

WATER PERMIT NO. 7559-3

Name of Applicant: Wademan Peterson

Address: 25563 475th Ave, Renner SD 57055 Phone: 605 543-5537

Amount of Water Claimed: 3.33 cfs Total Acres: 322 acres

Source of Water Supply: groundwater (3-5 wells)

Water to be used for: irrigation County: Minnehaha

Type of Waste Disposal System:

Location: 2 miles north of Renner

PRIORITY Date Received: 12-13-12

Application/License Fee: \$ 1350

Corrected Application Received: 12-17-12

Period of Annual Use: April 1 – September 30

Remarks:

Diversion Point: E 1/2 NW 1/4 Sec 33-T103N-
R49W

Land to be Irrigated: E 1/2 NW 1/4, E 1/2, Sec 33
and W 1/2 SW 1/4 Sec 34; all in T103N-R49W

Depth of Well: 30-35 feet deep

Well Driller: Lacey Well Drilling

Remarks:

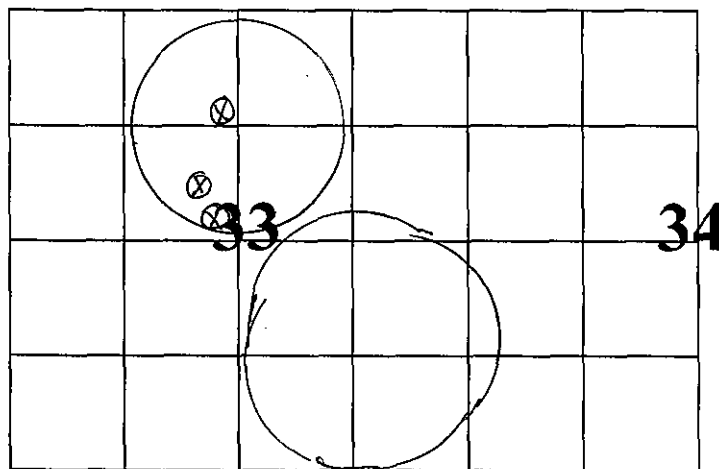
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-17-12

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

(office use only)
No. 7559-3 Hydrologic Unit 16170203
Basin Sioux River
Newspaper Argus Leader PO Box 5034
Sioux Falls 57117 605-331-2200

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Application For Permit To Appropriate Water For Irrigation

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

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

1. Name of Applicant Wade Peterson Phone (605) 543-5537
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 25563 475th Ave Remer SD 57055
(Address) (City) (State) (Zip Code)

2. Amount of water claimed 3.33 *CFS or 1500 **GPM ***AF Total Acreage 322
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply well - newly dug

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Minnehaha

3-5 wells in East 1/2 of NW 1/4 sec. 33-T103-N R49-W

5. County or counties where water will be used Minnehaha

6. Annual period during which water is to be used April through September

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
N 1/2 of E 1/2 of NW 1/4 S 33, T103N, R49W	37	S 1/2 of E 1/2 of NE 1/4 S 33, T103W, R49W	16
S 1/2 of E 1/2 of NW 1/4 S 33, T103N, R49W	37	N 1/2 of W 1/2 of SE 1/4 S 33, T103N, R49W	37
N 1/2 of W 1/2 of NE 1/4 S 33, T103W, R49W	37	S 1/2 of W 1/2 of SE 1/4 S 33, T103N, R49W	37
S 1/2 of W 1/2 of NE 1/4 S 33, T103W, R49W	40	N 1/2 of E 1/2 of SE 1/4 S 33, T103W, R49W	37

8. Give a description of the project. (Attach sheet if more space is needed) S 1/2 of E 1/2 of SE 1/4 S 33, T103W, R49W
Planning on installing 2 new center pivot irrigation systems on the
Wade Peterson ground of S 33, drawing water from newly dug wells, approx. 315 ac.

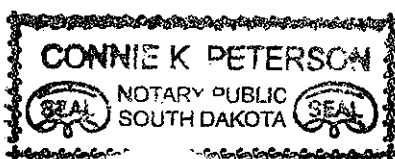
STATE OF SOUTH DAKOTA)
County of Minnehaha) SS

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)

I, Wade Peterson, 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 Wade Peterson

Subscribed and sworn to before me this 06 day of December 20 12



Connie K. Peterson
My Commission Expires Nov 25, 2016

SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 7559-3

Date of first receipt of application December 13, 2012.

Date of return to applicant for corrections, amendments or changes December 13, 2012.

Date of receipt of corrected application December 17, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Temporary Use Water Permit No. 7559-3 to Wademan Peterson, 25563 475th Ave, Renner SD 57055 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. 7559-3 appropriates 3.33 cubic feet of water per second from three to five wells to be completed into the Big Sioux:Sioux Falls Aquifer (30-35 feet deep) located in the E 1/2 NW 1/4 Section 33 for irrigation of 322 acres located in the E 1/2 NW 1/4, E 1/2 Section 33 and W 1/2 SW 1/4 Section 34; all in T103N-R49W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is December 13, 2012.
4. The date of approval of Permit No. 7559-3 is March 11, 2013.
5. One-fifth of the construction is to be completed on or before September 11, 2015.
6. All construction is to be completed on or before March 11, 2018.
7. Water is to be put to beneficial use on or before March 11, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The city of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six month notice prior to cancellation of this temporary use permit.
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary use permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

(continued)

3. The well authorized by Permit No. 7559-3 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.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Jeanne Goodman
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAY 20 2013

date



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Attn: Eric Bronlund, Water Rights

1. 4 pages including cover letter
2. revised maps and acreage estimates

Wademan Peterson application permit
to appropriate water for irrigation

Chad Anderson, 359-0059

FILE COPY

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A. See Revised Maps

1. field outline is in black
2. section divide is a dashed black line
3. outlines of proposed pivots are also included

B. See Below for Revised Acres

NE ¹ / ₄ 1. N ¹ / ₂ of E ¹ / ₂ of NW ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
SE ¹ / ₄ 2. S ¹ / ₂ of E ¹ / ₂ of NW ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
NW ¹ / ₄ 3. N ¹ / ₂ of W ¹ / ₂ of NE ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
SW ¹ / ₄ 4. S ¹ / ₂ of W ¹ / ₂ of NE ¹ / ₄ , Sec. 33 T103N, R49W	38 ac
SE ¹ / ₄ 5. S ¹ / ₂ of E ¹ / ₂ of NE ¹ / ₄ , Sec. 33 T103N, R49W	15 ac
NW ¹ / ₄ 6. N ¹ / ₂ of W ¹ / ₂ of SE ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
SW ¹ / ₄ 7. S ¹ / ₂ of W ¹ / ₂ of SE ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
NE ¹ / ₄ 8. N ¹ / ₂ of E ¹ / ₂ of SE ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
SE ¹ / ₄ 9. S ¹ / ₂ of E ¹ / ₂ of SE ¹ / ₄ , Sec. 33 T103N, R49W	36 ac
NW ¹ / ₄ 10. N ¹ / ₂ of W ¹ / ₂ of SW ¹ / ₄ , Sec. 34 T103N, R49W	8 ac
SW ¹ / ₄ 11. S ¹ / ₂ of W ¹ / ₂ of SW ¹ / ₄ , Sec. 34 T103N, R49W	9 ac
	<u>322 ac</u>

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 30-35
- b) Casing Type PVC Diameter 14" Thickness sch 40
- c) Screen Type Stainless Steel Diameter 14" Thickness 3/16
- d) Gravel Pack Muslatine Length of Gravel Pack 20'
- e) Depth to Top of Water Bearing Material 8-10
- f) Depth to Water (ground surface to water level) 8-10
- g) Distance to nearest existing domestic well:
- On applicant's property 1/2 mile On property owned by others _____

2. Wastewater Disposal System Information

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

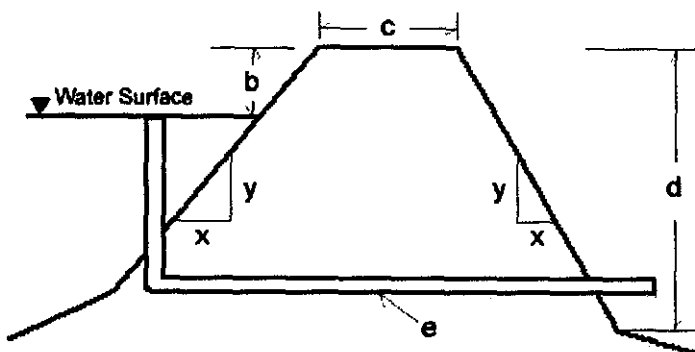
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

