

WATER PERMIT NO. 2012-1

Name of Applicant: Jesse Horstmann

Address: 20014 Ridgefield Loop, Spearfish SD 57783

Phone: 605 641-9179

Amount of Water Claimed: 0.5 cfs

Total Acres: 43.5

Source of Water Supply: groundwater (1 well)

Water to be used for: irrigation

County: Lawrence

Type of Waste Disposal System:

Location: 1 mile northwest of Whitewood

PRIORITY

Date Received: 12-23-22

Application/License Fee: \$ 700

Corrected Application Received: 1-10-22

Period of Annual Use: March 1 – November 31

Remarks: pump from well to dugout and then from dugout to land

Diversion Point: SW 1/4 SE 1/4 Sec 15-T6N-R4E

Land to be Irrigated: SW 1/4 Sec 15-T6N-R4E

Depth of Well: 1200 feet deep

Well Driller:

Remarks:

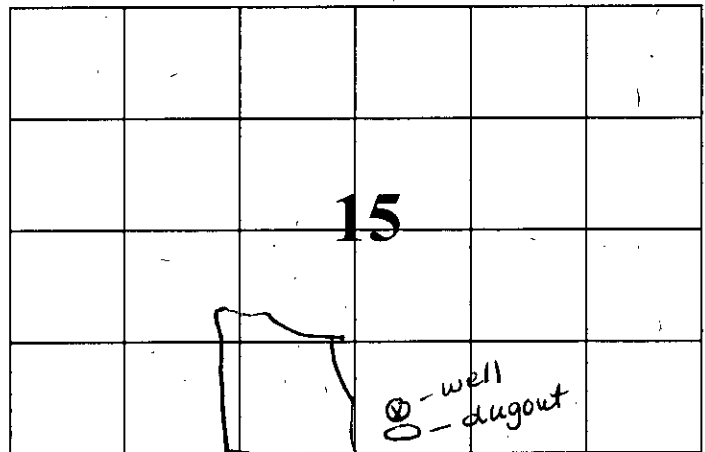
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-12-22

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



**SOUTH DAKOTA
WATER PERMIT NO. 2012-1**

Date of first receipt of application December 23, 2021.

Date of return to applicant for corrections, amendments or changes December 28, 2021.

Date of receipt of corrected application January 10, 2022.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2012-1 to Jesse Horstmann, 20014 Ridgefield Loop, Spearfish SD 57783 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. 2012-1 appropriates 0.5 cubic feet of water per second (cfs) from one well to be completed into the Madison Aquifer (approximately 1,200 feet deep) located in the SW 1/4 SE 1/4 Section 15 to supply a 2 acre-feet dugout located in the SW 1/4 SE 1/4 Section 15 for irrigation of 43.5 acres located in the SW 1/4 Section 15; all in T6N-R4E. Water will be pumped from the proposed well to the dugout and then applied to the acreage from the dugout at a rate of 0.89 cfs. This site is located approximately one mile northeast of Whitewood SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: March 1 – November 30.
3. The date from which applicant may claim right is December 23, 2021.
4. The date of approval of Permit No. 2012-1 is March 21, 2022.
5. One-fifth of the construction is to be completed on or before September 21, 2024.
6. All construction is to be completed on or before March 21, 2027.
7. Water is to be put to beneficial use on or before March 21, 2031.
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. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2012-1 is issued for a twenty-year term. Pursuant to SDCL 46-2A-21, the twenty-year term may be deleted at any time during the twenty-year period or following its expiration. If the twenty-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2012-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. The well will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

(continued)

3. The well authorized by Permit No. 2012-1 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. The maximum diversion rate from the well is 0.5 cubic feet of water per second (cfs) pumped to a dugout. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 2012-1 authorizes a maximum diversion rate of 0.89 cfs from the dugout for the irrigation of 43.5 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
5. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

APR 28 2022

date



FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2012-1</u>	(office use only) Hydrologic Unit <u>10120202</u>
	Basin <u>Belle Fourche</u>	
	Newspaper <u>Black Hills Pioneer</u>	

PAID
DEC 23 2021
Ck# 6997

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.)

Contact: Friske@friskesodfarms@outlook.com

1. Name to Appear on Irrigation Permit Jesse Horstmann

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

Mailing Address 20014 Ridgely Loop Spearsfish SD 57783
(Address) (City) (State) (Zip Code)

Phone _____ Mobile 605-641-9179 Email jesse@legacyenterprises.net

2. Amount of water claimed 0.5 *CFS or 225 **GPM 2 ***AF Total Acreage 43.5
(*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 0.89cfs - 400gpm from dugout to land

4. Location of point of diversion 1 well in SW 1/4 SE 1/4 Section 15 T6N R4E
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County Lawrence

5. County or counties where water will be used Lawrence

6. Annual period during which water is to be used March 1 - November 30

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>SE 1/4 SW 1/4 Section 15 T6N R4E</u>	<u>32.5</u>		
<u>NE 1/4 SW 1/4 Section 15 T6N R4E</u>	<u>4.5</u>		
<u>SW 1/4 SW 1/4 Section 15 T6N R4E</u>	<u>4.5</u>		
<u>NW 1/4 SW 1/4 Section 15 T6N R4E</u>	<u>2</u>		

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

A dugout will be supplied by the proposed well. Water will then be diverted at a rate of 400gpm to supply the system. The system will consist of hand moved pipe and sprinklers. The system will be used to irrigate 43.5 acres of Sod.

I, [Signature], the applicant, certify under
Name of Person Title (if applicable)

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

X c) Well Depth (required) 1200 Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

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

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System _____

3. Dugout Informationa) Surface Dimensions 300' x 125' Depth 6'b) Depth to water (ground surface to water level) 4 FT**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)

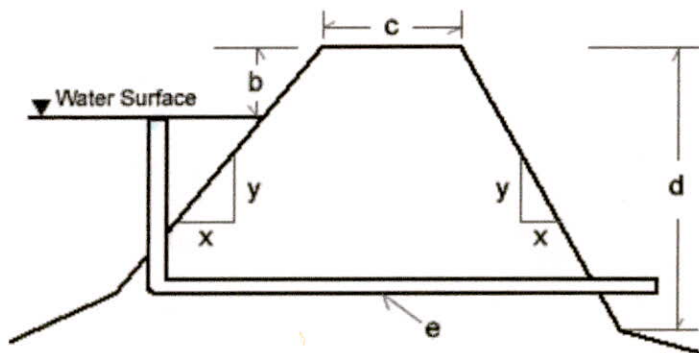
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

