

WATER PERMIT NO. 6496-3

Name of Applicant: Myron Bierema

Address: 30821 412 Ave, Springfield SD 57062

Phone: 605 369-5409

Amount of Water Claimed: 2.22 cfs

Total Acres: 160

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Bon Homme

Type of Waste Disposal System:

Location: 3 miles northwest of Springfield

PRIORITY

Date Received: 4-12-04

Application/License Fee: \$300

Corrected Application Received:

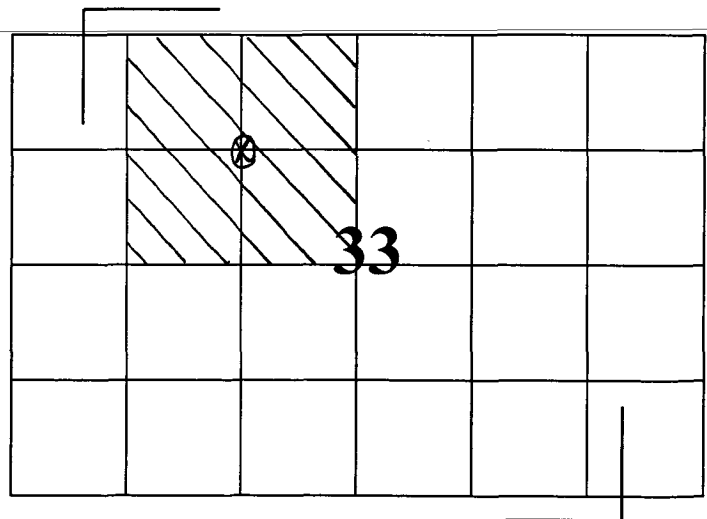
Period of Annual Use: May 1 – October 31

Remarks:

Diversion Point: center of NW ¼ Sec 33-T94N-

R60W

Land to be Irrigated: NW ¼ Sec 33-T94N-R60W



Depth of Well: 220 feet

Well Driller: Christensen Well Drilling

Remarks:

Type of Map: aerial

Prepared by: Delores Rothschadd, FSA

Reviewed and the Number Assigned on: 4-12-2004

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>6496-3</u> (office use only) Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri River</u>
	Newspaper <u>Spring Field Times, Springfield</u>

RECEIVED
APR 12 2004
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 Myron Bierema Phone 605-368-5489
(check one) ☐ Owner ☒ Tenant/lessee
Mailing Address 30821 412 AVE Springfield State SD 57862
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 2.22 *CFS or 1000 **GPM ***AF Total Acreage 160
(*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 Bon Homme
ALBION TOWNSHIP NW 1/4 section 33-94-60 (center)
- County or counties where water will be used Bon Homme
- Annual period during which water is to be used MAY - 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
<u>33 ALBION TOWNSHIP NW 1/4</u>	<u>160</u>		
<u>Section 33-94-60</u>			

8. Give a description of the project. (Attach sheet if more space is needed)
Drill well for irrigating 160 acres crop land of Hay - corn - Beans,

STATE OF SOUTH DAKOTA) SS
County of Bon Homme

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, Myron Bierema, 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 Myron Bierema

Subscribed and sworn to before me this 25 day of March 20 04

Nancy L Mesman
Notary Public signature

Commission Exp: 09-25-06



**SOUTH DAKOTA
WATER PERMIT NO. 6496-3**

Date of first receipt of application April 12, 2004.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6496-3 to Myron Bierema, 30821 412 Ave, Springfield SD 57062 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. 6496-3 appropriates 2.22 cubic feet of water per second from one well (Choteau Tyndall Aquifer) 220 feet deep located in the center of the NW ¼ Section 33 to irrigate 160 acres located in the NW ¼ Section 33; all in T94N-R60W.
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 April 12, 2004.
4. The date of approval of Permit No. 6496-3 is June 1, 2004.
5. One-fifth of the construction is to be completed on or before December 1, 2006.
6. All construction is to be completed on or before June 1, 2009.
7. Water is to be put to beneficial use on or before June 1, 2013.
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. 6496-3 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

