

**Do Not License
This Is A
Temporary
Water Permit**

WATER PERMIT NO. 8885-3

Name of Applicant: **Myron & Kim Bierema**

Address: **30821 412th Avenue, Springfield SD 57062**

Phone: **605-369-5409**

Amount of Water Claimed: **No add'l**

Total Acres: **68**

Source of Water Supply: **Groundwater**

Water to be used for: **Irrigation**

County: **Bon Homme**

Type of Waste Disposal System:

Location: **Approx. 6 miles southwest of Tyndall SD**

PRIORITY

Date Received: **06-26-24**

Application/License Fee: **\$1,050.00**

Corrected Application Received: **N/A**

Period of Annual Use: **May 1 – October 31**

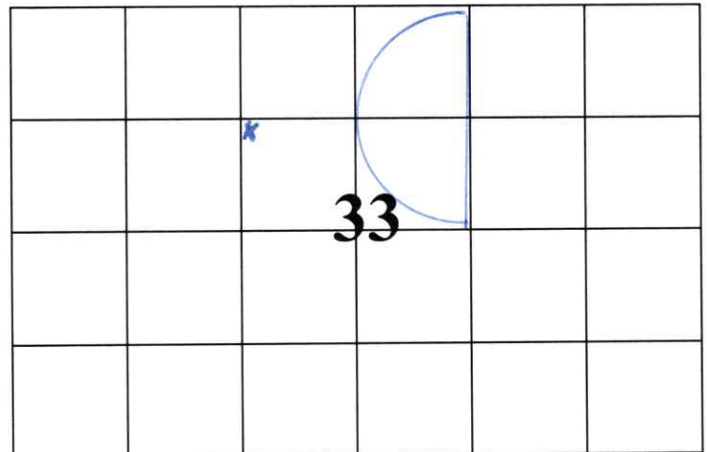
Remarks: **Using existing well from WR 6496-3 for new acres**

Diversion Point: **SE 1/4 NW 1/4 Sec 33-T94N-**

R60W

Land to be Irrigated: **W 1/2 NE 1/4 Sec 33-T94N-**

R60W



Depth of Well: **220**

Well Driller:

Remarks:

Type of Map: **aerial**

Reviewed and the Number Assigned on: **06-26-24**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 8885-3

Date of first receipt of application June 26, 2024.

The Chief Engineer, on behalf of the Water Management Board, issues Temporary Use Water Permit No. 8885-3 to Myron and Kim Bierema, 30821 412th Avenue, 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. Temporary Use Water Permit No. 8885-3 authorizes irrigation of an additional 68 acres. Water Right No. 6496-3 authorizes 1.78 cubic feet of water per second (cfs) from one well completed into the Choteau Tyndall Aquifer (220 feet deep) located in the SE 1/4 NW 1/4 Section 33 for irrigation of 136 acres located in the NW 1/4 Section 33; all in T94N-R60W. This permit authorizes irrigation of an additional 68 acres located in the W 1/2 NE 1/4 Section 33-T94N-R60W from the existing well, with no increase in the rate of diversion. This permit and Water Right No. 6496-3 authorize the diversion of 1.78 cfs for irrigation of a combined total of 204 acres. This site is located approximately six miles southwest of Tyndall SD.
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 June 26, 2024.
4. The date of approval of Permit No. 8885-3 is September 16, 2024.
5. One-fifth of the construction is to be completed on or before March 16, 2027.
6. All construction is to be completed on or before September 16, 2029.
7. Water is to be put to beneficial use on or before September 16, 2033.
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 Tyndall has priority right to this water under a future use withdrawal permit. Permit No. 8885-3 is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to this prior right if the City of Tyndall develops their reserved water supply. Permit No. 8885-3 may be subject to cancellation when the water reserved under the future use permit is put to beneficial use. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.
2. The well approved under Water Right No. 6496-3 and Permit No. 8885-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

SEP 27 2024

date



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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8885-3</u> Hydrologic Unit <u>10170101</u>
	Basin <u>Missouri R</u>
	Newspaper <u>Tyndall Tribune & Register</u> <u>Daily Press & Dakotan</u> (office use only)

PAID
JUN 26 2024
Ck# 1279
Rec't# _____

Application for Permit to Appropriate Water for Irrigation

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

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

1. Name to Appear on Irrigation Permit Myron & Kim Bierema

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 30821 412 AVE Springfield SD 57062
(Address) (City) (State) (Zip Code)

Phone 605-369-5409 Mobile 605-464-0574 Email N/A

2. Amount of water claimed 1.78 *CFS or 800 **GPM N/A ***AF Total Acreage 68
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply one existing well (approved under 6496-3) Choteau Tyndall Aquifer

4. Location of point of diversion SE 1/4 NW 1/4 Section 33, T94N, R60W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Bon Homme

5. County or counties where water will be used Bon Homme

6. Annual period during which water is to be used May 1 - 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>West 1/2 of North-east 1/4</u>	<u>68.</u>		
<u>of section 33</u>			
<u>T94N-R60W</u>			

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

Using well approved under WR No. 6496-3 to provide water to new acres

I, Myron Bierema, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

2021-08

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

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JUN 26 2024

OFFICE OF
WATER

Note to office staff: New application will require map from applicant

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable)

☐ Drilling new well(s) ☒ Using existing well(s)

a) If new wells, how many _____ Have test holes been drilled? ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

(see well completion report for 6496-3)

c) Well Depth (required) 220' Depth to Top of Water Bearing Material _____ Depth to Water from Surface 102'

d) Distance to nearest domestic well on applicant's property _____ Property owned by others _____

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

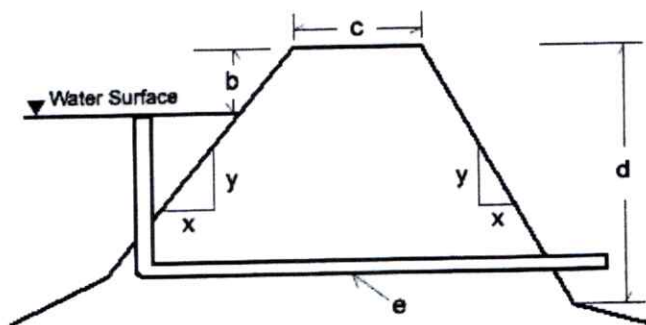
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



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JUN 26 2024

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94N 60W
Section: 20

94N 60W
Section: 21

94N 60W
Section: 22

94N 60W
Section: 23

94N 60W
Section: 29

94N 60W
Section: 28

94N 60W
Section: 27

94N 60W
Section: 26

10170101 Lewis and Clark Lake

Lewis and Clark Lake

94N 60W
Section: 32

94N 60W
Section: 33

94N 60W
Section: 34

94N 60W
Section: 35

93N 60W
Section: 05

93N 60W
Section: 04

93N 60W
Section: 03

93N 60W
Section: 02

93N 60W
Section: 08

93N 60W
Section: 09

93N 60W
Section: 10

93N 60W
Section: 11

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

NOV 01 2006
date



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date June 26th, 2024

RECEIVED OF Myron and Kim 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. <u>8885-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>850.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8885-3</u>	\$ <u>200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law)	
TOTAL	\$ <u>1050.00</u>

By Eric Gronlund
Chief Engineer

Sc



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8885-3, Myron and Kim Bierema**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8885-3, Myron and Kim Bierema, 30821 412th Avenue, Springfield SD 57062.

