a situation where we think that might happen here
19 with regard to the water balance.

20 You heard the testimony concerning the 18 acres. First
21 off, the application's for 40 acres. He took the number
22 down to 18 acres, so if you consider it all, it's 18 acres,
23 but what's the big deal with the 18 acres? He's got a
24 permit already that allows 2-acre foot per acre, and all he
25 wants to do is take some of that and put it over on some

1 other ground. Well, if you do that, then you're going to
2 need to know that you're going to be seeing the applications
3 on every single aquifer including some in the Huron area
4 or - I should say the Hitchcock area that have been coming
5 here. These guys happen to be sitting in the back of the
6 room, so I'm going to pick on them.

7 But you're going to be seeing a number of those guys.
8 They're going to want - there's nothing nefarious about
9 that. They're intelligent, aggressive irrigators, and
10 they're going to want to do the same thing. So now we're
11 going to say "well, the very legal cap is 2-acre foot per
12 acre." Only the actual use we've been seeing on those is
13 less than the one foot, actually, but if you're going to say
14 that that cup that's - that part that's not been used we
15 ought to put full use of that over on more acreage, you're
16 really saying then that all of the water that's permitted
17 will be used to the full permitted amount.

18 We will no longer, when we look at a recharge/
19 withdrawal analysis, need to go back and look at irrigation
20 questionnaires of use. We'll be looking at the full
21 permitted amount. And, of course, you'll see that these
22 aquifers will be fully appropriated, because today we're
23 looking at actual use. If we looked at the full
24 appropriated amount for aquifers, we would be fully
25 appropriated as against that water mining statute either now

1 or fairly quickly for most areas in the state as the chief
2 engineer testified to.

3 So it's a serious deal. It doesn't sound like 18 acres
4 is much, but it's - I would caution you that we're heading
5 down that - a different road that cuts away from past
6 precedent. You didn't do it for Riverside, and I would
7 recommend that you not do it here - would suggest that you
8 not do it here. And I really appreciate your time, and I
9 would ask that you adopt the chief engineer's recommendation
10 in this matter.

11 CHAIRMAN FREEMAN: Thank you, Miss Best.
12 Mr. Rumpca?

13 MR. RUMPCA: Thank you.

14 As the Board is aware, I represent Gary and Julie
15 Peterson on their two applications. I don't represent all
16 the applicants that were here yesterday, although a lot of
17 them carpooled together; they are neighbors. And they
18 weren't here - or able to be here again this morning because
19 simply they didn't expect to go into today.

20 I think Gary would have probably wanted to be here
21 given the actual rebuttal testimony that was offered today.
22 You know, that - Miss Best stated and accurately so they're
23 not disputing that public interest in irrigation. In a
24 perfect world, every farmer would be able to irrigate and
25 we'd have ample source of water and they'd all grow

1 fantastic crop and have great yields. Apparently, that's
2 not the case and that's simply not the reality.

3 What they did say is that the burden of proof is on the
4 applicant. DENR does not need to prove or meet the
5 standards for denial. They actually did in Mr. Peterson's
6 case with the application and approval of Roger Hansen's
7 permit.

8 We sort of have a night-and-day engineering report
9 done: one, localized; and then, two, the whole bunch of
10 applicants that we have here and that we're determining
11 whether or not to approve, disapprove, or defer, but they
12 all got lumped together, and Mr. Peterson is on top of the
13 list. And I would just note that, because there is an
14 order, that we have to actually take the applications as far
15 as when they come in, that this Board can do what I believe
16 is right and justify it in approving both of Mr. Peterson's
17 applications while, at the same time, not necessarily
18 opening the flood gates.

19 We looked at the problems in the aquifer, and we know
20 that there - the two spots way in the north and then in the
21 northwest and those are problem areas. We looked at all the
22 other data south of there and still have the upward sloping
23 linear line on the well data there. And so we would wonder
24 why. Well, we know that the Niobrara aquifer recharges that
25 part of the aquifer. In our view, it makes no sense to lump

1 the entire Upper Vermillion Missouri aquifer into one group
2 because the water doesn't flow north and we know the
3 southern half is recharged. We know that there's not a
4 deficient water problem in the Niobrara aquifer. We haven't
5 had - we haven't had applications denied, I should say.
6 There's not evidence to suggest that there is.

7 But for Mr. Peterson, this problem is not just a - it's
8 not academic; it's real to him. He invested a lot of money
9 in a piece of land with the understanding that he's going to
10 be able to farm this and calculate into the price for the
11 land what he anticipates his yield will be. He has
12 equipment. But he and Julie, they sit down every year and
13 they determine "what - how do we invest? How do we invest
14 in our land to get the best return?" And what they had
15 determined was that they would irrigate this land. They've
16 done it in the past. He's not only done it on his other
17 piece that we're talking about; he did it on the Erickson
18 piece. He's done it on the Rig Trust. He has experience
19 irrigating in that area.

20 And we know from his track record he's efficient. He
21 does it at night when you're not losing water during the day
22 to - toward evaporation, and what I - what I also thought
23 was telling was his explanation as of why he thinks he
24 actually uses this. Well, it's the difference in the soil
25 type. It's not just the ground water issue; it's the actual

1 soil type on the surface that dictates how much water
2 somebody's using.

3 We had different types of soil in different parts of
4 even the southeast region, and I can attest to that because
5 I know what land is going for these days, and certain pieces
6 are going for extremely high rates, record high rates, and
7 it's because of the actual soil. You may have a neighbor
8 that's 5 miles away from you with a completely different
9 type of soil, and that land is not valued the same.

10 So what we would suggest that the Board actually look
11 at is the Roger Hansen report where they took Clay County
12 and they took Turner County, and they went up and they did
13 an aerial circle for all the nearby wells, and we found that
14 all of those were okay.

15 Same is true for Mr. Peterson. The - he did not get
16 a - he did not seek his own engineering report on this. He
17 was, I think, informed later December - I think it was
18 December 18th that he was informed "well, you may want to
19 get your own report and, from that, present it to the
20 Board." Well, he had the Roger Hansen report, which is his
21 neighbor. It's 5,000 feet away. And so he thought "well,
22 shoot; this ought to be pretty applicable to us." And I
23 believe he's right when the same wells that would have been
24 considered for the Hansen report would have been considered
25 for any report done on Mr. Peterson, and we know what the

1 results of that were.

2 The other fact that I think was - has impact on that is
3 what came out today; in that, he applied on the 26th of
4 September. He's in negotiations for this piece of land
5 throughout this time, and if his application was not
6 actually - the report on that was not actually begun, even
7 though there may have been data available, until
8 November 14th. That's a long time to have that application
9 sitting there without anybody throwing up any yellow flags
10 or caution flags while he's in - attempting to purchase this
11 piece of land. Not only did he invest in a very expensive
12 piece of land, but he invested in a very expensive
13 irrigator.

14 The decision of this Board will impact his livelihood,
15 and it's true that it will impact the livelihood of
16 everybody who's applied, but Mr. Peterson is in a different
17 boat, in my view, in what he already has invested in it.
18 He's set to lose a lot of money depending on what actually
19 happens with this Board. He doesn't have the 1.2 million
20 for the land, and that's a loan; he's got to make payments
21 on that. And he needs a crop, and he needs to have actual
22 income from the crop.

23 It was testified that there are two tools that this
24 Board can consider. One was the administrative rule, which
25 we sort of discussed was used in the Hansen report where

1 we're actually looking more localized in - at the well data.
2 And then two was the actual statute, and the statute was
3 46-6-3.1, and it's titled Annual Withdrawal of Ground Water
4 Not to Exceed Recharge. And it explains: "an application to
5 appropriate ground water may be approved according to the
6 best information reasonably available. It's probable that
7 the quantity of water withdrawn annually from the ground
8 water source will exceed the quantity of the average
9 estimated annual recharge of water from the ground water
10 source."

11 Well, what's the ground water source? Is it what we
12 have titled the Upper Vermillion Missouri aquifer, or is it
13 the source of the ground water? Well, we know on
14 Mr. Peterson's wells that he's applying and he's over the
15 very, very southern part of the Upper Vermillion Missouri
16 aquifer, but the source of the water may not just be there.
17 We know that the source is in part from the Niobrara.
18 Whenever anybody is pumping out of that southern part of the
19 aquifer, that is being recharged by the Niobrara aquifer. I
20 think we actually have two sources available for his actual
21 pumping.

22 I think this would have been a different story had
23 these folks actually had notice that this was going to
24 happen, and I know that you can't predict the future and
25 send out notice that we're about to - that we're going to

1 start deferring this fall on any of your applications, and
2 that's not - that's not the reality, and that's not
3 reasonable, but as a matter of public policy, you know, the
4 decision that this Board makes impacts a lot of farmers. It
5 goes without saying, but I'll say it anyway: if he would
6 have known that he would have been deferred, he wouldn't
7 have purchased the land; he wouldn't have purchased the
8 irrigator. But that's the reality.

9 We think we've actually met the burden of proof which
10 is on the applicant. We know that there's a public
11 interest. We know that there is water available to him, and
12 I would just ask the Board to really consider - you know, we
13 looked on the map and the problem areas versus the areas
14 that we don't see the problems in. And to lump everybody
15 together, it doesn't seem to make logical sense in our view,
16 and so we would just ask that, with regard to Gary and Julie
17 Peterson, both of their water permits be approved. Thank
18 you.

19 CHAIRMAN FREEMAN: Thank you, Mr. Rumpca. Is there
20 a motion?

21 MR. HOYT: Mr. Chairman, there is a motion as a
22 predicate to our deliberations.

23 CHAIRMAN FREEMAN: Yes.

24 MR. HOYT: But perhaps a moment of discussion as
25 relates to the remaining items on our agenda and how we

1 could - how we could, perhaps, conduct our deliberations at
2 the greatest convenience of those remaining on our agenda.
3 Apparently Mr. Rumpca and DENR will be here throughout the
4 remaining agenda items. Mr. Rumpca, of course, is the only
5 one representing applicants Peterson and the remainder
6 aren't here. So what I'm suggesting is, perhaps, we could
7 defer our deliberations on this matter and take them up
8 conclude - after we've concluded the remaining items on our
9 agenda. It might provide a greater opportunity for
10 discussion.

11 CHAIRMAN FREEMAN: What's the pleasure of the
12 Board? I mean, we've got right much on the agenda. We've
13 got four hearings. For my part, I'd just as soon do this
14 one and finish it, but that's my personal opinion.

15 MR. COMES: Mr. Chairman, I would share that. I
16 sort of like to proceed to try to decide this and then move
17 onto the next.

18 MR. HOYT: Then I'd ask Chad to motion.

19 MR. COMES: Mr. Chairman, I'll make a motion that
20 we move to go into executive session under the investigative
21 provisions of South Dakota Codified Law Chapter 126 and
22 125-2(3) for the purpose of deliberation and to consult with
23 the Board's legal counsel on the pending litigation.

24 CHAIRMAN FREEMAN: We have a motion to go into
25 executive session for deliberations. Is there a second?

1 MR. BJORK: Second.

2 CHAIRMAN FREEMAN: Any discussion? All in favor
3 say "aye." Opposed? That motion is carried. We'll be in
4 executive session.

5 (Recessed at 9:52 a.m.; reconvened at 10:34 a.m.)

6 CHAIRMAN FREEMAN: I will declare the Board out of
7 executive session. Is there a motion?

8 MR. COMES: Mr. Chairman, I would make a motion -
9 and correct me, Jeff, if I need to do these individually -
10 to follow the chief engineer's recommendation for deferral
11 for all 18 permits, and I'll read them: 7441-3, 7442-3,
12 7452-3, 7466-3, 7467-3, 7468-3, 7535-3. Those were the
13 first ones included in the chief engineer's recommendation
14 of December 18, 2012. The additional permits included in
15 the chief engineer's recommendation from February 5th, 2013,
16 are as follows: 7558-3, 7587-3, 7588-3, 7600-3, 7601-3,
17 7602-3, 7603-3, 7609-3.

18 MR. HALLEM: No, that one's not.

19 MR. COMES: I stand corrected. Remove 7609-3.
20 Continuing on: 7623-3, 7633-3, 7653-3.

21 CHAIRMAN FREEMAN: Thank you. We have a motion.
22 Is there a second?

23 MR. BJORK: Second.

24 CHAIRMAN FREEMAN: Any discussion? All in favor,
25 please say "aye." Opposed? Motion carried unanimously.

1 Thank you.

2 MR. HALLEM: Based upon this, the standard and
3 rules in 74-02-01-13.01, you have until 20 days before the
4 next hearing to submit those Findings of Fact Conclusions of
5 Law. Next meeting of the Board will be May 1st, so at least
6 20 days before that. After that, then you have 10 days
7 afterwards and any of the other intervenors to submit any
8 objections, comments of the Proposed Findings.

9 Eric will send out notice to all the parties as to the
10 procedure on it, but for counsel on it, I would ask, in
11 addition to the mailing to the parties on it, that if you
12 would send me a Word version that I could work off of, and
13 that allows me from having to give it to the secretary to
14 retype up, and so I would appreciate that.

15 And then I will be preparing Proposed Findings of Fact
16 Conclusions of Law and Final Decision consistent with the
17 Board's oral ruling here today, and that would be presented
18 at the May 1st or 2nd, depending on when it's scheduled,
19 meeting date, and I will be sending those out to counsel
20 prior to that. So if I have people's e-mail addresses, I
21 can send it by e-mail; otherwise they end up going first
22 class mail. So that also would be with any of the other
23 individual intervenors if they want to have copies of
24 something. If they want to provide Eric Gronlund with an
25 e-mail address, that would allow me time to provide that

1 e-mail version on it so it would go out in a more timely
2 matter.

3 MR. HOYT: Mr. Chairman, might I offer a late
4 comment --

5 MR. FREEMAN: Certainly.

6 MR. HOYT: -- as it is? I should have said so at
7 the time of, perhaps, at the discussion of the motion, but I
8 think it's significant, in reaching a decision on my part in
9 the cases, that it is, in fact, a deferral not a denial and
10 that the Department has indicated that it understands the
11 seriousness and the urgency of its further study of the
12 Upper Vermillion Missouri aquifer and that they are about to
13 undertake that, that study, and that they would conclude
14 that study so decisions can be made concerning the 2014
15 irrigation season. And I think that's very important to
16 those 18 applicants or - applications for permits, so we
17 appreciate the Department's assurance that they're going to
18 give that further study a top priority.

19 CHAIRMAN FREEMAN: Thank you.

20 (Proceedings concluded at 10:41 a.m.)
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C E R T I F I C A T E

STATE OF SOUTH DAKOTA)
) ss:
COUNTY OF DAVISON)

I, Stephanie L. Moen, RPR, Freelance Court Reporter and Notary Public within and for the State of South Dakota, took the proceedings of the foregoing case contained on the foregoing pages 128 - 193 inclusive, was reduced to stenographic writing by me and thereafter caused to be transcribed; that said proceeding reconvened on the 7th day of March 2013 in a meeting room of the Matthews Training Center, Pierre, South Dakota; and that the foregoing is a full, true, and complete transcript of my shorthand notes of the proceedings had at the time and place above set forth.

In testimony whereof, I have hereto set my hand and official seal this 15th day of June 2013.

Stephanie L. Moen, RPR
Freelance Court Reporter

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STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	WATER MANAGEMENT BOARD
7466-3 (BETHEL HAGEN TRUST);	)	RULINGS ON PARTIES'
7467-3 & 7468-3 (CLELAND HAGEN	)	SUBMISSIONS.
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (BENDER HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Pursuant to directions of the Water Management Board, counsel for the Department of Environment and Natural Resources, Water Rights Program (DENR) submitted DENR proposed Findings of Fact, Conclusions of Law and Final Decision. No submissions were received from the Applicants or Intervenors. The Board, upon review of the parties submissions and administrative record, and having orally entered its decision, hereby enters the following rulings:

A. DENR's proposed Findings of Fact Nos. 1-41, 46, 48-52 are accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision. The first introductory paragraph was modified to reflect the hearing was held on March 6-7, 2013.

B. DENR's proposed Findings of Fact Nos. 42, 43 and 45 are accepted by the Board as consistent with and supported by the administrative record

and the Board's oral decision, as modified grammatically to reflect that the Petersons submitted two applications on September 26, 2012.

C. DENR's proposed Finding of Fact No. 44 is substantially accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified to reflect that the Petersons submitted two applications on September 26, 2012, and that there were "five" not "six" other permit applications filed between October 1 and November 30.

D. DENR's proposed Finding of Fact No. 47 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified grammatically to reflect that the Petersons jointly submitted application No. 7442-3 and to insert in proposed Finding of Fact No. 47 "No." before "5982-3" and "7442-3."

E. DENR's proposed Conclusions of Law 1-23 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 rulings.

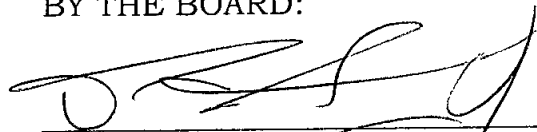
F. DENR's proposed Final Decision is accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision, and the Findings of Fact and Conclusions of Law adopted by the Board in the above rulings.

G. 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 7th day of May, 2013.

BY THE BOARD:



Rodney Freeman, Jr.
Chairman, Water Management Board



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

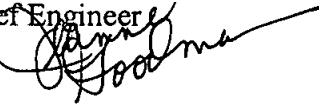
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

May 6, 2013

NOTICE

TO: A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211

FROM: Jeanne Goodman, Chief Engineer
Water Rights Program 

SUBJECT: Adoption of Finding of Fact, Conclusion of Law and Final Decision

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 in the matter of the Deferral of Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3. A copy of the Board Ruling 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

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	FINDINGS OF FACT,
TRUST); 7535-3(DONALD D	)	CONCLUSIONS OF LAW
BENSON); 7558-3 (BENDER HAGEN	)	AND FINAL DECISION
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Hearing was held on March 6-7, 2013 before Board members Rodney Freeman (Chairman), Tim Bjork, Chad Comes, Peggy Dixon, Everett Hoyt, and Leo Holzbauer.

Applicants Gary and Julie Peterson were represented by A. Jason Rumpca. Applicants Bethel Hagen Trust, Cleland Hagen Trust, and Bender Hagen Trust appeared through an officer or trustee of the trusts, Bruce Hagen. Applicants Hult, Benson, Paul Petersen, Stevens, Osborn, and Farrar appeared without counsel. Applicant Welsh did not appear. The Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") was represented by Diane Best. Intervenors Todd and Carey Miller were represented by Don McCarty.

The Board, having considered the testimony, exhibits and legal argument 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. Each application seeks to appropriate water from the Upper Vermillion Missouri (UVM) aquifer for irrigation in Turner and Clay County. The applications were filed during the period from September 26, 2012 through January 22, 2013, and were heard together.

2. Except for Application No. 7442-3 (discussed separately below), each of the applications seeks authority to divert water under a new water right with a well to be constructed in the UVM.

3. The Chief Engineer recommends that each of the applications be deferred until a pending study of the UVM aquifer is completed, which is expected to occur prior to the spring of 2014. He explained that significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

4. Notice of each application was published in one official daily newspaper and in one official weekly newspaper in each county where the

proposed water wells are to be located, where the water is proposed to be used and where the project works are proposed to be located.

5. The Notices afforded an opportunity for intervention. Todd and Carey Miller intervened and appeared at hearing through counsel.

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

7. 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.

8. If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, the aquifer is younger than and above the greenhorn formation. Also, a public water system is not involved. The withdrawal/recharge issue must be considered.

9. The UVM aquifer is a buried glacial outwash deposit that consists of fine sand to medium-pebble gravel. The aquifer underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties. The aquifer blends into the Lower Vermillion Missouri aquifer in northern Clay County. According to independent studies cited by DENR expert Ken Buhler, the

average thickness of the outwash is estimated to be 68 feet in Turner County and is estimated to be 100-150 feet thick in the areas proposed by these applications. The aquifer contains an estimated 1.8 million ac-ft of water in storage in Turner and Hutchinson Counties and an estimated 317,180 ac-ft of recoverable water in storage in Clay and Lincoln Counties.

10. The UVM aquifer is primarily, but not exclusively, under confined (artesian) conditions. Groundwater movement in the aquifer is to the south-southeast at a gradient that was estimated in independent studies to be approximately four feet per mile (ft/mi). However, based on DENR-Water Rights' observation wells the gradient was 4.3- 4.6 ft/mi in May 2012.

11. The UVM outwash generally overlies the Carlile Shale although Sioux quartzite directly underlies the aquifer in the northern portion of the aquifer. The UVM aquifer overlies the Niobrara Formation in western Turner County. The aquifer is generally buried by glacial till; however, in places it is overlain by and is hydraulically connected to the surficial Parker Centerville aquifer.

12. Recharge to the UVM aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer. Referring to past independent studies, Buhler testified that the recharge rate to the UVM has been estimated at 0.25 inches per acre per year calculated from regional flow net analysis. This would produce an average annual recharge to the overall UVM aquifer of 4,267 ac-ft/yr.

13. Buhler also evaluated the recharge potential of the UVM aquifer by undertaking a regional flow net analysis based specifically on May 2012 water level data from the DENR Observation Well Network. A flow net analysis is a calculation of the amount of water flowing through the aquifer. To do this, Buhler relied on (a) the average transmissivity of the aquifer based on the calculated transmissivity of irrigation wells in the aquifer where the data to allow these calculations was available, (b) the hydraulic gradient for the UVM based on data from the Observation Well Network, and (c) the distance of the appropriate cross section of the UVM. He found that the amount of water moving through the UVM is approximately 15.99 ac-ft/day or 5,836 ac-ft/yr. In order to sustain this volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on the area of the aquifer would be 0.34 inches. This recharge rate cannot be considered “average annual recharge” since it used only 2012 data. The estimate does, however, agree in general with the average annual recharge estimate from the independent studies that Buhler consulted.

14. The recharge rates estimated for the UVM aquifer should be considered reflective of “existing conditions”. Buhler explained that independent studies have found that the southern 19.5 miles of the western boundary of the UVM in Turner County to be hydraulically connected to (and receiving recharge from) the Niobrara aquifer. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the UVM.

15. Discharge from the UVM Missouri aquifer occurs naturally through groundwater outflow to the Lower Vermillion Missouri aquifer and also by well withdrawals. Reports on file with the DENR-Water Rights Program show that domestic use wells are completed into the UVM aquifer, however withdrawals from domestic users are not expected to be significant.

16. In addition to domestic use, there are currently 100 water rights/permits appropriating water from the UVM. Appropriations authorize municipal, commercial, rural water system and irrigation uses.

17. The cities of Viborg and Davis hold water rights to appropriate water from this aquifer, but they are supplied completely by TM Rural Water System. The City of Centerville receives 70% of its 64,000 gallons per day average from Lewis and Clark Rural Water System and 30% from the UVM. The average municipal water use from the UVM is 21.5 ac-ft/yr.

18. There are two commercial water rights from this aquifer. One is a concentrated animal feeding operation permitted for 1,800 head of beef cattle with an estimated average annual water use of 36 ac-ft/yr. The other is a fertilizer plant with an estimated average annual water use of 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr).

19. Two rural water systems are supplied by the UVM aquifer: TM Rural Water System and South Lincoln Rural Water System. The water use for each of these systems has approached or exceeded 1000 ac-ft/yr since 2009.

20. The majority of the water pumped from the UVM aquifer is for irrigation use. In 1979 there were 56 irrigation permits; the number increased

to 79 in 2011. Irrigators report pumping annually and pumping has also increased during this period. Pumping exceeded 7000 ac/ft in some recent years, but the average of reported pumping from 1979- 2011 is 4865.42 ac-ft/yr.

21. There are two future use permits for this aquifer. TM Rural Water System holds both of them and they total 740 ac/ft year. A future use permit is a reservation of water and does not authorize withdrawals. However, in theory future use permits can be completely developed.

22. The total of well withdrawals from the UVM aquifer plus the amount of water that can be developed from future use permits is estimated to be approximately 7, 900 acre-feet per year assuming average municipal, commercial, and irrigation use; 2,250 ac-ft/yr rural water system use; and 740 ac-ft/yr from future use permits. The estimated average annual recharge is currently estimated to be approximately 5,836 ac-ft/yr. So, the current estimated average annual withdrawal from the UVM aquifer appears to exceed the estimated average annual recharge to the aquifer.

23. The DENR-Water Rights Program monitors 29 observation wells in the UVM. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. The aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years.

24. The hydrograph for an observation well in Clay County in the southernmost part of the aquifer area studied (observation well CL-80K) shows

that there is currently more water in storage in the area of the well than when the well was completed. The linear trend line for this well data shows a positive slope, indicating that in general, recharge has exceeded discharge in this area over the period of record since the well was constructed in 1980.

25. Other observation wells in the UVM aquifer document downward trends in water levels. The slope of the trend lines for 15 of the 29 observation wells is negative (i.e. downward sloping). The observation wells with downward trending water levels are concentrated in two areas: an area in the north-central portion of the aquifer and an area in the northwest portion of the aquifer. The first area is in the vicinity of South Lincoln Rural Water System wells and the second is in the vicinity of TM Rural Water District wells.

26. The water use from the two areas of declining water levels has steadily increased. At this time, data is not available to determine if the water levels in these areas will stabilize under steady rural water system withdrawals.

27. This Board also heard evidence on whether the proposed uses would impair existing water rights. The DENR staff was unaware of any claims that any of the proposed uses would impair existing use of water from area wells. Further, no intervenor filed any objection claiming that granting the application would impair any use of wells for existing rights or domestic uses. Todd and Carey Miller did intervene with general concerns about the possible effect of the proposed applications on Swan Lake in Turner County.

28. Beneficial use is also a question. The beneficial use factor involves examining whether the use would be beneficial in the eyes of the appropriator and also 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 applicants. They intend to use the water for irrigation and increasing crop yields, which would be beneficial to them.

30. The Board has previously found that irrigation is in the interest of the public in the utilization of water supplies. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is a beneficial use to the public at present.

31. Public interest is also a question. The Board has previously found that irrigation is in the public interest from the economic perspective of increasing crop yields and enhancing the economy. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is in the public interest at this time.

Application Nos. 7441-3 and 7442-3

32. The foregoing Findings of Fact are incorporated by reference.

33. Application Nos. 7441-3 and 7442-3 were filed on September 26, 2012, by Gary and Julie Peterson (Petersons).

34. Application No. 7441-3 proposes to appropriate up to 280 ac-ft/yr at a maximum diversion rate of 1.79 cfs from one well that would be approximately 175 feet deep. This application proposes to irrigate 140 acres.

35. Application No. 7442-3 proposes to appropriate up to 80 ac-ft/yr to irrigate 40 acres by using an existing well authorized by Water Right No. 5982-3. Water Right No. 5982-3 appropriates water at a maximum diversion rate of 2.28 cfs and the present application would not increase the total diversion rate.

36. Application Nos. 7441-3 and 7442-3 were filed before the rest of the above entitled applications. Petersons claim that these particular applications should be granted even if the other applications are deferred.

37. In particular, Petersons rely on the fact that the DENR issued a similar permit in 2012 for a nearby irrigator. The other permit, less than a mile from the site of Application No. 7441-3, was issued to Roger Hansen.

38. The Hansen application was filed on July 20, 2012, and when it was reviewed it was the only application from the UVM. While DENR's staff engineer, Adam Mathiowetz, questioned whether granting the permit would cause the withdrawal to exceed recharge in UVM based on overall data, he also looked at nearby observation wells and found that they were not trending downward. This conflicting data raised a "yellow flag" but Mathiowetz's report, dated September 18, 2012, favored approval of the Hansen permit. The Mathiowetz report was provided to the Chief Engineer who recommended approval. The Hansen application was published, there were no intervenors, and on October 9, 2012, the permit was granted directly by the Chief Engineer under SDCL 46-2A-23. The Hansen case was not heard by this Board.

39. Although the Petersons ask the Board to reject the Buhler testimony concerning the need for additional study in favor of the Mathiowetz

analysis for the Roger Hansen permit, the Board will not do so. Without impugning the Mathiowetz study, the Board finds that a review of the entire aquifer is necessary and not the local effects associated with one observation well. The data compiled by Ken Buhler shows that 15 of the 29 DENR observation wells are declining in this aquifer and this Board cannot ascertain, at this time, whether the area of declining water levels is expanding. This Board cannot “unring the bell” and determine that the earlier report by Mathiowetz should be accepted for any of these new applications from this aquifer. The Board accepts and relies on the extensive review conducted by DENR expert Ken Buhler.

40. At hearing, Gary Peterson testified that Roger Hansen had been irrigating in the summer of 2012. Based on the Hansen irrigation and Peterson’s own favorable past experience in obtaining permits in this aquifer, Peterson purchased nearby property to irrigate and applied for an irrigation permit for the newly purchased property.

41. Hansen was not authorized to irrigate the property in question in the summer of 2012. Also, the DENR made no promises to Peterson that either Application No. 7441-3 or 7442-3 would be granted.

42. Peterson pointed out that review did not begin immediately on the Petersons’ September 26 applications and that the Chief Engineer’s recommendation was not issued until December 18. The Chief Engineer testified that DENR received an extraordinary number of irrigation applications

in the fall of 2012. Other applications for this aquifer were filed on October 1, October 18 (3 applications), and in November while the review was pending.

43. Regardless of the timing of the review, the Petersons' applications would not have been considered by this Board earlier. This Board meets five times a year. The applications were filed on September 26, only a few days short of this Board's October 3 meeting. The Board met on December 5, but for a case to be heard then the analysis would have to have been completed and the recommendation issued early enough so that the notice could be prepared and submitted to newspapers in time for publication on or before November 15, twenty days before hearing. If the Chief Engineer issued the recommendation even 45-50 days from the date of the application, it would have been too late for publication for the December meeting. The Petersons applications were heard at the Board's next scheduled meeting on March 7, 2013.

44. Petersons' permit applications were filed September 26, 2012, but were followed by five other permit applications filed on October 1, October 18 (three applications), and November 30. They were analyzed together. Due to the "yellow flag" raised by Mathiowetz in the earlier Hansen application, Ken Buhler, who is head of the groundwater area in the Water Rights Program, asked another engineer, Joe Stonesifer, to take an independent look at the recharge/withdrawal analysis. Stonesifer reported back to Buhler that he encountered the same issues. Buhler then took over the review and conducted the analysis several ways (as set forth in the foregoing Findings). Ultimately,

Buhler's report favored deferral. The Chief Engineer adopted this analysis, recommended deferral, and provided notice of hearing before this Board. In the meantime, another eleven applications were filed in December and January and a second report was issued on February 4 that contained the same analysis for those new applications. The Chief Engineer also recommended deferral and scheduled hearing.

45. Petersons also claim Application No. 7442-3 should be granted because it seeks no additional water. The applicants request does not seek to transfer an irrigation right or permit away from one of its currently permitted parcels; the applicants clearly intend to maintain the right to irrigate their currently permitted parcel under one water permit and irrigate forty more acres under the new permit.

46. Chief Engineer Garland Erbele testified that this application, if granted, would in fact constitute appropriation of an additional volume of water even if the diversion rate is the same.

47. Under Water Right No. 5982-3 Petersons are currently entitled to divert water at a diversion rate of 1.64 cfs to irrigate 115 acres. This is the maximum diversion rate allowed by law (1 cfs per 70 acres). It is undisputed that the water right holders do not currently use the maximum diversion rate 24 hours per day throughout the irrigation season, since there is no need for such high diversions at consistent levels. The current application, if granted, would allow the applicants to pump water within the 1.64 cfs authorized diversion rate and for longer periods that they would otherwise do for the

existing permit. The center pivot would run at higher levels or for longer periods because more land would be irrigated. Application No. 7442-3, if granted, would cause more consistent sustained use of the aquifer than for the existing permit.

48. The Petersons seek to appropriate a greater volume of water, even if the instantaneous diversion rate remains the same. As set forth above, a new permit for a greater volume of water cannot be granted at this time in light of the need for additional study on the recharge/withdrawal analysis.

49. If the Board were to accept the Petersons' position that there is no legal or practical change in individual permits if the diversion rate is used for more acreage, then the Board would need to address the enhanced volume of water withdrawn when analyzing water availability for new permits.

50. To date, the Board has made its recharge/withdrawal analysis based, in significant part, on the volume of actual water withdrawals as reported by irrigators in annual reports. The Board has consistently recognized, that in any given year, a certain number of pivots or other irrigation systems are setting idle or are not pumping water continuously. The practice is that some acreage sits idle due to changes in equipment use, cropping patterns, enrollment in federal programs like CRP, precipitation considerations, and other management considerations. In practice, irrigators do not continuously use water at sustained maximum levels for all permitted acreage.

51. If irrigation permits were to move toward maximum diversion rates for longer periods or for larger acreages, the withdrawal analysis will need to

reflect the enhanced sustained withdrawal of water at maximum rates. The existing data shows that the UVM may be close to being fully appropriated under the existing pattern of use. If actual use moves toward greater, more sustained diversions (even within the peak currently allowed for each permit), the withdrawals would be much more likely to exceed recharge.

Ultimate Finding

52. Based on the entirety of the record and the foregoing Findings of Fact, there is insufficient evidence to grant any of the requested applications.

CONCLUSIONS OF LAW

1. The Board has jurisdiction. The applications fall within the Board's responsibility over water appropriation and regulation in Title 46, more specifically SDCL 46-2A-9.

2. Publication of the Notice of Hearing was properly made pursuant to SDCL 46-2A-4.

3. The published Notice of Hearing also allowed for petitions to intervene. Todd and Carey Miller filed a petition to intervene in Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3, and 7535-

3. At hearing, the Millers made an oral motion to also intervene in the remaining water permit applications that were heard at the same time. The Board granted the request without objection.

4. The Chief Engineer has recommended deferral. The recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

5. The applicants are required to demonstrate by a preponderance of the evidence that the elements in SDCL 46-2A-9 have been met for the permits they are seeking. 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.” The first element in SDCL 46-2A-9 is whether there is water available for the appropriation. The aquifer is currently used extensively for irrigation as well as commercial, municipal, rural water system use and domestic use. The observation well data shows that this use has resulted in downward trends in areas of the aquifer. It is unknown, absent further study, whether the downward trends will expand.

6. 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.”

7. 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 that intend to withdraw water from an aquifer older than

or stratigraphically lower than the Greenhorn aquifer. The exception does not apply here.

8. 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 Buhler testimony, is the best information reasonably available on the recharge/discharge issue. Buhler, a groundwater expert with many years of experience, was unable to conclude that recharge was exceeding withdrawals or vice versa.

9. Given the foregoing Findings of Fact and Conclusions of Law, the Board is unable to determine whether there is water available for the proposed water use.

10. The second element in SDCL 46-2A-9 is whether the proposed water use would impair existing rights. The evidence is insufficient to make a full determination at this point.

11. 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).

12. The use of water, as requested, would undoubtedly be beneficial to the applicants since the purpose is to increase crop yields. The other part of

the beneficial use test is, however, 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). Given the foregoing determination, it is premature to determine whether the use of water for the applications at issue is a beneficial use of the water from the UVM aquifer.

13. Under the fourth element of SDCL 46-2A-9, the applicant must demonstrate that the proposed use is in the 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. Given the ruling below, it is premature for this Board to enter a ruling on the public interest issue.

14. No justification was provided by the Applicants for water permits 7452-2, 7535-3, 7603-3, and 7653-3 for their request for diversion rates of greater than 1 cfs per 70 acres. Such justification is required under SDCL 46-5-6. When this matter is heard following further study, the justification must be provided.

15. This Board adopts the Chief Engineer's recommendation of deferral. In light of the evidence presented, it is not possible to conclude that unappropriated water is available from the UVM to satisfy the proposed appropriations. Significant portions of the aquifer have experienced long-term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals.

Application Nos. 7441-3 and 7442-3

16. The Petersons rely on the water permit issued to Roger Hansen in 2012. The Hansen permit was not contested and was granted directly by the Chief Engineer under SDCL 46-2A-23. The Board did not hear evidence on the Hansen permit, and is not bound by either the permit or the underlying rationale. Moreover, even if the Board had issued the prior permit, neither the prior analysis nor the prior permit would be binding. The Board is an administrative agency with quasi-judicial authority to consider the factors in SDCL 46-2A-9. As such, the Board holds authority to consider each case on its merit and is not bound to accept prior decisions as binding precedent. *Interstate Telephone Cooperative, Inc. v. Public Utilities Commission* 518 N.W.2d 749 (S.D. 1994).

17. Although Gary Peterson invested in land relying on expectations that he would obtain a permit, DENR staff made no promises to him that either of the applications would be granted and there is no laches or estoppel issue. Moreover, based on the Chief Engineer's referral to the Board under SDCL 46-2A-23 and the contested status of this matter, the Board is the sole decision maker for the above entitled applications.

18. The Chief Engineer issued his recommendation more than 60 days after these applications were filed on September 26, but the Petersons were not harmed in a procedural sense, since March 7 is the first Board meeting where the permit would have been considered, due to the times for public notice and opportunity to intervene in SDCL 46-2A-4. If the Chief Engineer issued the

recommendation within the usual 60 days, it would have been too late to meet the December meeting.

19. In addition to the foregoing, Petersons' claim that Application No. 7442-3 should be granted because it seeks no additional water. Application No. 7442-3 was, however, filed as a request for a new permit. The purpose of new permits is to *appropriate water* (SDCL 46-5-10; SDCL 46-2A-9). This request does, in fact, seek to use additional water.

20. This is not a request to amend existing permit 5982-3 and was not published as such. This Board could not entertain it as an amendment. Further, existing irrigation permits may be amended only as provided in SDCL 46-5-30.4 through SDCL 46-5-34. Petersons' request does not seek to transfer an irrigation right or permit away from a currently permitted parcel under SDCL 46-5-30.4 and SDCL 46-5-34; the applicant clearly intends to maintain the right to irrigate its currently permitted parcel and also irrigate the new parcel. SDCL 46-5-31 also allows this Board to amend permits for changes in the place of use, but not for adding additional acreage as proposed here.

21. For a new permit, the applicant must prove each element in SDCL 46-2A-9. Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.

22. The first element in SDCL 46-2A-9 is whether there is water available for the appropriation and it requires consideration of the criteria in SDCL 46-6-3.1. As set forth in the Findings of Fact, the Petersons' proposal to irrigate an additional 40 acres would appropriate more water than has been

historically used. A new permit cannot be granted at this time for the 40 acres as proposed in Application No. 7442-3, in light of SDCL 46-6-3.1.

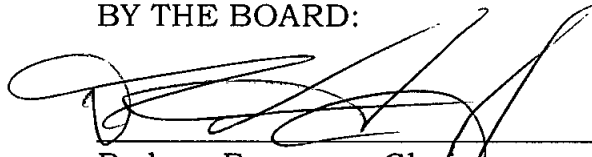
23. Based on the entirety of the record and the foregoing Findings of Fact, each of the foregoing applications should be deferred.

ORDER

Each of the above entitled applications is deferred until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. This matter is not final; DENR is directed to notice this matter for hearing once the study is completed. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL 46-2A-15.

Dated this 2nd day of May, 2013.

BY THE BOARD:



Rodney Freeman, Chairman
South Dakota Water Management Board

PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

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JUN - 3 2013

WATER RIGHTS
PROGRAM

May 30, 2013

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Re: *In the Matter of the Water Permit Application*
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-_____

Dear Ms. Goodman:

Please find enclosed a true and correct copy of Notice of Appeal and Order for Transcript(s) with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,



A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encls.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

103 N. 3rd St. • Beresford, SD 57004
Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

JUN - 3 2013

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT WATER RIGHTS
 PROGRAM
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
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)

CIV. #13-_____

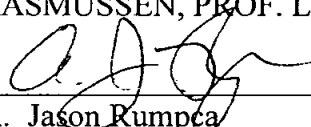
NOTICE OF APPEAL

TO: MARTY J. JACKLEY, South Dakota Attorney General, DIANE BEST, Assistant South Dakota Attorney General, JEANNE GOODMAN, Chief Engineer, South Dakota Department of Environment and Natural Resources Water Rights Program, RODNEY FREEMAN, Chairman, South Dakota Water Management Board.

NOTICE IS HEREBY GIVEN that Gary and Julie Peterson, above-named Applicants/Appellants, hereby Appeal the Final Decision adopted by the South Dakota Water Management Board with regard to Water Permit Application No. 7441-3. This Appeal is made pursuant to SDCL § 1-26-31 et seq. Pursuant to SDCL § 1-26-31.1, this appeal shall be venued in Clay County, South Dakota.

Dated this 30th day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-_____

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the Notice of Appeal served on the following:

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

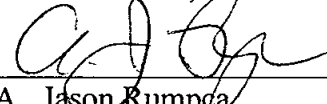
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 30th day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
)
)
)
)
)

CIV. #13-_____

ORDER FOR TRANSCRIPT(S)

APPELLANTS.

TO: COURT REPORTER(S)

Pursuant to SDCL § 1-26-32.2, Gary and Julie Peterson, the above-named Appellants, hereby orders a transcript(s) of proceedings in the above-entitled action as indicated below:

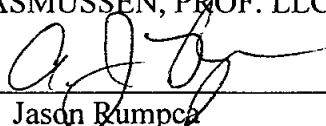
DATE OF PROCEEDING	TYPE OF PROCEEDING	NAME OF REPORTER
<u>3-06-13</u>	<u>X</u> Administrative Hearing	<u>Carla A. Bachand</u>
<u>3-07-13</u>	<u>X</u> Entire Record	<u>Stephanie L. Moen</u>

As the ordering party I hereby certify that notice of appeal was filed with the Clay County Clerk on the 31st day of May, 2013, and that this order is timely made within ten days of said filing date.

I also certify that pursuant to SDCL § 1-26-32.2, an original of this order has been transmitted to each Court Reporter who took the requested proceedings; that a copy has been filed with the Clay County Clerk; and that service has been made upon all parties to the action as reflected in the attached certificate of service.

Dated this 30th day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

COURT REPORTER'S ENDORSEMENT

I, _____, hereby acknowledge receipt of this order for transcript on _____. My anticipated date of completion is the ____ day of _____, 2013. (Explanatory comments should be noted by the reporter on the reverse side of this form.)

Court Reporter

(Note to Ordering Party: Within ten days of the filing of the notice of appeal the original of this order must be transmitted to the Court Reporter. If more than one Reporter is involved, duplicate originals should be transmitted to each. One copy is to be filed with the trial clerk and a copy is to be served upon counsel for each party to the action or upon each party if unrepresented by counsel. A certificate of service should be attached to the original order and to each copy thereof. See SDCL § 1-26-32.2.)

(Note to Court Reporter: See SDCL § 1-26-32.4 Form of transcript—Number of copies—Certification.)

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-_____

CERTIFICATE OF SERVICE

The undersigned hereby certifies that duplicate originals of the Order for Transcript(s) were served on the following:

Carla A. Bachand
Capital Reporting Services
P.O. Box 903
Pierre, SD 57501-0903

Stephanie L. Moen
Stephanie Moen & Associates
P.O. Box 684
Mitchell, SD 57301

True and correct copies of the Order for Transcript(s) were served on the following:

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

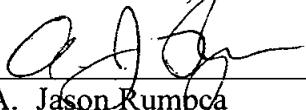
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing duplicate original Order[s] for Transcript(s) to Ms. Carla A. Bachand & Ms. Stephanie L. Moen and true and correct copies of the same to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 30th day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

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JUN - 3 2013
WATER RIGHTS
PROGRAM

May 31, 2013

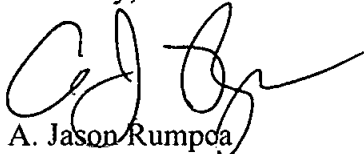
Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Re: *In the Matter of the Water Permit Application*
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-_____

Dear Ms. Goodman:

Please find enclosed a true and correct copy of the Docketing Statement with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,



A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encls.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

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Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

JUN - 3 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA)
COUNTY OF CLAY)

:SS

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
APPELLANTS.)

CIV. #13-_____

DOCKETING STATEMENT

SECTION A.

TRIAL COURT

1. The Circuit Court from which the appeal is taken: Administrative Hearing on Water Permit Applications proposing to appropriate water from the Upper Vermillion-Missouri Aquifer. Hearing was held at 1:00 p.m., Wednesday, March 6-7, 2013 in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre, SD, 57501.
2. The County in which the action is venued at the time of appeal: Clay County
3. The name of the trial judge who entered the decision appealed: Rodney Freeman, Chairman of the South Dakota Water Management Board. See Appellants' Exhibit 1 attached (Board Ruling and signed Findings of Fact, Conclusions of Law and Final Decision).

PARTIES AND ATTORNEYS

4. Identify each party presently of record and the name, address, and phone number of the attorney for each party.

Appellee:

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Appellee's Attorneys:

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Appellant(s):

Gary Peterson
Julie Peterson

Appellants' Attorney:

A. Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen,
Prof. L.L.C.
103 North Third Street
Beresford, SD 57004
(605) 763-5024

SECTION B.

TIMELINESS OF APPEAL

1. The date the Final Decision appealed form was signed and filed by the South Dakota Water Management Board: May 2, 2013.
2. The date notice of entry of the Final Decision or order was served on each party: By U.S. Mail in a letter dated May 6, 2013, received by Appellants' Attorney May 8, 2013.
3. State whether either of the following motions was made:
 - a. Motion for judgment n.o.v., SDCL § 15-6-50(b): Not Applicable
 - b. Motion for new trial, SDCL § 15-6-59: Not Applicable

NATURE AND DISPOSITION OF CLAIMS

4. State the nature of each party's separate claims, counterclaims or crossclaims and the trial court's disposition of each claim (e.g., court trial, jury verdict, summary judgment, default judgment, agency decision, affirmed/reversed, etc.)

Appellants claim the South Dakota Water Management Board erred when it entered an Order deferring Water Permit Application No. 7441-3 (Gary or Julie Peterson) until the pending study of the UVM Aquifer is completed.

5. Appeals of right may be taken only from final, appealable orders. See SDCL § 15-26A-3 & 4.
 - a. Did the trial court enter a final judgment or order that resolves all of each party's individual claims, counterclaims, or cross-claims? Yes
 - b. If the trial court did not enter a final judgment or order as to each party's individual claims, counterclaims, or cross-claims, did the trial court make a determination and direct entry of judgment pursuant to SDCL 15-6-54(b)?

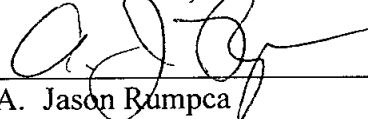
Not Applicable

6. State each issue intended to be presented for review (Parties will not be bound by these statements).

Whether the South Dakota Water Management Board erred when it entered an Order deferring Water Permit Application No. 7441-3 (Gary or Julie Peterson) until the pending study of the UVM Aquifer is completed

Dated this 31st day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St.
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

CERTIFICATE OF SERVICE

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

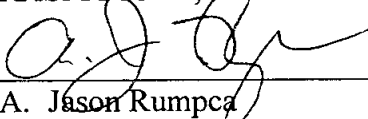
Diane Best
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317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 31st day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St.
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

FILE COPY



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: A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211

FROM: Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Adoption of Finding of Fact, Conclusion of Law and Final Decision

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 in the matter of the Deferral of Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3. A copy of the Board Ruling 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



STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	WATER MANAGEMENT BOARD
7466-3 (BETHEL HAGEN TRUST);	)	RULINGS ON PARTIES'
7467-3 & 7468-3 (CLELAND HAGEN	)	SUBMISSIONS
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (BENDER HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Pursuant to directions of the Water Management Board, counsel for the Department of Environment and Natural Resources, Water Rights Program (DENR) submitted DENR proposed Findings of Fact, Conclusions of Law and Final Decision. No submissions were received from the Applicants or Intervenor. The Board, upon review of the parties submissions and administrative record, and having orally entered its decision, hereby enters the following rulings:

A. DENR's proposed Findings of Fact Nos. 1-41, 46, 48-52 are accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision. The first introductory paragraph was modified to reflect the hearing was held on March 6-7, 2013.

B. DENR's proposed Findings of Fact Nos. 42, 43 and 45 are accepted by the Board as consistent with and supported by the administrative record

and the Board's oral decision, as modified grammatically to reflect that the Petersons submitted two applications on September 26, 2012.