JUN 30 2004

date



(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 28 Depth 220
- b) Casing Type PVC Diameter 16" Thickness .750
- c) Screen Type PVC Diameter 16" Thickness .750
- d) Gravel Pack road Length of Gravel Pack 100' - 220'
- e) Depth to Top of Water Bearing Material 180'
- f) Depth to Water (ground surface to water level) 100'
- g) Distance to nearest existing domestic well:
On applicants property 1500 On property owned by others 2600'

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

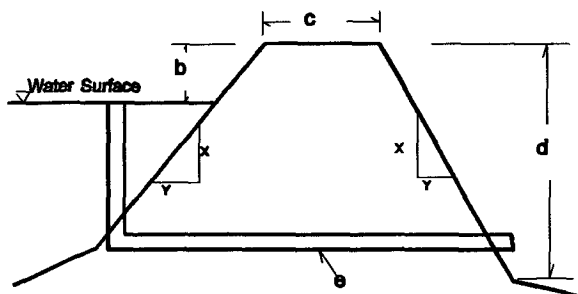
3. Dugout Information

- 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 April 12, 20 04

RECEIVED OF Myron Bierema, 30821 412th Ave., Springfield SD 57062

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	250 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. _____	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.

001286

By

Darlene Echele

Chief Engineer

gm

Deloris Ruckshackl - 3-25-04
FSA.

MAP NOT TO SCALE

THIS IS NOT AN OFFICIAL WETLAND MAP.



6496-3

OWNER

ADDRESS

DATE _____

3	23	30	04
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STONE

SHALE

GRAVEL

SAND

CLAY

FT.

FT.

0	53		TOP 6						A
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53	75			FINE	BLUE		X
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75	170		M90				X
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NO	72			Rocks
----	----	--	--	-------

72	190			490		X
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190	205			MSD					X
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205	206		1	20		X
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220240						X
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STATIC WATER LEVEL

PUMPING WATER LEVEL

AQUIFER THICKNESS

SCREEN LENGTH

SLOT SIZE

FITTING - TOP

FITTING - BOTTOM

TOTAL DEPTH

60'

220

REPORT ON WATER PERMIT APPLICATION NO. 6496-3
For Myron Bierema
April 30, 2004

Application No. 6496-3 proposes to appropriate 2.22 cfs (1,000 gpm) from one well approximately 220 feet deep located in the center of the NW $\frac{1}{4}$ of section 33 to irrigate 160 acres located in the NW $\frac{1}{4}$ of section 33; all in T94N R60W of Bon Homme County.

AQUIFER – CHOTEAU TYNDALL (CH-T)

The Choteau Tyndall is a buried outwash (sand and gravel) that is under artesian conditions at this site. The aquifer underlies 31,300 acres and contains an estimated 140,850 acre-feet of recoverable water in storage in Bon Homme County (Hedges, 1982). The aquifer extends into Yankton and Hutchinson Counties to the east and north (where it is called the Lower James Missouri Scotland aquifer). Ground water movement is from north to south across the area of this application (Jorgensen, 1971). The Choteau Tyndall aquifer is hydraulically connected to the Niobrara aquifer which directly underlies or abuts against in the subsurface over much of Bon Homme County. Also, there is an apparent hydraulic connection between Emmanuel Creek and the aquifer especially along the lower reaches of the creek below Tyndall and above Springfield (Jorgensen, 1971). When there are flows in the creek there are corresponding responses in the aquifer and the aquifer also discharges into Emmanuel Creek in the area just above the town of Springfield.

The test well log filed with this application indicates sand beginning at 75 feet followed by rocks from 170 to 172 feet, gravel from 172 to 190 feet, sand from 190 to 205 feet, and gravel from 205 to 220 feet all below land surface where shale was encountered. The test well had a static water level of 60 feet below land surface. No pumping or well capacity information is available for this test well.