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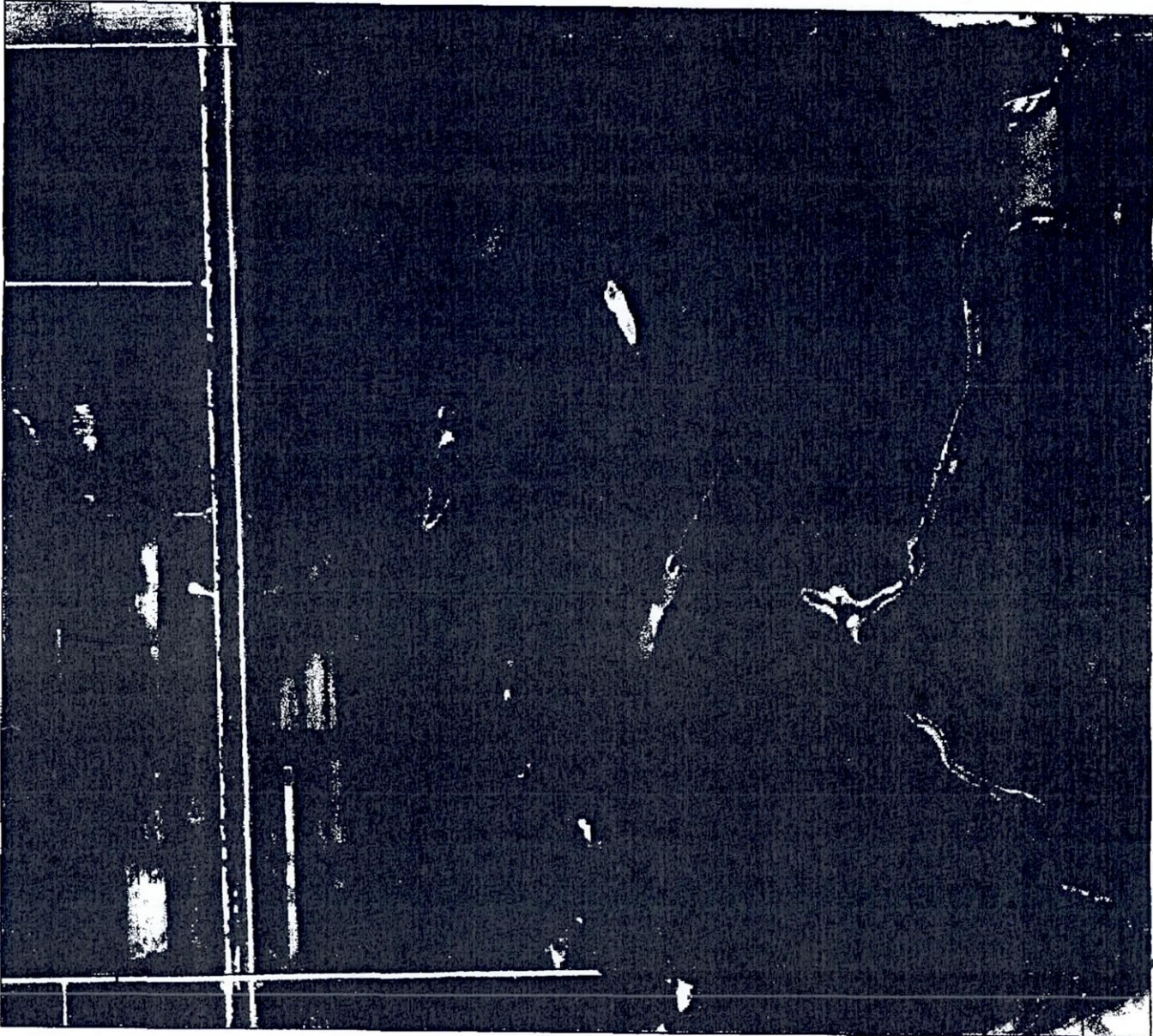
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Wade Peterson

2010 Photography
Agency:

Legal Description: Sec 33- 103-49

- (1) 1320' south of north property boundary and 1295' east of west ~~to~~ property boundary (3) 2580' south of north property boundary and 1290' east of west property boundary



Mary Lou Gacey, Soil Conservationist, NRCS, 12/5/2012

- (4) 2420' south of north property boundary and 1200' east of west property boundary

Legend

hel

☐ Sections

460 0 460 920 1,380 1,840
Feet



① 1320' south of north property boundary and 1295' east of west property boundary

Wade Peterson

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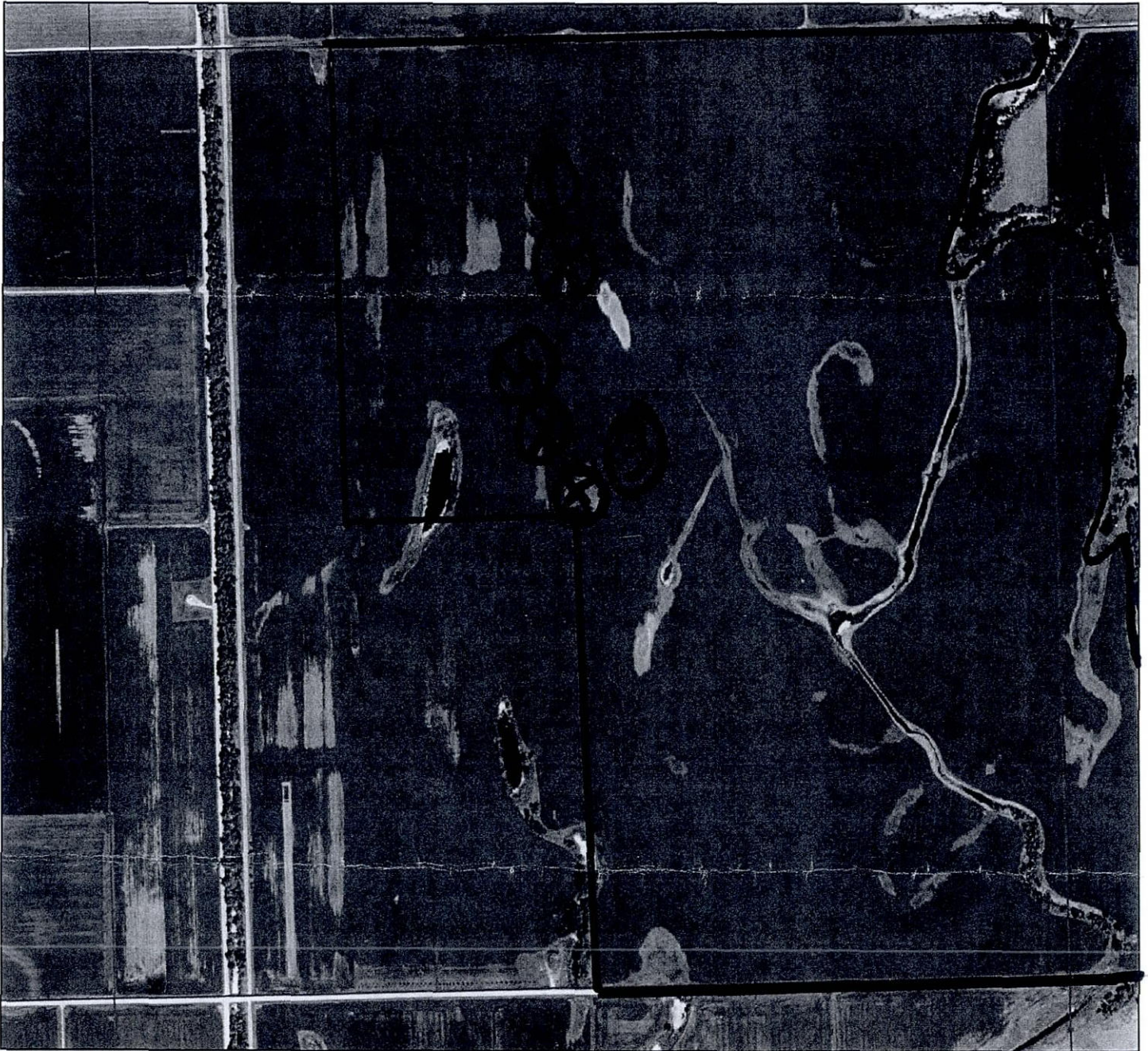
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2010 Photography Agency:

WATER RIGHTS PROGRAM

③ 2580' south of north property boundary and 1290' east of west property boundary

Legal Description: Sec 33- 103-49



Marylon Gacey, Soil Conservationist, NRCS, 12/5/2012

④ 2420' south of north property boundary and 1200' east of west property boundary

Legend

- hel
- Sections



460 0 460 920 1,380 1,840 Feet



Automatic Irrigation Inc.



1111 Railway ST
Centerville, SD 57014
605-563-2649 office

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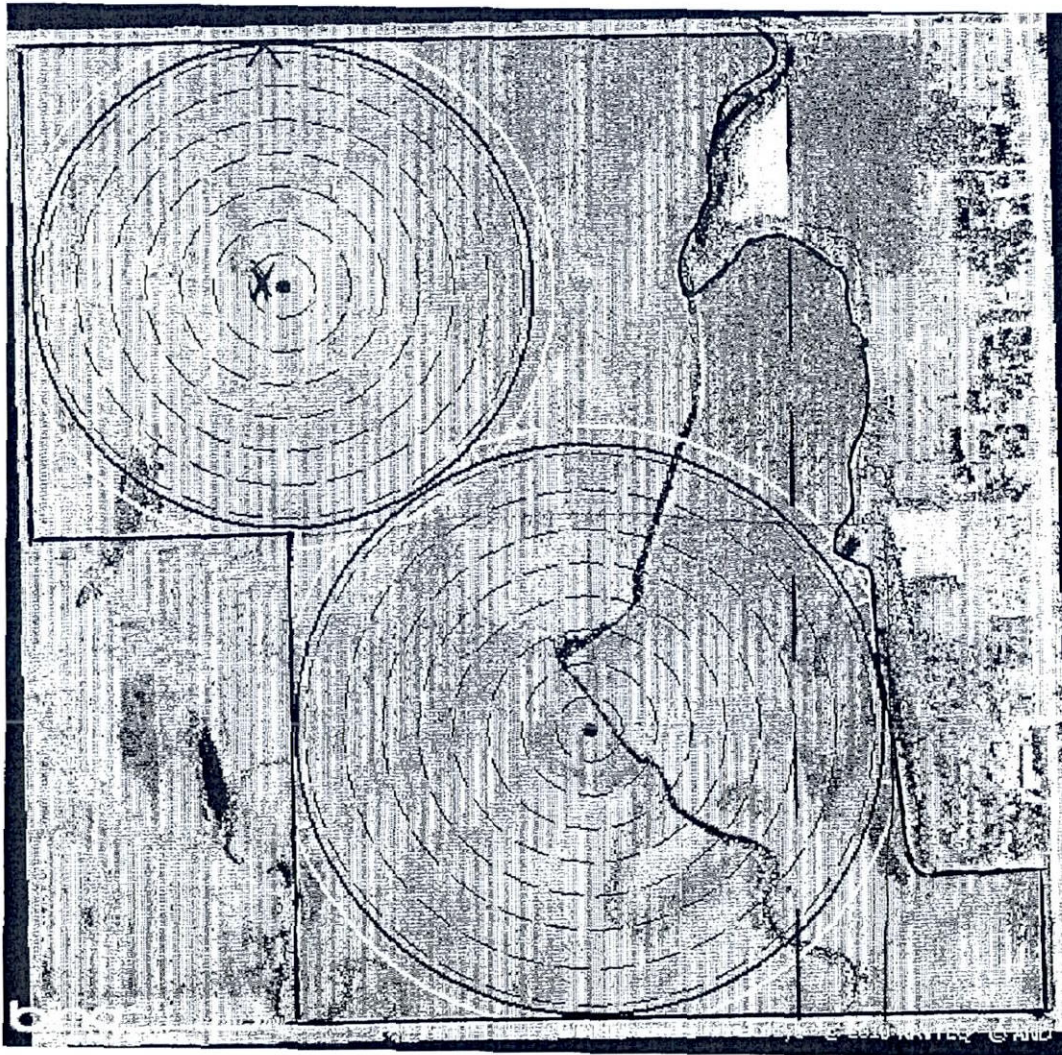
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Farm: Field1