C. DENR's proposed Finding of Fact No. 44 is substantially accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified to reflect that the Petersons submitted two applications on September 26, 2012, and that there were "five" not "six" other permit applications filed between October 1 and November 30.

D. DENR's proposed Finding of Fact No. 47 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified grammatically to reflect that the Petersons jointly submitted application No. 7442-3 and to insert in proposed Finding of Fact No. 47 "No." before "5982-3" and "7442-3."

E. DENR's proposed Conclusions of Law 1-23 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 rulings.

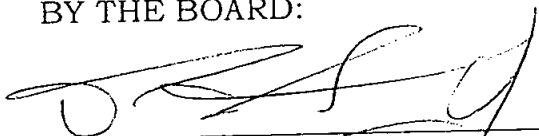
F. DENR's proposed Final Decision is accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision, and the Findings of Fact and Conclusions of Law adopted by the Board in the above rulings.

G. 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

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	FINDINGS OF FACT,
TRUST); 7535-3(DONALD D	)	CONCLUSIONS OF LAW
BENSON); 7558-3 (BENDER HAGEN	)	AND FINAL DECISION
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); and 7653-3	)	
(JEREMIAH WELSH)	)	

Hearing was held on March 6-7, 2013 before Board members Rodney Freeman (Chairman), Tim Bjork, Chad Comes, Peggy Dixon, Everett Hoyt, and Leo Holzbauer.

Applicants Gary and Julie Peterson were represented by A. Jason Rumpca. Applicants Bethel Hagen Trust, Cleland Hagen Trust, and Bender Hagen Trust appeared through an officer or trustee of the trusts, Bruce Hagen. Applicants Hult, Benson, Paul Petersen, Stevens, Osborn, and Farrar appeared without counsel. Applicant Welsh did not appear. The Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") was represented by Diane Best. Intervenors Todd and Carey Miller were represented by Don McCarty.

The Board, having considered the testimony, exhibits and legal argument 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. Each application seeks to appropriate water from the Upper Vermillion Missouri (UVM) aquifer for irrigation in Turner and Clay County. The applications were filed during the period from September 26, 2012 through January 22, 2013, and were heard together.

2. Except for Application No. 7442-3 (discussed separately below), each of the applications seeks authority to divert water under a new water right with a well to be constructed in the UVM.

3. The Chief Engineer recommends that each of the applications be deferred until a pending study of the UVM aquifer is completed, which is expected to occur prior to the spring of 2014. He explained that significant portions of the aquifer have experienced long term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals. Pursuant to SDCL 46-2A-9, a permit to appropriate water may only be approved if there is a reasonable probability that unappropriated water is available.

4. Notice of each application was published in one official daily newspaper and in one official weekly newspaper in each county where the

proposed water wells are to be located, where the water is proposed to be used and where the project works are proposed to be located.

5. The Notices afforded an opportunity for intervention. Todd and Carey Miller intervened and appeared at hearing through counsel.

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

7. 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.

8. If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, the aquifer is younger than and above the greenhorn formation. Also, a public water system is not involved. The withdrawal/recharge issue must be considered.

9. The UVM aquifer is a buried glacial outwash deposit that consists of fine sand to medium-pebble gravel. The aquifer underlies approximately 204,832 acres of Hutchinson, Turner, Lincoln and Clay Counties. The aquifer blends into the Lower Vermillion Missouri aquifer in northern Clay County. According to independent studies cited by DENR expert Ken Buhler, the

average thickness of the outwash is estimated to be 68 feet in Turner County and is estimated to be 100-150 feet thick in the areas proposed by these applications. The aquifer contains an estimated 1.8 million ac-ft of water in storage in Turner and Hutchinson Counties and an estimated 317,180 ac-ft of recoverable water in storage in Clay and Lincoln Counties.

10. The UVM aquifer is primarily, but not exclusively, under confined (artesian) conditions. Groundwater movement in the aquifer is to the south-southeast at a gradient that was estimated in independent studies to be approximately four feet per mile (ft/mi). However, based on DENR-Water Rights' observation wells the gradient was 4.3- 4.6 ft/mi in May 2012.

11. The UVM outwash generally overlies the Carlile Shale although Sioux quartzite directly underlies the aquifer in the northern portion of the aquifer. The UVM aquifer overlies the Niobrara Formation in western Turner County. The aquifer is generally buried by glacial till; however, in places it is overlain by and is hydraulically connected to the surficial Parker Centerville aquifer.

12. Recharge to the UVM aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer. Referring to past independent studies, Buhler testified that the recharge rate to the UVM has been estimated at 0.25 inches per acre per year calculated from regional flow net analysis. This would produce an average annual recharge to the overall UVM aquifer of 4,267 ac-ft/yr.

13. Buhler also evaluated the recharge potential of the UVM aquifer by undertaking a regional flow net analysis based specifically on May 2012 water level data from the DENR Observation Well Network. A flow net analysis is a calculation of the amount of water flowing through the aquifer. To do this, Buhler relied on (a) the average transmissivity of the aquifer based on the calculated transmissivity of irrigation wells in the aquifer where the data to allow these calculations was available, (b) the hydraulic gradient for the UVM based on data from the Observation Well Network, and (c) the distance of the appropriate cross section of the UVM. He found that the amount of water moving through the UVM is approximately 15.99 ac-ft/day or 5,836 ac-ft/yr. In order to sustain this volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on the area of the aquifer would be 0.34 inches. This recharge rate cannot be considered “average annual recharge” since it used only 2012 data. The estimate does, however, agree in general with the average annual recharge estimate from the independent studies that Buhler consulted.

14. The recharge rates estimated for the UVM aquifer should be considered reflective of “existing conditions”. Buhler explained that independent studies have found that the southern 19.5 miles of the western boundary of the UVM in Turner County to be hydraulically connected to (and receiving recharge from) the Niobrara aquifer. Increased recharge will be induced from the Niobrara aquifer with increased pumping from the UVM.

15. Discharge from the UVM Missouri aquifer occurs naturally through groundwater outflow to the Lower Vermillion Missouri aquifer and also by well withdrawals. Reports on file with the DENR-Water Rights Program show that domestic use wells are completed into the UVM aquifer, however withdrawals from domestic users are not expected to be significant.

16. In addition to domestic use, there are currently 100 water rights/permits appropriating water from the UVM. Appropriations authorize municipal, commercial, rural water system and irrigation uses.

17. The cities of Viborg and Davis hold water rights to appropriate water from this aquifer, but they are supplied completely by TM Rural Water System. The City of Centerville receives 70% of its 64,000 gallons per day average from Lewis and Clark Rural Water System and 30% from the UVM. The average municipal water use from the UVM is 21.5 ac-ft/yr.

18. There are two commercial water rights from this aquifer. One is a concentrated animal feeding operation permitted for 1,800 head of beef cattle with an estimated average annual water use of 36 ac-ft/yr. The other is a fertilizer plant with an estimated average annual water use of 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr).

19. Two rural water systems are supplied by the UVM aquifer: TM Rural Water System and South Lincoln Rural Water System. The water use for each of these systems has approached or exceeded 1000 ac-ft/yr since 2009.

20. The majority of the water pumped from the UVM aquifer is for irrigation use. In 1979 there were 56 irrigation permits; the number increased

to 79 in 2011. Irrigators report pumping annually and pumping has also increased during this period. Pumping exceeded 7000 ac-ft in some recent years, but the average of reported pumping from 1979- 2011 is 4865.42 ac-ft/yr.

21. There are two future use permits for this aquifer. TM Rural Water System holds both of them and they total 740 ac-ft year. A future use permit is a reservation of water and does not authorize withdrawals. However, in theory future use permits can be completely developed.

22. The total of well withdrawals from the UVM aquifer plus the amount of water that can be developed from future use permits is estimated to be approximately 7,900 acre-feet per year assuming average municipal, commercial, and irrigation use; 2,250 ac-ft/yr rural water system use; and 740 ac-ft/yr from future use permits. The estimated average annual recharge is currently estimated to be approximately 5,836 ac-ft/yr. So, the current estimated average annual withdrawal from the UVM aquifer appears to exceed the estimated average annual recharge to the aquifer.

23. The DENR-Water Rights Program monitors 29 observation wells in the UVM. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. The aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years.

24. The hydrograph for an observation well in Clay County in the southernmost part of the aquifer area studied (observation well CL-80K) shows

that there is currently more water in storage in the area of the well than when the well was completed. The linear trend line for this well data shows a positive slope, indicating that in general, recharge has exceeded discharge in this area over the period of record since the well was constructed in 1980.

25. Other observation wells in the UVM aquifer document downward trends in water levels. The slope of the trend lines for 15 of the 29 observation wells is negative (i.e. downward sloping). The observation wells with downward trending water levels are concentrated in two areas: an area in the north-central portion of the aquifer and an area in the northwest portion of the aquifer. The first area is in the vicinity of South Lincoln Rural Water System wells and the second is in the vicinity of TM Rural Water District wells.

26. The water use from the two areas of declining water levels has steadily increased. At this time, data is not available to determine if the water levels in these areas will stabilize under steady rural water system withdrawals.

27. This Board also heard evidence on whether the proposed uses would impair existing water rights. The DENR staff was unaware of any claims that any of the proposed uses would impair existing use of water from area wells. Further, no intervenor filed any objection claiming that granting the application would impair any use of wells for existing rights or domestic uses. Todd and Carey Miller did intervene with general concerns about the possible effect of the proposed applications on Swan Lake in Turner County.

28. Beneficial use is also a question. The beneficial use factor involves examining whether the use would be beneficial in the eyes of the appropriator and also 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 applicants. They intend to use the water for irrigation and increasing crop yields, which would be beneficial to them.

30. The Board has previously found that irrigation is in the interest of the public in the utilization of water supplies. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is a beneficial use to the public at present.

31. Public interest is also a question. The Board has previously found that irrigation is in the public interest from the economic perspective of increasing crop yields and enhancing the economy. However, given the status of the evidence in this matter, the Board is unable to conclude irrigation of water from this particular aquifer is in the public interest at this time.

Application Nos. 7441-3 and 7442-3

32. The foregoing Findings of Fact are incorporated by reference.

33. Application Nos. 7441-3 and 7442-3 were filed on September 26, 2012, by Gary and Julie Peterson (Petersons).

34. Application No. 7441-3 proposes to appropriate up to 280 ac-ft/yr at a maximum diversion rate of 1.79 cfs from one well that would be approximately 175 feet deep. This application proposes to irrigate 140 acres.

35. Application No. 7442-3 proposes to appropriate up to 80 ac-ft/yr to irrigate 40 acres by using an existing well authorized by Water Right No. 5982-3. Water Right No. 5982-3 appropriates water at a maximum diversion rate of 2.28 cfs and the present application would not increase the total diversion rate.

36. Application Nos. 7441-3 and 7442-3 were filed before the rest of the above entitled applications. Petersons claim that these particular applications should be granted even if the other applications are deferred.

37. In particular, Petersons rely on the fact that the DENR issued a similar permit in 2012 for a nearby irrigator. The other permit, less than a mile from the site of Application No. 7441-3, was issued to Roger Hansen.

38. The Hansen application was filed on July 20, 2012, and when it was reviewed it was the only application from the UVM. While DENR's staff engineer, Adam Mathiowetz, questioned whether granting the permit would cause the withdrawal to exceed recharge in UVM based on overall data, he also looked at nearby observation wells and found that they were not trending downward. This conflicting data raised a "yellow flag" but Mathiowetz's report, dated September 18, 2012, favored approval of the Hansen permit. The Mathiowetz report was provided to the Chief Engineer who recommended approval. The Hansen application was published, there were no intervenors, and on October 9, 2012, the permit was granted directly by the Chief Engineer under SDCL 46-2A-23. The Hansen case was not heard by this Board.

39. Although the Petersons ask the Board to reject the Buhler testimony concerning the need for additional study in favor of the Mathiowetz

analysis for the Roger Hansen permit, the Board will not do so. Without impugning the Mathiowetz study, the Board finds that a review of the entire aquifer is necessary and not the local effects associated with one observation well. The data compiled by Ken Buhler shows that 15 of the 29 DENR observation wells are declining in this aquifer and this Board cannot ascertain, at this time, whether the area of declining water levels is expanding. This Board cannot “unring the bell” and determine that the earlier report by Mathiowetz should be accepted for any of these new applications from this aquifer. The Board accepts and relies on the extensive review conducted by DENR expert Ken Buhler.

40. At hearing, Gary Peterson testified that Roger Hansen had been irrigating in the summer of 2012. Based on the Hansen irrigation and Peterson’s own favorable past experience in obtaining permits in this aquifer, Peterson purchased nearby property to irrigate and applied for an irrigation permit for the newly purchased property.

41. Hansen was not authorized to irrigate the property in question in the summer of 2012. Also, the DENR made no promises to Peterson that either Application No. 7441-3 or 7442-3 would be granted.

42. Peterson pointed out that review did not begin immediately on the Petersons’ September 26 applications and that the Chief Engineer’s recommendation was not issued until December 18. The Chief Engineer testified that DENR received an extraordinary number of irrigation applications

in the fall of 2012. Other applications for this aquifer were filed on October 1, October 18 (3 applications), and in November while the review was pending.

43. Regardless of the timing of the review, the Petersons' applications would not have been considered by this Board earlier. This Board meets five times a year. The applications were filed on September 26, only a few days short of this Board's October 3 meeting. The Board met on December 5, but for a case to be heard then the analysis would have to have been completed and the recommendation issued early enough so that the notice could be prepared and submitted to newspapers in time for publication on or before November 15, twenty days before hearing. If the Chief Engineer issued the recommendation even 45-50 days from the date of the application, it would have been too late for publication for the December meeting. The Petersons applications were heard at the Board's next scheduled meeting on March 7, 2013.

44. Petersons' permit applications were filed September 26, 2012, but were followed by five other permit applications filed on October 1, October 18 (three applications), and November 30. They were analyzed together. Due to the "yellow flag" raised by Mathiowetz in the earlier Hansen application, Ken Buhler, who is head of the groundwater area in the Water Rights Program, asked another engineer, Joe Stonesifer, to take an independent look at the recharge/withdrawal analysis. Stonesifer reported back to Buhler that he encountered the same issues. Buhler then took over the review and conducted the analysis several ways (as set forth in the foregoing Findings). Ultimately,

Buhler's report favored deferral. The Chief Engineer adopted this analysis, recommended deferral, and provided notice of hearing before this Board. In the meantime, another eleven applications were filed in December and January and a second report was issued on February 4 that contained the same analysis for those new applications. The Chief Engineer also recommended deferral and scheduled hearing.

45. Petersons also claim Application No. 7442-3 should be granted because it seeks no additional water. The applicants request does not seek to transfer an irrigation right or permit away from one of its currently permitted parcels; the applicants clearly intend to maintain the right to irrigate their currently permitted parcel under one water permit and irrigate forty more acres under the new permit.

46. Chief Engineer Garland Erbele testified that this application, if granted, would in fact constitute appropriation of an additional volume of water even if the diversion rate is the same.

47. Under Water Right No. 5982-3 Petersons are currently entitled to divert water at a diversion rate of 1.64 cfs to irrigate 115 acres. This is the maximum diversion rate allowed by law (1 cfs per 70 acres). It is undisputed that the water right holders do not currently use the maximum diversion rate 24 hours per day throughout the irrigation season, since there is no need for such high diversions at consistent levels. The current application, if granted, would allow the applicants to pump water within the 1.64 cfs authorized diversion rate and for longer periods that they would otherwise do for the

existing permit. The center pivot would run at higher levels or for longer periods because more land would be irrigated. Application No. 7442-3, if granted, would cause more consistent sustained use of the aquifer than for the existing permit.

48. The Petersons seek to appropriate a greater volume of water, even if the instantaneous diversion rate remains the same. As set forth above, a new permit for a greater volume of water cannot be granted at this time in light of the need for additional study on the recharge/withdrawal analysis.

49. If the Board were to accept the Petersons' position that there is no legal or practical change in individual permits if the diversion rate is used for more acreage, then the Board would need to address the enhanced volume of water withdrawn when analyzing water availability for new permits.

50. To date, the Board has made its recharge/withdrawal analysis based, in significant part, on the volume of actual water withdrawals as reported by irrigators in annual reports. The Board has consistently recognized, that in any given year, a certain number of pivots or other irrigation systems are setting idle or are not pumping water continuously. The practice is that some acreage sits idle due to changes in equipment use, cropping patterns, enrollment in federal programs like CRP, precipitation considerations, and other management considerations. In practice, irrigators do not continuously use water at sustained maximum levels for all permitted acreage.

51. If irrigation permits were to move toward maximum diversion rates for longer periods or for larger acreages, the withdrawal analysis will need to

reflect the enhanced sustained withdrawal of water at maximum rates. The existing data shows that the UVM may be close to being fully appropriated under the existing pattern of use. If actual use moves toward greater, more sustained diversions (even within the peak currently allowed for each permit), the withdrawals would be much more likely to exceed recharge.

Ultimate Finding

52. Based on the entirety of the record and the foregoing Findings of Fact, there is insufficient evidence to grant any of the requested applications.

CONCLUSIONS OF LAW

1. The Board has jurisdiction. The applications fall within the Board's responsibility over water appropriation and regulation in Title 46, more specifically SDCL 46-2A-9.
2. Publication of the Notice of Hearing was properly made pursuant to SDCL 46-2A-4.
3. The published Notice of Hearing also allowed for petitions to intervene. Todd and Carey Miller filed a petition to intervene in Water Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7467-3, 7468-3, and 7535-3. At hearing, the Millers made an oral motion to also intervene in the remaining water permit applications that were heard at the same time. The Board granted the request without objection.
4. The Chief Engineer has recommended deferral. The recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

5. The applicants are required to demonstrate by a preponderance of the evidence that the elements in SDCL 46-2A-9 have been met for the permits they are seeking. 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.” The first element in SDCL 46-2A-9 is whether there is water available for the appropriation. The aquifer is currently used extensively for irrigation as well as commercial, municipal, rural water system use and domestic use. The observation well data shows that this use has resulted in downward trends in areas of the aquifer. It is unknown, absent further study, whether the downward trends will expand.

6. 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.”

7. 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 that intend to withdraw water from an aquifer older than

or stratigraphically lower than the Greenhorn aquifer. The exception does not apply here.

8. 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 Buhler testimony, is the best information reasonably available on the recharge/discharge issue. Buhler, a groundwater expert with many years of experience, was unable to conclude that recharge was exceeding withdrawals or vice versa.

9. Given the foregoing Findings of Fact and Conclusions of Law, the Board is unable to determine whether there is water available for the proposed water use.

10. The second element in SDCL 46-2A-9 is whether the proposed water use would impair existing rights. The evidence is insufficient to make a full determination at this point.

11. 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).

12. The use of water, as requested, would undoubtedly be beneficial to the applicants since the purpose is to increase crop yields. The other part of

the beneficial use test is, however, 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). Given the foregoing determination, it is premature to determine whether the use of water for the applications at issue is a beneficial use of the water from the UVM aquifer.

13. Under the fourth element of SDCL 46-2A-9, the applicant must demonstrate that the proposed use is in the 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. Given the ruling below, it is premature for this Board to enter a ruling on the public interest issue.

14. No justification was provided by the Applicants for water permits 7452-2, 7535-3, 7603-3, and 7653-3 for their request for diversion rates of greater than 1 cfs per 70 acres. Such justification is required under SDCL 46-5-6. When this matter is heard following further study, the justification must be provided.

15. This Board adopts the Chief Engineer's recommendation of deferral. In light of the evidence presented, it is not possible to conclude that unappropriated water is available from the UVM to satisfy the proposed appropriations. Significant portions of the aquifer have experienced long-term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals.

Application Nos. 7441-3 and 7442-3

16. The Petersons rely on the water permit issued to Roger Hansen in 2012. The Hansen permit was not contested and was granted directly by the Chief Engineer under SDCL 46-2A-23. The Board did not hear evidence on the Hansen permit, and is not bound by either the permit or the underlying rationale. Moreover, even if the Board had issued the prior permit, neither the prior analysis nor the prior permit would be binding. The Board is an administrative agency with quasi-judicial authority to consider the factors in SDCL 46-2A-9. As such, the Board holds authority to consider each case on its merit and is not bound to accept prior decisions as binding precedent.

Interstate Telephone Cooperative, Inc. v. Public Utilities Commission 518 N.W.2d 749 (S.D. 1994).

17. Although Gary Peterson invested in land relying on expectations that he would obtain a permit, DENR staff made no promises to him that either of the applications would be granted and there is no laches or estoppel issue. Moreover, based on the Chief Engineer's referral to the Board under SDCL 46-2A-23 and the contested status of this matter, the Board is the sole decision maker for the above entitled applications.

18. The Chief Engineer issued his recommendation more than 60 days after these applications were filed on September 26, but the Petersons were not harmed in a procedural sense, since March 7 is the first Board meeting where the permit would have been considered, due to the times for public notice and opportunity to intervene in SDCL 46-2A-4. If the Chief Engineer issued the

recommendation within the usual 60 days, it would have been too late to meet the December meeting.

19. In addition to the foregoing, Petersons' claim that Application No. 7442-3 should be granted because it seeks no additional water. Application No. 7442-3 was, however, filed as a request for a new permit. The purpose of new permits is to *appropriate water* (SDCL 46-5-10; SDCL 46-2A-9). This request does, in fact, seek to use additional water.

20. This is not a request to amend existing permit 5982-3 and was not published as such. This Board could not entertain it as an amendment. Further, existing irrigation permits may be amended only as provided in SDCL 46-5-30.4 through SDCL 46-5-34. Petersons' request does not seek to transfer an irrigation right or permit away from a currently permitted parcel under SDCL 46-5-30.4 and SDCL 46-5-34; the applicant clearly intends to maintain the right to irrigate its currently permitted parcel and also irrigate the new parcel. SDCL 46-5-31 also allows this Board to amend permits for changes in the place of use, but not for adding additional acreage as proposed here.

21. For a new permit, the applicant must prove each element in SDCL 46-2A-9. Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.

22. The first element in SDCL 46-2A-9 is whether there is water available for the appropriation and it requires consideration of the criteria in SDCL 46-6-3.1. As set forth in the Findings of Fact, the Petersons' proposal to irrigate an additional 40 acres would appropriate more water than has been

historically used. A new permit cannot be granted at this time for the 40 acres as proposed in Application No. 7442-3, in light of SDCL 46-6-3.1.

23. Based on the entirety of the record and the foregoing Findings of Fact, each of the foregoing applications should be deferred.

ORDER

Each of the above entitled applications is deferred until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. This matter is not final; DENR is directed to notice this matter for hearing once the study is completed. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL 46-2A-15.

Dated this 22nd day of May, 2013.

BY THE BOARD:



Rodney Freeman, Chairman
South Dakota Water Management Board

RECEIVED

JUN - 6 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA)
COUNTY OF CLAY) :SS

IN CIRCUIT COURT
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
APPELLANTS.)
)
)
)

CIV. #13-_____

ORDER FOR TRANSCRIPT(S)

TO: COURT REPORTER(S)

Pursuant to SDCL § 1-26-32.2, Gary and Julie Peterson, the above-named Appellants, hereby orders a transcript(s) of proceedings in the above-entitled action as indicated below:

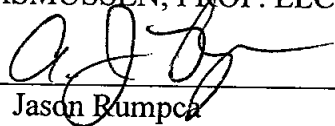
DATE OF PROCEEDING	TYPE OF PROCEEDING	NAME OF REPORTER
<u>3-06-13</u>	☒ Administrative Hearing	<u>Carla A. Bachand</u>
<u>3-07-13</u>	☒ Entire Record	<u>Stephanie L. Moen</u>

As the ordering party I hereby certify that notice of appeal was filed with the Clay County Clerk on the 31st day of May, 2013, and that this order is timely made within ten days of said filing date.

I also certify that pursuant to SDCL § 1-26-32.2, an original of this order has been transmitted to each Court Reporter who took the requested proceedings; that a copy has been filed with the Clay County Clerk; and that service has been made upon all parties to the action as reflected in the attached certificate of service.

Dated this 30th day of May, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC


A. Jason Rumpca
Attorney for Appellants
103 N 3rd St
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

COURT REPORTER'S ENDORSEMENT

I, Carla Bechard, hereby acknowledge receipt of this order for transcript on 5-31-13. My anticipated date of completion is the 15th day of June, 2013. (Explanatory comments should be noted by the reporter on the reverse side of this form.)

Carla Bechard
Court Reporter

(Note to Ordering Party: Within ten days of the filing of the notice of appeal the original of this order must be transmitted to the Court Reporter. If more than one Reporter is involved, duplicate originals should be transmitted to each. One copy is to be filed with the trial clerk and a copy is to be served upon counsel for each party to the action or upon each party if unrepresented by counsel. A certificate of service should be attached to the original order and to each copy thereof. See SDCL § 1-26-32.2.)

(Note to Court Reporter: See SDCL § 1-26-32.4 Form of transcript—Number of copies—Certification.)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

June 26, 2013

Jessica Bosse
Clay County Clerk of Courts
PO Box 377
Vermillion SD 57069-0377

Re: Transmittal of Record in the Matter of Water Permit Application No. 7441-3, Gary or Julie Peterson (CIV 13-__)

Dear Clerk:

Consistent with SDCL 1-26-33, I am transmitting the agency record for the above entitled matters to the First Judicial Circuit Court in Clay County. The following are enclosed:

1. agency record (administrative file and exhibits)
2. transmittal of record
3. chronological index
4. alphabetical index
5. list of exhibits

The agency record includes correspondence and filings with the Chief Engineer that occurred after the March 6 and 7, 2013, evidentiary hearing and May 2, 2013, hearing to consider findings of fact, conclusions of law and final decision.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA

)

IN CIRCUIT COURT

: SS

COUNTY OF CLAY

)

FIRST JUDICIAL CIRCUIT

)

(CIV 13- ____)

IN THE MATTER OF WATER

)

PERMIT APPLICATION NO. 7441-3,

)

GARY OR JULIE PETERSON

)

TRANSMITTAL OF RECORD

I, Eric S. Gronlund, Natural Resource Engineer, Water Rights Program, Department of Environment and Natural Resources, certify as follows:

1. As a Natural Resource Engineer employed by the Water Rights Program, Department of Environment and Natural Resources, I am responsible for maintaining the formal agency file on water right permit applications and administrative proceedings which are subject to the jurisdiction of the South Dakota Water Management Board.
2. Consistent with my responsibilities in the Water Rights Program, I have kept the agency record in the Matter of the Water Permit Application No. 7441-3, Gary or Julie Peterson. A copy of the record is herewith transmitted to the above-captioned reviewing court pursuant to SDCL 1-26-33.
3. This agency record includes a copy of all pleadings, correspondence and other filings that were submitted for consideration by the South Dakota Water Management Board as well as the Board's Final Decision. I hereby certify under penalty of perjury that the enclosed documents are true and correct copies of the originals as they appear on record in the offices of the Water Rights Program.
4. I have enclosed the original exhibits from the March 6 – 7, 2013, hearing in the above entitled matter.
5. In addition, I have prepared a chronological and alphabetical index of the agency record and a list of exhibits which are herewith transmitted to the above-captioned reviewing court pursuant to SDCL 1-26-33. A copy of the indices is also being sent to the parties of record on this date.

Dated this 26th day of June, 2013.

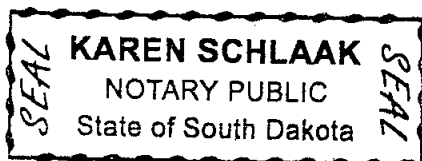


Eric S. Gronlund, Natural Resource Engineer
Water Rights Program
Dept. of Environment & Natural Resources

Subscribed and sworn to before me this
26th day of June, 2013


Notary Public

My commission expires: 4/01/2019



STATE OF SOUTH DAKOTA

COUNTY OF CLAY

)

: SS

)

IN CIRCUIT COURT

FIRST JUDICIAL COURT

(CIV NO. 13- ____)

IN THE MATTER OF WATER PERMIT

APPLICATION NO. 7441-3

(GARY OR JULIE PETERSON),

)

)

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CHRONOLOGICAL
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APPELLANTS.

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STATE OF SOUTH DAKOTA

COUNTY OF CLAY

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IN CIRCUIT COURT

FIRST JUDICIAL COURT

(CIV NO. 13- ____)

IN THE MATTER OF WATER PERMIT

APPLICATION NO. 7441-3

(GARY OR JULIE PETERSON),

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ALPHABETICAL

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in the Matter of the Water Permit Application No. 7441-3
Gary E or Julie A Peterson

Exhibit No.	Description
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DENR-2	Vita – Ken Buhler
DENR-3	Copies of testimony presented by Ken Buhler
DENR-4	Timeline chart with dates when permit applications were received
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DENR-6	Map of UVM Aquifer area including water use
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Petitioner's-4	Aerial photo map for Application No. 7442-3
Petitioner's-5	Plat map for Gary & Julie Peterson land
Petitioner's-6	Clay Rural Water System publication (January 2013, Volume 8, Issue 3)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

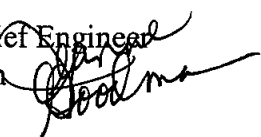
denr.sd.gov

June 26, 2013

NOTICE

TO: A Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen, Prof, LLC
103 North Third Street
Beresford, SD 57004

Donald McCarty
PO Box 78
Brookings SD 57006

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

SUBJECT: Appeal of Water Management Board's Decision in the matter of Water Permit
Application No. 7441-3, Gary or Julie Peterson

Consistent with SDCL 1-26-33, the agency record for the above entitled matter is being transmitted to the First Judicial Circuit Court in Clay County. A chronological and alphabetical index of the agency record and a list of exhibits is also being transmitted to the court. A copy of the transmittal of record and each index is enclosed.

enclosures

c: Diane Best, Assistant Attorney General
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	: SS	
COUNTY OF CLAY	)	FIRST JUDICIAL CIRCUIT
	)	(CIV 13- ____)
IN THE MATTER OF WATER	)	
PERMIT APPLICATION NO. 7441-3,	)	
GARY OR JULIE PETERSON	)	TRANSMITTAL OF RECORD

I, Eric S. Gronlund, Natural Resource Engineer, Water Rights Program, Department of Environment and Natural Resources, certify as follows:

1. As a Natural Resource Engineer employed by the Water Rights Program, Department of Environment and Natural Resources, I am responsible for maintaining the formal agency file on water right permit applications and administrative proceedings which are subject to the jurisdiction of the South Dakota Water Management Board.
2. Consistent with my responsibilities in the Water Rights Program, I have kept the agency record in the Matter of the Water Permit Application No. 7441-3, Gary or Julie Peterson. A copy of the record is herewith transmitted to the above-captioned reviewing court pursuant to SDCL 1-26-33.
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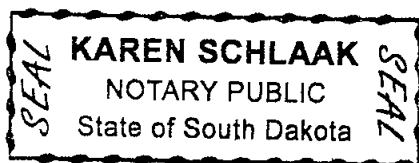
Dated this 26th day of June, 2013.


 Eric S. Gronlund, Natural Resource Engineer
 Water Rights Program
 Dept. of Environment & Natural Resources

Subscribed and sworn to before me this
 26th day of June, 2013


 Notary Public

My commission expires: 4/01/2019



STATE OF SOUTH DAKOTA

)

IN CIRCUIT COURT

: SS

COUNTY OF CLAY

)

FIRST JUDICIAL COURT

(CIV NO. 13- ____)

IN THE MATTER OF WATER PERMIT

)

APPLICATION NO. 7441-3

)

CHRONOLOGICAL

(GARY OR JULIE PETERSON),

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STATE OF SOUTH DAKOTA

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IN CIRCUIT COURT

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COUNTY OF CLAY

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FIRST JUDICIAL COURT

(CIV NO. 13- ____)

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Petitioner's-5	Plat map for Gary & Julie Peterson land
Petitioner's-6	Clay Rural Water System publication (January 2013, Volume 8, Issue 3)

CERTIFICATION

I hereby certify that on June 26, 2013, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated June 26, 2013, regarding transmittal of the administrative record to the First Judicial Court of Water Right Permit Application No. 7441-3, addressed as stated below :

A Jason Rumpca, Peterson, Stuart, Rumpca & Rasmussen, Prof, LLC, 103 North
Third Street, Beresford, SD 57004

Diane Best, Assistant Attorney General. 317 N Main Street, Sioux Falls SD 57104-6004

Donald McCarty, PO Box 78, Brookings SD 57006

Jerome Hult, 45958 Hwy 18, Davis SD 57021

Donald Benson, 45067 284th Street, Hurley SD 57036

Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014

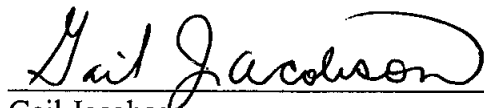
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Paul Peterson, 45610 282nd Street, Hurley SD 57036

Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108



Gail Jacobson

Water Right Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

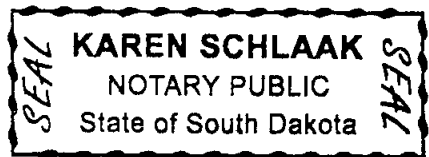
Sworn to, before me, this 26th day of June 2013.



Karen Schlaak

Notary Public

My Commission expires April 1, 2019



PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

RECEIVED

JUL - 5 2013

WATER RIGHTS
PROGRAM

July 2, 2013

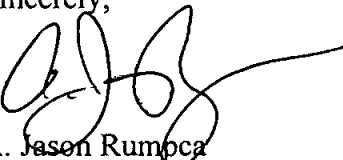
Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Re: *In the Matter of the Water Permit Application*
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-73

Dear Ms. Goodman:

Please find enclosed a true and correct copy of the Informal Request for Judge Disqualification and Certificate of Service with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,



A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encls.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

103 N. 3rd St. • Beresford, SD 57004
Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

JUL - 5 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-73

**INFORMAL REQUEST FOR
JUDGE DISQUALIFICATION**

As the attorney of record or a party in the above cited case, I, A. Jason Rumpca, would like to request per SDCL § 15-12-21.1 that Judge Steven R. Jensen, recuse himself from presiding over this matter as my client believes they cannot receive a fair and impartial hearing from this Judge; or

_____ I believe the judge has a conflict: _____

_____ Other: _____

☒ No court date has been set _____ The next court date is: _____

Dated this 2nd day of July, 2013.



A. Jason Rumpca, Attorney for Appellants

This matter having been assigned to me, _____, Judge of the First Judicial Circuit, and after consideration of the above request to recuse, I have determined that:

_____ it is necessary to recuse myself, and I hereby recuse myself from presiding over this matter.

_____ I am aware of no reason to recuse myself and the request is denied.

_____ it is my belief that the parties have waived their right to a change of judge per SDCL § 15-12 and the request to recuse is denied.

Dated this _____ day of _____, 2013.

BY THE COURT:

CIRCUIT COURT JUDGE

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-73

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the Informal Request for Judge Disqualification was served on the following:

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

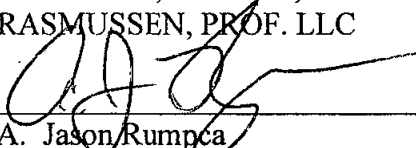
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 2nd day of July, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
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Jason.petersonstuart@gmail.com

PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

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JUL 17 2013
WATER RIGHTS
PROGRAM

July 15, 2013

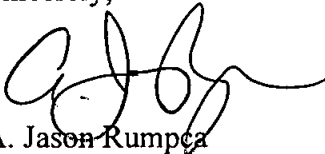
Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Re: *In the Matter of the Water Permit Application*
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-73

Dear Ms. Goodman:

Please find enclosed a true and correct copy of the Appellants' Brief and Certificate of Service with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,



A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encls.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

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Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

JUL 17 2013

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT WATER RIGHTS
 PROGRAM
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-73

APPELLANTS' BRIEF

PRELIMINARY STATEMENT

Throughout this brief, Appellants Gary Peterson and Julie Peterson will be referred to by name or as "Appellants;" the Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") will be referred to by name or "Appellee;" and the South Dakota Water Management Board will be referred to by name or as the "Board." All other individuals will be referred to by name. Documents from the agency record and list of exhibits that have been transmitted to the Court pursuant to SDCL § 1-26-33 will be referred to by the document name and its respective page number. Transcripts from the hearing shall be referred to as "T6" for the March 6, 2013, transcript and "T7" for the March 7, 2013, transcript followed by the appropriate page number.

JURISDICTIONAL STATEMENT

This appeal is taken from the Final Decision signed and filed by the South Dakota Water Management Board on May 2, 2013. The decision was orally pronounced following an Administrative Hearing on Water Permit Applications proposing to appropriate water from the Upper Vermillion Missouri aquifer. The hearing was held beginning at 1:00 p.m., Wednesday,

March 6, 2013 in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre, SD, 57501, and continued into the morning of March 7, 2013.

Jurisdiction and venue in Clay County, South Dakota, is proper pursuant to SDCL § 1-26-31.1(1) "Venue of Appeal" which states "[i]f the appellant is a resident of this state, to the circuit court for the county of the appellant's residence or to the circuit court for Hughes County, as the appellant may elect." Appellants are residents of Clay County and, therefore, Clay County is the proper venue. Additionally, the land for which the water permit is sought is located in Clay County.

The Appellants timely filed their Notice of Appeal on May 31st, 2013.

STATEMENT OF LEGAL ISSUE

I. WHETHER THE SOUTH DAKOTA WATER MANAGEMENT BOARD ERRED WHEN IT ENTERED AN ORDER DEFERRING WATER PERMIT APPLICATION NO. 7441-3 (GARY OR JULIE PETERSON) UNTIL THE PENDING STUDY OF THE UPPER VERMILLION MISSOURI AQUIFER IS COMPLETED.

The Order deferring Water Permit Application No. 7441-3 was clearly erroneous in light of the entire evidence in the record; or (SDCL § 1-26-36(5))

The Order deferring Water Permit Application No. 7441-3 was arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. (SDCL § 1-26-36(6))

STATEMENT OF THE CASE

This case is an appeal of the South Dakota Water Board's Final Decision to defer the Application For Permit To Appropriate Water For Irrigation No. 7441-3. The Application was submitted by Gary and Julie Peterson (husband and wife) and received by the DENR on September 26, 2012. The application was heard by the South Dakota Water Management Board on March 6-7, 2013, and the Board deferred consideration of the application pending a study to be conducted concerning the Upper Vermillion Missouri aquifer.

STATEMENT OF THE FACTS

Gary and Julie Peterson farm a little over 1000 acres in Northern Clay County. On September 10, 2012, they began negotiations to purchase a tract of land that they had rented since 1985. On September 26, 2012, the Petersons filed an application for a water permit, No. 7441-3. Since Gary had farmed this ground for nearly three decades, he knew that he had the fertility and general condition of the ground in place to make good use of irrigation; this was a major factor in the Petersons' decision to buy the land due to the extremely high priced market for farm land.

Eight days prior to receipt of the Petersons' application on September 26, 2012, the DENR Chief Engineer had recommended approval of Water Permit No. 7384-3 for Roger Hansen, a neighbor to the Petersons whose new well was located within 5,000 feet of the Petersons' proposed well. Roger Hansen had applied for his permit on July 20, 2012, the DENR recommended approval on September 18, 2012, and the permit was granted on October 9, 2012. The Petersons patiently waited for approval of their permit while the closing on their new land purchase neared. Because no permits to the Petersons' knowledge had been denied or deferred on the Upper Vermillion Missouri aquifer, the Petersons moved forward with the purchase and installation of an irrigator so they would be ready to dig the well and be in a position to irrigate once the permit was approved. Additionally, the IRS required the physical delivery and possession of the irrigator in order to be used for depreciation on their taxes. The Petersons were able to get the irrigator installed by November 15, 2012, prior to the IRS deadline.

On November 26, 2012, Gary called the DENR to check on the permit application. There was no mention of a problem and he was told to be patient. On December 11, 2012, the engineering report was completed. On December 14, 2012, the Petersons closed on the property.

On December 18, 2012, Gary called the DENR and was informed of the decision to defer the water permit. On December 21, 2012, the Petersons received Notice of the DENR deferral recommendation by U.S. mail – 86 days after their application hit the desk at the DENR.

The Petersons submitted Application No. 7441-3 along with a second Application, 7442-3, which proposed to irrigate an additional 40 acres that would compliment, but not change, existing Water Right No. 5982-3. The Board deferred consideration of both applications pending a study to be conducted concerning the Upper Vermillion Missouri aquifer. Between the Board's oral pronouncement of the decision to defer on March 7, 2013, and the Final Decision and Order which the Board signed on May 2, 2013, the parties stipulated with regard to Application No. 7-442-3 that "until the study is completed, the Petersons should be granted the right to use water to irrigate land within the 40 acres located in the W ½ NE ¼ Section 17-T95N-R52W, so long as the total acreage from Water Right No. 5982-3 and Water Permit No. 7442-3 does not exceed 115 acres." As part of the stipulation, the Petersons agreed that they would not appeal the deferral of Water Permit No. 7442-3. The Board ultimately approved the stipulation in an Order signed May 2, 2013. Notice of Hearing on Application No. 7442-3 with revised recommendation and stipulation, pg. 76.

ARGUMENT AND AUTHORITIES

I. THE SOUTH DAKOTA WATER MANAGEMENT BOARD ERRED WHEN IT ENTERED AN ORDER DEFERRING WATER PERMIT APPLICATION NO. 7441-3 (GARY OR JULIE PETERSON) UNTIL THE PENDING STUDY OF THE UPPER VERMILLION MISSOURI AQUIFER IS COMPLETED.

A. Standard of Review.

The scope of review on an appeal from an administrative agency is set forth in SDCL 1-26-36:

The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:

- (1) In violation of constitutional or statutory provisions;
- (2) In excess of the statutory authority of the agency;
- (3) Made upon unlawful procedure;
- (4) Affected by other error of law;
- (5) Clearly erroneous in light of the entire evidence in the record; or
- (6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

A court shall enter its own findings of fact and conclusions of law or may affirm the findings and conclusions entered by the agency as part of its judgment. The circuit court may award costs in the amount and manner specified in chapter 15-17.

The record of the administrative agency is reviewed in the same manner by the Circuit Court as by the South Dakota Supreme Court, unaided by any presumption that the lower court's decision is correct. Matter of South Lincoln Rural Water System Application, 295 N.W.2d 743 (S.D. 1980); South Dakota Public Utilities Commission v. Otter Tail Power Co., 291 N.W.2d 291 (S.D. 1980); citing Piper v. Neighborhood Youth Corps, 90 S.D. 443, 241 N.W.2d 868 (S.D. 1976). The question on appeal under the "clearly erroneous" standard is not whether the Court would have made the same decision as did the administrative agency, but whether, after reviewing the entire evidence, the Court is "left with a definite and firm conviction that a mistake has been committed." Matter of South Lincoln Rural Water System Application, 295 N.W.2d 743 (S.D. 1980); citing Fraser v. Water Rights Commission 294 N.W.2d 784 (S.D. 1980),

opinion filed July 9, 1980, quoting In Re Estate of Hobelsberger, 85 S.D. 282, 289, 181 N.W.2d 455, 459 (1970).

B. The Order deferring Water Permit Application No. 7441-3 was clearly erroneous in light of the entire evidence in the record; or

The Order deferring Water Permit Application No. 7441-3 was arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. SDCL § 1-26-36(5)(6).

i. Applicable standards for granting water permit applications.

The issues presented relate primarily to subsections (5) and (6) of SDCL § 1-26-36. Many of Appellants' arguments and supporting facts and/or rationale apply to both subsections. Thus, in this appeal, the argument set forth below is intended to apply to SDCL §§ 1-26-36(5) and/or 1-26-36(6).

Applicants are required to demonstrate by a preponderance of the evidence that the elements in SDCL § 46-2A-9 have been met for the permit they are seeking. SDCL § 46-2A-9 provides that "a permit to appropriate water may be issued only if [1] there is reasonable probability that there is unappropriated water available for the applicant's proposed use, [2] that the proposed diversion can be developed without unlawful impairment of existing rights and [3] that the proposed use is a beneficial use and [4] in the public interest." Because the Board found that none of the applicants met their burden on element one, they did not address elements 2, 3 or 4. But this Court should note Board Member Everett Hoyt's comment that "I don't know ... if I recall an instance where we have denied a permit on the basis that it would interfere with existing rights." T7, pg. 149. And, as stated by the attorney for the DENR, "[w]e're not – obviously not disputing the public interest in granting more irrigation permits for farming." T7, pg. 178. Thus, the main issue that this appeal must address is the first element of SDCL § 46-2A-9, whether there is a reasonable probability that there is unappropriated water available.

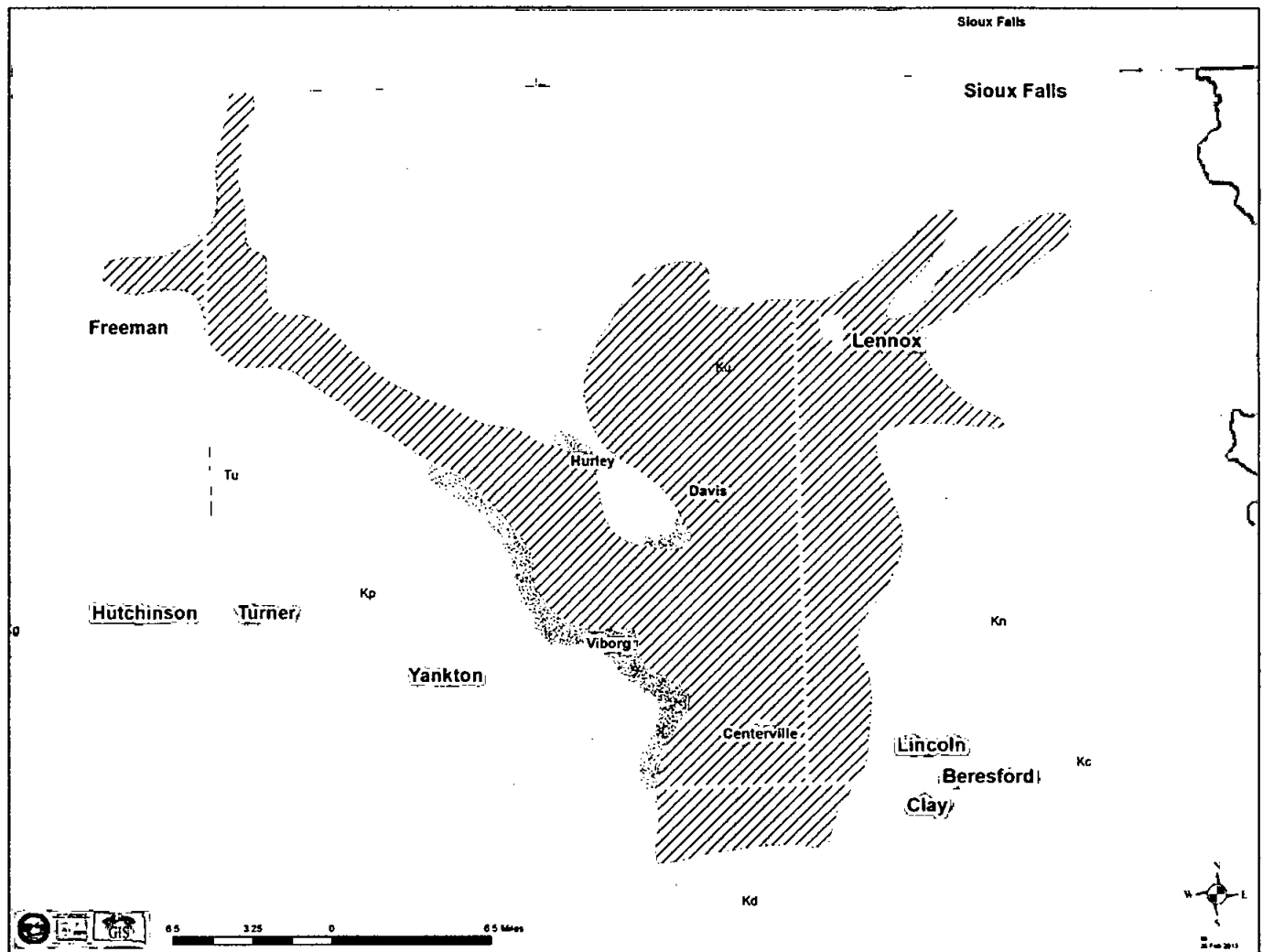
Consideration of water availability also includes consideration of the criteria in SDCL § 46-6-3.1 pertaining to recharge/withdrawal: whether “according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from the groundwater source will exceed the average estimated annual recharge of water to the groundwater source.” Finally, Administrative Rule of South Dakota Section 74:02:05:07 explains that “the Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer.” DENR Engineer, Ken Buhler explained to the Board that the DENR uses both SDCL § 46-6-3.1 and Administrative Rule of South Dakota Section 74:02:05:07 to determine whether or not there is unappropriated water available, “we owe you two analyses. We owe you a set of numbers, and we owe you an observation well as well.” T7, pg. 151, 153.

