

DO NOT LICENSE
THIS IS A
TEMPORARY
WATER PERMIT

WATER PERMIT NO. 6008-3

Name of Applicant: Herman Brende

Address: 800 E 84th St N, Sioux Falls SD 57104

Phone: 605 332-0528

Amount of Water Claimed: 1 cfs Total Acres: 69

Source of Water Supply: groundwater (two wells)

Water to be used for: irrigation County: Minnehaha

Type of Waste Disposal System: NA

Location: 1/2 mile south of Renner

PRIORITY Date Received: 6-6-97 Fee: \$225.00

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

Remarks: For a golf course

Diversion Point: _____

Sec 16-T102N-R49W

Land to be Irrigated: S 1/2 SE 1/4

Sec 16-T102N-R49W

Depth of Well: 30 feet deep

Well Driller: Lacey Well Drilling

Remarks:

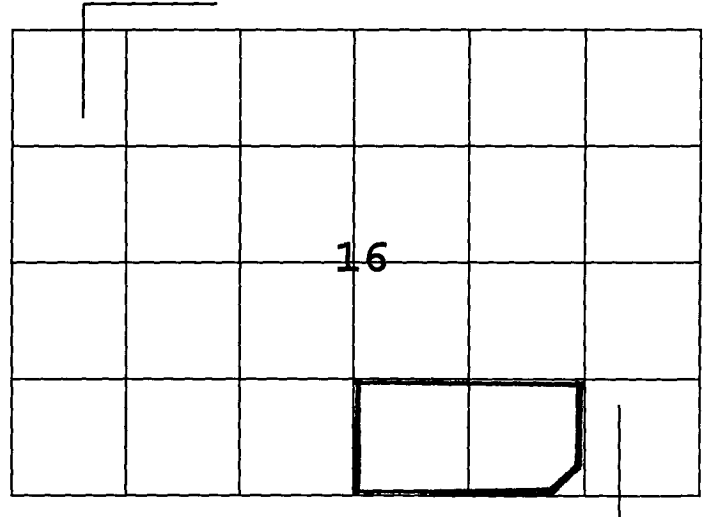
Type of Map: aerial

Prepared by: Larry Olson, CFSA

Reviewed and the Number Assigned on: 6-6-97

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
TEMPORARY WATER PERMIT NO. 6008-3

Date of first receipt of application June 6, 1997.

The Chief Engineer, on behalf of the Water Management Board, issues temporary Water Permit No. 6008-3 to Herman Brende, 800 E 84 St N, Sioux Falls SD 57104 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. Temporary Water Permit No. 6008-3 appropriates 1.0 cubic feet of water per second from two wells (Big Sioux:Sioux Falls Aquifer) 30 feet deep located in the S 1/2 SE 1/4 Section 16 to irrigate 69 acres of a golf course located in the S 1/2 SE 1/4 Section 16; all in T102N-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: April 1 - October 31.
3. The date from which applicant may claim right is June 6, 1997.
4. The date of approval of temporary Permit No. 6008-3 is July 21, 1997.
5. One-fifth of the construction is to be completed on or before January 21, 2000.
6. All construction is to be completed on or before July 21, 2002.
7. Water is to be put to beneficial use on or before July 21, 2006.
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 City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six months notice prior to cancellation of this temporary permit
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

(continued)

Temporary Water Permit No. 6008-3

Herman Brende

Page 2

3. The wells authorized by temporary Permit No. 6008-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: *John Hatch*
John Hatch, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 31 1997

date



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	(office use only)
	No. <u>6008-3</u> Hydrologic Unit <u>10170203</u>
	Basin <u>Big Sioux River</u>
	Newspaper <u>Argus Leader, Sioux Falls, SD</u>



Application For Permit To Appropriate Water For Irrigation

Type of Application: X New Vested Right Amendment/Correction to Permit No.
(check one) (Use predates Mar 2, 1955)

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

1. Name of Applicant HERMAN BRENDE ☒ Owner ☐ Tenant/Lessee Phone 332 0528
(check one)
- Mailing Address 800 E 84 ST N Sioux Falls State South Dakota
(Street, RR, or Box) (Zip Code)
2. Amount of water claimed 1 *CFS or 450 **GPM ***AF Total Acreage 69
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout if applicable)
3. Source of water supply 2 wells
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 2 wells in S1/2 SE1/4
Sec 16 102-49 County Minnehaha
5. County or counties where water will be used Minnehaha
6. Annual period during which water is to be used April-October 31
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>S1/2 SE1/4 Sec 16 102-49</u>	<u>69</u>		

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

Golf course

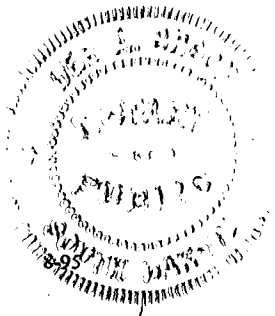
Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

STATE OF SOUTH DAKOTA)

County of Minnehaha ss

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

Signed Herman Brende
Subscribed and sworn to before me this 5th day of June 19 97
Deb A. Brock
Notary Public DEB A. BROCK
My Commission Expires 3-18-99



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 30'
- b) Casing Type STEEL Diameter 12" Thickness Sched 40
- c) Screen Type SS Diameter 12" Thickness 3/16"
- d) Gravel Pack Thickness 4" Length of Gravel Pack 16'
- e) Depth to Top of Water Bearing Material 4'
- f) Depth to Water (ground surface to water level) 4'
- g) Distance to nearest existing domestic well:
 Off applicants property 1400' On property owned by others 1200'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ c) Year Constructed _____
- d) Connected to the City of _____ Sanitary System.

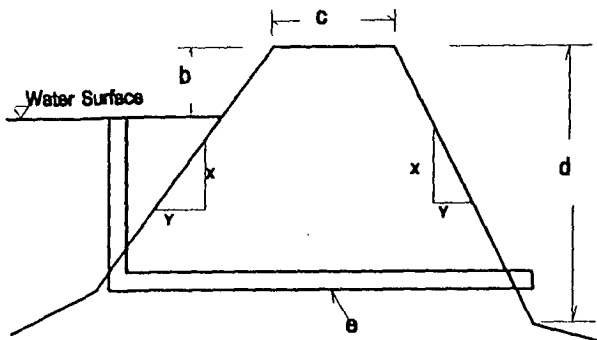
3. Dugout Information

- 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



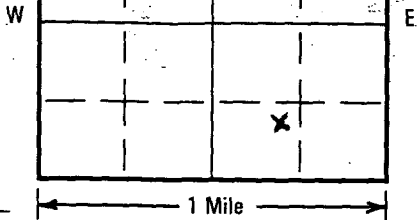
SOUTH DAKOTA WATER WELL COMPLETION REPORT

6008-3

07-92

Location SW 1/4 SE 1/4 Sec 116 Twp 100-N Rg 49-W
County Minnehaha

Please mark well location with an "X"



Well Completion Date

6-16-98

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1000 ft. from septic tank (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket

CASING DATA:

- ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>12</u> IN	<u>12</u> FT	<u>226</u> FT	<u>20</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>Cement</u>		lb./gal	<u>0</u> ft	<u>6</u> ft
		lb./gal	ft	ft

Describe grouting procedure _____

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12 IN Length 8 FEET
Material Stainless Steel
Slot Size .080 Set From 226 Feet to 306 Feet
Other information _____

WAS A PACKER OR SEAL USED?

☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: chlorine

☐ NO, Why Not? _____

Laboratory sent to for water quality analysis

Sioux Falls

Well Owner: Herman Brende

Business Name: Northern Links

Address: 800 E 84th St n
Sioux Falls, SD 57104

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Topsoil</u>	<u>0</u>	<u>2</u>
<u>Clay</u>	<u>2</u>	<u>3</u>
<u>Brown Sand</u>	<u>3</u>	<u>16</u>
<u>Coarse Gravel</u>	<u>16</u>	<u>30'6"</u>

S.W.L. 5'6"

STATIC WATER LEVEL

12'6"9" Feet

If flowing: closed in pressure 1 PSI

GPM flow 100 through 1 1/2 inch pipe

Controlled by ☐ Valve ☐ Reducers ☒ Other

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped

Describe: slugged well

☐ Bailed

than pumped

☐ Other

Pumping Level Below Land Surface

18 ft. After 3 Hrs. pumped 500 GPM

ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Good well

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm Lacey Well Drilling

Signature of License Representative:

Joan Lacey

Signature of Well Owner or Equitable Property Holder:

Herman Brende President Northern Links

Date: 7-21-98



In Water Since 1946

LACEY WELL DRILLING

RR 1 Box 24

Dell Rapids, South Dakota 57022

Telephone (605) 428-5979

Wells
Dewatering Work
Test Drilling

Pumps
Water Specialists
Irrigation Supplies

6-2-97

Herman Brendt

Log of Test well



0-3 sandy topsoil

3-30- medium sand-gray gravel

S.W. 4'

Pumped water sample - sent to
Brookings

Jim Lacey

S.D. # 111

NOT TO SCALE

The map shows a large land tract with several smaller parcels outlined. Handwritten annotations include:

- L-77** (written twice)
- Verify that 69.0 acres in this tract** (written in blue ink)
- Long Corn CED, Minnetonka County FSA** (written in blue ink)

Survey data and labels on the map include:

- T-1439**, **T-2580**, **T-7434**, **T-9991**
- NHEL** (Northwest Half Section)
- 36.2**, **17.7**, **10.5**, **5.7**, **5.6**, **17.5**, **44.3**, **45.0**, **1.2**
- 159**, **990**

6008-3

James Chan
CED, Minneapolis
County FSA.

L-77

T-2580

T-1429

⑤
5.7

NH₄

④
44.3

NH EL

17.7

110

④

NH&L

WHEEL

T-1439

②

(X)

NIH

2

44.3

NH₂EL

④

17.5

NLSA

54C

④

45.0

7-9989

477

T-999)

©

250

6008-3

RECEIPT

415384

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ June 6, 19 97

RECEIVED OF Ryne Brende, 804 E. 8th St. N., Sioux Falls, SD 57104

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

Fee for Application for Permit No. <u>6008-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	226	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	225 00

By John Hatch
Chief Engineer

MEMORANDUM

TO: Mike Cooper
Russ Sorenson

FROM: Lyle Johnson

DATE: March 18, 1997



RECEIVED MAR 18 1997

SUBJECT: Golf Course at 800 East 84th Street North

The following are my responses to your questions concerning the above referenced golf course:

1. Any irrigation wells constructed in the area would probably be in the City's Future Use area (FU-448-3) and therefore would only receive a temporary water right from the State. I am not so concerned about the impact on the City's wells as I am on residential wells in the area. This area is right on the eastern fringe of the Big Sioux Aquifer and any significant drawdowns in irrigation wells could adversely impact residential wells along Cliff Avenue.
2. The subject property is in the Renner Sanitary District and connection to the District Sewer would require approval by the district.
3. With respect to future residential development, we have a flow limitation on the Renner Sanitary District that will in essence restrict future connections. Numerous lots have already been platted within the District and therefore future residential development may be limited. This issue should be addressed with the Renner Sanitary District.

If you have any additional questions, please contact me.

c: Dave Queal
Kevin Smith



South Dakota State University
Brookings, South Dakota 57007

6008-3
Water Resources Research Institute
Telephone 605-688-4910

May 30, 1997

Herman Brende
800 E. 84th St. N.
Sioux Falls, SD 57



Dear Mr. Brende:

Enclosed is a copy of the analysis of your water sample which you submitted to us for testing. We have identified the source of your water as taken from a Well at a depth of 30 ft located in the SE 1/4 of Section 16, Township 102 N, Range 49W.

We have assigned it lab number 97-0051. Your water, as represented by this sample, is classified as a medium salinity, low sodium hazard for irrigation usage. The electrical conductivity (EC) of this water is 580 micromhos/cm. The main ions in this water are: calcium (Ca) and bicarbonate (HCO_3).

I have plotted your approximate water quality in red on the outside back cover of the enclosed pamphlet (AES 13). The range in the sodium hazard, from 0.19 to 0.44, is dependent upon the leaching fraction that may result if irrigation water is applied. The higher sodium hazard is associated with no leaching, and the lower sodium hazard is associated with normal leaching fractions (0.03-0.05). The leaching fraction is defined as the amount of water lost below the root zone annually, divided by the total amount received into the soil profile.

This water can be used for irrigation purposes for most normal soils which have adequate internal drainage. This means that if the water table is greater than 10 feet below ground surface the majority of the year and there are no tight impermeable layers within the root zone which may create a perched water table, the salts (ions) that do exist in the water will be able to be leached downward below the root zone where they do little or no harm to growing crops. The probability for soil salinization from this water is low when used on soils with good subsurface drainage.

The boron level 0.04 ppm for this water poses a low toxicity level for most normal crops in this area. I have enclosed a sheet that tells the boron toxicity levels for major crops.

I am forwarding a copy of this letter and water analysis to the Division of Water Rights in Pierre for their information and/or action. If you have further questions regarding this water analysis, please do not hesitate to call or write.

