

WATER PERMIT NO. 7943-3

Name of Applicant: Marvin Amdahl

Address: 45138 150th St, Ortley SD 57256 Phone: 605 881-6196

Amount of Water Claimed: no add'l Total Acres: 38 acres

Source of Water Supply: groundwater (5 wells)

Water to be used for: irrigation County: Grant

Type of Waste Disposal System:

Location: 25 miles west of Milbank

PRIORITY Date Received: 1-16-14 Application/License Fee: \$ 500

Corrected Application Received: Period of Annual Use: May 1 – Sept 30

Remarks: Additional acres to Permit No. 7328-3

Diversion Point: N 1/2 NE 1/4 Sec 4-T120N-R52W

Land to be Irrigated: N 1/2 Sec 4 – T120^N-R52W

			4		

Depth of Well:

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-16-14

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>7943-3</u> (office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u> <u>605-432-4516</u>
	Newspaper <u>Grant Co. Review, Box 370, Millbank 57252</u>
	<u>Public Opinion, Box 10, Watertown 57201</u> <u>605-886-6901</u>

RECEIVED
JAN 16 2014
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 7328-3
(Use predates Mar 2, 1955)

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

- Name of Applicant Marvin Amdall Phone 605-881-6196
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 45138 150th St Ortley SD 57256
(Address) (City) (State) (Zip Code)
- Amount of water claimed NO add *CFS or add **GPM add ***AF Total Acreage 38
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable
- Source of water supply well
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Grant
5 wells - N 1/2 NE 1/4 Sec 4 - T120N-R52W
- County or counties where water will be used Grant
- Annual period during which water is to be used summer May 1-Sept. 30
- 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>N 1/2 Sec 4 T120N-R52W</u>	<u>38</u>		

8. Give a description of the project. (Attach sheet if more space is needed) This is for an existing Irrigation system that I would like to add 2 towers on the end so there will not be any wells drilled. Additional acres will be approx. 38 acres.

STATE OF SOUTH DAKOTA)
County of Roberts) 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, _____, 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 Marvin Amdall

Subscribed and sworn to before me this 15 day of January 20 14

[Signature]
Notary Public signature

Commission expires 1-9-19

SOUTH DAKOTA
WATER PERMIT NO. 7943-3

Date of first receipt of application January 16, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7943-3 to Marvin Amdahl, 45138 150th St, Ortley SD 57256 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7943-3 authorizes irrigation of 38 new acres. Water Permit No. 7328-3 appropriates 1.78 cubic feet of water per second from five wells (one well 142 feet deep-Prairie Coteau Aquifer and four wells 45 feet deep-Big Sioux:North Aquifer) located in the N 1/2 NE 1/4 Section 4 to irrigate 162 acres located in the N 1/2 Section 4; all in T120N-R52W. This permit authorizes irrigation of 38 new acres located in the N 1/2 Section 4-T120N-R52W from the existing wells by adding 2 towers to the existing center pivot. This permit does not authorize any increase in the diversion rate. The wells and acreage are located within the former boundaries of the Sisseton Wahpeton Indian Reservation.
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 – September 30.
3. The date from which applicant may claim right is January 16, 2014.
4. The date of approval of Permit No. 7943-3 is April 7, 2014.
5. One-fifth of the construction is to be completed on or before October 7, 2016.
6. All construction is to be completed on or before April 7, 2019.
7. Water is to be put to beneficial use on or before April 7, 2023.
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 wells approved under Water Right No. 7328-3 and this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

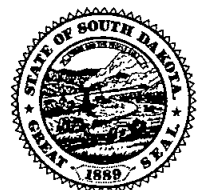
WATER MANAGEMENT BOARD

By: 

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

APR 24 2014

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:
- On applicant's property _____ 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 _____

