

WATER PERMIT NO. 7646-3

Name of Applicant: Chase L Jensen

Address: PO Box 361, Aurora SD 57002 Phone: 605 690-4970

Amount of Water Claimed: 0.89 cfs Total Acres: 60 ac

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Brookings

Type of Waste Disposal System:

Location: 5 miles east of Brookings

PRIORITY Date Received: 12-10-12

Application/License Fee: \$ 700

Corrected Application Received: 1-17-13

Period of Annual Use: May 1 – Sept 30

Remarks:

Diversion Point: SE 1/4 SW 1/4 Sec 31-T110N-
R48W

Land to be Irrigated: S 1/2 SW 1/4 Sec 31-T110N-
R48W

Depth of Well: 50 feet deep

Well Driller:

Remarks:

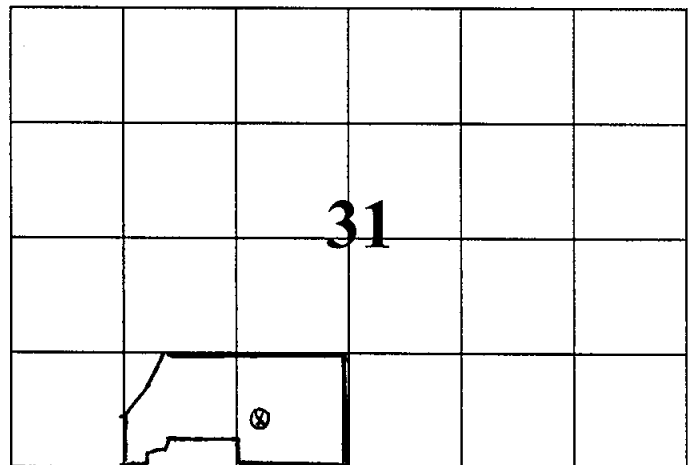
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-17-13

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



well log will be sent
when drilledMail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352No. 7646-3 (office use only)
Hydrologic Unit 10170202
Basin Sioux River
Newspaper Brookings Register
P.O. Box 177
Brookings 57006 605-692-6271RECEIVED
DEC 10 2012
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Application For Permit To Appropriate Water For Irrigation

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

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

1. Name to appear on Irrigation Permit Chase L. Jensen
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent
(name and complete address if different than above name)Mailing Address PO Box 361 Aurora SD 57002
(Address) (City) (State) (Zip Code)Home Phone (605) 690-4970 Cell same Email _____2. Amount of water claimed 0.89*CFS or 400**GPM 2***AF Total Acreage 60A
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply 1 Well4. Location of point of diversion SE corner 700 ft East 650 ft North
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)SE 1/4 SW 1/4 Sec 31 - T110N - R48W County Brookings5. County or counties where water will be used Brookings6. Annual period during which water is to be used May 1 - Sept. 307. 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 SW 1/4 Sec 31 T110N R48W</u>	<u>40</u>		
<u>SW 1/4 of the SW 1/4 Sec 31 T110N R48W</u>	<u>20</u>		

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

I, Chase L. Jensen, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 7646-3

Date of first receipt of application December 10, 2012.

Date of return to applicant for corrections, amendments or changes December 12, 2012.

Date of receipt of corrected application January 17, 2013.

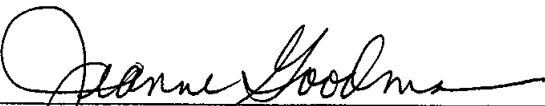
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7646-3 to Chase L Jensen, PO Box 361, Aurora SD 57002 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7646-3 appropriates 0.89 cubic feet of water per second from one well to be completed into the Big Sioux: Aurora Aquifer (40-50 feet deep) located in the SE 1/4 SW 1/4 Section 31 for irrigation of 60 acres located in the S 1/2 SW 1/4 Section 31; all in T110N-R48W.
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 December 10, 2012.
4. The date of approval of Permit No. 7646-3 is March 18, 2013.
5. One-fifth of the construction is to be completed on or before September 18, 2015.
6. All construction is to be completed on or before March 18, 2018.
7. Water is to be put to beneficial use on or before March 18, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7646-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

Jeanne Goodman, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

APR 26 2013

date



Supplemental Information

(type or print)