The Water Rights Program monitors five observation wells within a two mile radius of this application. One of these observation wells BH-76D is located within one quarter mile of this application. Water levels for this well show good response to climatic conditions, that is, rising water levels during wet years (recharge) and gradually declining water levels during dry years. The water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 2004). A hydrograph for this observation well is included with this report. Note that the effects of pumping are not significant as shown by the water level record.

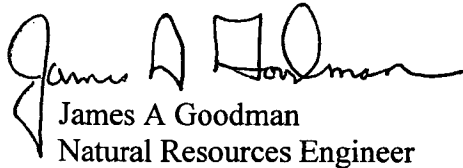
REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are two existing water right No. 3583-3 (#2 well located about 3,700 feet northwest of this application) and No. 3811-3 (well located about 2,800 feet southeast of the well for this application). Interference is not expected to be a concern. The existing wells have been pumped for years with no apparent problems. Also the effects on the

observation well water levels are not significant. The spacing between these existing and proposed well should be sufficient to minimize any potential impacts.

CONCLUSIONS

1. Water is available from the Choteau Tyndall aquifer.
2. The aquifer is under water table conditions in this area. Drawdown created by pumping is not expected to be significant. Interference is not a concern.
3. The well authorized by this application must be constructed in accordance with SD Well Construction Standards.