The Chief Engineer is recommending APPROVAL of Application No. 8885-3 as a **TEMPORARY USE PERMIT** because 1) water is available to be appropriated as a temporary use permit until the city of Tyndall, holder of a future use permit from the Choteau:Tyndall aquifer, develops water reserved by their future use permit, 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 as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The city of Tyndall has priority right to this water under a future use withdrawal permit. Permit No. 8885-3 is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to this prior right if the city of Tyndall develops their reserved water supply. Permit No. 8885-3 may be subject to cancellation when the water reserved under the future use permit is put to beneficial use. The Chief Engineer must provide the permit holder six months' notice prior to cancellation of this temporary use permit.
2. The well approved under Water Right No. 6496-3 and Permit No. 8885-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals must be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Eric Gronlund, Chief Engineer
August 28, 2024

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8885-3
MYRON & KIM BIEREMA
AUGUST 27, 2024

Water Permit Application No. 8885-3 proposes to irrigate an additional 68 acres to be located in W ½ NE ¼ Section 33-T94N-R60W in addition to what is authorized by Water Right No. 6496-3 with no increase in the rate of diversion. Water Right No. 6496-3 authorizes a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) for the irrigation of 136 acres located in the NW ¼ Section 33 from one well (220 feet deep) completed into the Choteau: Tyndall aquifer located in the SE ¼ NW ¼ Section 33; all in T94N-R60W. This application, if approved, and Water Right No. 6496-3 will authorize a combined irrigation of 204 acres at a maximum instantaneous diversion rate of 1.78 cfs. This site is located approximately six miles southwest of Tyndall, SD in Bon Homme County.

AQUIFER: Choteau: Tyndall (CH:T)

Aquifer Characteristics:

The Tyndall management unit of the Choteau aquifer is a buried glacial outwash deposit that fills a pre-glacial bedrock valley in central Bon Homme County (Jorgensen, 1971). Jorgensen (1971) called the aquifer the Tyndall-Scotland aquifer and it was mapped as extending to the northeast into Yankton and Hutchinson Counties. Hedges and others (1982) separated the Tyndall-Scotland aquifer into the Choteau: Tyndall aquifer to the southwest and the Scotland management unit of the Lower James Missouri aquifer to the northeast based on a groundwater flow divide. The historic and subsequent boundaries are broad approximations. Further study, including additional observation well data, would be required to further refine the boundary between the two aquifers.

Hedges and others (1982) estimated the aquifer to underlie approximately 31,300 acres. Stonesifer (2013) redelineated the aquifer primarily using the First Occurrence of Aquifer Materials map for Bon Homme County (Jensen, 2012). Stonesifer's (2013) delineation has an approximate areal extent of 24,800 acres. Furthermore, Stonesifer (2013) delineated an approximate unconfined area of approximately 2,800 acres in the southern part of the aquifer by using Water Rights Program observation well data and lithologic logs on file with the DNR-Geological Survey Program.

The aquifer is typically under confined conditions but is locally buried-unconfined, particularly along Emanuel Creek where the aquifer has been completely incised by the creek (Jorgensen, 1971). In the area of this application, there can be large clay lenses, up to 50 feet thick, interspersed within the strata of the aquifer material that may create confined or unconfined condition changes within short distances (SDGS, 2024; Water Rights, 2024c). The general direction of groundwater movement in the aquifer is from the east to the west and then south (Water Rights, 2024c).

The well completion report on file for Water Right No. 6496-3 reported encountering aquifer material at 53 feet below grade to the total depth of 220 feet. The static water level was 102 feet below grade when the well was constructed in April 2004. The aquifer is unconfined at the applicant's well and the surrounding area (Water Rights, 2024c and 2024e). These till layers appear

to be localized in extent based on other lithologic logs and well completion reports in the area of the applicant's well (SDGS, 2024; Water Rights, 2024e). Figure 1 is a map of the approximate areal extent of the aquifer (Hedges et al, 1982) and the observation wells completed into the aquifer (Water Rights, 2024c).