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1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by Lacey Well Drilling
(if yes, please provide copies of logs) will be drilling the well

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

c) Well Depth 40-50ft Depth to Top of Water Bearing Material 10-40ft, Depth to Water from Surface 10ft

d) Distance to nearest existing domestic well:

On applicant's property Yes On property owned by others

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)

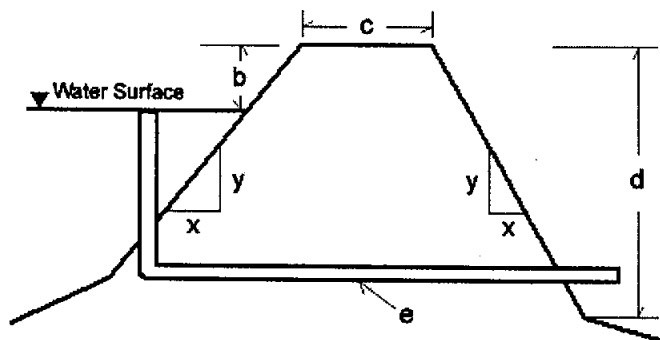
Upstream

Downstream

h) Surface Area of Impoundment

i) Storage Acre Feet

j) Drainage Area Above Dam Acres



Chase Jensen



PPLS: 31_110N_48W
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Data use subject to license.

© DeLorme. XMap® 7.

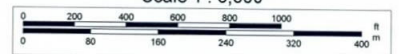
www.delorme.com

DEC 10 2012

WATER RIGHTS
PROGRAM



Scale 1 : 8,800



1" = 733.3 ft

Data Zoom 14-5

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 12/11, 20 12

RECEIVED OF Chad Jensen 21324 479th Ave Aurora SD 57002

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

Fee for Application for Permit No. <u>7646-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7646-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	700 00

No. **05755**

By

Garland White
Chief Engineer



December 12, 2012

Chase L Jensen
PO Box 361
Aurora SD 57002

Dear Mr. Jensen:

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

- Enclosed is the Form 2A, Supplemental Information. Please complete Item No. 1 regarding the Well Information. At the very least, we need the proposed depth of the well.
- It appears from the map submitted with the application, the well will be located in the SE 1/4 SW 1/4 Section 31-T110N-R48W. Do you agree?

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

enclosures

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JAN 17 2013
WATER RIGHTS
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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

Yes, I agree,

Chase L. Jensen

Chase Jensen



**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. 7646-3, Chase L Jensen**

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. 7646-3, Chase L Jensen, PO Box 361, Aurora SD 57002.

The Chief Engineer is recommending APPROVAL of Application No. 7646-3 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. 7646-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
February 26, 2013

REPORT ON WATER PERMIT APPLICATION NO.7646-3

Chase L. Jensen

February 21, 2013

Water Permit Application No. 7646-3 proposes to appropriate 120 acre-feet (ac-ft) of water annually at a maximum diversion rate of 0.89 cubic feet of water per second from one well to be completed into the Big Sioux: Aurora aquifer (40-50 feet deep) located in the SE 1/4 SW 1/4 Section 31 for irrigation of 60 acres located in the S 1/2 SW 1/4 Section 31; all in T110N-R48W. The project is located approximately 6 miles east of the City of Brookings in Brookings County.

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

GEOLOGY AND AQUIFER CHARACTERISTICS:

Test hole information was not submitted with this permit application. However, sufficient data is available through well completion reports (Water Rights, 2013c), water right/permit files (Water Rights, 2013b), and SD DENR-Geological Survey test hole logs (SDGS, 2013) to evaluate this application. 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 transmissivity of the Big Sioux: Aurora aquifer ranges from 149,600 gal/day/ft to 314,200 gal/day/ft (Hamilton, 1989). The Big Sioux: Aurora averages 30 feet of thickness but can be greater than 40 feet (Hamilton, 1989). In the area of this application, the aquifer can generally be encountered within 5 to 10 feet of the ground surface and can range in thickness from less than 10 feet to approximately 40 feet (Water Rights, 2013c).