James A Goodman
Natural Resources Engineer

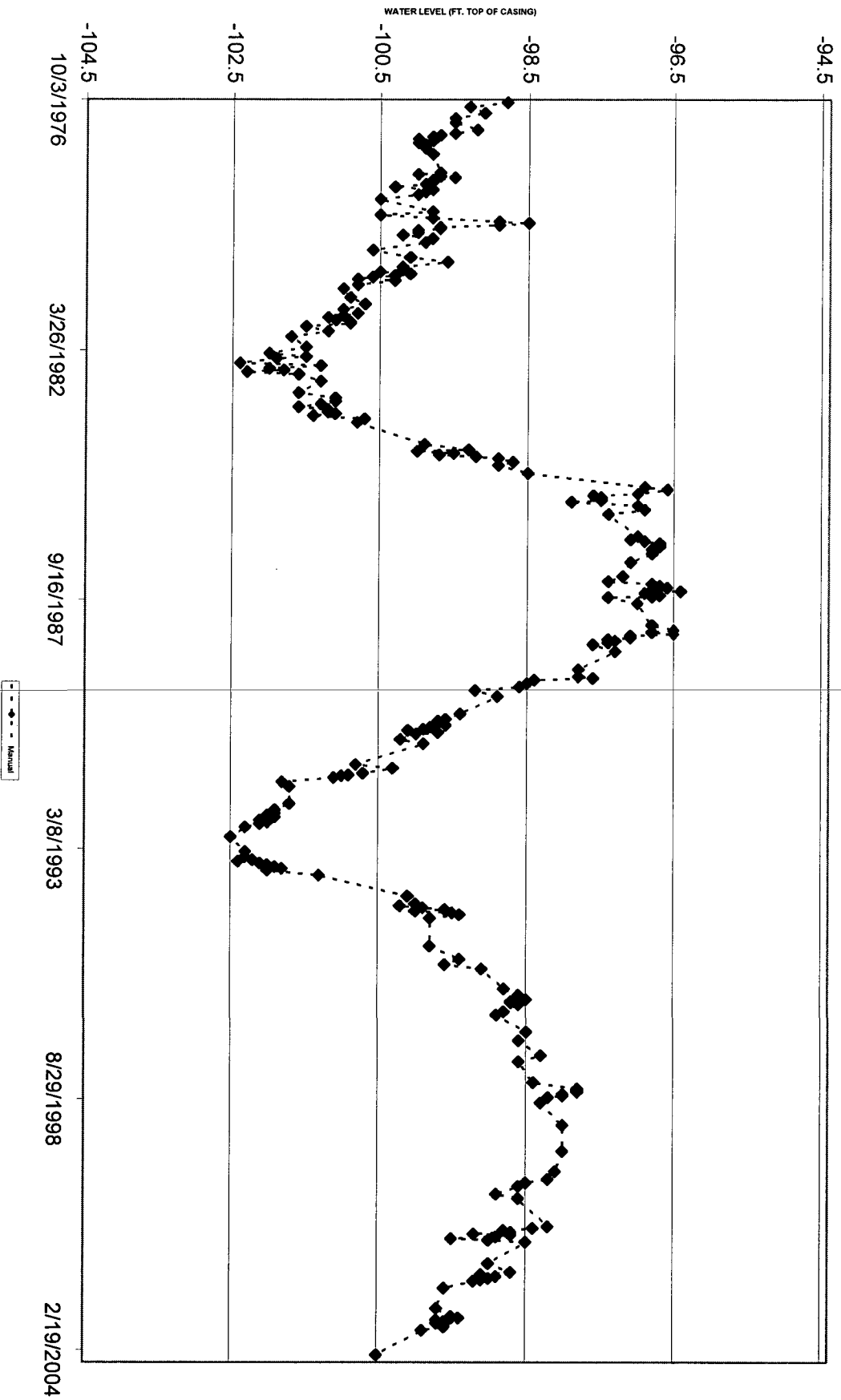
BIBLIOGRAPHY

Hedges, L.S., and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.

Jorgensen, D.G., 1971, Geology and Water Resources of Bon Homme County, South Dakota, Bulletin 21, Part II : Water Resources, SD DENR, SDGS, Vermillion, SD, 57609.

Water Rights, 2004, Unpublished Observation Well Data for Bon Homme County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

WATER RIGHTS' OBSERVATION WELL
BH-76D





**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. 6496-3, Myron Bierema**

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. 6496-3, Myron Bierema, 30821 412th Avenue, Springfield SD 57062

The Chief Engineer is recommending APPROVAL of Application No. 6496-3 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. 6496-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
May 6, 2004

Affidavit of Publication

State of South Dakota }
County of Bon Homme } SS

Rebecca Tyce Being first duly sworn
says that the **Springfield Times** is a legal weekly news-
paper for publication of legal and other official notices as
required by Chapter 298 of the Session Laws of South
Dakota, 1939; that it has bona fide paid circulation of
more than two hundred copies weekly; that it is pub-
lished in English language in the City of Springfield, Bon
Homme County, South Dakota, and has been admitted
to the United States mail under second class mailing
privilege for more than one year prior to the first publi-
cation of the notice herein mentioned, and that it is
printed in an office maintained at the place of publica-
tion at Springfield, South Dakota, and that deponent is
the publisher in charge of the advertising department of
said newspaper; that the advertisement headed

Bierema
Notice of Application - No. 6496-3
Sec 34.5 + 802 x 1

a printed copy of which is hereto attached, was printed
and published in said newspaper for two successive
weeks, upon the following dates:

<u>May 12</u> 20 <u>04</u>	20.....
<u>May 19</u> 20 <u>04</u>	20.....
.....20.....	20.....
.....20.....	20.....

That the full amount of the fee charged for the publica-
tion of said notice, \$37.26....., inures to the benefit
of the publisher of said newspaper, that no agreement or
understanding for the division thereof has been made
with any other person, and that no part has been agreed
to be paid to any person whomsoever.

Rebecca Tyce, publisher
Subscribed and sworn to before me this
May 20 2004
at Springfield South Dakota
Peggy Schelske
Notary Public, South Dakota

My commission expires Oct. 24, 2009

RECEIVED

MAY 21 2004

WATER RIGHTS
PROGRAM

NOTICE OF APPLICATION

NO. 6496-3 to Appropriate Water

Notice is given that Myron Bierema, 30821 412 Ave, Springfield SD 57062 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second from one well (Choteau Tyndall Aquifer) 220 feet deep located in the center of the NW 1/4 Section 33 to irrigate 160 acres located in the NW 1/4 Section 33; all in T94N-R60W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6496-3 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 1, 2004.

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.