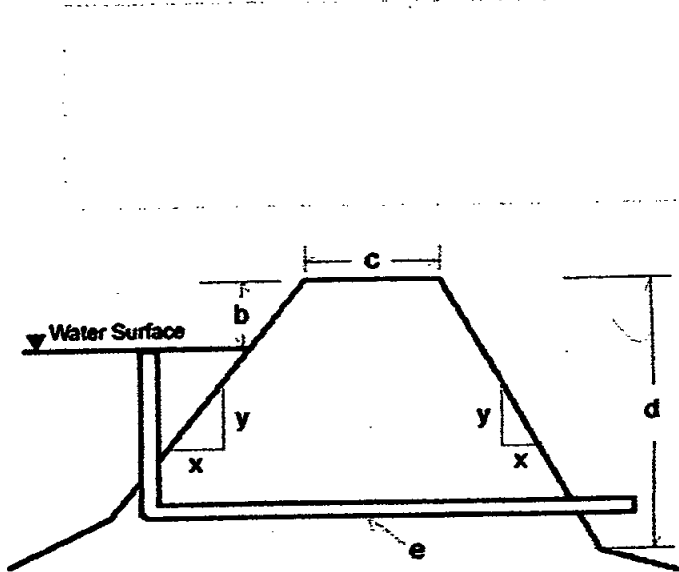
3. Dugout Information

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

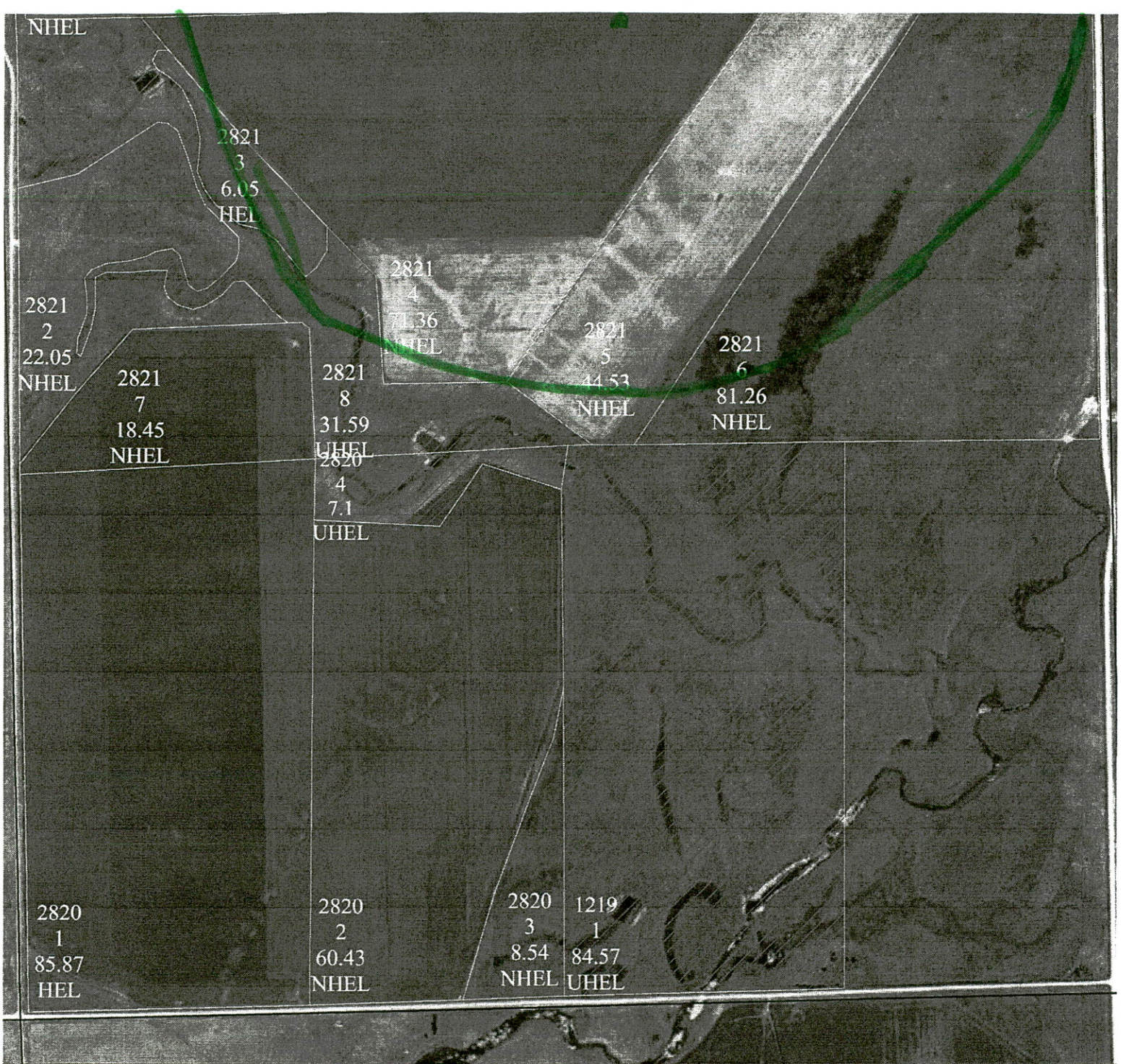
4. Water Storage Dams

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



United States Department of Agriculture
Farm Service Agency

November 10, 2011

Grant County SD

PLSS: 4_120N_52W

Farm: 4624

2012



Grant County FSA CED

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area.
Refer to your original determination (CPA-026 and attached maps) for exact wetland
boundaries and determinations, or contact NRCS.

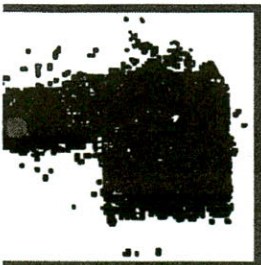
2010 Ortho-Photography - Not to Scale

NRCS
County Executive Director

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JAN 16 2014

WATER RIGHTS
PROGRAM



Schlaak, Karen

From: Gronlund, Eric
Sent: Tuesday, January 14, 2014 8:36 AM
To: Schlaak, Karen
Subject: Marvin Amdahl - 7328-3

Will be applying to additional acres and a shift in the pivot. He is going to be adding 1 ½ towers.

Since 7328-3 has not been licensed, I told him that he would not need another licensing fee since they would get incorporated together.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/16, 20 14

RECEIVED OF Marvin Amdahl 45138 150th St Ortley SD 57256

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

Fee for Application for Permit No. <u>7943-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for _____		
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	500 00

No. **06642**

By *James Goodman*
Chief Engineer



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7943-3, Marvin Amdahl**

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. 7943-3, Marvin Amdahl, 45138 150th Street, Ortleby SD 57256

The Chief Engineer is recommending APPROVAL of Application No. 7943-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under Water Right No. 7328-3 Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
March 11, 2014

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7943-3
MARVIN AMDAHL
MARCH 12, 2014

Water Permit Application No. 7943-3 proposes to irrigate 38 new acres using diversion rate authority and wells authorized under Water Permit No. 7328-3. Water Permit No. 7328-3 appropriates water at a maximum diversion rate 1.78 cubic feet of water per second (cfs) from five wells (one well 142 feet deep in the Prairie Coteau aquifer and four wells 45 feet deep in the Big Sioux: North aquifer) located in the N ½ NE ¼ Section 4 for the irrigation of 162 acres located in the N ½ Section 4; all in T120N-R52W within the former boundaries of the Sisseton Wahpeton Indian Reservation. The 38 acres this application proposes to irrigate are to be located in the N ½ Section 4-T120N-R52W within the former boundaries of the Sisseton Wahpeton Indian Reservation. This application, if approved, does not authorize any increase in the diversion rate.

AQUIFER: Prairie Coteau (PCO) and Big Sioux: North (BS:N)

South Dakota Codified Law (SDCL) 46-2A-9

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 this 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 the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

Water Permit No. 7328-3 authorizes a diversion rate of 0.57 cfs from the Prairie Coteau aquifer and 1.21 cfs from the Big Sioux: North aquifer. Assuming the volume of water appropriated from each aquifer is proportional to the respective diversion rates, approval of this application would appropriate 24.3 acre-feet per year (ac-ft/yr) from the Prairie Coteau aquifer and 51.7 ac-ft/yr from the Big Sioux: North aquifer. Actual water use, if this application is approved, will likely be less than the appropriation.

The probability of unappropriated water available from the aquifer can 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." If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a public water system.

PRAIRIE COTEAU AQUIFER

Aquifer Characteristics:

The Prairie Coteau aquifer is an intermediate (i.e. neither basal nor surficial) aquifer composed of brown to gray, coarse to very coarse sand and fine gravel (Hansen, 1990). Hansen (1990) delineated the Prairie Coteau aquifer in Grant and Codington Counties, and Thompson (2001) studied the aquifer in Roberts County and the Lake Traverse Reservation. Thompson (2001) concluded the Prairie Coteau aquifer in these areas is not a continuous aquifer, but is instead a group of discontinuous outwash deposits generally found in the 1,600 to 1,800 feet above mean sea level elevation (fmsl) interval. The depth and thickness of these deposits can vary widely. These outwash deposits have been collectively known as an aquifer due to their similarities.

In the area of the proposed well site, the North management unit of the Big Sioux aquifer is generally located above the Prairie Coteau aquifer, and the Lonesome Lake and Altamont aquifers are generally located below the Prairie Coteau aquifer (Hansen, 1990). Other small outwash deposits lie above, below, and adjacent to this deposit of the Prairie Coteau aquifer (Hansen, 1990). The Prairie Coteau is probably in hydraulic connection with these aquifers and outwashes, among others.

Historically, the Water Management Board has approved water permit applications to appropriate water from the Prairie Coteau aquifer system. However, in interpreting 46-6-3.1, the First Judicial Circuit Court ruled in *Hanson County Dairy v. Bender* that evidence needs to show that water is available for the proposed appropriation. In other words, data must be presented to show that the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (Memorandum Decision April 11, 2012). This could be interpreted as necessitating the identification and quantification of recharge and discharge of an individual outwash deposit of the Prairie Coteau aquifer from which the applicant proposes to withdraw water.