SDCL 46-2A-9

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

WATER AVAILABILITY:

This application proposes to appropriate 120 ac-ft of water annually from the Aurora management unit of the Big Sioux aquifer. Although the actual water use if this application is approved will most likely be less than 120 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 from underlying aquifers (Hamilton, 1989). Since the aquifer is hydraulically connected to surface water, recharge is also provided to the aquifer during times of high runoff when surface water levels are higher than groundwater levels. Recharge rates calculated for this management unit of the Big Sioux aquifer is estimated to be in the range of “5.0 in/yr” (Hedges and others, 1985). Given the estimated area of the management unit of 83,000 acres in Brookings and Moody counties (Buhler, 2012), average annual recharge to the aquifer is estimated to 34,583 acre-feet per year (Hedges and others, 1982).

Discharge:

Discharge from the Big Sioux: Aurora is through evapotranspiration, discharge to streams, and withdrawal by wells (Hamilton, 1989). There are a number of completion reports on file with the DENR-Water Rights Program for domestic use wells completed into the Big Sioux: Aurora aquifer (Water Rights, 2013b). There are also 67 water rights/permits appropriating water from the Big Sioux: Aurora in Brookings and Moody counties, two of these permits are for future use totaling 3040 ac-ft/yr, these are Future Use Permit Nos. 1598-3 City of Brookings and 7393-3 Lincoln-Pipestone Rural Water (Water Rights, 2013b). From the Big Sioux: Aurora aquifer, water rights/permits for non-irrigation use that are limited only by diversion rate currently appropriate a total of 17.87 cfs. The amount of water that can be expected to be withdrawn by the non-irrigation use water rights/permits at the current appropriation amount can be estimated by assuming water rights/permits limited by an annual volume will pump the entire volume appropriated annually and water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time. Therefore, the total annual withdrawal from the Big Sioux: Aurora aquifer by non-irrigation use is currently expected to total at maximum 7,761 ac-ft/yr (Water Rights, 2013b). Figure 1 shows the irrigation withdrawal from the Big Sioux: Aurora aquifer as reported to the SD DENR-Water Rights Program through annual irrigation questionnaires. Anticipated average annual withdrawal from the Big Sioux: Aurora by appropriative users at the current appropriation level including the reserved annual future use volume is estimated to be 13,570 ac-ft, if the future use permits are fully developed.

