

WATER PERMIT NO. 6623-3

Name of Applicant: Bradley Hanson

Address: 21107 478th Ave, ^{Wm.}Brookings SD 57006 Phone: 605 693-4319

Amount of Water Claimed: 1.78 cfs Total Acres: 135 acres

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: 5-5-05

Application/License Fee: \$300

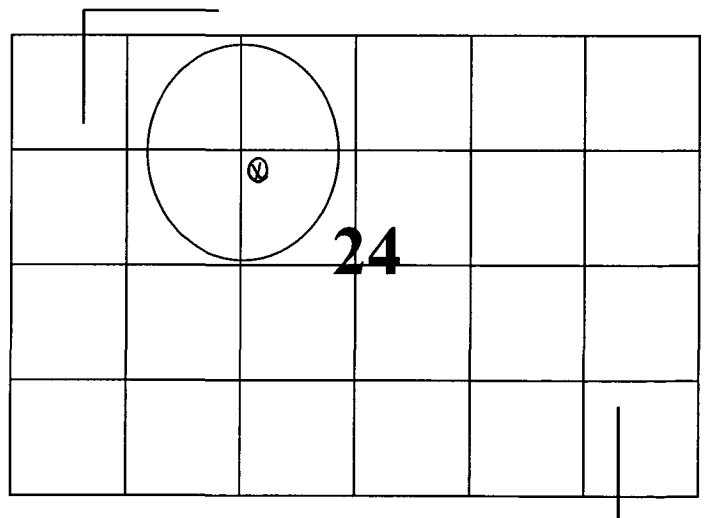
Corrected Application Received:

Period of Annual Use: May 1 – October 31

Remarks:

Diversion Point: SE ¼ NW ¼ Sec 24-T110N-R49W

Land to be Irrigated: NW ¼ Sec 24-T110N-R49W



Depth of Well: 181 feet deep

Well Driller: : Kaiser Well Drilling

Remarks:

Type of Map: aerial

Prepared by: Craig Olson, NRCS

Reviewed and the Number Assigned on: 5-5-05

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

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

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6623-3</u> (office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Brookings Register</u>

RECEIVED
MAY - 5 2005
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 Bradley Hanson Phone 605 693-4319
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 21107 478th Ave. Brookings White State SD 57006
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 135
(*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
SE 1/4 of the NW 1/4 of Section 24 110-489
- County or counties where water will be used Brookings
- Annual period during which water is to be used May 1 to October 31
- 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
NW 1/4 of the NW 1/4	34	All in Section 24, T110N, R49W	
NE 1/4 of the NW 1/4	34		
SE 1/4 of the NW 1/4	34		
SW 1/4 of the NW 1/4	34		

- 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, Brad Hanson, 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 Bradley D. Hanson

Subscribed and sworn to before me this 4th day of May 2005

Karen Langland
Notary Public signature



**SOUTH DAKOTA
WATER PERMIT NO. 6623-3**

Date of first receipt of application May 5, 2005.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6623-3 to Bradley Hanson, 21107 478th 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. 6623-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (181 feet deep) located in the SE ¼ NW ¼ Section 24 to irrigate 135 acres located in the NW ¼ Section 24-T110N-R49W.
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 – October 31.
3. The date from which applicant may claim right is May 5, 2005.
4. The date of approval of Permit No. 6623-3 is June 20, 2005.
5. One-fifth of the construction is to be completed on or before December 20, 2007.
6. All construction is to be completed on or before June 20, 2010.
7. Water is to be put to beneficial use on or before June 20, 2014.
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. 6623-3 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: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 29 2005

date



Supplemental Information

(Complete applicable portions only)

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 18" Depth 181 ft.
- b) Casing Type Plastic Diameter 12" Thickness Sch 40
- c) Screen Type SS Diameter 12" Thickness 1/8"
- d) Gravel Pack 1/4 x 1/8 Length of Gravel Pack 17 ft
- e) Depth to Top of Water Bearing Material 99 ft
- f) Depth to Water (ground surface to water level) 50 ft
- g) Distance to nearest existing domestic well:
- On applicants property 3600 ft On property owned by others 1600 ft