The areal extent and altitude interval of the individual outwash deposit of the Prairie Coteau aquifer was identified by examining area lithologic logs. This portion of the aquifer is generally found in the 1,600 to 1,720 fmsl and is often 10 to 40 feet thick (Stonesifer, 2013). This portion of the Prairie Coteau aquifer underlies approximately 184,500 acres, mostly in Roberts, Grant, and Codington Counties (Stonesifer, 2013). This portion of the aquifer is generally under artesian conditions, and the potentiometric surface generally ranges from flowing to 90 feet below grade (Water Rights, 2014c).

A well completion report submitted with the application for Water Permit No. 7328-3 identifies 21 feet of fine to medium sand beginning 121 feet below land surface. The completion report identified a static water level of 6.3 feet below grade and indicates a pumping level of 116 feet below grade after 50 hours of pumping at a rate of 255 gallons per minute. The driller commented on the completion report that “well continued to Drawdown Throughout [sic] the Pump test.”

Hydrologic Budget:

Recharge:

Recharge to this portion of the Prairie Coteau aquifer occurs through leakage from till, the overlying Big Sioux aquifer, and the Coteau Lakes aquifer immediately north (Hansen, 1990). Recharge to this portion of the aquifer has not been quantified. However for management and development programs, Hedges and others (1985) determined a recharge rate range of 0.15 to 0.60 inches per year (in/yr). For the determined area of the aquifer, this recharge rate range equates to an annual recharge rate of 2,306 to 9,224 ac-ft/yr.

Discharge:

Discharge from this portion of the Prairie Coteau aquifer occurs primarily by well withdrawals (Hansen, 1990). Based on the location and depth of wells, there are currently 26 water rights/permits withdrawing from this portion of the aquifer, which are described in Table 1 and whose diversion points are shown in Figure 1 (Water Rights, 2014b). In addition to the appropriative rights, there are many well completion reports on file with the SD DENR-Water Rights Program for domestic wells that appear to be completed into this portion of the Prairie Coteau aquifer (Water Rights, 2014c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer.

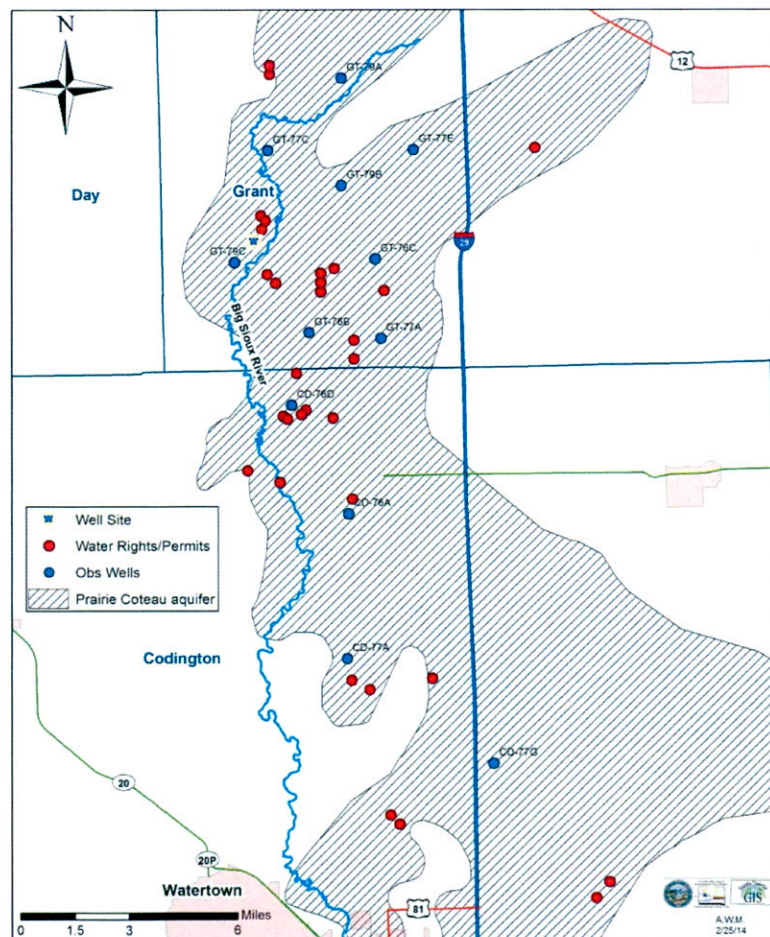


Figure 1- Location of water rights/permits and observation wells completed into this portion of the Prairie Coteau aquifer (Water Rights, 2014a and 2014b)

Permit No.	Name	Status	Use	CFS	Acres
3229-3	Don Endres	LC	IRR	2.66	224
3665-3	Florence Davis	PE	IRR	9	640
4184-3	Jabe Kahnke	LC	IRR	2.67	243
4417-3	Falk Farms Inc.	LC	IRR	6	770
4588-3A	Don Endres	LC	IRR	1.77	170
4749-3	Luvern J. Miller	LC	IRR	3.77	264
5165-3	Jeff L. & Layne Grabow	LC	IRR	1.77	132
5166A-3	John T. Nordgaard	LC	IRR	1.87	131
5166B-3	Northern Con-Agg Inc.	LC	IRR	0.84	59
5174-3	Don Endres	LC	IRR	1.77	130
5376-3	Don Endres	LC	IRR	1.11	83
5378-3	Endred Family Trust	LC	IRR	1	70
5807-3	Michael John Meyer	LC	IRR	1	95
6100-3	Norswiss Dairy	LC	COM/LCO	0.267	0
6533-3	Redlin Farms	PE	COM	0.033	0
6906-3	Tim J. Grabow	PE	IRR	0	180
6907-3	Jeff L. Grabow	PE	IRR	4	440
7036-3	James and Johnnylee Wohlleber	PE	IRR	2	130
7065-3	James Amdahl	PE	IRR	3.78	264
7242-3	Rollin J. Morehouse	PE	IRR	4.29	300
7305-3	Tim Grabow	PE	IRR	1.57	110
7351-3	Michael John Meyer	PE	IRR	0.68	0
7629-3	William Bucklin	PE	IRR	0.63	44
7681-3	Michael Johnson	PE	IRR	1.56	133.65
7783-3	Marvin Amdahl	PE	IRR	1.78	132
7680-3	Wendell Falk	PE	IRR	2	140
LC= Water Right, PE= Water Permit, IRR= Irrigation, COM= Commercial, LCO= Livestock Confinement Operation					

Table 1- Water rights/permits authorized to withdraw water from this portion of the Prairie Coteau aquifer (Water Rights, 2014b)

The amount of water that can be expected to be withdrawn by non-irrigation use water rights/permits can be estimated by assuming these water rights/permits, which are limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time. Therefore, the expected annual withdrawal from this portion of the Prairie Coteau aquifer by non-irrigation use is expected to be less than 131 ac-ft/yr (Water Rights, 2014b).