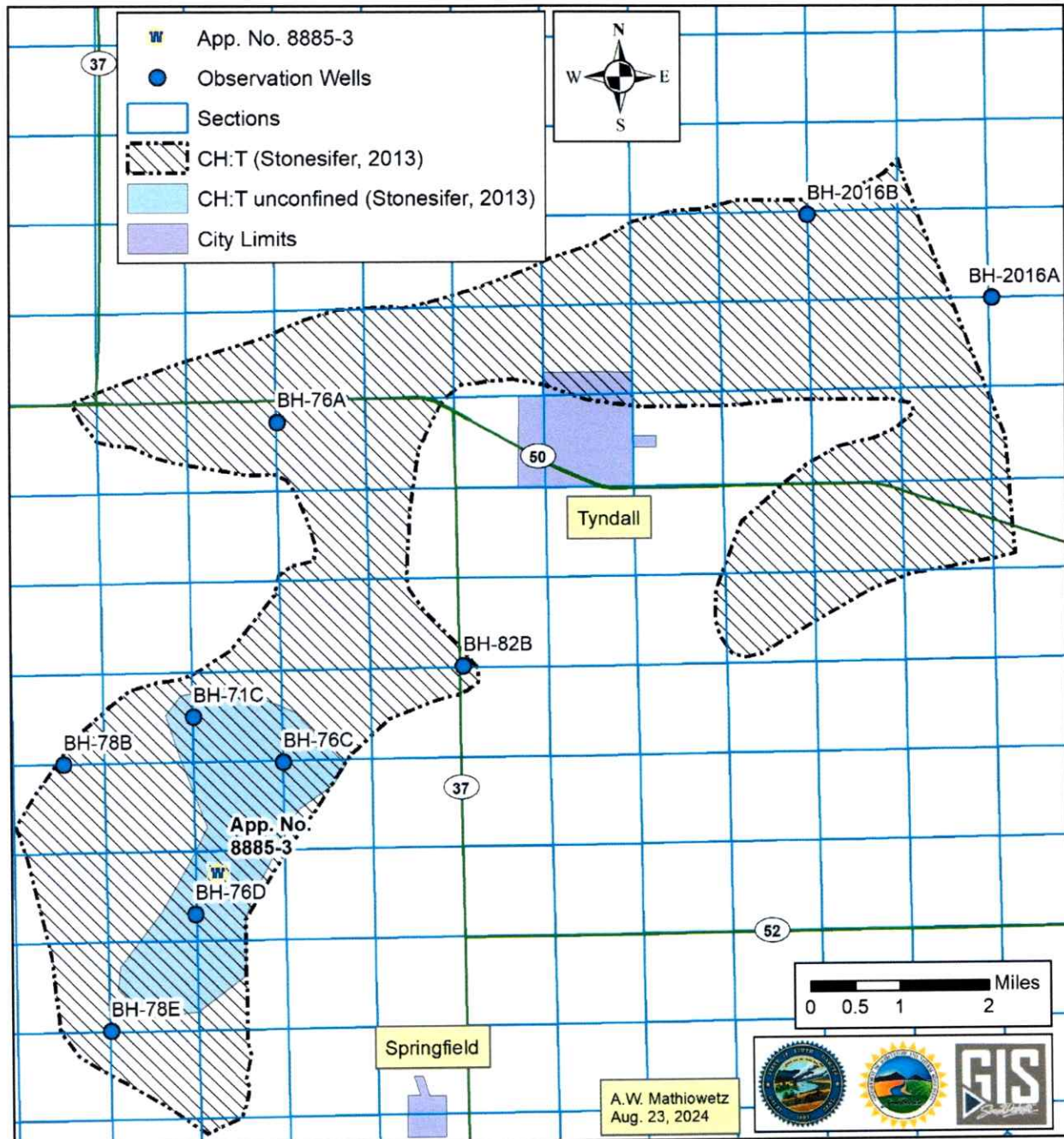


Figure 1- Approximate Choteau: Tyndall aquifer extent and unconfined portion (Stonesifer, 2013) with observation wells (Water Rights, 2024c) and Application No. 8885-3 well location

APPLICABLE SOUTH DAKOTA CODIFIED LAW (SDCL):

Pursuant to SDCL 46-2A-9, "A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the diversion point can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by SDCL 46-2-9 and 46-2-11." This report will address the availability of unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the Choteau: Tyndall aquifer.

Pursuant to SDCL 46-5-39, temporary appropriations may be authorized from undeveloped future use permits using the permitting procedure of SDCL Chapter 46-2A. A future use permit is a permit reserving water for contemplated future needs upon a showing of the availability of unappropriated water and future need, which can be issued to entities identified in SDCL 46-5-38, such as municipalities or nonprofit rural water supply companies.

Pursuant to SDCL 46-5-40 the Chief Engineer must give at least six months' notice prior to the cancellation of a temporary use permit. The temporary use permit may not be cancelled prior to the time at which facilities are constructed and water may be put to beneficial use by the entity holding the future use permit.

This application proposes to appropriate water from the Choteau: Tyndall aquifer. The probability of unappropriated water available from the aquifer must be evaluated by considering SDCL 46-6-3.1, which requires:

"No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems."

The Greenhorn Formation is a Cretaceous aged Formation. As a Quaternary aged glacial outwash deposit, the Choteau: Tyndall aquifer is not older or stratigraphically lower than the Greenhorn Formation (Fahrenbach et al., 2010). Furthermore, the applicant is not a water distribution system. Therefore, the balance between recharge to and withdrawals from the Choteau: Tyndall aquifer must be considered for this application.

Observation Well Data:

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

The DANR-Water Rights Program monitors 9 observation wells completed into the Choteau: Tyndall aquifer (Water Rights, 2024c). Three of the observation (BH-82B, BH-78B, and BH-2016B) wells are not currently being measured due to issues with iron bacteria in the wells. Iron bacteria disrupts the accurate measurement of water levels in the well. The hydrographs for the five nearest observation wells are shown in Figure 2. The observation wells shown in Figure 2 are all within approximately 2.1 miles of the applicant's well.

