

WATER PERMIT NO. 7440-3

Name of Applicant: Melvin Knutson

Address: 21056 479th Ave, White SD 57276

Phone: 605 693-4566

Amount of Water Claimed: no additional

Total Acres: 119

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Brookings

Type of Waste Disposal System:

Location: 7 miles east of Brookings

PRIORITY

Date Received: 9-26-2012

Application/License Fee: \$ 950

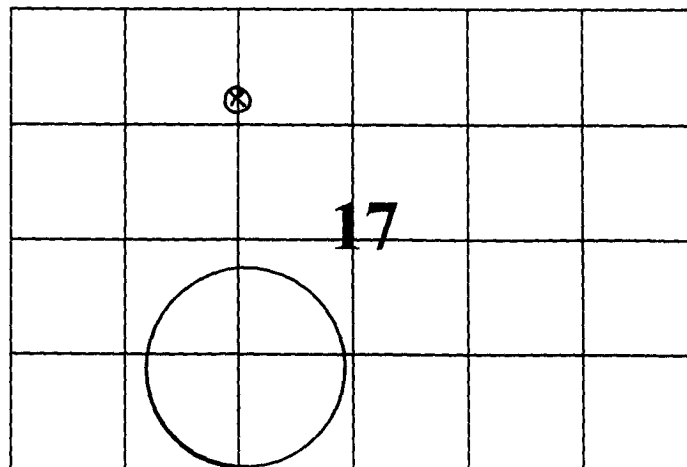
Corrected Application Received:

Period of Annual Use: May 1 – Sept 30

Remarks: Using existing well authorized by Water Permit No. 7092-3

Diversion Point: N 1/2 NW 1/4 Sec 17-T110N-R48W

Land to be Irrigated: SW 1/4 Sec 17-T110N-R48W



Depth of Well: 48 feet

Well Driller: Grimshaw 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: _____

4950

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>7440-3</u>	(office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Big Sioux River</u>	
	Newspaper <u>Brookings Register</u>	<u>P.O. Box 177</u>
	<u>605-692-4371</u>	<u>57006</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. 7092.3
(Use predates Mar 2, 1955) Add to

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

- Name of Applicant Melvin Knutson Phone 605 693-4566
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 21056 479th Ave White State SD 57276
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed No addl water *CFS or **GPM ***AF Total Acreage 119
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable
- Source of water supply well
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Brookings
Well from permit 7092-3 No additional water
- County or counties where water will be used Brookings
- Annual period during which water is to be used May - Sept
- List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
SW 1/4 of the SW 1/4 Sec 17 110-48	35		
SE 1/4 of the SW 1/4 Sec 17 110-48	27		
NE 1/4 of the SW 1/4 Sec 17 110-48	27		
NW 1/4 of the SW 1/4 Sec 17 110-48	30		

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

STATE OF SOUTH DAKOTA) SS
County of Brookings

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

I, Melvin Knutson, 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 Melvin Knutson

Subscribed and sworn to before me this 20th day of September 2012

Monica Cooper
Notary Public signature

My commission expires 8-8-15

**SOUTH DAKOTA
WATER PERMIT NO. 7440-3**

Date of first receipt of application September 26, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7440-3 to Melvin Knutson, 21056 479th Ave, White SD 57276 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. 7440-3 authorizes irrigation of 119 additional acres. Water Right No. 7092-3 authorizes 1.78 cubic feet of water per second from one well completed into the Big Sioux:Aurora Aquifer (48 feet deep) located in N 1/2 NW 1/4 Section 17 for irrigation of 130 acres located in the NW 1/4 Section 17-T110N-R48W. This permit authorizes irrigation of 119 acres located in the SW 1/4 Section 17-T110N-R48W from the existing well. This permit does not authorize any increase in the developed diversion rate.
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. The date of approval of Permit No. 7440-3 is December 10, 2012.
5. One-fifth of the construction is to be completed on or before June 10, 2015.
6. All construction is to be completed on or before December 10, 2017.
7. Water is to be put to beneficial use on or before December 10, 2021.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Right No. 7092-3 and Water Permit No. 7440-3 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.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 17 2013
date