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

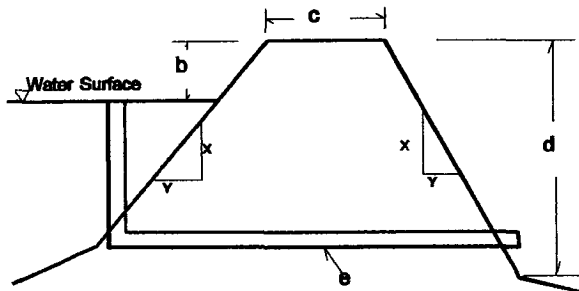
3. Dugout Information

- 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 _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date May 5, 20 05

RECEIVED OF Bradley Hanson, 21107 478th Ave, White SE 57276

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

Fee for Application for Permit No. <u>6623-3</u> to Appropriate Water, to construct and to put water to beneficial use	150	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>6623-3</u>	50	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	300.00

No.

001851

By

Darlene E. Eide
Chief Engineer *gm*

T 2183

*Range Area
NRCS Tech*

X well

1
297.7 A

T 1814

1
309.3 A



United States Department of Agriculture
Farm Service Agency

24-110-49

Brookings County

March 7, 2005

2003 Digital Orthophotography - Not To Scale



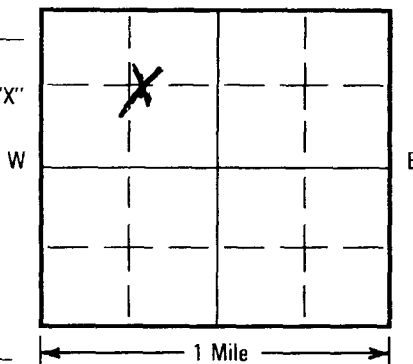
6623-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NW 1/4 Sec 24 Twp 110-N R 9-W
County Brookings

Please mark well location with an "X"



Well Completion Date

4-29-05

LOCATION:

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

PROPOSED USE:

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

METHOD OF DRILLING:

Direct RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>Sch 40</u> LB/FT	<u>3</u> IN	<u>396</u> FT	<u>191</u> FT	<u>7 7/8</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Densol</u>	<u>65</u>	<u>500</u> lb./gal	<u>0</u> ft	<u>175</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure pressure pull methodSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 3 IN Length 10 FEETMaterial plasticSlot Size 1035 Set From 171 Feet to 181 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:ATH Tablets☐ NO, Why Not? _____

Laboratory sent to for water quality analysis

Pierce
 Well Owner: Sandy Hanson Gray Trust
 Business Name: _____
 Address: 21030 478th Ave
White, SD 57226

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	1
yellow clay	1	6
yellow fine gravel (now)	6	18
yellow-clay	18	20
yellow gravel	20	23
yellow clay	23	25
yellow gravel w/ 6 links	25	30
yellow clay	30	37
yellow gravel w/ 2 links	37	38

STATIC WATER LEVEL

50

Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ PumpedDescribe: air lift☐ Bailed60+ gpm☐ Other _____

Pumping Level Below Land Surface

<u>70</u> ft. After <u>1</u> Hrs. pumped	<u>60+</u> GPM
<u>70</u> ft. After <u>2</u> Hrs. pumped	<u>60+</u> GPM

If pump installed, pump rate _____ GPM

REMARKS

yellow clay	38-40
yellow gravel w/ 4 links	40-47
blue clay	47-49
fine gravel sand	99-103
soft blue clay	103-105
gray medium gravel w/ 3 links	105-114

This well was drilled under license # 689

And this report is true and accurate.

Drilling firm Kaiser well Drilling Blue clay 114-117 117-123 123-153 153-181Signature of License Representative: W/ 20 links

Signature of Well Owner or Equitable Property Holder:

Sandy HansonBy Brendly D. Hanson
Date: 5-2-2005

REPORT ON WATER PERMIT APPLICATION NO. 6623-3
For Bradley Hanson
May 19, 2005

Application No. 6623-3 proposes to appropriate 1.78 cfs (800 gpm) from one well approximately 181 feet deep located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of section 24 to irrigate 135 acres located in the NW $\frac{1}{4}$ of section 24, in T110N R48W in Brookings County.

AQUIFER – RUTLAND (RUT)

The Rutland is a buried outwash (sand and gravel) that is under artesian conditions at this site. The aquifer underlies 240 square miles and contains an estimated 400,000 acre-feet of water in storage in Brookings County (Hamilton, 1989). The direction of ground water movement is from northeast to southwest in the area of this application (Hamilton, 1989). The aquifer extends into Minnesota to the east, into Deuel County to the north and into Moody County to the south. The aquifer appears to discharge water into the overlying Big Sioux Aurora aquifer in T110N R49W (Hamilton, 1989) which is just south and west of this application.