It should be noted that any of the maps produced below can be located in the agency record in this Court’s file. The maps are a true and correct copy of the maps introduced at the hearing through the PowerPoint presentation by the DENR.

ii. The Petersons’ proposed well location will not impact the areas of the Upper Vermillion Missouri aquifer experiencing declining water levels.

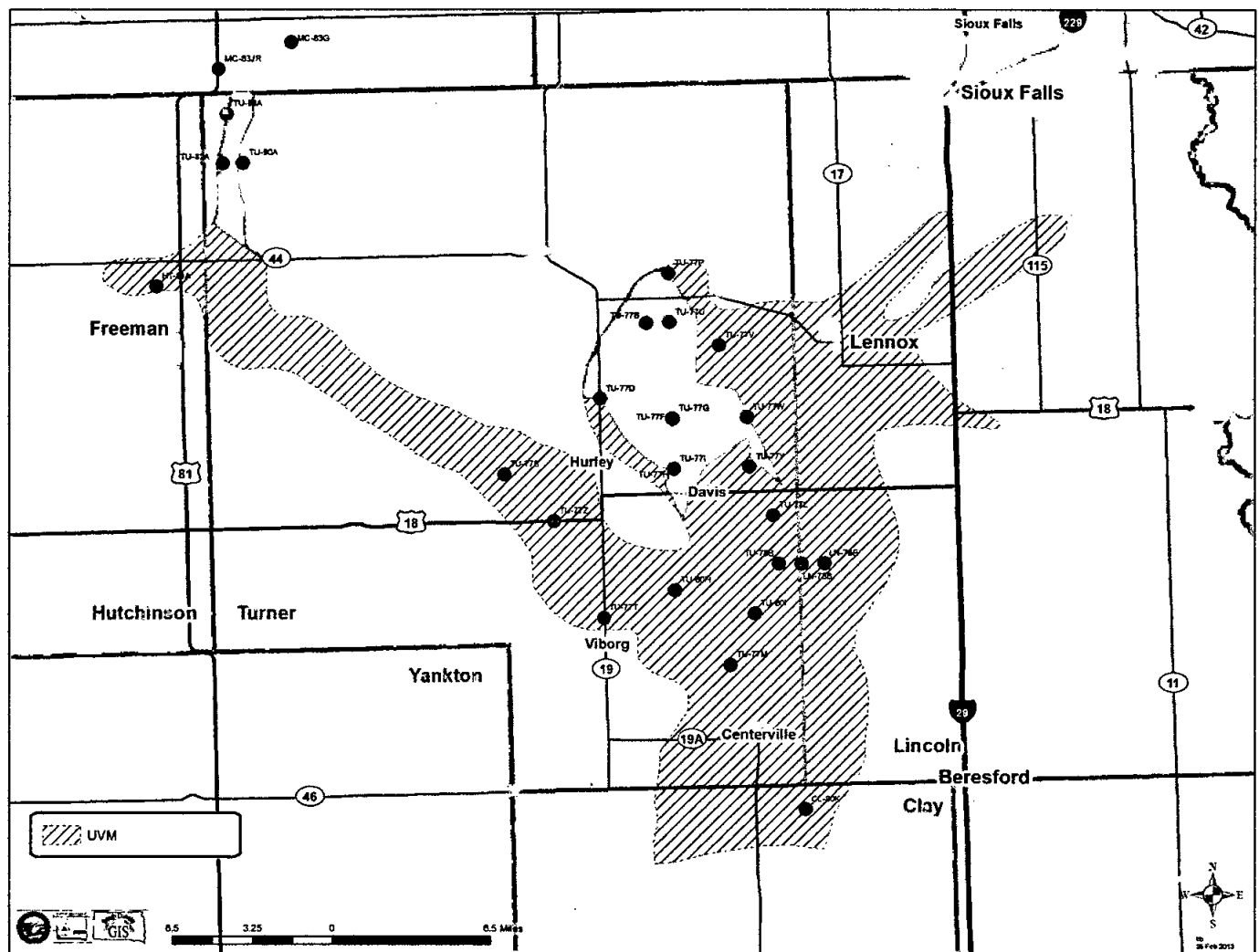
Peterson Water Permit Application No. 7441-3 proposes to irrigate 140 acres. It is located less than a mile from the line that divides the Upper Vermillion Missouri aquifer from the Lower Vermillion Missouri aquifer. Buhler explained that for water management purposes, the DENR considers the Upper and Lower Vermillion Missouri aquifers to be two separate aquifers. T6, pg. 39. Recharge to the Upper Vermillion Missouri aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer. Report to

the Chief Engineer, pg. 10. The Upper Vermillion Missouri aquifer is bordered by the Niobrara aquifer and the southern most 19 miles of Turner County in the Upper Vermillion Missouri aquifer is recharged by the Niobrara aquifer. T6, pg. 39. This means that any pumping that occurs in the lower 19 miles of the Upper Vermillion Missouri aquifer induces recharge from the Niobrara aquifer. It should be noted that there are currently no water permit applications in the Niobrara aquifer (and Lower Vermillion Missouri aquifer) that have been denied or deferred. T6, pg. 39, 74. A map of the Upper Vermillion Missouri aquifer is produced below.



The shaded area above represents the Upper Vermillion Missouri aquifer. The green areas show where the Upper Vermillion Missouri aquifer comes into contact with the Niobrara formation, which is a bedrock aquifer, and we get recharge from the bedrock to the aquifer there. These areas were mapped by Lindreen in the USGS study on Turner County, but Buhler believes there may be even more of these areas than the map displays. T6, pg. 20.

At the hearing, the DENR explained that the 15 of the 29 observation wells in the Upper Vermillion Missouri aquifer showed a downward trending linear trend line, suggesting that withdrawals are exceeding recharge. T6, pg. 26. The observation wells are displayed below.



The darkened areas on the map above show where the observation wells, represented as green dots, are showing declining water levels. This is significant because 15 of the 29 observation wells that show downward trending water levels are found either within or on the edge of the darkened areas. The other 14 observation wells actually show *increasing* water level. T6, pg. 84-86. What makes this even more significant is that the water in the aquifer flows south and it all eventually flows into the Lower Vermillion Missouri aquifer. If water in a particular area is not used, it will continue to move south. T6, pg. 47. It's a situation where you use it or lose it. The problem, therefore, is not too much irrigation pumping in the southern two-thirds of the Upper Vermillion Missouri aquifer, but too much pumping in the northern one-third reflected by the darkened area.

iii. The DENR Chief Engineer recommended approval of the water permit application for the Petersons' neighbor just eight days prior to receiving the Petersons' application.

On September 18, 2012, just eight days prior to receiving the Petersons' application for water permit, the DENR Chief Engineer recommended approval of the Roger Hansen water permit application. Hansen's well is located near within 5,000 feet of the Petersons' proposed well location. The engineer who prepared the Hansen report, Adam Mathiowetz, concluded that "there is a reasonable probability that unappropriated water is available from the Upper Vermillion Missouri aquifer to supply [the] proposed diversion based on the observation well water levels." Petitioner's Exhibit 2, pg. 20.

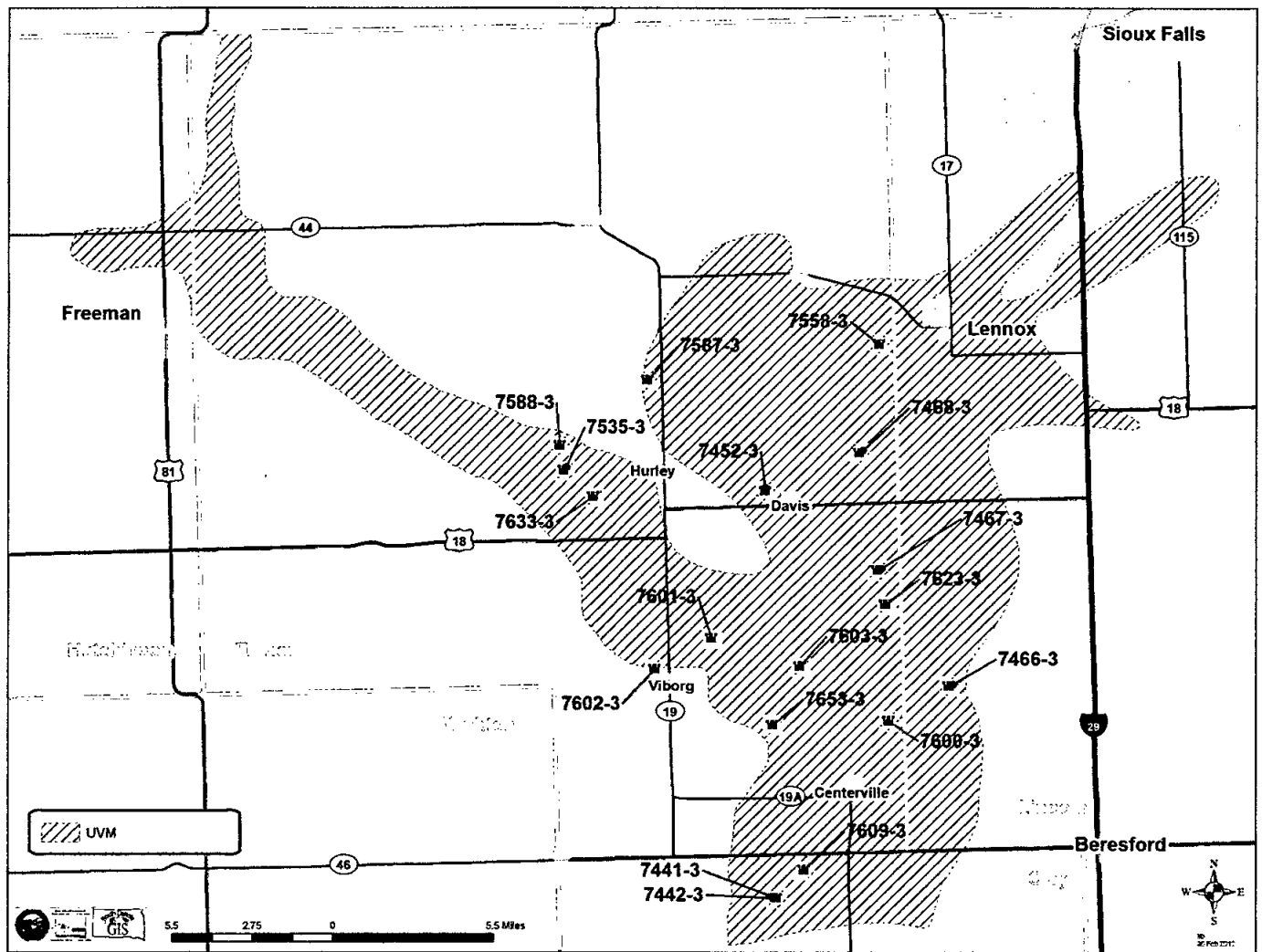
At the time the Hansen permit was approved, the DENR deemed it appropriate not to look at the whole aquifer but rather the part of the aquifer that was specific to the application. T6, pg. 78. When analyzed in this manner, every nearby observation well showed increasing water levels. T6, pg. 84-86, Petitioner's Exhibit 2, pg. 20. These are the same observation wells

that would be utilized if the DENR treated the Petersons' application in the same manner as they treated the Hansen application.

As discussed earlier in this brief, the DENR and Board can make a decision to approve a water permit application based on conclusions drawn from the observation wells alone. Further, a decision may be based on data from less than the entire aquifer. T7, pg. 148. The Petersons submit that a decision to approve their application is proper based on the localized observation well data and the fact that the additional pumping they propose will not impact the areas in the northern most part of the Upper Vermillion Missouri aquifer that are experiencing decreasing water levels.

iv. A decision to grant the Petersons' water permit application would not impact the decision to defer the remaining applications.

Applications for permits to appropriate water for irrigation are considered based on the date the application is received. T6, pg. 65. The Petersons are first in line and none of the other applicants have appealed the Board's decision to defer. Thus, if this Court were to reverse the Board's decision to defer or modify the decision and approve the Petersons' application, none of the other applicants would be impacted and they would all be required to wait until further study before their applications would be reconsidered. Furthermore, the Petersons' proposed well location is significantly farther south than any of the other applicant's proposed well locations. Below is a map that shows where all of the proposed wells are located.



It should be noted that the nearest other application, 7609-3, has been withdrawn and that applicant has re-applied for a permit to irrigate out of the Parker Centerville aquifer and that application has since been approved. T6, pg. 16-17. Thus, the Petersons are the only applicants who have an application pending in Clay County and their proposed well is significantly farther south than any of the other applicant's proposed well locations. A decision by this Court to reverse the Board's decision to defer or to modify that decision and grant the Petersons' application will have no impact on the Board's decision to defer the other applications and it will

save a life long local farming family from the potentially devastating financial impact of the current decision to defer.

CONCLUSION

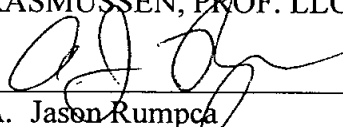
The Board's decision to defer Application No. 7441-3 is "clearly erroneous in light of the entire evidence in the record; or [alternatively] arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion." SDCL § 1-26-36(5)(6). Based on the foregoing arguments and authorities, Appellants respectfully request this Court enter an Order reversing the Board's decision to defer or, alternatively, modify the decision and approve Appellants' Application No. 7441-3. Appellants further respectfully request this Court award costs in the amount and manner specified in chapter 15-17.

REQUEST FOR ORAL ARGUMENT

Appellants request oral argument on the issues raised herein.

Dated this 15th day of July, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
103 N 3rd St.
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

CERTIFICATE OF SERVICE

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

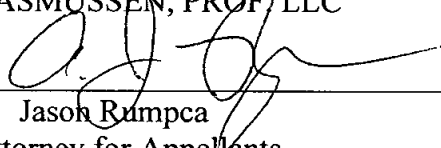
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 15th day of July, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF LLC



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Attorney for Appellants
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Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

July 25, 2013

Jessica Bosse
Clay County Clerk of Courts
PO Box 377
Vermillion SD 57069-0377

Re: Revised Transmittal of Record in the Matter of Water Permit Application No. 7441-3,
Gary or Julie Peterson (CIV 13-73)

Dear Clerk:

Consistent with SDCL 1-26-33, I am transmitting the following revised record for the above entitled matters to the First Judicial Circuit Court in Clay County. The record previously filed has been revised to include two additional items which are a petition to intervene and signed stipulation. The following are enclosed:

1. revised transmittal of record
2. supplemental pages 42A – 42B (petition to intervene)
3. supplemental pages 105A – 105C (stipulation and order)
4. revised chronological index
5. revised alphabetical index

Sincerely,


Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	: SS	
COUNTY OF CLAY	)	FIRST JUDICIAL CIRCUIT
	)	(CIV 13- 73)
IN THE MATTER OF WATER	)	
PERMIT APPLICATION NO. 7441-3,	)	
GARY OR JULIE PETERSON	)	REVISED TRANSMITTAL OF RECORD

I, Eric S. Gronlund, Natural Resource Engineer, Water Rights Program, Department of Environment and Natural Resources, certify as follows:

1. As a Natural Resource Engineer employed by the Water Rights Program, Department of Environment and Natural Resources, I am responsible for maintaining the formal agency file on water right permit applications and administrative proceedings which are subject to the jurisdiction of the South Dakota Water Management Board.
2. Consistent with my responsibilities in the Water Rights Program, I have kept the agency record in the Matter of the Water Permit Application No. 7441-3, Gary or Julie Peterson. The record has been transmitted to the above-captioned reviewing court pursuant to SDCL 1-26-33.
3. This agency record includes a petition to intervene and signed stipulation and order previously omitted from prior transmittal of record. I hereby certify under penalty of perjury that the enclosed documents are true and correct copies of the originals as they appear on record in the offices of the Water Rights Program.
4. The original exhibits from the March 6 – 7, 2013, hearing in the above entitled matter were previously filed.
5. In addition, I have prepared a revised chronological and revised alphabetical index of the agency record are herewith transmitted to the above-captions reviewing court pursuant to SDCL 1-26-33. A copy of the indexes is also being sent to the parties of record on this date.

Dated this 25th day of July, 2013.

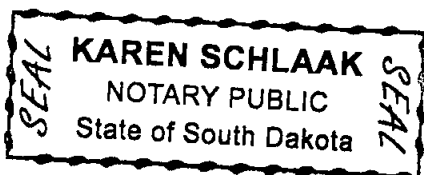


Eric S. Gronlund, Natural Resource Engineer
Water Rights Program
Dept. of Environment & Natural Resources

Subscribed and sworn to before me this
25th day of July, 2013


Notary Public

My commission expires: 4/1/2019



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WATER RIGHTS
PROGRAM

February 25, 2013

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

PETITION IN OPPOSITION TO APPLICATIONS TO APPROPRIATE WATER

Re: WATER PERMIT APPLICATIONS NOS.
7441-3 & 7442-3, Gary or Julie Peterson
7452-3, Jerome Hult
7466-3, Bethel Hagen Trust
7467-3 & 7468-3, Cleland Hagen Trust
7535-3, Donald D. Bensen

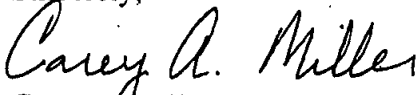
Greetings:

We each own real property located at Swan Lake. Swan Lake is located squarely within the Upper Vermillion Missouri aquifer. As residents of Swan Lake, we have observed downward trending water levels at the lake that mirror the downward trending water levels from the observation wells discussed in the Report to the Chief Engineer.

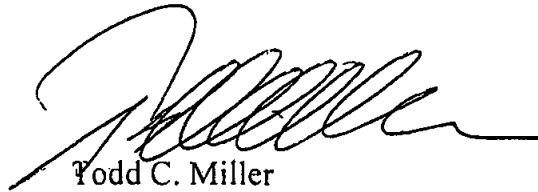
We support of the Chief Engineer's Recommendation that each of the above listed applications be deferred pending further research. Based on existing information, there does not appear to be unappropriated water available to fill these applications. The Chief Engineer's Recommendation wisely indicates a need for further study of the effects of the rural water system withdrawals on the aquifer. We believe additional research must be completed to ensure that the requirements of SDCL §§ 46-2A-9 and 46-6-3.1 are met and to protect all of the South Dakotans served by the Upper Vermillion Missouri aquifer.

Our addresses and contact information follow our signatures below. The Applicants and/or their counsel of record will be served by copy of this Petition. Thank you.

Sincerely,



Carey A. Miller
Woods Fuller Shultz & Smith P.C.
300 S. Phillips Ave., Suite 300
Sioux Falls, SD 57104



Todd C. Miller
Attorney at Law
141 N. Main Ave., Suite 504
Sioux Falls, SD 57104

**SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
WATER MANAGEMENT BOARD**

In re: Application Nos. 7441-3 and 7442-3 (Gary or Julie Peterson)
Application No. 7452-3 (Jerome Hult)
Application No. 7466-3 (Bethel Hagen Trust)
Application No. 7535-3 (Donald D. Benson)
Application Nos. 7467-3, 7468-3 and 7558-3 (Cleland Hagen Trust)

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FEB 27 2013
WATER RIGHTS
PROGRAM

I hereby certify that on the 25th day of February, 2013, I sent by United States first-class mail, postage prepaid, a true and correct copy of a Petition in Opposition to Applications to Appropriate Water to the following:

Mr. Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen
103 North 3rd Street
Beresford, SD 57004
Attorneys for Gary and Julie Peterson

Jerome Hult
45958 Hwy 18
Davis, SD 57021

Bethel Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Cleland Hagen Trust
c/o Bruce Hagen
1300 West Murphy Drive
Sioux Falls, SD 57108

Donald D. Benson
45067 284th Street
Hurley, SD 57036

Mr. Garland Erbele, Chief Engineer
Water Rights Program
Foss Building
523 East Capitol
Pierre, SD 57501

Dated this 25th day of February, 2013.

WOODS, FULLER, SHULTZ & SMITH P.C.

By Carey A. Miller
Carey A. Miller
300 South Phillips Avenue, Suite 300
Post Office Box 5027
Sioux Falls, South Dakota 57117-5027
(605) 336-3890

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APR 25 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NO.)
7442-3, GARY OR JULIE PETERSON) STIPULATION
) AND ORDER

STIPULATION

Applicants Gary and Julie Peterson ("Petersons") and the Department of Environment and Natural Resources, Water Rights Program and its Chief Engineer (jointly referred to as "DENR") hereby agree as follows:

1. The above entitled application proposes to irrigate 40 additional acres that would complement, but not change, Water Right No. 5982-3. Water Right No. 5982-3 appropriates 1.64 cfs from one well completed into the Upper Vermillion Missouri Aquifer (165 feet deep) located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The above entitled application proposes to irrigate an additional 40 acres in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well.

2. The application was heard by the South Dakota Water Management Board on March 7, 2013, and the Board deferred consideration of the application pending a study to be conducted concerning the Upper Vermillion Missouri Aquifer.

3. The parties agree that until the study is completed, the Petersons should be granted the right to use water to irrigate land within the 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W, so long as the total

acreage from Water Right No. 5982-3 and Water Permit No. 7442-3 does not exceed 115 acres.

4. Consistent with this agreement, the Chief Engineer has revised the recommendation which is attached herewith and incorporated herein.

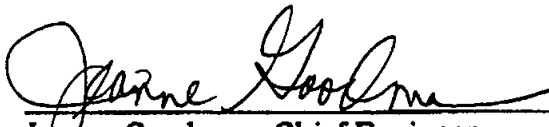
5. The Water Management Board has final authority to approve Application No. 7442-3 as set forth herein and this Stipulation is not binding on the Board. Further, this Stipulation is not binding on the parties until Approved by the Board. DENR will schedule this matter for hearing on May 2, 2013.

6. As part of this Stipulation, Petersons agree that they will not appeal the deferral of Water Permit No. 7442-3.

7. This Stipulation is without prejudice to any position either party may make regarding the appropriation of a total of more than 115 acres for the above referenced permits when the Board reconsiders the matter following the study.

8. This Stipulation is without prejudice to any legal arguments that may be made by either party before the Board or the courts regarding any other permits or proposed permits.

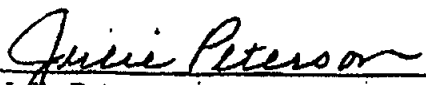
Dated this 17th day of April, 2013


Jeanne Goodman, Chief Engineer
DENR Water Rights Program

Dated this 17th day of April, 2013


Gary Peterson

Dated this 11th day of April, 2013


Julie Peterson

ORDER

The foregoing stipulation is hereby approved and the permit may be issued as set forth in the Chief Engineer's revised recommendation attached to the Stipulation.

BY THE BOARD:

Dated this 2 day of May, 2013


Rodney Freeman, Chairman

STATE OF SOUTH DAKOTA

COUNTY OF CLAY

)
: SS
)

IN CIRCUIT COURT
FIRST JUDICIAL COURT

(CIV NO. 13- 73)

IN THE MATTER OF WATER PERMIT
APPLICATION NO. 7441-3
(GARY OR JULIE PETERSON),

)
)
)

REVISED
ALPHABETICAL
INDEX

APPELLANTS.

)

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STATE OF SOUTH DAKOTA

)

IN CIRCUIT COURT

: SS

COUNTY OF CLAY

)

FIRST JUDICIAL COURT

(CIV NO. 13- 73)

IN THE MATTER OF WATER PERMIT

)

REVISED

APPLICATION NO. 7441-3

)

CHRONOLOGICAL

(GARY OR JULIE PETERSON),

)

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**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

July 25, 2013

NOTICE

TO: A Jason Rumpca
Peterson, Stuart, Rumpca & Rasmussen, Prof, LLC
103 North Third Street
Beresford, SD 57004

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

SUBJECT: In the Matter of the Water Permit Application No. 7441-3, Gary or Julie Peterson

Consistent with SDCL 1-26-33, the agency record for the above entitled matter was transmitted to the First Judicial Circuit Court in Clay County on June 26, 2013. Enclosed is a revised chronological and revised alphabetical index of the agency record. A copy of the transmittal of record and each index is enclosed.

enclosures

c: Diane Best, Assistant Attorney General
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108

STATE OF SOUTH DAKOTA

)

IN CIRCUIT COURT

: SS

COUNTY OF CLAY

)

FIRST JUDICIAL CIRCUIT

)

(CIV 13- 73)

IN THE MATTER OF WATER

)

PERMIT APPLICATION NO. 7441-3,

)

GARY OR JULIE PETERSON

)

REVISED TRANSMITTAL OF RECORD

I, Eric S. Gronlund, Natural Resource Engineer, Water Rights Program, Department of Environment and Natural Resources, certify as follows:

1. As a Natural Resource Engineer employed by the Water Rights Program, Department of Environment and Natural Resources, I am responsible for maintaining the formal agency file on water right permit applications and administrative proceedings which are subject to the jurisdiction of the South Dakota Water Management Board.

2. Consistent with my responsibilities in the Water Rights Program, I have kept the agency record in the Matter of the Water Permit Application No. 7441-3, Gary or Julie Peterson. The record has been transmitted to the above-captioned reviewing court pursuant to SDCL 1-26-33.

3. This agency record includes a petition to intervene and signed stipulation and order previously omitted from prior transmittal of record. I hereby certify under penalty of perjury that the enclosed documents are true and correct copies of the originals as they appear on record in the offices of the Water Rights Program.

4. The original exhibits from the March 6 – 7, 2013, hearing in the above entitled matter were previously filed.

5. In addition, I have prepared a revised chronological and revised alphabetical index of the agency record are herewith transmitted to the above-captions reviewing court pursuant to SDCL 1-26-33. A copy of the indexes is also being sent to the parties of record on this date.

Dated this 25th day of July, 2013.

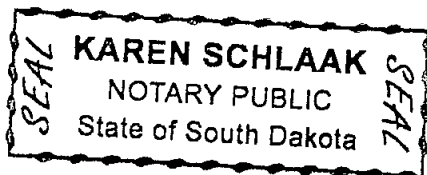


Eric S. Gronlund, Natural Resource Engineer
Water Rights Program
Dept. of Environment & Natural Resources

Subscribed and sworn to before me this
25th day of July, 2013


Notary Public

My commission expires: 4/1/2019



STATE OF SOUTH DAKOTA

COUNTY OF CLAY

)
: SS
)

IN CIRCUIT COURT
FIRST JUDICIAL COURT

(CIV NO. 13- 73)

IN THE MATTER OF WATER PERMIT
APPLICATION NO. 7441-3
(GARY OR JULIE PETERSON),

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STATE OF SOUTH DAKOTA

COUNTY OF CLAY

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: SS
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IN CIRCUIT COURT
FIRST JUDICIAL COURT

(CIV NO. 13- 73)

IN THE MATTER OF WATER PERMIT
APPLICATION NO. 7441-3
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CERTIFICATION

I hereby certify that on July 25, 2013, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated July 25, 2013, regarding transmittal of revised chronological and revised alphabetical for Application No. 7441-3, addressed as stated below :

A Jason Rumpca, Peterson, Stuart, Rumpca & Rasmussen, Prof, LLC, 103 North
Third Street, Beresford, SD 57004

Diane Best, Assistant Attorney General. 317 N Main Street, Sioux Falls SD 57104-6004

Donald McCarty, PO Box 78, Brookings SD 57006

Jerome Hult, 45958 Hwy 18, Davis SD 57021

Donald Benson, 45067 284th Street, Hurley SD 57036

Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014

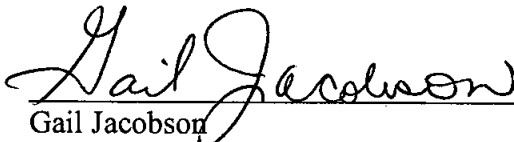
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070

Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014

Michael D Stevens, 28916 458th Avenue, Viborg SD 57070

Paul Peterson, 45610 282nd Street, Hurley SD 57036

Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108



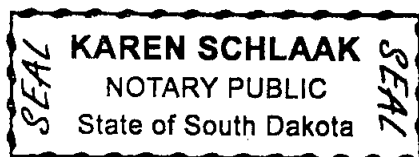
Gail Jacobson
Water Right Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 25th day of July 2013.



Karen Schlaak
Notary Public
My Commission expires April 1, 2019





OFFICE OF ATTORNEY GENERAL

317 N. Main Avenue
Sioux Falls, South Dakota 57104
Phone (605) 367-5880
FAX (605) 367-5886
www.state.sd.us/atg

MARTY J. JACKLEY
ATTORNEY GENERAL

CHARLES D. McGUIGAN
CHIEF DEPUTY

RECEIVED

JUL 29 2013

**WATER RIGHTS
PROGRAM**

July 25, 2013

A. Jason Rumpca
103 N 3rd ST
Beresford SD 57004

Brad Farrar
28795 452nd Ave
Viborg SD 57070

Donald McCarty
PO Box 78
Brookings SD 57006

Darrell Osborn
28838 463rd Ave
Centerville SD 57014

Donald Benson
45067 284th ST
Hurley SD 57036

Paul Peterson
45610 282nd ST
Hurley SD 57036

Jerome Hult
45958 HWY 18
Davis SD 57021

Dr. Bruce Hagen
1300 W Murphy Dr.
Sioux Falls, SD 57108

Jeremiah Welsh
29217 460th Ave
Centerville, SD 57014

Michael D. Stevens
28916 458th Ave
Viborg, SD 57070

Dr. Bruce Hagen
38736 Nasturtium Way
Palm Desert CA 92211

Re: *Matter of Water Permit Application No. 7441-3, Gary or Julie Peterson (Civ. 13-73)*

Gentlemen:

Enclosed is a copy of the DENR Motion to Dismiss the above-referenced appeal. I filed this with the court today and will schedule hearing later.

Sincerely,

A handwritten signature in cursive script that reads "Diane Best".

Diane Best
Assistant Attorney General
Counsel for DENR

STATE OF SOUTH DAKOTA



OFFICE OF ATTORNEY GENERAL

317 N. Main Avenue
Sioux Falls, South Dakota 57104
Phone (605) 367-5880
FAX (605) 367-5886
www.state.sd.us/atg

MARTY J. JACKLEY
ATTORNEY GENERAL

CHARLES D. McGUIGAN
CHIEF DEPUTY

July 25, 2013

Jessica Bosse
Clay County Clerk of Courts
PO Box 377
Vermillion SD 57069-0377

Re: *Matter of Water Permit Application No. 7441-3, Gary or Julie Peterson (Civ. 13-73)*

Dear Clerk Bosse:

Enclosed for filing find the DENR Motion to Dismiss in the above entitled matter. I will schedule hearing later.

Sincerely,

A handwritten signature in cursive script that reads "Diane Best".

Diane Best
Assistant Attorney General

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	) SS	
COUNTY OF CLAY	)	FIRST JUDICIAL CIRCUIT
	)	
IN THE MATTER OF WATER	)	CIV. No. 13-73
PERMIT APPLICATION No. 7441-3,	)	
GARY OR JULIE PETERSON	)	DENR MOTION TO DISMISS APPEAL

Comes now the South Dakota Department of Environment and Natural Resources, Water Rights Program and asks the Court to Dismiss the above entitled appeal for lack of Jurisdiction. Various documents from the agency record are referenced in support of this motion. They are cited as "AR" followed by the page number.

This Motion is made for the following reasons:

1. The Notice of Appeal was not served on all adverse parties. SDCL 1-26-31 provides that "an appeal shall be taken by serving a copy of a notice of appeal *upon the adverse party*, upon the agency, and upon the hearing examiner, if any, who rendered the decision." (emphasis added). SDCL 1-26-31 "clearly delineates who must be service with a notice of appeal and when and where it must be filed in order to transfer jurisdiction from the executive to the judicial branch." *Slama v. Landmann Jungman Hosp.*, 654 N.W.2d 826, 2002 S.D. 151, ¶¶ 4-5; *Schreifels v. Kottke Trucking*, 2001 S.D. 90, ¶ 12, 631 N.W2d 186, 189. A circuit court does not gain jurisdiction unless each of the entities listed in SDCL 1-26-31 is served with the Notice of Appeal. There is no discretion because "failure to follow the plain language of the statute deprives the circuit court of subject matter jurisdiction over the appeal and requires its

dismissal.” *Id.* Thus, the Notice of Appeal must be served not only on the state agency involved and any hearing examiner, but also upon any adverse party.

Here, the Certificate of Service attached to the Appellant’s Notice of Appeal, shows that an adverse party at the contested case level was not served with the Notice of Appeal. AR 132-133. Doug and Carey Miller intervened by filing their Petition in Opposition to Application to Appropriate Water. AR 42A-42B. They hired counsel. AR 043-044. Counsel appeared at hearing. Millers’ counsel filed a written closing statement asking the Board not to issue the permits until the hydrology is studied further (consistent with the Chief Engineer’s recommendation and adverse to the Peterson’s position that the permits should be granted immediately). AR 045-046. The Appellants should have sent the Notice of Appeal to the Millers. The court does not gain jurisdiction unless each of the entities listed in SDCL 1-26-31 is served with the Notice of Appeal. *Slama; Schreifels; Stark v. Munce Bros. Transfer & Storage*, 461 N.W.2d 587, 589 (S.D. 1990).

Further, the contested case hearing before the Board involved several applications that were consolidated. The other parties seeking permits are Jerome Hult, the Bethel Hagen Trust, the Cleland Hagen Trust, the Bender Hagen Trust, Donald D. Benson, Paul Peterson, Michael D. Stevens, Darrell Osborn, Brad Farrar, and Jeremiah Welsh. All applications were jointly addressed in the Board’s Findings of Fact and Conclusions of Law (AR 110-130). Yet none of the other parties were served with the Notice of Appeal. While the other parties were arguably aligned with the Petersons at hearing insofar as

they are all applicants, the Petersons now seek to distinguish themselves on appeal. Appellants state that "Petersons are first in line and none of the other parties have appealed... thus if the Court were to modify the decision and approve the Peterson's application, none of the other applicants would be impacted and they would all be required to wait until further study before their applications would be reconsidered". Appellant's Brief at 11. The other parties should have been served with the Notice of Appeal.

2. The underlying decision is not a final appealable decision. The Board's Order delays consideration of water permit applications until 2014 for more study. The Order states as follows:

Each of the above entitled applications is deferred until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. This matter is not final: DENR is directed to notice this matter for hearing once the study is completed. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL 46-2A-15.

The Board's ruling is not a "final decision."¹ This is not a grant, denial, or revocation of a permit. It is essentially a continuance since the Board held that there are insufficient facts to show whether the Peterson permit should be granted or denied and there is a study underway.

¹The DENR's Notice of the Board's Adoption of Findings of Fact, Conclusions of Law and Order erroneously used the term "Final Decision." AR 106. The language of the Board's ruling itself obviously governs. Likewise, the DENR Notice contains boilerplate language stating that "decisions of the Board may be appealed" but does not express an opinion on whether the particular ruling at hand may be appealed. The Notice does explain that any appeals of the particular matter at hand must be made under SDCL 1-26-31 if any are to be lodged, but it does not waive any position the DENR might take as to the jurisdiction for such appeals. Indeed, this issue involves subject matter jurisdiction. Subject matter jurisdiction "cannot be conferred by consent, agreement, or waiver." *State v. Haase*, 446 N.W.2d 62 (S.D. 1989)

The administrative process is still pending. As such, an appeal is improper because “no one is entitled to judicial relief for a supposed or threatened injury until the prescribed administrative remedy has been exhausted.” *Robinson v. Human Relations Commission*, 416 N.W.2d 864, 866 (S.D. 1987). It is clear that “failure to exhaust administrative remedies where required is a jurisdictional defect” *S.D. Bd. of Regents v. Heege*, 428 N.W.2d 535, 539 (S.D. 1988). Exhaustion of administrative remedies is a fundamental principle of administrative law and jurisprudence that precludes a state court from exerting jurisdiction over a claim that has not yet reached the final stages of the administrative process. *Zuke v. Presentation Sisters, Inc.*, 1999 S.D. 31, 589 N.W.2d 925. The State Supreme Court has stated that the “the purpose behind the exhaustion of remedies doctrine is to “permit... the administrative agency to exercise its discretion, apply its expertise, and make a factual record upon which to base subsequent judicial review.” *Weatherwax v. Hiland Potato Chip Co. of Sioux Falls*, 372 N.W.2d 118, 120 (S.D. 1985), overruled on other grounds by *Johnson v. Kolman*, 412 N.W.2d 109, 113 (S.D. 1987). Moreover, “allowing the case to proceed through administrative avenues conserves judicial resources and is in accord with our duty to harmonize relations with executive branch agencies operating under legislative authority.” *McElhaney v. Anderson*, 1999 S.D. 78, 598 N.W.2d 203. The Order deferring this matter is not reviewable as a final decision and is only an intermediate ruling.

3. Intermediate review is not warranted. Intermediate rulings are not reviewable unless a later “final agency action would not provide an adequate

remedy." SDCL 1-26-30. The fact that the ultimate decision will occur next year does not deprive the Plaintiffs of an adequate remedy. Delay alone is not a deprivation of an adequate remedy. There will be the opportunity to appeal on the merits of the full record if the Applicant is unsuccessful after the hearing is held later on. Of course if the Appellants are successful in next year's hearing, there may be no need for appeal in the future.

Moreover, in past situations where courts have exercised jurisdiction on an interim basis, the courts have not ruled on the merits of the case or directly approved applications without remand (unlike the Appellants here—see Appellants' Brief at 11). When the legislature provides a remedy before an administrative agency, the agency has exclusive primary jurisdiction precluding the parties from directly seeking adjudication in court. *Gottschalk v. Hegg*, 89 S.D. 89, 228 N.W.2d 640 (1975); *In re Notice and Demand to Quash, Etc.*, 339 N.W.2d 785, 786 (S.D. 1983)

Interim court decisions are more appropriate for situations like clarifying the agency's jurisdiction or sorting out due process problems like bias or prejudgment. Even in those types of situations Courts carefully examine whether there is an ability to exhaust administrative remedies and solve the due process problem later on appeal.

For example, claims of bias and prejudgment are sometimes made in a declaratory action and/or a Petition for Writ of Mandamus or Writ of Prohibition against a board or board member rather than an appeal from a board after final action. In the context of a mandamus a court would use a

three part test to examine whether agency action itself affords a “plain, speedy, and adequate remedy” rather than having a court involved.² The “adequate legal remedy standard” in that context involves a three part test: (1) the extent of injury from pursuit of administrative remedy, (2) degree of apparent clarity or doubt about administrative jurisdiction, and (3) involvement of specialized administrative understanding in the question. *Mordhorst v. Egert*, 223 N.W.2d 501, 503 (S.D. 1975).

Using the three part standard articulated above as a guideline, there is no reason for a court to be involved at this stage.

First, Appellants have not shown they would be injured by waiting until the administrative hearing is complete. There are no allegations of bias or prejudgment that need to be resolved³ in order to obtain a fair hearing when the case is later heard in 2014. There is also no injury from the delay itself. Briefing on the current appeal will not be completed until the current irrigation season is completed or nearly completed. Their application seeks water for irrigation from May 1 to September 30 each year. AR 001. The full evidentiary hearing is to be held in 2014 before the next irrigation season begins.

Moreover, the hearing to be held next year could result in granting a permit to the Appellants and there would be no need for an appeal now or in the future.

²The other factor on a writ of mandamus is whether a nondiscretionary act is involved. The Appellants here do not seek a writ of mandamus and this matter involves a discretionary duty in any event.

³There are no claims that the Board is biased or other due process claims. Indeed, the Board has already acted in favor of the Petersons in a different case by approving a stipulation between Petersons and the DENR whereby Petersons could move their irrigation equipment to irrigate other land. AR 105A-105B. There is an ability to get a fair hearing.

On the other hand, if the permit is denied next year, an administrative appeal is available then. The administrative appeal from that decision would be an adequate remedy next year.

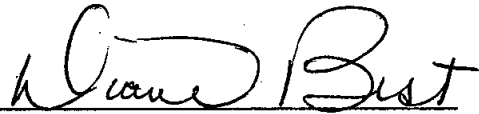
Second, there should be no doubt or need for clarity about the Board's administrative jurisdiction over water permits. The Board is "authorized to regulate and control the development, conservation, and allocation of the right to South Dakota's waters." *Romey v. Landers*, 392 N.W.2d 415 (S.D. 1986) (relying on SDCL ch. 46-1; SDCL 46-2-9 and SDCL 46-2-11). Moreover, SDCL 46-2A-7 expressly authorizes the Board to grant or deny any water permit application or to defer it for further study. The authority to grant, deny, or defer water permits is clear. This is not even close to situations where jurisdiction has been disputed in other types of water matters. *Romey* (authority to direct the removal of dams); *Jundt v. The Hon. A.P. Fuller*, 2007 S.D. 62, 736 N.W.2d 508 (authority to determine whether a water permit holder could condemn or acquire access to a water ditch held by others).

Third, there is the question of whether "specialized administrative understanding" warrants deference to the Board for its expertise. The Board at issue includes a licensed well driller, a person experienced in irrigation methods and techniques, a person with knowledge of domestic water needs, a person experienced in municipal government and operations (a city engineer), a person experienced in industrial uses of water, and a representative of fish and wildlife interests. SDCL 1-40-16.

The Board holds the responsibility to hear the testimony of expert groundwater witnesses and ask the questions of the witnesses concerning the nature and extent of the aquifer involved (i.e. the boundaries with other aquifers, transmissivity, direction of flow, recharge rate, and withdrawals), and other hydrology evidence including measurements of the static water levels of DENR observation wells as discerned from such witnesses, and analyze whether there is water available to grant a water permit under SDCL 46-2A-9 and SDCL 46-6-3.1. The three part test is met.

The Board should be allowed to complete this case before court review is warranted. The appeal should be dismissed.

Dated this 25th day of July, 2013.



Diane Best
Assistant Attorney General
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Sioux Falls, SD 57104
Telephone: (605) 367-5880 Ext. 105

CERTIFICATE OF SERVICE

The undersigned hereby certifies that true and correct copies of DENR Motion to Dismiss Appeal in the above entitled matter were served upon each of the following by enclosing the same in envelopes with first class postage

prepaid and affixed thereto, and depositing said envelopes in the United States
mail at Sioux Falls, South Dakota on this 25th day of July, 2013:

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Donald McCarty
PO Box 78
Brookings SD 57006

Darrell Osborn
28838 463rd Ave
Centerville SD 57014

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Hurley SD 57036

Jerome Hult
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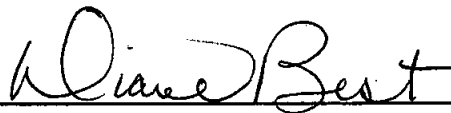
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MARTY J. JACKLEY
ATTORNEY GENERAL

RECEIVED
AUG 12 2013
WATER RIGHTS
PROGRAM

CHARLES D. McGUIGAN
CHIEF DEPUTY

August 7, 2013

Jessica Bosse
Clay County Clerk of Courts
P.O. Box 377
Vermillion, SD 57069-0377

Re: *Matter of Water Permit Application No. 7441-3,*
Gary or Julie Peterson (Civ. 13-73)

Dear Clerk Bosse:

Enclosed for filing please find the DENR Brief in the above
entitled matter. I am providing a copy to all parties.

Sincerely,

A handwritten signature in cursive script that reads "Diane Best".

Diane Best
Assistant Attorney General

DPB:tc

Encl.

Cc: All Parties

RECEIVED

AUG 12 2013

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF WATER)
PERMIT APPLICATION No. 7441-3,)
GARY OR JULIE PETERSON)
)

CIV. No. 13-73

DENR
APPELLEE'S BRIEF

PRELIMINARY STATEMENT

This administrative appeal is from a South Dakota Water Management Board ("Board") ruling. The Department of Environment and Natural Resources, Water Rights Program ("DENR") is an Appellee. The DENR has already filed a Motion to Dismiss for lack of jurisdiction. Since the Motion to Dismiss does not toll the time for briefing, the DENR is submitting this Brief without intending to waive the grounds for dismissing the matter.

The agency record is cited as "AR" followed by the page number. The hearing was conducted over two days beginning on March 6 and resulted in two transcripts with consecutive pagination. The references will be made as "HT" followed by the page number. The Board's Findings of Fact and Conclusions of Law are referred to as "FOF" and "COL."

JURISDICTIONAL STATEMENT

The DENR submits that the Court lacks jurisdiction for the reasons stated in its previously filed Motion to Dismiss.

ISSUE PRESENTED

WHETHER THE PROPOSED PERMIT, IF GRANTED, WOULD CAUSE ANNUAL WITHDRAWALS TO EXCEED ANNUAL RECHARGE.

The Board considered the best evidence reasonably available and was unable to conclude whether the proposed permit would cause total annual withdrawals to exceed the aquifer's annual recharge.

STATEMENT OF THE CASE

Appellants filed Application No. 7441-3 for a water permit from the Upper Vermillion Missouri Aquifer ("UVM Aquifer") on September 26, 2012.¹ AR 001-004. On October 1, October 18, and November 30, five additional applications were filed by four other parties seeking water to irrigate from the same aquifer. The four parties are Jerome Hult, the Bethel Hagen Trust, the Cleland Hagen Trust, and Donald Benson.

A DENR expert in groundwater, Ken Buhler, reviewed all the pending applications. AR 007. He reported his analysis to the Chief Engineer on December 11, 2012. *Id.* The Chief Engineer is the trained licensed professional engineer with authority to make nonbinding recommendations to the Board. SDCL 46-2-3; SDCL 46-2A-2; HT 162-63. On December 18, 2012,

¹ Appellants also filed a second application on the same date (Application No. 7442-3). It sought approval of additional acreage for an existing irrigation system and was also deferred. AR 122-124 (FOF 45-51) and AR 129-130 (COL 19-22). After the Board deferred it, however, the Board approved an interim Stipulation that allowed for moving the existing irrigation system without increasing acreage. AR 074-078. The Stipulation was approved by the Board and Application No. 7442-3 is not part of the present appeal. AR 105A-105C.

the Chief Engineer recommended deferral of all applications for water from the UVM Aquifer pending further study.² AR 021.

Notice of Appellants' application was published in January 2013 in the Vermillion Plain Talk and the Yankton Daily Press & Dakotan. AR 029-032. The published notice established February 25 as a deadline for intervention and set March 7 as the hearing date.³ On February 25 Todd and Carey Miller filed a petition to intervene. AR 42A-42B.

A consolidated hearing on all UVM Aquifer applications was held on March 6-7, 2013. The hearing included the applications filed by Gary and Julie Peterson, the five other applications filed in 2012 as noted above, and seven more applications filed in early 2013. The additional 2013 applications were those of the Bender Hagen Trust, Paul Petersen, Michael Stevens, Darrel Osborn, Brad Farrar, and Jeremiah Welsh.

No objections were made to proceeding with a consolidated hearing. At the end of the hearing, the Board voted to adopt the Chief Engineer's recommendation to defer all of the applications. HT 190-91.

On March 12, 2013, a Notice was sent to all parties, including the Applicants and all other parties, explaining that each party was entitled to file

² Petersons point out that review of the application took 86 days. The DENR received an extraordinary number of irrigation applications in the fall of 2012. The Board found that regardless of the 86 days, the Peterson's application would not have been considered earlier due to publication deadlines and the fact that the Board only meets five times a year. AR 120-21 (FOF 42-44); AR 128-29 (COL 18).

³ The hearing date was later changed from March 7 to March 6 to allow for more time for hearing. AR 037-039.

proposed Findings of Fact and Conclusions of Law or objections, comments, or alternatives. AR 047. The notice also scheduled final Board consideration for May 2, 2013. *Id.* DENR filed its proposals on April 9, 2013. AR 050-071. They were served on all parties. AR 072-073. Neither the Appellants nor any of the other parties filed any proposed Findings of Fact, Conclusions of Law, or objections.