NOT TO SCALE

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SEP 24 2012
WATER RIGHTS
PROGRAM

73.6

223.6

3-96

xwell

51.1

19.6

17

3.5

117.1

12.7

10.4

Craig Olson
NRCS
Tech

4.3

110-48

18.0

30.8

12.1

9.3

3-96

6760

[illegible]

Remarks:



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 9/24, 20 12

RECEIVED OF Melvin O Knutson 21056 479th Ave White SD 57276

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

Fee for Application for Permit No. <u>7440-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7440-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)		
TOTAL	950	00

No. **05585**

By

[Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7440-3, Melvin Knutson**

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. 7440-3, Melvin Knutson, 21056 479th Avenue, White SD 57276.

The Chief Engineer is recommending APPROVAL of Application No. 7440-3 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 Water Right No. 7092-3 and Water Permit No. 7440-3 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.

See report on application for additional information.

Garland Erbele, Chief Engineer
November 20, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO.7440-3
MELVIN KNUTSON
NOVEMBER 20, 2012

Water Permit Application No. 7440-3 proposes to appropriate an additional 238 acre-feet (ac-ft) to irrigate 119 acres located in the SW ¼ Section 17-T110N-R48W from an existing well completed into the Aurora management unit of the Big Sioux aquifer and authorized under Water Right No. 7092-3. The well is 48 feet deep and is located in the N ½ NW ¼ Section 17 T110N-R48W in Brookings County. Water Right No. 7092-3 authorizes a diversion up to 260 acre-feet annually at a maximum diversion rate of 1.78 cubic feet per second (cfs) for the irrigation of 130 acres located in the NW ¼ Section 17-T110N-R48W. This application, if approved, does not authorize any increase in the maximum diversion rate. Water Right No. 7092-3 and Water Permit No. 7440-3 (if approved) will authorize the irrigation of 249 acres using an existing well and diverting at a maximum rate of 1.78 cfs.

AQUIFER: Aurora management unit of the Big Sioux aquifer (BS: A)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The completion report for the well to be used by this application indicates sand from two feet below ground surface to the bottom of the well at 48 feet below ground surface. The well had a static water level of 16' 5" below ground surface and was test pumped at 900 gallons per minute (gpm) with a drawdown of the water level to 33 feet below ground surface. That equates to a specific capacity of 54.27 gallons per minute per foot of drawdown. The Big Sioux: Aurora aquifer is a surficial outwash aquifer (sand and gravel) that is under water table conditions (Hamilton, 1989). Water movement in the aquifer is generally northeast to southwest, toward areas of discharge into lakes and the Big Sioux River (Hamilton, 1989). The aquifer underlies an estimated 83,000 acres in Brookings and Moody Counties, South Dakota and western Lincoln and Pipestone Counties, Minnesota (Buhler, 2012). The Big Sioux: Aurora averages 30 feet of thickness but can be greater than 40 ft (Hamilton, 1989).

SDCL 46-2A-9

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

WATER AVAILABILITY:

Water Permit Application No. 7440-3 proposes to appropriate an additional 238 ac-ft annually from the Big Sioux: Aurora aquifer. Although the actual water use if this application is approved will most likely be less than 238 ac-ft annually. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information

reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.

Recharge versus Discharge:

Recharge:

The Big Sioux: Aurora is recharged by infiltration of precipitation and by slow seepage through till, lake deposits, and underlying aquifers (Hamilton, 1989). Koch (1980) estimated a recharge rate of 6.57 inches per year (45,442.5 ac-ft/yr) and Hedges and others (1985) estimated a recharge rate of 5.0 in/yr (34,583 ac-ft/yr) using observation well analysis and 3.6 in/yr (24,900 ac-ft/yr) using a computer "best fit" model.