A test well log filed with the application indicates topsoil and yellow clay to a depth of 6 feet, yellow gravel from 6 to 18 feet, yellow clay from 18 to 20 feet, yellow gravel from 20 to 23 feet, yellow clay from 23 to 25 feet, yellow gravel from 25 to 30 feet, yellow clay from 30 to 33 feet, yellow gravel from 33 to 38 feet, yellow clay from 38 to 40 feet, yellow gravel from 40 to 47 feet, blue clay from 47 to 99 feet, fine grey sand from 99 to 103 feet, soft blue clay from 103 to 105 feet, medium grey gravel from 105 to 114 feet, blue and grey clay from 114 to 158 feet, medium to coarse grey gravel from 158 to 181 feet, all below land surface. The Big Sioux Aurora aquifer would bottom out at 47 feet at this site and the Rutland would be the 23 feet of gravel from 158 to 181 feet. The static water level in the Rutland was reported to be 50 feet below the ground surface. This well produced over 60 gpm using airlift to develop. No meaningful production testing data is available for this well. This test hole data matches up very well with data for irrigation wells located in the SW $\frac{1}{4}$ of this section 24 (about one-half mile to the south).

The Water Rights Program monitors an observation well BG-80I completed into the Rutland and located about five miles east of this application. Water levels for this observation well show good response to pumping (fluctuation) and also the effects of climatic conditions, that is, rising water levels during wet years (recharge) and gradually declining water levels during dry years. In general, the water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 2005). A hydrograph of this observation well record is included with this report.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There is an existing Water Right No. 2676-3 located about one-half mile south of this application that appears to obtain water from the Rutland aquifer. There are two wells authorized for this water right. There will be overlapping cones of depression. However,

until adequate testing is completed the drawdown can not be determined. Even so, drawdown is not expected to be significant at this distance between wells. Interference is not expected to be concern or cause adverse effects. There may be some domestic wells in the immediate area that would have to lower pumps in order to maintain the amount of water needed. This would be in direct response to increased pumping caused by this application. These domestic wells would have to be completed into the Rutland aquifer in order to be affected.

CONCLUSIONS

1. Water is available from the Rutland aquifer.
2. The aquifer is under artesian conditions at this site. Drawdown will occur as a result of pumping. Interference will occur. This is not expected to be significant nor cause adverse effects but until the well is drilled and put into production for an extended period of time these effects can only be estimated.
3. This well must be constructed in accordance with SD Well Construction Standards.
4. Pumping from the Rutland aquifer in this area should not affect the overlying Big Sioux Aurora in any way.