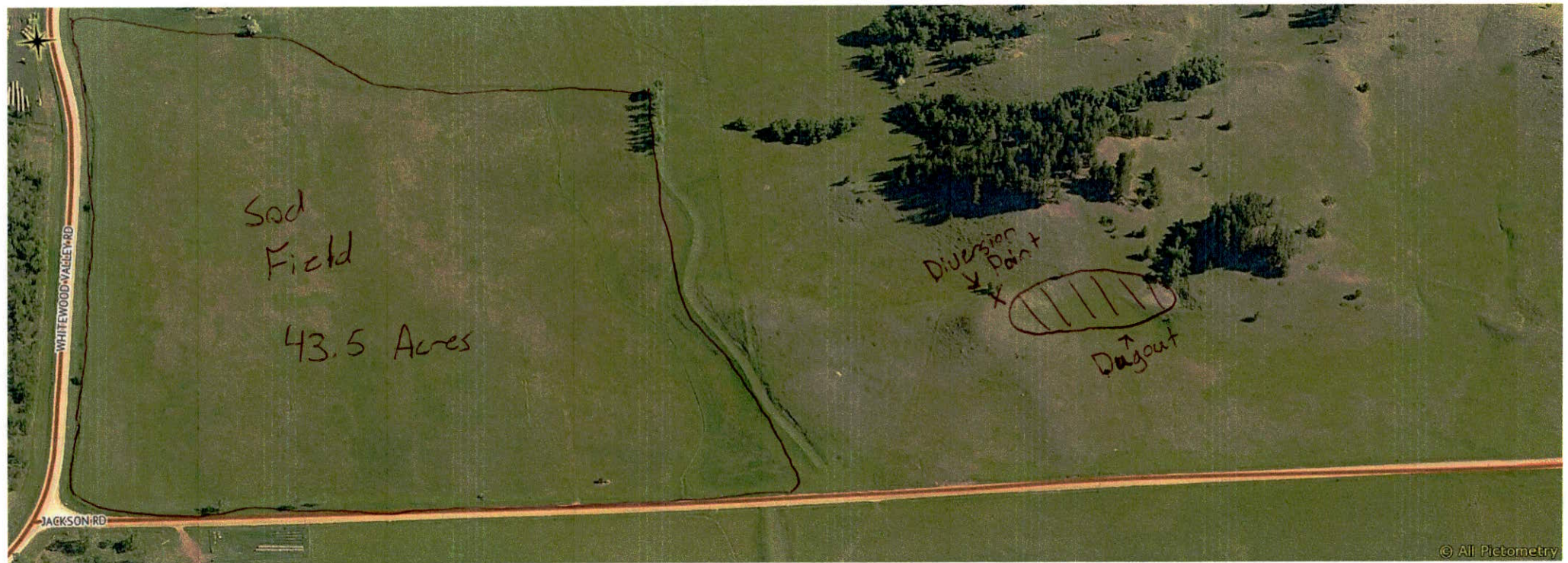
i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





Sod Farm



06/06/2016

Schlaak, Karen

From: Connor Friske <friskesodfarms@outlook.com>
Sent: Wednesday, January 12, 2022 10:49 PM
To: Schlaak, Karen
Subject: Re: [EXT] Water Permit Application for Jesse Horstmann

The proposed well depth is 1200ft. Water will be drawn from the Madison formation

Get Outlook for iOS

From: Schlaak, Karen <Karen.Schlaak@state.sd.us>
Sent: Wednesday, January 12, 2022 2:41:14 PM
To: friskesodfarms@outlook.com <friskesodfarms@outlook.com>
Subject: Water Permit Application for Jesse Horstmann

Thank you for submitting the additional information requested.
As indicated on the attached Form 2A, the proposed depth of the well is required. You should contact your well driller for this information.

Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

December 28, 2021

Jesse Horstmann
20014 Ridgefield Loop
Spearfish SD 57783

Dear Mr. Horstmann:

Thank you for submitting the *Application for a Permit to Appropriate Water for Irrigation* located in Lawrence County. In order to complete the application, the following is required.

- Enclosed is the map submitted. I am assuming the X Diversion Point is the location of the well. Please identify the location of the dugout.
- Just so I understand your application correctly, you are proposing to pump at a rate of 225 gallons per minute (gpm) from the well to the dugout. Water will then be diverted at a rate of 400 gpm from the dugout to the land. Is this correct?
- The application was submitted with a check for \$500.00. The inspection fee is also required at this time. Please submit an additional \$200.00.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

enclosure

Jesse Horstmann
20014 Ridgefield Loop
Spearfish SD 57783
January 6, 2022

Karen Schlaak
Water Rights Program
523 E. Capitol Ave
Pierre SD 57501

RECEIVED

JAN 10 2022

WATER RIGHTS
PROGRAM

PAID

JAN 10 2022

Ck# 7027

Rec't# _____

Dear Karen Schlaak:

Enclosed is the map you requested showing the location of the dugout. The dugout will be directly east of the of the diversion point marked on the map. The diversion point will be where both the proposed well and the pump to transfer water from the dugout to the field will be located. Also enclosed in this letter is the \$200 check for the inspection fee.

To answer your other question, correct. The proposed well will supply the dugout at a rate of 225 GPM. Water will then be transferred at a rate of 400 GPM from the dugout to the field. The design of the system requires higher flow than 225 GPM to operate but will only be run for a few hours at a time.

Thank you for the response. If any additional information is required, please email Connor at friskesodfarms@outlook.com or call 701-590-9412.

Sincerely,

Jesse Horstmann

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date December 23, 2021

RECEIVED OF Jesse/Amber Horstman 20014 Ridgefield Loop, Spearfish SD 57783

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

Fee for Application for Permit No. <u>2012-1</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>500.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	\$ _____
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law)	TOTAL \$ <u>500.00</u>

By Eric Gronlund
Chief Engineer

VM

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date January 10, 2022

RECEIVED OF Jesse/Amber Horstman 20014 Ridgfield Loop, Spearfish SD 57783

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	\$ _____
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>2012-1</u>	<u>\$200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law) TOTAL	<u>\$200.00</u>

By Eric Gronlund
Chief Engineer
me



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2012-1, Jesse Horstmann**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 2012-1, Jesse Horstmann, 20014 Ridgefield Loop, Spearfish SD 57783.

The Chief Engineer is recommending APPROVAL of Application No. 2012-1 with a twenty-year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2012-1 is issued for a twenty-year term. Pursuant to SDCL 46-2A-21, the twenty-year term may be deleted at any time during the twenty-year period or following its expiration. If the twenty-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2012-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. The well will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The well authorized by Permit No. 2012-1 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. The maximum diversion rate from the well is 0.5 cubic feet of water per second (cfs) pumped to a dugout. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 2012-1 authorizes a maximum diversion rate of 0.89 cfs from the dugout for the irrigation of 43.5 acres with an annual volume not to exceed 2 acre feet of water per acre per year.

continued

5. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

A handwritten signature in cursive script, appearing to read "Eric Gronlund".