Discharge:

Discharge from the Big Sioux: Aurora is through evapotranspiration, discharge to streams, and withdrawal by wells (Hamilton, 1989). There are 63 water rights/permits appropriating water from the Big Sioux: Aurora, with one of the permits being for future use, Future Use Permit No. 1598-3 (Water Rights, 2012b) and a number of domestic wells on file with the SD DENR-Water Rights Program (Water Rights, 2012c). The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming: 1) water rights/permits limited by an annual volume will pump the entire volume appropriated (4,045 ac-ft/yr), 2) water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time (4,181 ac-ft/yr), and 3) future use permits can be fully developed (2,426 ac-ft/yr). Table 1 shows the irrigation withdrawal from the Big Sioux: Aurora aquifer as reported to the SD DENR-Water Rights Program through annual irrigation questionnaires. Average annual withdrawal from the Big Sioux: Aurora by appropriative users is estimated to be 13,421 ac-ft.

YEAR	NO. OF PERMITS REPORTING	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
2011	51	19046.6	3057.12
2010	49	18438	695.18
2009	48	18158	3980.61
2008	48	18134.5	4772.6
2007	45	17436.5	4167.96
2006	45	17436.5	3665.06
2005	45	17436	2660.38
2004	46	18228	3568.24
2003	48	18720	4383.94
2002	49	19194	3927.47
2001	48	19090	4029.35
2000	47	18786	3543.93
1999	47	18786	2919.71
1998	48	18842	4749.92
1997	49	19255.07	3799
1996	49	19015.07	2293.23
1995	49	19375.07	413.17
1994	52	19940.57	2037.84
1993	53	20343.07	340
1992	54	20655.07	844.16
1991	53	20375.07	1957.44
1990	51	20026.07	3048.5
1989	56	23568	3756.03
1988	54	23034.8	4894.45
1987	48	21293.8	2612.7
1986	48	21503.8	1532
1985	48	22031.8	2786.64
1984	48	22240.8	2489.2
1983	41	18394.8	2011.5
1982	42	18583.8	1405.19
1981	58	27333	2607
1980	52	26454	1260
1979	53	27732	1172
Min	41	17436.0	340.00
Max	58	27732.0	4894.45
Avg	49.2	20269.3	2769.14

Table 1- Irrigation Water Use from the Big Sioux: Aurora aquifer (Water Rights 1979-2012).

Observation Well Data:

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

The DENR-Water Rights Program monitors 15 observation wells completed into the Big Sioux: Aurora aquifer (Water Rights, 2012a). The nearest observation well, BG-63D, is 0.6 miles northwest. Observation wells BG-77I and BG-57G are 3.07 miles south-southwest and 3.14 miles south-southeast, respectively. Water levels in the observation wells show response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The observation wells show the effects of pumping, but it does not appear to

be adverse over the period of record. The climatic effects on water level greatly mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Big Sioux: Aurora aquifer significantly exceeds pumping. Figures 1, 2 and 3 show the hydrographs for observation wells BG-63D, BG-77I and BG-57G, respectively. The long period of time with no water level data in the hydrograph of BG-63D was caused by the well being destroyed and then replaced several years later.