The Board's own Counsel sent proposed rulings to the Board (and all the parties) on April 23, 2013. AR 079-105. No objections were lodged. The Board Chairman signed the decision on May 2, 2013. AR 130. Notice was sent to the parties on May 6, 2013. AR 106.

STATEMENT OF FACTS

Appellants' Application No. 7441-3 seeks water to irrigate 140 acres at a maximum diversion rate of 800 gallons per minute from a well that would draw water from the UVM Aquifer. AR 001.⁴

The UVM Aquifer underlies parts of Hutchinson, Turner, Lincoln and Clay Counties. AR 008. The UVM Aquifer blends into the Lower Vermillion Missouri Aquifer in northern Clay County. *Id.* The UVM Aquifer is primarily, but not exclusively, under confined (artesian) conditions. *Id.* Groundwater movement in the UVM Aquifer is to the south-southeast at a gradient that was estimated in independent studies to be approximately four feet per mile (ft/mi). *Id.* However, based on observation wells maintained by the DENR, the gradient was 4.3-4.6 ft/mi in May 2012. *Id.*

⁴ For the Court's convenience a water equivalents table is attached to this Brief.

Recharge/withdrawal facts. A significant part of the facts in this case pertain to determining whether the permit, if granted, would cause the average annual withdrawals from UVM Aquifer to exceed the average annual recharge coming into the aquifer.⁵

Recharge to the UVM Aquifer occurs through: 1) direct infiltration of precipitation in areas where the UVM Aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara Aquifer. AR 010. DENR expert witness Buhler testified that in an independent study, the recharge rate to the UVM Aquifer was previously estimated to be 0.25 inches per acre per year. AR 010; HT 22. This would produce an average annual recharge to the overall UVM Aquifer of 4,267 acre feet annually (ac-ft/yr)⁶. *Id.*

Buhler also conducted his own evaluation of recharge by undertaking a regional flow net analysis based specifically on May 2012 water level data from a network of observation wells maintained by DENR. AR 010-011. A flow net analysis is a calculation of the amount of water flowing through the aquifer. AR 010. To do this, Buhler relied on (a) the average transmissivity of the UVM Aquifer based on the calculated transmissivity of irrigation wells in the UVM Aquifer where the data to allow these calculations was available, (b) the hydraulic gradient for the UVM Aquifer based on data from the DENR

⁵ As discussed *infra*, SDCL 46-6-3.1 bars the Board from granting permits if they would cause the average annual withdrawals of water to exceed the average annual recharge.

⁶ An "acre foot" is a standard measurement of water volume and is "the amount of water upon an acre covered one foot deep." SDCL 46-1-7.

observation well network, and (c) the distance of the appropriate cross section of the UVM Aquifer. He found that the amount of water moving through the UVM Aquifer is approximately 15.99 ac-ft/day or 5,836 ac-ft/yr. *Id.* In order to sustain this volume of groundwater moving through the aquifer, the recharge rate in inches per acre per year based on the area of the UVM Aquifer would be 0.34 inches. AR 011. This recharge rate cannot be considered “average annual recharge” since it used only 2012 data. *Id.* Although the estimate is somewhat higher, it agrees generally with the average annual recharge estimate from the earlier independent studies that Buhler consulted. *Id.* The recharge rates estimated for the UVM Aquifer are “reflective of existing conditions.” AR 011, 015. Therefore, based on the recharge evidence available, the recharge to this aquifer would be in the range of 4,267 ac-ft/yr to 5,836 ac-ft/yr. AR 011-012.

Independent studies have found that the southern 19.5 miles of the western boundary of the UVM Aquifer in Turner County is hydraulically connected to (and receiving recharge from) the Niobrara Aquifer. AR 011. Increased recharge could be induced from the Niobrara Aquifer with increased pumping from the UVM Aquifer (AR 12), but the extent of such induced recharge is unknown. HT 28, 140 (Buhler); HT 169 (Chief Engineer Erbele).

The available information on annual recharge, was compared with the average annual withdrawals of water from the aquifer. There are currently 100 water rights/permits appropriating water from the UVM Aquifer. AR 012.

The majority of the water pumped from the UVM Aquifer is for irrigation use. AR 013; HT 24. In 1979 there were 56 irrigation permits; the number increased to 79 by 2011. AR 014. Irrigators report pumping annually and pumping has also increased during this period. *Id.* Irrigation use depends on the climate. HT 24. Pumping exceeded 7,000 ac-ft in some recent years, but the average of reported pumping from 1979- 2011 is 4,865.42 ac-ft/yr. *Id.*

There are two commercial water rights from this aquifer. AR 012. One is a concentrated animal feeding operation permitted for 1,800 head of beef cattle with an estimated average annual water use of 36 ac-ft/yr. *Id.* The other is a fertilizer plant with an estimated average annual water use of 1,000,000 gallons per year (i.e. 3.07 ac-ft/yr). *Id.*

Two rural water systems are supplied by the UVM Aquifer, TM Rural Water District and South Lincoln Rural Water System. Rural water system use has steadily climbed since 2003 when usage totaled 371 ac-ft/yr to the last several years when usage has exceeded 2,000 ac-ft/yr for the two systems. AR 012-013; HT 24, 69. This includes water supplied by the TM Rural Water District to the cities of Viborg and Davis. AR 012.

The City of Centerville receives 30% of its 64,000 gallons per day average from the UVM Aquifer and the rest from the Lewis and Clark Rural Water System. AR 012. The average municipal water use from the UVM Aquifer is 21.5 ac-ft/yr. *Id.*

Average annual withdrawals for all uses are estimated to be 7,160 ac-ft/yr. HT 25. This total also does not include future use permits.⁷ TM Rural Water District holds two future use permits and they total 740 ac-ft year. AR 014-015. A future use permit is a reservation of water and does not authorize withdrawals. *Id.* However, in theory future use permits can be completely developed. *Id.* Thus, the total withdrawals from the UVM Aquifer would be 7,900 ac-ft/yr if the future use permits were included. AR 015.

By comparison, the highest of the two estimated average annual recharge numbers provided by witness Buhler is 5,836 ac-ft/yr. *Id.* So the current estimated average annual withdrawal from the UVM Aquifer appears to exceed the estimated average annual recharge to the aquifer. *Id.*

Based on the these calculations alone, Buhler would have concluded that since the 7,900 ac-ft/yr withdrawal number already exceeds the highest estimated average annual recharge of 5,836 ac-ft/yr., unappropriated water is not available. HT 29. He also looked at other information from the observation wells maintained by DENR to see if the analysis would provide sufficient information to grant the permits. HT 29-30.

The DENR monitors 29 observation wells in the UVM Aquifer. AR 015; HT 25. The observation well data shows seasonal fluctuations in water levels corresponding to recharge and discharge. *Id.* The UVM Aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years. *Id.*

⁷ These permits authorize public water systems like rural water systems to obtain a preference date for future water permit applications. SDCL 46-5-38.

The slope of trend lines for 15 of the 29 observation wells is negative (i.e. downward slope). AR 017; HT 27. The 15 observation wells show declining water levels. HT 27. These observation wells are concentrated in two areas: an area in the north-central portion of the UVM Aquifer and an area in the northwest portion of the aquifer. AR 017. The first area is in the vicinity of South Lincoln Rural Water System wells and a large concentration of irrigation wells. *Id.* The second is in the vicinity of TM Rural Water District wells. *Id.* In addition, the last "well run" to measure the wells in the fall of 2012 showed sporadic results; i.e., some observation wells were declining that were not the original 15 of 29 that had been identified earlier and some were the lowest they had ever been. HT 44.

Data is not available to determine whether the declines are solely related to water withdrawals or whether there are other reasons. HT 27. Buhler does not attribute the declines solely to drought. HT 71. A question exists as to whether the declines are on the edge of the aquifer in an area where drawdown is exacerbated. HT 27. There may be truly water short areas. HT 27, 69. There is a question as to whether harder pumping from the UVM Aquifer may induce additional recharge into the UVM Aquifer from the nearby Niobrara Aquifer. HT 28. Consequently, Buhler testified that there was insufficient information to determine whether withdrawals would exceed recharge if any of the permits were granted. *Id.* There would have been no different result if any one of the applications was considered instead of the whole group. HT 73.

Roger Hansen facts. Petersons rely on the fact that the DENR issued a similar permit in 2012 to a nearby irrigator, Roger Hansen. The Hansen application was filed on July 20, 2012, and sought permission to irrigate 80 acres. Petitioner's Exh. 2, p. 1. The Hansen site is at or near the line between the UVM Aquifer and another aquifer. HT 31-32. The Hansen application was reviewed as an application from the UVM Aquifer. HT 34.

Ken Buhler and DENR staff engineer Adam Mathiowetz initially reviewed the Hansen application and found that the calculated withdrawals exceeded recharge in the UVM Aquifer in Clay County alone. HT 34. The estimated average withdrawals for irrigation were about 500 ac-ft/yr, but the average recharge was calculated at only 222 ac-ft/yr. *Id.* This raised a flag. HT 34-35, 88. Yet DENR observation wells nearest to the Hansen site were not declining. HT 34-35. Although there was conflicting data, the DENR staff proposed that the permit be approved because they "erred on the side of [SDCL] 46-1-4 that says put water to maximum beneficial use." HT 34.

The Hansen application was published, there were no intervenors, and on October 9, 2012, the permit was approved directly by the Chief Engineer under SDCL 46-2A-23. Petitioner's Exh. 2, pp. 8, 22-24. Because the Hansen application was not opposed, it was not heard by the Board.

Buhler considered the Hansen analysis when he reviewed the later applications filed by Peterson and others. HT 34-35. He was troubled because the estimated average annual withdrawals in the Hansen analysis were shown to be 500 ac-ft/yr in Clay County, even though the average recharge rate was

calculated at just 222 ac ft/yr. HT 34-35, 139-40. Because “the numbers didn’t work” to just look at Clay County for the Peterson application, Buhler expanded the analysis to include the whole aquifer. HT 35. The DENR staff found that, similar to the situation in Clay County alone, the calculated average withdrawals going across the whole aquifer also exceeded the calculated average recharge rate for the whole aquifer. HT 35, 140-41.

Buhler testified that he was “looking for reasons” to try to justify granting more permits and maximize beneficial use of the aquifer. HT 36.

Further, in considering the applications filed by Petersons and others, Buhler performed a new study and also incorporated new data obtained in the fall of 2012 that would not have been available for the Hansen analysis. HT 27, 44. Buhler performed a regression analysis and found that 15 of 29 wells in this aquifer were showing downward trends over time. HT 27. He also found that during well readings in the fall of 2012, 15 of the 29 wells had declined, but they were not all the same 15 wells as those that were generally trending downward in the regression analysis. HT 44. He described these 2012 well readings as sporadic. *Id.*

Thus, Buhler considered the Hansen analysis but did not adopt it in reviewing the applications filed by Petersons and others.

The Appellants brought the Hansen matter to the Board’s attention when the Board heard the consolidated case. Petitioner’s Exh. 2. Consequently, the Board considered the information concerning the Hansen application and found that a review of the entire UVM Aquifer is necessary instead of

considering only the local effects as had been done for the Roger Hansen application. The Board held:

The data compiled by Ken Buhler shows that 15 of the 29 DENR observation wells are declining in this UVM Aquifer and this Board cannot ascertain, at this time, whether the area of declining water levels is expanding. This Board cannot "unring the bell" and determine that the earlier report by Mathiowetz should be accepted for any of these new applications from this aquifer. The Board accepts and relies on the extensive review conducted by DENR expert Ken Buhler.

AR 119-20 (FOF 39). Based on the foregoing facts, the Board deferred all applications seeking water from the UVM Aquifer.

ARGUMENT

THE BOARD CONSIDERED THE BEST EVIDENCE REASONABLY AVAILABLE AND HELD THAT THERE WAS INSUFFICIENT EVIDENCE TO DETERMINE WHETHER THE PROPOSED PERMIT WOULD CAUSE THE ANNUAL WITHDRAWALS TO EXCEED THE AQUIFER'S ANNUAL RECHARGE.

A. Standard of Review

1. Review of Findings of Fact. Appellants are barred from challenging the form or sufficiency of the Findings of Fact. *Application of Koch Exploration Co.*, 387 N.W.2d 530 (S.D. 1986) (appellants failed to properly preserve their issues for appeal when none of them made a record in the underlying proceedings in any way challenging the form or sufficiency of the Board's findings). Having failed to object to the proposed findings, an attack on appeal on the sufficiency of the evidence fails. *Lowe v. Schwartz*, 2006 S.D. 48, 716 N.W.2d 777. This is consistent with the general law applying to appeal of circuit court findings. *Sutera v. Sully Buttes School Dist.* 58-2, 1997 S.D. 27, ¶ 9, 561 N.W.2d 20, 23 (failure to object to findings of fact and conclusions of

law or to propose findings limits review to question of whether findings support the conclusions of law and judgment).

2. Alternative Standard of Review. Even if objections to the Findings had been made, the standard of review would defer to the agency under SDCL 1-26-36.⁸ Review under SDCL 1-26-36 hinges on whether the issue being considered is a question of law or fact. If the issue involves a question of fact or is “essentially factual,” it is reviewed under the “clearly erroneous” standard. *Rios v. South Dakota Dept. of Social Services*, 420 N.W.2d 757 (S.D. 1988). The matter at issue here (whether there is sufficient water in the UVM Aquifer to support granting the Appellants’ application) is a question of fact.

As such, the court is to give “great weight” to the findings of the agency and reverse only when those findings are clearly erroneous in light of the entire record. *Williams v. South Dakota Dept. of Agriculture*, 2010 S.D. 19, 779 N.W.2d 397; *Sopko v. C & R Transfer Co., Inc.*, 1998 S.D. 8, ¶ 7, 575 N.W.2d 225, 228-29 (findings must be reviewed in light of the totality of the evidence in the record); *In re Otter Tail Power Co. ex rel Big Stone II*, 2008 S.D. 5, ¶ 26, 744 N.W.2d 594, 602 (a court is not to overturn the Board’s findings unless it is “definitely and firmly convinced a mistake has been made”).

B. Recharge/Withdrawal

⁸ Appellants’ recital of the standard is confusing in stating that the Circuit Court’s review should be “unaided by any presumption that the lower court is correct.” Appellants’ Brief at 5. Such language pertains only to the Supreme Court review of a Circuit Court’s ruling on an administrative appeal. At the circuit court stage, however, a state agency is entitled to “great weight” under SDCL 1-26-36. The agency heard all the evidence presented and was able to assess the experience and credibility of all the witnesses.

The matter at hand is clearly an issue of fact. The underlying law is clear and no interpretation is necessary. It is undisputed that under SDCL 46-2A-9, an applicant for a water permit must meet four criteria, including showing that there is a “reasonable probability that there is water available” for the permit. It is also undisputed that, in showing water availability, applicants seeking groundwater permits must address SDCL 46-6-3.1. Under that statute a water permit cannot 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.” (Emphasis added).

Finally, if the Board determines “that the evidence is insufficient to support a determination, it shall disapprove the application or defer it for further study.” SDCL 46-2A-7.

In this case, the Board did consider the best information reasonably available and found there was insufficient evidence to support a determination, so it deferred the matter for further study. The law is straightforward.

The Board relied, in part, on facts ascertained from the 29 DENR observation wells. Use of the observation wells is not only practical, it comports with the Board’s administrative rule requiring observation well data to be used for that purpose:

74:02:05:07. When regulating water withdrawals by large-capacity wells and in determining the availability of unappropriated water for an application for a permit to appropriate water, the board shall rely upon the record of observation well measurements in addition

to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer.

Almost all of the observation wells have been in place since the 1970's and 1980's, and have at least 25 years of continuous data. AR 017.⁹ Appellants wish to rely on measurements only from observation wells nearest their proposed site. While the Board rule requires consideration of whatever observation well data is available, it does not require just measurements of observation wells within a certain distance. The rule requires using information from "the aquifer," not just measurements over time in a localized area within the aquifer.

Moreover, the Board's rule requires consideration of the record from observation wells "in addition to any other data." ARSD 74:02:05:07. The "other data" in this case includes detailed study by Ken Buhler.

Witness Buhler has been an expert witness in many groundwater cases since 1985. DENR Exh. 2. He holds a degree in geological engineering from the South Dakota School of Mines and Technology. DENR Exh. 2. His report provides information about the size and extent of the UVM Aquifer, its lithology, and connections with other aquifers as well as the recharge/withdrawal issue. AR 007-020. He examined not only the recent and long term measurements in the 29 observation wells maintained by DENR, he

⁹ Each observation well is identified by county and year of construction. Thus, an observation well identified as CL-80K would be a Clay County well drilled in 1980.

also considered them in light of changes in climate, the movement of groundwater in the aquifer, and the increasing use in the aquifer.

Buhler relied on independent studies conducted by the South Dakota Geological Survey in the 1980's (AR 019) as well as studies previously conducted by the United States Geological Service. AR 020.

To examine withdrawals, Buhler relied on water use reported by irrigators and others to the DENR, reports showing the nature of wells completed in the UVM Aquifer, and files from other water rights granted by the DENR. *Id.* He consulted with other engineers, including his own staff (HT 34-36, 140-41) and others in the DENR. AR 020.

The Board properly found the overall observation well data and the Buhler expert testimony to be the best information reasonably available. AR 126 (COL 8).

Moreover, the information presented by Buhler clearly shows the reason for further study. Overall withdrawals from the aquifer of 7,109 ac ft/ yr exceed the most generous recharge number available, which is the 2012 calculated by Buhler of 5,836 ac-ft/yr. These calculations are undisputed. Further, recent trends showing declines in the aquifer may or may not be expanding. That is the reason for additional study. Increased pumping in areas of this aquifer may or may not induce recharge from the Niobrara Aquifer. The Chief Engineer reiterated the concern. HT 169.

The Board properly concluded that it was unable to determine whether there is water available for the proposed water use. AR 126 (COL 9). Because

there was insufficient information, the Board could have denied the requested permits under SDCL 46-2A-7, but instead deferred the matter until a pending study was completed.

The study is expected to be completed in the spring of 2014 so that if permits are granted, irrigation can occur in 2014. HT 36, 141. The study is designed to examine every bit of data for the UVM Aquifer including not only observation wells and existing published studies, but each existing test hole that has been drilled. HT 37. Further, new test holes will be drilled to better delineate the boundaries of the aquifer. Further, there may be aquifer tests to determine what the aquifer characteristics are and then put the material in a digital model. HT 37. The modeling will be used to determine whether additional pumping from the UVM Aquifer will induce water from the Niobrara instead of simply diminishing the water in the UVM Aquifer. *Id.*

Applicants did not call any independent experts, but elicited testimony from Adam Mathiowetz, another DENR engineer. Mathiowetz did not review the applications at issue, but had reviewed the earlier Roger Hansen application. Yet, even if the Hansen data has been considered, the Board's Findings would have been supported by the evidence. It is undisputed that for Clay County alone, the withdrawals of 500 ac ft/yr (plus withdrawals under the new Hansen permit) far exceed the 222 ac ft/yr of recharge. This conflicts with data in an observation well that shows the water has not declined. This dichotomy alone would warrant further study. As stated above, SDCL 46-6-3.1 requires consideration of the best available information.

The Appellants also appear to rely on the Hansen permit itself. The Chief Engineer's decision to grant the Hansen permit to irrigate 80 acres is not binding on the Board. The Board did not issue the Hansen permit, and is not bound by the permit or the underlying rationale.

Even if the Board had issued the Hansen permit, it would not be bound to make the same decision. There are additional facts at issue, including another year of observation well data that was gathered in the fall of 2012 and the fact that DENR realized it was prudent to review the entire aquifer. Moreover, the Board is an administrative agency with quasi-judicial authority to consider the factors in SDCL 46-2A-9. As such, the Board holds authority to consider each case on its merit and is not bound to accept prior decisions as binding precedent. *Interstate Telephone Coop., Inc. v. Public Utilities Com'n of State of S.D.*, 518 N.W.2d 749 (S.D. 1994). The Board's decision was not erroneous, arbitrary or capricious. It is a legitimate decision based on the testimony and exhibits presented to the Board over the course of two days and should be affirmed.

Finally, the Appellants seek to obtain a different result than other applicants from the same aquifer. There is no basis to carve out a special area or any sort of management unit in this aquifer for the Appellants application. The above rationale applies to all of the foregoing permit requests and an exception should not be carved out. The trend showing declines in- the aquifer is not clearly delineated and should be studied before further permits are issued.

SUMMARY

Based on the foregoing arguments and authorities, the DENR submits that the Board's determination should be affirmed.

Dated this 8th day of August, 2013.



Diane Best
Assistant Attorney General
317 N. Main Avenue
Sioux Falls, SD 57104
Telephone: (605) 367-5880 Ext. 105

CERTIFICATE OF SERVICE

The undersigned hereby certifies that true and correct copies of DENR Appellee's Brief in the above entitled matter were served upon each of the following by enclosing the same in envelopes with first class postage prepaid and affixed thereto, and depositing said envelopes in the United States mail at Sioux Falls, South Dakota on this 8th day of August, 2013:

Jason Rumpca
103 N. 3rd Street
Beresford, SD 57004

Donald McCarty
P.O. Box 78
Brookings, SD 57006

Darrell Osborn
28838 463rd Ave
Centerville, SD 57014

Paul Peterson
45610 282nd Street
Hurley, SD 57036

Jerome Hult
45958 Highway 18
Davis, SD 57021

Jeremiah Welsh
29217 460th Avenue
Centerville, SD 57014

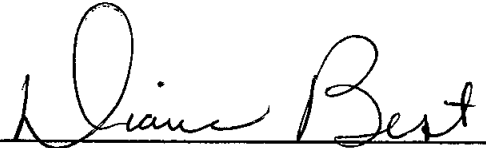
Michael D. Stevens
28916 458th Ave
Viborg, SD 57070

Dr. Bruce Hagen
1300 W Murphy Dr.
Sioux Falls, SD 57108

Brad Farrar
28795 452nd Avenue
Viborg, SD 57070

Dr. Bruce Hagen
38736 Nasturtium Way
Palm Desert, CA 92211

Donald Benson
45067 284th Street
Hurley, SD 57036

A handwritten signature in cursive script, reading "Diane Best", written over a horizontal line.

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

Counsel for DENR

WATER EQUIVALENTS TABLE

1 cubic foot, 7.48 gallons 62.4 lbs. of water

1 acre-foot 43,560 cubic feet 325,828 gallons

An acre-foot covers one acre of land one foot deep.

1 cubic foot per second (cfs) 448.8 gallons per minute

1 cfs 50 South Dakota statutory miner's inches

1 cfs 646,272 gallons per day

For 24 hours 1.983 acre-feet

For 30 days 59.5 acre-feet

For 1 year 724 acre-feet

1 million gallons 3.07 acre-feet

1 million gallons per day (mgd) 1,122 acre-feet per year

1,000 gallons per minute (gpm) 2.23 cfs

1,000 gpm 4.42 acre-feet per day

An acre-foot supplies a family of 5 for 1 year.

PETERSON, STUART,
RUMPCA & RASMUSSEN
— Attorneys at Law —
Prof. LLC

RECEIVED
AUG 22 2013
WATER RIGHTS
PROGRAM

August 19, 2013

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Re: *In the Matter of the Water Permit Application*
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-73

Dear Ms. Goodman:

Please find enclosed a true and correct copy of Appellants' Reply to DENR Appellee's Motion to Dismiss Appeal and Certificate of Service with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,



A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encl.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

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Phone: (605) 763-5024 • Fax: (605) 763-8034

* also licensed in Iowa

RECEIVED

AUG 22 2013

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT WATER RIGHTS
 PROGRAM
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
)
 APPELLANTS.)
)
)

CIV. #13-73

**APPELLANTS' REPLY TO
DENR APPELLEE'S
MOTION TO DISMISS
APPEAL**

Comes now, Gary and Julie Peterson, above-named Appellants by and through their attorney of record, A. Jason Rumpca, and respectfully requests this Court deny the request of the South Dakota Department of Environment and Natural Resources, Water Rights Program to dismiss the appeal.

The State asserts three (3) arguments to dismiss the appeal: 1) the Notice of Appeal was not served on all adverse parties; 2) the underlying decision is not a final appealable decision; and 3) intermediate review is not warranted. The State's Motion to Dismiss should be denied for the following reasons:

1. The Notice of Appeal was served and filed properly.

The State relies on the language of SDCL § 1-26-31 which provides that "an appeal shall be taken by serving a copy of a notice of appeal *upon the adverse party...*" Appellants contend that *the* adverse party and agency from which the appeal is taken is the South Dakota Department of Environment and Natural Resources, Water Rights Program. Based upon the State's reasoning, if the Millers' had not intervened there would be no adverse party to the appeal.

The State further asserts that Notice of Appeal should be served on all the other parties that aligned themselves with the Appellants. The State appears to assert that because all

applications were consolidated and jointly addressed at the hearing, that it follows they should all be jointly addressed on appeal. Appellants have always sought to have their application decided on its own merit. The State, however, has repeatedly sought to lump the Petersons in with everybody else who applied for permits after them.

Finally, SDCL § 1-26-33 “Record transmitted to circuit court” provides that “[t]he agency shall then prepare and attach an alphabetical and chronological index to the record and shall serve a copy of such index on all parties to the review proceedings at the time the record is submitted to the reviewing court.” On July 25, 2013, the DENR mailed a copy of the revised chronological and revised alphabetical index of agency record to counsel for Appellants, the Assistant Attorney General and all other applicants. The Millers, represented by Don McCarty, were not served. That same day the Assistant Attorney General and counsel for the DENR mailed its Motion to Dismiss to all applicants *and* Mr. McCarty. Thus, even the State is not consistent in deciding whether the Millers are a party to the appeal. For the reasons stated above, Appellants contend that the Notice of Appeal was served and filed properly.

2. The underlying decision is a final decision, ruling, or action of an agency.

SDCL § 1-26-30.4 states that “[t]he sections of this chapter on appeals to circuit courts shall govern civil appeals to the circuit courts of South Dakota from final decisions, rulings, or actions of agencies pursuant to chapter 1-26.” The State readily admits that the DENR’s Notice of the Board’s Adoption of Findings of Fact, Conclusions of Law and Order is termed a “Final Decision.” Further, the State cites no authority that suggests the “final decision” cannot be a deferral. It seems misleading and confusing to send out a Notice of the Final Decision to all parties at the hearing that explains “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."

Even if this Court were to decide the "Final Decision" is not in fact a final decision as the law defines it, Appellants contend that the Order should be deemed a "final action." The action taken was to defer Appellants' application until the pending study of the UVM Aquifer is completed, which is expected to occur prior to the spring of 2014. What if the study is not completed by that date? In theory, the Board's decision to defer could be perpetual depending on the status of the study.

Finally, Appellants and the DENR entered into a Stipulation with regard to the Petersons' other application, No. 7442-3, after the hearing that stated in part "[a]s part of this Stipulation, Petersons agree that they will not appeal the deferral of Water Permit No. 7442-3." It is apparent that the State has now changed its position about whether the decision to defer is an appealable decision.

For the above reasons, Appellants respectfully request this Court conclude the underlying decision was a final appealable decision.

3. Intermediate review is warranted.

Should the Court not decide the decision by the Board is a final decision or action, Appellants respectfully request this Court conclude that an intermediate ruling is appropriate. SDCL § 1-26-30 provides that "[a] preliminary, procedural, or intermediate agency action or ruling is immediately reviewable if review of the final agency decision would not provide an adequate remedy." The State suggests that because Appellants can have another opportunity to present their case before the Board next year, they are not deprived of an adequate remedy. This view completely overlooks the impact of the Board's decision on the Petersons. As a result of

the Board's decision, the Petersons have been left in financial limbo. They have a \$100,000 irrigator sitting idle on their land, the value of their land is significantly impacted by whether or not they are permitted to irrigate it, and they face the uncertainty in their retirement planning daily. To the Petersons, waiting until next year to potentially litigate this matter all over again is not an adequate remedy. Should the Court not decide the decision by the Board is a final decision or action, Appellants respectfully request this Court conclude that an intermediate ruling is appropriate.

For all of the reasons stated above, Appellants respectfully request this Court deny the DENR Appellee's Motion to Dismiss.

Dated this 19th day of August, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



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Attorney for Appellants
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Fax: 605-763-8034
Jason.petersonstuart@gmail.com

CERTIFICATE OF SERVICE

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

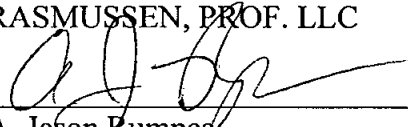
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 20th day of August, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
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**PETERSON, STUART,
RUMPCA & RASMUSSEN**

Attorneys at Law

Prof. LLC

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OCT 17 2013

BY: _____

October 16, 2013

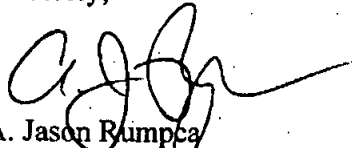
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Re: *In the Matter of the Water Permit Application
No. 7441-3 (Gary or Julie Peterson)
Clay County CIV. #13-73*

Dear Ms. Best:

Please find enclosed a true and correct copy of Notice of Entry of Judgment of Dismissal and Certificate of Service with regard to the above-referenced case. Please deem this service. Thank you.

Sincerely,


A. Jason Rumpca
Jason.petersonstuart@gmail.com

AJR
Encl.

Phillip O. Peterson • David A. Stuart* • A. Jason Rumpca • Rachel R. Rasmussen

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STATE OF SOUTH DAKOTA)
COUNTY OF CLAY) :ss

IN CIRCUIT COURT
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
APPELLANTS.)
)
)

CIV. #13-73

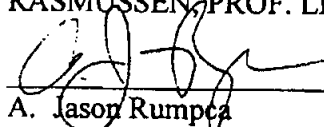
**NOTICE OF ENTRY OF
JUDGMENT OF DISMISSAL**

TO: MARTY J. JACKLEY, South Dakota Attorney General, DIANE BEST, Assistant South Dakota Attorney General, JEANNE GOODMAN, Chief Engineer, South Dakota Department of Environment and Natural Resources Water Rights Program, RODNEY FREEMAN, Chairman, South Dakota Water Management Board.

PLEASE TAKE NOTICE that a Judgment of Dismissal in the above-captioned case was signed by the Honorable Steven R. Jensen on October 11, 2013, and filed on October 11, 2013.
A true and correct copy of the Judgment of Dismissal is attached and herewith served upon you.

Dated this 16th day of October, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
124 N. 3rd St.
Beresford, South Dakota 57004
Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

CERTIFICATE OF SERVICE

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Attorney General
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Pierre, SD 57501

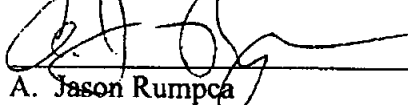
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Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 16th day of October, 2013.

PETERSON, STUART, RUMPCA &
RASMISSSEN, PROF. LLC


A. Jason Rumpca

Attorney for Appellants
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STATE OF SOUTH DAKOTA)
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IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

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(GARY OR JULIE PETERSON),)
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CIV. #13-73

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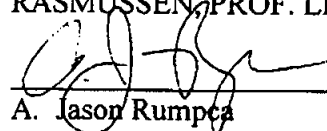
TO: MARTY J. JACKLEY, South Dakota Attorney General, DIANE BEST, Assistant South Dakota Attorney General, JEANNE GOODMAN, Chief Engineer, South Dakota Department of Environment and Natural Resources Water Rights Program, RODNEY FREEMAN, Chairman, South Dakota Water Management Board.

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Dated this 16th day of October, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
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Beresford, South Dakota 57004
Phone: 605-763-5024
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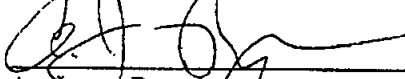
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PETERSON, STUART, RUMPCA &
RASMISSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
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Beresford, South Dakota 57004
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STATE OF SOUTH DAKOTA)
COUNTY OF CLAY) :SS

IN CIRCUIT COURT
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER
PERMIT APPLICATION NO. 7441-3
(GARY OR JULIE PETERSON),

APPELLANTS.

FILED
OCT 11 2013

CIV. #13-73

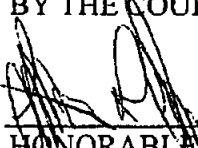
JUDGMENT OF DISMISSAL

Based upon Appellants' Motion for Judgment of Dismissal and good cause appearing, it is hereby

ORDERED, ADJUDGED, AND DECREED that the above-entitled action, including all claims, whether asserted or unasserted, is hereby dismissed upon the merits, with prejudice and without costs to any of the parties.

Dated this 11th day of October, 2013.

BY THE COURT:


HONORABLE STEVEN R. JENSEN
CIRCUIT COURT JUDGE

ATTEST:

Jessica Bosse
CLERK OF COURTS
SEAL B. Zimmerman

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

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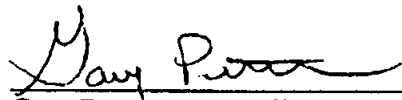
CIV. #13-73

**MOTION FOR JUDGMENT
OF DISMISSAL**

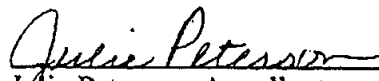
COMES NOW, Gary and Julie Peterson, the Appellants herein, acting through their attorney of record, A. Jason Rumpca, and hereby respectfully move this Court for a Judgment of Dismissal.

WHEREFORE, Appellants prays for the above-requested relief.

Dated this 1st day of October, 2013.



Gary Peterson, Appellant



Julie Peterson, Appellant

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
124 N. 3rd St.
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PETERSON, STUART,
RUMPCA & RASMUSSEN

Attorneys at Law

Prof. LLC

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OCT 18 2013

WATER RIGHTS
PROGRAM

October 16, 2013

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

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Clay County CIV. #13-73

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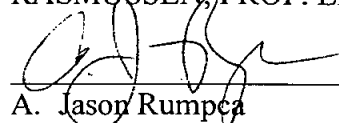
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Fax: 605-763-8034
Jason.petersonstuart@gmail.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Notice of Entry of Judgment of Dismissal was served upon:

Marty J. Jackley
Attorney General
1302 E. Highway 14, #1
Pierre, SD 57501

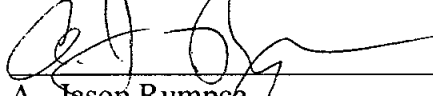
Diane Best
Assistant Attorney General
317 N. Main
Sioux Falls, SD 57104-6004

Jeanne Goodman, Chief Engineer
Water Rights Program DENR
523 East Capitol Ave.
Pierre, SD 57501

Rodney Freeman, Chairman
Water Management Board
P.O. Box 176
Huron, SD 57350

by mailing true and correct copies to Marty J. Jackley, Diane Best, Jeanne Goodman and Rodney Freeman by United States Mail, first class postage prepaid thereon, on this 16th day of October, 2013.

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
124 N. 3rd St.
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Phone: 605-763-5024
Fax: 605-763-8034
Jason.petersonstuart@gmail.com

STATE OF SOUTH DAKOTA)
)
COUNTY OF CLAY)

IN CIRCUIT COURT
FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER
PERMIT APPLICATION NO. 7441-3
(GARY OR JULIE PETERSON),

APPELLANTS.

CIV. #13-73

JUDGMENT OF DISMISSAL

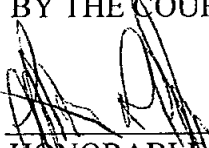
FILED
OCT 11 2013
Jessica Bosse
Clay County Clerk of Courts
1st Judicial Circuit Court of South Dakota

Based upon Appellants' Motion for Judgment of Dismissal and good cause appearing, it is hereby

ORDERED, ADJUDGED, AND DECREED that the above-entitled action, including all claims, whether asserted or unasserted, is hereby dismissed upon the merits, with prejudice and without costs to any of the parties.

Dated this 11th day of October, 2013.

BY THE COURT:


HONORABLE STEVEN R. JENSEN
CIRCUIT COURT JUDGE

ATTEST:

Jessica Bosse
CLERK OF COURTS
SEAL By Zimmerman

STATE OF SOUTH DAKOTA)
 :SS
COUNTY OF CLAY)

IN CIRCUIT COURT

FIRST JUDICIAL CIRCUIT

IN THE MATTER OF THE WATER)
PERMIT APPLICATION NO. 7441-3)
(GARY OR JULIE PETERSON),)
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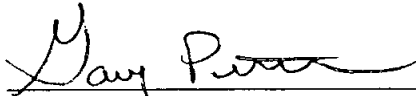
CIV. #13-73

**MOTION FOR JUDGMENT
OF DISMISSAL**

COMES NOW, Gary and Julie Peterson, the Appellants herein, acting through their attorney of record, A. Jason Rumpca, and hereby respectfully move this Court for a Judgment of Dismissal.

WHEREFORE, Appellants prays for the above-requested relief.

Dated this 1st day of October, 2013.

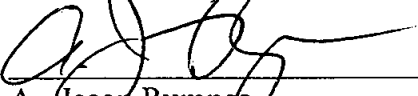


Gary Peterson, Appellant



Julie Peterson, Appellant

PETERSON, STUART, RUMPCA &
RASMUSSEN, PROF. LLC



A. Jason Rumpca
Attorney for Appellants
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Beresford, South Dakota 57004
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**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



**REVISED RECOMMENDATION OF CHIEF ENGINEER
FOR WATER PERMIT
APPLICATION NO. 7441-3, Gary E or Julie A Peterson**

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 7441-3, Gary E or Julie A Peterson, 45913 299th Street, Centerville SD 57014.

The Chief Engineer is recommending APPROVAL of Application No. 7441-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7441-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
February 7, 2014

REPORT TO THE CHIEF ENGINEER ON
21 WATER PERMIT APPLICATIONS
FROM THE UPPER VERMILLION MISSOURI AQUIFER
FEBRUARY 1, 2014

HISTORY

Twenty one water permit applications proposing to appropriate water from the Upper Vermillion Missouri (UVM) aquifer were filed with the DENR-Water Rights Program since the fall of 2012. The Chief Engineer recommended deferral of 18 of the applications because at the time it was not possible to conclude that unappropriated water was available from the aquifer to satisfy the appropriations. The Water Management Board considered the permit applications along with the Chief Engineer's recommendation and concluded that "In light of the evidence presented, it is not possible to conclude that unappropriated water is available from the UVM to satisfy the proposed appropriations. Significant portions of the aquifer have experienced long-term downward trending water levels. New appropriations from the aquifer should be deferred until it can be determined if water levels in these areas will stabilize under steady withdrawals" (Water Permit Application Nos. 7441-3, et al, Conclusion of Law 15). Three additional applications were filed after February 25, 2013 and were recommended for deferral.

UPPER VERMILLION MISSOURI AQUIFER (UVM)

The Upper Vermillion Missouri aquifer is located in portions of Lincoln, Turner and Clay Counties. An index map for the area is shown in Figure 1.

Previous Investigations

The Upper Vermillion Missouri aquifer consists of a glacial outwash deposit that generally occurs in bedrock low areas. As delineated by Hedges and others (1982), the aquifer extends over an area of approximately 132,900 acres in Clay, Lincoln and Turner Counties. Subsequent investigations for Lincoln, Turner, and Hutchinson Counties (Lindgren and Hansen, 1990; and Niehus, 1994) interpreted the area hydrogeology in a manner that resulted in the configuration of the Upper Vermillion Missouri aquifer encompassing over 204,800 acres (see Figure 2).

2014

A study of the Upper Vermillion Missouri aquifer conducted by the DENR-Geological Survey in 2013-2014 established new boundaries for the main body of the aquifer in Turner County (see Figure 3). Although the southern boundary has not been delineated at this time, data shows that it extends south several miles from the original border as it merges with or transitions into the Lower Vermillion Missouri aquifer. The areal extent of the main body of the Upper Vermillion Missouri aquifer defined by these new boundaries is at least 117,000 acres. A channel deposit extending to the northwest from the main body of the Upper Vermillion Missouri aquifer may be hydrologically connected to the aquifer.

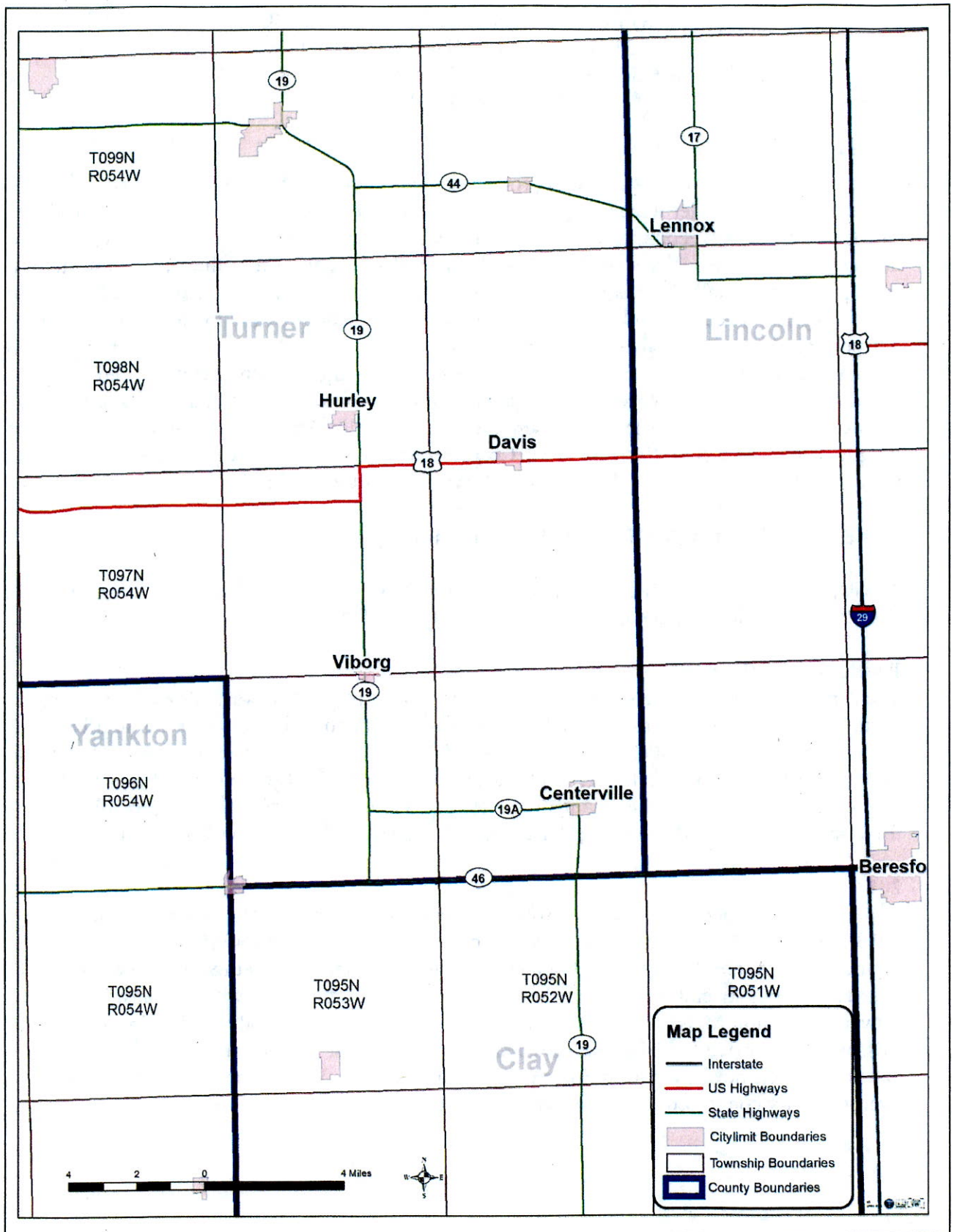


Figure 1. Index map for the area

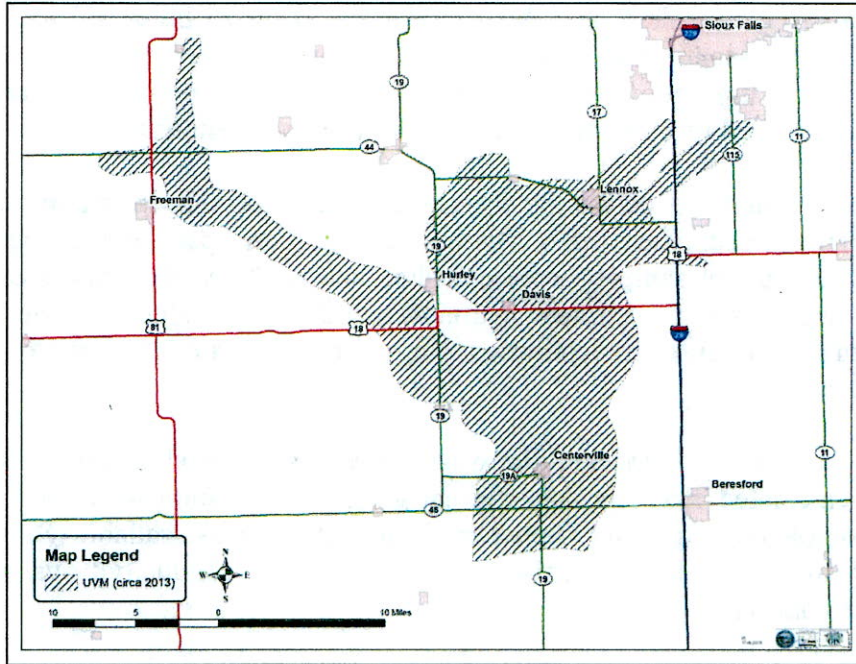


Figure 2. Areal extent of the Upper Vermillion Missouri aquifer considered in 2013 (Buhler, 2012)

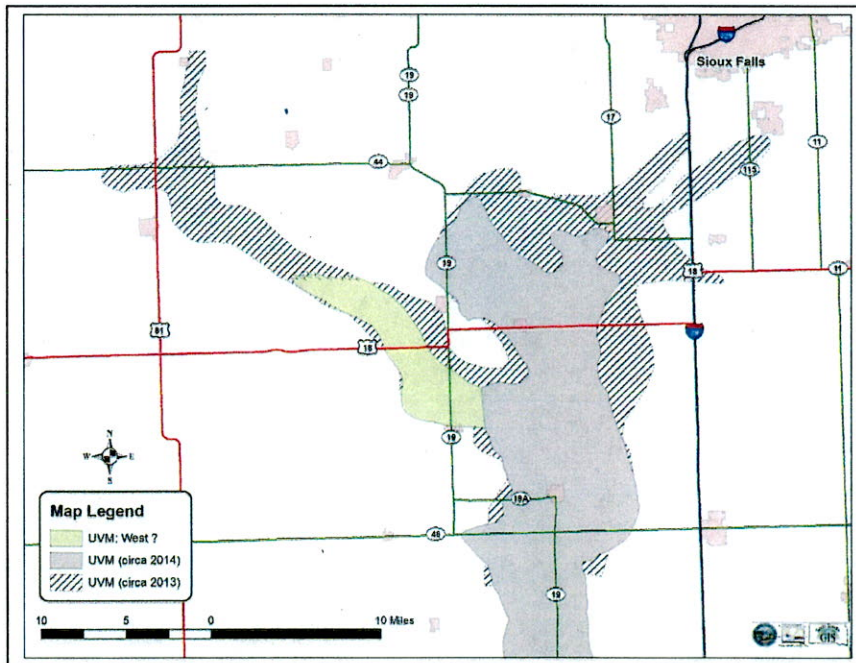


Figure 3. 2014 delineation of the Upper Vermillion Missouri aquifer with areal extent of the Upper Vermillion Missouri aquifer considered in 2013 (Buhler, 2012; modified from DENR-Geological Survey, in progress)

The Upper Vermillion Missouri aquifer occupies portions of a bedrock channel that generally trends north-south. The elevation of the aquifer varies along the length of the channel, but it is primarily below 1,200 feet mean sea level elevation (msl) and above 975 feet msl. The aquifer is

primarily buried by glacial drift, and the top of the aquifer can be over 150 feet below grade. The aquifer is predominantly under confined conditions, and the static water levels of wells in the aquifer typically range from 10-90 feet below grade. The potentiometric surface of the main body of the aquifer (see Figure 4) indicates a north to south groundwater flow direction.