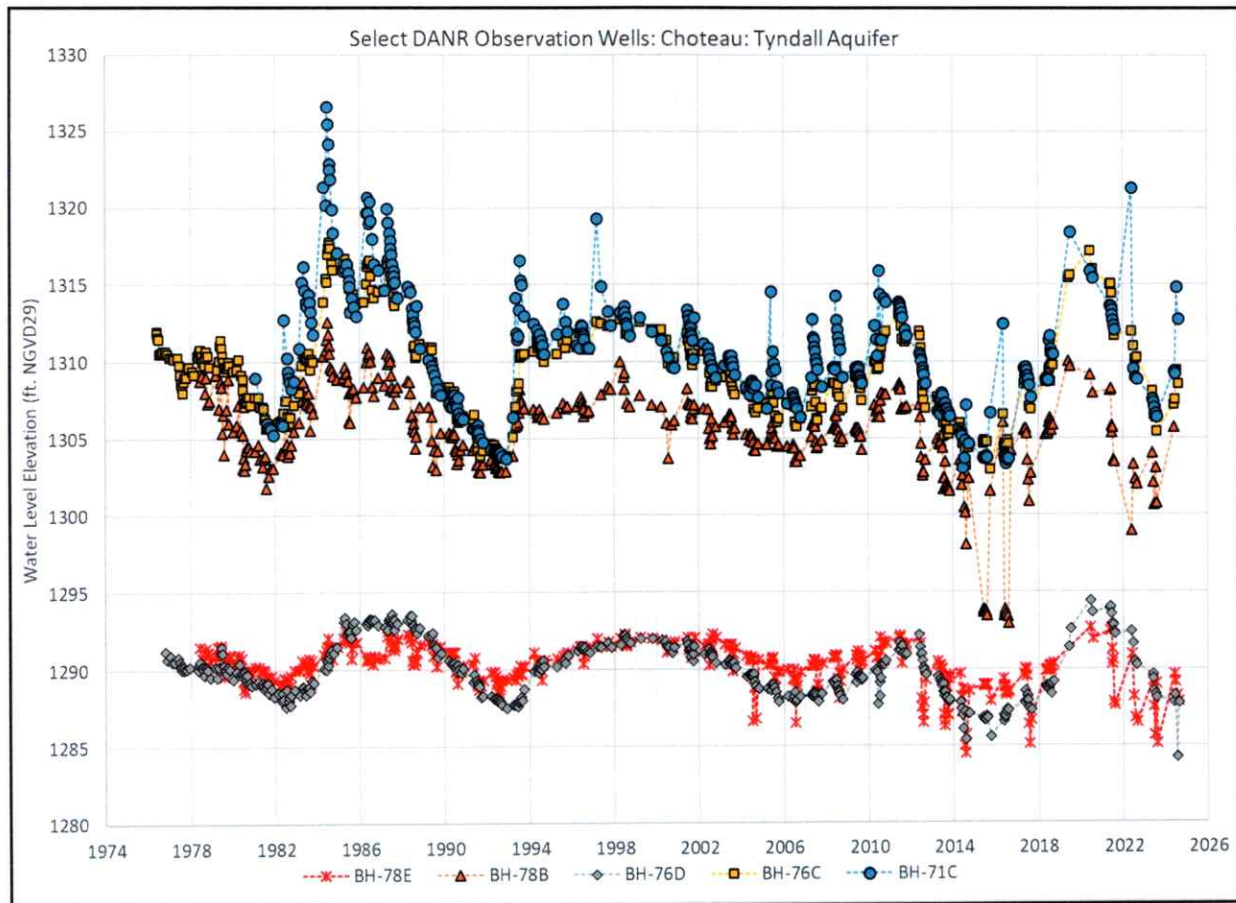


Figure 2- Hydrographs for selected Choteau: Tyndall aquifer observation wells (Water Rights, 2024c)

These hydrographs are representative and consistent with the hydrographs for the other observation wells completed into the Choteau: Tyndall aquifer. The observation well hydrographs show water levels over the period of record have been generally stable. There have been some recent declines in observation wells BH-78E and BH-76D. These are the closest observation wells to Emanuel Creek and the Missouri River. The changes of water level in the Missouri River, and therefore lower Emanuel Creek, is likely having some controlling effect on the water levels of the aquifer. For the other observation wells, any declines appear to be caused by general climatic conditions (precipitation and drought) or by equilibrating after changes in nearby pumping. All observation wells show response to climatic conditions. The water levels rise during wet periods when recharge exceeds natural discharge plus withdrawals, and gradually decline during drier periods when natural discharge plus withdrawals exceed recharge. However, as development and use from the aquifer increased (see Figure 3) there appears to be some dampening of the response

to climatic conditions. Some of the hydrographs for observation wells show the effects of nearby pumping on the aquifer. However, these effects are minor and are generally masked by the effects climatic conditions have on the water levels. The water level changes being primarily controlled by climatic conditions means that recharge to and natural discharge from the aquifer exceeds actual withdrawals from the aquifer. But caution should be taken since there appears to be some dampening of the response to climatic conditions as development of the aquifer has occurred. Furthermore, there is a future use permit reserving water, Future Use Permit No. 4839A-3. The permit must be accounted for since it is not actively withdrawing water from the aquifer and therefore is not represented in the observation well hydrographs.

Hydrologic Budget:

Recharge:

Recharge to the Choteau: Tyndall aquifer is through the percolation of precipitation through overlying till and alluvium, inflow from Emanuel Creek when the stage of the creek is above the potentiometric surface of the aquifer, and inflow from contiguous bedrock aquifer such as the Niobrara, Codell, and possibly Dakota aquifers (Jorgensen, 1971) when the bedrock aquifers have a higher potentiometric surface than the Choteau: Tyndall aquifer.

Hedges and others (1985) estimated a recharge rate of 3.2 inches per year (in/yr) to the unconfined portions of the aquifer using observation well data analysis. There was a total of 16 water years from three observation wells available at that time. Stonesifer (2013) used the same methodology and observation well dataset as Hedges and others (1985) but used the aquifer specific storage coefficient, 0.2, for the Choteau: Tyndall aquifer from Jorgensen (1971) rather than the more generalized coefficient of 0.15 that Hedges and others used (1985). Using the more specific storage coefficient yielded a rate of 4.3 in/yr (Stonesifer, 2013). Because recharge and discharge occur simultaneously, measurements of any increase in water levels are a measure of recharge in excess of discharge. Therefore, that method yields an estimated recharge rate that is lower than the actual recharge rate. Stonesifer (2013) determined the unconfined portion of the Choteau: Tyndall aquifer to be approximately 2,800 acres. That is a total of approximately 747 acre-feet per year (ac-ft/yr) using Hedges and others (1985) original methodology and criteria and 1,003 ac-ft/yr using Jorgensen's (1971) aquifer specific storage coefficient.

Stonesifer (2013) then used Hedges and others (1985) methodology, Jorgensen's (1971) storage coefficient, and all of the water level data available to him from the same three observation wells, 82 water years of data, to recalculate a recharge rate. To the unconfined portions of the Choteau: Tyndall aquifer, Stonesifer (2013) estimated a recharge rate of 7.2 in/yr for a total of 1,680 ac-ft/yr.

Capen (2014) updated Stonesifer's (2013) work with additional years of observation well data. Capen's (2014) recharge rate estimate was 1,408 ac-ft/yr, which is approximately 6 in/yr. This change in estimated recharge rate is logical based on the fact that all of the additional water years of data Capen (2014) used were dry to even full drought years with increased irrigation pumpage and reduced recharge to the aquifer. Capen (2014) noted in reference to his recharge rate being lower than Stonesifer's (2013) rate: "Although the two are relying on the same data sets, this number is consistent with the slow decline of aquifer levels of approximately one tenth of one foot per year at an average usage of 1,430 ac-ft/yr."

The estimated recharge rate range to the unconfined portion of the Choteau: Tyndall aquifer is 747 to 1,680 ac-ft/yr. There is no specific recharge rate available for the confined portion of the aquifer. Hedges and others (1985) suggested a recharge rate range of 0.15 to 0.6 in/yr to confined glacial aquifers for use by management and development programs. Applying that range to the confined portion of the aquifer (22,000 acres) would be approximately 275 to 1,100 ac-ft/yr.

It is important to note that in a primarily confined aquifer with a significant portion of the aquifer area unconfined, the change in storage shown by the water level changes of the observation wells completed into the unconfined portions of the aquifer is likely representative of the majority of the recharge entering the aquifer including what may be entering the aquifer from the confined portion. This is because in the confined portions of an aquifer the physical change in storage is limited by the compressibility of the aquifer materials and adjacent confining layers, which is relatively small, since water is an incompressible fluid. Therefore, it is reasonable to assume the recharge to the confined portions of the aquifer is limited and potentially less than the range suggested by Hedges and others (1985). Therefore, it is reasonable to assume the recharge rate of 0.15 inches per year is more likely than the rate of 0.6 in/yr. This is further supported by the fact that in the confined portions of the aquifer there is generally 150 to 200 feet of glacial till (clay) overlying the top of the aquifer.

Combining, the recharge rate range for the unconfined portion of the aquifer (747 to 1,680 ac-ft/yr) plus the recharge rate range for the confined portion of the aquifer (275 to 1,100 ac-ft/yr) leads to a range of 1,022 to 2,780 ac-ft/yr with a midpoint of 1,901 ac-ft/yr. However, specifically assuming the 0.15 in/yr recharge rate from Hedges and others (1985) to the confined portion of the aquifer, the estimate recharge rate range is 1,022 to 1,955 ac-ft/yr. This last range is likely the most representative range of recharge rates to the aquifer.