Grower: Chad Anderson

11/27/2012

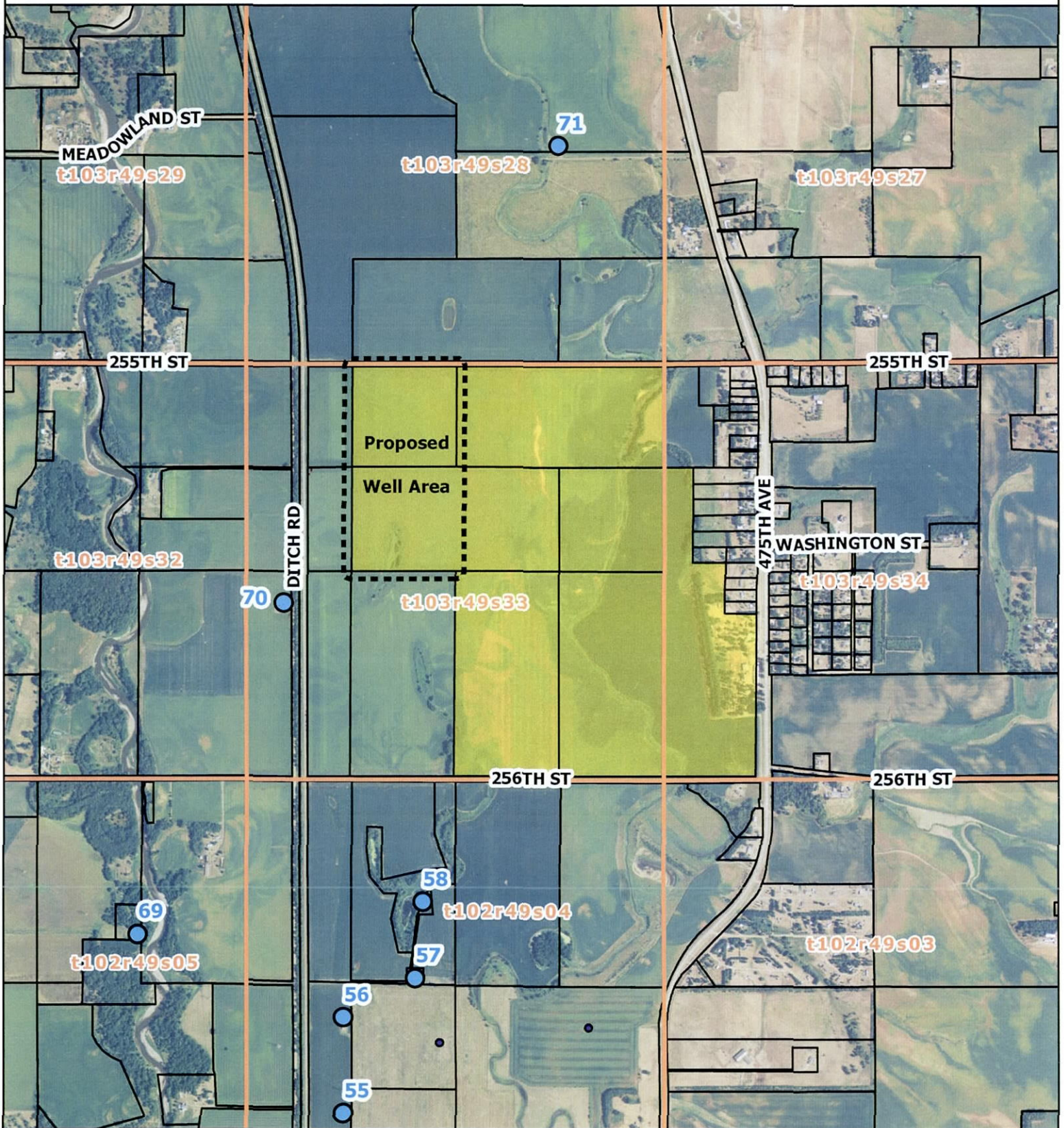
Systems:	Length	Spans	Total area including endgun
● Pivot 1	1525.08 ft	8 spans + 44 ft o.h.	181.24 acres
● Pivot 3	1303.67 ft	7 spans + 44 ft o.h.	136.89 acres





Water Permit Application 7559-3

Proposed wells to be located in the East Half of the NW Quarter of Section 33,
T 103 N, R 49 W of the 5th P.M., Minnehaha County, South Dakota



0 1,000 2,000
Feet

Map Date: March 1, 2013
Image Source: NAIP 2012

- City Well
- Proposed Well Area
- Area Served by Wells

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South Dakota Department of Environment and Natural Resources

Date 12/13, 2012

RECEIVED OF Led Percelin Inc 47880 244th St Dell Rapids 57022

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

Fee for Application for Permit No. <u>7559-3</u> to Appropriate Water, to construct and to put water to beneficial use	1150	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>7559-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1350 00

No. **05764**

By

[Signature]
Chief Engineer

Wells — Pumps
Dewatering Work
Test Drilling

In Water Since 1946

LACEY WELL DRILLING, INC.

47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979

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12-4-12

Down-Hole Camera
Water Specialists
Irrigation Supplies

Test holes
Done 12-3-12

Chad Anderson

1110 Wyland Dr.

Dell Rapids, S. Dak. 57022
(Farmer)

90 Wademan Peterson
25563 475th Ave
Renner, S. Dak. 57055
(owner)

#1 0-4 Topsoil
4-6 Yellow Clay
6-15 Brown Sand
15-30 Grey Good Gravel
30 Blue Clay
SWL - 10'
Est. 500 GPM

#3 0-4 Topsoil
4-6 Yellow Clay
6-15 Sand
15-27 Good Gravel
27' Blue Clay
8' SWL
Est. 500 GPM

#4 0-4 Topsoil
4-6 Yellow Clay
6-12 Sand
12-28 Good Gravel
28' Blue Clay
SWL - 9'
Est 500 GPM

Drilled by: LACEY Well Drilling
Ln: III

Driller: JOAN Redden Lacey
Joan Redden Lacey



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

December 13, 2012

Wademan Peterson
25563 475th Ave
Renner SD 57055

Dear Mr. Peterson:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Minnehaha County. In order to complete the application, the following needs to be clarified.

- Enclosed is the application and aerial photo map. The area outlined in black on map includes some acreage in Section 34. Is it your intent to irrigate acreage in Section 34? If so, how many acres? Will this be in addition to the 315 acres identified in Item No. 7 of the application? If so, please add the acreage to the application.

If you have any questions, please contact me.

Sincerely,

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

enclosures

City of Sioux Falls



CITY OF SIOUX FALLS
PUBLIC WORKS

Providing a Better Quality of Life for You!

Administration

224 West Ninth Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8600 F: 367-8114

Engineering/Real Estate

224 West Ninth Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8601 F: 367-4310

Environmental

1203 North Western Avenue
Sioux Falls, SD 57104-1201
T: 605-367-8276 F: 367-4886

Fleet Management

1000 East Chambers Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8240 F: 367-8239

GIS

132 North Dakota Avenue
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8651 F: 367-8113

Household Hazardous Waste Facility/Sustainability

1015 East Chambers Street
Sioux Falls, SD 57104-7200
T: 605-367-8695 F: 367-4993

Landfill

224 West Ninth Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8162 F: 367-8167

Light

2000 North Minnesota Avenue
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-373-6979 F: 373-6974

Street

1000 East Chambers Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8255 F: 367-8200

Utility Billing

1201 North Western Avenue
P.O. Box 7401
Sioux Falls, SD 57117-7401
T: 605-367-8131 F: 367-7341

Utility Maintenance

668 West Algonquin Street
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-367-8810 F: 367-7883

Water Purification

2100 North Minnesota Avenue
P.O. Box 7402
Sioux Falls, SD 57117-7402
T: 605-373-6940 F: 373-6941

Water Reclamation

4500 North Sycamore Avenue
Sioux Falls, SD 57104-9612
T: 605-367-8188 F: 367-8484

March 6, 2013

Garland Erbele, Chief Engineer
Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

Dear Mr. Erbele:

Thank you for sharing the information outlining the details of water permit application no. 7559-3. The staff from Water Purification reviewed the details of this temporary use permit and at this time we will not be opposing or contesting the application.