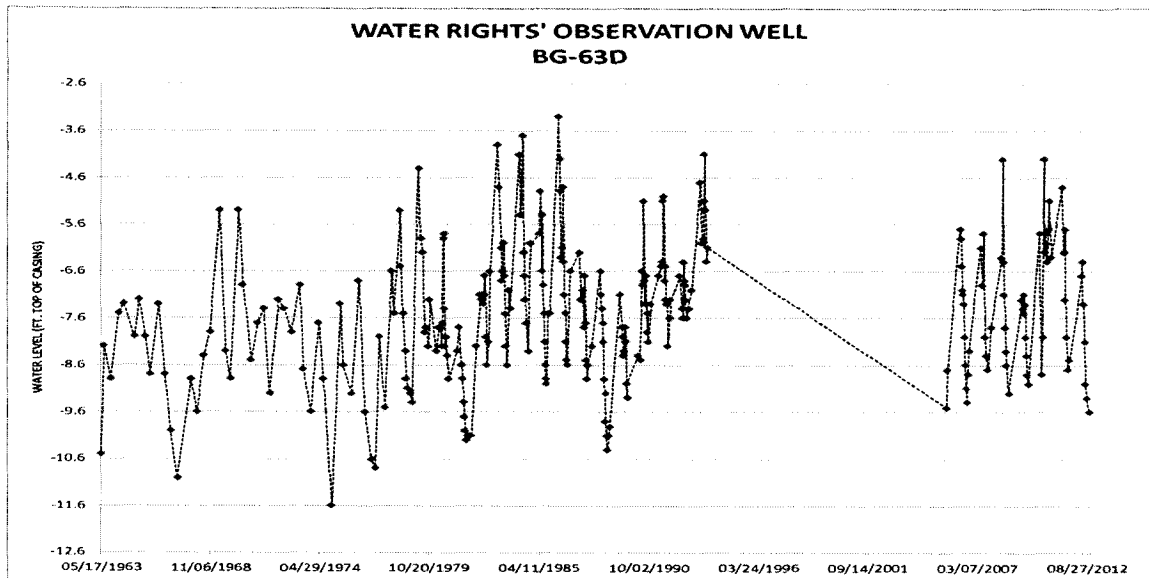


Figure 1- Hydrograph of DENR-Water Rights' observation well BG-63D (Water Rights, 2012a)

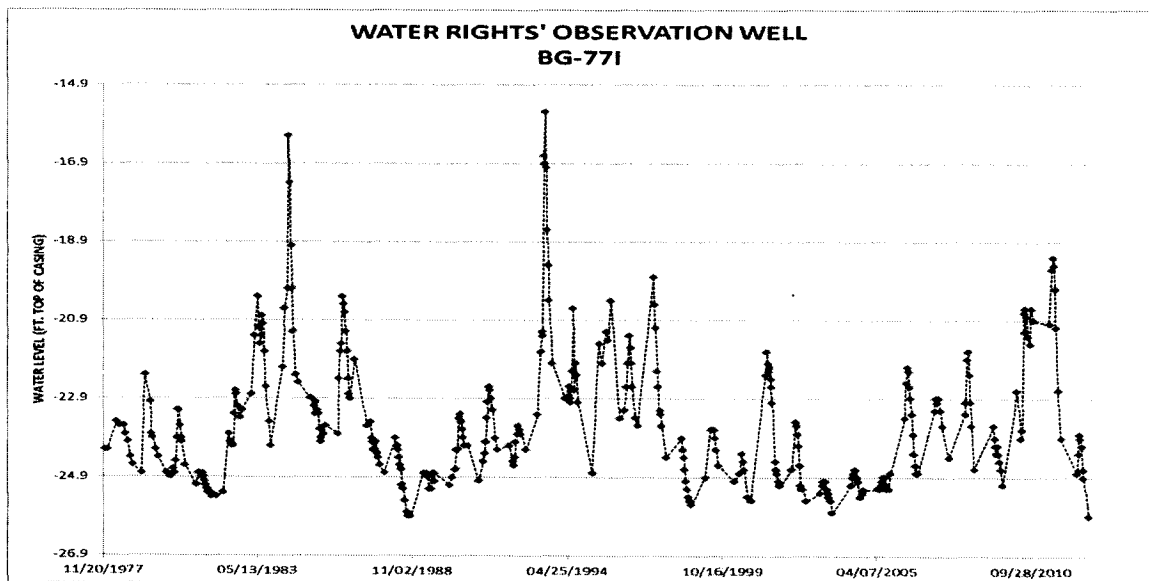


Figure 2- Hydrograph of DENR-Water Rights' observation well BG-77I (Water Rights, 2012a)