(May 12 & 19)

Instruction to Newspaper - Publish first Notice on May 12, 2004 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6496-3 to Appropriate Water

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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 6, 2004

Springfield Times
PO Box 465
Springfield SD 57062-0465

ATTENTION: Legal Public Notice

Enclosed is a Notice of Hearing on Application No. 6496-3 to Appropriate Water to be published twice. Please publish the first notice on May 12, 2004 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 Myron Bierema, 30821 412 Ave., Springfield SD (Ph # 605-369-5409).

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. 6496-3

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

Date _____

We are in receipt of your letter of May 6, 2004 enclosing Notice of Hearing to Appropriate Water by Application No. 6496-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name _____

Newspaper _____



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
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 6, 2004

Myron Bierema
30821 412 Ave
Springfield SD 57062

Dear Mr. Bierema:

Water Permit Application No. 6496-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Springfield Times printed at Springfield, SD (Ph # 605-369-2441). 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 of Hearing 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

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

JUN 30 2004

Myron Bierema
30821 412 Ave
Springfield SD 57062

Dear Mr. Bierema:

Enclosed is Water Permit No. 6496-3 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

6496-3

NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date 7-6-04

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM: Myron Bierema
(name)

30821 412 AVE.
(address)

Springfield, S.D. 57062
(city, state, zip)

605-369-5409
(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

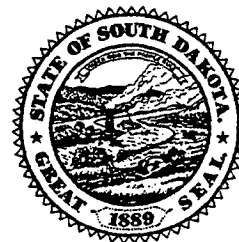
Water Permit No. 6496-3 states that the water use system is to be constructed by 6-20-04, and water is to be put to beneficial use by 7-1-04.
(date) (date)

The water use system was completed on 6-20-04.
(date)

Applying the water to beneficial use was completed on 10-31-04.
(date)

You may schedule an investigation so that the water license may be issued.

Myron Bierema
(signature)



RECEIVED
JUL - 9 2004
WATER RIGHTS
PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

6496-3
07-92

Location 1/4 NW 33 Twp 94 Rg 60
County Bon Homme North WEST

Please mark well location with an "X"

Well Completion Date
4-6-2004

Well Owner: Myron Bierma
Business Name: _____
Address: 30821 412 Av
Springfield, SD 57062

WELL LOG:	FORMATION	DEPTH	
		FROM	TO
	<u>top + brown clay</u>	<u>0</u>	<u>53</u>
	<u>fine blue sand</u>	<u>53</u>	<u>75</u>
	<u>med sand</u>	<u>75</u>	<u>170</u>
	<u>med gravel</u>	<u>170</u>	<u>190</u>
	<u>med sand</u>	<u>190</u>	<u>205</u>
	<u>med gravel</u>	<u>205</u>	<u>220</u>

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1500 ft. from feedyard (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>DR26</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>180</u> FT	<u>28</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>Bonsal</u>		lb./gal	<u>20</u> ft	<u>75</u> ft
<u>Cement</u>		lb./gal	<u>0</u> ft	<u>20</u> ft

Describe grouting procedure pumped down w/
grout pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 16 IN Length 40 FEET

Material PVC

Slot Size .085 Set From 180 Feet to 220 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

Laboratory sent to for water quality analysis _____

☐ NO, Why Not? _____

STATIC WATER LEVEL 102 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:

- ☒ Pumped Describe: 4 hrs turbine pump
☐ Bailed
☐ Other

Pumping Level Below Land Surface			
<u>119</u> ft. After <u>2</u> Hrs. pumped	<u>700</u>	GPM	
<u>119</u> ft. After <u>4</u> Hrs. pumped	<u>700</u>	GPM	
If pump installed, pump rate	<u>700</u>	GPM	

REMARKS

This well was drilled under license # 444

And this report is true and accurate.

Drilling firm Christensen Well & Pumping

Signature of License Representative Colly W. Christensen

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

RECEIVED
JAN - 3 2005
WATER RIGHTS
PROGRAM

Permit No. 6496-3
Missouri 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, **July 13, 2006**, made a thorough examination of the water use system constructed by **Myron Bierema** of **30821 412th Ave, Springfield SD 57062** holder of Permit No. **6496-3**, bearing the priority of **April 12, 2004** authorizing the diversion of **2.22** cu. ft. per second of the waters of **ground water (Choteau Tyndall aquifer)** for **irrigation** purposes, in **Bon Homme** County.