Discharge:

Discharge from the Choteau: Tyndall aquifer occurs through springs at the outcrop areas near Emanuel Creek, evapotranspiration, and well withdrawals (Jorgensen, 1971; Water Rights, 2024d and 2024e). There is also potential outflow to adjacent bedrock aquifers, the Niobrara, Codell, and possibly Dakota aquifers, when the potentiometric surface of the Choteau: Tyndall aquifer is higher than the bedrock aquifers (Jorgensen, 1971).

Currently, there are 29 water rights/permits appropriating water and one future use permit reserving water from the Choteau: Tyndall aquifer (Water Rights, 2024d). Future Use Permit No. 4839A-3 is held by the City of Tyndall. The future use permit was last reviewed in December 2017 and reserves 410 ac-ft/yr. There are four temporary use permits, 8060-3, 8244-3, 8267-3, and 8388-3, which are authorized for temporary appropriation of water reserved under Future Use Permit No. 4839A-3 pursuant to SDCL 46-5-39. These 4 permits authorize the irrigation of 361 acres at a combined maximum instantaneous diversion rate of 4.94 cfs.

Figure 3 shows the total reported annual irrigation pumpage for the Choteau: Tyndall aquifer including by the Temporary Use Permits (Water Rights, 2024b). The average annual reported irrigation pumpage by all permits from 1979-2023 is 1,485.5 ac-ft/yr (see Table 1). To better represent the current development and methods of irrigation from the aquifer, the average annual

reported pumpage for the last 10 years, 2014-2023, which is 1,572.3 ac-ft/yr will be utilized for evaluation of the aquifer. Table 2 shows the reported irrigation pumpage by the four Temporary Use Permits issued per SDCL 46-5-39. Over their respective periods of record, the sum of the average reported use by each of the Temporary Use Permits is 112.6 ac-ft/yr of the total irrigation (see Table 2). It should be noted the limited number of years reporting for Temporary Use Permit Nos. 8244-3, 8267-3, and 8388-3.

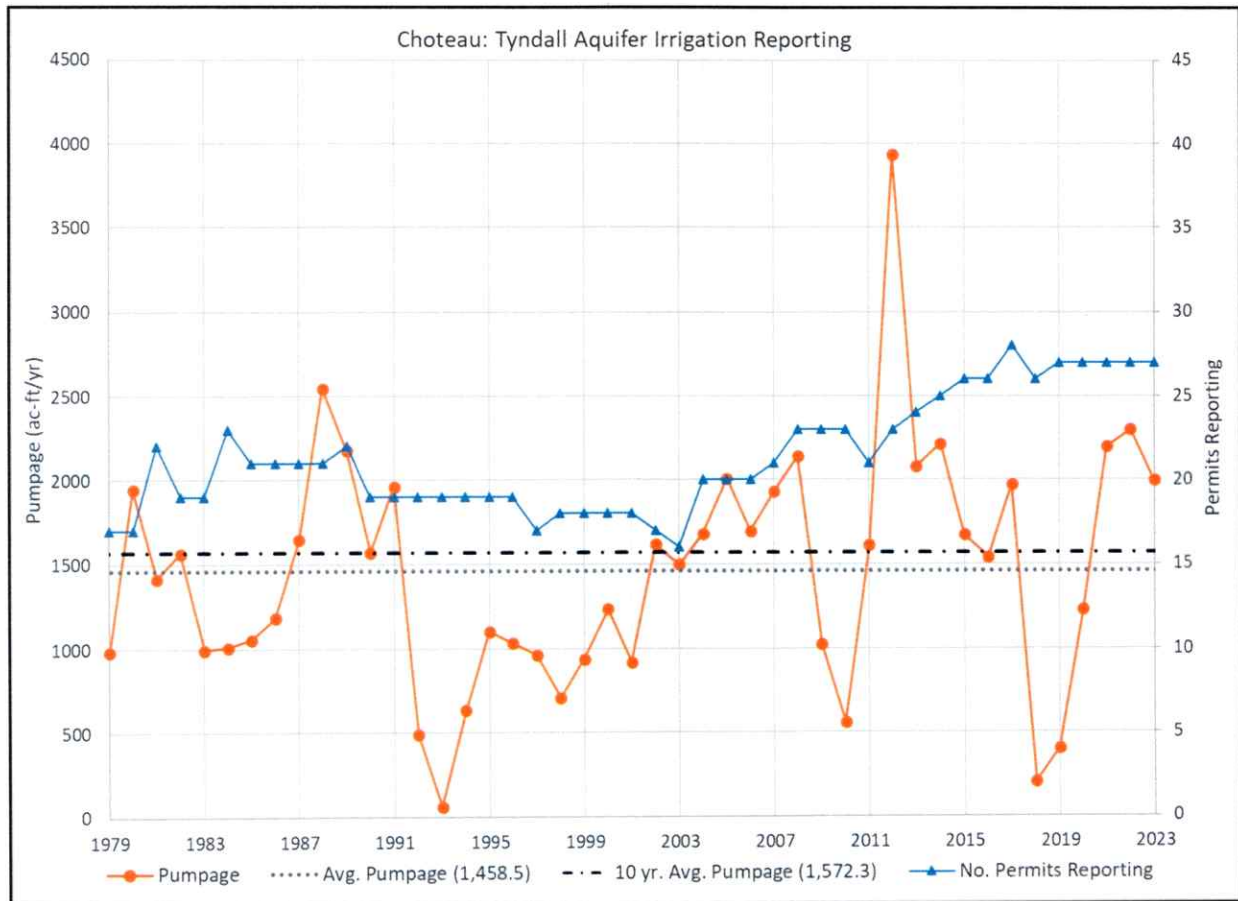


Figure 3- Choteau: Tyndall aquifer reported irrigation pumpage (Water Rights, 2024b)

Table 1- Average reported irrigation by all permits, and only standard permits (Water Rights, 2024b)

Averages	All Reported Irrigation		Standard Permit Irrigation	
	Permits Reporting	Pumpage (ac-ft/yr)	Permits Reporting	Pumpage (ac-ft/yr)
Avg. 1979-2023	21.4	1458.5	20.8	1440.5
Avg. 2014-2023	26.6	1572.3	23.8	1491.3

Table 2- Reported pumpage and permitted acres under Temporary Use Permits per SDCL 46-5-39 (Water Rights, 2024b)