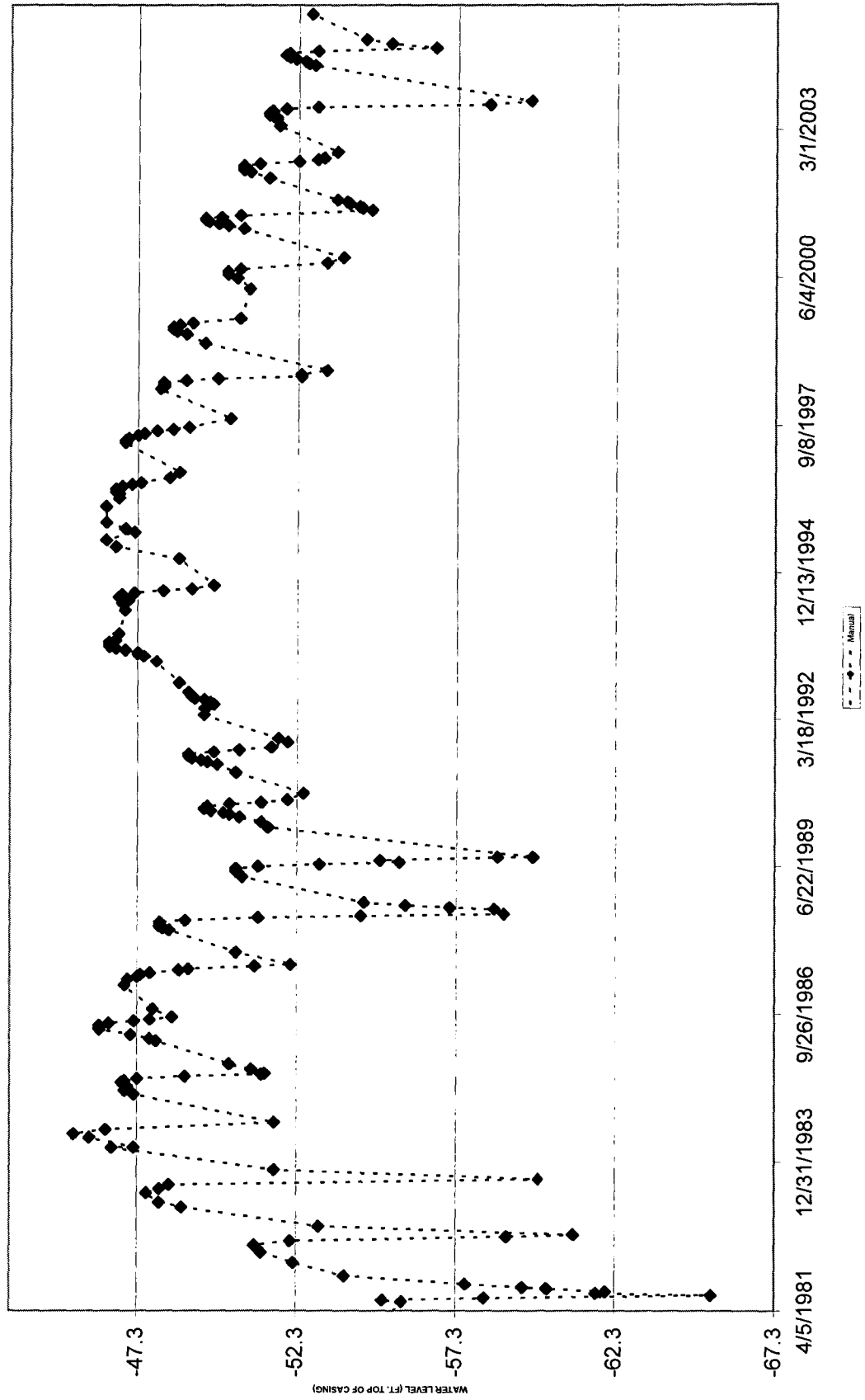


James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

- Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota, Water-Resources Investigations Report 88-4185, USGS, Huron, SD, 57350.
- Water Rights, 2005, Unpublished Observation Well Data for Brookings County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

WATER RIGHTS' OBSERVATION WELL
BG-80I





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6623-3, Bradley Hanson**

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. 6623-3, Bradley Hanson, 21107 478th Avenue, Brookings SD 57006.

The Chief Engineer is recommending APPROVAL of Application No. 6623-3 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. 6623-3 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. The well approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
4. 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
May 26, 2005

Affidavit of Publication

State of South Dakota

ss

County of Brookings

Annie Larson 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

Legal #906 "Brad-water permit"

Brookings and State of South Dakota, for more than one a printed copy of which, taken from the paper in which the same was published, is hereto attached marked Exhibit

said newspaper for _____ 2 times, to-wit:

June 2, 2005

June 9, 2005

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:

Thirty-nine dollars and fifty-one cents \$39.51

Subscribed and sworn to before me this

10th

day of

June

2005

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires April 27, 2006

Legal 906, 2x, 6/2, 6/9 NOTICE OF APPLICA- TION NO. 6623-3 to Appropriate Water

Notice is given, that Bradley Hanson, 21107 478 Ave, White, SD 57276 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (181 feet deep) located in the SE 1/4 NW 1/4 Section 24 to irrigate 135 acres located in the NW 1/4 Section 24-T110N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6623-3 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 the 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 the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Exhibit "A"

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 June 20, 2005.

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.