Inspection contact & relationship to permit holder, if applicable: **Myron Bierema**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Christensen Well**
- 2) No. of Wells **1**
- 3) Depth(s) **220** feet
- 4) Well log is available **Y**

Casing:

- 1) Diameter **16** inches
- 2) Length **180** feet
- 3) Type **Plastic**

Screen:

- 1) Type **PVC**
- 2) Length **40** feet
- 3) Static water level **102** feet

Pump:

- 1) Make **Unknown – no plate**

Motor:

- 1) Make **Isuzu, Diesel – 4 cyl**

B. Works used to apply water to beneficial use:

Center pivot:

- 1) Make **T&L (not a corner system)**
- 2) Number of towers **7**
- 3) End gun **Y**
- 4) Low pressure **60 psi**
- 5) Capacity **800** GPM

Chemigation Equipment:

- 1) Does chemigate **N**

C. 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 **Constructed prior to end of construction period**
- 3) Exceptions to compliance are: **none**

Report of Examination of Works

Permit No. 6496-3

The system is in good condition with the point of diversion located as follows: Well: 1,360 feet S and 1,360 feet E from the NW corner section 33-T94N-R60W (Latitude 42.91946, Longitude -97.94601 -- SE $\frac{1}{4}$ NW $\frac{1}{4}$). The works are capable of diverting and conveying to the place of use 1.78 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows: **all in section 33-T94N-R60W**

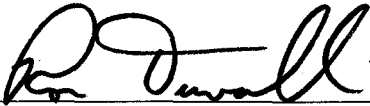
NE $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
NW $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres

SW $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
SE $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres

comprising a total of 136 acres of land and the license should be issued for 1.78 cfs.

All structures, wells and lands on map Y

| Comments or other permit(s) associated with the project: **none**



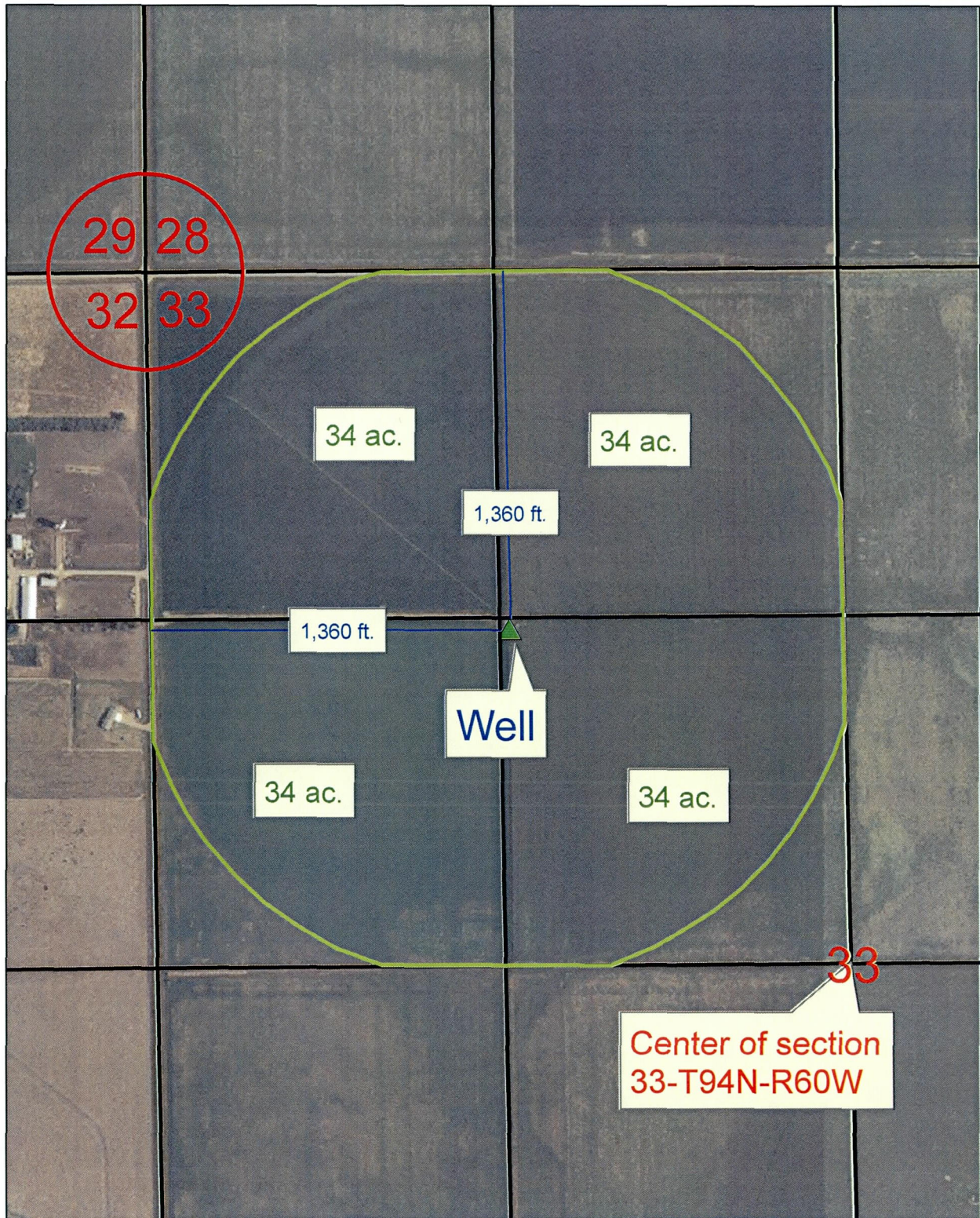
Ron Duvall
Natural Resources Engineer
DENR, Water Rights Program