We have confidence in the judgment of the Chief Engineer and the Water Rights Program to make the best water right management decision for all permitted users.

The proposed irrigation wells have been identified to be within 0.4 miles of our horizontal collector well #70 (Water License no. 6215). This well was a large investment to the City of Sioux Falls and heavily relied upon during the high demand summer months to supply water for the City of Sioux Falls.

The Engineer's report states interference is likely to occur but not to a point that will adversely impact the City's well. The City of Sioux Falls would request that the Chief Engineer define the level of impairment that would trigger a change in withdrawal rate in the temporary use permit to protect the City's withdrawal rate in well #70.

Well #70 was built with real time monitoring and tracking data for static levels, pumping levels, and pumping rates. The City of Sioux Falls will be able to identify a reduction in well capacity if adversely impacted by the irrigation wells.

The City of Sioux Falls is looking for a defined reduction percentage in static levels and pumping levels observed in well #70 that would trigger action to reduce the pumping rates in the irrigation wells. The City of Sioux Falls believes this will clearly identify the criteria for both parties and help eliminate future questions and challenges.

If the Chief Engineer will outline the requested operating parameters and answer this question, the City of Sioux Falls will be satisfied the withdrawal rate for Well #70 will be protected and all possible future problems and questions will be removed.

If you have any comments or questions please contact me at (605) 373-6944.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Anderson".

Greg Anderson
Water Superintendent
Water Purification Plant
2100 N. Minnesota Ave
Sioux Falls, SD 57104

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MAR - 8 2013

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**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

March 19, 2013

Chad Anderson
1110 Wyland Drive
Dell Rapids, SD 57022

Dear Mr. Anderson:

This letter is a follow up to our telephone conversation March 19th. Enclosed are copies of the letter and map sent to us by the City of Sioux Falls regarding your Water Permit Application No. 7559-3. As discussed an observation well half way between your proposed well and Sioux Falls Well #70, as marked on the enclosed map, may afford you some protection if the City of Sioux Falls were to claim impairment of their well. If you have any questions or concerns regarding these enclosures feel free to contact us.

Very truly yours,


ERIC GRONLUND
Water Rights Program
(605) 773-3352

enclosure: letter and map



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

April 23, 2013

Greg Anderson
Water Superintendent
Water Purification Plant
2100 N. Minnesota Ave
Sioux Falls, SD 57104

Dear Mr. Anderson:

This letter is a follow-up to your March 6, 2013 letter that stated the City of Sioux Falls would not be opposing or contesting Water Permit Application No. 7559-3 for Wademan Peterson. The DENR-Water Rights Program will proceed with issuance of Water Permit Application No. 7559-3 as a temporary use permit from the Sioux Falls management unit of the Big Sioux aquifer.

DENR-Water Rights staff contacted Chad Anderson, the tenant, who in turn contacted Wademan Peterson, the landowner and water permit applicant. Staff advised Mr. Anderson that the well(s) he intends to construct must be located as far to the east as possible to maximize the distance from Sioux Falls well #70. DENR also advised the permit holder to construct and monitor an observation well approximately half-way in between the irrigation well(s) and the city's well.

Since the proposed irrigation well(s) would be junior to Sioux Falls Well #70, the permit holder will be required to control his withdrawals so there is not a reduction of needed water supplies. Any claim of impairment will be investigated by DENR-Water Rights Program staff. Since there have been no petitions in opposition to the approval of Water Permit Application No. 7559-3, the DENR-Water Rights Program will proceed with issuance of this application as a temporary use permit from the Sioux Falls management unit of the Big Sioux aquifer.

Sincerely,

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

c: Chad Anderson and Wademan Peterson



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT APPLICATION
NO. 7559-3, Wademan Peterson**

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. 7559-3, Wademan Peterson, 25563 475th Avenue, Renner SD 57055.

The Chief Engineer is recommending APPROVAL of Application No. 7559-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the city of Sioux Falls develops water reserved from its future use permit, 2) the proposed diversion can be developed as a temporary use permit 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 city of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six month notice prior to cancellation of this temporary use permit.
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary use permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.
3. The well authorized by Permit No. 7559-3 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.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
February 19, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7559-3
WADEMAN PETERSON
FEBRUARY 19, 2013

Water Permit Application No. 7559-3 proposes to appropriate up to 664 acre-feet annually (ac-ft) at a maximum diversion rate of 3.33 cubic feet of water per second from three to five wells that will be completed in the Sioux Falls management unit of the Big Sioux aquifer. The wells are expected to be approximately 30 to 35 feet deep and be located in E ½ NW ¼ Section 33, T103N-R49W. This permit application proposes to irrigate 332 acres located in the E ½ NW ¼, E ½ Section 33 and W ½ SW ¼ Section 34; all in T103N-R49W in Minnehaha County.

AQUIFER: SIOUX FALLS MANAGEMENT UNIT OF THE BIG SIOUX AQUIFER (BS:SF)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Sioux Falls management unit of the Big Sioux aquifer is an alluvium mantled, glacial outwash deposit, which consists of silt, fine to coarse sand, and gravel (Buhler, 2011). The management unit underlies approximately 22,900 acres in Minnehaha County and contains an estimated 103,050 ac-ft of recoverable water in Minnehaha County (Hedges et. al, 1982). Most of the aquifer is under the flood plain of the Big Sioux River (Lindgren and Niehus, 1992). The aquifer is bounded to the north (near Dell Rapids) and on the south (Sioux Falls) by the relatively impermeable Sioux Quartzite (Buhler, 2011). The aquifer tends to be under unconfined conditions, and the water in the aquifer tends to move south and towards the Big Sioux River (Lindgren and Niehus, 1992). Three test hole logs were submitted with this application. The test hole logs indicate 21 to 24 feet of sand and gravel from 6 to 30 feet below grade. The test holes had static water levels ranging from 8 to 10 feet below ground surface on December 03, 2012.

SDCL 46-2A-9

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

WATER AVAILABILITY:

In the Sioux Falls management unit water availability must be evaluated in two ways: (1) by considering SDCL 46-6-3.1, and (2) by considering the appropriation with respect to the November 14, 1991, Water Management Board declaratory ruling (Water Rights, 1992). This application proposes to appropriate up to 644 ac-ft/yr from the Big Sioux: Sioux Falls aquifer. If this application is approved, the actual water use will likely be less than the proposed appropriation. SDCL 46-6-3.1 requires that "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source."

Observation Well Analysis:

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

The DENR-Water Rights Program monitors 12 observation wells completed in the Big Sioux: Sioux Falls (Water Rights, 2013a). A hydrograph for the observation wells is shown in figure 1. Observation well MA-80J is approximately one-half mile northwest from the proposed well sites. The hydrograph for MA-80J is shown in figure 2. The combined hydrograph for all of the observation wells, figure 1, shows that at the current level of appropriation climatic conditions greatly mask the temporal impacts of well withdrawals. Therefore, recharge to and natural discharge from the Big Sioux: Sioux Falls aquifer significantly exceeds pumping. Recognizing that natural discharge from the aquifer can be captured for pumping, the hydrographs document that additional water can be pumped from the aquifer.

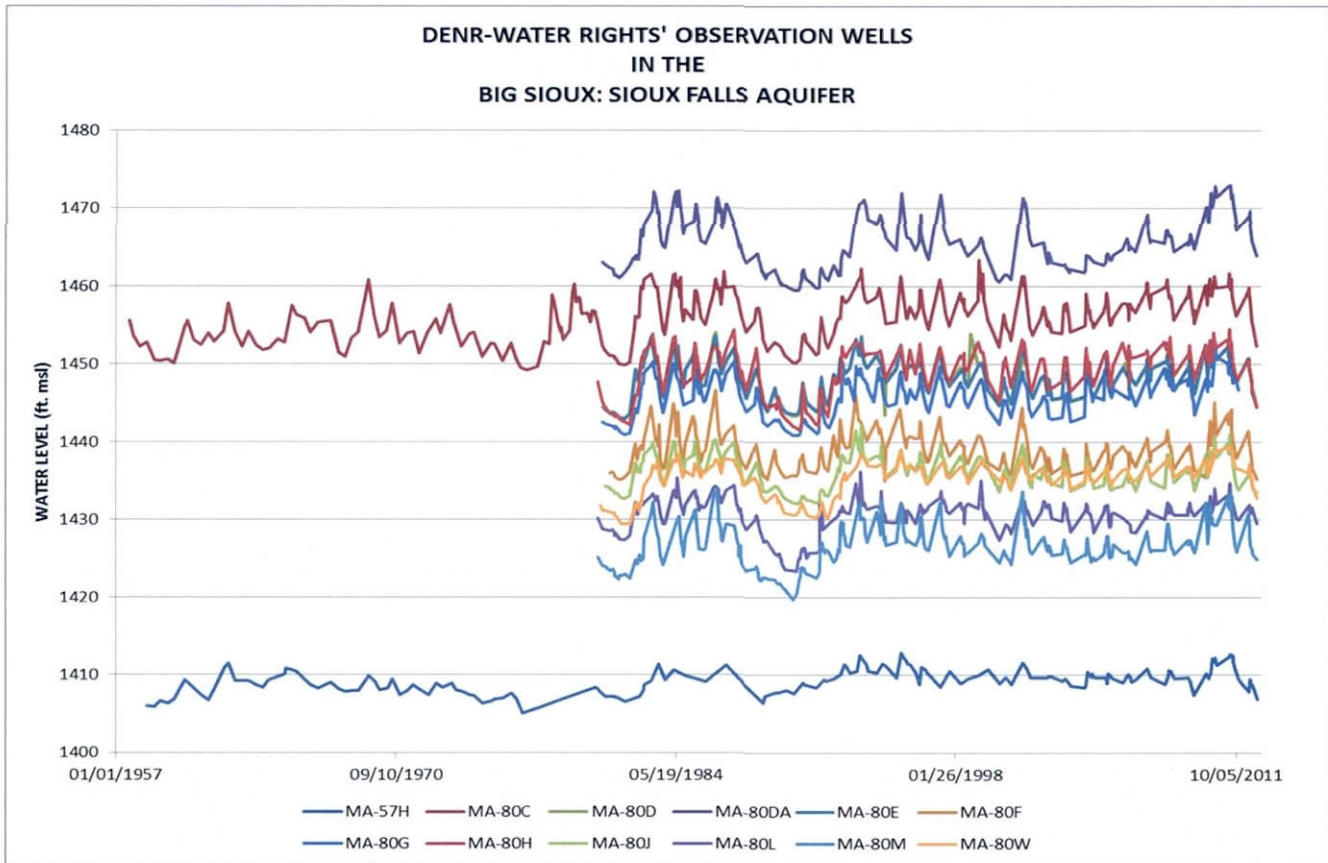


Figure 1- Hydrograph of all observation wells completed into the Big Sioux: Sioux Falls aquifer (modified from Buhler, 2012)