RECEIVED
JUN 30 2005
WATER RIGHTS
PROGRAM



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

May 26, 2005

Bradley Hanson
21107 478th Ave
Brookings SD 57006

Dear Mr. Hanson:

Water Permit Application No. 6623-3 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 Publisher of the Brookings Register printed at Brookings, SD (Ph # 605-692-6271). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and a 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 26, 2005

Brookings Register
PO Box 177
Brookings SD 57006-0177

ATTENTION: Legal Public Notice

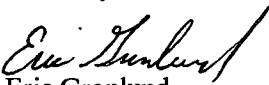
Enclosed is a Notice on Application No. 6623-3 to Appropriate Water to be published twice. Please publish the first notice on June 2, 2005 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Bradley Hanson, 21107 478th Ave, Brookings SD (Ph # 605-693-4319).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** 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

-----CUT HERE-----

No. 6623-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 26, 2005 enclosing Notice to Appropriate Water by Application No. 6623-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on June 2, 2005 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6623-3 to Appropriate Water

Notice is given that Bradley Hanson, 21107 478th Ave, Brookings SD 57006 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (181 feet deep) located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 24 to irrigate 135 acres located in the NW $\frac{1}{4}$ Section 24-T110N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6623-3 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 the 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 the 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 June 20, 2005.

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.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUL 29 2005

Bradley Hanson
21107 478th Ave
White SD 57276

Dear Mr. Hanson:

Enclosed is Water Permit No. 6623-3 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



6623-3
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 23, 2009

NOTICE

TO: BRADLEY HANSON, MGR, 21107 478TH AVE, WHITE, SD 57276 6503
FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program
SUBJECT: Reporting Requirement for 2008 Irrigation Questionnaires

Our records indicate that the 2008 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 24, 2008. The Water Management Board has directed that owners of water permits who have not submitted the 2008 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) 3347-3 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) 4477-3, 6622-3 & 6623-3 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 11, 2009** 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) 4477-3, 6622-3 & 6623-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 3347-3 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 on/or before **March 6, 2009**, you will no longer be in violation of your permit and your name will be deleted 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. If you prefer, you can complete the questionnaire on-line at the following link:

<https://www.state.sd.us/efrms/secure/efrms/E0455V7-IQ.pdf>

c: SANDRA HANSON, 21030 478TH AVE, WHITE SD 57276

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**

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January 28, 2009

3347-3
4477-3
6622-3
6623-3

Bradley Hanson
21107 478th Ave
White SD 57276-6503

Dear Mr. Hanson:

I am writing to acknowledge receipt of your 2008 irrigation questionnaires. You may disregard the January 23, 2009, "Notice" concerning reporting requirements for Water Permit or Right Nos. 3347-3, 4477-3, 6622-3 and 6623-3.

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

c: Sandra Hanson

Permit No. 6623-3
Sioux River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, September 14, 2011, made a thorough examination of the water use system constructed by Bradley Hanson, 21107 478th Avenue, White SD 57276 holder of Permit No. 6623-3, bearing the priority of May 5, 2005 authorizing the diversion of 1.78 cu. ft. per second from the Rutland Aquifer for irrigation purposes, in Brookings County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

Two wells are in place each with a submersible pump

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

One well head located at pivot center and the other approximately 470 feet north of the pivot center.

C. Works used to apply water to beneficial use:

A 7 tower Valley 8000 center pivot

The system is in the following condition **excellent**. The point of diversion (wells) is located specifically Well 1 - Lat 44.32318 Lon -96.66217 --- approx. 855' South and 1,200' East of NW corner Section 24, T110N, R49W (NW ¼ NW ¼) & Well 2 - Lat 44.32188 Lon -96.66177 --- approx. 1,340' South and 1,400' East of NW corner Section 24, T110N, R49W (SE ¼ NW ¼)

The works are capable of diverting a total of 1.56 cfs from two wells which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All in Section 24, T110N, R49W

NW ¼ NW ¼	33.75 acres
NE ¼ NW ¼	33.75 acres
SW ¼ NW ¼	33.75 acres
SE ¼ NW ¼	33.75 acres

This breakdown of acres is a best estimate based on 1) information provided and 2) viewing the 2010 FSA aerial using ArcMap,

comprising a total of 135 acres of land and the license should be issued for 1.56 cfs based on the capacity of the one well.