The irrigation development of this portion of the Prairie Coteau has steadily increased over the period of record, 1979 to 2012. The annual withdrawal from the aquifer fluctuates, which is probably mostly dependent on annual growing season climatic conditions. Figure 2 shows the total annual pumpage reported from this portion of the aquifer over the period of record, 1979 to 2012 (Water Rights, 1980-2013). The annual average pumpage was 936 ac-ft/yr. Figure 3 shows the average annual application rate over the period of record. The average application rate equals 5.73 inches per acre (in/ac) (Water Rights, 1980-2013). Since 2012, four water permits have been authorized for withdrawal from this portion of the Prairie Coteau aquifer (Water Rights, 2014b). When applying the average annual application rate, withdrawals due to the new permits and the portion of this application withdrawing from the Prairie Coteau aquifer (12.15 acres) are expected to only pump on average 220 ac-ft/yr.

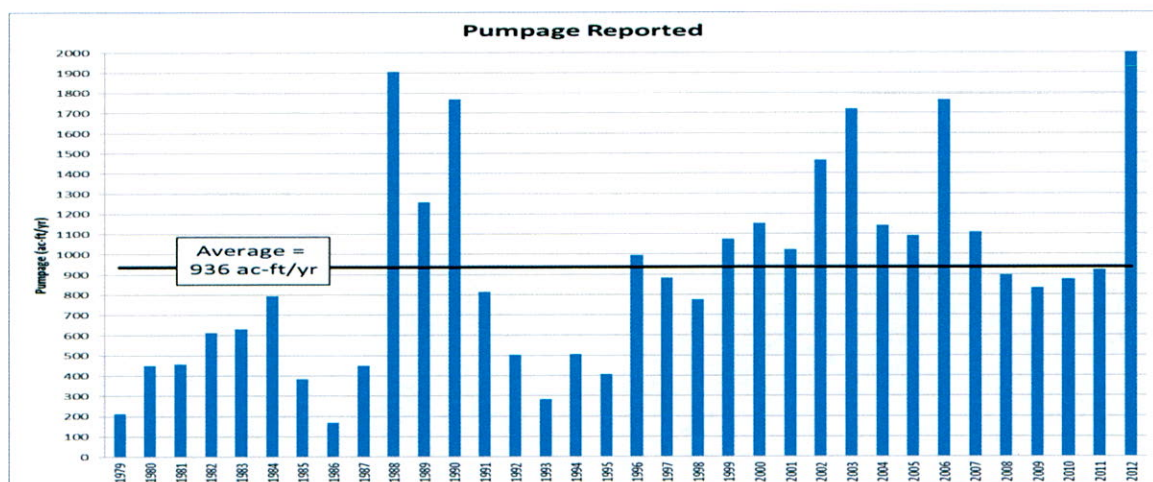


Figure 2- Historic irrigation water use from this portion of the Prairie Coteau aquifer (modified from Stonesifer, 2013)

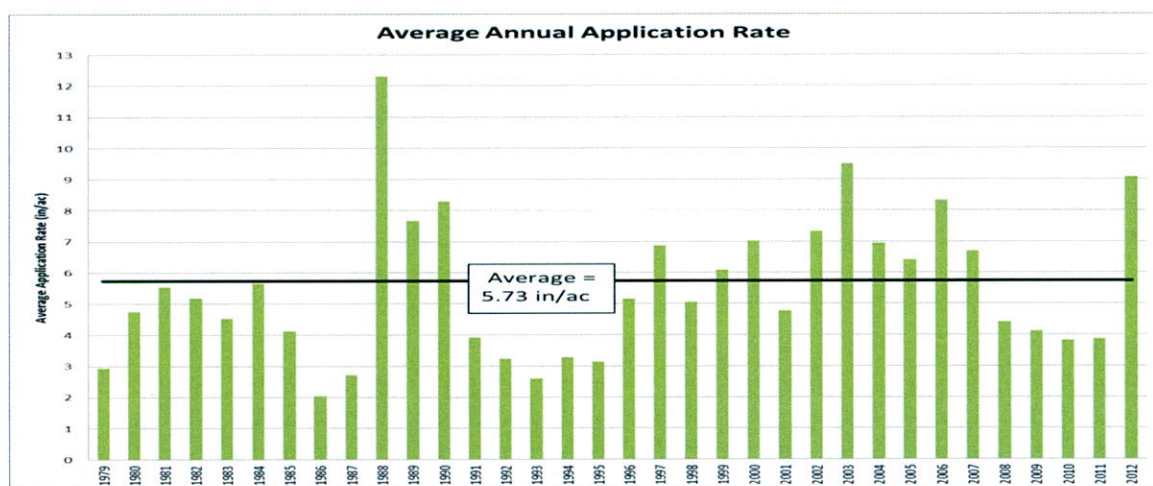


Figure 3- Historic average annual application rate from this portion of the Prairie Coteau aquifer (modified from Stonesifer, 2013)

Hydrologic Budget:

The average annual withdrawal from this portion of the Prairie Coteau aquifer including the newly developed permits and this application is estimated to be 1,287 ac-ft/yr. Thus, assuming average annual pumpage, recharge to this aquifer must equal 0.08 in/yr. This required recharge rate is lower than the rate suggested by Hedges and others (1985). Therefore, there is a reasonable probability that unappropriated water is available from this portion of the Prairie Coteau aquifer for this proposed appropriation.

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 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 56 observation wells completed into the Prairie Coteau aquifer with 13 of these completed into this portion of the aquifer (Water Rights, 2013a). The locations of these observation wells are shown in Figure 1. The hydrographs for these 13 observation wells are all shown in Figure 4. The nearest observation well, GT-79C, is located approximately 0.8 miles south west of the proposed well, and the hydrograph for the observation well is represented by the black line in Figure 4.

The observation well data documents cyclic conditions of water levels. That is to say rising (recharging) during wet years and declining during dry years. The effects of pumping in the aquifer are obvious, which is due to the artesian conditions of this portion of the aquifer. The temporal impacts of well withdrawal from the aquifer are masked by climatic conditions. This indicates that recharge to and natural discharge from the aquifer greatly exceeds well withdrawal. Over the period of record water levels in this portion of the aquifer have remained fairly steady. Therefore, unappropriated water is available from this portion of the Prairie Coteau aquifer to support the proposed appropriation.