Limited data is available to determine the aquifer characteristics (hydraulic conductivity and storativity) for the Upper Vermillion Missouri aquifer. As part of the ongoing Geological Survey study, sand/gravel samples were collected and analyzed for grain size. Results of the sieve analyses were used to estimate hydraulic conductivity values for the sieved samples. Reported hydraulic conductivity estimates range from 592 to 2,657 ft/day (SD-Geological Survey, in progress).

The hydraulic conductivity for the aquifer was also estimated based on aquifer thickness and the transmissivity calculated from the specific capacities of irrigation wells and two rural water system wells completed into the aquifer where sufficient data was available (Buhler, 2012; Water Rights, 2014b; and Water Rights, 2014c). These hydraulic conductivity values are shown in Table 1, Figure 5 and Figure 6.

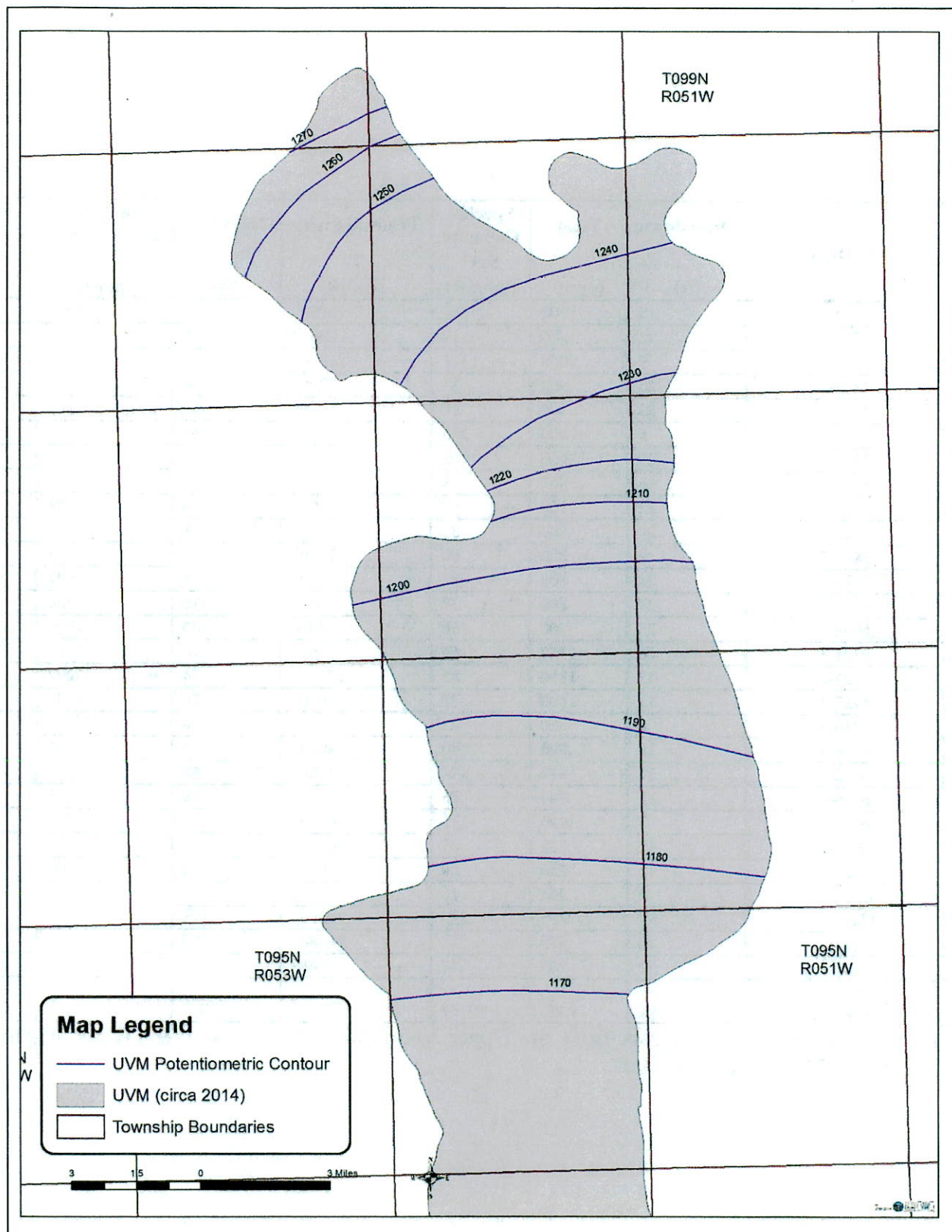


Figure 4. January 21, 2014, potentiometric surface of the main body of Upper Vermillion Missouri aquifer in feet above mean sea level (SD-Geological Survey, in progress)

Permit/Right No.	Drawdown (ft)	Yield (gpm)	Specific Capacity SpC (gpm/ft)	Transmissivity T (gpd/ft)	Thickness b (ft)	Hydraulic Conductivity k (gpd/ft ²)	Hydraulic Conductivity k (ft/d)
1930-3	15	1200	80	160000	65	2462	329
3784-3	92	900	10	19600	45	436	58
3901-3	9	1000	111	222200	70	3174	424
4265-3	25	900	36	72000	40	1800	241
4560-3	83	800	10	19200	50	384	51
5259-3	6	1400	233	466600	116	4022	538
5352-3	20	2100	105	157500	178	885	118
5371-3	45	860	19	38200	28	1364	182
5425-3	22	1100	50	100000	48	2083	279
5632-3	24	800	33	66600	48	1388	185
5886-3	9	800	89	177800	55	3233	432
5899-3	25	800	32	106600	63	1692	226
5982-3	27	800	30	92400	73	1266	169
6054-3	25	900	36	72000	40	1800	241
6301-3	16	1100	69	137600	70	1966	263
6727-3	13	1100	85	170000	74	2297	307
6727-3	15	1100	73	146667	74	1982	265
6810-3	6	750	125	250000	66	3788	506
6868-3	10	900	90	180000	36	5000	668
6922-3	11	810	74	147200	87	1692	226
6968-3	11	840	76	152800	88	1736	232
6984-3	7	1200	171	342800	101	3394	454
7002-3	11	720	69	102900	115	895	120
7128-3	15	750	50	100000	94	1064	142
<i>Min</i>	6	720	10	19200	28	384	51
<i>Max</i>	92	2100	233	466600	178	5000	668
<i>Average</i>	23	985	73	145861	72	2075	277
<i>Std Dev</i>	22	289	50	98483	32	1143	153
<i>Std Dev/Average</i>	98.4%	29.4%	69.0%	67.5%	44.9%	55.1%	55.1%

Table 1. Production well data from the Upper Vermillion Missouri aquifer (Water Rights, 2014b; and Water Rights 2014c)

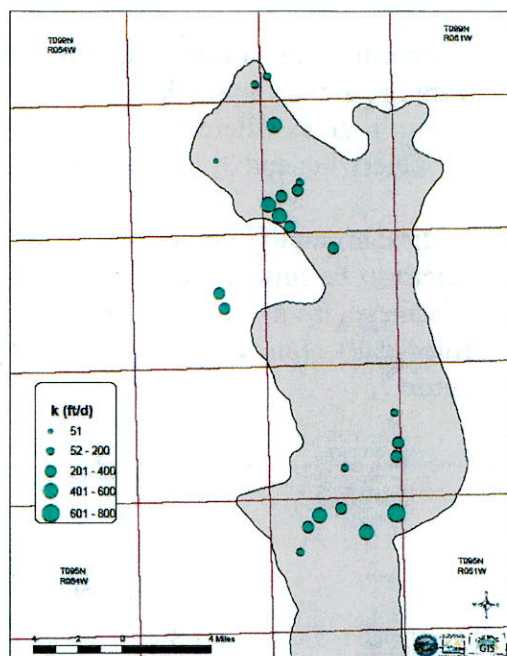


Figure 5. Location of production wells used to calculate hydraulic conductivity

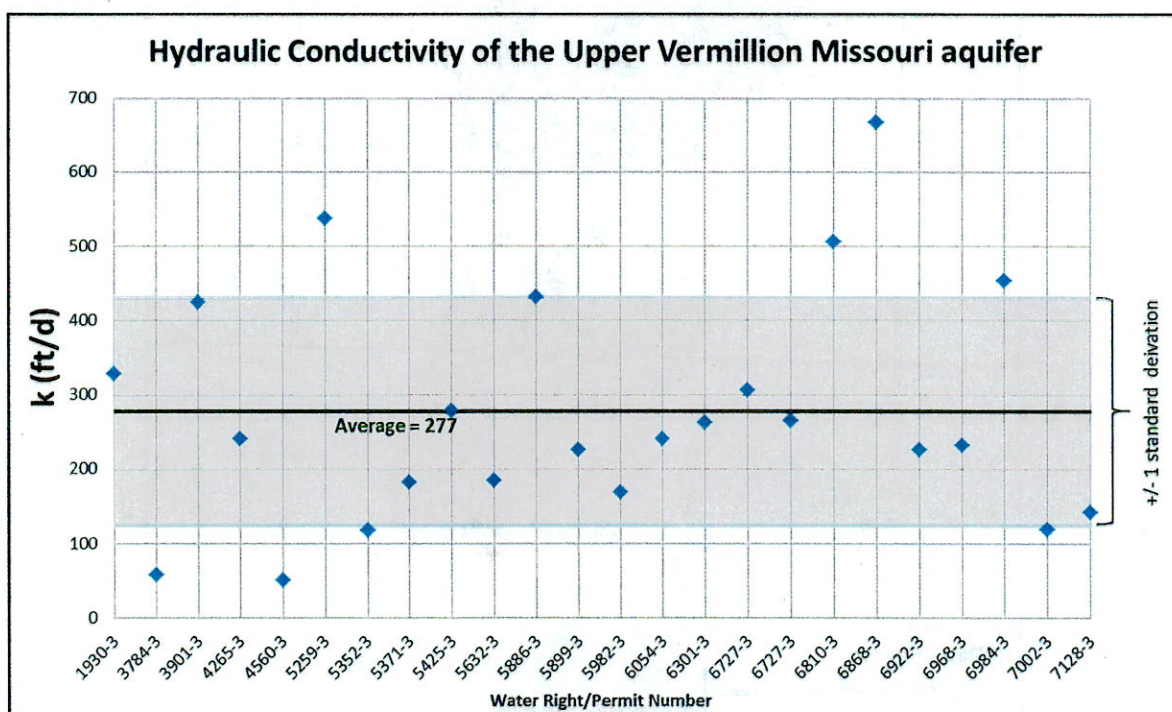


Figure 6. Chart showing the hydraulic conductivities, average hydraulic conductivity and one standard deviation of the Upper Vermillion Missouri aquifer at production wells where data is available (Water Rights, 2014b; and Water Rights 2014c).

Recharge:

Recharge to the Upper Vermillion Missouri aquifer has not been quantified. Lindgren and Hansen (1990) postulated that recharge to the Upper Vermillion Missouri aquifer occurs through: 1) direct infiltration of precipitation in areas where the aquifer is at or near ground surface; 2) inflow from fractures in the Sioux Quartzite; and 3) inflow from the Niobrara aquifer.

Although the Upper Vermillion Missouri aquifer appears to be in contact with the quartzite and Niobrara aquifer, these areas appear to be limited. The likely source of recharge to the Upper Vermillion Missouri aquifer is leakage from the overlying Parker Centerville aquifer (PAC) where the two aquifers are hydrologically connected. Areas of potential interconnection between the two aquifers are shown in Figure 7.

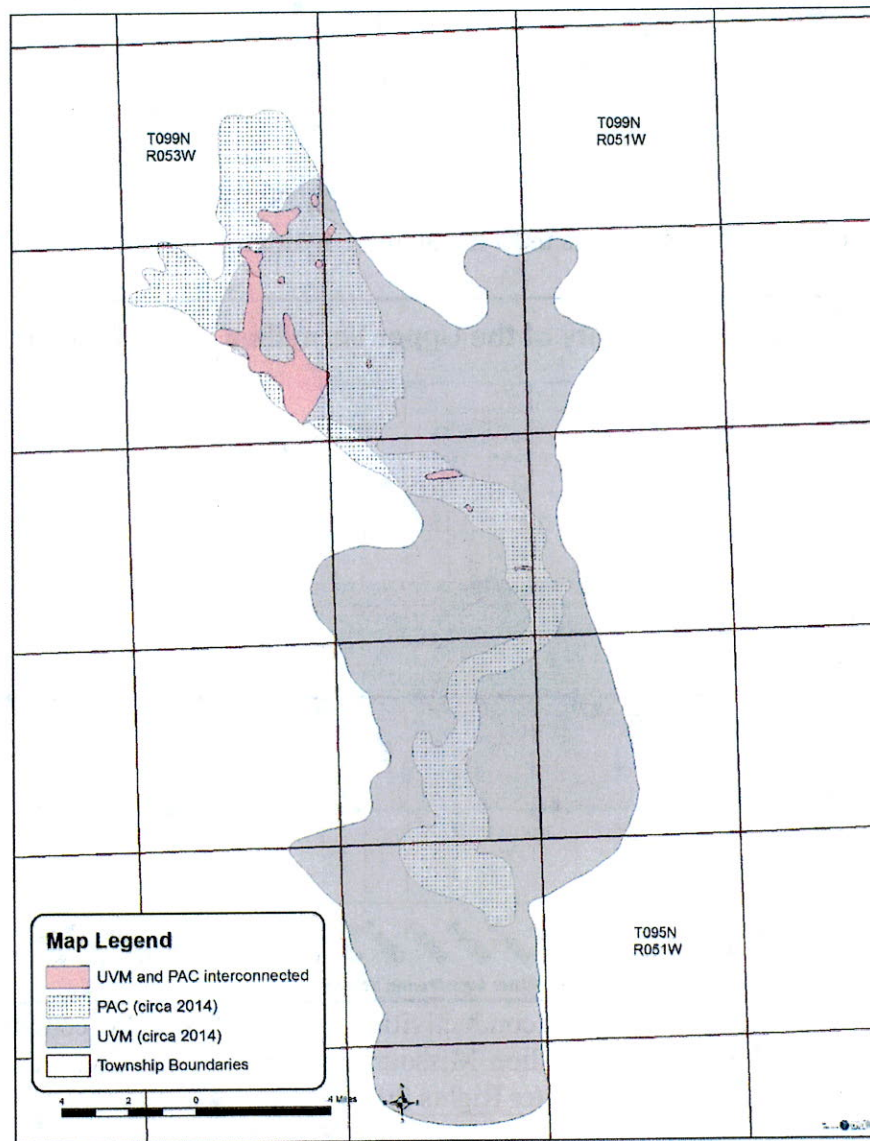


Figure 7. Areal extent of the Upper Vermillion Missouri (UVM) aquifer, the Parker Centerville (PAC) aquifer, and areas where the two aquifers are potentially interconnected (SD-Geological Survey, in progress).

MANAGEMENT UNITS

A system of aquifer and management unit designations for South Dakota was designed to establish a bookkeeping framework of hydrologic data (Hedges and others, 1982). The aquifer and management unit boundaries were chosen to coincide with hydrogeologic boundaries that are “identifiable and which can be documented.” Actual boundaries between units were based on one or more of the following criteria:

1. Thinning and/or constriction of the aquifer or management unit.
2. Facies change from high to low permeability of aquifer material.
3. Change from water-table to artesian conditions and vice versa.
4. Ground-water divide.
5. Ground-water discharge point such as stream or lake.
6. Presence of streamflow gaging station.

Although previous aquifer delineations (Hedges and others, 1982; and Lindgren and Hansen, 1990) both identified areas with anomalous gradients of the potentiometric surfaces, they considered the Upper Vermillion Missouri aquifer a single unit.

As the result of work done by the DENR- Geological Survey in 2013-2014, identifiable geologic and hydrologic data suggests two boundaries establishing three management units within the Upper Vermillion Missouri aquifer. Proposed management units are shown in Figure 8.

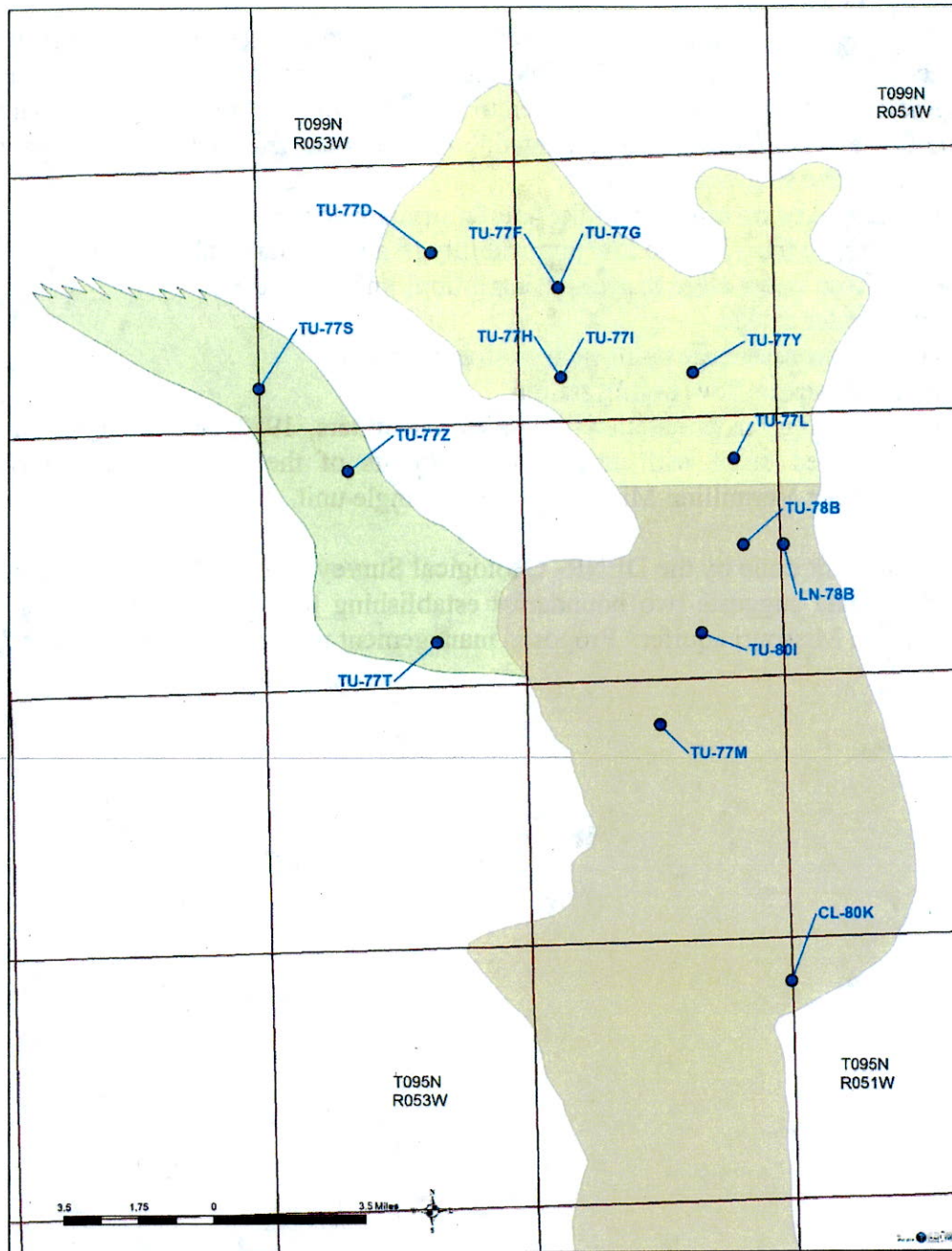


Figure 8. Proposed management units for the Upper Vermillion Missouri aquifer

South Management Unit/West Management Unit Boundary:

In the southeastern portion of T097N-R053W or the southwestern portion of T097N-R052W, three sets of data (i.e. bedrock topography, outwash lithology and aquifer potentiometric surface) identify a boundary between the West management unit and the South management unit of the aquifer.

Bedrock Topography:

Near the confluence of the bedrock channel that enters from the west with the channel that contains the main body of the Upper Vermillion Missouri aquifer, the western channel below 1,100 feet msl constricts by over 20% within three miles (see Figures 9, 10 and 11).

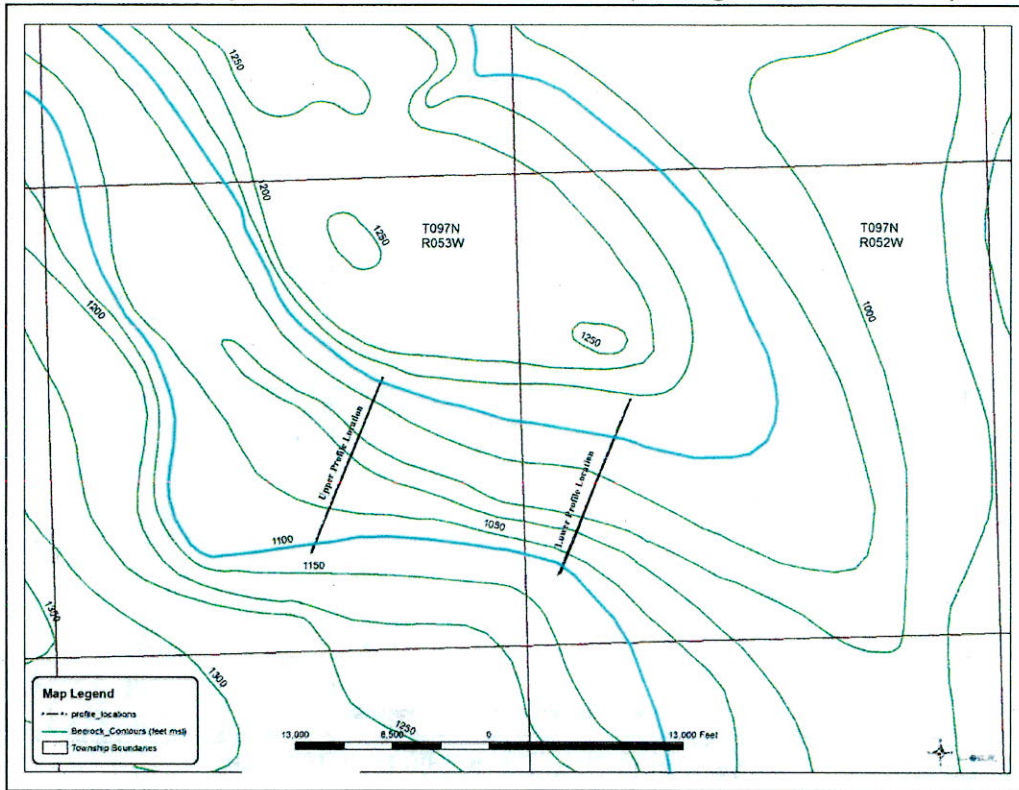


Figure 9. Location of bedrock channel profiles (modified from SD-Geological Survey, in progress)

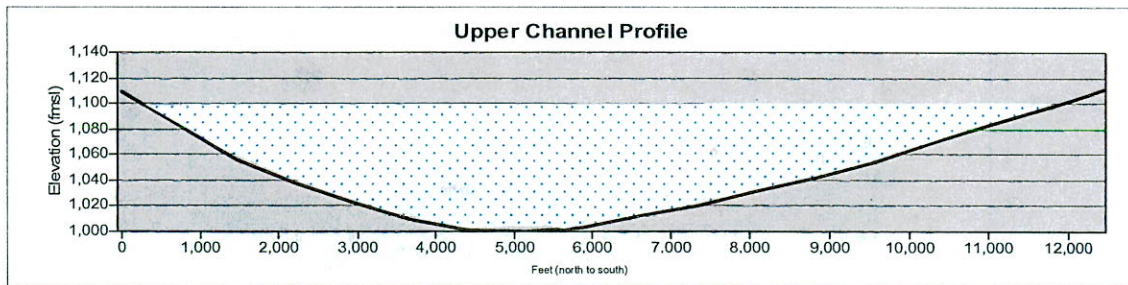


Figure 10. Upper Channel Profile

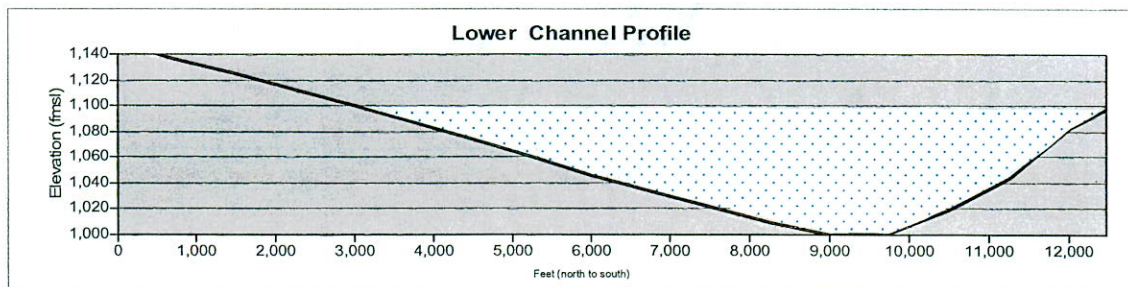


Figure 11. Lower Channel Profile

Lithology:

A west to east cross section through this area indicates the outwash in the western channel thins from approximately 100 feet thick to approximately 50 feet thick across this confluence area. In addition, geologists' logs identify the outwash as "very clayey" in the vicinity of a test hole drilled in the SE¼ of Section 24, T97N-R53W (see Figures 12 and 13).

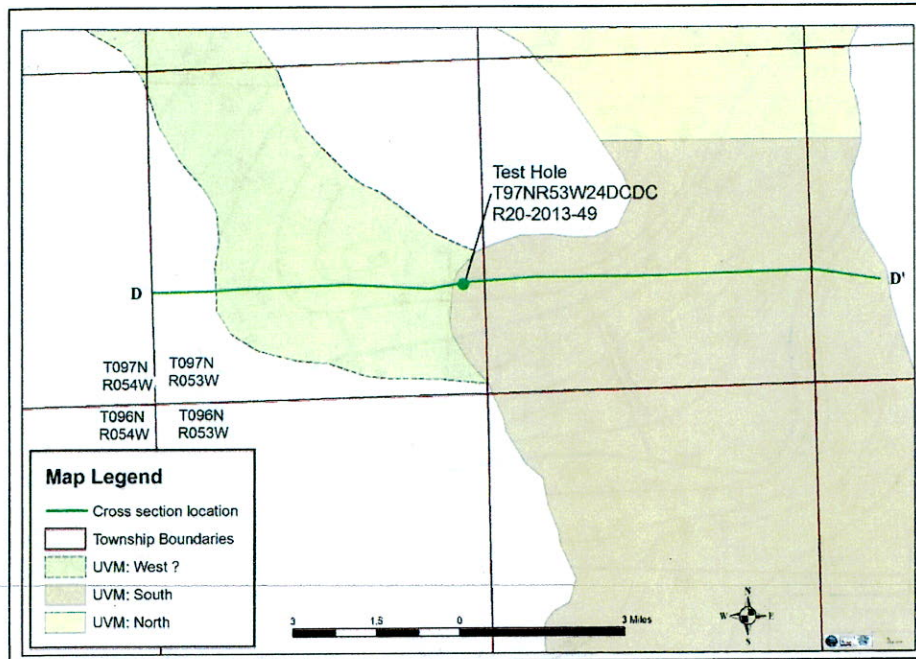


Figure 12. Location of cross Section D-D' and test hole R20-2013-49

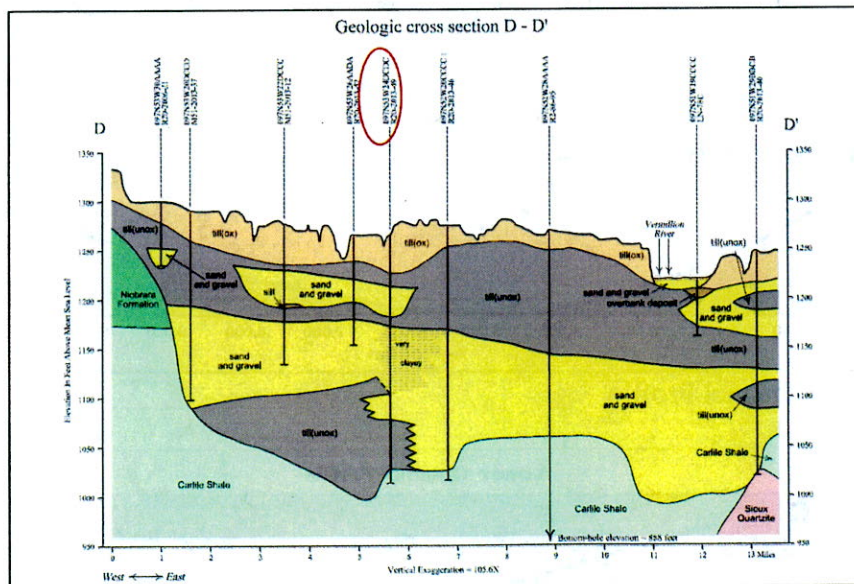


Figure 13. Cross section D-D' (modified from SD-Geological Survey, in progress)

Potentiometric Surface:

A profile of the potentiometric surface near the confluence of the west bedrock channel with the main bedrock channel containing the Upper Vermillion Missouri aquifer identifies a change in the gradient in the area (see Figures 14 and 15). This suggests a lower permeability area that would create a boundary condition.

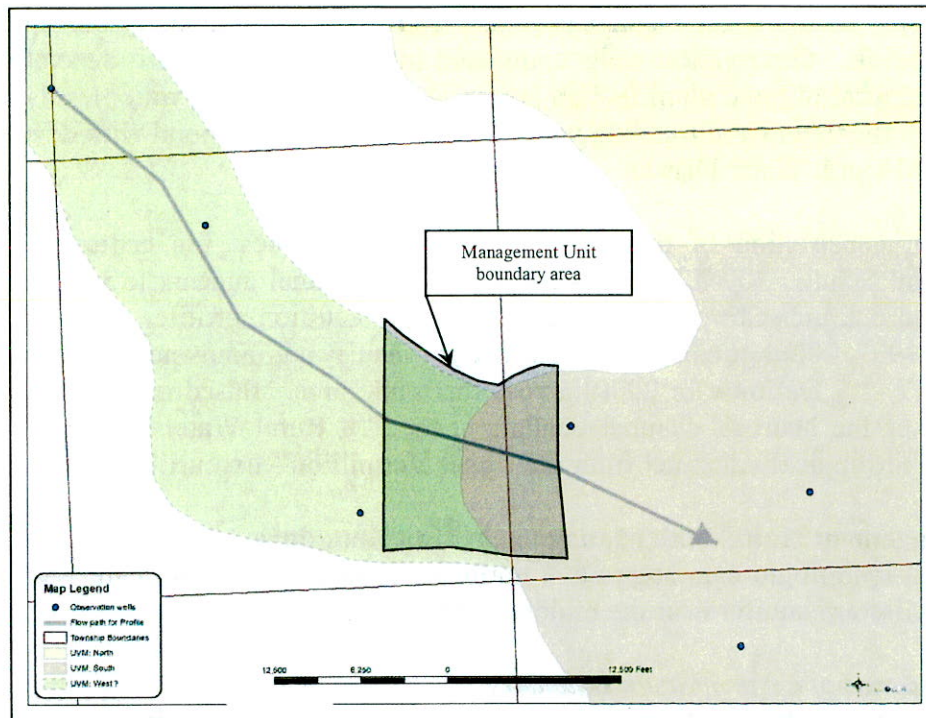


Figure 14. Location of Flow path for Potentiometric Surface Profile

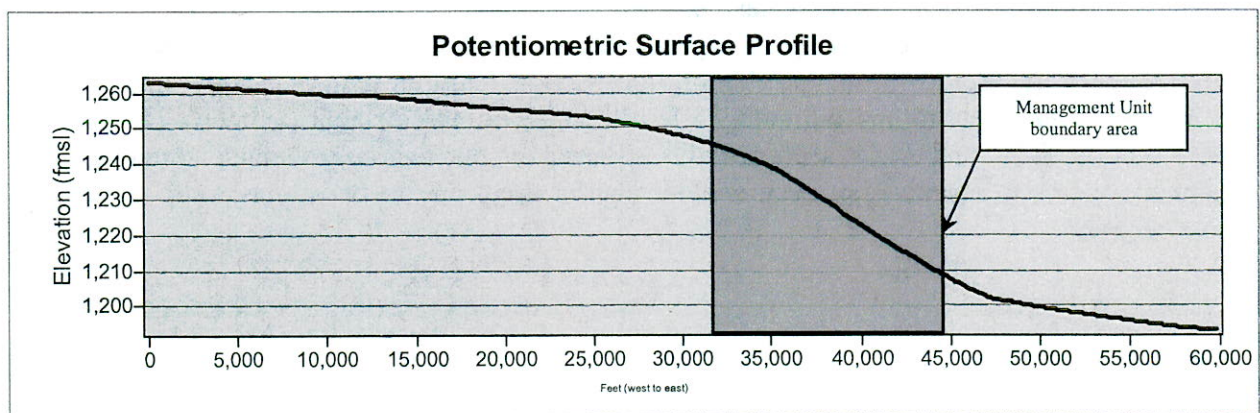


Figure 15. Potentiometric surface profile showing the boundary between the west and south management units of the Upper Vermillion Missouri aquifer

West Management Unit/Northwest Management Unit Boundary:

The West management unit of the Upper Vermillion Missouri aquifer appears to extend northwest beyond the limit used for this report. Data is not available to determine the areal extent of this management unit.

A basal outwash deposit occupies a southeast trending bedrock channel that originates approximately 30 miles northwest of the minimal northwest limit of the proposed West management unit (Tomhave and Schulz, 2004). Past delineations of the Upper Vermillion Missouri aquifer included this outwash deposit as part of the aquifer beginning approximately 18 miles beyond the known northwest limit of the proposed West management unit (see Figures 2 and 8). Water levels of observation wells completed into this basal outwash approximately 15 miles northwest of the West management unit appear to approximately correspond to UVM: West water levels. Observation wells completed into the basal outwash deposit approximately 15 miles northwest of have identified an area of downward trending water levels. The area and chronology of the downward trending water levels appear to correspond with development of the aquifer by TM Rural Water District.

A significant constriction of this bedrock channel exists near the center of T100N-R55W (Tomhave and Schulz, 2004). The narrowing of the channel appears to be located in an area where the bedrock incised by the channel changes. In addition, profiles of the pre-development (circa 1990, 1995, 2000) potentiometric surface all identify a groundwater flow gradient decrease from (e.g. 3.7 -1.5 feet/mile in 2000) across this same area. Based on this available data, the northern tip of the bedrock channel containing the TM Rural Water District wells should be considered hydrologically distinct from the Upper Vermillion Missouri: West aquifer.

South Management Unit/North Management Unit Boundary:

Geologic and hydrologic data suggests a north/south boundary in the main body of the Upper Vermillion Missouri aquifer near the middle of T97N-R52W.

Geologic evidence of a North/South Boundary:

The bedrock topography identifies a narrowing of the channel containing the Upper Vermillion Missouri aquifer near the middle of T97N-R052W. Geologic cross sections constructed near this area and their location are shown in Figures 16, 17, and 18. The cross sectional area of the Upper Vermillion Missouri aquifer has been outlined in blue in Figures 17 and 18, and the area reported by the DENR-Geological Survey (in progress) is labeled for each cross section. The data indicates the area of the Upper Vermillion Missouri aquifer contracts from approximately 3.3 million square feet to approximately 2.8 million square feet or approximately 15% between cross section B-B' and cross section C-C'. Based on the bedrock channel topography, the channel appears to narrow (i.e. even smaller aquifer area) one to two miles south of the C-C' cross section.

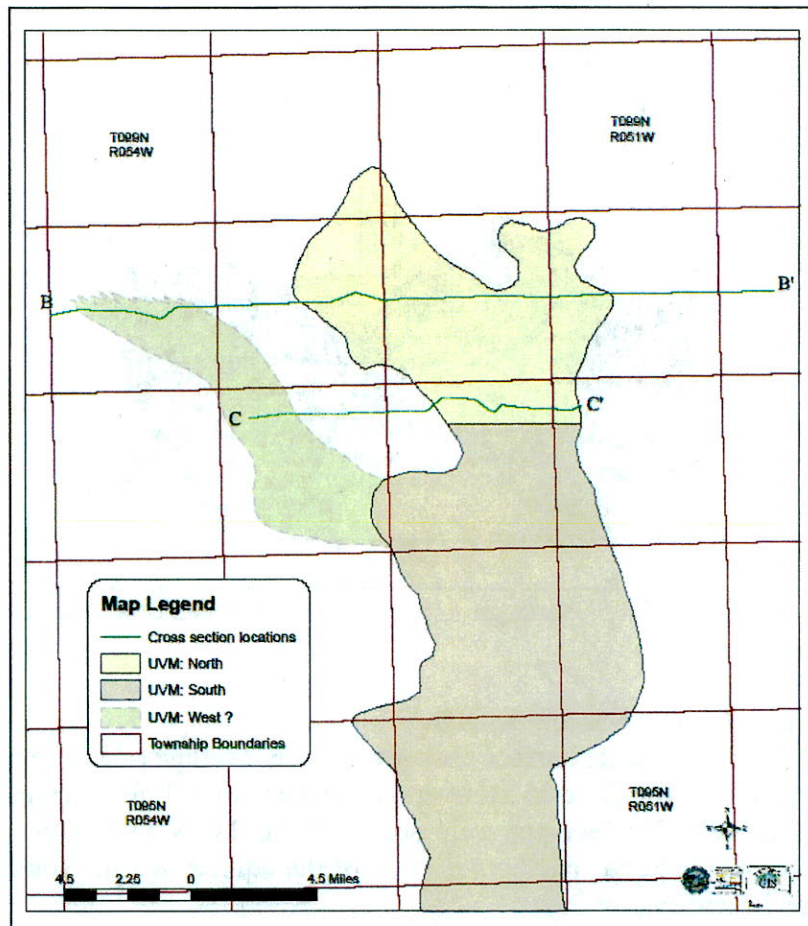


Figure 16. Cross section locations for Figures 17 and 18.

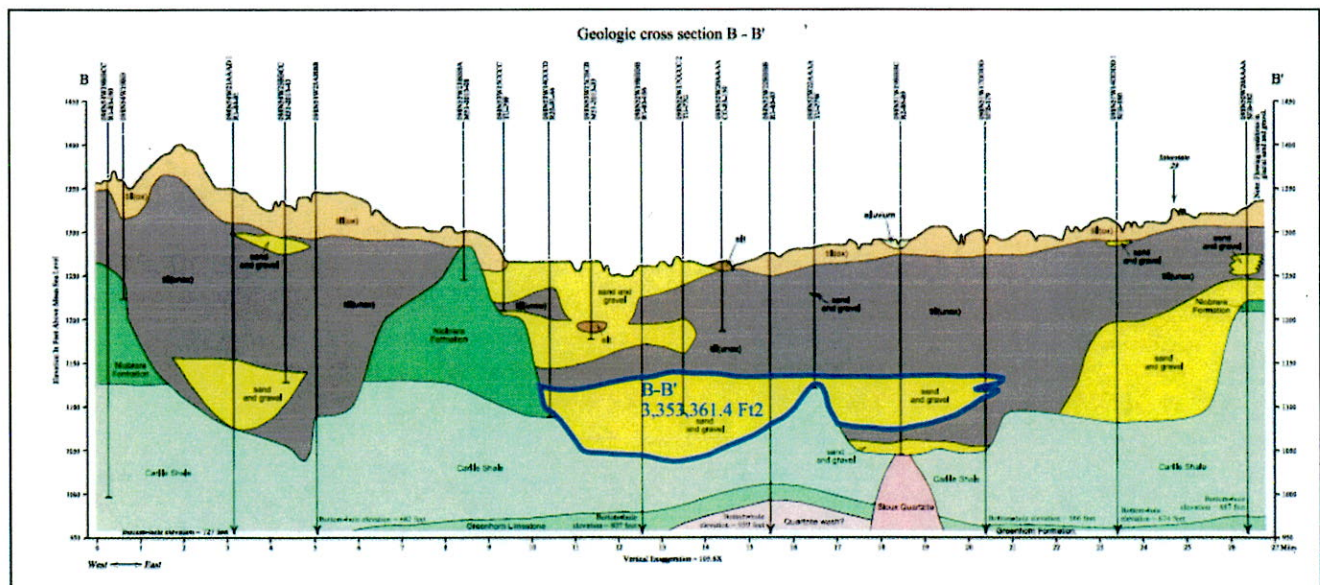


Figure 17. Cross section B-B' through Upper Vermillion Missouri aquifer (SD-Geological Survey, in progress)

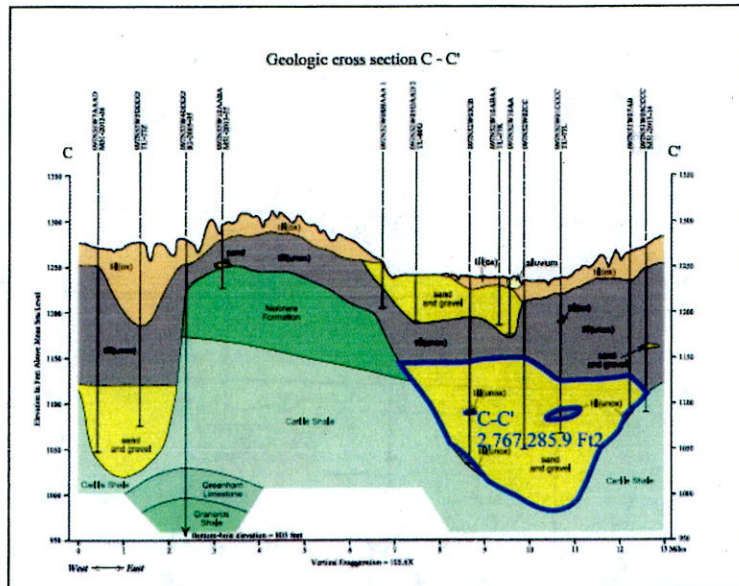


Figure 18. Cross Section C-C' through Upper Vermillion Missouri aquifer (SD-Geological Survey, in progress)

Hydrologic evidence of a North/South Boundary:

The gradient of the potentiometric surface changes from an average of approximately 4.2 feet per mile north of the T97N-T98N line to an average gradient of 9.1 feet per mile in T97N to an average of approximately 3.0 feet per mile south of the T97N-T98N line. This suggests a hydrologic boundary between the northern portion of the aquifer and the southern portion of the aquifer (see Figure 19 and Figure 20).

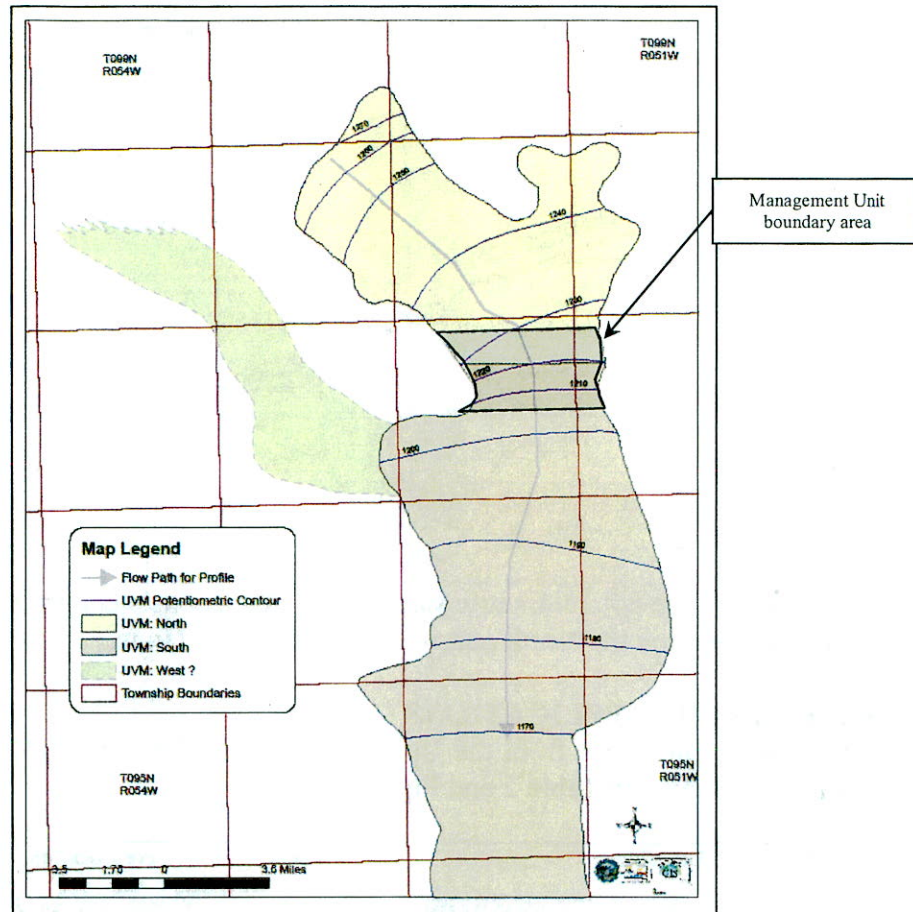


Figure 19. Location of Flow path for potentiometric surface profile

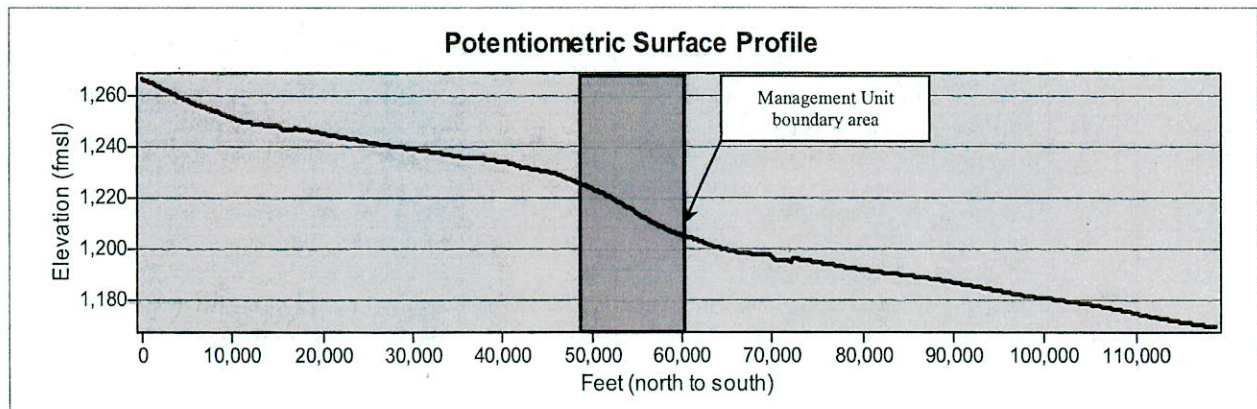


Figure 20. Potentiometric surface profile showing boundary between the north and south management units of the Upper Vermillion Missouri aquifer

The gradient change appears to exist regardless of the climatic conditions or variations in recharge and withdrawal from the aquifer (see Figure 21).