Sincerely,

John H. Bischoff, Assistant Professor
Water Resources Institute

Enclosures

cc: Division of Water Rights

REPORT OF WATER ANALYSIS
Water Quality Laboratory
Water Resources Research Institute
South Dakota State University
Brookings, SD 57007

05/20/1997
Minnehaha

Bill To: Brende, Herman
800 E. 84th St. N.
Sioux Falls, SD 57
cc: Lacey Well Drilling

Date Rec'd 05/12/1997
Lab Sample No 97-0051
Source Well
Depth 30
Legal ID:

Calcium (Ca)	85 ppm	4.25 me/l
Magnesium (Mg)	28 ppm	2.30 me/l
Sodium (Na)	8 ppm	0.35 me/l
Potassium (K)	1 ppm	0.02 me/l
Sulfate (SO4)	28 ppm	0.58 me/l
Nitrate as N (NO3)	12.67 ppm***	0.91 me/l
Organic Nitrogen as N	ppm	
Ammonia Nitrogen as N	ppm	
Nitrite as N (NO2)	ppm	
Ortho Phosphorus	ppm	
Total Phosphorus	ppm	
Chloride (Cl)	8 ppm	0.23 me/l
Bicarbonate (HCO3)	300 ppm	4.92 me/l
Carbonate (CO3)	0 ppm	me/l
Iron (Fe)	ppm	me/l
Fluoride (F)	ppm	me/l
Manganese (Mn)	ppm	
Boron (B)	0.04 ppm	
Hardness (EDTA as CaCO3)	328 ppm	19.15 gpg
Total Solids	ppm	
Total Cations		6.92 me/l
Total Anions		6.64 me/l
Alkalinity (Methyl Orange)	246 ppm(as CaCO3)	
Alkalinity (Phenolphthalein)	0 ppm(as CaCO3)	
Electrical Conductivity	577 micromhos per cm at 25°C	
Sodium Adsorption Ratio (SAR)	0.19 Adjusted SAR	0.44
Sodium	5.06 % of Cations	
Residual Sodium Carbonate	0.00 me/l	
pH	7.48	

gpg = grains per gallon
me/l = milliequivalents per liter

ppm = parts per million

COMMENTS:

***EPA Drinking Water Maximum Contaminate Level is 10 ppm.

Analysis By: Shirley Mittan

Service Performed:	Analysis Cost:	70.00	Amount Received:	.00
Irrigation Analysis	Sales Tax:	4.20	AMOUNT DUE:	74.20
	Total Cost:	74.20		

Make checks payable to: SDSU Water Quality Lab
Please write lab number on your check!
Lab Sample No. 97-0051



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 6, 1997

Ryne Brende
804 E 84th St N
Sioux Falls SD 57104

Dear Mr. Brende:

Thank you for submitting your *Application for a Permit to Appropriate Water for Irrigation* of a golf course.

Enclosed is the map submitted with the application. Please mark the location of the two wells with "X"s. We have started processing the application, but need the corrected map back as soon as possible.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

enclosure

We were wondering about
if we could have this advertized
in the Baltic Beacon

Baltic S.D. as this is
a legal paper for Minnehaha
county



REPORT FOR
WATER PERMIT APPLICATION NO. 6008-3
HERMAN BRENDE
JUNE 17, 1997

Application No. 6008-3 proposes to appropriate 1.0 cubic feet of water per second (cfs) from two wells (Sioux Falls Management Unit of the Big Sioux Aquifer) 30 feet deep located in the S $\frac{1}{2}$ SE $\frac{1}{4}$ Section 16 to irrigate 69 acres of a golf course located in the S $\frac{1}{2}$ SE $\frac{1}{4}$ Section 16; all in T102N-R49W.

AQUIFER: Big Sioux: Sioux Falls (BS:SF)

AQUIFER CHARACTERISTICS:

The Sioux Falls Management Unit of the Big Sioux Aquifer is an alluvium mantled, glacial outwash deposit, which consists of silt, fine to coarse sand, and gravel. The management unit underlies approximately 22,900 acres in Minnehaha County and contains an estimated 103,050 acre-feet of recoverable water in storage in the county (Hedges, 1982). The aquifer is restricted to the Big Sioux Alluvial Valley, and is bounded both to the north (near Dell Rapids) and on the south (Sioux Falls) by the relatively impermeable Sioux Quartzite. The aquifer is predominately under unconfined conditions. The direction of water movement in the aquifer is generally to the south and towards the Big Sioux River (Lindgren, 1992). The aquifer attains a maximum thickness of approximately 48 feet. The test hole log included with this application indicates the sand and gravel is approximately 27 feet thick at the site proposed by this application.

The Water Rights Program monitors observation wells: MA-80L and MA-80M (Water Rights, 1997), completed into the Sioux Falls Management Unit within one and one half miles of the diversion points proposed by this application. The hydrographs for these wells (see figures 1 and 2) show that the highest annual water level generally occurs around April- June, and the lowest annual water level generally occurs around August - October.

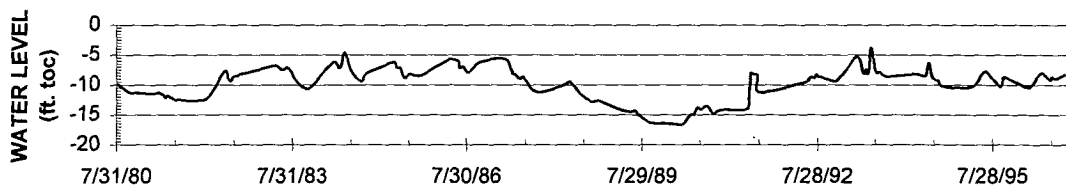


figure 1
MA-80L HYDROGRAPH

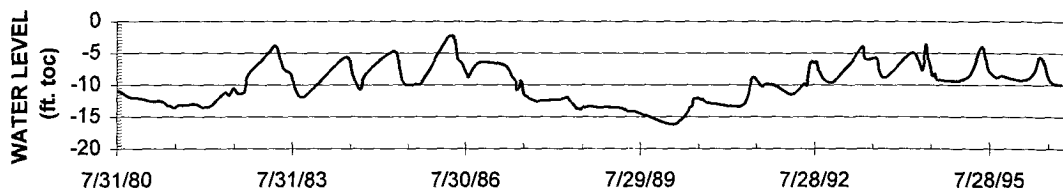


figure 2
MA-80M HYDROGRAPH

The decline of water levels during the summer months is due to increased evapotranspiration, reduced recharge, and pumpage. Water levels rise during the late winter and spring due to recharge, if available. The hydrograph shows that the water level of the aquifer fluctuates rapidly in response to recharge. The response to withdrawals is less obvious and tends to be represented by a slow gradual decline. The hydrographs also show that in general, the early 1980's were fairly wet, the late 1980's were drier, and it has been wet in the 1990's.

DISCUSSION:

Water Availability:

In the Sioux Falls Management Unit water availability must be evaluated in two ways: (1) by considering SDCL 46-6-3.1, which requires that annual withdrawal of groundwater is not to exceed recharge; and, (2) by considering the appropriation with respect to the November 14, 1991, Water Management Board declaratory ruling ("Declaratory Ruling on Establishment of a Maximum Annual Withdrawal Limitation for the Big Sioux Aquifer: Sioux Falls Management Unit").

Average Estimated Annual Recharge:

SDCL 46-6-3.1 requires that an application to appropriate groundwater can not 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 average estimated annual recharge.

Recharge:

Recharge to the Sioux Falls Management Unit occurs primarily through infiltration of precipitation, and streamflow losses. Estimates of average annual recharge to the Sioux Falls Management Unit include:

METHOD OF ANALYSIS	INVESTIGATOR	AVE. ANNUAL RECHARGE
Base flow recession	Hedges(1983)	12,404 ac-ft/yr
Observation well	Hedges(1983)	10,686 ac-ft/yr
Flow net	Hedges(1983)	1,908 ac-ft/yr
Computer model	Koch (1982)	13,200 ac-ft/yr

Withdrawal:

Withdrawals from the aquifer occur through evapotranspiration, discharge to the Big Sioux River, possibly through leakage to underlying aquifers, and pumpage. There a number of domestic wells which are supplied by the aquifer; however, the majority of water use from the aquifer is by appropriative uses.