Year	8060-3	8244-3	8267-3	8388-3
Permitted Acres (361 ac.)	110	130	75	46
<i>Reported Pumpage (ac-ft/yr)</i>				
2015	25.52	n/a	n/a	n/a
2016	23.2	n/a	n/a	n/a
2017	33.14	16.57	0	n/a
2018	0	0	0	n/a
2019	2.95	4.71	5.74	15.91
2020	34.8	31.49	33.75	15.55
2021	48.33	48.98	55.24	12.37
2022	57.36	59.03	74.68	10.9
2023	21.4	47.43	105.32	26.42
Avg. (ac-ft/yr)	27.4	29.7	39.2	16.2
Sum (ac-ft/yr)	112.6			

Balance:

The best reasonably available information regarding recharge to the aquifer is an estimated recharge rate range of 1,022 to 1,955 ac-ft/yr. However, the recharge may possibly be as great as 2,780 ac-ft/yr. The reported average annual use from the aquifer by standard water rights/permits, 2014-2023, is 1,491.3 ac-ft/yr plus 410 ac-ft/yr reserved for future use. That is a total of 1,901.3 ac-ft/yr. Therefore, there is not a reasonable probability unappropriated water is available for this proposed appropriation at the middle and lower end of the estimated recharge range which is the most likely range of the actual average recharge rate to the aquifer. However, the uncertainty in the estimate of the recharge underscores the importance of using the observation well water level data for the management of the aquifer.

There are 4 Temporary Use Permits authorized to withdraw water that is reserved by a future use permit, 410 ac-ft/yr reserved. The temporary use permits will likely withdraw on average 112.6 ac-ft/yr. This application is proposing to irrigate 68 additional acres. In eastern South Dakota, crop irrigators typically apply less than 10 inches of water per acre. Therefore, this application would be estimated to pump less than 56.7 ac-ft/yr. The expected average use by the existing Temporary Use Permits and the expected use by this application would be 169.3 ac-ft/yr. That is less than the 410 ac-ft/yr reserved by the future use permit. Therefore, there is a reasonable probability there is unappropriated water available for this proposed appropriation as a Temporary Use Permit issued per SDCL 46-5-39.

POTENTIAL FOR UNLAWFUL IMPAIRMENT:

As shown in Figure 4 and listed in Table 3, the nearest well authorized by a water right/permit, not held by the applicant, to the applicant's well is Temporary Use Permit No. 8267-3 approximately 0.4 miles away (Water Rights, 2024d). The nearest domestic well completed into the Choteau: Tyndall aquifer on file with the Water Rights Program maps approximately 0.2 miles southwest (Water Rights, 2024e). However, it appears the well has been mapped incorrectly and is likely 0.6 miles south. The next closest domestic well maps approximately 0.3 miles west (Water Rights, 2024e). The mapped location of domestic wells is based on the information provided on the well

completion report submitted by the well driller. There may be other domestic wells in the area that are not on file with the Water Rights Program. Table 3 is a list of the water rights/permits shown in Figure 4. Figure 4 is a map of the project area including Choteau: Tyndall aquifer water rights/permits, and observation wells.

Table 3- Water rights/permits in the vicinity of Application No. 8885-3 as shown in Figure 4 (Water Rights, 2024d)

Permit No.	Name	Status	Use	CFS	Acres	Reserved Vol. (ac-ft/yr)	Distance (mi.) & Direction
1075-3 ⁵	CITY TYNDALL	LC	MUN	1.1	n/a	n/a	1.9 N
3576-3	PERCY TJEERDSMA	LC	IRR	2	155	n/a	1.4 SW
3579-3	CARY HAJEK	LC	IRR	2.36	188	n/a	2.0 NE
3582A-3	GERPEN VAN	LC	IRR	1.78	125	n/a	1.9 NW
3583B-3	CAROLINE BOCHMAN	LC	IRR	2.07	145	n/a	0.7 NW
4839A-3 ^E	CITY OF TYNDALL	FU	MUN	n/a	n/a	410	1.8 N
4839B-3 ^{D, E}	CITY OF TYNDALL	LC	MUN	1.06	n/a	n/a	1.3 N
5424-3	LESLIE BOHLMANN	LC	IRR	2	160	n/a	1.6 NE
5513-3	MIKE HAJEK	LC	IRR	1.78	132	n/a	0.9 NE
6413-3	PERCY TJEERDSMA	LC	IRR	1.56	217	n/a	1.1 SW
6454-3	DANIEL SCHUURMANS	LC	IRR	1.28	116	n/a	1.5 SW
6465-3 ^A	CODY TJEERDSMA	LC	IRR	1.56	135	n/a	1 NE
6903-3 ^A		LC	IRR	1.56	137	n/a	
6496-3 ^B	MYRON BIEREMA	LC	IRR	1.78	136	n/a	n/a
6791-3	VIRGIL TJEERDSMA	LC	IRR	2	234	n/a	0.5 SE
6902-3	CODY TJEERDSMA	LC	IRR	1	70	n/a	0.7 NE
7327-3	MYRON BIEREMA	LC	IRR	1.78	73	n/a	0.5 W
7922-3	STEVE JOHNSON	LC	IRR	1.56	133	n/a	1 N
8267-3 ^C	VIRGIL TJEERDSMA	PE	IRR	1.67	75	n/a	0.4 S
8388-3	PERCY TJEERDSMA	PE	IRR	0	46	n/a	1.5 SW
^A Use the same well; ^B Well to be used by App. No. 8885-3; ^C Temporary Use Permit per SDCL 46-5-39; ^D Nearest portion of future use area; ⁵ City of Tyndall purchases water from a different water system (Drinking Water Program, 2024)							