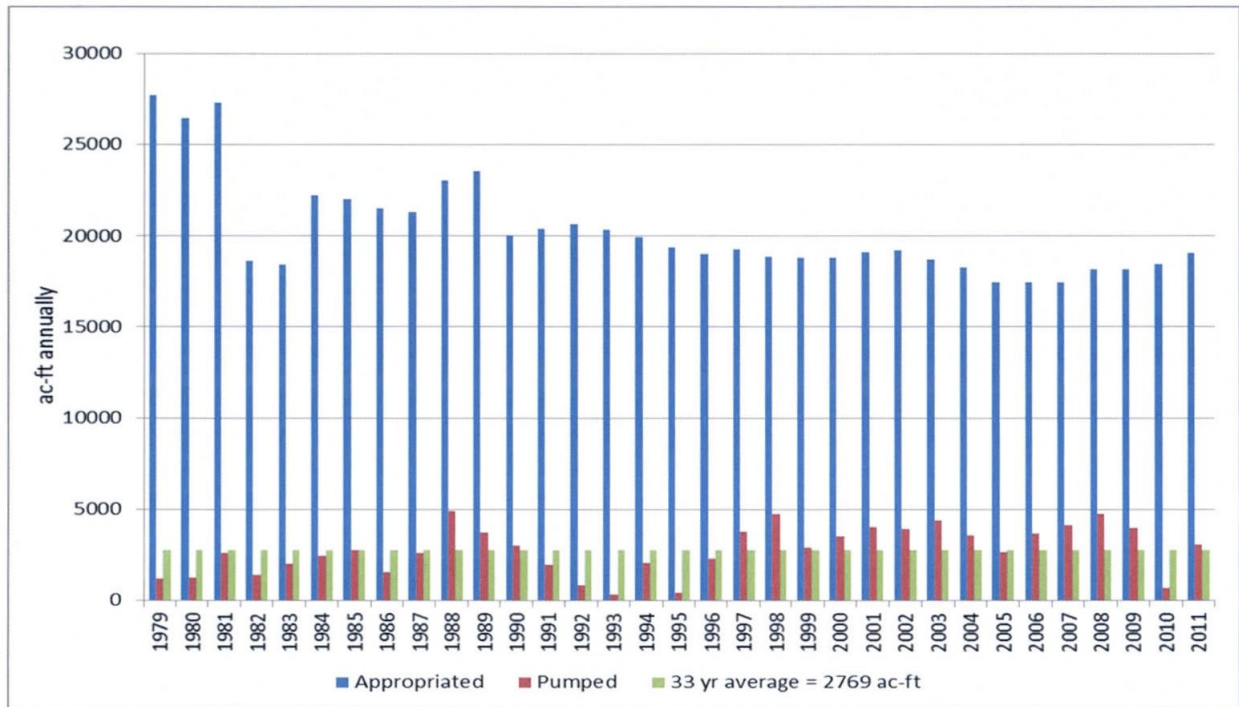


Figure 1- Reported Irrigation Water Use from the Big Sioux: Aurora aquifer (Water Rights 1979-2012).

Estimated average annual water use from the Big Sioux: Aurora is much less than the estimated annual recharge. Even using the maximum amount of water used for irrigation instead of the average, estimated annual use is still much less than estimated annual recharge. Therefore, there is a reasonable probability that there is unappropriated water available for this proposed application.

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, 2013a). There are two observation wells; BG-77I, and BG-77J completed into the Big Sioux: Aurora within one mile of the proposed well site. 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 water levels in the observation wells do show the seasonal effects of pumping, but these effects have not been adverse over the period of record. Figures 2 - 3 show the hydrographs for observation wells BG-77I, and BG-77J respectively.

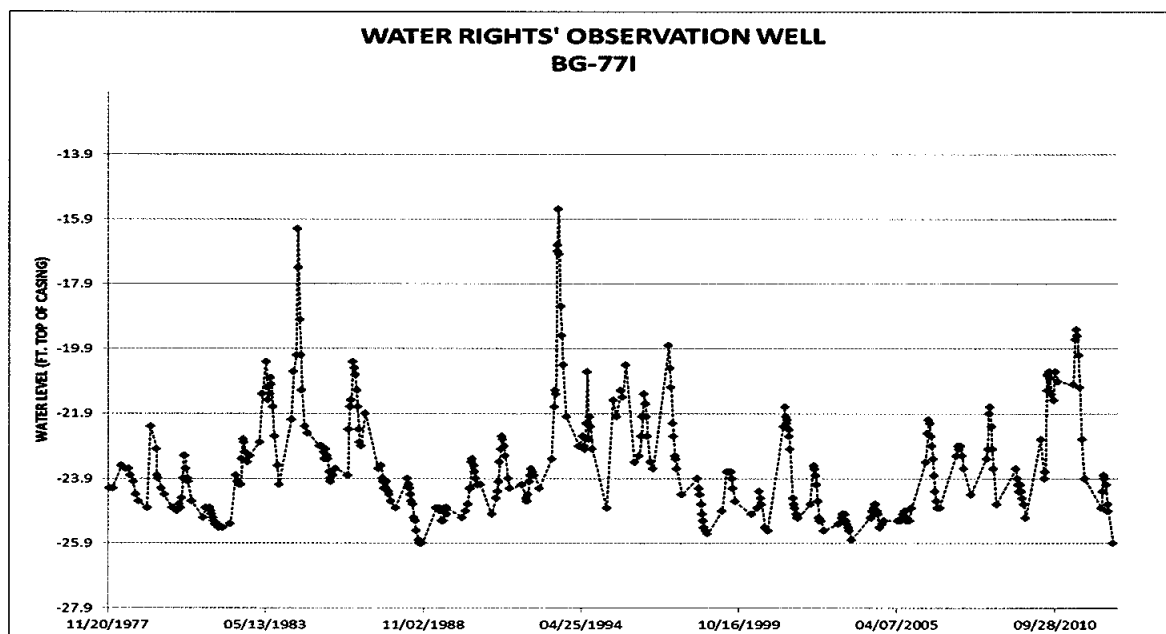


Figure 2- Hydrograph of DENR-Water Rights' observation well BG-77I, approximately 0.75 miles northwest from the proposed well site (Water Rights, 2013a).