Eric Gronlund, Chief Engineer

March 1, 2022

**Report to the Chief Engineer on
Water Permit Application No. 2012-1**

Jesse Horstmann
10 February 2022

Water Permit Application No. 2012-1 seeks to appropriate 0.5 cubic feet of water per second (cfs), equivalent to approximately 225 gallons per minute (gpm) from one well to be completed into the Madison aquifer (approximately 1,200 feet deep) located in the SW ¼ SE ¼ Section 15 to supply a 2 acre-foot dugout located in the SW ¼ SE ¼ Section 15 for irrigation of 43.5 acres located in the SW ¼ Section 15; all in T6N-R4E. Water will be pumped from the proposed well to the dugout and applied to the acreage at a rate of 0.89 cfs (400 gpm). The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one mile northeast of Whitewood, South Dakota.

Aquifer: Madison (MDSN)

Hydrogeologic Characteristics of the Madison Aquifer

The Madison Group in South Dakota is a Lower Mississippian and Upper Devonian group of formations consisting of the Englewood and Pahasapa Limestone formations in the Black Hills [1]. The Pahasapa Limestone is a “white, light-gray to tan, fine- to medium-grained limestone and dolomite containing brown to gray chert [2].” The Englewood Limestone is a “pink to lavender to light-gray, thin- to medium-bedded, fine- to medium-grained, argillaceous, dolomitic limestone [2].” The Madison aquifer consists of the permeable and porous portions of the Madison Group that are sufficiently saturated to deliver useful quantities of water. The Madison aquifer extends over more than 210,000 square miles in Montana, Wyoming, North Dakota, South Dakota, and Nebraska [3], although it may not be suitable as a source of water in all of those areas due to extreme depth to the aquifer and low water quality far from the outcrops [4]. The Madison aquifer may be hydrologically connected to the Deadwood aquifer underlying it in some locations and is connected to the Minnelusa aquifer above it [5]. There are other bedrock aquifers that receive natural discharge from the Madison aquifer further away from the Black Hills where confining layers between the Madison aquifer and those aquifers are absent. The hydraulic head of the Madison aquifer is higher than land surface in many places around the Black Hills, causing some wells completed into the aquifer to flow without a pump [6]. Numerous springs and seeps in the Black Hills flow with water that has been determined to come from the Madison aquifer [7]. Some incidental surface runoff may also accumulate in the dugout, but any surface water contribution will be negligible.

The applicant did not submit a well completion report with the application, but sufficient geological information is available to analyze this application. There is a well completion report for a domestic well completed into the Madison aquifer located approximately 0.7 miles west of this application which was completed on March 30, 1995. The driller indicated Madison Limestone was encountered 1,020 to 1,100 feet below grade. The static water level at the time the well was completed was 70 feet below grade, so there were 950 feet of hydraulic head above the top of the aquifer at the time the well was completed. The Madison aquifer is approximately 500 feet thick in the area of this application [8] [9].

Applicable South Dakota Codified Law

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued 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 domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board. This report will only assess the availability of water and possibility of developing this application without unlawful impairment of existing domestic water uses and water rights.

Pursuant to SDCL 46-6-3.1, 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 the water to the groundwater source. An exception allows water distribution systems to withdraw from groundwater sources older or stratigraphically lower than the Greenhorn Formation regardless of the results of a hydrologic budget. The applicant is not a water distribution system as defined in SDCL 46-1-6(17), but the Madison aquifer is older and stratigraphically lower than the Greenhorn Formation. Therefore, it is necessary to find that recharge exceeds withdrawals to approve this application.

Pursuant to SDCL 46-2A-20:

Notwithstanding §§ 46-1-14 and 46-2A-7, no water permit for construction of works to withdraw water from the Madison formation in Butte, Fall River, Custer, Lawrence, Meade and Pennington counties may be issued for a term of more than twenty years, unless the Water Management Board determines, based upon the evidence presented at a hearing that:

- (1) Sufficient information is available to determine whether any significant adverse hydrologic effects on the supply of water in the Madison formation would result if the proposed withdrawal were approved; and*
- (2) The information, whether provided by the applicant or by other means, shows that there is a reasonable probability that issuance of the proposed permit would not have a significant adverse effect on nearby Madison formation wells and springs.*

This application proposes to withdraw water from the Madison aquifer in one of the counties listed above. Therefore, in addition to the other requirements, the Water Management Board must consider the effect this application may have on nearby Madison aquifer wells and springs and this application is subject to a 20-year term limit.

Pursuant to SDCL 46-5-6 the amount of water diverted may not exceed 1 cfs per 70 acres irrigated, but also provides that the "Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation, any time constraints on diversion of water, or the type of soil so requires." The applicant is requesting to divert more than 1 cfs per 70 acres because the irrigation method "will consist of hand moved pipe and sprinklers." In addition, sod is to be irrigated which will require a greater presence of equipment and people on the irrigated area than a typical cropping situation. In the past, the Water Management Board has approved applications that request a higher diversion rate than the statutory limit for similar reasons.

Availability of Water in the Madison Aquifer

Statewide Hydrologic Budget

Statewide Recharge

The Madison aquifer receives recharge from infiltration of precipitation and streamflow on the outcrop area and may also receive inflow from the underlying Deadwood aquifer [5]. There are several reports available estimating recharge to the Madison aquifer.

Woodward-Clyde Consultants [10] estimated recharge to the outcrop of the Madison aquifer in the Black Hills as part of an environmental impact statement for the ETSI Coal Slurry Pipeline Project. The upper-bound estimate of recharge in the Woodward-Clyde Consultants report is approximately 400,000 ac-ft/yr, assuming almost all of the precipitation that falls on the outcrop infiltrates into the aquifer [10]. Woodward-Clyde Consultants produced a lower-bound recharge estimate of 140,000 ac-ft/yr based on the Rahn and Gries [7] report [10]. However, the Rahn and Gries report estimated recharge for all Paleozoic limestone in the Black Hills, which includes the Madison Group, the Minnelusa Formation, and the Minnekahta Formation [7]. Rahn and Gries [7, p. 15] reported that 146.14 cfs was their minimum estimated recharge rate for the Paleozoic limestone from infiltration of precipitation, which converts to approximately 106,000 ac-ft/yr for all Paleozoic formations. The Woodward-Clyde Consultants report did not acknowledge the fact that the Rahn and Gries [7] report estimated minimum recharge for a larger group of formations than the Woodward-Clyde Consultants report covers [10].