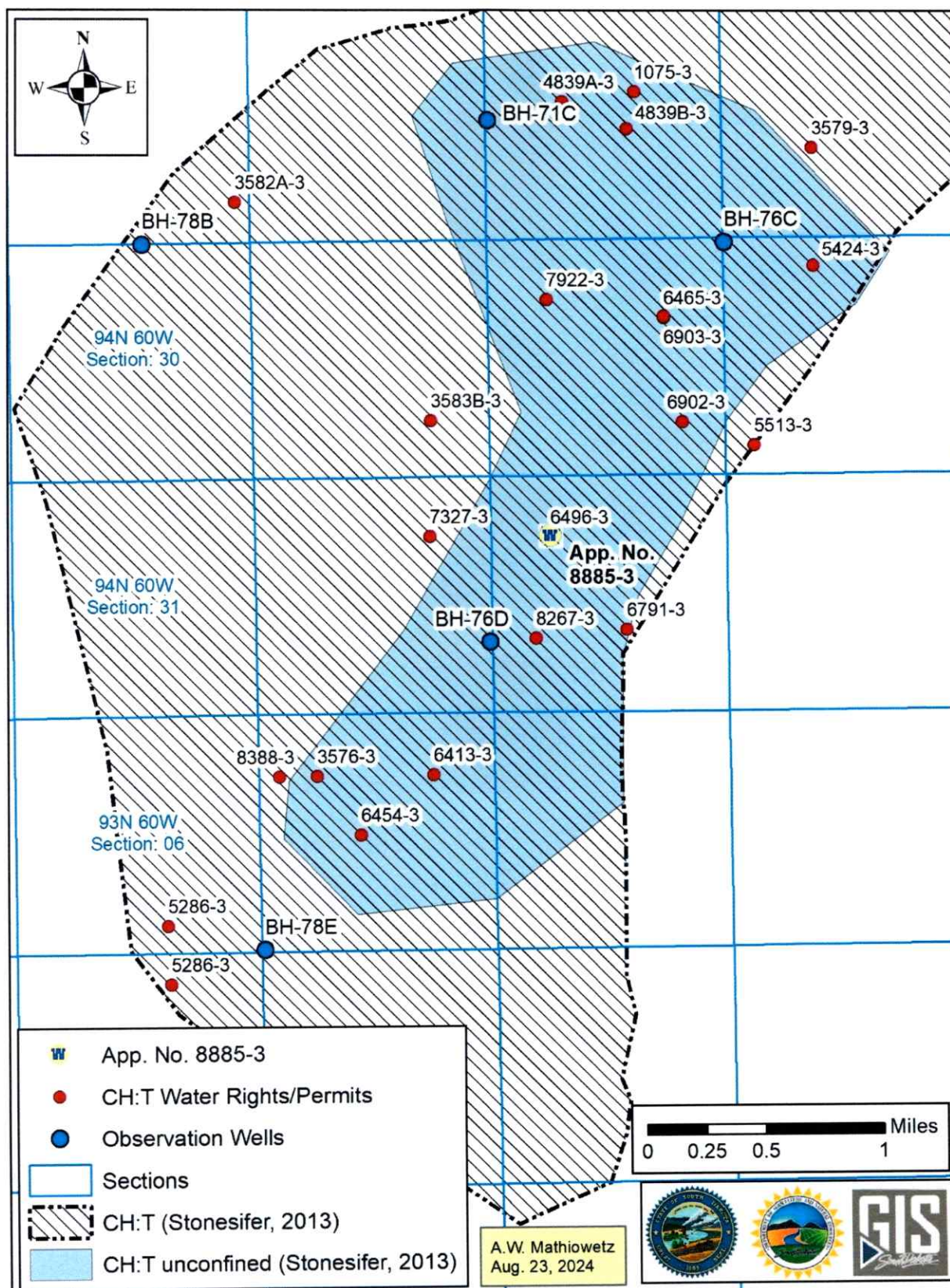


Figure 4- Map of Choteau: Tyndall aquifer water rights/permits and observation wells within in the vicinity of Application No. 8885-3 (Water Rights, 2024c and 2024d)

In the area of this application, the Choteau: Tyndall aquifer is generally under unconfined conditions. The Water Management Board has recognized in the past to place water to maximum beneficial use some drawdown may occur. In order to protect domestic users, the Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs.”

Drawdown caused by pumping in an unconfined aquifer typically does not extend far from the pumping well. This is exhibited by the hydrographs shown in Figure 2 showing minimal drawdown effects from individual pumping despite the observation wells being in close proximity to a number of high-capacity irrigation wells. While precise drawdown cannot be determined without aquifer performance testing, any drawdown created from pumping this proposed diversion is not expected to cause adverse impacts to existing water rights with adequate wells or adequate domestic wells. This is due to unconfined nature of the aquifer at the existing well site.

There have been no complaints regarding well interference for wells completed into the Choteau: Tyndall aquifer filed with the Water Rights Program (Water Rights, 2024a). Based on the locally unconfined conditions of the Choteau: Tyndall aquifer in the area of the applicant’s well, the lack of well interference complaints, the close proximity of the multiple irrigation wells to each other without reported issue, the statutes and rules, and that the well to be used for this application has been in use for a number of years without issue, there is a reasonable probability this proposed diversion can be developed without unlawful impairment of existing adequate domestic wells or senior water rights/permits with adequate wells.

CONCLUSIONS:

1. Water Permit Application No. 8885-3 proposes to irrigate an additional 68 acres to be located in W $\frac{1}{2}$ NE $\frac{1}{4}$ Section 33-T94N-R60W in addition to what is authorized by Water Right No. 6496-3 with no increase in the rate of diversion.
2. Water Right No. 6496-3 authorizes a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) for the irrigation of 136 acres located in the NW $\frac{1}{4}$ Section 33 from one well (220 feet deep) completed into the Choteau: Tyndall aquifer located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 33; all in T94N-R60W.
3. This application, if approved, and Water Right No. 6496-3 will authorize a combined irrigation of 204 acres at a maximum instantaneous diversion rate of 1.78 cfs.
4. Based on the observation well data for the Choteau: Tyndall aquifer, the current level of actual pumping from the aquifer is likely not exceeding recharge to the aquifer.
5. Based on an analysis of the hydrologic budget for the Choteau: Tyndall aquifer, annual appropriations may be exceeding average annual recharge to the aquifer at the middle and

lower end of the estimated recharge range which is the most likely range of the actual average recharge rate to the aquifer.

6. Temporary Use Permit Nos. 8060-3, 8244-3, 8267-3, and 8388-3, authorizing irrigation of 361 acres, have been issued from the 410 ac-ft/yr reserved by Future Use Permit No. 4839A-3 per SDCL 46-5-39.
7. Based on the hydrologic budget and observation well data, unappropriated water is available for temporary use per SDCL 46-5-39.
8. There is a reasonable probability the diversion proposed by this application can be made without adversely impacting existing appropriative or domestic users with adequate wells.



Adam Mathiowetz, PE
SD DANR-Water Rights Program

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**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

August 28, 2024

Myron and Kim Bierema
30821 412th Avenue
Springfield SD 57062

Dear Mr. & Mrs. Bierema:

Water Permit Application No. 8885-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Tyndall Tribune & Register printed in Tyndall SD (Ph # 605 589-3242) and the Daily Press & Dakotan printed in Yankton SD (Ph # 605 665-7811). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have 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,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(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.