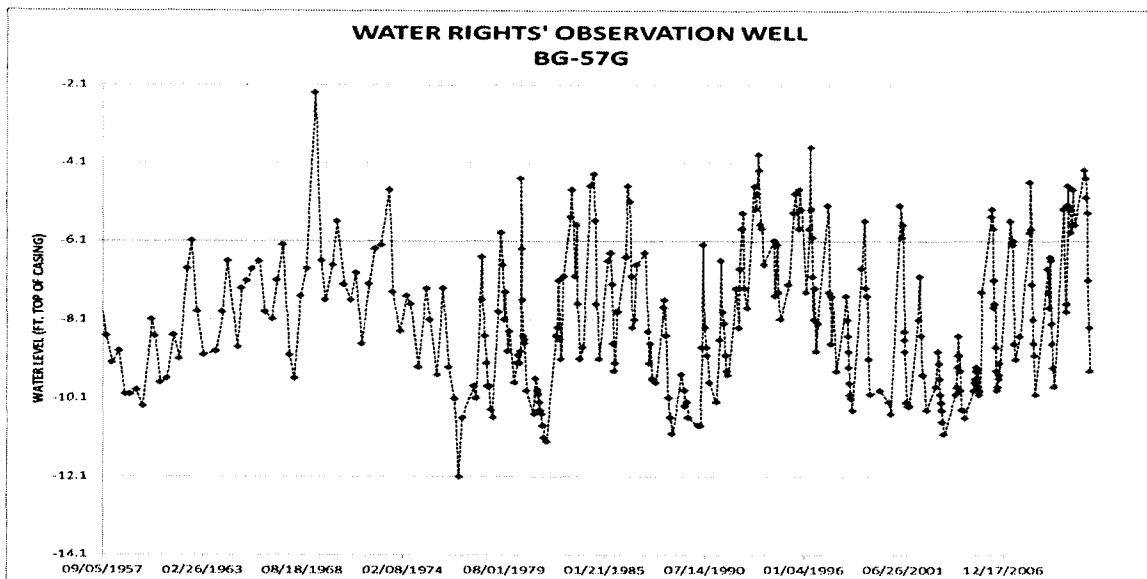


Figure 3- Hydrograph of DENR-Water Rights' observation well BG-57G (Water Rights, 2012a)

EXISTING WATER RIGHTS:

There are eight water rights/permits authorizing wells and a number of domestic wells within two miles of the proposed well location (Water Rights, 2012b and 2012c). Table 2 shows the water rights/permits within two miles of the proposed well location.

PERMIT NO.	NAME	STATUS	TYPE	CFS	ACRES
3218-3	Rolland Httrn Brth	LC	IRR	2	250
3347-3	Sandra Hanson	LC	IRR	3.07	215
3452-3	Clarence Hansen	LC	IRR	1.88	132
4477-3	Bradley Hanson	LC	IRR	1.74	122
4515A-3	Bill & Marilyn Baillie	LC	IRR	1.81	127
4600-3	David Pankonin	LC	IRR	1.78	132
4859-3	Rolland Httrn Brth	LC	IRR	1.78	272
7092-3	Melvin Knutson	LC	IRR	1.78	130
LC = Water Right, IRR = Irrigation					

Table 2 – Water Rights from the Big Sioux: Aurora aquifer within two miles of the proposed well location (Water Rights, 2012b)

The hydrographs show that the impacts of pumping have not been adverse over the period of record. The minimal drawdown and interference from pumping high capacity wells is clearly shown by figures 1, 2, and 3. The aquifer is also predominantly under water table conditions; therefore drawdown is not expected to extend very far from the well. This application, if approved, would not authorize an increase in maximum diversion rate authorized. However, the average diversion rate will increase to reflect the increased duration of pumping to account for the additional acres. The average diversion rate will increase by approximately 0.5 cfs. That increase is insignificant in terms of additional drawdown. Therefore, there is a reasonable probability that the additional diversion proposed by this application can be made without impairing existing water rights/permits and domestic users.