Applicable permit qualifications have been complied with: **Yes**

Exceptions to compliance are: additional well – see report on additional diversion point

Date Report Completed: May 22, 2012



Eric Gronlund

Natural Resources Engineer

DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR PERMIT NO. 6623-3

DATE OF INVESTIGATION:	September 14, 2011
NAME & ADDRESS OF PERMIT HOLDER	Bradley Hanson 21107 478 th Avenue White SD 57276
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Brad Hanson
DIVERSION POINT LEGAL LOCATIONS	<u>Well 1 - Lat 44.32318 Lon -96.66217 ---</u> <u>approx. 855' South and 1,200' East of NW</u> <u>corner Section 24, T110N, R49W (NW ¼ NW</u> <u>¼) & Well 2 - Lat 44.32188 Lon -96.66177 ---</u> <u>approx. 1,340' South and 1,400' East of NW</u> <u>corner Section 24, T110N, R49W (SE ¼ NW ¼)</u>

WELL INFORMATION:

- 1) Well Drilling Firm: **Kaiser Well Drilling**
- 2) No. of Wells 2
- 3) Depth(s) approx. 180
- 4) Well log is available no
- 5) Comment: Kaiser Well Drilling was contacted
and were to submit logs but have not yet.

Casing:

- 1) Diameter _____ inches
- 2) Length _____ feet
- 3) Type

Screen:

- 1) Type
- 2) Length _____ feet
- 3) Static water level approx. 50 feet

Pump:

- 1) Make Gould
- 2) Model
- 3) Size
- 4) Capacity 300 GPM * each well

Motor:

- 1) Make
- 2) Model No.
- 3) Horsepower rating 20 hp

SYSTEM TYPE:

Center pivot:

- 1) Make Valley 8000
- 2) Overall length approx. 1303 feet
- 3) Number of towers 7 tower
- 4) Distance between towers _____ feet
- 5) End gun Yes (approx. 103)

- 6) High or low pressure 41 psi
- 7) Capacity 800 GPM

CHEMIGATION EQUIPMENT: No

PERMIT QUALIFICATIONS:

- 1) Special qualifications to permit being abided by Yes
- 2) All structures, wells and lands on map Yes
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes – irrigation began in 2007 according to questionnaires

COMMENTS:

- Met Brad Hanson at Bowne's farmstead. He did not accompany me but gave me permission to look at the irrigation system.
- Permit authorized one well but two wells are found supplying the permit. See separate report.
- Mr Hanson reports a diversion rate of 700 gpm. The well driller indicates the production from the two wells combined is 600 gpm. The specification sheet inside the center pivot's control box lists the pivot operating at 800 gpm.. This provides conflicting diversion capability. For the purpose of licensing, I feel the pivot control box is likely in error. I chose to give the benefit to the permit holder and recommend licensing for 700 gpm (1.56 cfs).
- Mr. Hanson indicated that Kaiser was the driller. There is a completion report for irrigation in the file for Permit No. 6623-3 but upon review it appears to be a test hole since it only was a 3" bore hole. Kaiser drilling was contacted that they too concluded the report was for a test hole. For some reason they did not have completion reports for these two wells that they did drill. Mr. Kaiser indicated that he would go out and get the proper depths and send the necessary reports to Water Rights. That was during a phone conversation the first week of January 2012. During that phone conversation he provided the pump information contained in this report. Since that time, well completion reports have not been filed and I proceeded to complete the examination report.



Well 1 - Lat 44.32318 Lon -96.66217 — approx. 855' South and
1,200' East of NW corner Section 24, T110N, R49W

Well 2 - Lat 44.32318 Lon -96.66177 — approx. 1,340' South and
1,400' East of NW corner Section 24, T110N, R49W




Eric Gronlund
Water Rights Program, DENR
License Inspection - September 14, 2011

Request for Additional Diversion Point

NAME: Bradley Hanson**ADDRESS:** 21107 478th Avenue, White SD**DATE:** May 21, 2012 **COUNTY:** Brookings **TELEPHONE:**

Water Permit No. 6623-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Rutland Aquifer (181 feet deep) located in the SE ¼ NW ¼ Section 24, T110N, R49W for irrigation of 135 acres in the NW ¼ Section 24, T110N, R49W.

During a licensing investigation of the permit, two wells were found constructed. One well is at the pivot center while the second well is about 480 feet north. Well completion reports are not on file for either well. Kaiser Well Drilling was contacted in January 2012 and Mr. Kaiser he'd have to go out to the well and measure the wells in order to complete the required well completion reports that were not filed. These reports have not been filed.

