

WATER PERMIT NO. 2029-1

Name of Applicant: City of Spearfish

Address: 625 N 5th St, Spearfish SD 57783

Phone: 605 645-1395

Amount of Water Claimed: 426 AF

Total Acres: NA

Source of Water Supply: groundwater (1 existing well authorized by 2002-1)

Water to be used for: municipal & water distribution system

County: Lawrence

Type of Waste Disposal System:

Location: 4 miles east of Spearfish (new sports complex)

PRIORITY Date Received: 3-17-23

Application/License Fee: \$950

Corrected Application Received: 4-11-23

Period of Annual Use: January 1 – December 31

Remarks: Place to beneficial use water reserved by Future Use Permit No. 1872-1

Diversion Point: Tract V of Elkhorn Ridge

Addition (NE 1/4 NW 1/4) Sec 22-T6N-R3E

Land to be Irrigated: NA

Depth of Well: 1410

Well Driller:

Remarks:

Type of Map: aerial

		⊗			
			22		

Reviewed and the Number Assigned on: 4-12-23

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 2029-1

Date of first receipt of application March 17, 2023.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2029-1 to City of Spearfish, c/o Miles Burtzlaff, Water Supt, 625 N 5th St, 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. 2029-1 authorizes construction and place to beneficial use 426 acre-feet of water annually at a maximum pump rate of 1.33 cubic feet of water per second (cfs) from one existing well completed into the Madison Aquifer (1,410 feet deep) located in the Tract V of Elkhorn Ridge Addition (SE 1/4 NW 1/4) Section 22-T6N-R3E for municipal use. This water was appropriated and reserved by Future Use Permit No. 1872-1. This permit also corrects the location of the well as authorized by Water Permit No. 2002-1 to the location described above. The combined, maximum pump rate authorized by No. 2002-1 and this permit may not exceed 1.33 cfs. The well site is located near the junction of Hwy 85 and I-90.
2. The water appropriated shall be used for the purpose of municipal use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 2029-1 is June 26, 2023.
5. The date from which applicant may claim right is November 13, 2006.
6. One-fifth of the construction is to be completed on or before December 26, 2025.
7. All construction is to be completed on or before June 26, 2028.
8. Water is to be put to beneficial use on or before June 26, 2032.
9. 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. 2029-1 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. 2029-1 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 Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.
4. Water Permit No. 2029-1 appropriates up to 426 acre-feet of water annually.

WATER MANAGEMENT BOARD

By: _____

Eric Gronlund, Chief Engineer

Water Rights Program

Department of Agriculture and Natural Resources

JUL 12 2023

date



FORM 2: Application for uses other than irrigation
(type or print)

RECEIVED

MAR 17 2023

OFFICE OF
WATER

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2029-1</u> Hydrologic Unit <u>10120203</u> Basin <u>Belle Fourche</u> Newspaper <u>Black Hills Pioneer Spearfish</u> (office use only)
---	--

Application for Permit to Appropriate Water in South Dakota

Check use(s) of water:

☒ Municipal	☒ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other _____	

Type of Application:
(check one)

☐ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☒ Place to Beneficial Use Water Reserved by Future Use Permit No. <u>1872-1</u>		
☐ Amendment/Correction to Permit No. _____		

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

Sky Ridge Well identified for municipal uses for the City of Spearfish, South Dakota (Existing/Developed)

(2002-1 - irrigation permit)

- Name to Appear on Water Permit City of Spearfish, SD (Sky Ridge Municipal)
Mailing Address 625 N 5th Street Spearfish SD 57783
(Address) (City) (State) (Zip Code)
Phone (605) 642-1333 Mobile (605) 645-1395 Email Miles.Burtzlaff@cityofspearfish.com
- Amount of water claimed 1.33 *CFS or 600 **GPM and 426 ***AF or _____ Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply Madison Aquifer
- Location of point of diversion Tract V of Elkhorn Ridge Addition of NW 1/4, Section 22, T6N, R3E, BHM Lawrence
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No
If "Yes," where will water be used? Public water supply in city limits of City of Spearfish, SD near I-90, Exit 17
(example - NW1/4 section 12-T104N-R53W)
- County or counties where water will be used Lawrence
- Annual period during which water is to be used Year round. (Jan 1 - Dec 31)
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

See attachment for description of project.