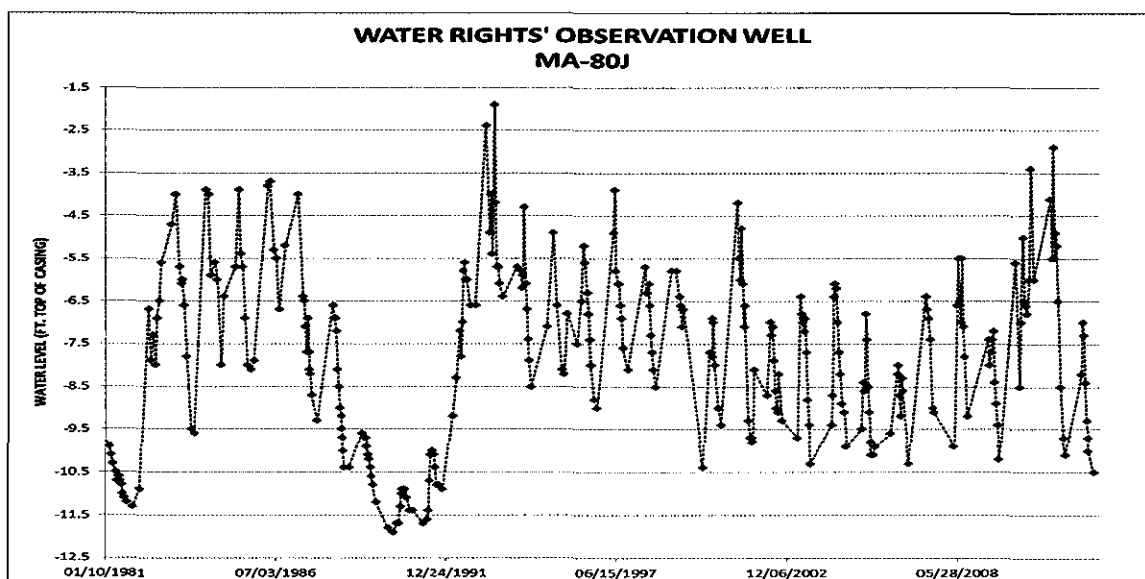


Figure 2- Hydrograph for observation well MA-80J (Water Rights, 2013a)

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: Sioux Falls aquifer is primarily through infiltration of precipitation, and streamflow losses. Estimates of average annual recharge to the aquifer are shown in table 1.

Investigator	Method of Analysis	Avg. Annual Recharge
Hedges et. al, 1985	Base flow recession	12,404 ac-ft/yr
Hedges et. al, 1985	Observation Well	10,686 ac-ft/yr
Hedges et. al, 1985	Flow Net	1,908 ac-ft/yr
Koch, 1982	Computer Model	13,200 ac-ft/yr

Table 1- Average annual recharge estimates for the Big Sioux: Sioux Falls aquifer

Discharge:

Discharge from the aquifer occurs through evapotranspiration, discharge to the Big Sioux River, possibly through leakage to underlying aquifers, and from well withdrawals. There are a number of domestic wells on file with the DENR-Water Rights Program that are supplied by this aquifer. However, the water use by the domestic users is insignificant compared to the use by appropriative users. There are currently a total of 73 appropriations from the aquifer, including 56 water rights, 12 water permits, and five future use permits (Water Rights, 2013b). Included in these appropriations are five that were issued as temporary use water permits pursuant to SDCL 46-5-39. The major water users from the aquifer are: (1) the City of Sioux Falls, (2) Minnehaha Community Water Corporation (MCWC) and (3) irrigators. Reported pumpage in acre-feet from the Sioux Falls management unit by these users is shown in table 2.

Year	Sioux Falls (ac-ft/yr)	MCWC (ac-ft/yr)	Irrigation (ac-ft/yr)	Total (ac-ft/yr)
2011	22278.2	2662	330.39	25270.59
2010	19999.8	2468	144.02	22611.82
2009	16713	2552	231.81	19496.81
2008	13113	2725	331	16169
2007	14992	2722	341	18055
2006	17540	2888	374	20802
2005	16712	2661	473	19846
2004	12284	2636	421	15341
2003	11402	2630	440	14472
2002	6788	2405	459	9652
2001	12873	2314	359	15546
2000	9014	2219	494	11727
1999	11507	2098	414	14019
1998	11647	1967	294	13908
1997	12382	1841	467	14690
1996	10586	1967	246	12799
1995	8211	1752	240	10203
1994	10597	1722	253	12572
1993	9956	1489	124	11569
1992	12334	1458	160	13952
1991	10257	1400	409	12066
1990	17788	1253	473	19514
Max	22278.2	2888	494	25660.2
Min	6788	1253	124	8165
Avg	13135.2	2174.0	339.9	15649.1

Table 2- Water use reported from the Sioux Falls management unit (modified from Buhler, 2012)

There are eight other water users in the Sioux Falls management unit that are not shown in table 2. These appropriations are shown in table 3. The estimated average annual water use by the appropriations shown in table 3 is expected to be approximately 529 ac-ft/yr. This estimation assumes pumping 60 percent of the time at the maximum permitted diversion rate.

Permit No.	Name	Status	Type	CFS	Acres
4620-3	Climate Systems Inc	LC	GEO/IRR	0.4	1.25
4843-3	KOA Kampgrounds of Sioux Falls	LC	COM/DOM	0.15	0
4880-3	Henry Carlson	LC	GEO	0.06	0
5019-3	Midwest Lawn Care Corp	LC	COM	0.23	0
5681-3	St. Michael Cemetery	LC	COM	0.06	0
7174-3	The Truck Washout	LC	COM	0.5	0
7247-3	Sioux Falls Regional Airport	PE	IRR/COM	0.18	8

Table 3- Water rights/permits appropriating water from the Big Sioux: Sioux Falls aquifer that are not accounted for in table 2 (Water Rights, 2013b)

Hydrologic Budget:

A comparison of estimated annual recharge (table 1) to average annual withdrawal (table 2 and table 3) indicates that the average quantity of water withdrawn from the aquifer annually exceeds estimated annual recharge by 2,978 ac-ft. That would amount to a decrease of 2.89 percent of the estimated recoverable water in storage in the aquifer. That large of a reduction of water in storage would be

noticeable in the hydrographs as declining water levels. The hydrographs do not show a sustained downward trend in water level, and therefore, do not support the average annual recharge estimates.

1991 Declaratory Ruling:

On November 14, 1991, through a declaratory ruling, the Water Management Board (Board) established a limitation on the annual withdrawals due to pumping by Water Permit/Right holders from the Sioux Falls management unit of the Big Sioux aquifer to 32,200 ac-ft per year (Water Rights, 1992). When this limit is approached, water use will be restricted on a priority basis until withdrawals do not exceed 32,200 ac-ft/yr. The practical effect of the limit allows for management of the aquifer on a priority basis if necessary. At the current level of development it is not likely that withdrawals from appropriative users will equal 32,200 ac-ft/yr. However, development of the 8,675 ac-ft/yr, shown in table 4, that has been reserved for future use could cause annual pumping to reach the established annual limitation. If the limit of 32,200 ac-ft/yr of pumping were reached water use would be restricted on a priority basis so withdrawals do not exceed 32,200 ac-ft/yr.

Permit No.	Name	Reserved Volume (ac-ft)
448-3	City of Sioux Falls	3842
4838-3	Minnehaha Comm Water Corp	0
4838A-3	Minnehaha Comm Water Corp	33
5523-3	City of Sioux Falls	4050
5716-3	Minnehaha Comm Water Corp	750
Total		8675

Table 4- Future Use Permits reserving water from the Big Sioux: Sioux Falls (Water Rights, 2013b)

Temporary Use Permits:

On June 28, 1957, the Water Rights Commission, now known as the Water Management Board, approved Future Use Permit No. 448-3. That permit reserved 46.8 cfs from the Big Sioux: Sioux Falls aquifer for future use by the City of Sioux Falls. Currently, 3,842 ac-ft/yr remains reserved by this permit from the future use area shown in Figure 3. Fourteen previous applications have been filed to appropriate water from within the area specified by Future Use Permit No. 448-3. Those applications are shown in table 5.