Appropriations:

Currently there are 64 Water Permits/Rights appropriating withdrawals from the Sioux Falls Management Unit (Water Rights, 1997). Permits issued from the aquifer include 41 municipal permits, 11 irrigation permits, 6 rural water system permits, 2 geothermal permits, 3 commercial permits, and one multiple use permit. In addition, there are 4 future use permits which reserve water from the Sioux Falls Management Unit.

Usage:

Although there are a number of permits/right for water from the Sioux Falls Management Unit, historically, the average annual use has been less than 15% of the maximum that could be pumped. Average annual pumpage (total) from the Unit was estimated in 1983 to be 17,370 acre-feet per year (Hedges, 1983). The average daily use (total) from the aquifer was estimated in 1989 to be 20.0 MGD (22,627 ac-ft/yr), (Barari, 1989). Reported withdrawals in acre-feet annually from the Sioux Falls Management Unit by appropriate users include (from Water Rights, 1997):

USER	1990	1991	1992	1993	1994	1995	1996
City of Sioux Falls	17,788	10,257	12,334	9,956	10,597	8,211	10,586
MCWC	1,253	1,400	1,458	1,489	1,722	1,752	1,967
Irrigation	473	409	160	124	253	240	246
TOTAL	19,514	12,066	13,952	11,569	12,572	10,203	12,799

The best information (recharge estimates and pumping estimates), indicates that the quantity of water withdrawn annually from the Sioux Falls Management Unit exceeds the calculated average estimated annual recharge. If estimates are correct, water would be lost from storage annually. A reduction of recoverable water in storage would be apparent by lowering water levels.

The Water Rights Program monitors 14 observation wells completed into the Sioux Falls Management Unit. A typical observation well hydrograph for the Sioux Falls Management Unit is shown in figure 3.

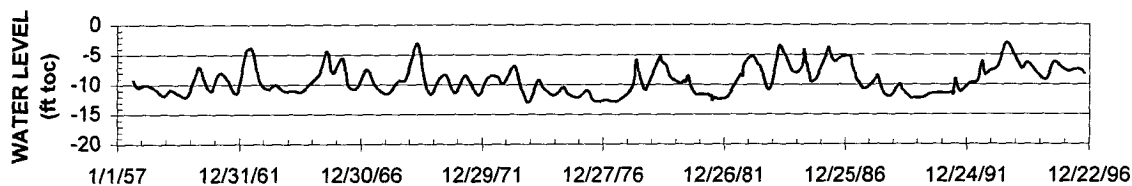


figure 3
MA-57D HYDROGRAPH

Since a sustained downward trend in the water level of the aquifer has not been observed in Water Rights' Observation Wells, it is apparent that the physical evidence (water level readings) does not support the estimates for average annual recharge. The estimates for average annual recharge to the Sioux Falls Management Unit are obviously low. The difference between the estimates and the physical evidence may be accounted for through streamflow loss from the Big Sioux River.

At the current level of development from the aquifer, it is not possible to distinguish between natural water level fluctuations and the effects of pumping. Therefore, it can be assumed that withdrawals do not exceed recharge.

Declaratory ruling:

On November 14, 1991, through a declaratory ruling, the Water Management Board (Board) established a limitation on the annual withdrawals due to pumping by Water Permit/Right holders from the Sioux Falls Management Unit of 32,200 acre-feet per year (ac-ft/yr).

Water use from the Sioux Falls Management Unit in the future will be limited to a total withdrawal of 32,200 ac-ft/yr. When this limit is approached, water use will be restricted on a priority basis until withdrawals do not exceed 32,200 ac-ft/yr. The practical effect of the 32,200 ac-ft/yr limit allows for management of the aquifer, and on a priority basis if necessary.

At the current level of development, it is not likely that withdrawals from appropriate users will equal 32,200 acre-feet per year. However, development of the 11,762 acre-feet per year that has been reserved for future use from the management unit (see table 1) could cause pumping to approach the established annual limitation. When pumping approaches this limit water use will be restricted on a priority basis so withdrawals do not exceed 32,200 acre-feet annually.

Permit No.	Holder	Reservation (ac-ft/yr)
448-3	Sioux Falls	6,929
4838-3	MCWC	33
5523-3	Sioux Falls	4,050
5716-3	MCWC	750
Total		11,762

table 1

In 1991, the Water Management Board approved a reservation for future use by the City of Sioux Falls, (Permit No. 5523-3) from the Sioux Falls Management Unit for an amount that was considerably less than had been applied for. In its consideration of this future use permit the Board concluded that "it is prudent to not allocate all water arguably available so as to accommodate any increase in lawful use of water already under permit". The Board left a "contingency for expansion of use under existing legal rights and a contingency for expansion of present and new systems" amounting to 1,866 ac-ft/yr.

On March 3, 1993, the Water Management Board approved a future use permit (No. 5716-3) for Minnehaha Community Water Corporation. The permit reserves 750 ac-ft/yr from the Sioux Falls Management Unit. The Water Management Board approved two Temporary Permits (No 5966-3 and No. 5967-3) for Michael Williams on March 6, 1997. These permits appropriate an additional 447.6 ac-ft/yr from the Sioux Falls Management Unit. The amount of water remaining available for expansion under existing water rights and expansion of systems after these appropriations is 668.4 ac-ft/yr. The best information available at this time indicates that when this contingency is appropriated, the aquifer will be fully appropriated.

Effects on Existing Rights:

Unlawful impairment of groundwater rights may be due to "well interference", which is the overlapping of drawdown cones of depression of two or more wells; or from a "cumulative affect" in which the water level throughout the entire aquifer are lowered, as the result of an extended interim between withdrawal and recharge causing an "overdraft" from storage. In either case mitigation may be necessary, if the pumping authorized by junior priority rights is to continue.

Well interference:

A number of municipal wells supplying the City of Sioux Falls are located between one quarter mile and one mile of the diversion points proposed by these applications. Any interference with these wells is not expected to be adverse since the aquifer is under unconfined conditions. Within an unconfined aquifer, drawdown caused by individual well pumping is not significant except in the immediate vicinity of a production well.

Cumulative affect:

Although the Board has established an annual withdrawal limitation of 32,200 ac-ft/yr, the potential of adverse impact to existing rights is independent of the amount of water that can be appropriated from the aquifer. Water rights could be adversely impacted even though substantially less than 32,200 acre-feet per year is pumped. The Board adopted a declaratory ruling on November 14, 1991 stating (in part):

"That private domestic wells are being impacted and deprived of reasonable use of water for domestic purposes by appropriative permit holders' withdrawals from the Big Sioux Aquifer: Sioux Falls Management Unit."

The City of Sioux Falls offered a seven point proposal that would eliminate the problem addressed in the declaratory ruling issued November 14, 1991. Since the problem was addressed and corrected through the proposal, the board did not need to order mitigation.

Following the declaratory ruling, the Board approved a reservation for future use by the City of Sioux Falls, (Permit No. 5523-3). The consequence of the declaratory ruling was the inclusion of the following qualification on the permit:

"If development and pumping of Sioux Falls Management Unit of the Big Sioux Aquifer water reserved by Future Use Permit No. 5523-3 results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04."