I, Theodore F. Schultz, PE Project Manager, 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 _____ Have test holes been drilled? ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either existing or proposed wells: Sky Ridge Well (Existing)

c) Well Depth (required) 1410' Depth to Top of Water Bearing Material 960' Depth to Water from Surface 277'

d) Distance to nearest domestic well on applicant's property N/A Property owned by others 1,400'

Sky Ridge Well is currently being developed.

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) N/A

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions N/A Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

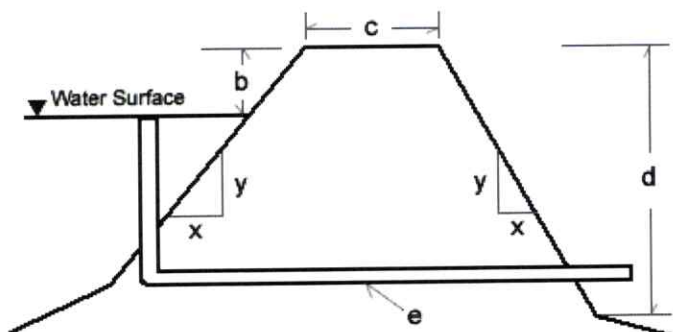
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



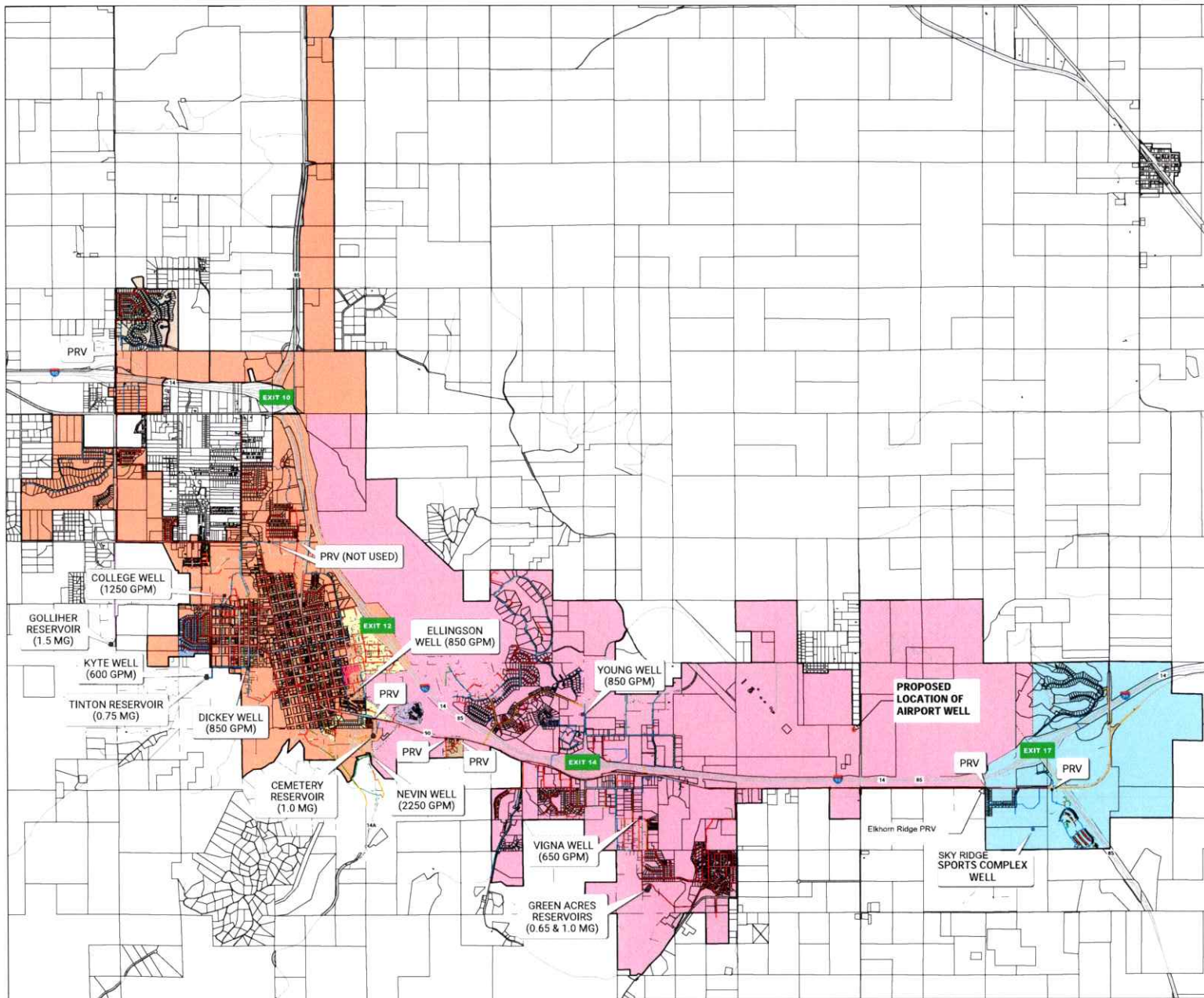


FIGURE 1.2
SPEARFISH WATER SYSTEM LAYOUT
 CITY OF SPEARFISH, SD

- CANYON GATE PRV PRESSURE ZONE (HGL 4020)
- COUNTRY CLUB PRV PRESSURE ZONE (HGL 3930)
- EAST PRESSURE ZONE (HGL 4191)
- EAST LOW PRESSURE ZONE (HGL 3950)
- HARMONY HEIGHTS PRESSURE ZONE (HGL 3920)
- HIGGINS PRV PRESSURE ZONE (HGL 3670)
- HOLIDAY PRV PRESSURE ZONE (HGL 3945)