Carter, Driscoll, and Hamade [5] analyzed streamflow and precipitation data from water years 1931 to 1998 in the Black Hills area in South Dakota and Wyoming to determine the average annual recharge to the Madison and Minnelusa aquifers. They estimated a combined average annual recharge to both aquifers to be 344 cfs, or approximately 249,000 ac-ft/yr, not including possible flow from the Deadwood aquifer [5]. Carter, Driscoll, and Hamade [5] estimate that approximately 55% of the recharge goes to the Madison aquifer, so the total estimated average recharge to the Madison aquifer from the outcrop in the Black Hills is 137,000 ac-ft/yr, not including possible inflow from adjacent aquifers. The Carter, Driscoll, and Hamade [5] report uses more years of data, more recent data, and better assumptions than the Woodward-Clyde Consultants [10] and Rahn and Gries [7] reports. Therefore, the best estimate of recharge to the Madison aquifer is based on the Carter, Driscoll, and Hamade [5] report.

Statewide Discharge

Discharge from the Madison aquifer in South Dakota is mainly by outflow to other aquifers when the hydraulic head in the Madison aquifer is higher than those aquifers, outflow to springs and seeps, and by withdrawals by domestic and appropriative wells [11]. Due to the presence of overlying aquifers and water distribution systems in many areas of the aquifer, domestic well withdrawals are a negligible portion of the hydrologic budget of the Madison aquifer. There are 157 water rights/permits currently authorized to withdraw from the Madison aquifer and 10 future use water rights/permits reserving water from the Madison aquifer. Table 1 shows the future use permits reserving water from the Madison aquifer [12].

Of the 157 active water rights/permits, 93 are primarily for some kind of water distribution system (rural water system, municipal, etc), 30 primarily for irrigation, 14 for commercial use, 11 for industrial use, 4 for domestic use, 2 for geothermal use, 2 for institutional use, and one for

recreation. Estimated withdrawals for irrigation use are shown below in Table 2 (page 5). When there were more than 10 years of irrigation reports available, the average reported irrigation was used to estimate irrigation withdrawals. When there were less than 10 years of irrigation reports available, withdrawals are assumed to equal 2 acre-feet per acre although actual usage is likely less for non-turf irrigation. Non-irrigation withdrawals from permit holders with irrigation as a permitted use are assumed to withdraw at their maximum instantaneous diversion rate 60% of the time. In the case of Water Right No. 1885-1, that would have caused the total estimated withdrawal to exceed the rate they were physically capable of withdrawing, so their total estimated withdrawal is 100% of their maximum instantaneous diversion rate.

Table 1: Future Use Permits from the Madison aquifer [12]

Permit No.	Name/Business	County	Use	Priority Date	Amount Reserved (ac-ft/yr)
369-1	City of Belle Fourche	LA	MUN	12/10/1958	620
2086-2	City of Rapid City	PE	MUN	05/18/1989	4,075
439-2	City of Rapid City	PE	MUN	09/22/1956	3,367
1872-1	City of Spearfish	LA	MUN	11/13/2006	2,704
2560-2	Fall River Water Users District	FR	RWS	05/16/2005	358
2560A-2	Fall River Water Users District	FR	RWS	05/16/2005	0
2560B-2	Fall River Water Users District	FR	RWS	05/16/2005	0
2580-2	Southern Black Hills Water System	FR	RWS	03/02/2006	1,474
1833-2	Weston Heights Home Owners	MD	RWS	02/18/1983	211
1995-1	Black Hawk Water User District	MD	RWS	04/15/2020	1,300
Total					14,109
FR – Fall River, LA – Lawrence, MD – Meade, PE – Pennington					
MUN – Municipal, RWS – Rural Water System					

Water Right/Permit Nos. 1096-1, 1096A-1, 1496-1, and 1670-1 are all authorized to withdraw from one well and one dam. Water Right Nos. 1096-1, 1096A-1, 1670-1 authorize diversion of water for irrigation use and Water Right No. 1096A-1 and Water Permit No. 1496-1 authorize diversion of water for rural water system use. Documentation in the administrative file for Water Right No. 1670-1 indicates that the well is not valved such that it can be shut off when not in use for the beneficial uses listed on the permits. A letter dated September 9, 1998 indicates that when the water for that well is not being used for the beneficial uses described in the permits, it is used for fish and wildlife propagation. The person writing the letter indicated they would prefer the Water Management Board not to order the well to be shut off when not used for irrigation or rural water system withdrawals. It is likely the well continues to flow uncontrolled, so at the flow rate listed in Water Right No. 1096A-1 of 1.33 cfs, that well withdraws approximately 964 ac-ft/yr from the Madison aquifer.

Water Right No. 1650-1 does not require the water right holder to report annual withdrawals and allocates no acreage. It provides supplemental water supply from a flowing well for Water Right No. 1231-1. Water Right No. 1231-1 permits a 110 acre-ft dam to provide water for a commercial livestock operation and irrigation of 134 acres. Water Right No. 1650-1 allows for direct irrigation from a Madison aquifer well of up to 2 acre-ft per acre for the land permitted by Water Right No. 1231-1. Kilts estimated that Water Right No. 1650-1 withdraws 55.9 ac-ft/yr [13].

Report on Water Permit App. No. 2012-1

There are 35 water rights/permits that have a volume limit listed in their permit or have had their total withdrawal limited by a subsequent water right/permit held by the same person/entity. While many of those water rights/permits are required to report their withdrawals, they may develop their permits further to withdraw up to the limit on their permit. The total volume limit listed by such permits is 20,886 ac-ft/yr.

There are 89 non-irrigation water rights/permits that do not have a volume limit listed in their permit and are not discussed above. They are estimated to withdraw up to their maximum instantaneous diversion rate 60% of the time, for a total estimated withdrawal of 16,897 ac-ft/yr. Based on Water Rights Staff experience, this estimate is likely to be higher than the actual withdrawals by those water rights/permits.

Table 2: Permits with irrigation listed as one beneficial use, or are connected to an irrigation permit [12] [14]