Special Consideration:

On June 28, 1957 the Water Rights Commission (now known as the Water Management Board) approved Future Use Permit No. 448-3. This permit claimed 46.8 cfs from the Sioux Falls Management Unit for future use by the City of Sioux Falls. At the present time, 6,929 ac-ft/yr remains reserved by this permit from a future use area shown in figure 4.

Nine previous applications have been filed by other parties to appropriate water from within the area specified by Future Use Permit No. 448-3. They include:

Application No.	Applicant	Hearing Date
656-3	Clarence Machmiller	8/28/59
1270-3	R.C. Sweetman	5/18/66
1271-3	E.M. Sweetman	5/18/66
2047-3	Val K. Beckman	5/15/74
	(Midway Farms, Inc.)	
1968-3	Gene Williams	1/22/75
2244-3	Dale Swartz	5/22/75
4034-3	E.M. Sweetman	7/27/77
5966-3	Michael G. Williams	3/6/97
5967-3	Michael G. Williams	3/6/97

Pursuant to SDCL 46-5-39, these applications (with the exception of Application No. 1968-3), were approved as temporary permits. Each of these Water Rights contain the following qualification:

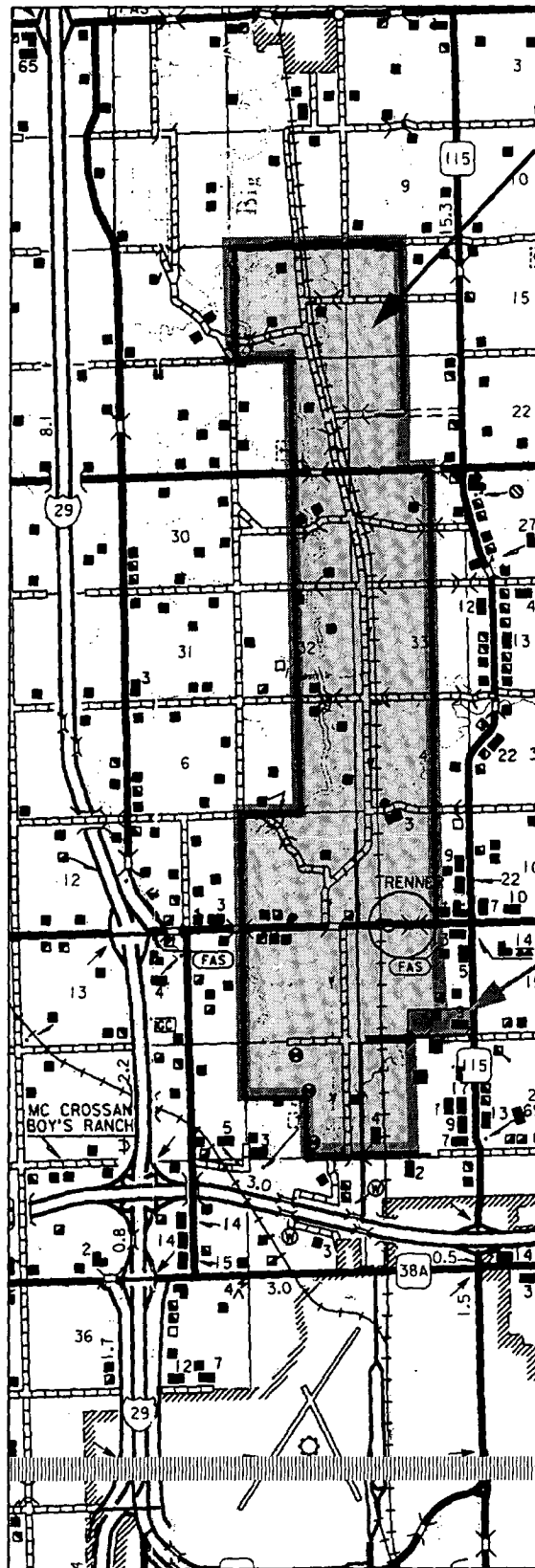
“The City of Sioux Falls has priority Rights to this water under Future Use Withdrawal Permits, and this application is approved subject to these prior rights if or when the city develops the reserved water supply.”

SDCL 46-5-39 allows the Water Management Board to authorize a temporary appropriation of the water from the unused portion of a future use permit; however, 46-5-40 states that the temporary permit would be effective only until such time as the future use holder wants to use the water covered by the temporary permit. The temporary permit holder would then be given six months notice and his permit would be canceled at the end of six months.

On January 22, 1975, the Water Rights Commission considered Application No. 1968-3, Gene Williams. The application proposed to appropriate 4.72 cfs from three wells completed into the Sioux Falls Management Unit to irrigate 333 acres. The proposed wells were to be located within the area specified by Future Use No. 448-3 and the Commission considered approving the application as a temporary permit.

The Commission discussed potential problems for the Sioux Falls well field operation even with the issuance of temporary permits from the Sioux Falls Management Unit. Some of the variables the city must contend with in managing its well field (and presumably the entire management unit), were discussed. These variables included: recharge; water in storage in the aquifer; and how does a junior appropriator "control his withdrawals so there is not a reduction of needed water supplies for senior water rights". The Commission deferred action on Application No. 1968-3 and directed the Commission staff to "conduct a study of the future use statutes and give consideration to the time limitation involved."

On May 22, 1975, following discussion, another application (No. 2244-3) was approved from the management unit as a Temporary Permit. The diversion points proposed by Application No. 2244-3 are approximately 4 miles north of the diversion points proposed by Application No. 1968-3. One of the three wells proposed by Application No. 2244-3 was within the area specified in Future Use Permit No. 448-3 and the application was approved as a Temporary Permit. Water Permit Application No. 19689-3 was withdrawn in 1997 as a condition for approving Permits No. 5966-3 and 5967-3.



Area reserved for future use by
the City of Sioux Falls
(Future Use Permit No. 448-3)

Area proposed by
Application No. 6008-3

Figure 4
Location Map

CONCLUSIONS:

1. Water Permit Applications 6008-3 propose to appropriate 1 cfs to irrigate a total of 69 acres.
2. Water Permit Applications 6008-3 propose an annual appropriation of 138 acre-feet.
3. There is a reasonable probability unappropriated water is available on a temporary basis for these appropriations.
4. There is a reasonable probability these appropriations can be made without adversely affecting existing developed rights.
5. The appropriations proposed by these applications will not cause withdrawals to exceed the annual limitation that was established for the management unit by Board's November 14, 1992 "Declaratory Ruling on Establishment of a Maximum Annual Withdrawal Limitation for the Big Sioux Aquifer: Sioux Falls Management Unit"(32,200 acre-feet per year).
6. The diversion points proposed by these applications may be within or near the area reserved for future use by Future Use Permit 448-3.
7. Nine previous applications have been filed by other parties to appropriate water from within the area specified by Future Use Permit No. 448-3. Eight of these applications were approved as Temporary Permits pursuant to SDCL 46-5-39 (the other application was withdrawn).
8. Since the Water Management Board's November 14, 1991 "Declaratory Ruling Regarding the Decline of the Water Levels in Private Domestic Wells in the Big Sioux Aquifer: Sioux Falls Management Unit", new appropriations from the management unit have included the following qualification:

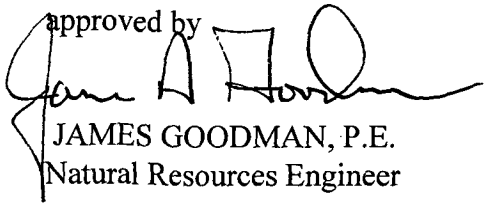
"If development and pumping of Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by this permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04."