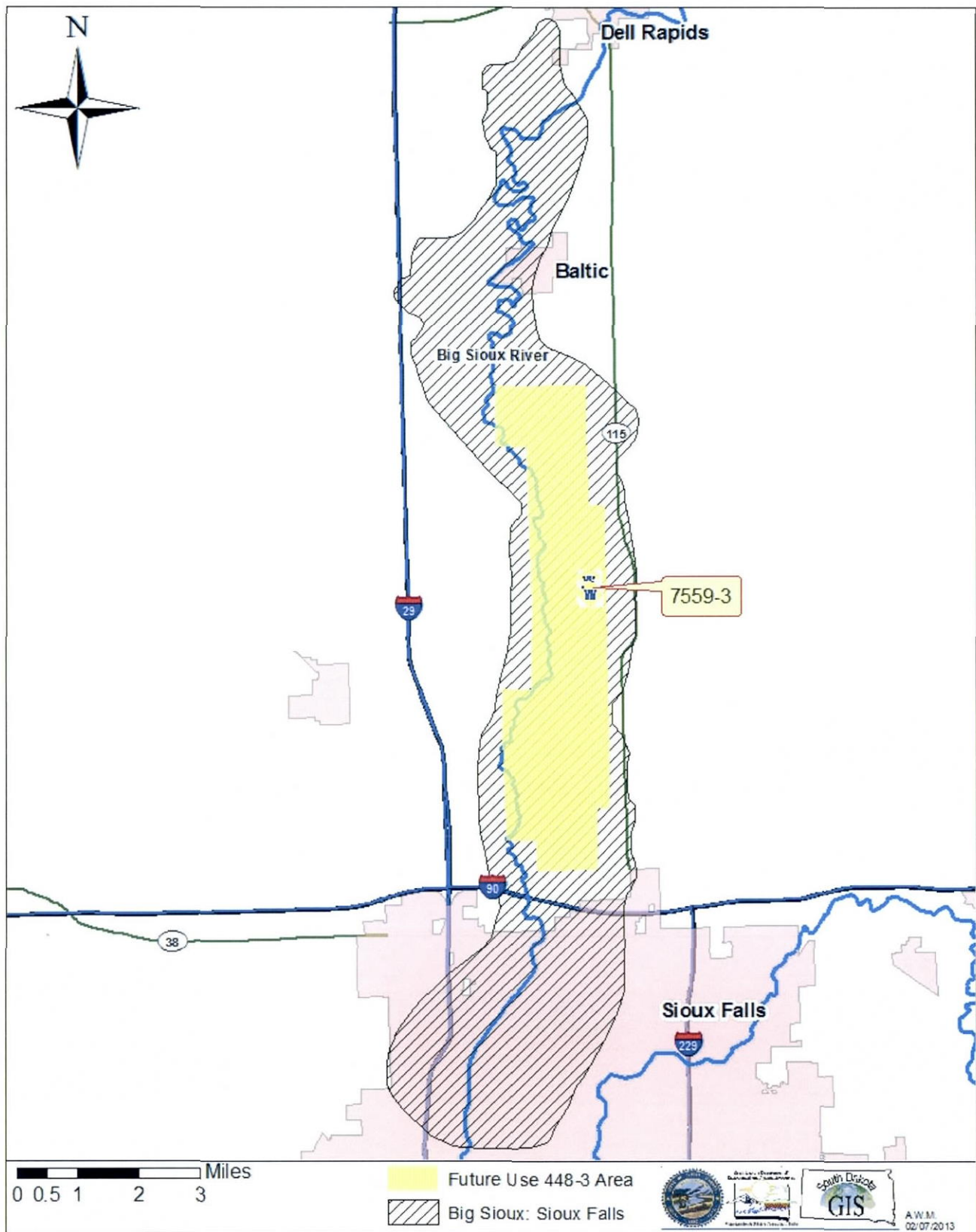


Figure 3- Map of the Big Sioux: Sioux Falls aquifer, the future use area for Future Use Permit 448-3, and the proposed wells sites (Hedges et.al, 1982 and Water Rights, 2013b)

Permit No.	Name	Priority Date
656-3	Clarence Machmiller	08/28/1959
1270-3	R.C. Sweetman	02/23/1966
1271-3	E.M. Sweetman	02/23/1966
1790-3	Lincoln County RWS	11/23/1970
1968-3	Gene Williams	NA
1969-3	Gene Williams	NA
2047-3	Val K. Beckman, Midway Farms, Inc	02/13/1974
2244-3	Dale Swartz	04/08/1975
4034-3	E.M. Sweetman	05/13/1977
5966-3	Michael G. Williams	11/06/1996
5967-3	Michael G. Williams	11/06/1996
6008-3	Herman Brende	06/06/1997
7430-3	Michael G. Williams	09/10/2012
7431-3	Michael G. Williams	09/10/2012
Application No. 1968-3 was withdrawn in 1975 and Application No. 1969-3 was withdrawn as a condition of Temporary Permit Nos. 5966-3 and 5967-3 in 1997		

Table 5- Water permit applications with diversion points within the future use area as defined by Future Use Permit 448-3 (modified from Buhler, 2012)

Applications shown in table 5 with priority dates of 05/13/1977 and earlier were approved with the following condition, except Application No. 1790-3:

“The City of Sioux Falls has priority rights to the water under future use withdrawal permits, and this application is approved subject to these prior rights if or when the city develops the reserve water supplies.”

Water Permit Application Nos. 5966-3, 5967-3, 6008-3, 7430-3, and 7431-3 were approved as temporary use permits pursuant to SDCL 46-5-39. SDCL 46-5-39 allows the Water Management Board to authorize a temporary appropriation of the water from the unused portion of a future use permit; however, 46-5-40 states that the temporary use permits would be effective only until such time as the future use holder wants to use the water covered by the temporary use permit. The holder of the temporary use permit would then be given six months of notice and the permit would be canceled at the end of six months.

EXISTING WATER RIGHTS:

An unlawful impairment of groundwater rights may be due to well interference which is the overlapping of drawdown cones of depression of two or more wells, or from a cumulative effect in which the water level of the entire aquifer has been lowered as result of extended interim between withdrawal and recharge causing an “overdraft” from storage. In either case, mitigation may be necessary for pumping by junior priority rights to continue.

Well Interference:

There are a number wells authorized by water rights/permits and several domestic wells within approximately one mile of the proposed well sites. The nearest well to the proposed well site is City of Sioux Falls Well #70, which is approximately 0.4 miles west-southwest (Water Rights, 2013c). Interference is likely to occur, however since the Big Sioux: Sioux Falls aquifer is under unconfined conditions, the cone of depression caused by pumping is not expected to extend very far from the

pumped well. Any interference caused by this appropriation is not expected to be adverse due to the distances between existing wells and the proposed well sites.

Cumulative effect:

Since the Water Management Board's November 14, 1991 "Declaratory Ruling Regarding the Decline of the Water Levels in Private Domestic Wells in the Big Sioux Aquifer: Sioux Falls management Unit", new appropriations have included the following qualification to ensure protection of domestic users and prior appropriators from any cumulative withdrawal impacts:

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

CONCLUSIONS:

1. This application proposes to appropriate up to 644 ac-ft/yr at a maximum diversion rate of 3.33 cfs for the irrigation of 322 acres.
2. The Sioux Falls management unit of the Big Sioux aquifer is a viable aquifer in this area.
3. The Big Sioux: Sioux Falls is heavily appropriated.
4. The SD DENR-Water Rights Program observation wells do not show that average annual withdrawals exceed average annual recharge.
5. The Water Management Board has established a limit to the amount of water pumped from the Big Sioux: Sioux Falls to 32,200 ac-ft/yr and if that limit is reached water use will be restricted on a priority date basis.
6. At the current level of development, fully developing the future use reservations would likely cause average annual withdrawals to approach or exceed the 32,200 ac-ft/yr limit.
7. Based on the November 14, 1991 Water Management Board declaratory ruling, there is not a reasonable probability that unappropriated water is available for this proposed appropriation.
8. Water is available from the Big Sioux: Sioux Falls aquifer through a temporary use permit issued pursuant to SDCL 46-5-39.
9. Pursuant to SDCL 46-5-40, a temporary use permit would be effective only until such time as the future use holder wants to use the reserved water.
10. A temporary use permit can be canceled after a six month notice is given.

11. If approved, this permit should contain the same qualifications as all other permits issued from this aquifer since the November 14, 1991 Water Management Board's declaratory ruling hearing regarding impairment. The qualification reads:

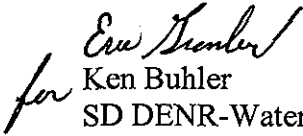
"If development and pumping of the well authorized by the temporary use permit results in impairment of adequate domestic wells or adequate wells having prior water rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative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

12. There is a reasonable probability that the diversion proposed by the application can be made without unlawful impairment of existing appropriative or domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:


for Ken Buhler

SD DENR-Water Rights Program

REFERENCES:

- Buhler, K.A. 2012. Report on Water Permit Application No. 7430-3 and 7431-3 Michael G. Williams. SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Buhler, K.A. 2011. Report on Water Permit Application No. 7247-3 Sioux Falls Regional Airport. SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Koch, N.C. 1982. A Digital-Computer Model of the Big Sioux Aquifer in Minnehaha County, South Dakota. Water-Resources Investigations Report 82-4064. U.S. Geological Survey. Huron, SD.
- Lindgren, R.J. and C.A. Niehus. 1992. Water Resource of Minnehaha County, South Dakota. Water-Resources Investigations Report 91-4101. U.S. Geological Survey. Huron, SD.
- Water Rights. 1992. "November 14,1991 Water Management Board Minutes". S.D. DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013a. Observation Well files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

CUSTOMER NUMBER:	078200	Argus Leader P.O. Box 677349, Dallas, TX 75267-7349	
AD ORDER NUMBER:	1408378		
	2/28, 2013		\$69.52pd