CONCLUSIONS:

1. Water Permit Application No. 7440-3 proposes to appropriate an additional 238 acre-feet annually for the irrigation of 119 acres to that authorized by Water Right No. 7092-3 from an existing well.
2. This application, if approved, does not authorize any increase in the maximum diversion rate.
3. There is a reasonable probability that unappropriated water is available from the Big Sioux: Aurora aquifer to supply this proposed diversion.
4. There is a reasonable probability that the diversion requested by this application can be made without adversely affecting existing water rights/permits and domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K. 2012. "Report to the Chief Engineer on Water Permit Application No. 7392-3 and Future Use Permit Application No. 7393-3 Lincoln Pipestone Rural Water". SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Hamilton, L.J. 1989. Water Resources of Brookings and Kingsbury Counties, South Dakota. Water-Resources Investigations Report 88-4185. USGS, Huron, SD.
- Hedges, L.S. J. Allen, and D.E. Holly. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge. South Dakota DENR-Geological Survey, Vermillion, SD.
- Koch, N.C. 1980. Appraisal of the water resources of the Big Sioux aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota. Water-Resources Investigations Report: 80-100. USGS, Huron, SD.
- Water Rights. 1979-2012. "1979-2011 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2012a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

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DEC - 7 2012

WATER RIGHTS
PROGRAM

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Affidavit of Publication

State of South Dakota

ss

Exhibit "A"

County of Brookings

Chaylee Duis of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

Leg#813 Notice on App

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

November 30, 2012

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

twenty-four dollars and fifty-eight cents \$24.58



Laura Johnson

3rd day of

December

2012

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires August 3, 2017.

Chaylee Duis

Legal 813, 1x, 11/30
NOTICE OF APPLICATION NO. 7440-3 to
Appropriate Water
Notice is given that
Melvin Knutson, 21056
479th Ave, White SD
57276 has filed an
application for a water
permit to irrigate 119
additional acres. Water
Right No. 7092-3 author-
izes 1.78 cubic feet of
water per second from
one well completed into
the Big Sioux-Aurora
Aquifer (48 feet deep)
located in N 1/2 NW 1/4
Section 17 for irrigation
of 130 acres located in
the NW 1/4 Section 17-
T110N-R48W. This
application proposes
irrigation of 119 acres
located in the SW 1/4
Section 17-T110N-

R48W 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 APPROVAL of Application No. 7440-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by December 10, 2012. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$24.58.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

November 21, 2012

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7440-3 to Appropriate Water. Please publish the notice once on November 30, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Melvin Knutson, 21056 479th Ave., White SD 57276 (Ph # 605-693-4566).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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

November 21, 2012

Melvin Knutson
21056 479th Ave
White SD 57276

Dear Mr. Knutson:

Water Permit Application No. 7440-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish the Notice on November 30, 2012. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7440-3 to Appropriate Water

Notice is given that Melvin Knutson, 21056 479th Ave, White SD 57276 has filed an application for a water permit to irrigate 119 additional acres. Water Right No. 7092-3 authorizes 1.78 cubic feet of water per second from one well completed into the Big Sioux:Aurora Aquifer (48 feet deep) located in N 1/2 NW 1/4 Section 17 for irrigation of 130 acres located in the NW 1/4 Section 17-T110N-R48W. This application proposes irrigation of 119 acres located in the SW 1/4 Section 17-T110N-R48W 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 APPROVAL of Application No. 7440-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by December 10, 2012.

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

Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JAN 17 2013

Melvin Knutson
21056 479th Ave
White SD 57267

Dear Mr. Knutson:

Enclosed is Water Permit No. 7440-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7440-3

I have this day, May 20, 2021, made a thorough examination of the water use system constructed by Melvin Knutson, 21056 479th Ave, White, SD 57276 of Permit No. 7440-3, bearing the priority of September 26, 2012 authorizing the diversion of 0.00 cu. ft. per second of additional water for irrigation purposes, in Brookings County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Grimshaw Drilling Co
- 2) No. of Wells 1
- 3) Depth 48 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 16 inches
- 2) Length NA feet
- 3) Type Plastic

Screen:

- 1) Type stainless steel
- 2) Length NA feet
- 3) Static water level 16.5 feet

Pump:

- 1) Capacity 800 GPM

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

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 3280 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1150 feet
- 3) Number of towers 6
- 4) End gun Y
- 5) Capacity 800 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y