KEN BUHLER

Natural Resources Engineer

approved by



JAMES GOODMAN, P.E.
Natural Resources Engineer

REFERENCES:

- Barari, A., D.Iles, T.Cowman, 1989, Assessment of Water Resources and Conceptual Evaluation of a Regional Water Supply for Southeastern South Dakota, SD Dept. of Environment and Natural Resources, Geological Survey Program, Open-File Report 60-UR, Verillion, SD
- Hedges, L.S., S.Burch, D.Iles, R.Barari, R.Schoon, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, U.S.Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., S.Burch, D.Iles, 1983, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 6: Average Annual Water Use by Aquifer, U.S.Army Corps of Engineers Contract DACW 45-80-C-0185
- Koch, N.C., 1982, A Digital-Computer Model of the Big Sioux Aquifer in Minnehaha County, South Dakota, USGS, Water-Resources Investigations Report 82-4064, Huron, SD
- Lindgren, R.J., C.Niehus, 1992, Water Resources of Minnehaha County, South Dakota, USGS, Water-Resources Investigations Report 91-4101, Huron, SD
- Water Rights Program, 1997, "Irrigation Summary By Aquifer", DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1997, "Observation Well Files", DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1997, "Water Permit/Right Files", DENR-Water Rights Program, Joe Foss Building, Pierre, SD

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6008-3, Herman Brende**

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. 6008-3, Herman Brende, 800 E 84th St. North, Sioux Falls, SD 57104.

The Chief Engineer is recommending APPROVAL of Application No. 6008-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area; 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six months notice prior to cancellation of this temporary permit
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.
3. The wells authorized by Permit No. 6008-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.



JOHN HATCH, Chief Engineer
June 25, 1997



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

FACSIMILE TRANSMITTAL COVER SHEET

TRANSMITTAL DATE: 6/26/97

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: Amber Kern

DESTINATION: _____

ADDRESS: _____

PHONE: _____ FAX: 367-6091

MESSAGE: Information for Ryan Brende. Hard copy being sent to Herman Brende. Call me if you have any questions.

FROM: Eric Lund

AGENCY: DENR/WATER RIGHTS PROGRAM

ADDRESS: JOE FOSS BUILDING, 523 EAST CAPITOL, PIERRE, SD 57501-3181

PHONE: (605) 773-3352 FAX: (605) 773-4068

****THIS TRANSMISSION INCLUDES 14 PAGES INCLUDING THIS PAGE****

IF THERE IS ANY PROBLEM WITH THIS TRANSMITTAL, PLEASE CALL (605) 773-3352.

THANK YOU.



Retransmittal

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

FACSIMILE TRANSMITTAL COVER SHEET

TRANSMITTAL DATE: 6/26/97

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: Angus Leader - Legal Notice

DESTINATION: _____

ADDRESS: _____

PHONE: _____ FAX: 605 331-2340

MESSAGE: Legal notice on a Water Permit Application to
be published July 28, 1997. Mr. Bronde will
be calling to authorize publication

Resending - First One Errored

FROM: Eric Gronlund

AGENCY: DENR/WATER RIGHTS PROGRAM

ADDRESS: JOE FOSS BUILDING, 523 EAST CAPITOL, PIERRE, SD 57501-3181

PHONE: (605) 773-3352 FAX: (605) 773-4068

THIS TRANSMISSION INCLUDES 4 PAGES INCLUDING THIS PAGE

IF THERE IS ANY PROBLEM WITH THIS TRANSMITTAL, PLEASE CALL (605) 773-3352.

THANK YOU.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

June 26, 1997

Lyle D. Johnson, Water/Wastewater Manager
City of Sioux Falls
224 W. 9th Street
Sioux Falls, SD 57102

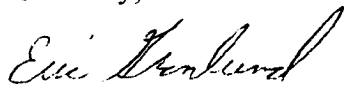
Dear Mr. Johnson:

A water right permit application proposing appropriation of water from the Sioux Falls Management Unit of the Big Sioux Aquifer was recently submitted by Herman Brende. The application is for irrigation of a proposed golf course. The proposed well may be located within the city's future use area. The Chief Engineer recommends approval of the application as a temporary water permit.

A copy of the notice of hearing, report and recommendations is enclosed for your review. The notice of hearing is scheduled to be published July 2 and 9, 1997, in the Argus Leader.

Please contact Ken Buhler at (605) 773-3352 if you have any questions

Sincerely,


Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 26, 1997

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

Herman Brende
800 E 84St N
Sioux Falls SD 57104

Dear Mr. Brende:

Water Permit Application No. 6008-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. The notice has been sent to the Publisher of the Argus Leader printed at Sioux Falls SD (Phone No. 605 331-2200). For your information, a copy of the recommendation of the Chief Engineer is enclosed. Please review this notice prior to publication and notify this office, if you have any corrections or questions.

BE SURE TO CONTACT THE ABOVE NEWSPAPER IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE AND TO ARRANGE FOR PAYMENT. Early contact with the paper can eliminate delays. The publisher has been instructed to publish the notice once each week for two consecutive weeks with the last publication to occur at least twenty days before the board meeting. We must receive Proof of Publication before the future use review can be considered by the Water Management Board.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 26, 1997

Argus Leader
PO Box 5034
Sioux Falls SD 57117-5034

Dear Sir:

Enclosed is a Notice of Application No. 6008-3 to be published twice. Please publish the first notice on July 2, 1997 with the second publication 7 days later.

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 Herman Brende, 800 E 84th St N, Sioux Falls SD 57104 (Phone 605 332-0528).

A copy of BOTH publications must be SENT to the WATER RIGHTS PROGRAM. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

FIRST TRANSMITTAL NOTICE
No. 6008-3

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of June 27, 1997 enclosing Notice of Application No. 6008-3 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 July 2, 1997, with the second publication on July 9, 1997. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6008-3 to Appropriate Water

Notice is given that Herman Brende, 800 E 84th St N, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 1.0 cubic feet of water per second from two wells (Big Sioux:Sioux Falls Aquifer) 30 feet deep located in the S 1/2 SE 1/4 Section 16 to irrigate 69 acres of a golf course located in the S 1/2 SE 1/4 Section 16; all in T102N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6008-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area; 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, 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 the 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 July 21, 1997.

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. Nettie H Myers, Secretary, Department of Environment and Natural Resources.