NOTICE OF APPLICATION NO. 8885-3 to Appropriate Water

Notice is given that Myron and Kim Bierema, 30821 412th Avenue, Springfield SD 57062, have filed an application for a water permit to irrigate an additional 68 acres. Water Right No. 6496-3 authorizes 1.78 cubic feet of water per second (cfs) from one well completed into the Choteau Tyndall Aquifer (220 feet deep) located in the SE ¼ NW ¼ Section 33 for irrigation of 136 acres located in the NW ¼ Section 33; all in T94N-R60W. The applicant proposes to irrigate an additional 68 acres located in the W ½ NE ¼ Section 33-T94N-R60W from the existing well, with no increase in the rate of diversion. This application, if approved, and Water Right No. 6496-3 will authorize the diversion of 1.78 cfs for irrigation of a combined total of 204 acres. This site is located approximately six miles southwest of Tyndall SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8885-3 as a TEMPORARY USE PERMIT because 1) water is available to be appropriated as a temporary use permit until the city of Tyndall, holder of a future use permit from the Choteau: Tyndall aquifer, develops water reserved by their future use permit, 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 as it pertains to matters of public interest within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by September 16, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by September 16, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at the total approximate cost of_

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, August 28, 2024 1:09 PM
To: tyndalltribune@gmail.com
Subject: 8885-3 Myron and Kim Bierema - Public Notice
Attachments: 8885-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on September 4, 2024, in the Tyndall Tribune & Register.

Myron and Kim Bierema, 30821 412th Avenue, Springfield SD 57062, 605-369-5409 or 605-464-0574 has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol Ave, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Wednesday, August 28, 2024 1:11 PM
To: Kelly Kronaizl
Subject: 8885-3 Myron and Kim Bierema - Public Notice
Attachments: 8885-3 public.short_final.docx; FORM8.FRM.doc

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Let me know if you have questions. Please acknowledge receipt of this email.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



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MYRON / KIM BIEREMA
30821 412TH AVE
SPRINGFIELD SD 57062

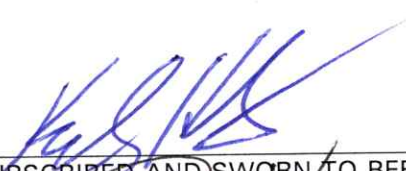
STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

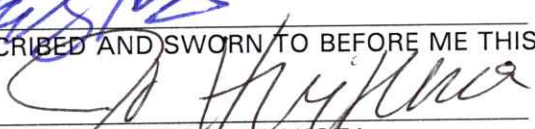
KELLY HERTZ, BEING FIRST DULY SWORN ON OATH DEPOSES
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PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
NOTICE OF APPLICATION NO.

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 4th DAY OF September, 2024
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$45.12 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 09/04/2024

FILED ON: 09/04/24


SUBSCRIBED AND SWORN TO BEFORE ME THIS 4th DAY OF September, 2024


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MY COMMISSION EXPIRES 07/15/2028



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WATER

Ad text :

NOTICE OF APPLICATION NO. 8885-3 to Appropriate Water

Notice is given that Myron and Kim Bierema, 30821 412th Avenue, Springfield SD 57062, have filed an application for a water permit to irrigate an additional 68 acres. Water Right No. 6496-3 authorizes 1.78 cubic feet of water per second (cfs) from one well completed into the Choteau Tyndall Aquifer (220 feet deep) located in the SE 1/4 NW 1/4 Section 33 for irrigation of 136 acres located in the NW 1/4 Section 33; all in T94N-R60W. The applicant proposes to irrigate an additional 68 acres located in the W 1/4 NE 1/4 Section 33-T94N-R60W from the existing well, with no increase in the rate of diversion. This application, if approved, and Water Right No. 6496-3 will authorize the diversion of 1.78 cfs for irrigation of a combined total of 204 acres. This site is located approximately six miles southwest of Tyndall SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8885-3 as a TEMPORARY USE PERMIT because 1) water is available to be appropriated as a temporary use permit until the city of Tyndall, holder of a future use permit from the Choteau Tyndall aquifer, develops water reserved by their future use permit, 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 as it pertains to matters of public interest within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

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Published once at the total approximate cost of \$45.12 and can be viewed free of charge at www.sdpublicnotices.com

Published September 4, 2024.

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WATER

Affidavit of Publication

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County of Bon Homme } SS

Rebecca Tip.....Being first duly sworn
says that the **Tyndall Tribune & Register** is a legal
weekly newspaper for publication of legal and other offi-
cial 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 published in English language in the City of
Tyndall, 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 publication of the notice herein mentioned, and
that it is printed in an office maintained at the place of
publication at Tyndall, South Dakota, and that depen-
dent is the publisher in charge of the advertising depart-
ment of said newspaper; that the advertisement headed

*Notice of Application
No. 8885-3 to Approp. water
123 @ 399*

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

<i>Sept 4</i>20.....	20.....
.....20.....	20.....
.....20.....	20.....
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That the full amount of the fee charged for the publica-
tion of said notice, *\$49.08*, 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 Tip, publisher
Subscribed and sworn to before me this

4 day of *Sept* 20.....*24*.....

Peggy Schell
Notary Public, South Dakota

My Commission expires: 10-24-2021

NOTICE OF APPLICATION

NO. 8885-3 to Appropriate Water

Notice is given that Myron and Kim Bierema, 30821 412th Avenue, Springfield SD 57062, have filed an application for a water permit to irrigate an additional 68 acres. Water Right No. 6496-3 authorizes 1.78 cubic feet of water per second (cfs) from one well completed into the Choteau Tyndall Aquifer (220 feet deep) located in the SE 1/4 NW 1/4 Section 33 for irrigation of 136 acres located in the NW 1/4 Section 33; all in T94N-R60W. The applicant proposes to irrigate an additional 68 acres located in the W 1/2 NE 1/4 Section 33-T94N-R60W from the existing well, with no increase in the rate of diversion. This application, if approved, and Water Right No. 6496-3 will authorize the diversion of 1.78 cfs for irrigation of a combined total of 204 acres. This site is located approximately six miles southwest of Tyndall SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8885-3 as a TEMPORARY USE PERMIT because 1) water is available to be appropriated as a temporary use permit until the city of Tyndall, holder of a future use permit from the Choteau Tyndall aquifer, develops water reserved by their future use permit, 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 as it pertains to matters of public interest within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also

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OFFICE OF
WATER

file a petition. A petition filed by either an interested person or the applicant must be filed by September 16, 2024.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by September 16, 2024.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled, and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Published once at an approximate cost of \$49.08 and can be viewed free of charge at www.sdpublicnotices.com

(Sept. 4)



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

SEP 27 2024

Myron and Kim Bierema
30821 412th Avenue
Springfield SD 57062

Dear Mrs. & Mrs. Bierema:

Enclosed is Temporary Water Permit No. 8885-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8885-3

Name of Applicant: Myron & Kim Bierema

Date of Posting: 9/3/2024

Date of Removal: 9/27/2024

Ron Duvall, Engineer III

9/27/2024

Date

Subscribed and sworn to before me, a notary public, this 27th day of Sept, 2024.

Notary Public - South Dakota

My commission expires: **Rachel Rodriguez**
My Commission Expires
May 16, 2029

(SEAL)