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

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: One well is used to supply water to 2 pivots and is located 3,280 ft north of this SW pivot. Well is authorized by Permit 7092-3. From NW corner of Sec 17 T110N R48W 900 ft S & 1320 ft E Lat 44.33768 Long -96.62259 (NW ¼ NW ¼ Sec 17).
2. The works are capable of diverting and conveying to the place of use 1.78 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All land is in Sec 17, T110N, R48W

Acreage from Water Permit No. 7440-3

NW ¼ SW ¼	22 acres
NE ¼ SW ¼	29 acres
SE ¼ SW ¼	37 acres
SW ¼ SW ¼	27 acres

Acreage from Water Right No. 7092-3

NW ¼ NW ¼	33 acres
NE ¼ NW ¼	32 acres
SW ¼ NW ¼	33 acres
SE ¼ NW ¼	32 acres

comprising a total of **245** acres of land and the license should be issued for 1.78 cfs. (The applicable portions of Water Right No. 7092-3 will be incorporated into No. 7440-3).

3. All structures, wells and lands on map Y

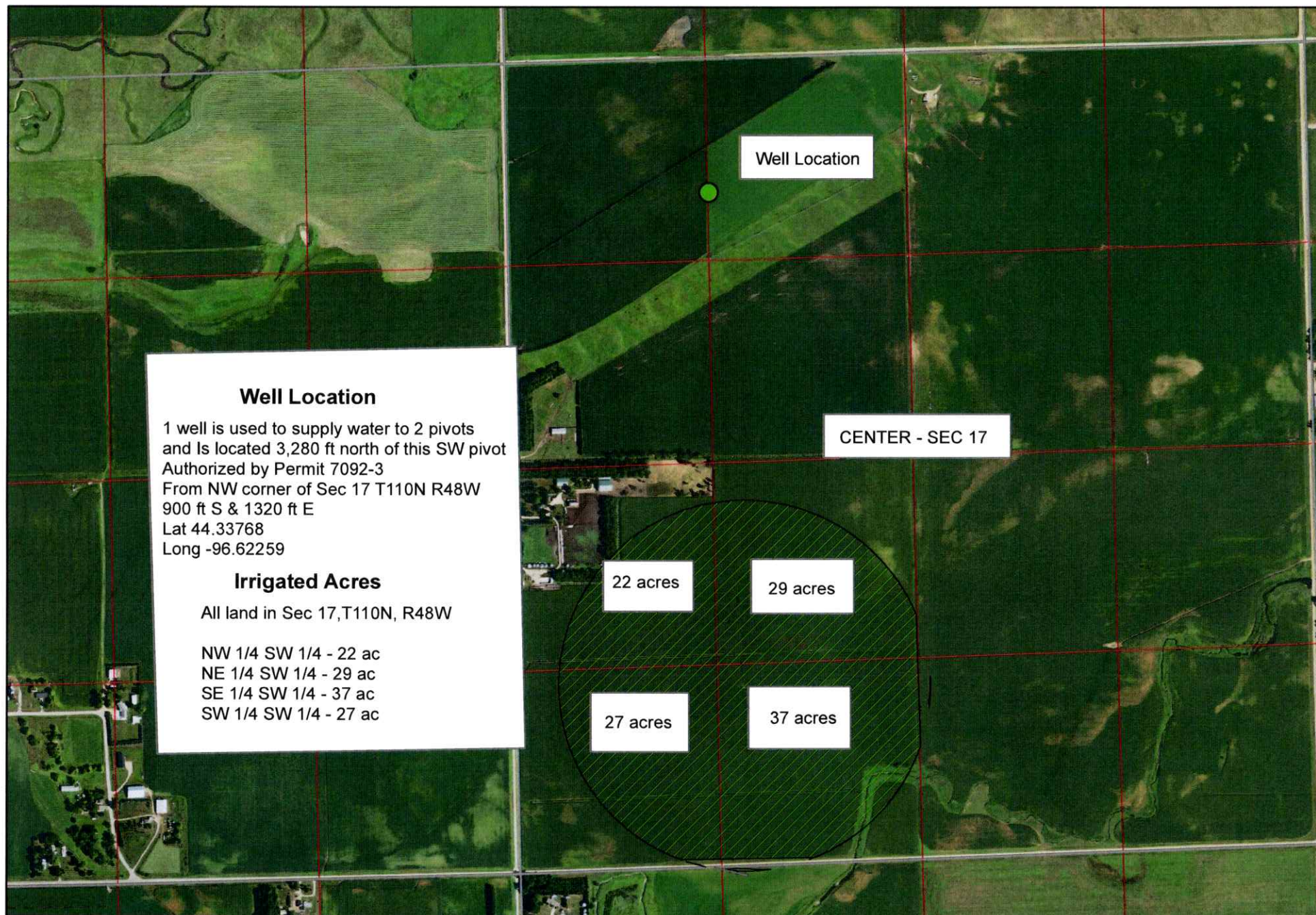
F. Comments or other permit(s) associated with the project:

Permit No. 7440-3 authorized no additional diversion authority to irrigate and added 115 acres to an existing system authorized under Water Right No. 7092-3. The additional irrigated acres were determined by using FSA maps and ArcMAP software.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: May 25, 2021



0 0.1 0.2 0.4 0.6 0.8 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

7440-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAY 27 2021

7092-3
7440-3

Melvin Knutson
21056 479th Ave
White SD 57276

Dear Mr. Knutson:

Enclosed is Incorporated Water License No. 7440-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures

Note: Upon licensing, the applicable portions of Water Right No. 7092-3 were incorporated into No. 7440-3.

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7440-3

(1) Melvin Knutson, 21056 479th Ave., White SD 57276 made Application No. 7440-3, September 26, 2012 for a water permit to add 119 acres to an existing irrigation system authorized under Water Permit No. 7092-3. The existing well (Big Sioux Aurora Aquifer) and the acreage is located in Brookings County, South Dakota. Permit No. 7440-3, with a priority date of September 26, 2012 was approved December 10, 2012 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before December 10, 2017 and for the application to beneficial use of water on or before December 10, 2021.

Water Right No. 7092-3 authorizes irrigation of 130 acres in the NW ¼ Section 17 from one well located in the NE ¼ NW ¼ Section 17, all in T110N, R48W. Water Permit No. 7440-3 added acreage to be irrigated from the same well with no increase in the developed diversion rate.

The applicable portions of Water Right No. 7092-3 have been incorporated into Water License No. 7440-3. The priority dates for the irrigated acreage are described in (3) of this license.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is as follows:

- 900'S & 1,320'E of the NW corner of Section 17, T110N, R48W (NE ¼ NW ¼ Sec 17).
Latitude 44.33768, Longitude -96.62259

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

T110N, R48W Section 17	NW ¼ SW ¼	22 acres	NW ¼ NW ¼	33 acres
	NE ¼ SW ¼	29 acres	NE ¼ NW ¼	32 acres
	SE ¼ SW ¼	37 acres	SW ¼ NW ¼	33 acres
	SW ¼ SW ¼	27 acres	SE ¼ NW ¼	32 acres

Total of 245 acres

Priority dates: 130 acres - NW ¼ Section 17 - January 20, 2009 (established under Water Right No. 7092-3)
115 acres - SW ¼ Section 17 - September 26, 2012 (established under Water Permit No. 7440-3)

(4) Pursuant to South Dakota Water Law 46-5-30.1 Melvin Knutson, 21056 479th Ave., White SD 57276 the holder and/or owner of Incorporated Water Right No. 7440-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, one well (Big Sioux Aurora Aquifer) with priority dates of January 20, 2009 and September 26, 2012 from the location specified in (2) of this license for irrigation purposes.

continued

Water License No. 7440-3

Page 2

This license is subject to South Dakota Water Law, any limitations or conditions listed in Incorporated Water Right No. 7440-3 and subject to the following qualifications:

- The well approved under Nos. 7092-3 and 7440-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

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

MAY 27 2011

date