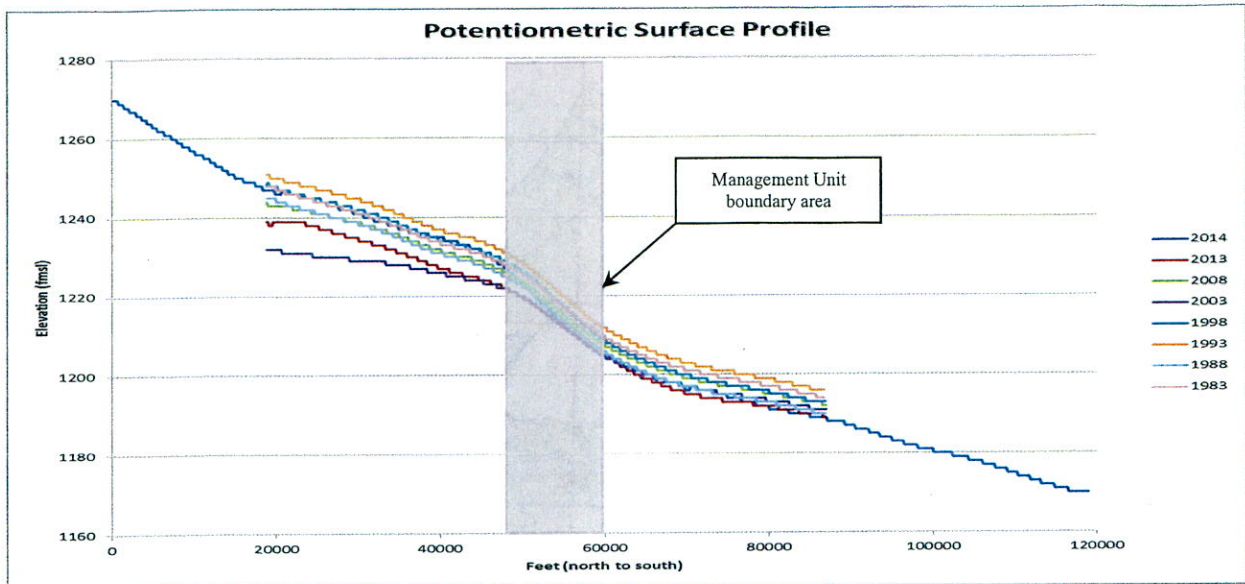


Figure 21. Profile of the potentiometric surface showing a consistent gradient change at the boundary between the North and South Management Units.

DEFERRED PERMIT APPLICATIONS

The water permit applications from the Upper Vermillion Missouri aquifer that are currently in deferred status are shown in Table 2 and Figure 22.

Permit No.	CFS	Well Location	Acres	Acre Location
7535-3	1.78	SW¼ NW¼ Sec. 30, T98N-R53W	65	NW¼ Sec. 30, T98N-R53W
7588-3	1.78	SW¼ Sec. 19, T98N-R53W	160	SW¼ Sec. 19, T98N-R53W
7602-3	1.89	Between NW¼ & NE¼ Sec. 34, T97N-R53W	132	E½NW¼, W½NE¼ Sec. 34, T97N-R53W
7633-3	1.78	SW¼ Sec. 32, T98N-R53W	152	SW¼ of Sec. 32, T98N-R53W
7715-3	2.22	SW¼ Sec. 16, T97N-R53W	156	SW¼ Sec. 16, T97N-R53W
7452-3	1.78	SW¼NE¼ Sec. 32, T98N-R52W	110	W½NE¼, SE¼NE¼ Sec. 32, T98N-R52W
7468-3	1.78	NE¼ Sec. 26, T96N-R51W	152	NE¼ Sec. 26, T96N-R51W
7558-3	1.78	Between NW¼ & SW¼ Sec. 1, T98N-R52W	120	N½SW¼, S½NW¼ Sec. 1, T98N-R52W
7587-3	1.78	SE¼ Sec. 10, T98N-R53W	160	SW¼ Sec. 10, T98N-R53W
7441-3	1.79	SE¼ Sec. 8, T95N-R52W	140	SE¼ Sec. 8, T95N-R52W
7442-3	No add'l	NW¼ Sec. 17, T95N-R52W	40	W½ NE¼ Sec. 17, T95N-R52W
7466-3	1.78	NE¼ Sec. 5, T96N-R51W	152	NE¼ Sec. 5, T96N-R51W
7467-3	1.78	NW¼ Sec. 13, T97N-R52W	152	NW¼ Sec. 13, T97N-R52W
7600-3	3.56	NE¼NW¼ & SW¼ Sec. 12, T96N-R52W (2 wells)	180	NW¼, N½SW¼ Sec. 12, T96N-R52W
7601-3	1.89	NE¼ Sec. 25, T-97N-R53W	132	NE¼ Sec. 25, T97N-R53W
7603-3	1.78	NE¼ Sec. 33, T97N-R52W	120	NE¼ Sec. 33, T97N-R52W
7623-3	1.89	SE¼NW¼ Sec. 24, T97N-R52W	140	NW¼, W½NE¼ Sec 24, T97N-R52W
7653-3	1.67	SW¼ Sec. 8, T96N-R52W	85	W½SW¼, NE¼SW¼ Sec. 8, T96N-R52W
7690-3	1.78	NE¼ Sec. 29, T96N-R52W	160	NE¼ Sec. 29, T95N-R52W
7900-3	1.89	NW¼NE¼ Sec.6, T95N-R51W	136	NE¼ Sec. 6, T95N-R51W
7919-3	1.83	NE¼ Sec. 9, T95N-R52W	83.83	NE¼ Sec. 9, T95N-R52W

Table 2. Deferred Water Permit Applications from the Upper Vermillion Missouri aquifer

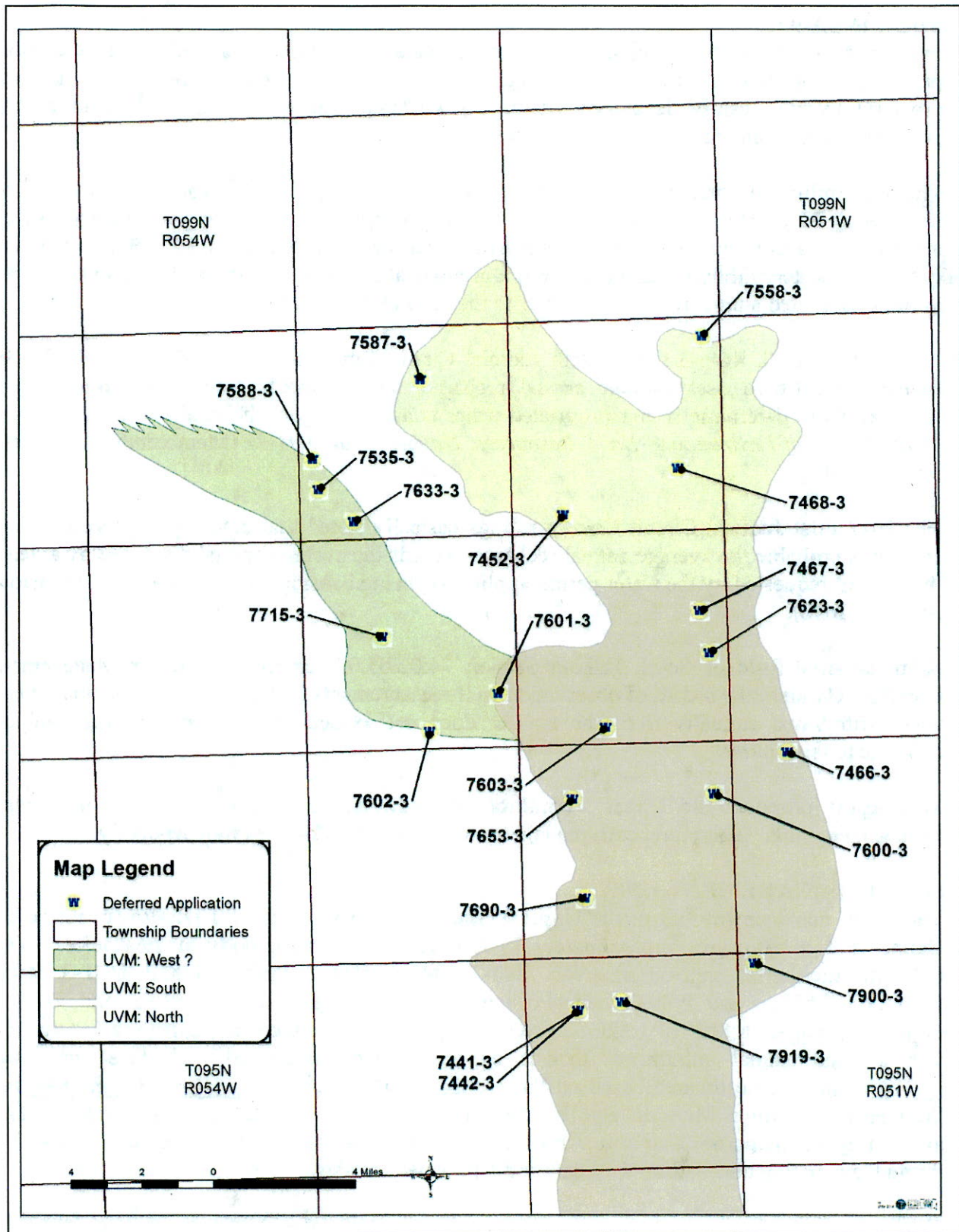


Figure 22. Location of deferred water permit applications and suggested management units of the Upper Vermillion Missouri aquifer

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.

The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

In applying SDCL 46-6-3.1, the Sixth Judicial Circuit Court ruled in 2005 that if the Water Management Board uses average annual recharge, then it should also use average annual withdrawals to determine if unappropriated water is available from the aquifer (*Hines v. South Dakota Dept. of Environ. and Nat'l. Resources, Hughes County 04-37* (Memorandum Decision, April 29, 2005)).

The 2012 First Judicial Circuit Court's rulings basically stated that data must be presented to show it is probable the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (Memorandum Decision, April 11, 2012).

Administrative Rule of South Dakota Section 74:02:05:07 requires the Water Management Board to 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 to the aquifer.

This report proposes the Upper Vermillion Missouri aquifer can be separated into three management units. Therefore, each management unit will be addressed independently.

SOUTH MANAGEMENT UNIT:

The South management unit of the Upper Vermillion extends south of T97N-R52W into Clay County and encompasses approximately 78,820 acres of the main body of the aquifer. Ten deferred water permit applications (Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, and 7900-3) and two new permit applications (Nos. 7690-3, and 7919-3) propose to irrigate a total of 1,520.83 acres from the South management unit (See Figure 22). The average annual withdrawal that is expected to be associated with these proposed appropriations was estimated based on the *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer (from Table 3) to be 760.4 acre-feet per year. The availability of unappropriated water from this unit was assessed in terms of SDCL 46-6-3.1 through evaluating observation well data and a flow net analysis.

Year	Permitted Acres	Pumpage (ac-ft)	Rate (in/ac)
1979	10350.3	3247	3.764529
1980	9550.3	5082	6.385559
1981	9954.3	4159	5.013713
1982	9878.2	3778.57	4.590193
1983	9815.2	2983.12	3.647143
1984	9815.2	2791	3.412259
1985	9935.2	2479	2.994202
1986	9935.2	3544	4.280538
1987	9848.2	3781	4.607136
1988	9854.2	6753.1	8.22362
1989	10157.2	5758.6	6.803371
1990	10828.7	6626.2	7.342931
1991	10725.7	6220	6.958986
1992	10807.9	1793.2	1.990988
1993	9677.9	534.5	0.662747
1994	9284.9	4313.79	5.575233
1995	9704.9	4484.34	5.544836
1996	9820.2	4672.19	5.709281
1997	9755.2	5408	6.652452
1998	9855.2	5343.85	6.506839
1999	9863.2	5056.06	6.151423
2000	9863.2	6181.55	7.520744
2001	9863.2	6195.66	7.537911
2002	10143.2	7169.69	8.482163
2003	10143.2	5930.9	7.016602
2004	9823.2	7414.06	9.057
2005	9981.2	6856.39	8.243165
2006	10139.2	7906.32	9.35733
2007	10482.5	6983.2	7.994124
2008	11224.5	7467.98	7.983942
2009	11319.6	3878.92	4.112075
2010	11399.3	150.49	0.15842
2011	11399.3	5615.12	5.911016
2012	11458.3	13229.64	13.85508
Min	9284.9	150.49	0.15842
Max	11458.3	13229.64	13.85508
Avg	10195.8	5111.4	6.0

Table 3. Irrigation application rate **per permitted acre** for the Upper Vermillion Missouri aquifer (Water Rights, 1980-2013)

Observation well Data:

The DENR-Water Rights Program monitors five observation wells completed into the South management unit of the Upper Vermillion Missouri aquifer (see Figure 8 for locations). Hydrographs for the observation wells (Figures 23-27) all show upward trending water levels over their periods of record. Hydrographs for the observation wells document changes in climatic conditions along with temporal impacts of pumping. Since climatic conditions mask temporal impacts, well withdrawals from this management unit are not stressing the system to the extent where natural discharge is impacted. Therefore, groundwater outflow is available for “capture.” The observation wells in this management unit document unappropriated water is available for appropriation.

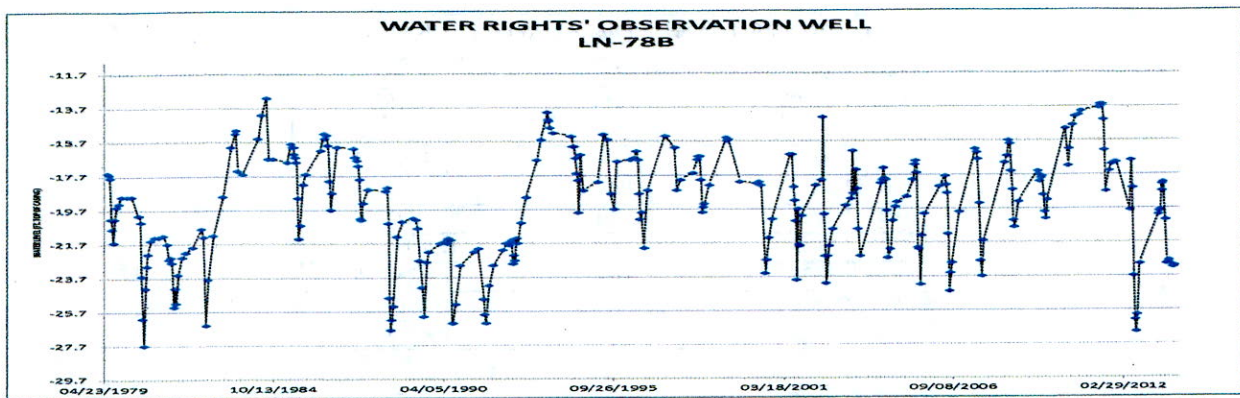


Figure 23. Hydrograph for an observation well completed into the UVM: South (Water Rights, 2014a)

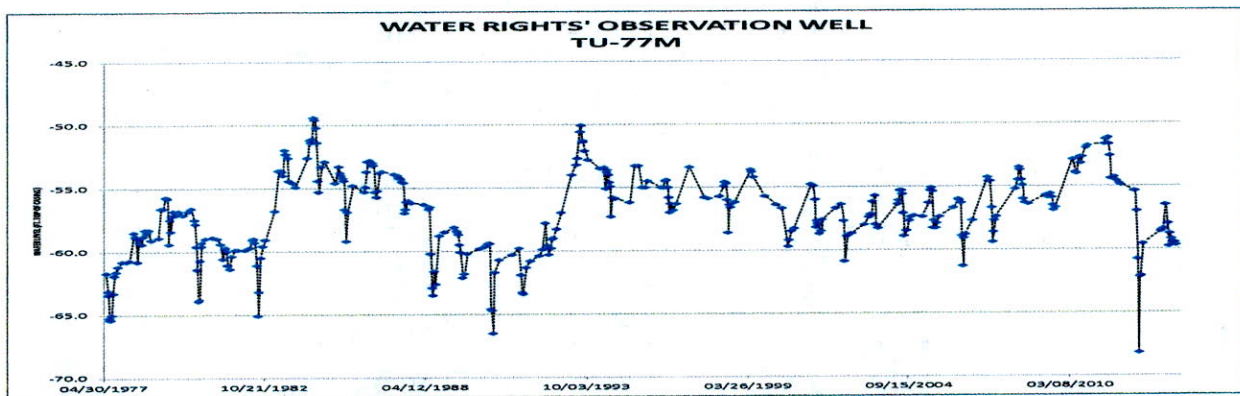


Figure 24. Hydrograph for an observation well completed into the UVM: South (Water Rights, 2014a)

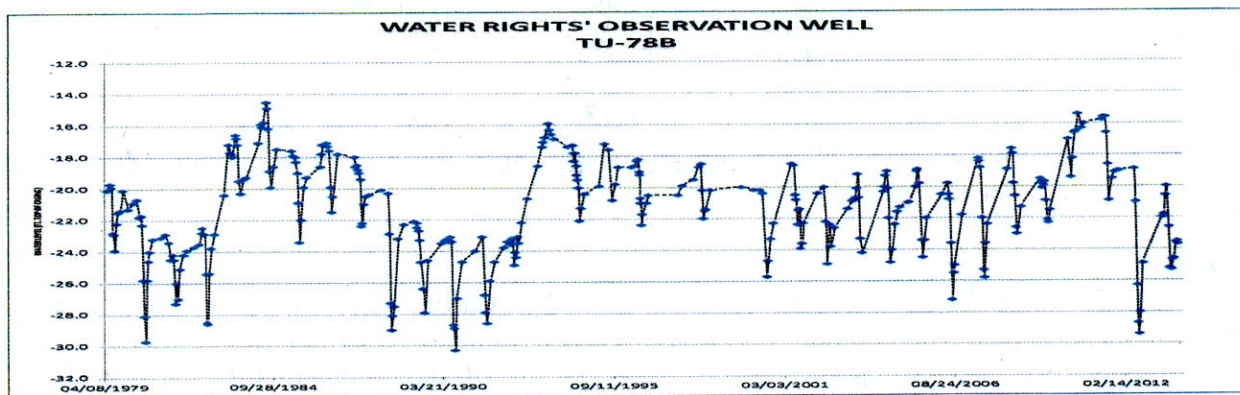


Figure 25. Hydrograph for an observation well completed into the UVM: South (Water Rights, 2014a)

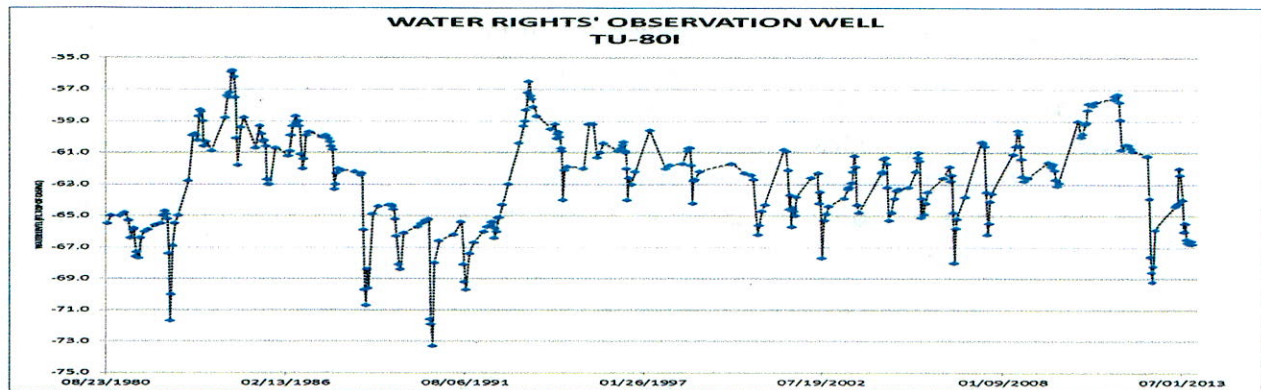


Figure 26. Hydrograph for an observation well completed into the UVM: South (Water Rights, 2014a)

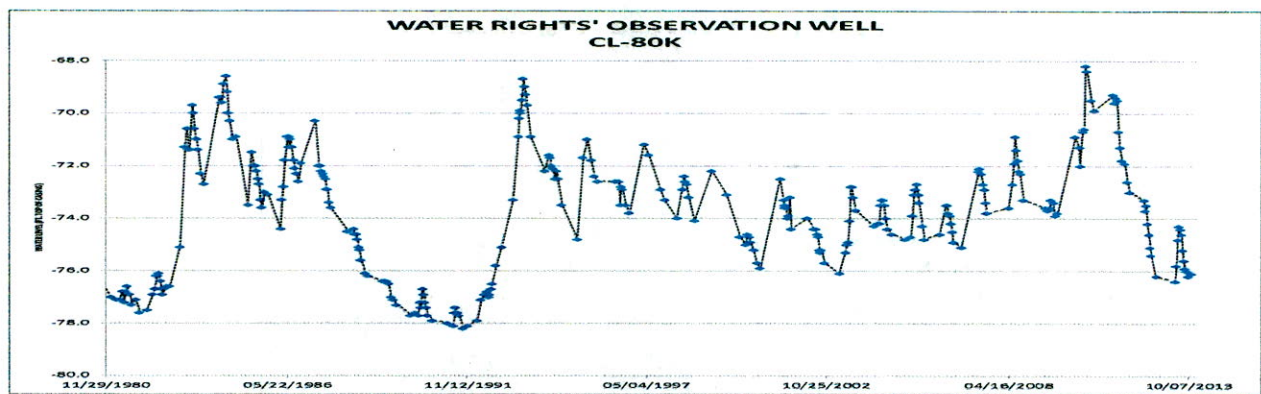


Figure 27. Hydrograph for an observation well completed into the UVM: South (Water Rights, 2014a)

2014 Flow Net Analysis:

Inflows to and outflows from the South management unit of the Upper Vermillion Missouri aquifer were evaluated by interpreting a regional flow net analysis based on the January 21, 2014, water level data from the aquifer. A flow net analysis is a calculation of the amount of water flowing through the aquifer according to the equation:

$$Q = kAI \cdot .0084$$

Where:

Q= flow (ac-ft/yr)

k= Hydraulic Conductivity (ft/d)

A= Area (ft²)

I= Hydraulic gradient (ft/ft)

.0084= conversion constant

The average hydraulic conductivity from Table 1 (277 ft/d) was applied over the entire aquifer. The cross sectional area reported by the DENR-Geological Survey (in progress) for each cross section (see values in blue on the cross sections) was used in the calculations. The gradient of the potentiometric surface on January 21, 2014, at each cross section was used for the hydraulic gradient. The amount of groundwater outflow from a management unit represents the volume of

water recharging the unit that exceeds discharges from the unit. Groundwater flow was calculated at two locations near the southern extent of the South management unit at cross sections F-F' and G-G' (see Figures 28, 29, 30). The flow calculation data is shown in Table 4. The flow net analysis indicates that there is at least 5,673 acre-feet of water leaving this management unit through groundwater outflow. Therefore, there is a reasonable probability that unappropriated water is available to supply the 760.4 acre-feet per year expected to be used by these twelve applications.

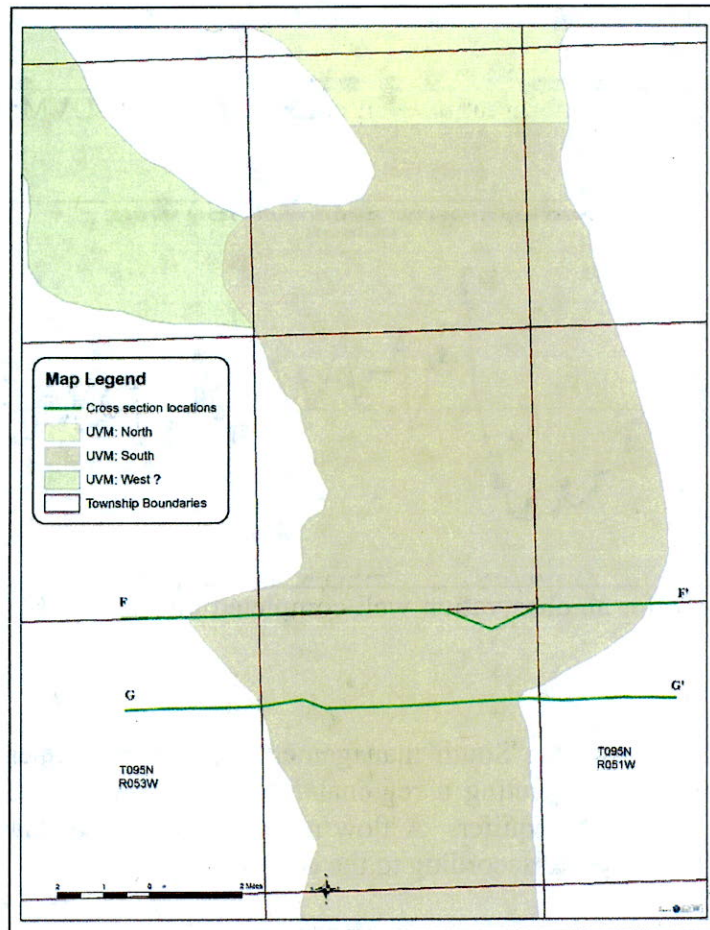
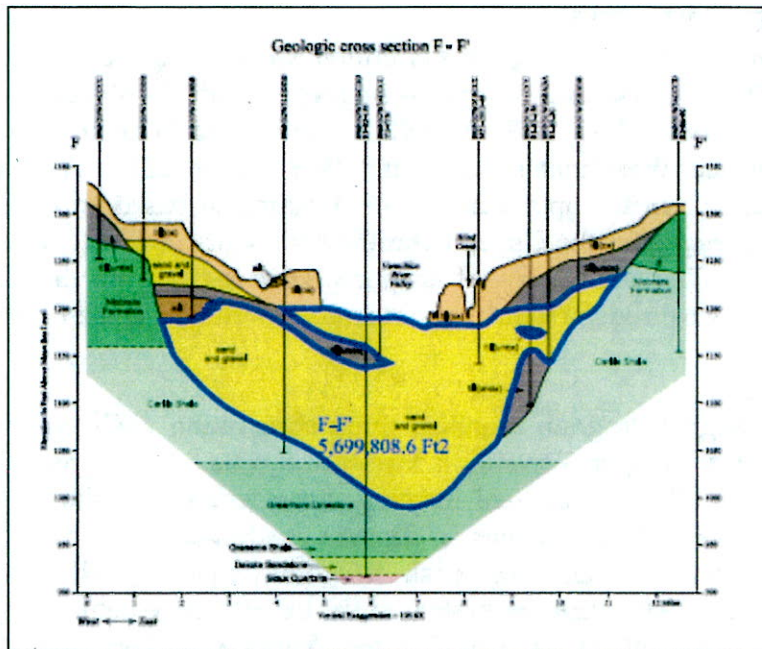


Figure 28. Map showing the location of cross Sections F-F' and G-G'



WEST MANAGEMENT UNIT:

The West management unit of the Upper Vermillion Missouri aquifer extends west from T97N-R53W to at least T98N-R54W and encompasses an estimated 22,750 acres. Five deferred water permit applications (Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7433-3) propose to irrigate a total of 665 acres from the West management unit (see Figure 22). The expected withdrawal associated with these proposed appropriations was estimated based on the *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer (from Table 3) to be 332.5 acre-feet per year. The availability of unappropriated water from this unit was assessed in terms of SDCL 46-6-3.1 through evaluating observation well data and a flow net analysis.

Observation well data

The DENR-Water Rights Program monitors three observation wells completed into the West management unit of the Upper Vermillion Missouri aquifer. Hydrographs for the observation wells (Figures 31-33) all show upward trending water levels over the period of record. The observation wells clearly show changes in climatic conditions along with temporal impacts of pumping. Since climatic conditions mask temporal impacts, well withdrawals from this management unit are not stressing the system to the extent where natural discharge is impacted. Therefore groundwater outflow is available for “capture”. The observation wells in this management unit document that unappropriated water is available for appropriation.

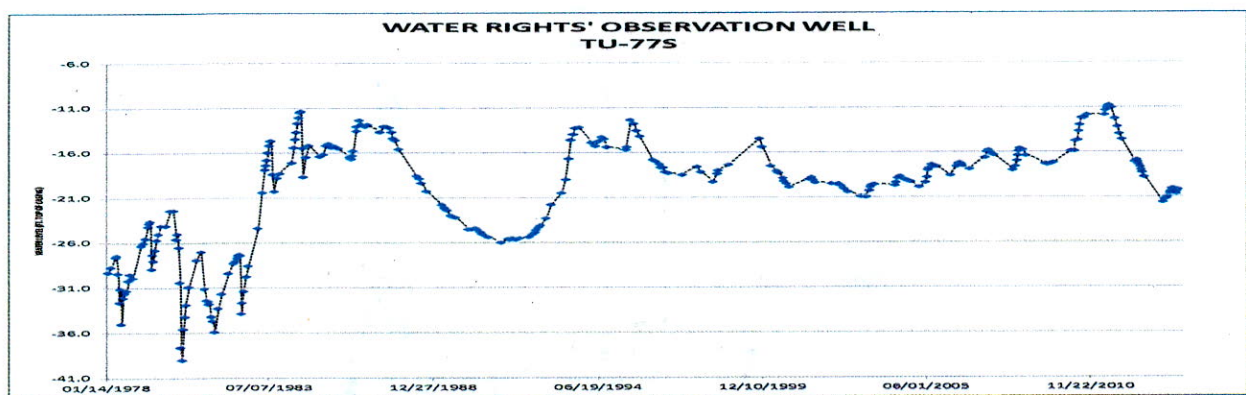


Figure 31. Hydrograph for an observation well completed into the UVM: West (Water Rights, 2014a)

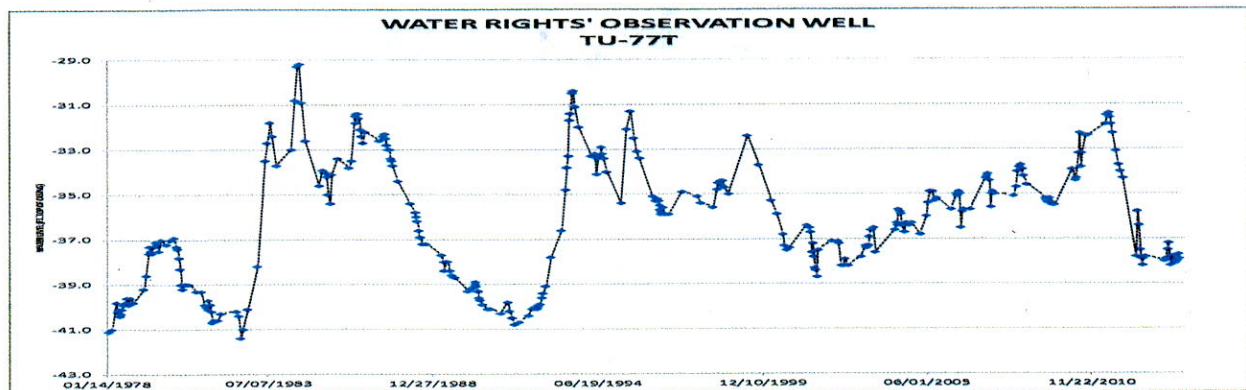


Figure 32. Hydrograph for an observation well completed into the UVM: West (Water Rights, 2014a)

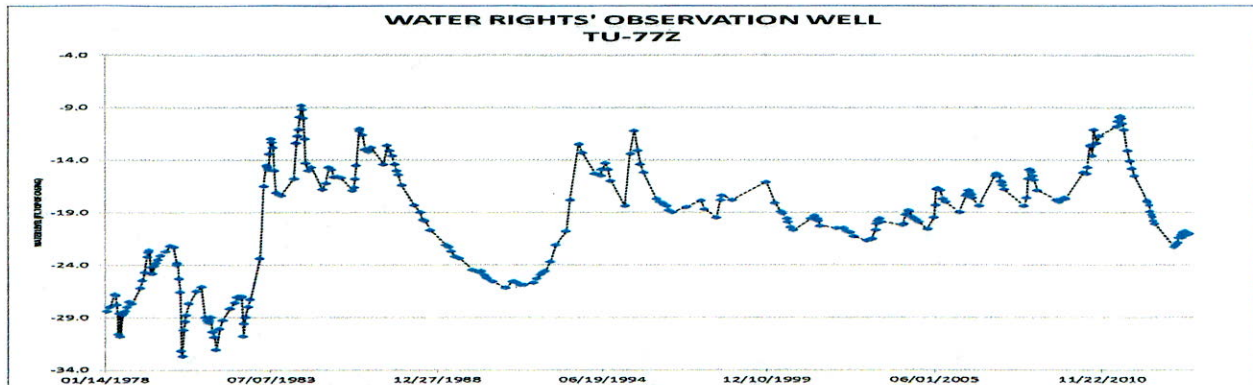


Figure 33. Hydrograph for an observation well completed into the UVM: West (Water Rights, 2014a)

2014 Flow Net Analysis:

The amount of groundwater outflow from the management unit represents the volume of recharge water exceeding withdrawals. Flow was calculated at the location where cross section AA-AA' bisects outwash (See Figures 34 and 35). The calculated flow, using the same equation discussed earlier for the South management unit, is shown in Table 5. The flow net analysis indicates that there is at least 2,681 acre-feet of water leaving this management unit through groundwater outflow. Therefore, there is a reasonable probability that unappropriated water is available to supply the 332.5 acre-feet per year expected to be used by these five applications.

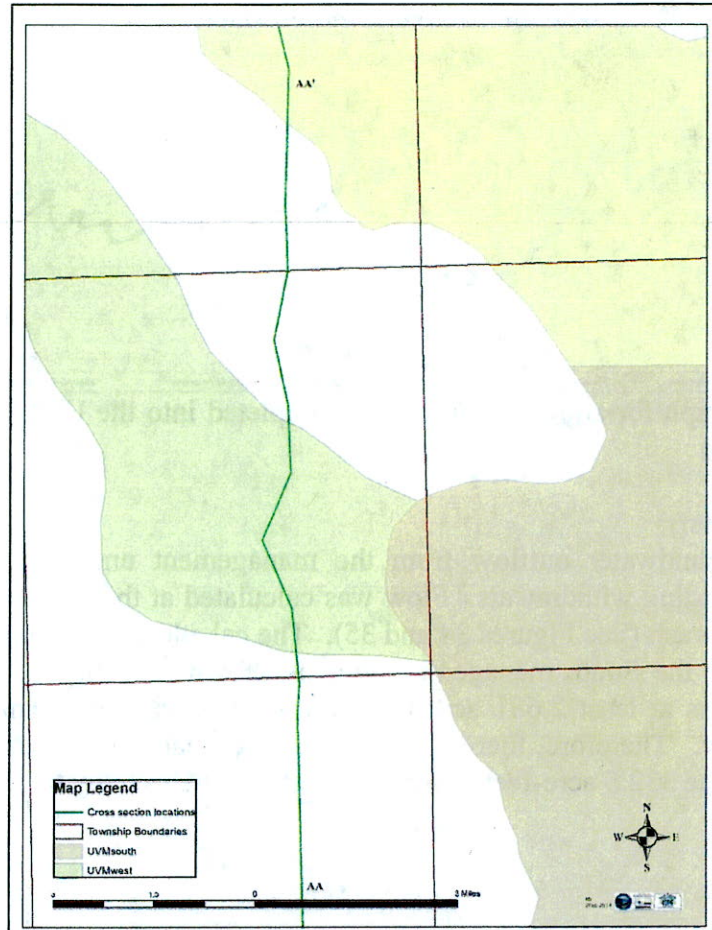


Figure 34. Map showing the location of cross section AA-AA'

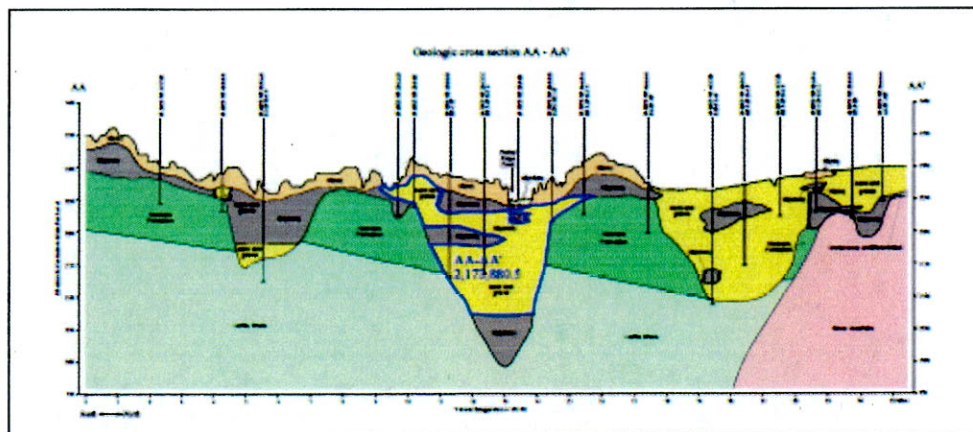


Figure 35. Geologic Cross Section at AA-AA' (SD-Geological Survey, in progress)

Cross Section	Area (ft ²)	Hydraulic Gradient (ft/ft)	K (ft/day)	Q (ft ³ /day)	Q (ac-ft/yr)
AA-AA'	2,173,880	0.00053	277	319,147	2,681

Table 5. Groundwater flow at eastern portion of the West management unit

NORTH MANAGEMENT UNIT:

The North management unit of the Upper Vermillion Missouri aquifer extends north of T97N-R52W and encompasses an estimated 38,110 acres. Four deferred water permit applications (Nos. 7452-3, 7468-3, 7558-3, 7587-3) propose to irrigate a total of 542 acres from the West management unit (See Figure 22). The expected withdrawal associated with these proposed appropriations was estimated based on the *average application rate per permitted acreage* for the Upper Vermillion Missouri aquifer (from Table 3) to be 271 acre-feet per year. The availability of unappropriated water from this unit was assessed in terms of SDCL 46-6-3.1 through evaluating observation well data.

Observation well Data:

The DENR-Water Rights Program monitors seven observation wells completed into the North management unit of the Upper Vermillion Missouri aquifer (see Figure 8 for locations). Hydrographs for the observation wells (see Figures 36-42) all show downward trending water levels (blue trend line on hydrographs) over the period of record. Trend lines for the minimum annual water levels (green trend lines on hydrographs) are also all trending downward. Except for observation well TU-77F, the maximum annual water level trend (red line on hydrographs) has shown an upward trend.

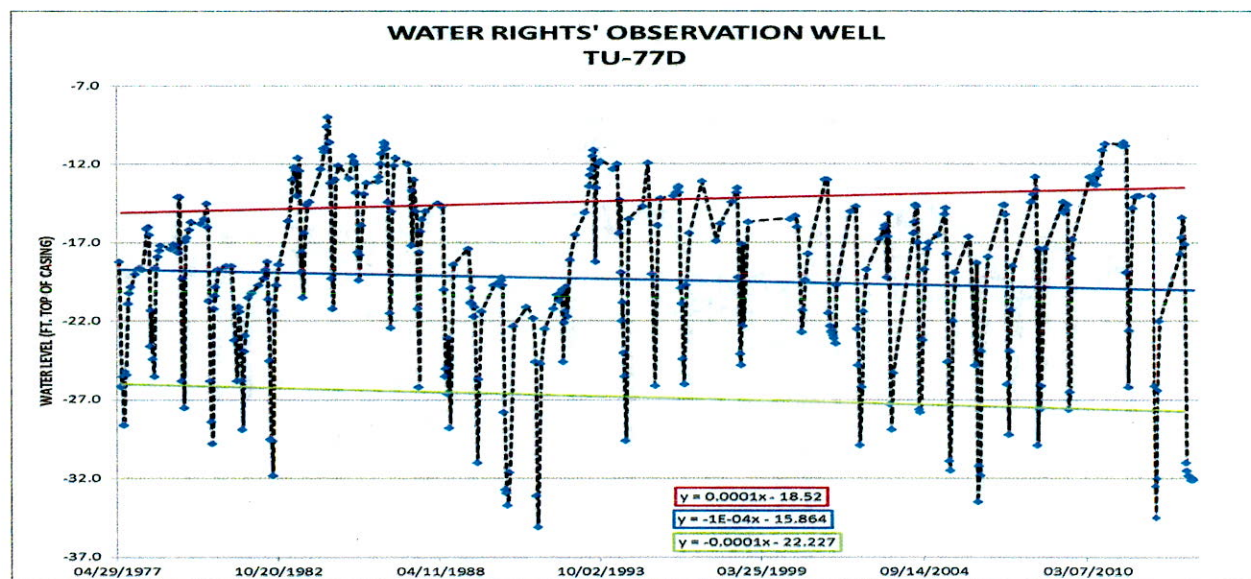


Figure 36. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual overall water level trend line (red) (Water Rights, 2014a).

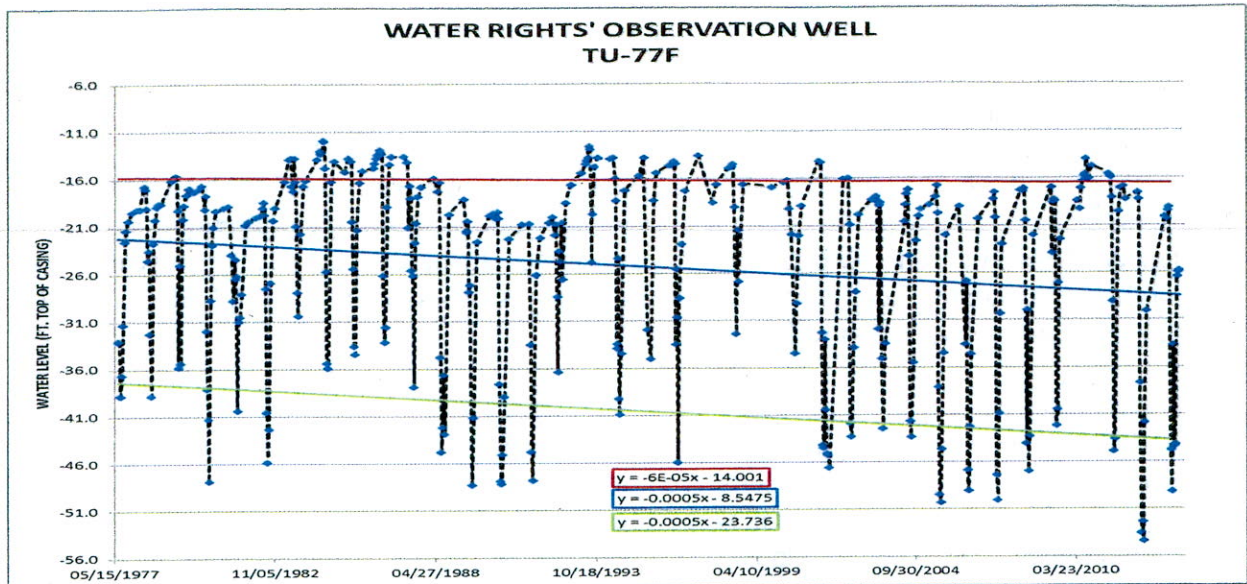


Figure 37. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual overall water level trend line (red) (Water Rights, 2014a).

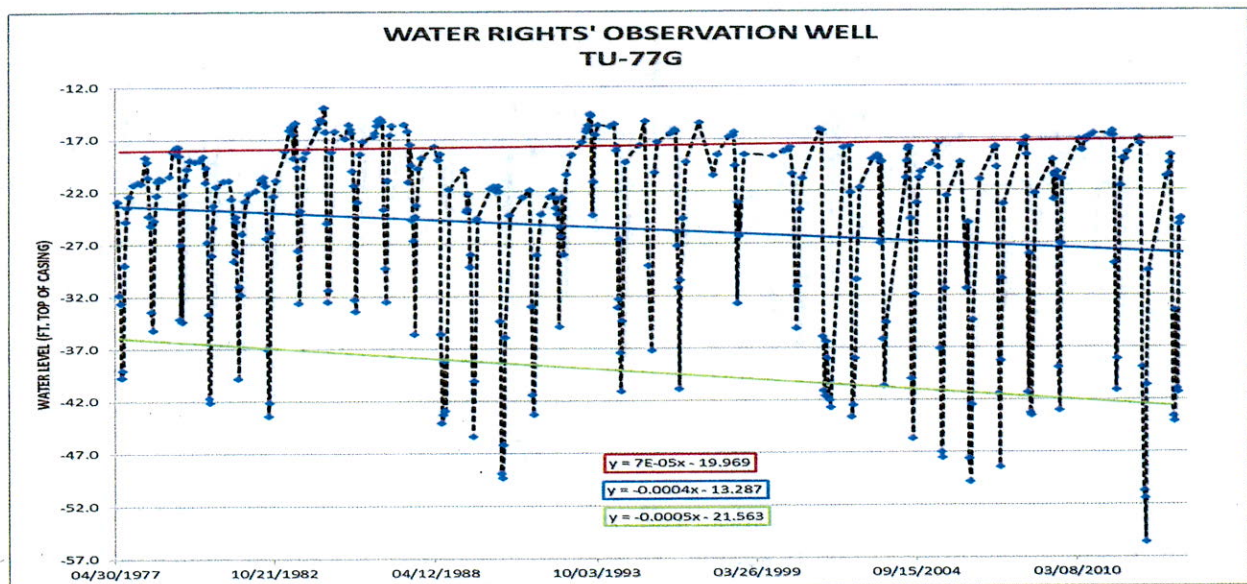


Figure 38. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual overall water level trend line (red) (Water Rights, 2014a).

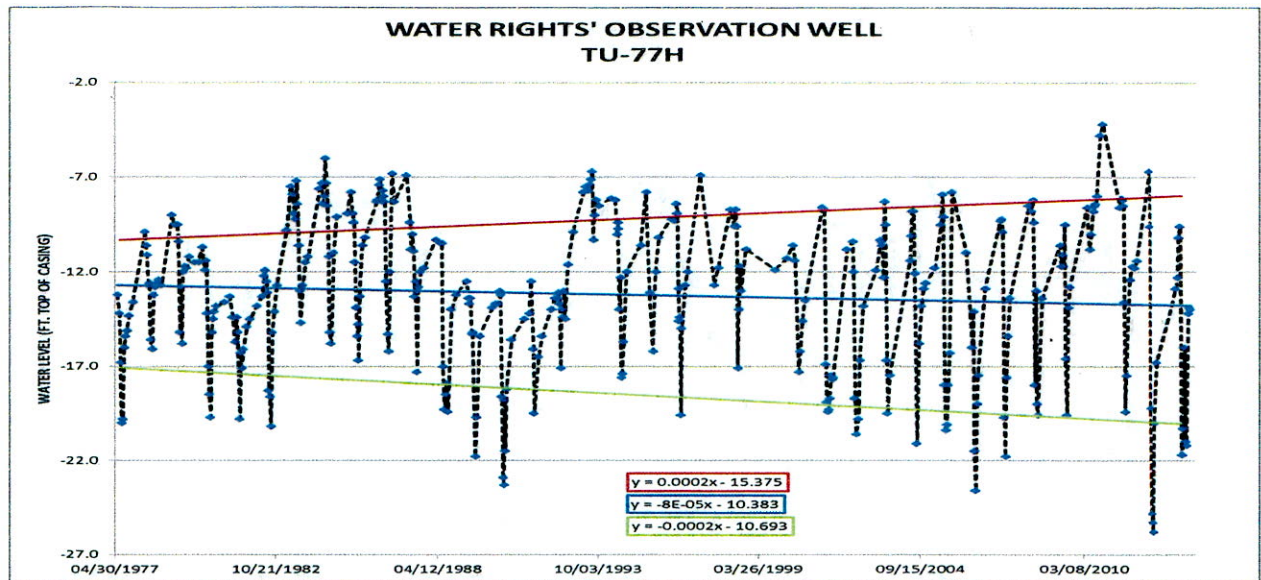


Figure 39. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual water level trend line (red) (Water Rights, 2014a).

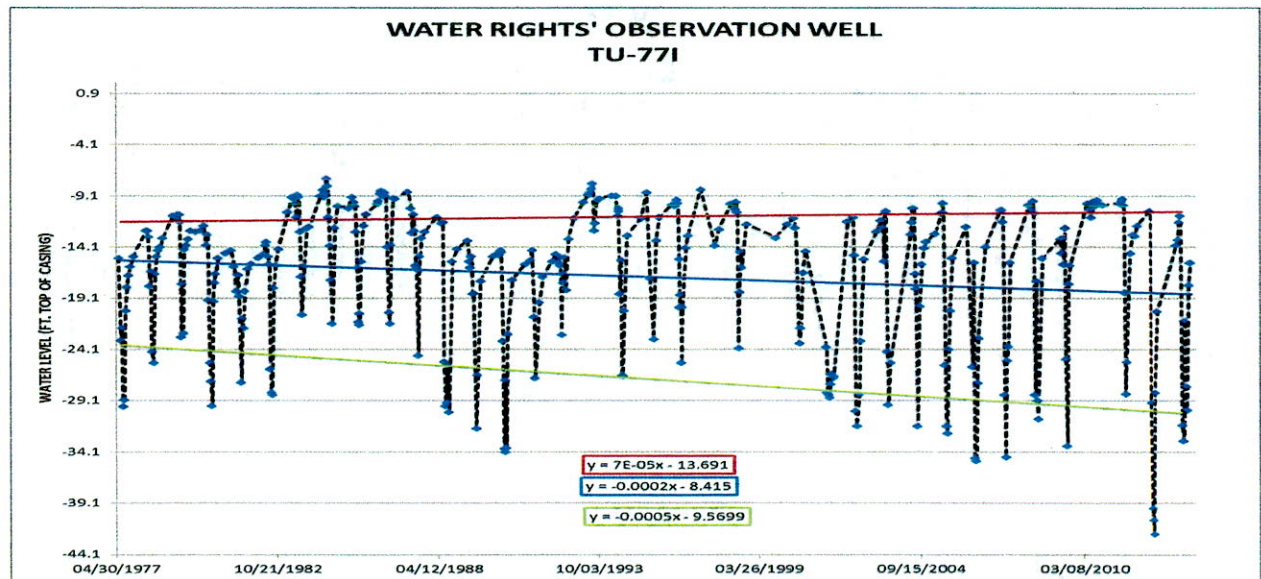


Figure 40. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual water level trend line (red) (Water Rights, 2014a).