PUBLIC WORKS

CITY OF SIOUX FALLS

AN EQUAL OPPORTUNITY EMPLOYER

224 West Ninth Street, Sioux Falls, SD 57102
(605) 367-7143
FAX (605) 367-4605
Hearing Impaired (605) 367-7039

July 8, 1997

Mr. Eric Gronlund
Water Rights Program
Foss Building
523 Capitol
Pierre, SD 57501



Dear Mr. Gronlund,

This letter is in response to your correspondence dated June 26, 1997 regarding a proposed golf course near Sioux Falls. It is understood by the City of Sioux Falls that a water right permit application proposing appropriation of water from the Sioux Falls Management Unit of the Big Sioux Aquifer was submitted by Mr. Herman Brende.

Mr. Brende has been reminded during personal discussions that under our Future Use Withdrawal Permits, the City of Sioux Falls has priority to the water rights being requested. As permitted by SDCL 46-5-39, the Water Management Board may issue a temporary appropriation of the water from the unused portion of a future use permit.

It is recognized that the Board has granted such appropriations in the past. However, in this case the construction and operation of the proposed golf course represents a substantial investment in time and money by the applicant. While the City of Sioux Falls does not oppose the issuance of a temporary appropriation of the water from the unused portion of our future use permit, it is important that the applicant fully understand that the City has *priority* to the water.

With the current and planned growth, it is likely that the City will require use of the water right at some point in the future. The interruption or complete loss of water service could significantly affect the operation of the proposed golf course and any associated uses. In closing, I urge both the DENR and Water Management Board to make the applicant aware of the situation and the potential for loss of water if required by the City of Sioux Falls.

Sincerely,

Lyle D. Johnson, PhD, PE
Director of Public Works

c: Herman Brende

Water Reclamation
(605) 367-7088
FAX (605) 367-8484

Streets
(605) 367-7051 or 367-7008
FAX (605) 367-7010

Lights
(605) 367-7150
FAX (605) 367-8306

Facilities Management
(605) 367-7164
FAX (605) 367-7801

Engineering
(605) 367-7048
FAX (605) 367-4310

Billing
(605) 367-7031
FAX (605) 367-4605

Water Meters/Utility Maintenance
(605) 367-7020
FAX (605) 367-7883

Water Purification
(605) 367-7025
FAX (605) 367-8475



AFFIDAVIT OF PUBLICATION

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

Diana Reicher being duly sworn, says: That The Sioux Falls Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota by Sioux Falls Newspapers, Inc.; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon



WED	, the	2	day of	JULY	1997,
WED	, the	9	day of	JULY	1997,
	, the		day of		1997,
	, the		day of		1997,
	, the		day of		1997,
	, the		day of		1997,
	, the		day of		1997,

and that \$80.53 was charged for publishing the same including a \$5.00 affidavit fee.

D. Reicher

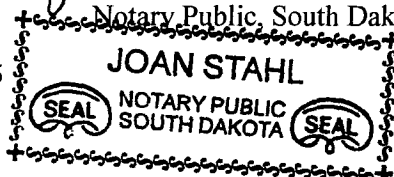
Subscribed and sworn to before me JULY 21, 1997,

Joan Stahl

Notary Public, South Dakota

JOAN STAHL

My Commission expires June 30, 2005



NOTICE OF APPLICATION
NO. 6008-3 to Appropriate Water Notice is given that Herman Brende, 800 E. 84th St. N, Sioux Falls, SD 57104 has filed an application for a water permit to appropriate 1.0 cubic feet of water per second from two wells (Big Sioux: Sioux Falls Aquifer) 30 feet deep located in the S1/2 SE1/4 Section 16, to irrigate 69 acres of a golf course located in the S1/2 SE1/4 Section 16; all in T102N-R49W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6008-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area, 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, 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 July 21, 1997.

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.

Nettie H. Myers, Secretary
Department of Environment and Natural Resources
July 2, 9, 1997
12507



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

JUL 31 1997

Herman Brende
800 E 84 St N
Sioux Falls SD 57104

Dear Mr. Brende:

Enclosed is Temporary Water Permit No. 6008-3 authorizing construction of your water diversion system and beneficial use of water, not exceeding the limits as specified in the Water Permit.

The City of Sioux Falls has expressed concern with the substantial investment in this project with the potential to be without an adequate source of water at a future date. **This permit is a TEMPORARY WATER PERMIT and is subject to the City of Sioux Falls prior rights when they develop water reserved by their future use permit.**

Very truly yours,

John Hatch, Chief Engineer
Water Rights Program
605 773-3352

enclosures

PLEASE NOTE: Certain changes may be made to your temporary water permit usually without affecting the priority date. The location of a point of diversion may be changed or additional points of diversion may be approved if the water source remains unchanged; no additional water is appropriated; and, if irrigating, no additional land is irrigated. The change may be allowed without application or publication, if the Water Rights Program is contacted and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

A new water permit application is required to change water sources, increase the permitted diversion rate, or increase the irrigated acreage. If the application is approved, the water permit will receive a new priority date.



6008-3
**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

January 22, 1999

NOTICE

TO: HERMAN BRENDE, 800 E 84TH ST N, SIOUX FALLS, SD 57104
FROM: Ron Duvall, Natural Resources Engineer
for John Hatch, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 1998 Irrigation Questionnaire(s)

Our records indicate that the 1998 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 6008-3. The request for the Questionnaire was dated October 16, 1998. The Water Management Board has directed that owners of water permits who have not submitted the 1998 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 6008-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at 9:45 am, March 3, 1999 in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol, 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) 6008-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. 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 1, 1999, you will no longer be in violation of your permit and your name will be deleted from the Board agenda. If you have questions or need assistance in completion of the irrigation questionnaire(s), please contact Genny McMath at (605) 773-3352.

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.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

HERMAN BRENDE
800 E 84TH ST N
SIOUX FALLS SD 57104

4a. Article Number

Z 119 141 644

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☒ Certified |
| ☐ Express Mail | ☐ Insured |
| ☐ Return Receipt for Merchandise | ☐ COD |

7. Date of Delivery

1-25-99

5. Received By: (Print Name)

RYNE BRENDE

6. Signature: (Addressee or Agent)

X *Ryne Brende*

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

January 29, 1999

6008-3

Herman Brende
800 E 84th St N
Sioux Falls, SD 57104

Dear Mr. Brende:

I am writing to acknowledge receipt of your 1998 irrigation questionnaire. You may disregard the January 22, 1999, "Notice" concerning reporting requirements for Water Permit No. 6008-3.

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

Attention. Genny McMath:

2001 Irrigation Questionnaire

From. Northern Links Golf Course

Ryne Brende course superintendent

334 6679 work

332-0538 Home

Permit No. 6008-3
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, August 16, 2011, made a thorough examination of the water use system constructed by Herman Brende of 800 E 84th St. N, Sioux Falls, SD 57104 holder of Permit No. 6008-3, bearing the priority of June 6, 1997 authorizing the diversion of 1.0 cu. ft. per second of the waters of the Big Sioux:Sioux Falls Aquifer for Irrigation purposes, in Minnehaha County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 30 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 22 feet
- 3) Type Steel

Screen:

- 1) Type Stainless Steel
- 2) Length 8 feet
- 3) Static water level 7 feet

Pump:

- 1) Make (2) Grundfos
- 2) Model (1) 50S50, (1) 400S400
- 3) Size 40 and 5 hp
- 4) Capacity 400 and 50 GPM

Chemigation Equipment:

- 1) Does chemigate N

B. 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

The system is in Good condition with the point(s) of diversion located as follows:

Approximately 610' feet north and 1170 feet west of the SE corner of Section 16-T102N-R49W

(N 43.63252, W -96.71588) (SE ¼ SE ¼)

The works are capable of diverting and conveying to the place of use 1.0 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:

Section 16-T102N-R49W

SW ¼ SE ¼ - 30 acres

SE ¼ SE ¼ - 39 acres

comprising a total of 69 acres of land and the license should be issued for 1.0 cfs.