- WEST PRESSURE ZONE (HGL 3846)

EXISTING WATER SYSTEM

- Water Line - 4"
- Water Line - 6"
- Water Line - 8"
- Water Line - 10"
- Water Line - 12"
- Water Line - 16"
- City IRR
- Water Line - Private - 4"
- Water Line - Private - 6"
- Water Line - Private - 8"
- Service Line
- Water Line - Abandoned

EXISTING WATER FEATURES

- Water Tank
- Reservoir
- Well
- Valve - PRV
- Sports Complex Well
- Municipal Boundary
- Parcels



11-02

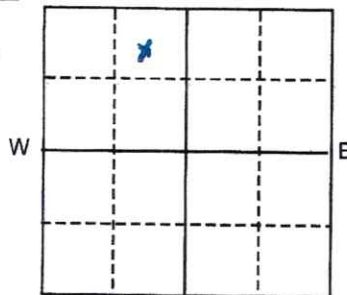
SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location NE 1/4 NW 1/4 Sec 22 Twp 6 N Rg 3E

County _____

North

Please mark well location with an "X"



Well Completion Date

> 1/2023

1 Mile

No Pump INSTALLED AT THAT TIME

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

> 500' ft. from SEPTIC (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

MUD ROTARY

CASING DATA:

☒ Steel ☐ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
65# LB/FT	16" IN	0 FT	41 FT	22" IN
40.5# LB/FT	10.75 IN	0 FT	1028 FT	14.75 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
CLASS G	230	14.6 Lb/gal	0 FT	1028 FT
CLASS G	230	12.0 Lb/gal	0 FT	1028 FT