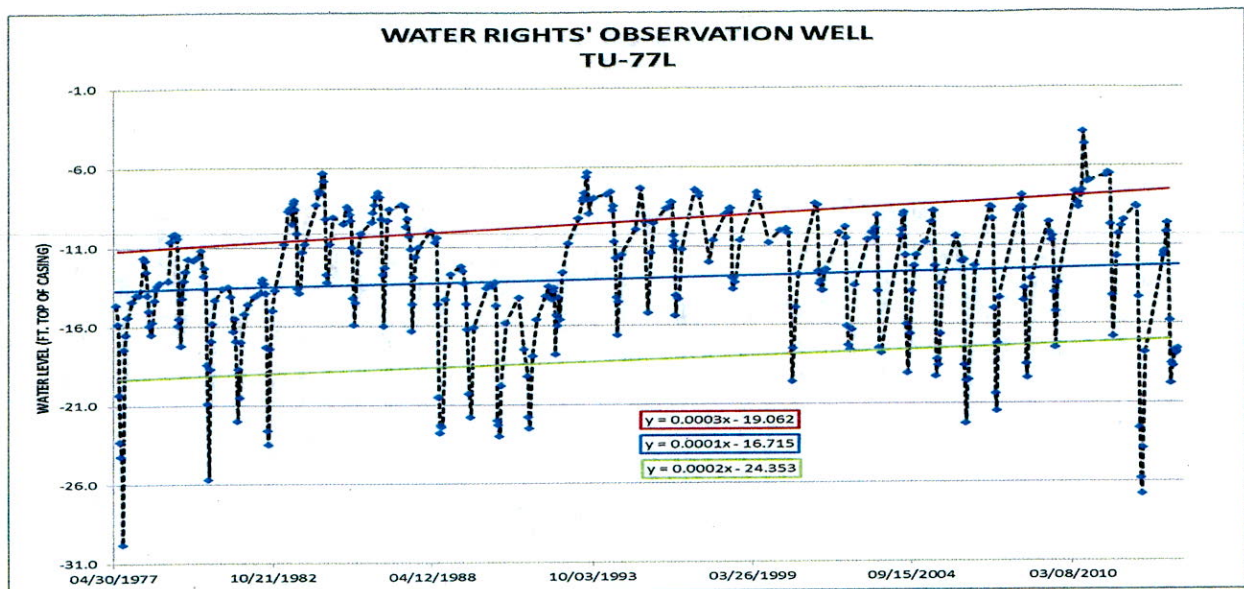


Figure 41. Hydrograph of an observation well completed into the North management unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and maximum annual water level trend line (red) (Water Rights, 2014a).

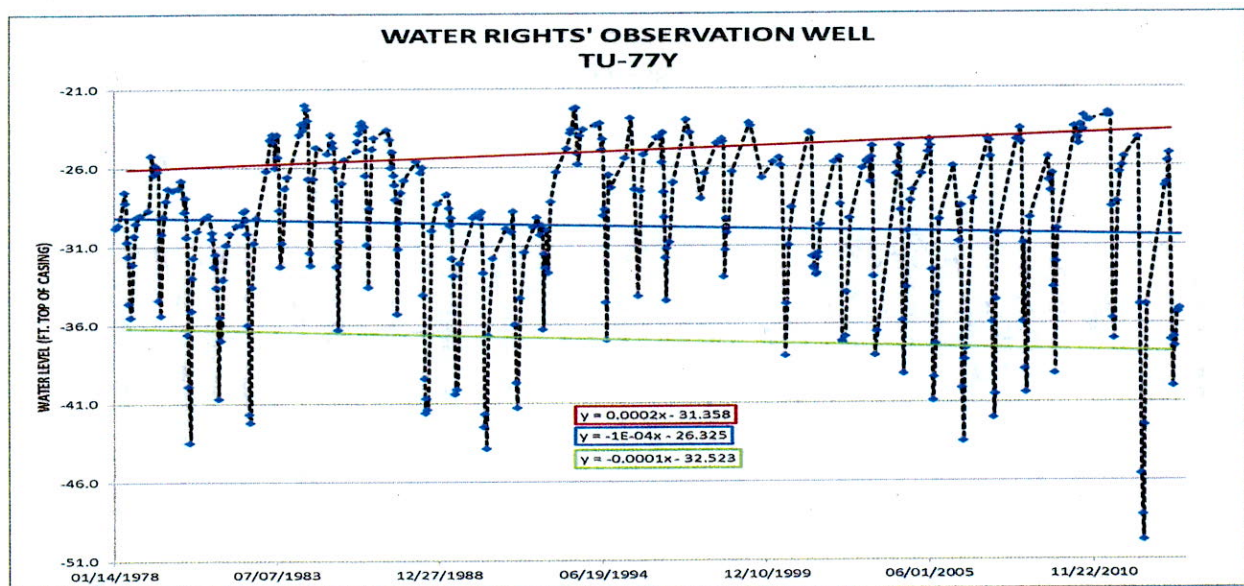


Figure 42. Hydrograph of observation well completed into the North Management Unit of the Upper Vermillion Missouri aquifer with trend line (blue), minimum annual water level trend line (green), and Maximum annual water level trend line (red) (Water Rights, 2014a).

Profiles of the potentiometric surface along a flow path crossing the southern boundary of the North management unit of the Upper Vermillion Missouri aquifer (see Figures 43 and 44) documents that the gradient of the potentiometric surface decreases from 0.000459 ft/ft (2.42 ft/mile) to 0.000228 ft/ft (1.20 ft/mile) when pumping is at a maximum.

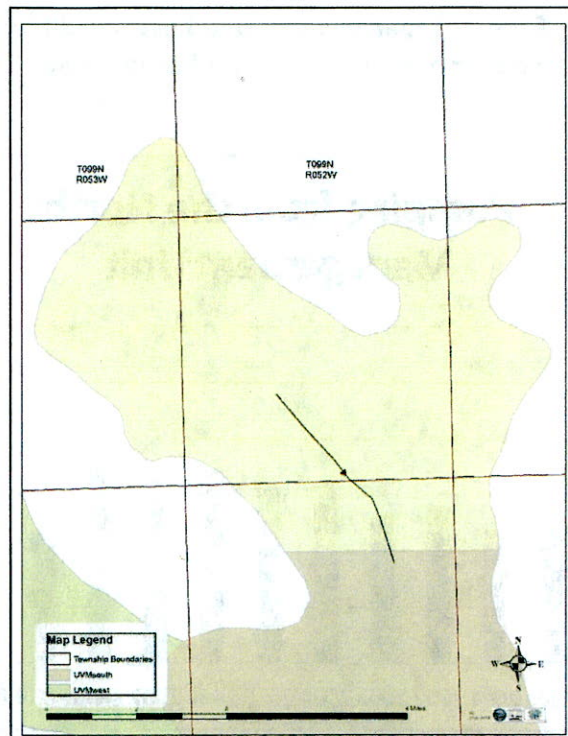


Figure 43. Map showing location of potentiometric surface profile.

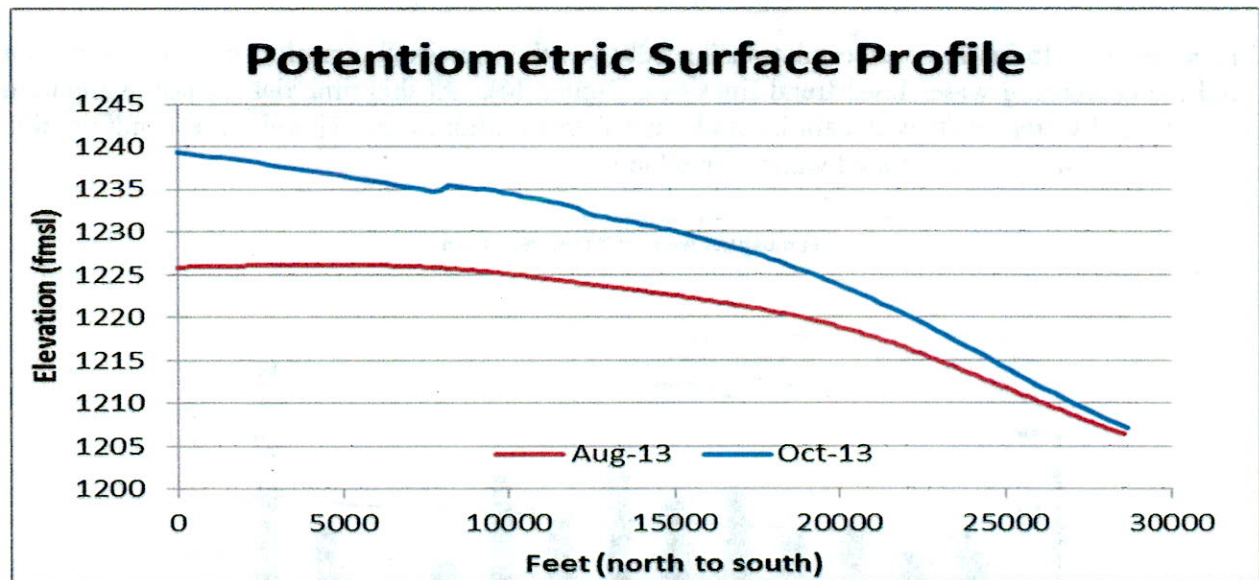


Figure 44. Profile of the potentiometric surface showing stress in North management unit.

The change in slope demonstrates that this portion of the aquifer is being stressed by well withdrawals to the extent that temporal effects are no longer masked by climatic conditions. Unlike the other management units of the Upper Vermillion Missouri aquifer, it is not possible to conclude that unappropriated water is available from this area based on observation well data.

Reported well withdrawals from this management unit have steadily increased in recent years (see Figure 45). The reported pumping from this unit has increased at an average of 80 ac-ft/yr since 2000.

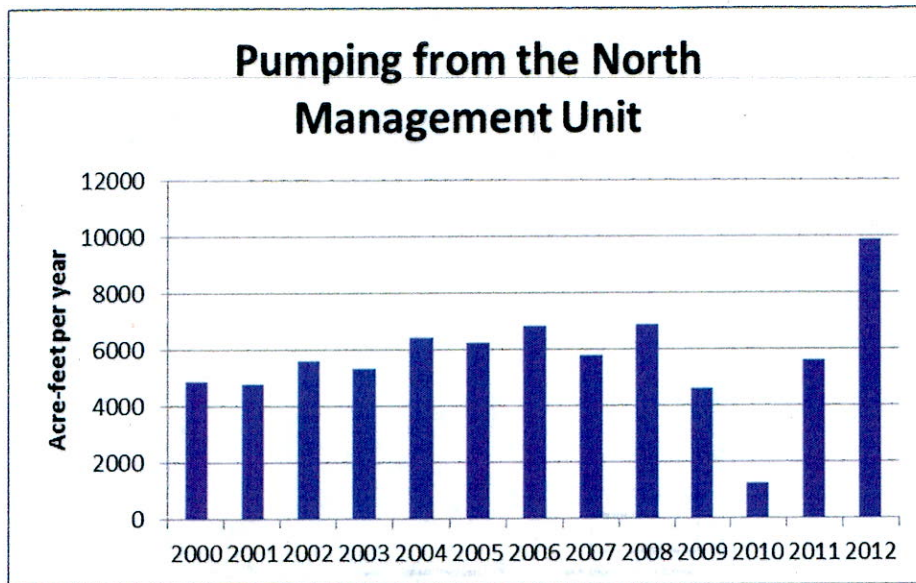


Figure 45. Pumping from the North management unit of the Upper Vermillion Missouri aquifer (Water Rights 1980-2013; Water Rights 2000-2013).

There appears to be an inverse relationship between the increased pumping from the north unit and the decreasing water level trend lines (see Figure 46). At this time data is not available to determine if water levels will stabilize under consistent withdrawals. Therefore, it is not possible to conclude that unappropriated water is available.

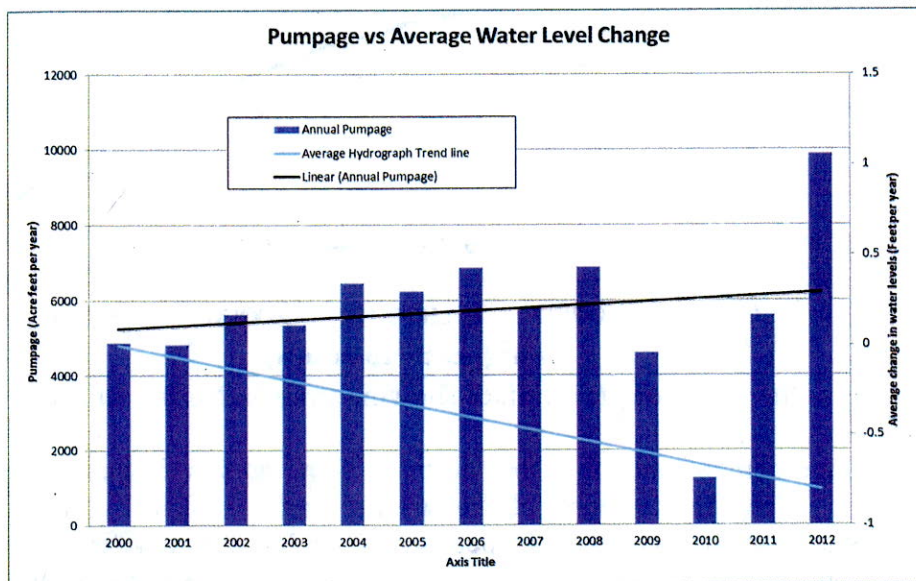


Figure 46. Pumping from the North management unit of the Upper Vermillion Missouri aquifer with trend line plotted with observation well water level trend line data. (Water Rights 1980-2013; Water Rights 2000-2013 and Water Rights 2014a)

Since the observation well data does not support “that the quantity of water withdrawn annually from the aquifer does not exceed average annual recharge to the aquifer” as required by ARSD 74:02:05:07 further evaluation of water availability from North management unit, including a flow net analysis was not performed.

IMPAIRMENT OF EXISTING RIGHTS

Since the Upper Vermillion Missouri aquifer is primarily under artesian conditions, drawdown due to pumping may be fairly large near an individual production well. Drawdown measured in pumping tests of irrigation wells (see Table 1) ranged from 6-92 feet. Well interference has historically not been a problem from the aquifer. Figures 47 and 48 show the location of selected DENR-Water Rights observation wells in relation to concentrations of irrigation wells. Hydrographs for the observation wells (Figures 37, 38, 39, 40 and 24) document drawdown of 5-25 feet. Considering the artesian pressure of the aquifer and natural water level fluctuations, drawdown of that magnitude should not be considered significant.

The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. SDCL 46-6-6.1 does not require protection of artesian head pressure as a means of groundwater delivery. However, reasonable domestic use must be assured before irrigation use is allowed. Therefore, when considering irrigation projects, the Water Management Board must give consideration to maintaining artesian head pressure as a method of delivery for domestic wells. To balance interests between irrigation use and delivery of groundwater by artesian pressure, ARSD 74:02:04:20(7) defines an adversely impacted domestic well as:

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

Depending on the specific characteristics of the Upper Vermillion Missouri aquifer at the proposed well sites, some existing well owners may need to lower their pumps to accommodate possible reduction of head pressure. Therefore, there is a reasonable probability that any well interference from the proposed appropriation will not adversely or unlawfully impair existing nearby wells.

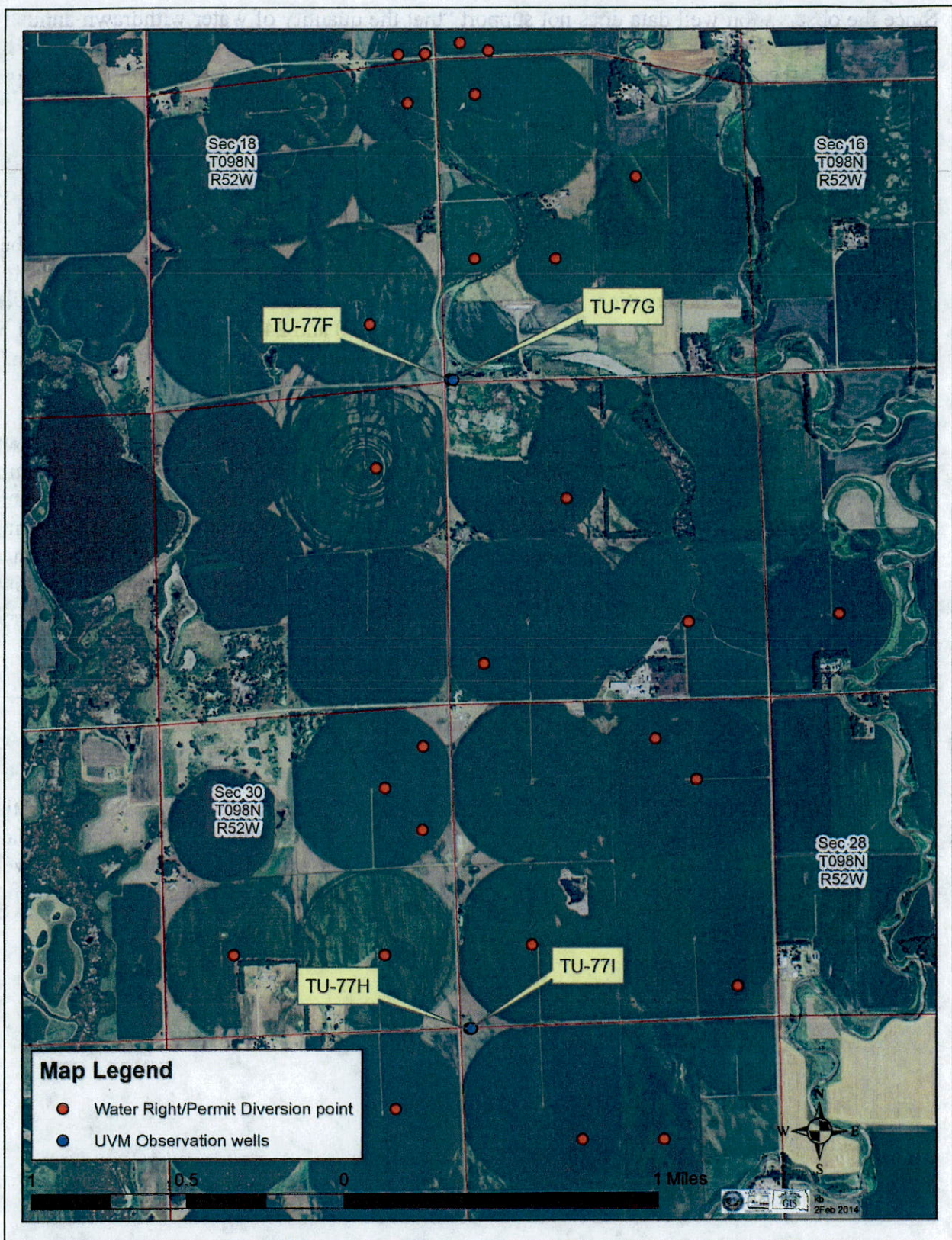


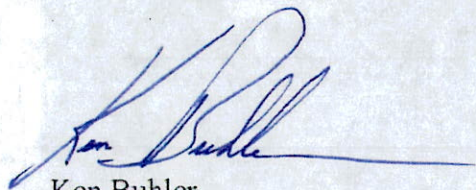
Figure 47. Location of DENR-Water Rights' observation wells TU-77F, G, H, I in relation to irrigation diversion points.



Figure 48. Location of DENR-Water Rights' observation well TU-77M in relation to irrigation diversion points.

CONCLUSIONS:

1. The Water Management Board deferred 18 water permit applications from the Upper Vermillion Missouri aquifer in 2013, because portions of the aquifer have experienced long-term downward trending water levels.
2. Since the Board's initial action to defer the original applications for further study, one additional application has been deferred and two applications are public noticed for deferral.
3. At the time the Board considered the applications, information was not available to distinguish management units within the aquifer.
4. Data is now available to consider three management units of the Upper Vermillion Missouri aquifer.
5. There is a reasonable probability that unappropriated water is available to accommodate the appropriations proposed from the South and West management units of the Upper Vermillion Missouri aquifer (Water Permit Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7609-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3; and Water Permit Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3.)
6. There is a reasonable probability that the proposed appropriations from the South and West management units can be made without adversely impacting existing water rights.
7. Data is not available at this time to conclude that unappropriated water is available from the North management unit of the Upper Vermillion Missouri aquifer.



Ken Buhler
DENR-Water Rights Program

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Water Rights, 2014c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**DEPARTMENT OF ENVIRONMENT
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February 7, 2014

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Please publish the notice once on February 13, 2014.

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The Water Rights Program will pay the cost of this publication.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
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Enclosure



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Natural Resources Engineer
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enclosure



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Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a NOTICE OF HEARING ON APPLICATIONS TO APPROPRIATE WATER FROM MANAGEMENT UNITS OF THE UPPER VERMILLION MISSOURI AQUIFER.

Please publish the notice once on February 14, 2014.

The text of the notice has been emailed to your paper. If you have questions, please contact Karen Schlaak at (605) 773-3352.

The Water Rights Program will pay the cost of this publication.

Please return an affidavit or the enclosed Proof of Publication form immediately following publication.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosure



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



February 7, 2014

Lennox Independent
PO Box 76
Lennox SD 57039

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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
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February 7, 2014

Viborg Enterprise/Hurley Leader
PO Box H
Centerville SD 57014

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PIERRE, SOUTH DAKOTA 57501-3182
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February 7, 2014

Centerville Journal
PO Box H
Centerville SD 57014

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enclosure



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



February 7, 2014

The New Era
PO Box 579
Parker SD 57053

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Natural Resources Engineer
605 773-3352

enclosure

NOTICE OF HEARING ON APPLICATIONS TO APPROPRIATE WATER FROM
MANAGEMENT UNITS OF THE UPPER VERMILLION MISSOURI AQUIFER

Twenty one applications proposing to appropriate water for irrigation from the Upper Vermillion Missouri (UVM) aquifer were filed in 2012 and 2013. The Chief Engineer recommended deferral because at the time it was not possible to conclude that unappropriated water was available from the aquifer. Nineteen of the applications were formally deferred by the Water Management Board pending study of the UVM aquifer. Two other applications (Nos. 7690-3 and 7919-3) are currently public noticed for a March 6, 2014, hearing with a recommendation of deferral.

The South Dakota Geologic Survey (SDGS) conducted work in 2013 - 2014 which established new boundaries for the main body of the aquifer. This work done by the SDGS has been analyzed by the Water Rights Program and provides identifiable geologic and hydrologic data documenting two boundaries establishing three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West management units of the UVM aquifer. Observation well data and a flow net analysis has been conducted on each management unit to determine whether unappropriated water is available.

All UVM applications are now scheduled before the Water Management Board for consideration. The Chief Engineer has revised the recommendation to approval for those applications within the boundary of the South Management Unit and the West Management Unit. The Chief Engineer recommends that applications within the North Management Unit remain deferred. The report to the Chief Engineer and the recommendations are available at <http://denr.sd.gov/des/wr/pubnotice.aspx> or by contacting the Water Rights Program at (605) 773-3352.

This notice schedules a hearing before the Water Management Board beginning at 10:30 AM, on Thursday, March 6, 2014, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. Listed below is a description of each application, the Chief Engineer's recommendation, and the procedure to file a petition to intervene in the hearing process.

South Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7441-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be approximately 175 feet deep located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cubic feet of water per second (cfs) from one well that is 165 feet deep located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate. The Water Management Board did authorize a change in the location of acres without an increase in the diversion rate authority or acres authorized by Water Right No. 5982-3.

Application No. 7466-3 filed by Bethel Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 169 feet deep located in approximate center of the NE 1/4 Section 5 for irrigation of 152 acres located in the NE 1/4 Section 5; all in T96N-R51W.

Application No. 7467-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 134 feet deep located in the

approximate center of the NW 1/4 Section 13 for irrigation of 152 acres located in the NW 1/4 Section 13; all in T97N-R52W.

Application No. 7600-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 3.56 cfs from two wells to be approximately 200 feet deep located in the NE 1/4 NW 1/4 and the approximate center of the SW 1/4 Section 12 for irrigation of 180 acres located in the NW 1/4, N 1/2 SW 1/4 Section 12; all in T96N-R52W. The applicant is proposing to locate a pivot in the center of SW 1/4 Section 12 to irrigate the entire SW 1/4. A portion of Water Permit No. 7128-3 held by Paul Shubeck authorizes irrigation of the S 1/2 SW 1/4 Section 12-T96N-R52W.

Application No. 7601-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 200 feet deep located in the approximate center of the NE 1/4 Section 25 to irrigate 132 acres located in the NE 1/4 Section 25; all in T97N-R53W.

Application No. 7603-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 150 feet deep located in the approximate center of the NE 1/4 Section 33 to irrigate 120 acres located in the NE 1/4 Section 33; all in T97N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7623-3 filed by Darrell Osborn, 28838 463rd Ave, Centerville SD 57014 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the SE 1/4 NW 1/4 Section 24 for irrigation of 140 acres located in the NW 1/4, W 1/2 NE 1/4 Section 24; all in T97N-R52W.

Application No. 7653-3 filed by Jeremiah Welsh, 29217 460th Ave, Centerville SD 57014 proposes to appropriate 1.67 cfs from one well to be approximately 180 feet deep located in the approximate center of the SW 1/4 Section 8 for irrigation of 85 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 8; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7690-3 filed by Tim or David Ostrem, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50 - 90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4, E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W.

Application No. 7919-3 filed by Larry & Marlene Erickson, 29859 461st Ave, Centerville SD 57014 proposes to appropriate 1.83 cfs from one well to be approximately 75 feet deep located in the approximate center of the NE 1/4 Section 9 for irrigation of 83.83 acres located in the NE 1/4 Section 9; all in T95N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

North Management Unit of the Upper Vermillion Missouri Aquifer (Deferral Recommendation)

Application No. 7452-3 filed by Jerome Hult, 45958 Hwy 18, Davis SD 57021 proposes to appropriate 1.78 cfs from one well to be approximately 190 feet deep located in SW 1/4 NE 1/4 Section 32 for irrigation of 110 acres located in the W 1/2 NE 1/4, SE 1/4 NE 1/4 Section 32; all in T98N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7468-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well approximately 134 feet deep located in the approximate center of the NE 1/4 Section 26 for irrigation of 152 acres located in the NE 1/4 Section 26; all in T98N-R52W.

Application No. 7558-3 filed by Cleland Trust, 38736 Nasturtium Way, Palm Desert CA 92211 has filed an application for a water permit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7535-3 filed by Donald D Benson, 45067 284th St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30 for irrigation of 65 acres located in the NW 1/4 Section 30; all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19; all in T98N-R53W.

Application No. 7602-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34; all in T97N-R53W.

Application No. 7633-3 filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section 32 for irrigation of 152 acres located in the SW 1/4 Section 32; all in T98N-R53W.

Application No. 7715-3 filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070 proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16; all in T97N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public

policy or public interest that should be heard by the board.” In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM. on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervenor retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at an approximate cost of _____.

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Water Rights Program
523 E Capitol Ave., Joe Foss Building
Pierre, SD 57501

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Department of Environment and Natural Resources

Argus Leader AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

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

Thursday, the 13 day of February 2014,
_____, the _____ day of _____ 2014,
_____, the _____ day of _____ 2014,
_____, the _____ day of _____ 2014,
_____, the _____ day of _____ 2014,
_____, the _____ day of _____ 2014,
_____, the _____ day of _____ 2014,

and that \$392.57 was charged for publishing the same

Linda Schulte

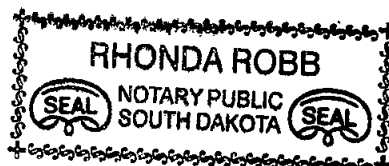
Subscribed and sworn to before me 2/13/2014

[Signature]

Notary Public, South Dakota

My Commission expires December 22, 2015

12/20



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Application No. 7690-3 filed by Tim or David Ostrom, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50 - 90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4, E 1/2 NW 1/4 Section 29; all in T96N-R52W.

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Application No. 7458-3 filed by Cleland Trust, 38736 Nasurtium Way, Palm Desert CA 92211 has filed an application for a water permit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7458-3, 7587-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7535-3 filed by Donald D Benson, 45067 284th St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30 for irrigation of 65 acres located in the NW 1/4 Section 30; all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 180 acres located in the SW 1/4 Section 19; all in T96N-R53W.

Application No. 7602-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34; all in T97N-R53W.

Application No. 7833-3 filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section

32 for irrigation of 152 acres located in the SW 1/4 Section 32; all in T98N-R53W.

Application No. 7715-3 filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070 proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16; all in T97N-R53W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM, on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E Capitol Ave, Pierre SD. The agenda time is an estimate. The \$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 February 24, 2014. 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, 46-5-26, 46-5-30.2 thru 46-5-

gal counsel is obtained. The party that previously petitioned as an intervenor retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

Under SDCL 1-26-17(7) notice 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 February 24, 2014. 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, 46-5-26, 46-5-30.2 thru 46-5-

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FEB 18 2014

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
Water Rights Program - Joe Foss Building
523 East Capitol
Pierre, SD 57501

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice of Hearing on Applications

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 13th DAY OF February 2014
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$190.99 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 2/13/2014

FILED ON: 2/13/2014

2+13

NOTICE OF HEARING ON
APPLICATIONS TO
APPROPRIATE WATER FROM
MANAGEMENT UNITS OF
THE UPPER VERMILION
MISSOURI AQUIFER

Twenty one applications propos-
ing to appropriate water for irriga-
tion from the Upper Vermilion
Missouri (UVM) aquifer were
filed in 2012 and 2013. The Chief
Engineer recommended deferral
because at the time it was not pos-
sible to conclude that unappropri-
ated water was available from the
aquifer. Nineteen of the applica-
tions were formally deferred by
the Water Management Board
pending study of the UVM aquifer.
Two other applications
(Nos. 7690-3 and 7919-3) are cur-
rently public noticed for a March
6, 2014, hearing with a recom-
mendation of deferral.

The South Dakota Geologic Sur-
vey (SDGS) conducted work in
2013 - 2014 which established
new boundaries for the main body
of the aquifer. This work done by
the SDGS has been analyzed by

SUBSCRIBED AND SWORN TO BEFORE ME THIS 13th DAY OF February

2014

Murrel R. Platt
NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 6/11/2019

the Water Rights Program and provides identifiable geologic and hydrologic data documenting two boundaries establishing three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West management units of the UVM aquifer. Observation well data and a flow net analysis has been conducted on each management unit to determine whether unappropriated water is available.

All UVM applications are now scheduled before the Water Management Board for consideration. The Chief Engineer has revised the recommendation to approval for those applications within the boundary of the South Management Unit and the West Management Unit. The Chief Engineer recommends that applications within the North Management Unit remain deferred. The report to the Chief Engineer and the recommendations are available at <http://denr.sd.gov/des/wr/pubnotice.aspx> or by contacting the Water Rights Program at (605) 773-3352.

This notice schedules a hearing before the Water Management Board beginning at 10:30 AM, on Thursday, March 6, 2014, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. Listed below is a description of each application, the Chief Engineer's recommendation, and the procedure to file a petition to intervene in the hearing process.

South Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7441-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be approximately 175 feet deep located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cubic feet of water per second (cfs) from one well that is 165 feet deep located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE

1/4 Section 17 T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate. The Water Management Board did authorize a change in the location of acres without an increase in the diversion rate authority or acres authorized by Water Right No. 5982-3.

Application No. 7466-3 filed by Bethel Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr, Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 169 feet deep located in approximate center of the NE 1/4 Section 5 for irrigation of 152 acres located in the NE 1/4 Section 5; all in T96N-R51W.

Application No. 7467-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr, Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 134 feet deep located in the approximate center of the NW 1/4 Section 13 for irrigation of 152 acres located in the NW 1/4 Section 13; all in T97N-R52W.

Application No. 7600-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 3.56 cfs from two wells to be approximately 200 feet deep located in the NE 1/4 NW 1/4 and the approximate center of the SW 1/4 Section 12 for irrigation of 180 acres located in the NW 1/4 N 1/2 SW 1/4 Section 12; all in T96N-R52W. The applicant is proposing to locate a pivot in the center of SW 1/4 Section 12 to irrigate the entire SW 1/4. A portion of Water Permit No. 712833 held by Paul Shubeck authorizes irrigation of the S 1/2 SW 1/4 Section 12 T96N-R52W.

Application No. 7601-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 200 feet deep located in the approximate center of the NE 1/4 Section 25 to irrigate 132 acres located in the NE 1/4 Section 25; all in T97N-R53W.

Application No. 7603-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 150 feet deep located in the approximate center of the NE 1/4 Section 33 to irrigate 120 acres located in the NE 1/4 Section 33; all in T97N-R52W. The applicant is requesting a diversion rate greater

than the statutory limit of 1 cfs per 70 acres.

Application No. 7623-3 filed by Darrell Osborn, 28838 463rd Ave, Centerville SD 57014 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the SE 1/4 NW 1/4 Section 24 for irrigation of 140 acres located in the NW 1/4 W 1/2 NE 1/4 Section 24; all in T97N-R52W.

Application No. 7653-3 filed by Jeremiah Welsh, 29217 460th Ave, Centerville SD 57014 proposes to appropriate 1.67 cfs from one well to be approximately 180 feet deep located in the approximate center of the SW 1/4 Section 8 for irrigation of 85 acres located in the W 1/2 SW 1/4 NE 1/4 SW 1/4 Section 8; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7690-3 filed by Tim or David Ostrem, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50-90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4 E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W.

Application No. 7919-3 filed by Larry & Marlene Erickson, 29859 461st Ave, Centerville SD 57014 proposes to appropriate 1.83 cfs from one well to be approximately 75 feet deep located in the approximate center of the NE 1/4 Section 9 for irrigation of 83.83 acres located in the NE 1/4 Section 9; all in T95N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

North Management Unit of the Upper Vermillion Missouri Aquifer (Deferral Recommendation)

Application No. 7452-3 filed by Jerome Hult, 45958 Hwy 18, Davis SD 57021 proposes to appropriate 1.78 cfs from one well to be approximately 190 feet deep located in SW 1/4 NE 1/4 Section 32 for irrigation of 110 acres located in the W 1/2 NE 1/4 SE 1/4 NE 1/4 Section 32; all in T98N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7468-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr, Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well approximately 134 feet deep located in the approximate center of the NE 1/4 Section 26 for irrigation of 152 acres located in the NE 1/4 Section 26; all in T98N-R52W.

Application No. 7558-3 filed by Cleland Trust, 38736 Nasturtium Way, Palm Desert CA 92211 has filed an application for a water permit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4 S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer

fer (Approval Recommendation)

Application No. 7535-3 filed by Donald D. Benson, 45067 284th St, Hurley SD 57036, proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30, for irrigation of 65 acres located in the NW 1/4 Section 30, all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3, filed by Paul Petersen, 45610 282nd St, Hurley SD 57036, proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19, all in T98N-R53W.

Application No. 7602-3, filed by Michael D. Stevens, 28916 458th Ave, Viborg SD 57070, proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34, all in T97N-R53W.

Application No. 7633-3, filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070, proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section 32 for irrigation of 152 acres located in the SW 1/4 Section 32, all in T98N-R53W.

Application No. 7715-3, filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070, proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16, all in T97N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief

Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board. In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave, Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervenor retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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, 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; and Board Rules ARSD 74:02:01 thru 74:02:01:25.02; 74:02:01:35.01.

Steven M. Pimer, Secretary, Department of Environment and Natural Resources
Published once at an approximate cost of \$190.99.

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FEB 21 2014

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

PLAIN TALK

DENR
Joe Foss Building
523 East Capitol
Pierre, SD 57501

STATE OF SOUTH DAKOTA
COUNTY OF CLAY

*Plain Talk
201 W Cherry St
Vermillion 57069*

TERA SCHMIDT BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT SHE IS THE CLASSIFIED MANAGER OF YANKTON
MEDIA INC., A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF THE
OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS
AFFIDAVIT; THAT THE ANNEXED
Applications to Appropriate Water

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 14 DAY OF February 2014
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$190.99 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 2/14/14

FILED ON: 2/13/14

Tera A Schmidt

SUBSCRIBED AND SWORN TO BEFORE ME THIS 18th DAY OF February

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

**NOTICE OF HEARING ON
APPLICATIONS TO
APPROPRIATE WATER FROM
MANAGEMENT UNITS OF
THE UPPER VERMILLION
MISSOURI AQUIFER**

Twenty one applications propos-
ing to appropriate water for irriga-
tion from the Upper Vermillion
Missouri (UVM) aquifer were
filed in 2012 and 2013. The Chief
Engineer recommended deferral
because at the time it was not pos-
sible to conclude that unappropri-
ated water was available from the
aquifer. Nineteen of the applica-
tions were formally deferred by
the Water Management Board
pending study of the UVM aquifer.
Two other applications
(Nos. 7690-3 and 7919-3) are cur-
rently public noticed for a March
6, 2014, hearing with a recom-
mendation of deferral.

The South Dakota Geologic Sur-
vey (SDGS) conducted work in
2013 - 2014 which established
new boundaries for the main body
of the aquifer. This work done by
the SDGS has been analyzed by
the Water Rights Program and
provides identifiable geologic and
hydrologic data documenting two
boundaries establishing three
management units within the
UVM aquifer. The Water Rights
Program is proposing designating
North, South and West manage-
ment units of the UVM aquifer.
Observation well data and a flow
net analysis has been conducted
on each management unit to deter-
mine whether unappropriated wa-
ter is available.

All UVM applications are now
scheduled before the Water Man-
agement Board for consideration.
The Chief Engineer has revised
the recommendation to approval
for those applications within the
boundary of the South Manage-
ment Unit and the West Manage-
ment Unit. The Chief Engineer
recommends that applications
within the North Management
Unit remain deferred. The report
to the Chief Engineer and the rec-
ommendations are available at
[http://denr.sd.gov/des/wr/pubno-
tice.aspx](http://denr.sd.gov/des/wr/pubnotice.aspx) or by contacting the Wa-
ter Rights Program at (605)
773-3352.

This notice schedules a hearing
before the Water Management
Board beginning at 10:30 AM, on
Thursday, March 6, 2014, in the
Floyd Matthew Training Center,
Joe Foss Building, 523 E Capitol
Avenue, Pierre SD. Listed below
is a description of each applica-
tion, the Chief Engineer's recom-
mendation, and the procedure to
file a petition to intervene in the
hearing process.

South Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7441-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be approximately 175 feet deep located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cubic feet of water per second (cfs) from one well that is 165 feet deep located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not author-

ize any increase in the developed diversion rate. The Water Management Board did authorize a change in the location of acres without an increase in the diversion rate authority or acres authorized by Water Right No. 5982-3.

Application No. 7466-3 filed by Bethel Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD. 57108 proposes to appropriate 1.78 cfs from one well to be approximately 169 feet deep located in approximate center of the NE 1/4 Section 5 for irrigation of 152 acres located in the NE 1/4 Section 5; all in T96N-R51W.

Application No. 7467-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 134 feet deep located in the approximate center of the NW 1/4 Section 13 for irrigation of 152 acres located in the NW 1/4 Section 13; all in T97N-R52W.

Application No. 7600-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 3.56 cfs from two wells to be approximately 200 feet deep located in the NE 1/4 NW 1/4 and the approximate center of the SW 1/4 Section 12 for irrigation of 180 acres located in the NW 1/4, N 1/2 SW 1/4 Section 12; all in T96N-R52W. The applicant is proposing to locate a pivot in the center of SW 1/4 Section 12 to irrigate the entire SW 1/4. A portion of Water Permit No. 7128-3 held by Paul Shubeck authorizes irrigation of the S 1/2 SW 1/4 Section 12-T96N-R52W.

Application No. 7601-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 200 feet deep located in the approximate center of the NE 1/4 Section 25 to irrigate 132 acres located in the NE 1/4 Section 25; all in T97N-R53W.

Application No. 7603-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 150 feet deep located in the approximate center of the NE 1/4 Section 33 to irrigate 120 acres located in the NE 1/4 Section 33; all in T97N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7623-3 filed by Darrell Osborn, 28838 463rd Ave, Centerville SD 57014 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the SE 1/4 NW 1/4 Section 24 for irrigation of 140 acres located in the NW 1/4, W 1/2 NE 1/4 Section 24; all in T97N-R52W.

Application No. 7653-3 filed by Jeremiah Welsh, 29217 460th Ave, Centerville SD 57014 proposes to appropriate 1.67 cfs from one well to be approximately 180 feet deep located in the approximate center of the SW 1/4 Section 8 for irrigation of 85 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 8; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7690-3 filed by Tim or David Ostrem, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50 - 90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4, E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

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Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

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SEAN

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19; all in T98N-R53W.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is re-

ceived, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM. on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervener retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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; and

Board Rules ARSD 74:02:01:01 thru 74:02:01:25:02; 74:02:01:35:01.

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

Published once at an approximate cost of \$190.99.

Published February 14, 2014.

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FEB 21 2014

WATER RIGHTS
PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County of Lincoln) SS

I, Rebecca Schmitt

certify that the attached printed Notice was taken

from the Lennox

Independent

printed and published in Lennox

County of Lincoln and

state of South Dakota. The notice was published

in the newspaper on the following date:

2-13-14

Cost of Printing \$159.25

Rebecca Schmitt
(Signature)

Publisher
(Title)

2-18-14
(Date Signed)

NOTICE OF HEARING ON APPLICATIONS TO APPROPRIATE WATER FROM MANAGEMENT UNITS OF THE UPPER VERMILLION MISSOURI AQUIFER

Twenty one applications proposing to appropriate water for irrigation from the Upper Vermillion Missouri (UVM) aquifer were filed in 2012 and 2013. The Chief Engineer recommended deferral because at the time it was not possible to conclude that unappropriated water was available from the aquifer. Nineteen of the applications were formally deferred by the Water Management Board pending study of the UVM aquifer. Two other applications (Nos. 7690-3 and 7919-3) are currently public noticed for a March 6, 2014, hearing with a recommendation of deferral.

The South Dakota Geologic Survey (SDGS) conducted work in 2013 and 2014 which established new boundaries for the main body of the aquifer. This work done by the SDGS has been analyzed by the Water Rights Program and provides identifiable geologic and hydrologic data documenting two boundaries establishing three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West management units of the UVM aquifer. Observation well data and a flow net analysis has been conducted on each management unit to determine whether unappropriated water is available.

All UVM applications are now scheduled before the Water Management Board for consideration. The Chief Engineer has revised the recommendation to approval for those applications within the boundary of the South Management Unit and the West Management Unit. The Chief Engineer recommends that applications within the North Management Unit remain deferred. The report to the Chief Engineer and the recommendations are available at <http://dwd.sd.gov/des/wr/pubnotice.aspx> or by contacting the Water Rights Program at (605) 773-3352.

This notice schedules a hearing before the Water Management Board beginning at 10:30 AM, on Thursday, March 6, 2014, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. Listed below is a description of each application, the Chief Engineer's recommendation, and the procedure to file a petition to intervene in the hearing process.

South Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7441-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be approximately 175 feet deep located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cubic feet of water per second (cfs) from one well that is 165 feet deep located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate. The Water Management Board did authorize a change in the location of acres without an increase in the diversion rate authority or acres authorized by Water Right No. 5982-3.

Application No. 7466-3 filed by Bethel Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 169 feet deep located in approximate center of the NE 1/4 Section 5 for irrigation of 152 acres located in the NE 1/4 Section 5; all in T96N-R51W.

Application No. 7467-3 filed by Oeland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 134 feet deep located in the approximate center of the NW 1/4 Section 13 for irrigation of 152 acres located in the NW 1/4 Section 13; all in T97N-R52W.

Application No. 7600-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 3.56 cfs from two wells to be approximately 200 feet deep located in the NE 1/4 NW 1/4 and the approximate center of the SW 1/4 Section 12 for irrigation of 180 acres located in the NW 1/4, N 1/2 SW 1/4 Section 12; all in T96N-R52W. The applicant is proposing to locate a pivot in the center of SW 1/4 Section 12 to irrigate the entire SW 1/4. A portion of Water Permit No. 7128-3 held by Paul Shubeck authorizes irrigation of the SW 1/2 SW 1/4 Section 12-T96N-R52W.

Application No. 7601-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 200 feet deep located in the approximate center of the NE 1/4 Section 25 to irrigate 132 acres located in the NE 1/4 Section 25; all in T97N-R53W.

Application No. 7603-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 150 feet deep located in the approximate center of the NE 1/4 Section 33 to irrigate 120 acres located in the NE 1/4 Section 33; all in T97N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7623-3 filed by Darrell Osborn, 28838 463rd Ave, Centerville SD 57014 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the SE 1/4 NW 1/4 Section 24 for irrigation of 140 acres located in the NW 1/4, W 1/2 NE 1/4 Section 24; all in T97N-R52W.

Application No. 7653-3 filed by Jeremiah Welsh, 29217 460th Ave, Centerville SD 57014 proposes to appropriate 1.67 cfs from one well to be approximately 180 feet deep located in the approximate center of

85 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 8; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7690-3 filed by Tim or David Ostrem, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50 - 90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4; E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W.

Application No. 7919-3 filed by Larry & Marlene Erickson, 29859 461st Ave, Centerville SD 57014 proposes to appropriate 1.83 cfs from one well to be approximately 75 feet deep located in the approximate center of the NE 1/4 Section 9 for irrigation of 83.83 acres located in the NE 1/4 Section 9; all in T95N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

North Management Unit of the Upper Vermillion Missouri Aquifer (Deferral Recommendation)

Application No. 7452-3 filed by Jerome Hult, 45958 Hwy 18, Davis SD 57021 proposes to appropriate 1.78 cfs from one well to be approximately 190 feet deep located in SW 1/4 NE 1/4 Section 32 for irrigation of 110 acres located in the W 1/2 NE 1/4, SE 1/4 NE 1/4 Section 32; all in T98N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7468-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well approximately 134 feet deep located in the approximate center of the NE 1/4 Section 26 for irrigation of 152 acres located in the NE 1/4 Section 26; all in T98N-R52W.

Application No. 7558-3 filed by Cleland Trust, 38736 Nasturtium Way, Palm Desert CA 92211 has filed an application for a water permit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7535-3 filed by Donald D Benson, 45067 284th St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30 for irrigation of 65 acres located in the NW 1/4 Section 30; all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19; all in T98N-R53W.

Application No. 7602-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34; all in T97N-R53W.

Application No. 7633-3 filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section 32 for irrigation of 152 acres located in the SW 1/4 Section 32; all in T98N-R53W.

Application No. 7715-3 filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070 proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16; all in T97N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of

public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 A.M. on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervenor retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at an approximate cost of \$159.25.