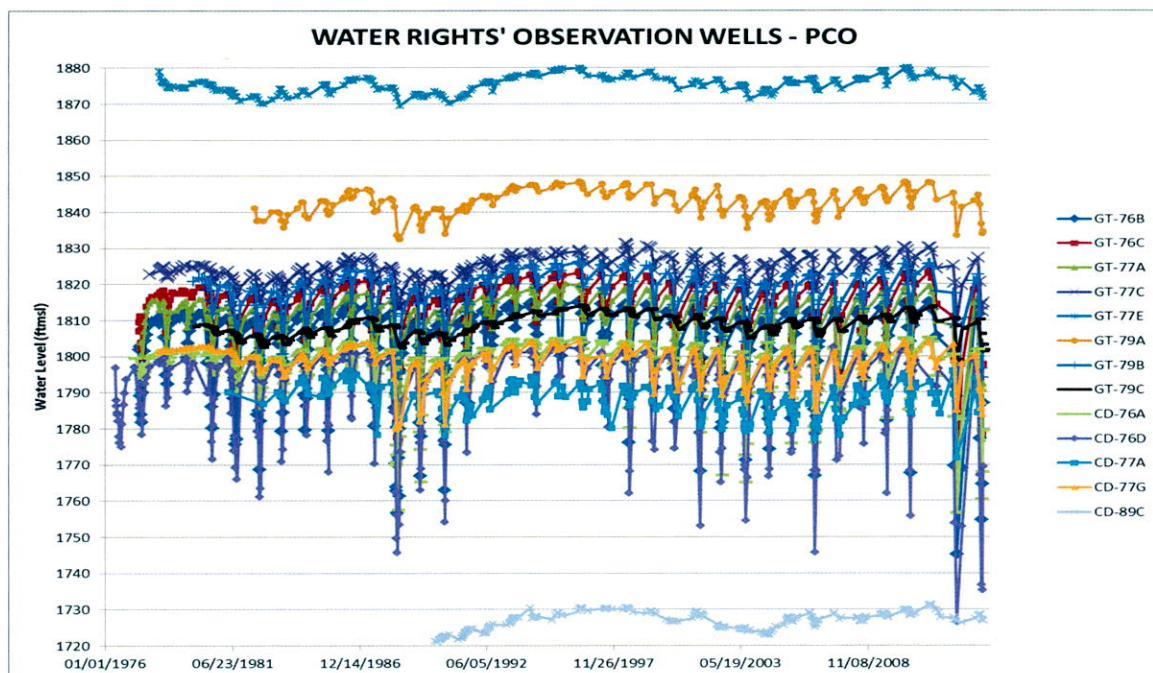


Figure 4- Hydrographs of observation wells completed into this portion of the Prairie Coteau aquifer (Water Rights, 2014a)

EXISTING WATER RIGHTS:

There are seven water rights/permits authorizing wells within approximately two miles of the proposed well (Water Rights, 2014b). However, two water permits are held by the applicant and authorize the withdrawal of water from the same well this application proposes to use. The nearest well authorized by a water right/permit is approximately 0.4 miles northeast of the proposed well. There are a number of domestic wells on file with the SD DENR-Water Rights Program that appear to be completed into the Prairie Coteau aquifer within approximately two miles of the well used by this application (Water Rights, 2014c). The nearest domestic well on file is approximately 0.2 miles northwest of the proposed well.

Early development of the Prairie Coteau aquifer in this area was accompanied with controversy. Domestic wells completed into the Prairie Coteau were affected by irrigation pumping with the most noticeable affect that flowing wells ceased flowing or had diminished flow during the irrigation season. One of the most controversial domestic wells in the area was located about three miles south of the well this application proposes to use (Goodman, 2008).

Since the Prairie Coteau aquifer is under artesian conditions at the well site, drawdown may extend some distance from the pumped well. It may be possible that drawdown from this proposed appropriation may be measurable in the nearby domestic and appropriative right wells. However, the impact of drawdown is not expected to be significant due to the distance between wells, the proliferation of high capacity wells in the area, and the fact this well is already used for irrigation.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, 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”

Depending on the specific characteristics of the Prairie Coteau aquifer at the well site, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute (SDCL 46-6-6.1) and rule (ARSD 74:02:04:20(7)), well interference from the proposed appropriation is not likely to cause a significant impact.

In general, the hydrographs document the obvious effects of pumping; however, these effects have been relatively minimal over the period of record, and water levels have always recovered once irrigation has ceased (Water Rights, 2013a). If the applicant were to apply the maximum allowable volume to the 38 acres, 2 feet of water per acre, the maximum increase to the average diversion rate would be 0.07 cfs from the well completed into the Prairie Coteau aquifer. Therefore, at the distances involved and the maximum increase in average diversion rate, there is a reasonable probability that any well interference from this proposed appropriation will not adversely or unlawfully impair existing appropriative or domestic users. However, if approved, the water permit should include the qualification that the well owner should 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.

BIG SIOUX: NORTH AQUIFER

Aquifer Characteristics:

The North management unit of the Big Sioux aquifer is an alluvium mantled, surficial outwash deposit located primarily in the flood plain of the Big Sioux River (Hansen, 1990). The Big

Sioux: North aquifer is generally under unconfined conditions with water movement to the south and toward the Big Sioux River. The aquifer is hydraulically connected to Lake Kampeska, Pelican Lake, Still Lake and the Big Sioux River (Putnam and Thompson, 1996). The aquifer underlies approximately 83,500 acres of Codington, Grant, Hamlin, and Roberts Counties and contains approximately 187,880 ac-ft of recoverable water in storage (Hedges et. al, 1982). The Big Sioux: North can range from 2-54 feet thick and is generally encountered less than 50 feet below ground surface (Putnam and Thompson, 1996). The well completion report submitted with Permit Application No. 7328-3 identified sand and gravel from 6 to 42 feet below grade with a static water level of 15 feet below land surface in February, 2012.

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: North aquifer occurs through infiltration and subsequent percolation of precipitation where the aquifer is near land surface. Since the aquifer is hydraulically connected to some area lakes and the Big Sioux River, recharge is provided to the aquifer during times of high runoff when surface water levels are higher than groundwater levels.

There are several estimates for recharge rates to the Big Sioux: North aquifer. Hansen (1990) estimated recharge to be between 4 and 10 in/yr. Hedges and others (1985) calculated recharge rates for the various management units of the Big Sioux aquifer to range from 2.7 to 6.9 in/yr if flow-net analysis is ignored. Putnam and Thompson (1996) estimate the average annual recharge to the Big Sioux: North to be in the approximate range of 2.9 to 5.8 in/yr. Average annual recharge to the Big Sioux: North was estimated to be 5.53 in/yr for the purpose of computer modeling under steady state conditions (Putnam and Thompson, 1996). Using the average annual recharge rate from the computer model and the given area of the aquifer, average annual recharge to the aquifer is estimated to be 38,480 ac-ft/yr.

This is not to suggest that the entire volume of annual recharge or that all of the recoverable water in storage is available for use everywhere in the aquifer. In fact, Putnam and Thompson's (1996) computer model for the aquifer suggests that during dry conditions the ability of some high capacity wells to produce would be seriously impacted. The model suggests "The Big Sioux aquifer probably is unable to support extensive irrigation during dry periods such as those that occurred during 1980 and 1981 or in 1976."