Permit No.	Name/Business	Diversion rate (cfs)	Acres Licensed/ Permitted	Average Report (ac-ft/yr)	Years of Irrigation Reports	Estimated average irrigation (ac-ft/yr)	Est. Non-irr. Use (ac-ft/yr)	Total Est. Withdrawal (ac-ft/yr)
2773-2	Arrowhead Country Club	1.110	100.00	0	3	200.0	0.0	200.0
1096-1	Bar Bar V Livestock LLC	1.880	216.00	65.5	30	*	*	*963.5
1670-1		3.610	253.00	49.6	23	*	*	*
1635-1	Black Hills National Cemetery	0.820	54.50	95.6	25	95.6	356.4	452.0
1452-1	Black Hills State College	3.330	25.44	18.5	32	18.5	1,447.5	1,465.9
1096A-1	Butte Meade Sanitary Dist	1.330	0.00	N/A	0	*	*	
2458-2	City of Rapid City	0.800	107.00	101.6	20	101.6	0.0	101.6
2002-1	City of Spearfish	1.330	40.00	N/A	0	80.0	0.0	80.0
2313-2	Coca-Cola Bottling	0.330	3.00	7.3	26	7.3	143.4	150.8
1899-1	Davis Ranches Inc	1.430	100.00	0.0	12	0.0	0.0	0.0
2673-2	Diocese of Rapid City	0.120	7.00	8.3	8	14.0	0.0	14.0
1009-1	Donald F/Ann J Brady	0.780	53.73	31.1	39	31.1	0.0	31.1
1185-1		0.380	22.52	109.1	39	109.1	***	109.1
2286-2	Donald Konechne	0.100	38.50	10.6	27	10.6	0.0	10.6
1707A-1	Elkhorn Ridge @ Frawley Ranches LLC	3.705	100.00	N/A	0	200.0	1,610.5	1,810.5
1707E-1		0.000	0.00	38.3	2	**	**	
1931-1		0.170	3.30	3.0	8	6.6	73.9	80.5
1650-1	Foothill Land & Cattle LLC	0.890	0.00	N/A	0	*	*	*55.9
1945-1	Frawley Ranches LLC	1.110	265.00	46.9	7	530.0	0.0	530.0
1858-1	Glencoe Camp Resort II LLC	0.860	34.00	0.0	15	0.0	373.8	373.8
2593-2	Hart Ranch Development	0.490	72.50	15.2	14	15.2	213.0	228.2
1911-2	Hart Ranch Development Co	0.880	124.00	121.1	27	121.1	382.5	503.6
1725-2	Janice R Crowser	1.070	75.10	2.8	22	2.8	0.0	2.8
1923-1	Jim Montieth	0.110	3.00	1.0	9	6.0	47.8	53.8
858-2	John & Heidi McBride	9.360	655.75	7.1	35	7.1	0.0	7.1
1885-1	John T & Veronica Widdoss	0.110	22.00	14.9	4	44.0	35.7	79.7
1223-1	Montana Dakota Land LLC	0.670	263.00	200.4	39	200.4	0.0	200.4
1960-1	One Diamond Inc	1.280	150.00	137.0	5	300.0	556.4	856.4
1363-1	Spearfish Canyon Cntry Cl	0.900	80.10	61.3	34	61.3	0.0	61.3
2106-2	Stuart Rice	0.080	2.80	0.9	26	0.9	34.8	35.7
1842-1	Tom C Davis	0.440	330.00	0.0	16	0.0	0.0	0.0
2741-2	Tubbs Land & Cattle LLC	3.340	567.00	0.0	2	1,134.0	0.0	1,134.0
419-2	Wind Cave National Park	0.150	6.00	N/A	0	12.0	65.2	77.2
Total		42.965	3,774.24			3,309.1	5,340.8	9,669.4

* Discussed in text. **gives additional time to develop 1707A-1. *** Reports all use types in irrigation report

In addition to the potential withdrawals by future use permits described above, two other applications are deferred or held in abeyance and one application is pending approval. Water Permit Application No. 2585-2 for Southern Black Hills Water System seeks to appropriate 1,600 ac-ft/yr but is deferred for further study. Water Permit Application No. 2685-2 for

Powertech, Inc is held in abeyance pending federal permitting and seeks to appropriate 889 ac-ft/yr. Water Permit Application No. 2011-1 for Meadow Crest Sanitary District seeks to appropriate 5.83 ac-ft/yr from either the Madison or Deadwood aquifers.

Summary of Statewide Hydrologic Budget

The best available estimate of recharge to the Madison aquifer in South Dakota is approximately 137,000 ac-ft/yr. The estimated withdrawals as described in the Statewide Discharge section are summarized in Table 3. The total estimated withdrawal, including withdrawals reserved for future use and pending, held, or deferred applications is approximately 64,056 ac-ft/yr. This application may withdraw up to 87 ac-ft/yr if it is approved. Therefore, based on the statewide hydrologic budget, there is reasonable probability unappropriated water is available for this application.

Table 3: Summary of withdrawals from Madison aquifer rounded to the nearest 1 acre-foot.

Type	Count	Est. Rate (ac-ft/yr)
Irrigation (Table 4)	33	9,669
Volume limit	35	20,886
Diversion Rate limit	89	16,897
<i>Subtotal (authorized to withdraw)</i>	<i>157</i>	<i>47,452</i>
Future use (Table 3)	10	14,109
Pending/deferred/held	3	2,495
Grand total	170	64,056

Local Hydrologic Budgets

Since this application is near the outcrop of the Madison aquifer, it is appropriate to analyze local hydrologic budgets. Two local hydrologic budgets are available, based on recharge estimates from different studies of similar quality of analysis but with different study area boundaries [11] [15]. Figure 1 shows the study area boundaries relative to this application [11] [15]. Both studies estimate hydrologic budgets for the Madison and Minnelusa aquifers together [11] [15].