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MAR - 4 2013

WATER RIGHTS PROGRAM

Chad Anderson
% Wademan Peterson
25563 475th Ave
Renner, SD 57055

DETACH THIS STUB AND RETURN WITH PAYMENT

AFFIDAVIT OF PUBLICATION-

Customer Number: 078200
Invoice Number: 1408378

Argus Leader
AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

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

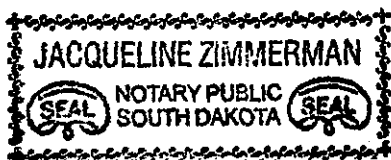
Thursday the 28 day of February 2013 ,
the day of 2013 ,
the day of 2013 ,
the day of 2013 ,
the day of 2013 ,
the day of 2013 ,
the day of 2013 ,

and that \$69.52pd was charged for publishing the same

Linda Schulte
Subscribed and sworn to before me 2/28/2013

J. Zimmerman
Notary Public, South Dakota

My Commission expires December 22, 2015



NOTICE OF APPLICATION NO. 7559-3 to Appropriate Water
Notice is given that Wademan Peterson, 25563 475th Ave, Renner SD 57055 has filed an application for a water permit to appropriate 3.33 cubic feet of water per second from three to five wells to be completed into the Big Sioux/Sioux Falls Aquifer (30-35 feet deep) located in the E 1/2 NW 1/4 Section 33 for irrigation of 322 acres located in the E 1/2 NW 1/4, E 1/2 Section 33 and W 1/2 SW 1/4 Section 34; all in T103N-R49W.
Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7559-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the city of Sioux Falls develops water reserved from its future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.
Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD, 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 11, 2013.
The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
Published once at the total approximate cost of \$69.52.
1408378 Feb. 28, 2013



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 20, 2013

Argus Leader
PO Box 5034
Sioux Falls SD 57117

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7559-3 to Appropriate Water. Please publish the notice once on February 28, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Wademan Peterson, 25563 475th Ave., Renner SD 57055 (Ph # 605-543-5537).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
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denr.sd.gov

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.

February 20, 2013

Wademan Peterson
25563 475th Ave
Renner SD 57055

Dear Mr. Peterson:

Water Permit Application No. 7559-3 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 Argus Leader printed at Sioux Falls SD (Ph # 605-331-2200). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

cc: Chad Anderson, 1110 Wyland Drive, Dell Rapids SD 57022
enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Instruction to Newspaper - Publish the Notice on February 28, 2013. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7559-3 to Appropriate Water

Notice is given that Wademan Peterson, 25563 475th Ave, Renner SD 57055 has filed an application for a water permit to appropriate 3.33 cubic feet of water per second from three to five wells to be completed into the Big Sioux:Sioux Falls Aquifer (30-35 feet deep) located in the E 1/2 NW 1/4 Section 33 for irrigation of 322 acres located in the E 1/2 NW 1/4, E 1/2 Section 33 and W 1/2 SW 1/4 Section 34; all in T103N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7559-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until the city of Sioux Falls develops water reserved from its future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 11, 2013.

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

Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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denr.sd.gov

MAY 20 2013

Wademan Peterson
25563 475th Ave
Renner SD 57055

Dear Mr. Peterson:

Enclosed is Temporary Use Water Permit No. 7559-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

7559-3

07-92

Location NW 1/4 NW 33 Twp 103-N Rg 49-W

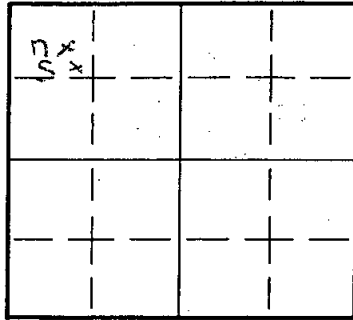
County

Minnehaha

Please mark well location with an "X"

W

E



Well-Completion Date

8-9-13

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 14 ft. from creek (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket-fake Casing

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other, describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>11 25</u> LB/FT	<u>14</u> IN	<u>12</u> FT	<u>21</u> FT	<u>20</u> IN
<u>5 25</u> LB/FT	<u>14</u> IN	<u>12</u> FT	<u>23</u> FT	<u>20</u> IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>		lb./gal	<u>0</u> ft	<u>7</u> ft
<u>Cement</u>		lb./gal	<u>0</u> ft	<u>7</u> ft

Describe grouting procedure _____

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 14 IN Length 7-10 5-10 FEET
 Material C1 160 PVC
 Slot Size .100 Set From 21 Feet to 31 Feet 7
 Other information 23 33 5

WAS A PACKER OR SEAL USED?

☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION:

Was well disinfected upon completion?

Laboratory sent to for water quality analysis

X YES, How: _____

NO, Why Not? _____

Chlorine in Park

Well Owner: Wade Peterson

Business Name: _____

Address: 25563 475th Ave
Reno, South Dakota 57055

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>0-3 Topsoil</u>	<u>Till</u>	<u>0</u> <u>5</u>
<u>3-9 clay streak</u>	<u>Gravel</u>	<u>5</u> <u>11</u>
<u>9-20 Sand</u>	<u>Gravel</u>	<u>11</u> <u>31</u>
<u>20-29 Gravel</u>	<u>Gravel</u>	<u>31</u> <u>33</u>

STATIC WATER LEVEL

9' 7' 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: Sub
☐ Bailed
☐ Other
 Pumping Level Below Land Surface
20 ft. After 1 Hrs. pumped 500 GPM
18' ft. After 1 Hrs. pumped 400 GPM
 If pump installed, pump rate _____ GPM

REMARKS

RECEIVED

DEC - 5 2013

WATER RIGHTS PROGRAM

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm Lacey Well Drilling Inc.

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Wade Peterson

Date: 11-20-13

SOUTH DAKOTA WATER WELL COMPLETION REPORT

7559-B 07-92

Location NE 1/4 SW 1/4 Sec 33 Twp 103-N Rg 49-W

County Mingus

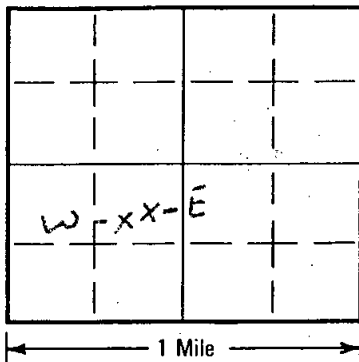
Please mark well location with an "X"

W

E

Well-Completion Date

8-9-13



Well Owner: Wade Peterson

Business Name:

Address: 25563 475th Ave.
Renner, SD 57055

WELL LOG:

FORMATION	E	DEPTH	
		FROM	TO
0-5 Black Gumbo	7:11	0	9
5-9 Gravel	Gravel Sand	9	18
9-18 ^{fine} Brown Sand	Coarse Gravel	18	35 1/2"
18-36 Coarse Gravel			

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1/8 mile ft. from Creek (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket-fake Casing

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>25 LB/FT</u>	<u>14 IN</u>	<u>+1 FT</u>	<u>20 FT</u>	<u>20 IN</u>
<u>25 LB/FT</u>	<u>14 IN</u>	<u>+1 FT</u>	<u>25 FT</u>	<u>20 IN</u>

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Pebble</u>		<u>10 lb./gal</u>	<u>0 ft</u>	<u>5 ft</u>
<u>Grout</u>		<u>10 lb./gal</u>	<u>0 ft</u>	<u>6 ft</u>

Describe grouting procedure _____

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 14 IN Length W-16 E-10 FEET

Material PVC CASING 160

Slot Size 100 Set From 20 Feet to 36 Feet W

Other information 26 36 F

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: _____

☐ NO, Why Not? _____

Laboratory sent to for water quality analysis

C. L. ...

STATIC WATER LEVEL 5' 6' 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: Sub

☐ Bailed _____

☐ Other _____

Pumping Level Below Land Surface

2 21 ft. After 1 Hrs. pumped 850 GPM

E 22 ft. After 1 Hrs. pumped 850 GPM

If pump installed, pump rate _____ GPM

REMARKS

DEC - 5 2013

WATER RIGHTS PROGRAM

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm Lacey Well Drilling Inc.

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date: 1-20-14

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7559-3

I have this day, November 5, 2021, made a thorough examination of the water use system constructed by Wademan Peterson, 25563 475th Ave, Renner, SD 57055 of Permit No. 7559-3, bearing the priority of December 13, 2012 authorizing the diversion of 3.33 cu. ft. per second of the waters of the Big Sioux: Sioux Falls Aquifer for irrigation purposes, in Minnehaha County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 4
- 3) Depth(s) 31 - 36 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 14 inches
- 2) Length 20 - 21 feet
- 3) Type Plastic

Screen:

- 1) Type PVC
- 2) Length 3-10 & 1-16 feet
- 3) Static water level 6 feet

Pump:

- 1) Make NA
- 2) Model Submersibles
- 3) Size NA
- 4) Capacity 1750 total GPM

Motor: unknown

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

- 1) Type Plastic
- 2) Size 6 inches
- 3) Length from 280 (S) to 1240 (N) feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make 2 - Valleys
- 2) Overall length 1270 & 1460 feet
- 3) Number of towers 7 & 8
- 4) End gun Y
- 5) Capacity 1750 total GPM

Chemigation Equipment: NONE

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: From the NW corner Sec 33 T103N R49W; WELL # 1: 260 ft S & 2290 ft E, Lat 43.68788 Long -96.72846 WELL # 2: 510 ft S & 2575 ft E, Lat 43.68711 Long -96.72149, WELL # 3: 3710 ft S & 3950 ft E Lat 43.67826 Long -96.71614 WELL #4: 3800 ft S & 3720 ft E, Lat 43.67830 long -96.71714.
2. The works are capable of diverting and conveying to the place of use 3.89 cu. ft. per second of water of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

Sec 33 T103N R49W
NE ¼ NW ¼ – 36 acres
SE ¼ NW ¼ – 36 acres
NW ¼ NE ¼ – 34 acres
SW ¼ NE ¼ – 38 acres
SE ¼ NE ¼ – 13 acres
NW ¼ SE ¼ – 39 acres
NE ¼ SE ¼ – 40 acres
SW ¼ SE ¼ – 32 acres
SE ¼ SE ¼ – 37 acres

Sec 34 T103N R49W
NW ¼ SW ¼ – 12 acres
SW ¼ SW ¼ – 5 acres

Total 322 acres

Temporary use permits are not licensed. The temporary use permit will be reissued for 322 acres and 3.33 cfs.