Discharge:

Natural discharge does occur from the Big Sioux: North aquifer to the lakes and rivers when groundwater levels are higher than surface water levels. However, in general, the aquifer discharges to the area surface waters.

There are 99 water rights/permits appropriating water and three future use permits reserving water from the Big Sioux: North aquifer (Water Rights, 2014b). The non-irrigation appropriations include 16 for municipal use, 11 for commercial use, five for industrial use, two for rural water system use, and one for use by a suburban housing development (Water Rights, 2014b). Water Right No. 5158-3, Sioux Rural Water System, has not been used since 1998. The well field has "basically been abandoned" because of water quality issues (Buhler, 2012). The future use permits are all for municipal use and reserve a total of 3,469 ac-ft of water annually

for the City of Watertown. The estimated annual water use by the non-irrigation appropriations, not including Clark Rural Water System, Sioux Rural Water System, and the City of Watertown is 2,482 ac-ft/yr (Water Rights, 2013b). This estimate is based on pumping at the maximum allowed diversion rate for 60 percent of the time. The maximum annual use by the City of Watertown through current appropriations from the Big Sioux: North aquifer is calculated from 60 percent assumed use for permits limited only by diversion rate and 100 percent use for permits limited by annual volume. This maximum annual use is estimated to be 12,247 ac-ft/yr. Current usage is a fraction of the maximum annual estimated use (see Table 3). Reported water use from the Big Sioux: North for the City of Watertown and the Clark Rural Water System is shown in Table 3, and annual withdrawals for irrigation as reported to the DENR-Water Rights Program through irrigation questionnaires are shown in Table 2.

Year	Number of Permits Reporting	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2012	50	17732	4970.47
2011	46	16208.5	2147.88
2010	46	16208.5	2421.27
2009	45	15948.5	1773.51
2008	41	15498.5	2743.94
2007	38	14584.5	3308.79
2006	38	15134.5	4285.97
2005	40	15250.5	2886.7
2004	38	14673.5	2448.79
2003	37	14113.5	3662.11
2002	37	14129.5	2835.49
2001	36	14116	2558.91
2000	36	14116	3013.88
1999	35	14047.6	2593.1
1998	35	14117.8	1702.52
1997	31	13612.8	1656
1996	30	13472.8	1497.96
1995	32	14136.8	1186.68
1994	33	14151.8	1192.95
1993	34	14445.8	865.5
1992	33	14311.8	1325.7
1991	38	17240	1659
1990	44	22492.8	2520.1
1989	40	21096.8	2686.6
1988	35	19564.8	2740.4
1987	35	19564.8	1929.4
1986	35	19564.8	1079.1
1985	36	19659	1419.7
1984	36	21936.3	1684.5
1983	34	21141	1110.45
1982	32	20187	1384.05
1981	37	20814	1067
1980	39	20598	888
1979	39	20598	912
Min	30	13472.8	865.5
Max	50	22492.8	4970.47
Avg	37.4	16896.1	2122.3

Table 2- Irrigation withdrawal from the Big Sioux: North aquifer (Water Rights, 1980-2013)

Reported Pumpage From the BS:N for Municipal and RWS Use (ac-ft/yr)		
	Watertown	Clark RWS
2012	4259.65	108
2011	3864.04	143
2010	3947.15	143
2009	3735.26	164
2008	3984.15	127
2007	4062.46	44
2006	2960.86	N/A
2005	2391.83	N/A
2004	2125.66	N/A
Avg.	3481.23	121.5

Table 3- Reported water use from the Big Sioux: North aquifer (modified from Mathiowetz, 2013)

Hydrologic Budget:

The estimated average annual withdrawal from the Big Sioux: North aquifer, including the water reserved by future use permits, is 20,442 ac-ft/yr. Comparing the estimated average annual withdrawal plus water reserved by future use permits to the estimated average annual recharge, 38,480 ac-ft/yr, there is a reasonable probability that there is unappropriated water available from the North management unit of the Big Sioux aquifer for this proposed appropriation.

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 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 27 observation wells completed into the Big Sioux: North aquifer (Water Rights, 2014a). The nearest observation wells are GT-76A and GT-77D. The wells are 1.6 miles south-southeast and 2.3 miles northwest of the proposed wells, respectively. The water level in the observation wells shows good response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The observation well hydrographs show minimal effects from pumping. The climatic effects on water level greatly mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Big Sioux: North aquifer significantly exceeds pumping. Recognizing that natural discharge can be captured for pumping, the hydrographs document that unappropriated water is available for this proposed appropriation. The hydrographs for GT-76A and GT-77D are similar to the hydrographs for other observation wells in the aquifer and are representative of the aquifer. Figures 5 and 6 show the hydrographs for GT-76A and GT-77D, respectively.

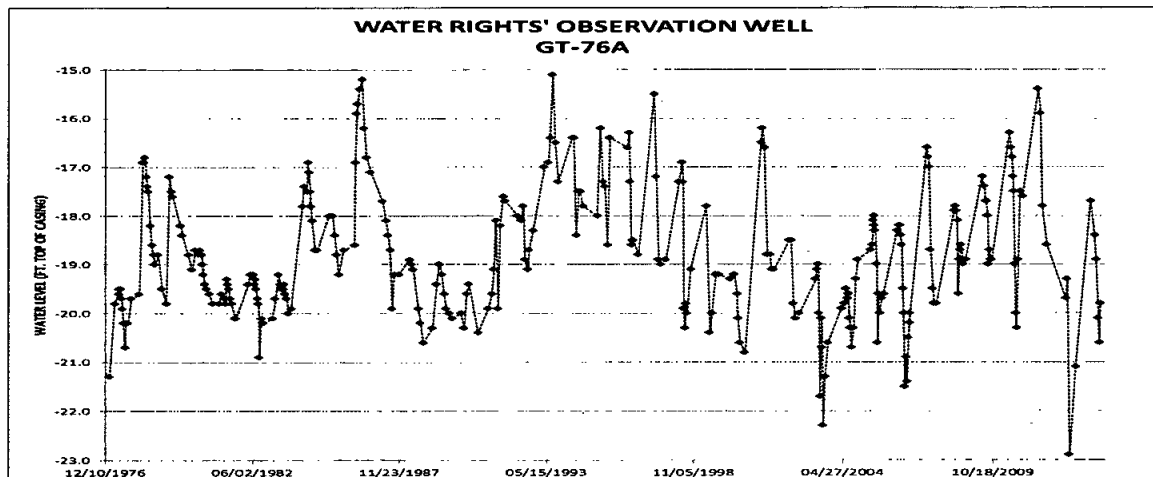


Figure 5- Hydrograph for observation well GT-76A (Water Rights, 2014a)