All structures, wells and lands on map Y

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



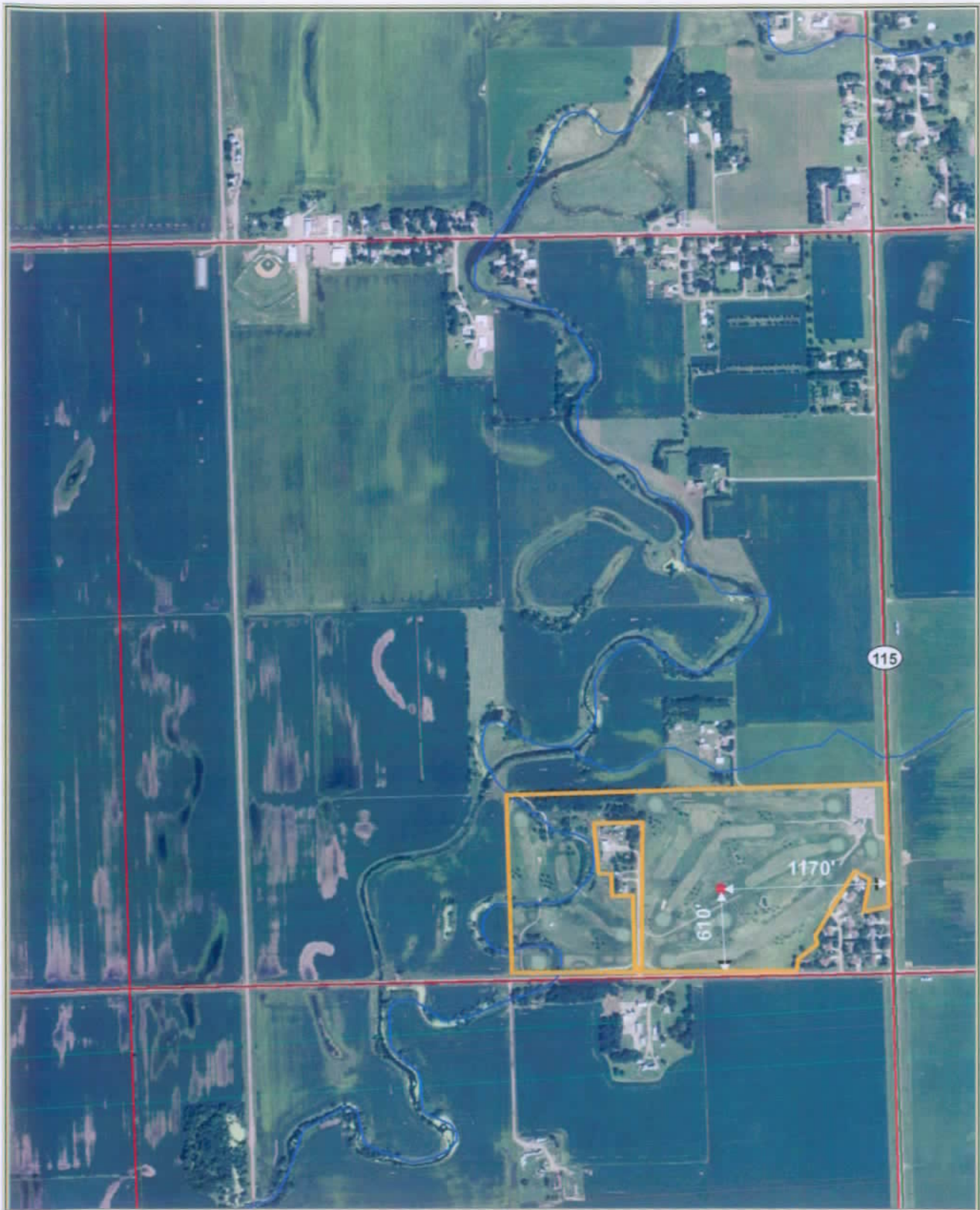
Mike DeFea

Natural Resources Engineer
DENR, Water Rights Program

Date report completed: August 24, 2011

Herman Brende

Water Permit No. 6008-3



0 345 690 1,380 2,070 2,760 Feet

Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
August 24, 2011



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow... Today

**REISSUED
SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 6008-3
AS DEVELOPED**

On July 21, 1997, the Chief Engineer on behalf of the Water Management Board issued Temporary Use Water Permit No. 6008-3 to Herman Brende, 800 E 84th St N, Sioux Falls SD 57104 authorizing construction of the water use system and placement of water to beneficial use.

1. On August 26, 2011, an investigation was conducted of the water use system described in Temporary Use Water Permit No. 6008-3. The investigation found the system had been developed as follows: A 30.6 feet deep well (Big Sioux:Sioux Falls Aquifer) located 610 feet north and 1,170 feet west of the SE corner (SE ¼ SE ¼) Section 16, T102N, R49W diverts 1.00 cubic feet of water per second for irrigation of 69 acres of a golf course located in the SW ¼ SE ¼ (30 acres) and SE ¼ SE ¼ (39 acres) Section 16, T102N, 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: April 1 – October 31.
3. The date from which the temporary use water permit holder may claim right is June 6, 1997.
4. Water rights obtained in compliance with laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary permit results in adverse impairment of adequate domestic wells or adequate wells having prior water rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriate rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards Chapter 74:02:04.
3. The wells authorized by Temporary Use Permit No. 6008-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***One well was constructed by Lacey Well Drilling and found to comply with Water Management Board Rules. A copy of the well log is on file with the Water Rights Program.***

Amended Temporary Use Water Permit No. 6008-3

Herman Brende

Page 2

4. This temporary use water permit is approved subject to the irrigation water use questionnaire being submitted each year.

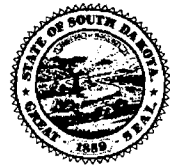
WATER MANAGEMENT BOARD

By: Garland Erbele

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

AUG 30 2011

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

AUG 30 2011

6008-3

Herman Brende
800 E 84th St N
Sioux Falls SD 57104

Dear Mr. Brende:

Enclosed is Reissued Temporary Use Water Permit No. 6122-3. The temporary use water permit was reissued to reflect the system as developed. The reissued permit is based on an August 16, 2011 investigation done by Mike DeFea, a staff engineer with our program. A copy of his map is included showing the location of the diversion point and acres irrigated.

For your information SDCL 46-6-27 requires that if 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.

The Reissued Temporary Use Water Permit is subject to the qualifications listed in the permit. If you have any questions, please contact our office.

Sincerely,

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

enclosures