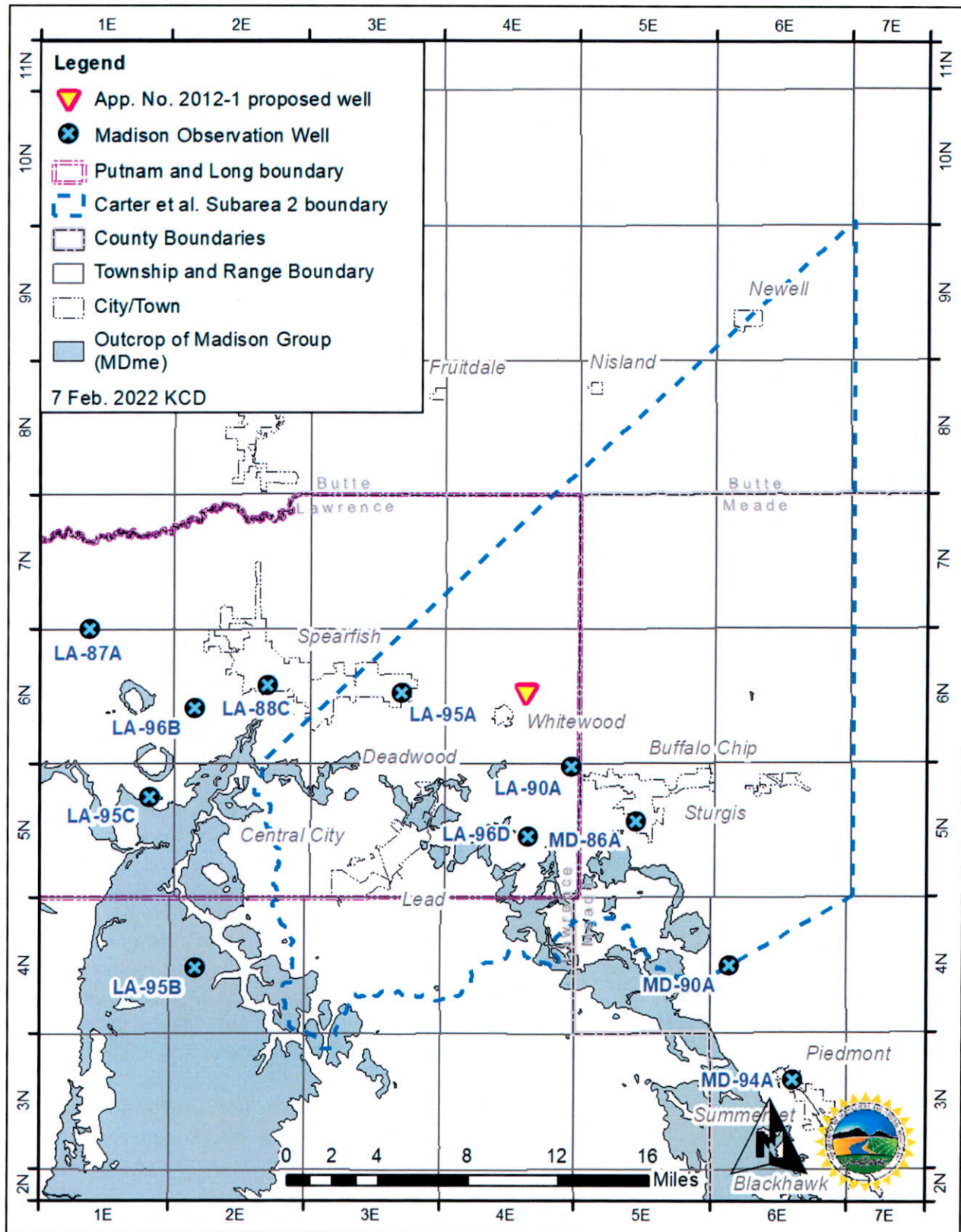


Figure 1: Location of this application, local hydrologic budget boundaries [11] [15], outcrop of the Madison Group [16], and observation wells completed into the Madison Aquifer [17]

Carter, et al.

Carter, et al. [11] divided the area around the Black Hills into 9 Subareas and used streamflow, precipitation, spring flow, estimated ground water flow, and well withdrawal data from 1987 to 1996 for the hydrologic budgets. This application is in Subarea 2 of their report. The boundaries of the Carter et al. [11] subareas were designed to minimize flow across subarea boundaries, although at the time of the study, there was some net flow from Subarea 1 to Subarea 2 and across other subarea boundaries. Carter et al. [11] estimated the total recharge to the Madison and Minnelusa aquifers in Subarea 2 was 37.9 cfs. Assuming 55% of the recharge goes to the Madison aquifer, the estimated recharge in Subarea 2 is 20.8 cfs, or approximately 15,101 ac-ft/yr [5] [11]. Carter, et al. [11] do not provide values for the recharge area of the Madison and Minnelusa formations for each subarea in their report, so it is possible the proportion of recharge area to those aquifers is different within the subarea. Following the same methods as the Statewide Discharge section, withdrawals from Carter et al. [11] Subarea 2 within South Dakota are shown in Table 4. The total estimated withdrawals including water reserved for future use is approximately 10,598 ac-ft/yr [12] [14]. This application seeks to withdraw up to 87 ac-ft/yr. Therefore, based on this hydrologic budget, there is reasonable probability unappropriated water is available for this application.

Table 4: Madison withdrawals estimated within Carter et al. [11] Subarea 2 in South Dakota [12] [14] rounded to the nearest 1 acre-foot.

Type	Count	Est. Rate (ac-ft/yr)
Irrigation	8	3,381
Volume limit	8	2,073
Diversion rate limit	19	2,434
<i>Subtotal (authorized to withdraw)</i>	35	7,888
Future use	1	2,704
Pending/deferred/held	1	6
Grand total	37	10,598

Putnam and Long

Putnam and Long [15] estimated precipitation recharge to the Madison formation to be approximately 8.0 cfs. They estimated streamflow recharge to the Madison and Minnelusa formations along Bear Gulch, Beaver Creek, Spearfish Creek, and False Bottom Creek was 17.5 cfs [15]. There are also other streams and stream channels that flow over the Madison Formation in the Putnam and Long [15] study area [4]. Putnam and Long [15] estimated that on average, natural discharge from the Madison and Minnelusa aquifers by spring flow was 51 cfs, which is more than the recharge rate estimated. This means that there is likely some groundwater inflow from other aquifers than the Madison and Minnelusa aquifer or from the Madison and Minnelusa aquifers outside of the study area. There is probably also additional streamflow recharge from the streams not included in the Putnam and Long [15] study. Some natural discharge is available for capture, and the Putnam and Long [15] study does not include well withdrawals in its estimates of recharge and discharge. The Putnam and Long [15] study also does not account for groundwater inflow from the west that is likely to occur [11]. Assuming 55% of the streamflow recharge goes to the Madison aquifer [5], then approximately 9.6 cfs goes to the Madison aquifer from streamflow from the four streams specified above, the total estimated recharge in the study

area is 17.6 cfs (approx. 13,000 ac-ft/yr). Assuming 55% of the spring flow discharge comes from the Madison aquifer [5], then approximately 28.1 cfs (approx. 20,000 ac-ft/yr) flows out of the Madison aquifer as spring flow. The actual natural discharge from the Madison aquifer from springs is likely to be a much higher proportion of all spring flow, because Naus, Driscoll, and Carter [18] used chemical and dye analysis to find that three of the four major springs in the study area are supplied 70% or more from the Madison aquifer. Since the Putnam and Long [15] study was published in 2007, it is reasonable to assume new discharges starting January 1, 2007, withdraw from the natural discharge described in the study. Following the same methods as the Statewide Discharge section, the total estimated appropriative withdrawal from the Putnam and Long [15] study area is approximately 13,178 ac-ft/yr (Table 5, see page 9) [12] [14]. The total estimated appropriative withdrawal from water rights/permits with a priority date after the publishing date of the Putnam and Long study is approximately 1,992 ac-ft/yr (Table 5) [12] [14]. This application proposes to withdraw 87 ac-ft/yr. Therefore, based on a hydrologic budget within the Putnam and Long [15] study area boundaries, there is reasonable probability unappropriated water is available for this application.