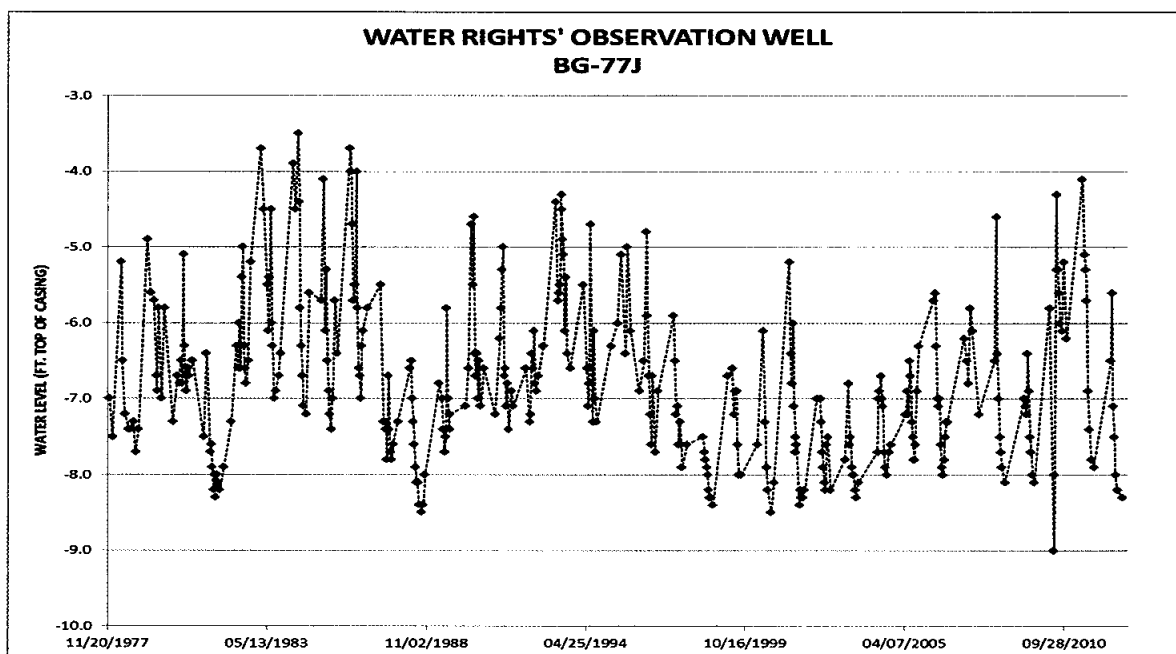


Figure 3- Hydrograph of DENR-Water Rights' observation well BG-77J, approximately 0.25 miles southwest from the proposed well site (Water Rights, 2013a).

EXISTING WATER RIGHTS:

There are eight water rights authorizing wells and several domestic users utilizing water from the Big Sioux Aurora within two miles of the proposed well site, Table 1.

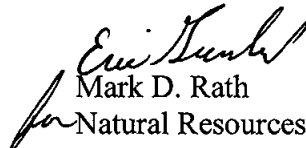
PERMIT_NO	LAST_NAME	STATUS	USE	CFS	ACRES
2809-3	WEBER	LC	IRR	1.600	136.00
4416-3	SYHRE	LC	IRR	2.100	152.00
4515A-3	BAILLIE	LC	IRR	1.810	127.00
5467A-3	SD STATE UNIVERSITY	LC	IRR	0.670	115.00
6999-3	JENSEN	PE	IRR	1.000	97.00
7026-3	FRIEDRICH	LC	IRR	1.450	104.00
7182-3	AGFIRST FARMERS COOP	LC	COM	0.350	0.00
2809-3	WEBER	LC	IRR	1.600	136.00

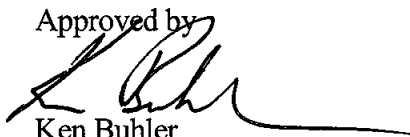
Table 1– Water rights, from the Big Sioux: Aurora aquifer within two miles of the proposed well location (Water Rights, 2013b).

Observation wells BG-77I and BG-77J are within 1 mile of at least two irrigation wells. The hydrographs for those wells, figures 2 and 3, show seasonal effects from pumping but do not indicate long term drawdown from pumping these wells indicating the short term fluctuation is not significant.