RECEIVED

FEB 24 2014

WATER RIGHTS
PROGRAM

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF TURNER

I, Robin Schneider of the City of Parker, County of Turner, State of South Dakota being first duly sworn on oath, deposes and says: The New Era is a weekly legal newspaper of general circulation, printed and published in the City of Parker, in said County of Turner, by The New Era, New Century Press, publishers, and has been such legal newspaper during the times hereinafter mentioned; that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, The affiant, is the Office Manager of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed:

#5760 Notice of Hearing on Applications to Appropriate Water From
Management Units of the Upper Vermillion Missouri Aquifer

_____ printed copy of hereto attached, is printed and published in the said newspaper for one successive weeks, one each week and on the same day of the week, on the following dates, to wit:

On Thursday, the 13th day of Feb. , 2013

That \$160.53 being the full amount of the fees for publication of the attached notices insures solely for the benefits of the publishers of the said newspaper, that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

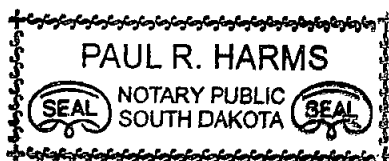
see attached

Robin Schneider
Subscribed and sworn to before me this 19th

Day of February 2014
Paul R. Harms
Notary Public, Turner County, South Dakota

My Commission Expires: March 20, 2018

Publication Fee \$
Notary Fees \$
Total \$160.53



**NOTICE OF HEARING ON
APPLICATIONS
TO APPROPRIATE WATER FROM
MANAGEMENT UNITS OF THE
UPPER VERMILLION MISSOURI
AQUIFER**

Twenty one applications proposing to appropriate water for irrigation from the Upper Vermillion Missouri (UVM) aquifer were filed in 2012 and 2013. The Chief

Engineer recommended deferral because at the time it was not possible to conclude that unappropriated water was available from the aquifer. Nineteen of the applications were formally deferred by the Water Management Board pending study of the UVM aquifer. Two other applications (Nos. 7690-3 and 7919-3) are currently public noticed for a March 6, 2014, hearing with a recommendation of deferral.

The South Dakota Geologic Survey (SDGS) conducted work in 2013 - 2014, which established new boundaries for the main body of the aquifer. This work done by the SDGS has been analyzed by the Water Rights Program and provides identifiable geologic and hydrologic data, documenting two boundaries establishing three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West management units of the UVM aquifer. Observation well data and a flow net analysis has been conducted on each management unit to determine whether unappropriated water is available.

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tends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by Feb. 24, 2014. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervener retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by Feb. 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by Feb. 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 Feb. 24, 2014. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

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

Published once at the total approximate cost of \$160.53.

(#5760,02/13/14, The New Era)

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA)

:SS

COUNTY OF TURNER)

Allyson M. Hill, being first duly sworn, on oath says the CENTERVILLE JOURNAL is a WEEKLY newspaper published in CENTERVILLE in said county of TURNER, State of South Dakota; and that she is authorized to and does make this affidavit on behalf of said CENTERVILLE JOURNAL; that affiant has personal knowledge of all facts stated in this affidavit; that said newspaper is a legal newspaper as defined by SDCL 17-2-2.1 through 17-2-2.4 inclusive as amended, has a bona fide circulation of at least two hundred copies WEEKLY, has been published in the English language within said county and has been admitted to the United States mail under the second class mailing privilege, for at last one year continuously next prior to the publication of the notice herein mentioned and was and is printed wholly or in part in an office maintained at said place of publication; that said notice, a printed copy of which taken from the paper in which the same was published is hereto attached and is made part of this affidavit, was published in said newspaper

1 time(s) as follows: that the first publication of said

notice in said newspaper aforesaid was on Thursday

the 13 day of February, 2014,

and that the succeeding publications were severally

on Thursday, the ____ day of _____, 2014;

on Thursday, the ____ day of _____, 2014;

on Thursday, the ____ day of _____, 2014;

on Thursday, the ____ day of _____, 2014;

Affiant further says that the full amount of the fees charged for the publication of said notice inures to the benefit of the publishers of said newspaper; that no agreement of understanding for the division thereof has been made with any other person, that no part therefore has been agreed to be paid to any person whomsoever; and that the fees charged for the publication thereof are:

DOLLARS (\$) 147³⁸

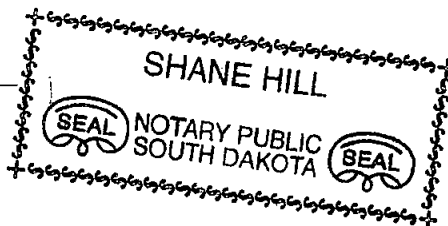
(x) Allyson M. Hill Allyson M. Hill

Subscribed and sworn to before me this 27 day of

February, 2014

Notary Public

My commission expires 11/14/2018.



NOTICE OF HEARING ON APPLICATIONS TO APPROPRIATE WATER FROM MANAGEMENT UNITS OF THE UPPER VERMILLION MISSOURI AQUIFER

Twenty one applications proposing to appropriate water for irrigation from the Upper Vermillion Missouri (UVM) aquifer were filed in 2012 and 2013. The Chief Engineer recommended deferral because at the time it was not possible to conclude that unappropriated water was available from the aquifer. Nineteen

of the applications were formally deferred by the Water Management Board pending study of the UVM aquifer. Two other applications (Nos. 7690-3 and 7919-3) are currently public noticed for a March 6, 2014, hearing with a recommendation of deferral.

The South Dakota Geologic Survey (SDGS) conducted work in 2013 - 2014 which established new boundaries for the main body of the aquifer. This work done by the SDGS has been analyzed by the Water Rights Program and provides identifiable geologic and hydrologic data documenting two boundaries establishing three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West management units of the UVM aquifer. Observation well data and a flow net analysis has been conducted on each management unit to determine whether unappropriated water is available.

All UVM applications are now scheduled before the Water Management Board for consideration. The Chief Engineer has revised the recommendation to approval for those applications within the boundary of the South Management Unit and the West Management Unit. The Chief Engineer recommends that applications within the North Management Unit remain deferred. The report to the Chief Engineer and the recommendations are available at <http://lenr.sd.gov/des/wr/pubnotice.aspx> or by contacting the Water Rights Program at (605) 773-3352.

This notice schedules a hearing before the Water Management Board beginning at 10:30 AM, on Thursday,

March 6, 2014, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. Listed below is a description of each application, the Chief Engineer's recommendation, and the procedure to file a petition to intervene in the hearing process.

South Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7441-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to appropriate 1.78 cubic feet of water per second (cfs) from one well to be approximately 175 feet deep located in the center of the SE 1/4 Section 8 for irrigation of 140 acres located in the SE 1/4 Section 8; all in T95N-R52W.

Application No. 7442-3 filed by Gary E or Julie A Peterson, 45913 299th St, Centerville SD 57014 proposes to irrigate 40 additional acres. Water Right No. 5982-3 authorizes 1.64 cubic feet of water per second (cfs) from one well that is 165 feet deep located in the SE 1/4 NW 1/4 Section 17 to irrigate 115 acres located in the NW 1/4 Section 17; all in T95N-R52W. The application is proposing to irrigate an additional 40 acres located in the W 1/2 NE 1/4 Section 17-T95N-R52W from the existing well. This application, if approved does not authorize any increase in the developed diversion rate. The Water Management Board did authorize a change in the location of acres without an increase in the diversion rate authority or acres authorized by Water Right No. 5982-3.

Application No. 7466-3 filed by Bethel Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 169 feet deep located in approximate center of the NE 1/4 Section 5 for irrigation of 152 acres located in the NE 1/4 Section 5; all in T96N-R51W.

Application No. 7467-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well to be approximately 134 feet deep located in the approximate center of the NW 1/4 Section 13 for irrigation of 152 acres located in the NW 1/4 Section 13; all in T97N-R52W.

Application No. 7600-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 3.56 cfs from two wells to be approximately 200 feet deep located in the NE 1/4 NW 1/4 and the approximate center of the

SW 1/4 Section 12 for irrigation of 180 acres located in the NW 1/4, N 1/2 SW 1/4 Section 12; all in T96N-R52W. The applicant is proposing to locate a pivot in the center of SW 1/4 Section 12 to irrigate the entire SW 1/4. A portion of Water Permit No. 7128-3 held by Paul Shubeck authorizes irrigation of the S 1/2 SW 1/4 Section 12-T96N-R52W.

Application No. 7601-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 200 feet deep located in the approximate center of the NE 1/4 Section 25 to irrigate 132 acres located in the NE 1/4 Section 25; all in T97N-R53W.

Application No. 7603-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 150 feet deep located in the approximate center of the NE 1/4 Section 33 to irrigate 120 acres located in the NE 1/4 Section 33; all in T97N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7623-3 filed by Darrell Osborn, 28838 463rd Ave, Centerville SD 57014 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the SE 1/4 NW 1/4 Section 24 for irrigation of 140 acres located in the NW 1/4, W 1/2 NE 1/4 Section 24; all in T97N-R52W.

Application No. 7653-3 filed by Jeremiah Welsh, 29217 460th Ave, Centerville SD 57014 proposes to appropriate 1.67 cfs from one well to be approximately 180 feet deep located in the approximate center of the SW 1/4 Section 8 for irrigation of 85 acres located in the W 1/2 SW 1/4, NE 1/4 SW 1/4 Section 8; all in T96N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7690-3 filed by Tim or David Ostrem, 45924 300 St, Wakonda SD 57073 proposes to appropriate 1.78 cfs from one well to be approximately 50 - 90 feet deep located in the center of the NE 1/4 Section 29 for irrigation of 160 acres located in the NE 1/4, E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W

Application No. 7919-3 filed by Larry & Marlene Erickson, 29859 461st Ave, Centerville SD 57014 proposes to appropriate 1.83 cfs from one well to be approximately 75 feet deep located in the approxi-

mate center of the NE 1/4 Section 9 for irrigation of 83.83 acres located in the NE 1/4 Section 9; all in T95N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

North Management Unit of the Upper Vermillion Missouri Aquifer (Deferral Recommendation)

Application No. 7452-3 filed by Jerome Hult, 45958 Hwy 18, Davis SD 57021 proposes to appropriate 1.78 cfs from one well to be approximately 190 feet deep located in SW 1/4 NE 1/4 Section 32 for irrigation of 110 acres located in the W 1/2 NE 1/4, SE 1/4 NE 1/4 Section 32; all in T98N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7468-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well approximately 134 feet deep located in the approximate center of the NE 1/4 Section 26 for irrigation of 152 acres located in the NE 1/4 Section 26; all in T98N-R52W.

Application No. 7558-3 filed by Cleland Trust, 38736 Nasturtium Way, Palm Desert CA 92211 has filed an application for a water permit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres

located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7535-3 filed by Donald D Benson, 45067 284th St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30 for irrigation of 65 acres located in the NW 1/4 Section 30; all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate

1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19; all in T98N-R53W.

Application No. 7602-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34; all in T97N-R53W.

Application No. 7633-3 filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section 32 for irrigation of 152 acres located in the SW 1/4 Section 32; all in T98N-R53W.

Application No. 7715-3 filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070 proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16; all in T97N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM. on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal, but shall be in writing and shall include a state-

ment describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervener retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

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

Published once at an approximate cost of \$147.38

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA)

:SS

COUNTY OF TURNER)

Allyson M. Hill, being first duly sworn, on oath says the VIBORG ENTERPRISE is a WEEKLY newspaper published in VIBORG in said county of TURNER, State of South Dakota; and that she is authorized to and does make this affidavit on behalf of said VIBORG ENTERPRISE; that affiant has personal knowledge of all facts stated in this affidavit; that said newspaper is a legal newspaper as defined by SDCL 17-2-2.1 through 17-2-2.4 inclusive as amended, has a bona fide circulation of at least two hundred copies WEEKLY, has been published in the English language within said county and has been admitted to the United States mail under the second class mailing privilege, for at last one year continuously next prior to the publication of the notice herein mentioned and was and is printed wholly or in part in an office maintained at said place of publication; that said notice, a printed copy of which taken from the paper in which the same was published is hereto attached and is made part of this affidavit, was published in said newspaper

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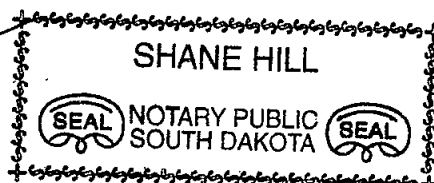
DOLLARS (\$) 147³⁸
(x) Allyson M. Hill, Allyson M. Hill

Subscribed and sworn to before me this 27 day of

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Notary Public

My commission expires 11/14/2018



NOTICE OF HEARING ON APPLICATIONS TO APPROPRIATE WATER FROM MANAGEMENT UNITS OF THE UPPER VERMILLION MISSOURI AQUIFER

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located in the NE 1/4, E 1/2 NW 1/4 Section 29; all in T96N-R52W.

Application No. 7900-3 filed by Leon Thompson, 401 S 11th St, Beresford SD 57004 proposes to appropriate 1.89 cfs from one well to be approximately 151 feet deep located in the NW 1/4 NE 1/4 Section 6 for irrigation of 136 acres located in the NE 1/4 Section 6; all in T95N-R51W.

Application No. 7919-3 filed by Larry & Marlene Erickson, 29859 461st Ave, Centerville SD 57014 proposes to appropriate 1.83 cfs from one well to be approximately 75 feet deep located in the approximate center of the NE 1/4 Section 9 for irrigation of 83.83 acres located in the NE 1/4 Section 9; all in T95N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7441-3, 7442-3, 7466-3, 7467-3, 7600-3, 7601-3, 7603-3, 7623-3, 7653-3, 7690-3, 7900-3 and 7919-3 from the South Management Unit of the Upper Vermillion Missouri Aquifer 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.

North Management Unit of the Upper Vermillion Missouri Aquifer (Deferral Recommendation)

Application No. 7452-3 filed by Jerome Hult, 45958 Hwy 18, Davis SD 57021 proposes to appropriate 1.78 cfs from one well to be approximately 190 feet deep located in SW 1/4 NE 1/4 Section 32 for irrigation of 110 acres located in the W 1/2 NE 1/4, SE 1/4 NE 1/4 Section 32; all in T98N-R52W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7468-3 filed by Cleland Hagen Trust, c/o Bruce Hagen, 1300 W Murphy Dr. Sioux Falls SD 57108 proposes to appropriate 1.78 cfs from one well approximately 134 feet deep located in the approximate center of the NE 1/4 Section 26 for irrigation of 152 acres located in the NE 1/4 Section 26; all in T98N-R52W.

Application No. 7558-3 filed by Cleland Trust, 38736 Nasturtium Way, Palm Desert CA 92211 has filed an application for a water per-

mit to appropriate 1.78 cfs from one well to be approximately 275 feet deep located in the approximate center between the NW 1/4 and the SW 1/4 Section 1 for irrigation of 120 acres located in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 1; all in T98N-R52W.

Application No. 7587-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 100 feet deep located in the approximate center of the SE 1/4 Section 10 for irrigation of 160 acres located in the SW 1/4 Section 10; all in T98N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends continuing DEFERRAL of Application Nos. 7452-3, 7468-3, 7558-3 and 7587-3 from the North Management Unit of the Upper Vermillion Missouri Aquifer until information is available to determine if there is reasonable probability that there is unappropriated water available for the applicant's proposed use. Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that unappropriated water is available.

West Management Unit of the Upper Vermillion Missouri Aquifer (Approval Recommendation)

Application No. 7535-3 filed by Donald D Benson, 45067 284th St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 220 feet deep located in the SW 1/4 NW 1/4 Section 30 for irrigation of 65 acres located in the NW 1/4 Section 30; all in T98N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Application No. 7588-3 filed by Paul Petersen, 45610 282nd St, Hurley SD 57036 proposes to appropriate 1.78 cfs from one well to be approximately 145 feet deep located in the approximate center of the SW 1/4 Section 19 to irrigate 160 acres located in the SW 1/4 Section 19; all in T98N-R53W.

Application No. 7602-3 filed by Michael D Stevens, 28916 458th Ave, Viborg SD 57070 proposes to appropriate 1.89 cfs from one well to be approximately 140 feet deep located in the approximate center between the NW 1/4 and the NE 1/4 Section 34 for irrigation of 132 acres

located in the E 1/2 NW 1/4 and the W 1/2 NE 1/4 Section 34; all in T97N-R53W.

Application No. 7633-3 filed by Brad Farrar, 28795 452nd Ave, Viborg SD 57070 proposes to appropriate 1.78 cfs from one well to be approximately 205 feet deep located in the center of the SW 1/4 Section 32 for irrigation of 152 acres located in the SW 1/4 Section 32; all in T98N-R53W.

Application No. 7715-3 filed by Allen Vannorsdel, 45515 288th St, Viborg SD 57070 proposes to appropriate 2.22 cfs from one well to be approximately 160 feet deep located in the center of the SW 1/4 Section 16 for irrigation of 156 acres located in the SW 1/4 Section 16; all in T97N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7535-3, 7588-3, 7602-3, 7633-3 and 7715-3 from the West Management Unit of the Upper Vermillion Missouri Aquifer 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.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose a specific application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard.

The Water Management Board will consider these applications beginning at 10:30 AM. on Thursday, March 6, 2014, in the Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave. Pierre SD. The agenda time is an estimate. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support specific applications and the petition shall be filed with BOTH the

applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation on their applications. 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 are given above. A petition filed by either an interested person or the applicant must be filed by February 24, 2014. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in any of the applications, the petitioner's reasons for opposing or supporting specific applications, and the signature and mailing address of

the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The party that previously petitioned as an intervener retains party status. 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.

The March 6, 2014, 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 of an above listed application. The request for an automatic delay must be filed by February 24, 2014. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to the applicants and to all petitioners regarding the time, date and location.

Contact Eric Gronlund by February 24, 2014 at the above Chief Engineer's address to request copies of the staff report, recommendations, applications or 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.

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 February 24, 2014. 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:25.02; 74:02:01:35.01.

*Steven M. Pirner, Secretary,
Department of Environment and
Natural Resources
Published once at an approximate
cost of \$147.38.*

February 18, 2014

PAYMENT REQUEST FORM

PAYEE: Argus Leader
PO Box 677349
Dallas TX 75267-7349

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Notice of Hearing for UVM Aquifer permits # 1435497

AMOUNT: \$392.57

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:

Nail Jackson 2-18-14

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

February 19, 2014

PAYMENT REQUEST FORM

PAYEE: Daily Press & Dakotan
319 Walnut
Yankton SD 57078

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for UVM hearing

AMOUNT: \$190.99

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:

Gail Jacobson 2-19-14

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

February 21, 2014

PAYMENT REQUEST FORM

PAYEE: Plain Talk
201 W Cherry St
Vermillion SD 57069

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for UVM hearing

AMOUNT: \$190.99

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:

Gail Jackson 2-21-14

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

February 21, 2014

PAYMENT REQUEST FORM

PAYEE: Lennox Independent
PO Box 76
Lennox SD 57039

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for UVM hearing #2286

AMOUNT: \$159.25

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:

Gail Jackson 2-21-14

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

February 24, 2014

PAYMENT REQUEST FORM

PAYEE: New Century Press (New Era)
PO Box 28
Rock Rapids IA 51246

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for UVM hearing # 5760

AMOUNT: \$160.53

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION: *Gail Jacobson - 2-24-14*

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

March 4, 2014

PAYMENT REQUEST FORM

PAYEE: Star Publishing
PO Box H
Centerville SD 57014

FROM: DENR Water Rights Program
523 E. Capitol Ave
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Public notice for UVM hearing--Viborg & Centerville papers
#'s02132245 & 0212260 (\$147.38 each)

AMOUNT: \$294.76

FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION:

Gail Jackson 3-4-14

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

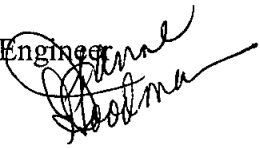
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



February 10, 2014

NOTICE

TO: A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Gary or Julie Peterson, 45913 299th Street, Centerville SD 57014
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211
Allen Vannorsdel, 45515 288th Street, Viborg SD 57070
Leon Thompson, 401 S 11th Street, Beresford SD 57004
Tim or David Ostrem, 45924 300 St, Wakonda SD 57073
Larry and Marlene Erickson, 29859 461st Avenue, Centerville SD 57014

FROM: Jeanne Goodman, Chief Engineer
Water Rights Program 

SUBJECT: Scheduling Hearing before Water Management Board on Deferred Applications for Irrigation from the Upper Vermillion Missouri Aquifer

Twenty one applications proposing to appropriate water for irrigation from the Upper Vermillion Missouri (UVM) aquifer were filed between the fall of 2012 through 2013. The Chief Engineer recommended deferral of the applications because at the time it was not possible to conclude that unappropriated water is available from the aquifer. Nineteen of the applications have been formally deferred by the Water Management Board until study of the UVM aquifer is completed. Two other applications (Nos. 7690-3 and 7919-3) are currently public noticed for a March 6, 2014, hearing with a recommendation of deferral.

The South Dakota Geologic Survey (SDGS) conducted work in 2013 and early 2014 which established new boundaries for the main body of the aquifer. This work done by the SDGS has been analyzed by the Water Rights Program and provides identifiable geologic and hydrologic data documenting two boundaries which if implemented, establish three management units within the UVM aquifer. The Water Rights Program is proposing designating North, South and West Management Units of the UVM aquifer. Each management unit was analyzed to determine the availability of unappropriated water. Enclosed is the staff report to the

Chief Engineer that provides 1) the basis for designation of the three management units, and 2) an evaluation of water availability for each unit.

The Chief Engineer has revised the recommendation to approval for those applications within the boundary of the South Management Unit and West Management Unit. Attached is a table that provides a listing of the proposed applications, the applicant and the management location where each application is located. Revised recommendations are enclosed to each applicant specific to the applications they have pending. For those applicants in the North Management Unit, the original recommendation for deferral remains in place. Those desiring to view all the revised recommendations may find them on-line at <http://denr.sd.gov/des/wr/pubnotice.aspx>.

This notice schedules a hearing before the Water Management Board on these applications beginning at 10:30 AM, on Thursday, March 6, 2014, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. The agenda time is an estimate and may be delayed due to prior agenda items.

A notice of hearing on the applications setting forth the management unit boundaries, the Chief Engineer's revised recommendations, and scheduling a March 6th hearing before the Water Management Board will be published the week of February 10, 2014, in accordance with SDCL 46-2A-4. Enclosed is the public notice.

If you have any questions regarding the report, revised recommendation, public notice or the water permitting process, please contact Eric Gronlund or Ken Buhler at (605) 773-3352.

Enclosures

c: Diane Best, Assistant Attorney General
Ann Mines, Assistant Attorney General

Pending Applications from the Upper Vermillion Missouri Aquifer Designated by Management Units

West Management Unit – recommend for approval

North Management Unit – recommend continued deferral

South Management Unit – recommend for approval

Permit No.	Applicant	Management Unit of UVM Aquifer	CFS	Well Location	Acres	Acre Location
7535-3	Donald Benson	West	1.78	SW¼ NW¼ Sec. 30, T98N-R53W	65	NW¼ Sec. 30, T98N-R53W
7588-3	Paul Peterson	West	1.78	SW¼ Sec. 19, T98N-R53W	160	SW¼ Sec. 19, T98N-R53W
7602-3	Michael Stevens	West	1.89	Between NW¼ & NE¼ Sec. 34, T97N-R53W	132	E½NW¼, W½NE¼ Sec. 34, T97N-R53W
7633-3	Brad Farrar	West	1.78	SW¼ Sec. 32, T98N-R53W	152	SW¼ Sec. 32, T98N-R53W
7715-3	Allen Vannorsdel	West	2.22	SW ¼ Section 16, T97N- R53W	156	SW ¼ Sec. 16, T97N-R53W
7452-3	Jerome Hult	North	1.78	SW¼NE¼ Sec. 32, T98N-R52W	110	W½NE¼, SE¼NE¼ Sec. 32, T98N-R52W
7468-3	Cleland Hagen Trust	North	1.78	NE¼ Sec. 26, T98N-R52W	152	NE¼ Sec. 26, T98N-R52W
7558-3	Cleland Hagen Trust	North	1.78	Between NW¼ & SW¼ Sec. 1, T98N-R52W	120	N½SW¼, S½NW¼ Sec. 1, T98N-R52W
7587-3	Paul Peterson	North	1.78	SE¼ Sec. 10, T98N-R53W	160	SW¼ Sec. 10, T98N-R53W
7441-3	Gary/Julie Peterson	South	1.79	SE¼ Sec. 8, T95N-R52W	140	SE¼ Sec. 8, T95N-R52W
7442-3	Gary/Julie Peterson	South	no add'l	NW¼ Sec. 17, T95N-R52W	40	W½ NE¼ Sec. 17, T95N-R52W
7466-3	Bethel Hagen Trust	South	1.78	NE¼ Sec. 5, T96N-R51W	152	NE¼ Sec. 5, T96N-R51W
7467-3	Cleland Hagen Trust	South	1.78	NW¼ Sec. 13, T97N-R52W	152	NW¼ Sec. 13, T97N-R52W
7600-3	Michael Stevens	South	3.56	NE¼NW¼ & SW¼ Sec. 12, T96N-R52W (2 wells)	180	NW¼, N½SW¼ Sec. 12, T96N-R52W
7601-3	Michael Stevens	South	1.89	NE¼ Sec. 25, T-97N-R53W	132	NE¼ Sec. 25, T97N-R53W
7603-3	Michael Stevens	South	1.78	NE¼ Sec. 33, T97N-R52W	120	NE¼ Sec. 33, T97N-R52W
7623-3	Darrel Osborn	South	1.89	SE¼NW¼ Sec. 24, T97N-R52W	140	NW¼, W½NE¼ Sec 24, T97N-R52W
7653-3	Jeremiah Welsh	South	1.67	SW¼ Sec. 8, T96N-R52W	85	W½SW¼, NE¼SW¼ Sec. 8, T96N-R52W
7690-3	Tim/David Ostrem	South	1.78	NE¼ Sec. 29, T96N-R52W	160	NE¼ Sec. 29, T95N-R52W
7900-3	Leon Thompson	South	1.89	NW¼NE¼ Sec.6, T95N-R51W	136	NE¼ Sec. 6, T95N-R51W
7919-3	Larry/Marlene Erickson	South	1.83	NE¼ Sec. 9, T95N-R52W	83.83	NE¼ Sec. 9, T95N-R52W

CERTIFICATION

I hereby certify that on February 11, 2014, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated February 11, 2014 regarding scheduling a hearing in the matter of Water Right Permit Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3, 7690-3, 7715-3, 7900-3, and 7919-3 as set forth below:

A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Gary or Julie Peterson, 45913 299th Street, Centerville SD 57014
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211
Allen Vannorsdel, 45515 288th Street, Viborg SD 57070
Leon Thompson, 401 S 11th Street, Beresford SD 57004
Tim or David Ostrem, 45924 300 St, Wakonda SD 57073
Larry and Marlene Erickson, 29859 461st Avenue, Centerville SD 57014
Diane Best, Assistant Attorney General, 317 N Main Ave, Sioux Falls SD 57104

Sent Interoffice to:

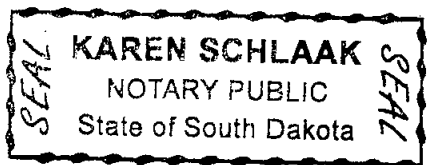
Ann Mines, Assistant Attorney General, 1302 E Hwy 14, Suite 1, Pierre SD 57501


Gail Jacobson
Secretary/Water Rights

[illegible]

Sworn to, before me, this 11th day of February, 2014.

Karen Schlaak
Karen Schlaak
Notary Public
My Commission expires April 1, 2019





DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



March 17, 2014

NOTICE

TO: A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Gary or Julie Peterson, 45913 299th Street, Centerville SD 57014
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211
Allen Vannorsdel, 45515 288th Street, Viborg SD 57070
Leon Thompson, 401 S 11th Street, Beresford SD 57004
Tim or David Ostrem, 45924 300 St, Wakonda SD 57073
Larry and Marlene Erickson, 29859 461st Avenue, Centerville SD 57014

FROM:

for Jeanne Goodman, Chief Engineer *Eric Henderson*
Water Rights Program

SUBJECT: Order

This is to notify applicants of the Water Management Board's Order in the matter of water permit applications from the Upper Vermillion Missouri Aquifer considered at hearing before the Water Management Board on March 6, 2014.

South Dakota statutes provide that decisions of the Board may be appealed to the Courts to the extent that they constitute final agency decisions. Any appeals from decisions of the South Dakota Water Management Board must be filed within thirty days of this notice and be in accordance with procedures established in SDCL 1-26-31.

Enclosure

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

RECEIVED

MAR 14 2014

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

WATER PERMIT APPLICATION NOS.	)	
7441-3 & 7442-3(GARY OR JULIE	)	
PETERSON); 7452-3 (JEROME HULT);	)	
7466-3 (BETHEL HAGEN TRUST);	)	
7467-3 & 7468-3 (CLELAND HAGEN	)	FINAL ORDER
TRUST); 7535-3(DONALD D	)	
BENSON); 7558-3 (CLELAND HAGEN	)	
TRUST); 7587-3 & 7588-3 (PAUL	)	
PETERSEN); 7600-3, 7601-3, 7602-3	)	
& 7603-3 (MICHAEL D. STEVENS);	)	
7623-3 (DARRELL OSBORN);	)	
7633-3(BRAD FARRAR); 7653-3	)	
(JEREMIAH WELSH); 7690-3 (TIM OR	)	
DAVID OSTREM); 7715-3 (ALLEN	)	
VANNORSDEL); 7900-3 (LEON	)	
THOMPSON); and 7919-3 (LARRY AND	)	
MARLENE ERICKSON)	)	

Hearing on the above entitled applications was held on March 6, 2014 before Board members Jim Hutmacher, Rodney Freeman, Tim Bjork, Chad Comes (Chairman), Everett Hoyt, and Leo Holzbauer pursuant to Notice dated February 10, 2014 . No applicants were present. At the hearing the Department of Natural Resources Water Rights Program presented evidence and argument for the Board's consideration.

The Board, having considered the testimony, exhibits and legal argument and all records and documents on file and having entered its oral decision and rulings on the parties' submissions, now enters its ruling as follows:

1. The Board incorporates the Ken Buhler report dated February 1, 2014, as its Findings of Fact.

2. The Board finds that the Upper Vermillion Missouri aquifer should be divided into three management units as presented in the Buhler report; and hereby adopts this finding for purposes of these and future water permit applications.

3. The Board concludes, with respect to the South and West Management Units, that the legal standard has been met to grant water permits under SDCL §§ 46-2A-9 and 46-6-3.1.

4. With respect to the North Management Unit, there is insufficient evidence to determine, with a reasonable probability, whether the withdrawals would exceed recharge if the permits were granted. Additional study is warranted.

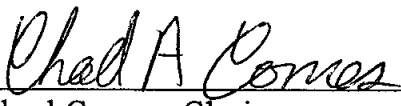
5. The Board hereby grants all permits to the Applicants from the West and South Units as recommended by the Chief Engineer on February 7, 2014, except that the acre feet limitation on permits 7603-3, 7535-3, 7653-3, and 7919-3 may not exceed 2 acre feet of water per acre per year. The permit applications granted are: 7441-3 & 7442-3 (Gary or Julie Peterson); 7466-3 (Bethel Hagen Trust); 7467-3 (Cleland Hagen Trust); 7535-3 (Donald D. Benson); 7588-3 (Paul Peterson); 7600-3, 7601-3, 7602-3 & 7603-3 (Michael D. Stevens); 7623-3 (Darrell Osborn); 7633-3 (Brad Farrar); 7653-3 (Jeremiah Welsh); 7690-3 (Tim or David Ostrem); 7715-3 (Allen Vannorsdel); 7900-3 (Leon Thompson); and 7919-3 (Larry and Marlene Erickson)

6. The Board further defers permits 7452-3 (Jerome Hult), 7468-3 (Cleland Hagen Trust), 7558-3 (Cleland Hagen Trust), and 7587-3 (Paul Peterson)

from the North Management Unit of the Upper Vermillion Missouri Aquifer for one year. This ruling on these 4 permits is not final; DENR is directed to notice this matter after one year. Accordingly, the applications, if ultimately granted, would hold priority dates relating back to the date of application under SDCL § 46-2A-15.

Dated this 10th day of March, 2014.

BY THE BOARD:



Chad Comes, Chairman
South Dakota Water Management Board

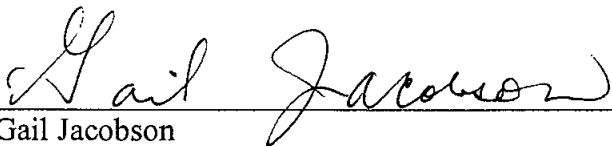
CERTIFICATION

I hereby certify that on March 17, 2014, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated March 17, 2014, regarding the order in the matter of Water Right Permit Application Nos. 7441-3, 7442-3, 7452-3, 7466-3, 7535-3, 7467-3, 7468-3, 7558-3, 7587-3, 7588-3, 7600-3, 7601-3, 7602-3, 7603-3, 7623-3, 7633-3, 7653-3, 7715-3, 7900-3, 7690-3 and 7919-3 as set forth below:

A. Jason Rumpca, 103 N 3rd Street, Beresford SD 57004
Donald McCarty, PO Box 78, Brookings SD 57006
Jerome Hult, 45958 Hwy 18, Davis SD 57021
Donald Benson, 45067 284th Street, Hurley SD 57036
Jeremiah Welsh, 29217 460th Avenue, Centerville SD 57014
Brad Farrar, 28795 452nd Avenue, Viborg SD 57070
Darrell Osborn, 28838 463rd Avenue, Centerville SD 57014
Michael D Stevens, 28916 458th Avenue, Viborg SD 57070
Paul Peterson, 45610 282nd Street, Hurley SD 57036
Dr Bruce Hagen, 1300 W Murphy Drive, Sioux Falls SD 57108
Dr Bruce Hagen, 38736 Nasturtium Way, Palm Desert, CA 92211
Allen Vannorsdel, 45515 288th Street, Viborg SD 57070
Leon Thompson, 401 S 11th Street, Beresford SD 57004
Tim or David Ostrem, 45924 300 St, Wakonda SD 57073
Larry and Marlene Erickson, 29859 461st Avenue, Centerville SD 57014
Diane Best, Assistant Attorney General, 317 N Main Avenue, Sioux Falls SD 57104

Sent Interoffice to:

Jeff Hallem, Assistant Attorney General, 1302 E. Hwy 14, Suite 1, Pierre SD 57501-8501
Ann Mines, Assistant Attorney General, 1302 E. Hwy 14, Suite 1, Pierre SD 57501-8501


Gail Jacobson

Water Rights Program, DENR

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 17th day of March, 2014.


Karen Schlaak

Notary Public

My Commission expires April 1, 2019

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/14, 20 14

RECEIVED OF Jason R Knutson 45935 292nd St Centerville Sd 57014

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	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. _____		
Fee for Filing Transfer Form <u>7441-3</u>		
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	50 00

No. **06786**

By J. H. Hordman Jr.
Chief Engineer

RECEIVED

MAR 14 2014

WATER RIGHTS
PROGRAM

SD EForm - 0495LD V2

NOTICE OF TRANSFER OF OWNERSHIP

For assistance call (605) 773-3352

Mail to: PMB 2020
DENR - Water Rights Program
523 E Capitol Ave
Pierre, SD 57501-3182

Water Right/Permit No. 7441-3
Date: 3-12-14

I/We request that Water Right/Permit No. 7441-3 formerly owned by:
Gary E. or Julie A. Peterson be transferred to:

New Owner Name: Jason or Alicia Knutson
Address: 45935 292nd. St.
City, State, Zip Centerville SD 57014 Telephone No. 605-530-1723

Title to the following described land(s)/property has been transferred as described above:

SE 1/4 Sec. 8 - 95-52

140 acres

☒ I understand that the validity of Water Right/Permit No. 7441-3 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is included to cover the filing fee as required by SDCL 46-2-13.

Jason Knutson
I, Jason Knutson, the new owner, certify that the above information is true and correct.

Jason Knutson
(signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



APR 11 2014

Jason R. Knutson
45935 292nd St
Centerville SD 57014

Dear Mr. Knutson:

Enclosed is Water Permit No. 7441-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Also enclosed is receipt for payment of the Notice of Transfer of Ownership filed March 14, 2014.

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



7441-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 16, 2015

NOTICE

TO: JASON OR ALICIA KNUTSON, 45935 292ND ST, CENTERVILLE, SD 57014

FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2014 Irrigation Questionnaires

Our records indicate your 2014 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 17, 2014. The Water Management Board has directed that owners of water permits who have not submitted the 2014 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 3948-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 7441-3 qualification:

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

The hearing will be held at **10:00 am, March 4, 2015** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7441-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 3948-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 4, 2015** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 23, 2015

3948-3
7441-3

Jason & Alicia Knutson
45935 292nd St
Centerville SD 57014

Dear Mr. & Mrs. Knutson:

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

You may disregard the January 16, 2015, "Notice" concerning reporting requirements for Water Right No. 3948-3 and Water Permit No. 7441-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath". The signature is written in a cursive, flowing style.

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

SOUTH DAKOTA WATER WELL COMPLETION REPORT

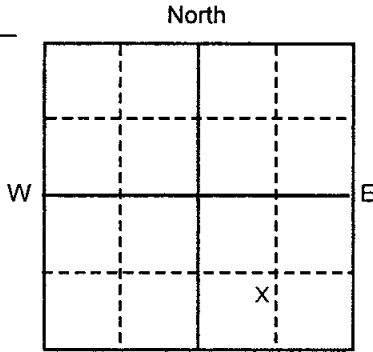
7441-3 SD EForm - 1621LD V1

11-02

Location SW 1/4 SE 1/4 Sec 8 Twp 95N Rg 52W

County CLAY

Please mark well location with an "X"



Well Completion Date

5-15-2015

← 1 Mile →

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
3,000.0 ft. from SEPTIC TANK (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

REVERSE ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
 If other describe _____

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

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
BENTONITE	40	9.5 Lb/gal	0.0 Ft	100.0 Ft

Describe grouting procedure

TREMIE PIPE AND GROUT PUMP

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 16.00 Inches Length 80.0 Feet

Material PVC

Slot Size .085 Set From 100.0 Feet to 180.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? CHLORINE TABLETS

☐ No, Why Not? _____

Lab to which water quality sample sent for analysis _____

Well Owner: JASON KNUTSON

Business Name: _____

Address: 45868 292ND ST

City, State, Zip: CENTERVILLE SD 57014

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2
CLAY	2	68
SAND/ GRAVEL	68	180

STATIC WATER LEVEL 61.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: TURBINE PUMP AND MOTOR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

66.0 Ft. After 2.0 Hrs. pumped 800.0 GPM

70.0 Ft. After 2.0 Hrs. pumped 1,200.0 GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JUN 15 2015

WATER RIGHTS PROGRAM

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

Drilling firm: SAM HEINE WELL CO.,LLC

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 5-15-15

CLAY-1-0



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 20, 2017

NOTICE

TO: JASON OR ALICIA KNUTSON, 45935 292ND ST, CENTERVILLE, SD 57014

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2016 Irrigation Questionnaires

Our records indicate your 2016 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 21, 2016. The Water Management Board has directed that owners of water permits who have not submitted the 2016 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 3948-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 7441-3 qualification:

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

The hearing will be held at **Wednesday, March 1, 2017 at 11:00 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7441-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 3948-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaires are received in this office before the **March 1, 2017** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



7441-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 10, 2017

3948-3
7441-3

Jason & Alicia Knutson
45935 292nd St
Centerville SD 57014

Dear Mr. & Mrs. Knutson:

I am writing to acknowledge receipt of your 2016 irrigation questionnaires.

You may disregard the January 20, 2017, "Notice" concerning reporting requirements for Water Right No. 3948-3 and Water Permit No. 7441-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7441-3

I have this day, August 27, 2024, made a thorough examination of the water use system owned by Jason or Alicia Knutson, 45935 292nd Street, Centerville, SD 57014, holders of Permit No. 7441-3, bearing the priority date of September 26, 2012. This permit authorizes the diversion of 1.78 cu. ft. per second of the waters of groundwater (South Management Unit of the Upper Vermillion Missouri Aquifer) authorizing the irrigation of 140 acres located in Clay County.

Inspection contacts: Jason Knutson

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Sam Heine Well Co., LLC
- 2) No. of Wells: 1
- 3) Depth(s): 180 feet
- 4) Well log is available: Yes

Casing:

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

Screen:

- 1) Diameter: 16 inches
- 2) Length: 80 feet
- 3) Type: PVC
- 4) Static water level: 61 feet
- 1) Horsepower rating: 60 hp

Pump:

- 1) Make: Preferred Pump
- 2) Model: 1 2KS
- 3) Serial: 24-14-256
- 4) Capacity: 800 GPM

Engine:

- 1) Make: John Deere
- 2) Model No.: Unknown

Gear Drive:

- 1) Make: Amarillo
- 2) Model: S60A
- 3) Horsepower rating: 60 hp

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

- 1) Type: Aluminum Size: 8 inches Length: 15 feet

C. Works used to apply water to beneficial use:

Center Pivot:

- 1) Make: Valley
- 2) Overall length: 1,328 feet
- 3) Number of towers: 7
- 4) End gun: Yes
- 5) Capacity: 800 GPM

Chemigation Equipment:

- 1) Does chemigate: Yes
- 2) Main line check valve: Yes
- 3) Inspection port/air relief: Yes
- 4) Low pressure drain: Yes
- 5) Discharge is 20' from source: Yes with Hose
- 6) Interlock type: Mechanical
- 7) Injection pump: Positive Displacement
- 8) Injection check valve: Yes
- 9) Injection line check valve or positive displacement pump: Yes

D. Compliance with Permit Requirements:

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

E. Condition and Location:

- 1) The system is in good condition with the point(s) of diversion located as follows:
The well is 1,380 feet west and 1,420 feet north of the southeast corner of Section 8-T95N-R52W (Latitude 43.05759 Longitude -96.00848– center of the SE1/4).
- 2) The works are capable of diverting and conveying to the places of use 1.78 cu. ft. per second of water from the well which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows: All in

<u>Section 8-T95N-R52W</u>	
<u>NW1/4SE1/4</u>	<u>35 acres</u>
<u>NE1/4SE1/4</u>	<u>35 acres</u>
<u>SW1/4SE1/4</u>	<u>35 acres</u>
<u>SE1/4SE1/4</u>	<u>35 acres</u>

comprising a total of 140 acres of land and the license should be issued for 1.78 cfs.

- 3) All structures, wells and lands on map: Yes

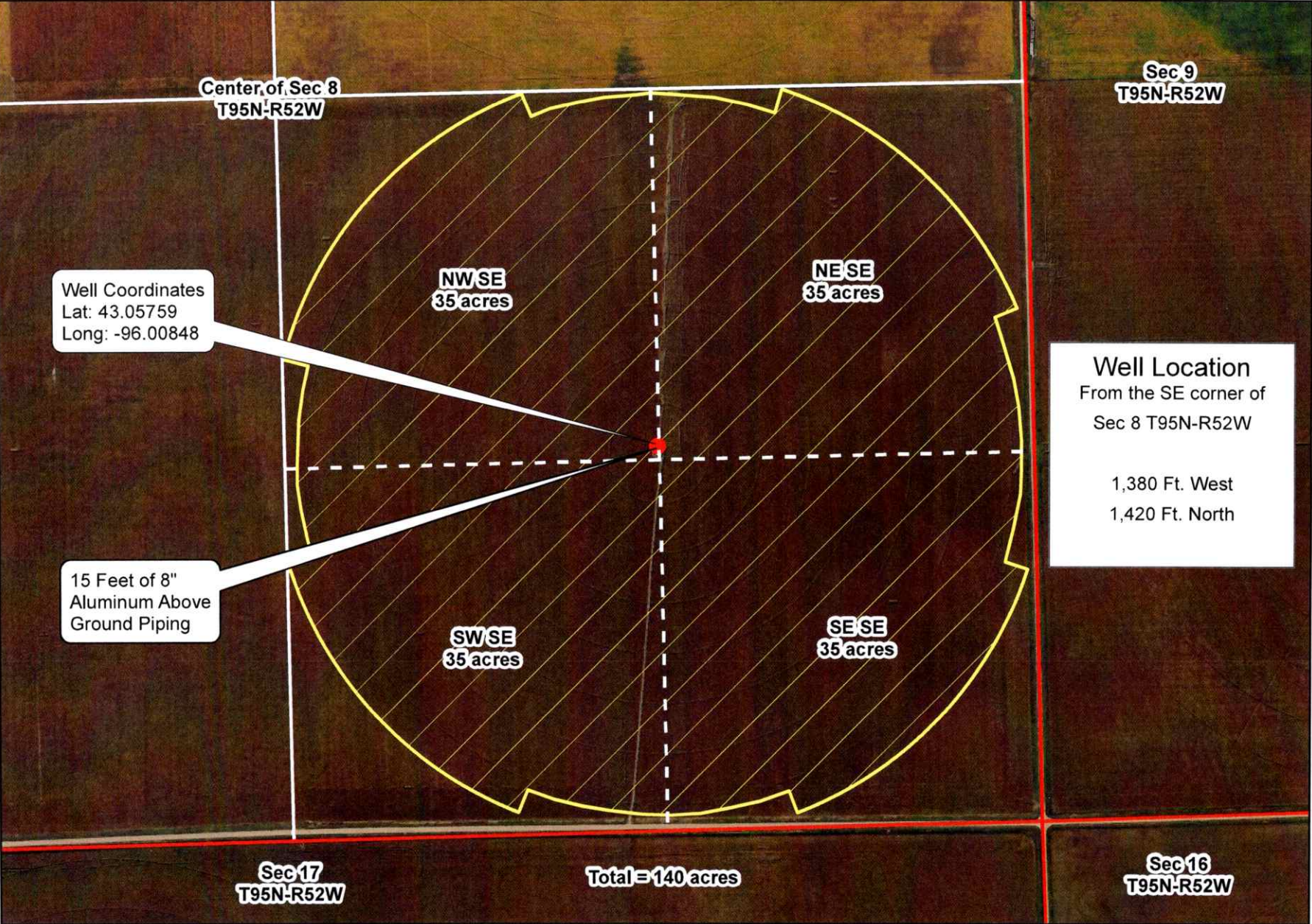
F. Comments or other permit(s) associated with the project: The pump flow rate was obtained from Preferred Pump in Grad Island, NE. The chemigation equipment and the engine used to operate the irrigation system was not on site, so Mr. Knutson described the equipment to me. The mainline check valve, drain hose, etc. was on site. The field had been flooded this year and there was no corn in portions of the field. It appeared that the system has not been operated this year.

Keith DeJong

Keith DeJong, PE Ret.
Water Rights Inspector
DANR, Water Rights Program

Date report completed: August 27, 2024

Water Permit No. 7441-3



Keith DeJong
Keith DeJong, PE Ret.
Staff Engineer
August 27, 2024



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

SEP 23 2024

7441-3

Jason & Alicia Knutson
45935 292nd St
Centerville SD 57014

Dear Mr. & Ms. Knutson:

Enclosed is Water License No. 7441-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7441-3

(1) Gary E or Julie A Peterson, made Application No. 7441-3, September 26, 2012, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (South Management Unit of Upper Vermillion Missouri Aquifer), Clay County, South Dakota for irrigation purposes.

During the time in which Application No. 7441-3 was deferred for further study of the aquifer, ownership was transferred to Jason or Alicia Knutson, 45935 292nd St, Centerville SD 57014.

Permit No. 7441-3, with a priority date of September 26, 2012, was approved by the Water Management Board March 6, 2014, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 6, 2019, and for the application to beneficial use of water on or before March 6, 2023.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and are entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,380 ft W & 1,420 ft N of the SE corner Section 8, T95N, R52W (approx. center SE ¼)
(Latitude 43.05759 & Longitude -96.00848)

(3) The amount of appropriation may not exceed 2 acre-feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.

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

Section 8, T95N, R52W			
NE ¼ SE ¼	35 acres	SW ¼ SE ¼	35 acres
NW ¼ SE ¼	35 acres	SE ¼ SE ¼	35 acres
TOTAL: 140 acres			

(5) Pursuant to South Dakota Water Law 46-5-30.1 Jason or Alicia Knutson, the holders and/or owners of Water Right No. 7441-3 are issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, one well (South Management Unit of Upper Vermillion Missouri Aquifer), with a priority date of September 26, 2012, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7441-3 and subject to the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7441-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *(The well was drilled in 2015 by Same Heine Well Co. Inc. A copy of the well completion report is on file with the Water Rights Program.)*

continued

3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

SEP 23 2024

date