Table 5: Madison withdrawals estimated inside the Putnam and Long [15] study area [12] [14]

Type	All time		After Jan. 1, 2007	
	Count	Est. Rate (ac-ft/yr)	Count	Est. Rate (ac-ft/yr)
Irrigation	10	5,018	6	1,680
Volume limit	9	4,742	5	128
Diversion rate limit	18	3,412	2	178
<i>Subtotal (authorized to withdraw)</i>	37	13,172	13	1,986
Future use	0	0	0	0
Pending/deferred/held	1	6	1	6
Grand total	38	13,178	14	1,992

Observation Wells

Administrative Rule of South Dakota (ARSD) 74:02:05:07 requires that the Water Management Board relies upon the record of observation well data, in addition to other information, in order to determine that recharge to the aquifer exceeds withdrawals. The Water Rights Program maintains 25 observation wells completed into the Madison aquifer. The nearest Madison observation well to this application is LA-90A, located approximately 4.1 miles southeast of this application (Figure 2) [17]. This observation well is representative of water level fluctuations in the aquifer near this application. In general, water levels rise in the Madison aquifer and in Observation Well LA-90A during periods of higher-than-average annual precipitation and decline during periods of lower-than-average annual precipitation [19]. This means that recharge and natural discharge are the dominant effects in the aquifer and natural discharge is available for capture. Therefore, based on observation well analysis, there is reasonable probability unappropriated water is available for this application.

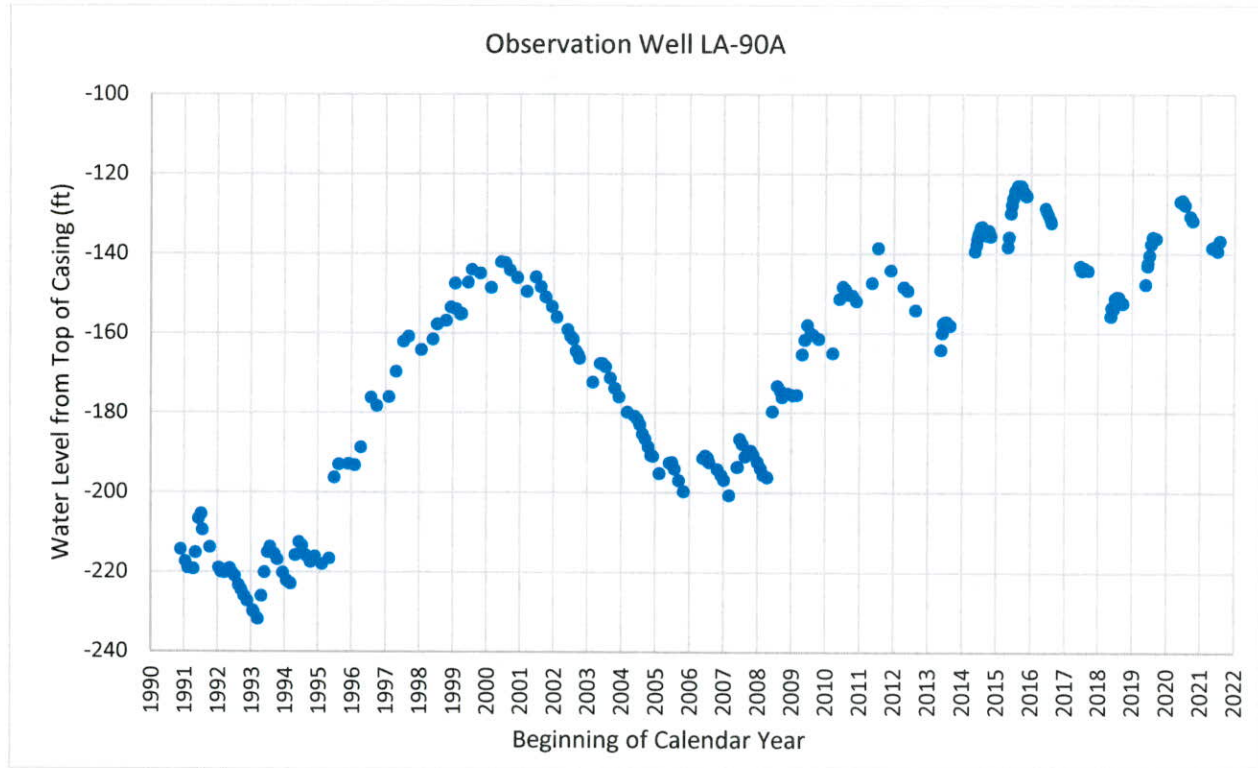


Figure 2: Water Levels in Observation Well LA-90A [17]

Potential for Unlawful Impairment of Existing Water Rights in the Madison Aquifer

The nearest water right/permit authorized to withdraw from the Madison aquifer is Water Right No. 1610-1, held by the City of Whitewood, and is located approximately 1.3 miles southwest of this application [12]. The domestic nearest well completion report to this application on file with the Water Rights Program that is likely to be completed into the Madison aquifer is the one mentioned in the section on hydrogeologic characteristics of the Madison aquifer, located 0.7 miles west of this application [6]. The Water Rights Program has historically interpreted an unlawful impairment of existing water rights to occur if a junior water right/permit causes a nearby adequate well with a senior water right/permit to become unable to withdraw at the rate it is entitled to or, if a domestic well is impacted, the water right/permit causes the adequate domestic well to be unable to withdraw at the rate needed to supply reasonable domestic use of water. Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) defines an adequate well as:

...a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet

In the hearing for Water Permit Application No. 2313-2 for Coca-Cola Bottling Company, the Water Management Board determined that to put the waters of the state to maximum beneficial use, hydraulic head would not be protected as a means of water delivery [20]. Some drawdown from this application is likely to occur and nearby well owners may need to lower their pumps to access the water in the aquifer. The applicant must also control their withdrawals so that nearby

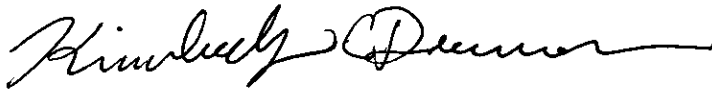
water rights/permits and adequate domestic wells are able to withdraw necessary water. There is no record of well interference complaints in Lawrence County [21]. Observation wells completed into this aquifer near larger appropriative wells show limited drawdown when the large appropriative wells are in use [17]. Given the lack of well interference complaints in this aquifer in Lawrence County, limited drawdown shown in observation wells completed near larger appropriations, and the abundance of hydraulic head in the aquifer in the area of this application, there is reasonable probability this application can be developed without unlawful impairment of existing water rights.

Springs

The nearest large springs to this application are Higgins Gulch and Old Spearfish Hatchery springs, located approximately 14 miles northwest of this application [18]. Upon considering the deferral of Water Permit Application No. 2585-2 for Southern Black Hills Water System, the Water Management Board adopted a conclusion of law stating in part, "... The only protection South Dakota law provides when considering an application for an underground water permit for flow from an artesian spring is under the public interest criteria" [22]. Given the distance between the proposed well site and the nearest springs, there is reasonable probability this application can be developed without noticeably impacting flow from the springs.