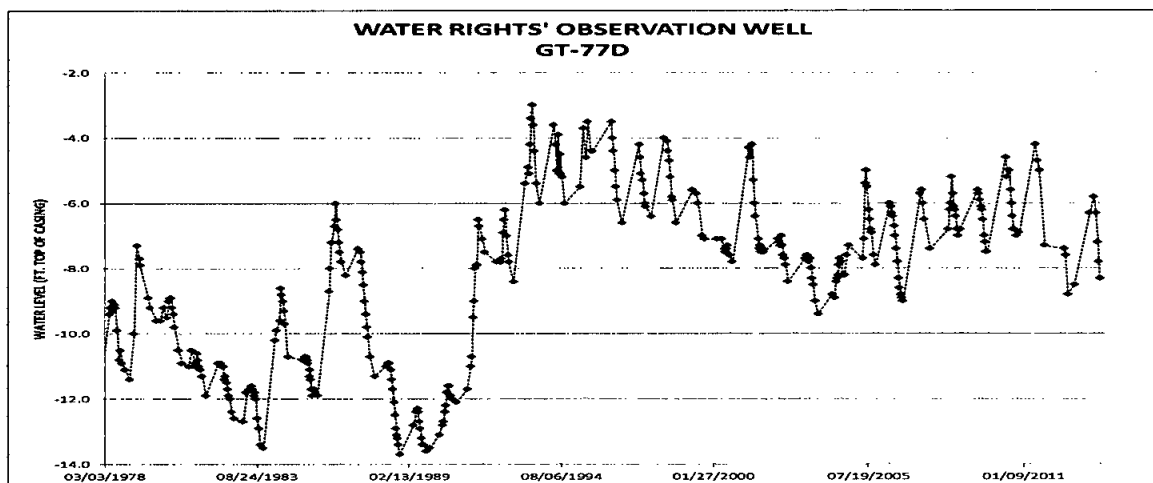


Figure 6- Hydrograph for observation well GT-77D (Water Rights, 2014a)

EXISTING WATER RIGHTS:

Water Permit No. 7257-3 for James Amdahl and Water Permit No. 7328-3 for Marvin Amdahl, authorize wells within approximately one mile of the wells this application proposes to use (Water Rights, 2014b). This application proposes to use the same wells as Water Permit No. 7328-3. There are no domestic wells on file with the DENR-Water Rights Program that appear to be completed into the Big Sioux: North aquifer within approximately one mile of the wells for this application. Since the Big Sioux: North is under unconfined conditions, drawdown created from pumping the wells for this application is not likely to extend far from the pumped well. The observation well hydrographs document the minimal effects from pumping on the water level in the observation well. Both observation wells, GT-76A and GT-77D, are within one-half mile of a large capacity well completed into the Big Sioux: North aquifer. If the applicant were to apply the maximum allowable volume to the 38 acres, 2 feet of water per acre, the maximum increase to the average diversion rate would be 0.035 cfs per well from the four wells completed into the Big Sioux: North aquifer. Therefore due to the distance between wells, the low drawdown created by pumping high capacity wells completed into the North management unit of the Big Sioux aquifer, and the minimal increase to the average diversion rate, there is a

reasonable probability that this proposed diversion can be made without adversely impacting existing appropriative or domestic users.

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under unconfined conditions drawdown due to pumping would not be significant far from the well site. There has also been a history of large capacity wells in the area and from this aquifer. Therefore, nearby adequate wells are not expected to be adversely or unlawfully impaired by the proposed diversion.

The Big Sioux: North aquifer is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when the withdrawal exceeds recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the aquifer. If the saturated thickness is reduced to the extent that water rights/permits can no longer pump at their developed or "historically established" diversion rates, this may be considered an adverse impact. If approved, the water permit should include a qualification that the well owner should 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.

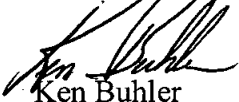
CONCLUSIONS:

1. This application proposes to appropriate water from both the Prairie Coteau and Big Sioux: North aquifers for the irrigation of 38 acres using the wells authorized by Water Permit No. 7328-3.
2. Water Permit No. 7328-3 appropriates water at a maximum diversion rate of 1.78 cfs from five wells, one completed into the Prairie Coteau aquifer and four completed into the Big Sioux: North aquifer, for the irrigation of 162 acres.
3. If approved, this application does not authorize an increase in diversion rate authorized by Water Permit No. 7328-3.
4. There is a reasonable probability that unappropriated water is available from both the Prairie Coteau and the Big Sioux: North aquifers for this proposed appropriation.
5. The Prairie Coteau aquifer is under confined conditions, and there are flowing domestic wells completed into this aquifer in this area.
6. Early development of irrigation from the Prairie Coteau aquifer in this area involved contested case hearings, but in general, development has not produced many of well interference complaints.
7. Significant drawdown occurs in the Prairie Coteau aquifer due to pumping. Well interference with nearby existing irrigation and domestic wells is possible. However, the interference is not expected to adversely impair an adequate well.
8. The Big Sioux: North aquifer is under unconfined conditions in this area and drawdown from pumping is not expected to be significant very far from the production well.
9. Withdrawals from the Big Sioux: North wells proposed by this application will not adversely impair existing appropriative or domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K.A. 2012. Report on Water Permit Application No. 7328-3, Marvin Amdahl. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Goodman, J.A. 2008. Report on Water Permit Application No. 7065-3 for James Amdahl. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Hansen, D.S. 1990. Water Resources of Codington and Grant Counties, South Dakota. U.S. Geological Survey Water-Supply Paper 2254. U.S. Geological Survey. Huron, SD.
- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in 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.
- In the Matter of Water Permit Application No. 7239-3, by Hanson County Dairy v. Robert Bender and Stace Nelson, South Dakota First Judicial Court Civ. No. 11-54 (Memorandum Decision, April 11, 2012)
- Mathiowetz, A.W. 2013. Report on Water Permit Application No. 7846-3, Richard E. Schmit. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Putnam, L.D. and R.C. Thompson. 1996. Appraisal of the Water Resources of the Big Sioux aquifer, Codington and Grant Counties, South Dakota: U.S. Geological Survey Water Resources Investigations No. 96-4275. U.S. Geological Survey. Huron, SD.

- Stonesifer, J.R. 2013. Report on Water Permit Application NO. 7680-3, Wendell Falk. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
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- Water Rights. 1980-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2014a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2014b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2014c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Printer's Affidavit of Publication

RECEIVED

STATE OF SOUTH DAKOTA
COUNTY OF GRANT

} ss.