CONCLUSIONS:

1. Water Permit Application No. 7646-3 proposes to appropriate 120 acre-feet of water annually for the irrigation of 60 acres at a maximum diversion rate of 0.89 cfs.
2. There is a reasonable probability that unappropriated water is available from the Big Sioux: Aurora aquifer to supply this proposed diversion.
3. 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.


Mark D. Rath
Natural Resources Engineer
SD DENR-Water Rights Program

Approved by

Ken Buhler
Natural Resources Engineer
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., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S. 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.
- SDGS. 2013. Lithologic Logs Database. < <http://sddenr.net/lithdb/>>. SD DENR-Geological Survey. Vermillion, SD.
- Water Rights. 1979-2012. "1979-2011 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2013a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

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MAR 18 2013

Affidavit of Publication

State of South Dakota

ss

WATER RIGHTS
PROGRAM

10/

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

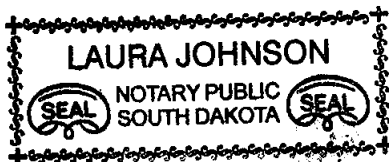
Leg#275 Notice #7646-3

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

March 8, 2013

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-two dollars and seventy-six cents \$22.76



11th _____ day of

March

2013
Laura Johnson

Notary Public in and for the County of Brookings, South Dakota.

My Commission expires August 3, 2017.

Legal 275, 1x, 3/8
NOTICE OF APPLICA-
TION NO. 7646-3 to
Appropriate Water
Notice is given that
Chase L Jensen, PO
Box 361, Aurora SD
57002 has filed an
application for a water
permit to appropriate
0.89 cubic feet of water
per second from one
well to be completed
into the Big
Sioux-Aurora Aquifer
(40-50 feet deep) locat-
ed in the SE 1/4 SW 1/4
Section 31 for irrigation
of 60 acres located in

the S 1/2 SW 1/4
Section 31; all in
T110N-R48W.
Pursuant to SDCL
46-2A-2, the Chief
Engineer recommends
APPROVAL of
Application No. 7646-3
because 1) unappropri-
ated 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 recom-
mended, unless a peti-
tion is filed opposing the
application or the appli-
cant files a petition con-
testing the Chief
Engineer's recommen-
dation. If a petition
opposing the applica-
tion 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 interest-
ed in opposing or sup-
porting this application
or recommendation
must file a written peti-
tion with BOTH the
applicant and Chief
Engineer. The applicant
must file a petition if
contesting the Chief
Engineer's recommen-
dation. The Chief
Engineer's address is
"Water Rights Program,
Foss Building, 523 E
Capitol, Pierre SD
57501 (605 773-3352)"
and the applicant's mail-
ing address is given
above. A petition filed
by either an interested
person or the applicant
must be filed by March
18, 2013.
The petition may be
informal, but must
include a statement
describing the peti-
tioner's interest in the appli-
cation, the petitioner's
reasons for opposing or
supporting the applica-
tion, and the signature
and mailing address of
the petitioner or the
petitioner's legal coun-
sel, if legal counsel is
obtained. Contact Eric
Gronlund at the above
Water Rights Program
address to request
copies of information
pertaining to this appli-
cation. Steven M.
Pirner, Secretary,
Department of
Environment and
Natural Resources.
Published once at the
total approximate cost
of \$22.76.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 27, 2013

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7646-3 to Appropriate Water. Please publish the notice once on March 8, 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 Chase L Jensen, PO Box 361, Aurora SD 57002 (Ph # 605-690-4970).

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.**

February 27, 2013

Chase L Jensen
PO Box 361
Aurora SD 57002

Dear Mr. Jensen:

Water Permit Application No. 7646-3 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 March 8, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7646-3 to Appropriate Water

Notice is given that Chase L Jensen, PO Box 361, Aurora SD 57002 has filed an application for a water permit to appropriate 0.89 cubic feet of water per second from one well to be completed into the Big Sioux:Aurora Aquifer (40-50 feet deep) located in the SE 1/4 SW 1/4 Section 31 for irrigation of 60 acres located in the S 1/2 SW 1/4 Section 31; all in T110N-R48W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7646-3 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 March 18, 2013.