Conclusions

1. Water Permit Application No. 2012-1 seeks to appropriate up to 0.5 cfs from one well completed into the Madison aquifer located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 15 to supply a 2 acre-feet dugout located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 15 for irrigation of 43.5 acres located in the SW $\frac{1}{4}$ Section 15; all in T6N-R4E.
2. Water will be pumped from the proposed well to the dugout and applied to the acreage at a rate of 0.89 cfs.
3. Based on the hydrologic budgets and observation well analysis, there is reasonable probability unappropriated water is available for this application.
4. There is reasonable probability this application can be developed without unlawful impairment of existing water rights/permits.
5. There is reasonable probability this application can be developed without noticeably impacting flow from springs in the Black Hills.
6. This application is subject to a 20-year term limit.



Kimberly C. Drennon, E.I.
Natural Resources Engineer II – DANR Water Rights Program

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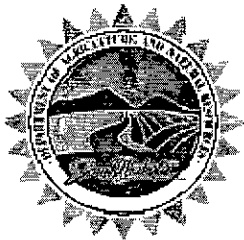
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Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, March 2, 2022 11:09 AM
To: Connor Friske
Subject: Water Permit Application No. 2012-1
Attachments: 2594.pdf

Attached is a copy of the report, chief engineer recommendation and information regarding the public notice for your water permit application. As stated in the letter, please contact the paper as soon as possible to authorize publication and arrange for payment. This information is being mailed to Jesse Horstmann today.

Karen Schlaak
DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



RECEIVED

MAR 14 2022

WATER RIGHTS
PROGRAM

Affidavit of Publication

STATE OF SOUTH DAKOTA:

COUNTY OF LAWRENCE:

Letitia Lister of said County and State being first duly sworn, on her oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Letitia Lister, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Letitia Lister, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice Of Application
No. 2012-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 1 successive and consecutive weeks, the first publication being made on the 9th day of March, 2022, and the last publication on the _____ day of _____, that the full amount of fees charged for publishing same, to-wit: The sum of \$ 41.25, insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

[Signature]
Subscribed and sworn to before me this 9th day of mar., 2022

[Signature]

Notary Public, Lawrence County, South Dakota
My commission expires: 7-18-2025

**NOTICE OF
APPLICATION
NO. 2012-1 to
Appropriate Water**

Notice is given that Jesse Horstmann, 20014 Ridgfield Loop, Spearfish SD 57783 has filed an application for a water permit to appropriate 0.5 cubic feet of water per second (cfs) from one well to be completed into the Madison Aquifer (approximately 1,200 feet deep) located in the SW 1/4 SE 1/4 Section 15 to supply a 2 acre-foot dugout located in the SW 1/4 SE 1/4 Section 15 for irrigation of 43.5 acres located in the SW 1/4 Section 15; all in T6N-R4E. Water will be pumped from the proposed well to the dugout and then applied to the acreage from the dugout at a rate of 0.89 cfs. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one mile northeast of Whitewood SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2012-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by March 21, 2022.

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

Any "interested" person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by March 21, 2022.

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

Published once at the total approximate cost of \$41.73.

#963
Mar 9.

NOTICE OF APPLICATION NO. 2012-1 to Appropriate Water

Notice is given that Jesse Horstmann, 20014 Ridgefield Loop, Spearfish SD 57783 has filed an application for a water permit to appropriate 0.5 cubic feet of water per second (cfs) from one well to be completed into the Madison Aquifer (approximately 1,200 feet deep) located in the SW 1/4 SE 1/4 Section 15 to supply a 2 acre-foot dugout located in the SW 1/4 SE 1/4 Section 15 for irrigation of 43.5 acres located in the SW 1/4 Section 15; all in T6N-R4E. Water will be pumped from the proposed well to the dugout and then applied to the acreage from the dugout at a rate of 0.89 cfs. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one mile northeast of Whitewood SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2012-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by March 21, 2022.

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Published once at the total approximate cost of_

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, March 2, 2022 11:05 AM
To: Legals (legals@bhpioneer.com)
Subject: 2012-1, Jesse Horstmann
Attachments: 2012-1public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on March 9, 2022.

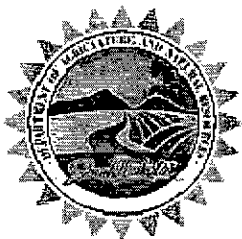
Jesse Horstmann, 20014 Ridgfield Loop, Spearfish SD 57783 (605 641-9179) or Connor Friske have been notified to contact you to authorize publication and arrange for payment.

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

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

Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

March 2, 2022

Jesse Horstmann
20014 Ridgefield Loop
Spearfish SD 57783

Dear Mr. Horstmann:

Water Permit Application No. 2012-1 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 Black Hills Pioneer printed at Spearfish SD (Ph # 605 642-2761). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper 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,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

enclosures

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

c: Connor Friske

NOTICE OF APPLICATION NO. 2012-1 to Appropriate Water

Notice is given that Jesse Horstmann, 20014 Ridgefield Loop, Spearfish SD 57783 has filed an application for a water permit to appropriate 0.5 cubic feet of water per second (cfs) from one well to be completed into the Madison Aquifer (approximately 1,200 feet deep) located in the SW 1/4 SE 1/4 Section 15 to supply a 2 acre-foot dugout located in the SW 1/4 SE 1/4 Section 15 for irrigation of 43.5 acres located in the SW 1/4 Section 15; all in T6N-R4E. Water will be pumped from the proposed well to the dugout and then applied to the acreage from the dugout at a rate of 0.89 cfs. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This site is located approximately one mile northeast of Whitewood SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2012-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by March 21, 2022.

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

Published once at the total approximate cost of__

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, April 28, 2022 10:29 AM
To: Connor Friske
Subject: Water Permit No. 2021-1
Attachments: 3330.pdf

Enclosed is a copy of Water Permit No. 2021-1, Jesse Horstmann. The permit is being mailed to Mr. Horstmann today.

Karen Schlaak
DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
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PIERRE SD 57501-3182
danr.sd.gov

APR 28 2022

Jesse Horstmann
20014 Ridgefield Loop
Spearfish SD 57783

Dear Mr. Horstmann:

Enclosed is Water Permit No. 2012-1 authorizing construction of the 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,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

October 23, 2025

2012-1

Jesse Horstmann
20136 Whitewood Valley Rd
Whitewood SD 57793

Dear Mr. Horstmann:

Enclosed is a "Notice" dated October 8, 2025, concerning the 2025 Irrigation Questionnaire.

The notice was originally mailed to you at PO Box 827, Spearfish SD 57783. The post office notified our office that your address has changed, and your records have been updated accordingly.

This is a time sensitive matter. Please complete and return the enclosed questionnaire or submit your report online at <https://danr.sd.gov/iq/> using this password **PVRTJJ**.

If this change of address is in-correct, please contact our office immediately to update your contact information.

Sincerely,

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

enclosures

850 NFE 1141525C0010/17/25
RETURN TO SENDER
HORSTMANN
20136 WHITEWOOD VALLEY RD
WHITEWOOD SD 57793-5021

RETURN TO SENDER