APR - 1 2014

WATER RIGHTS
PROGRAM

Ann Tuchscherer

of said County and State, being first duly sworn, on oath says that the Grant County Review is a legal weekly newspaper of general circulation, printed and published in Milbank, in said County of Grant and State of South Dakota, by Phyllis Justice, and has been such newspaper during the times hereinafter mentioned; that said newspaper is a legal newspaper; and that it has a bona fide circulation of more than two hundred copies weekly, and has been published within said County of Grant in the English language and has been admitted to the United States mail under second class mailing privilege, for at least one year next prior to the publication of the Notice herein mentioned, and has been printed wholly in an office maintained at the said place of publication, that I, the undersigned, Bookkeeper of said newspaper, in

charge of the advertising department thereof, have personal knowledge of all the facts stated in this affidavit; that the advertisement headed Notice of Application NO. 7943-3 to Appropriate Water

a printed copy of which, taken from the paper in which the same was published, is attached to this sheet and is made a part of this Affidavit, was published in said newspaper at least once each week for One ~~successive~~ weeks, on the day of each week on which the said newspaper was regularly published, to-wit:

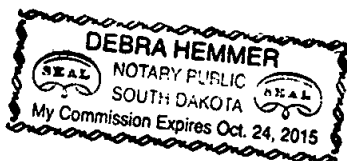
<u>March 26</u>	<u>2014</u>	<u>20</u>
<u>20</u>		<u>20</u>
<u>20</u>		<u>20</u>

That \$ 27.35, being the full amount of the fee charged for the publication of said Notice, inures to the benefit of the publisher of the Grant County Review; that no agreement or understanding for the division thereof has been made with any person, and that no part has been agreed to be paid to any person whomsoever.

Ann Tuchscherer

Subscribed and sworn to before me this 31st day of March 2014

Debra Hemmer
Notary Public, Grant County, South Dakota



Publication Fee \$ 27.35
Notarial Fee \$
Total \$ 27.35

NOTICE OF APPLICATION NO. 7943-3 to Appropriate Water

Notice is given that Marvin Am-dahl, 45138 150th St., Ortle, SD, 57256 has filed an application for a water permit to irrigate 38 new acres. Water Permit No. 7328-3 appropriates 1.78 cubic feet of water per second from five wells (one well 142 feet deep-Prairie Coteau Aquifer and four wells 45 feet deep-Big Sioux: North Aquifer) located in the N 1/2 NE 1/4 Section 4 to irrigate 162 acres located in the N 1/2 Section 4; all in T120N-R52W. This application proposes to irrigate 38 new acres located in the N 1/2 Section 4-T120N-R52W from the existing wells by adding 2 towers to the existing center pivot. This application, if approved, does not authorize any increase in the diversion rate. The wells and acreage are located within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7943-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition if 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 April 7, 2014.

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.

Steve M. Pirner, Secretary,
Department of Environment and
Natural Resources
Published once at an approximate
cost of \$27.35.

RECEIVED

APR - 1 2014

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Codington)

I, Monica K. Saathoff

certify that the attached printed Notice was
taken

from the Watertown Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was
published

in the newspaper on the following date:

March 26th, 2014

Cost of Printing 62.45

Monica K. Saathoff
(Signature)

Bookkeeper

(Title)

March 26th, 2014

(Date Signed)

DENR

NOTICE OF APPLICATION NO. 7943-3 to Appropriate Water

Notice is given that Marvin Amdahl, 45138 150th St, Ortle SD 57256 has filed an application for a water permit to irrigate 38 new acres. Water Permit No. 7328-3 appropriates 1.78 cubic feet of water per second from five wells (one well 142 feet deep-Prairie Coteau Aquifer and four wells 45 feet deep-Big Sioux:North Aquifer) located in the N 1/2 NE 1/4 Section 4 to irrigate 162 acres located in the N 1/2 Section 4; all in T120N-R52W. This application proposes to irrigate 38 new acres located in the N 1/2 Section 4-T120N-R52W from the existing wells by adding 2 towers to the existing center pivot. This application, if approved, does not authorize any increase in the diversion rate. The wells and acreage are located within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7943-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on 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 April 7, 2014.

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 \$62.45. (March 26, 2014)

All legal notices in the Public Opinion and other South Dakota newspapers can be found at
www.sdpublicnotices.com



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



March 14, 2014

Grant County Review
PO Box 390
Milbank SD 57252

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7943-3 to Appropriate Water. Please publish the notice once on March 26, 2014. 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 Marvin Amdahl, 45138 150th St, Ortle SD 57256 (Ph # 605-881-6196).

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

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



March 14, 2014

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7943-3 to Appropriate Water. Please publish the notice once on March 26, 2014. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



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

March 14, 2014

Marvin Amdahl
45138 150th St
Ortley SD 57256

Dear Mr. Amdahl:

Water Permit Application No. 7943-3 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 Grant County Review printed at Milbank SD (Ph # 605-432-4516) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). 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
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 March 26, 2014. 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. 7943-3 to Appropriate Water

Notice is given that Marvin Amdahl, 45138 150th St, Ortle SD 57256 has filed an application for a water permit to irrigate 38 new acres. Water Permit No. 7328-3 appropriates 1.78 cubic feet of water per second from five wells (one well 142 feet deep-Prairie Coteau Aquifer and four wells 45 feet deep-Big Sioux:North Aquifer) located in the N 1/2 NE 1/4 Section 4 to irrigate 162 acres located in the N 1/2 Section 4; all in T120N-R52W. This application proposes to irrigate 38 new acres located in the N 1/2 Section 4-T120N-R52W from the existing wells by adding 2 towers to the existing center pivot. This application, if approved, does not authorize any increase in the diversion rate. The wells and acreage are located within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7943-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on 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.

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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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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



APR 24 2014

Marvin Amdahl
45138 150th St
Ortley SD 57256

Dear Mr. Amdahl:

Enclosed is Water Permit No. 7943-3 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



7943-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 23, 2020

NOTICE

TO: MARVIN AMDAHL, 45138 150TH ST, ORTLEY, SD 57256 5113

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2019 Irrigation Questionnaires

Our records indicate your 2019 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 18, 2019. The Water Management Board has directed that owners of water permits who have not submitted the 2019 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 2715-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 7328-3, 7783-3 & 7943-3 qualification:

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

The hearing will be held at **Wednesday, February 26, 2020 at 8:30 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) 7328-3, 7783-3 & 7943-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 2715-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

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

If the questionnaires are received in this office before the **February 26, 2020** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://denr.sd.gov/iq> using this password: GMLYLI**

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

January 30, 2020

Marvin Amdahl
45138 150th St
Ortley SD 57256-5113

RE: Water Right No. 2715-3 and Water Permit Nos. 7328-3, 7783-3 & 7943-3

Dear Mr. Amdahl:

I am writing to acknowledge receipt of your 2019 irrigation questionnaires.

You may disregard the January 23, 2020, "Notice" concerning reporting requirements for Water Right No. 2715-3 and Water Permit Nos. 7328-3, 7783-3 & 7943-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Genny McMath". The signature is written in a cursive, flowing style.

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



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

JUL 14 2023

Marvin Amdahl
45138 150th St
Ortley SD 57256

8734-3
7943-3
7783-3
7328-3

Dear Mr. Amdahl:

Enclosed is Water License No. 8734-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

NOTE: The applicable portions of Water Permit Nos. 7328-3, 7783-3, and 7943-3 have been incorporated into Water Right No. 8734-3.

enclosures