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

Published once at the total approximate cost of_____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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APR 26 2013

Chase L Jensen
PO Box 361
Aurora SD 57002

Dear Mr. Jensen:

Enclosed is Water Permit No. 7646-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

7646-3
07-92

Date: 1 - 1995

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7646-3

I have this day, May 20, 2021, made a thorough examination of the water use system constructed by Chase L. Jensen, 21324 479th Ave, Aurora, SD 57002 of Permit No. 7646-3, bearing the priority of Dec 10, 2012 authorizing the diversion of 0.89 cu. ft. per second of the waters of the Big Sioux: Aurora Aquifer for irrigation purposes, in Brookings County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 1
- 3) Depth 32 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 14 inches
- 2) Length 22 feet
- 3) Type Plastic

Screen:

- 1) Type Manufactured – PVC
- 2) Length 10 feet
- 3) Static water level 6.5 feet

Pump:

- 1) Make NA
- 2) Model submersible
- 3) Size NA
- 4) Capacity 400 GPM (capacity supplied by well driller)

Motor: Unknown

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

- 1) Type Above ground aluminum pipe
- 2) Size inches
- 3) Length varies feet

The aluminum pipe supplies water to a flexible rubber hose that in turn supplies water to a traveling Big Gun.

C. Works used to apply water to beneficial use:

Gun: (2 big guns)

- 1) Make Ring nozzle
- 2) Nozzle size 0.768 inches
- 3) Capacity 115 & 150 GPM (total of 265 gpm when operated at the same time)
- 4) Hose size 6 inches

Chemigation Equipment: None

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

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **From the SW corner of Sec 31 T110N-R48W 230 ft N & 1725 ft E, Lat 44.28263 Long -96.64061, (SE ¼ SW ¼ Sec 31).**

3. The works are capable of diverting and conveying to the place of use 0.59 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 in Sec 31-T110N-R48W SW1/4 SW 1/4 - 25 ac
SE 1/4 SW 1/4 - 35 ac**

comprising a total of 60 acres of land and the license should be issued for 0.59 cfs.

4. All structures, wells and lands on map Y

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

The irrigated acreage was determined by using FSA maps and ArcMAP software. I visited the Chase Jensen farm and measured his two (2) big gun nozzles. According to the Nelson Irrigation Company literature and the flow rates of their 100 Taper Bore Nozzles, the 0.75 inch diameter nozzle puts out 150 gpm and the 0.65 inch nozzle 115 gpm when operated at 85 psi (according to Chase) for a total of 265 gpm (0.59 cfs) when both are operated at the same time.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: June 7, 2021

Note: The pump capacity of the well was obtained from Joanie, with Lacey Well Drilling on October 1, 2021. Genny



0 0.1 0.2 0.4 0.6 0.8 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

OCT 26 2021

7646-3

Chase L Jensen
21324 479th Ave
Aurora SD 57002

Dear Mr. Jensen:

Enclosed is Water License No. 7646-3. 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

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7646-3**

(1) Chase L Jensen, 21324 479th Ave, Aurora, SD 57002 made Application No. 7646-3, December 10, 2012 for a water permit to divert 0.89 cubic feet of water per second from ground water, one well (Big Sioux Aurora Aquifer), Brookings County, South Dakota for irrigation purposes. Permit No. 7646-3, with a priority date of December 10, 2012 was approved March 18, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 18, 2018 and for the application to beneficial use of said water on or before March 18, 2022.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.59 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 230'N and 1,725'E of the SW corner of Section 31, T110N, R48W (SE ¼ SW ¼ Section 31)
Latitude 44.28263, Longitude -96.64061

(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:

Section 31, T110N, R48W	SW ¼ SW ¼	25 acres
	SE ¼ SW ¼	35 acres
	Total	60 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Chase L Jensen, 21324 479th Ave, Aurora, SD 57002 the holder and/or owner of Water Right No. 7646-3 is issued a license to appropriate water, the right to use 0.59 cubic feet of water per second from ground water, one well (Big Sioux Aurora Aquifer) with a priority date of December 10, 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. 7646-3 and subject to the following qualifications:

- The well approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The well authorized by Permit No. 7646-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***The well was drilled in July 2013 by Lacey Well Drilling Inc. A copy of the well completion report is on file with the Water Rights Program.***

continued

- 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

OCT 26 2021
date