Date report completed: September 25, 2006

Scale: 1 inch equals 570 feet

825

Feet



South Dakota
Department of Environment
& Natural Resources
Water Rights

Completed by:

Ron Duvall
Ron Duvall, Natural Resources Engineer
Water Rights Program

Diversion point(s) located using GeoExplorer II GPS

Date: Sept. 25, 2006

Water Right No. 6496-3



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOV 01 2008

6496-3

Myron Bierema
30921 412 Ave
Springfield SD 57062

Dear Mr. Bierema:

Enclosed is Water License No. 6496-3. This is the final water right document completing your process of obtaining a Water Right.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water.

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6496-3

(1) Myron Bierema, 30921 412 Ave, Springfield SD 57062 made Application No. 6496-3, April 12, 2004 for a water permit to divert 2.22 cubic feet of water per second from groundwater (one well), Bon Homme County, South Dakota for irrigation purposes. Permit No. 6496-3, with a priority date of April 12, 2004 was approved June 1, 2004 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 1, 2009 and for the application to beneficial use of water on or before June 1, 2013.

The permit holder submitted a *Notice of Completion of Works and Application of Water to Beneficial Use* on July 9, 2004. The *Notice* stated the diversion system was completed on June 20, 2004 and the water placed to beneficial use on October 31, 2004.

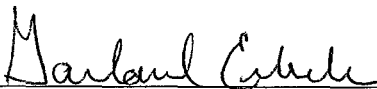
(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 6496-3 is issued a license, bearing a priority date of April 12, 2004 to appropriate 1.78 cubic feet of water per second from groundwater (one well) to irrigate 136 acres.

The diversion point is located: 1,360 feet south and 1,360 feet east from the northwest corner Section 33-T94N-R60W (SE ¼ NW ¼). The acres authorized for irrigation are as follows:

Section 33-T94N-R60W			
NE ¼ NW ¼	34 acres	SW ¼ NW ¼	34 acres
NW ¼ NW ¼	34 acres	SE ¼ NW ¼	34 acres
Total 136 acres			

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 6496-3 including the following now applicable qualifications:

- 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.
- The well authorized by Permit No. 6496-3 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.
- 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

NOV 01 2006
date