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The water source is the Rutland Aquifer. No additional water is to be appropriated by this request. The on-site investigation found less than the authorized amount being diverted. A licensing investigation was conducted and the combined capacity of the two wells is approximately 700 gpm. While well completion reports have not been properly filed, a test hole log is on file that represents the target water source being the Rutland Aquifer. It is logical that both wells are completed into the Rutland Aquifer. A review of "Major aquifers of Brookings County, South Dakota" authored by Hamilton in 1988 shows this land to be along the edge of the Rutland Aquifer. The Big Sioux: Aurora Aquifer is also likely present at this site. However based on the test hole log, it appears that the Rutland Aquifer is the preferred aquifer at this site. The test hole log is also consistent with the production well for Water Right No. 2676-3 in the SW ¼ of this section.

- **Review of Existing Diversions**

The Water Rights Program's database of well completion reports was also reviewed and found six domestic wells within that two mile radius. The nearest domestic well is 1 mile to the northwest and the next closest is 1.1 miles to the southwest. However, based on well depth they are completed in the Big Sioux Aquifer and not the Rutland Aquifer.

The nearest water right using the Rutland Aquifer (two wells) is one half mile directly south in the SW ¼ of Section 24 held by Terrance Hill with the next closest being 1.3 miles to the northeast and farmed by the Bradley Hanson (who holds Permit No. 6623-3).

The report prepared on Application No. 6623-3 still applies. It states that there will be overlapping cones of depression between Nos. 2676-3 and 6623-3. However, until adequate testing is completed the drawdown can not be determined. Even so, drawdown is not expected to be significant at this distance between wells. Interference is not expected to be a concern or cause adverse effects. Given the distance and low diversion capacity of the USFWS wells, interference is not expected to be a concern.

CONCLUSION

- The additional well does not appropriate additional water.
- The additional well from all appearances is completed into the Rutland Aquifer.
- Interference is not expected to be a concern.
- Existing domestic wells will not be adversely impacted by authorizing this additional well.

RECOMMENDED ACTION

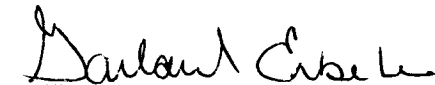
Based on the above criteria, it is recommended that the additional diversion point be authorized pursuant to SDCL 46-5-13.1.



Eric Gronlund, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This additional diversion point does not increase the potential for adverse effects to existing diversions.



Garland Erbele, Chief Engineer
Water Rights Program



**DEPARTMENT of ENVIRONMENT
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<http://denr.sd.gov>

JUN 20 2012

6623-3

Bradley Hanson
21107 478th Ave
White SD 57276

Dear Mr. Hanson:

Enclosed is Water License No. 6623-3. 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 the owner of an existing well, such as the well authorized by Water Right No. 6623-3, 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, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 6623-3**

(1) Bradley Hanson, 21107 478th Avenue, White SD 57276 made Application No. 6623-3, May 5, 2005 for a water permit to divert 1.78 cubic feet of water per second from ground water (one well – Rutland Aquifer), Brookings County, South Dakota for irrigation purposes. Permit No. 6623-3, with a priority date of May 5, 2005 was approved June 20, 2005 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 20, 2010 and for the application to beneficial use of said water on or before June 20, 2014.

An inspection of the project for licensing purposes found an additional well had been constructed. Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the developed water source is the same as the permitted source and no additional water is appropriated. The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that the additional diversion point does not increase the potential for adverse effects to existing diversions.

(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 1.56 cubic feet of water per second for beneficial use. The location of the diversion points are:

- Well #1 – 855 feet south and 1,200 feet east of the NW corner of Section 24, T110N, R49W (NW ¼ NW ¼),
- Well #2 – 1,340 feet south and 1,400 feet east of the NW corner of Section 24, T110N, R49W (SE ¼ NW ¼).

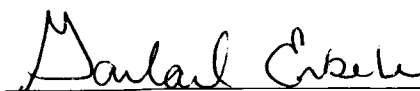
(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T110N, R49W Section 24	NW ¼ NW ¼	33.75 acres
	NE ¼ NW ¼	33.75 acres
	SW ¼ NW ¼	33.75 acres
	SE ¼ NW ¼	<u>33.75 acres</u>
	Total	135.00 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Bradley Hanson, 21107 478th Avenue, White SD 57276 the holder and/or owner of Water Right No. 6623-3 is issued a license to appropriate water, the right to use 1.56 cubic feet of water per second from ground water (two wells – Rutland Aquifer) with a priority date of May 5, 2005 from the locations 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. 6623-3 and subject to the following qualifications:

- The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The wells authorized by Permit No. 6623-3 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 wells approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned or the Permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

JUN 20 2012
date