3. All structures, wells and lands on map Y

F. Comments associated with the project:

The irrigated acreage was determined with the aid of FSA imagery and the ArcMAP software.

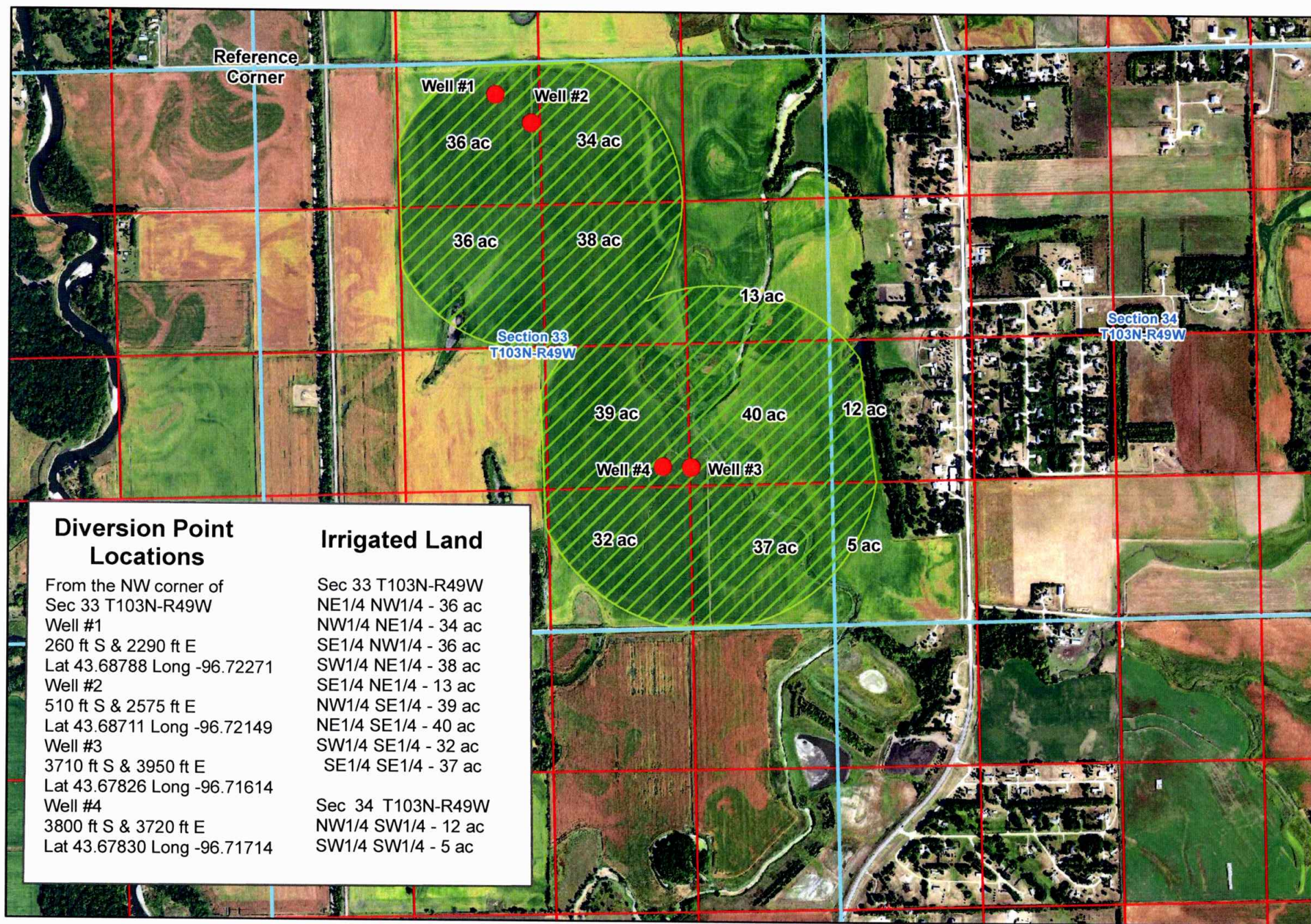
The mailing address is current but the contact phone number for Mr. Peterson is now 605/351-2987.

The contact phone number for the land tenant, Mr. Chad Anderson, is 605/359-0059.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: November 8, 2021



0 900 1,800 3,600 5,400 7,200 Feet



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

FEB 28 2022

7559-3

Wademan Peterson
25563 475th Ave
Renner SD 57055

Dear Mr. Peterson:

Enclosed is Reissued Temporary Use Water Permit No. 7559-3. The temporary use water permit was reissued to reflect the system as developed. The reissued permit is based on a field investigation done by a staff engineer with our program. A copy of his map is included showing the location of the diversion points and acres developed for irrigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures

c: Chad Anderson, 47880 244th St, Dell Rapids SD 57022

The field investigation found the system capable of diverting 3.89 cubic feet of water per second (cfs) or approximately 1750 gpm. Diversion of water under this temporary use permit is limited to 3.33 cfs or approximately 1500 gpm.

**REISSUED SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 7559-3
AS DEVELOPED**

On March 11, 2013, on behalf of the Water Management Board, Temporary Use Water Permit No. 7559-3 was approved and issued to Wademan Peterson, 25563 475th Ave., Renner SD 57055 authorizing construction of the water use system and placement of water to beneficial use.

1. On November 5, 2021, an investigation was conducted of the water use system described in Temporary Use Water Permit No 7559-3. The investigation found the system was developed as follows: Four wells, 31-36 feet deep into the Big Sioux: Sioux Falls Aquifer located as follows:

- **Well # 1:** 260'S & 2,290'E of the NW corner of Section 33, T103N, R49W
Lat 43.68788, Long -96.72846 NE ¼ NW ¼ Sec 33)
- **Well # 2:** 510'S & 2,575'E of the NW corner of Section 33, T103N, R49W
Lat 43.68711, Long -96.72149 (NE ¼ NW ¼ Sec 33)
- **Well # 3:** 3,710'S & 3,950'E of the NW corner of Section 33, T103N, R49W
Lat 43.67826, Long -96.71614 NE ¼ SE ¼ Sec 33)
- **Well # 4:** 3,800 ft S & 3,720 ft E of the NW corner of Section 33, T103N, R49W
Lat 43.67830, Long -96.71714 (NW ¼ SE ¼ Sec 33)

The temporary use permit holder is authorized to divert 3.33 cubic feet of water per second (1500 gpm) from the four wells described above to irrigate the following acreage:

Section 33, T103N, R49W				Section 34, T103N, R49W	
NE ¼ NW ¼	36 acres	NW ¼ SE ¼	39 acres	NW ¼ SW ¼	12 acres
SE ¼ NW ¼	36 acres	NE ¼ SE ¼	40 acres	SW ¼ SW ¼	5 acres
NW ¼ NE ¼	34 acres	SW ¼ SE ¼	32 acres		
SW ¼ NE ¼	38 acres	SE ¼ SE ¼	37 acres		
SE ¼ NE ¼	13 acres				
				Total 322 acres	

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 - September 30.
3. The date from which applicant may claim right is December 13, 2012.
4. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

continued

QUALIFICATIONS

- The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder a six month notice prior to cancellation of this temporary use permit.
- If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary use permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined y Board Well Construction Standards, Chapter 74:02:04.
- The wells authorized by Temporary Use Permit No. 7559-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *The wells were drilled in August 2013 by Lacey Well Drilling, Inc. Copies of the well completion reports are on file with the Water Rights Program.*
- This temporary use permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

Eric Gronlund

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

FEB 28 2022

date





DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 14, 2025

NOTICE

TO: CHAD ANDERSON, MANAGER, 47880 244TH ST, DELL RAPIDS, SD 57022

FROM: Ron Duvall, Engineer III
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2024 Irrigation Questionnaire(s)

Our records indicate your 2024 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7559-3 & 8195-3. The request for the Questionnaire was dated October 23, 2024. The Water Management Board has directed owners of water permits who have not submitted the 2024 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7559-3 & 8195-3 qualification:

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

The hearing will be held on **Wednesday, March 5, 2025, at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7559-3 & 8195-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 5, 2025**, hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: OUPHT**

cc: WADEMAN PETERSON, 25563 475TH AVE, RENNER SD 57055

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 21, 2025

7559-3 & 8195-3

Chad Anderson
47880 244th St
Dell Rapids SD 57022

Dear Mr. Anderson:

I am writing to acknowledge the receipt of your 2024 irrigation questionnaire(s).

You may disregard the January 14, 2025, "Notice" concerning the reporting requirements for Water Permit No(s). 7559-3 & 8195-3. The information was received prior to the March 5, 2025, Water Management Board meeting and the above listed permit number(s) have been removed from the agenda.

If you have any questions or concerns, please contact me.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

cc: WADEMAN PETERSON, 25563 475TH AVE, RENNER SD 57055