Describe grouting procedure

Positive Displacement Pressure Grout

SCREEN:

☒ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine Solution
☐ No, Why Not? _____

Lab to which water quality sample sent for analysis _____

MIDCONTINENT LABS

Well Owner: CITY OF SPEARRISHBusiness Name: SKY RINGS SPORTS COMPLEX IRRIGATIONAddress: 625 N. 5TH STREETCity, State, Zip: SPEARRISH SD 57783

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>SPEARRISH</u>	<u>0</u>	<u>330</u>
<u>MINNEKATA</u>	<u>330</u>	<u>364</u>
<u>ATACHE</u>	<u>364</u>	<u>505</u>
<u>MANUELUSA</u>	<u>505</u>	<u>946</u>
<u>MADISON</u>	<u>946</u>	<u>1356</u>

STATIC WATER LEVEL

276

FEET

If flowing: closed in pressure N/A PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: TESTED WITH 125hp PUMP
☐ Bailed GENERATOR
☐ Other _____

Pumping Level Below Land Surface

572' Ft. After 6 Hrs. pumped 550 GPM

483' Ft. After 2 Hrs. pumped 450 GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

APR 17 2023

OFFICE OF
WATERThis well was drilled under license # 698 and this report is true and accurate.Drilling firm: WATER SYSTEM DRILL INC

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 3/30/2023

**MIDCONTINENT**

TESTING LABORATORIES, INC.

Page 1 of 1

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 – www.thechemistrylab.com

Sample Site: Sky Ridge Irrigation Well
Sampled: 11/15/22 at 09:15 AM
by Scott Heimer
Sample Matrix: Water

Lab ID#: 20221115911
Received: 11/15/22 at 03:02 PM
by Steve Ristau
Account: 9639
Water System Drilling, Inc.

SCOTT HEIMER
WATER SYSTEM DRILLING, INC.
PO BOX 368
GILLETTE, WY 82717

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Physical Properties							
Electrical Conductivity	1080	µmhos/cm	1	0.200	5.00	SM 2510B	JAM 11/16/22
Non-Metallics							
Nitrogen, Nitrate (NO3)	< 0.500	mg/L	10	0.079	0.500	SM 4500-NO3 F	BLL 11/16/22
Sulfate (SO4)	< 10.0	mg/L	1	0.928	10.0	SM 4500-SO4 E	BLL 11/18/22
Metals - Dissolved							
Sodium (Na)	13.7	mg/L	1	0.057	0.500	SM 3111 B	GRT 11/21/22
Metals - Total							
Arsenic (As)	< 0.005	mg/L	10	0.00045	0.005	EPA 200.8	TNA 11/17/22
Bacteria							
E. coli	Absent		1			SM 9223 B (P/A)	JMH 11/15/22
Total Coliform	Absent		1			SM 9223 B (P/A)	JMH 11/15/22
Radiological							
Gross Alpha	6.02	pCi/L	1			EPA 900.0	SYS 12/16/22
Radium-226	0.585	pCi/L	1			EPA 903.1	SYS 12/20/22
Radium-228	0.349	pCi/L	1			EPA 904.0	SYS 12/19/22
Precision Data							
Gross Alpha precision	± 2.50	pCi/L	1			SC - Gross Alpha precision	SYS 12/16/22
Radium-226 precision	± 0.382	pCi/L	1			SC-Radium 226 precision	SYS 12/20/22
Radium-228 precision	± 0.261	pCi/L	1			SC-Radium 228 precision	SYS 12/19/22
MDA Data							
Gross Alpha MDA	2.94	pCi/L	1			SC - Gross Alpha MDA	SYS 12/16/22
Radium-226 MDA	0.452	pCi/L	1			SC - Radium 226 MDA	SYS 12/20/22
Radium-228 MDA	0.523	pCi/L	1			SC - Radium 228 MDA	SYS 12/19/22

Approved By:

Approved On: 12/21/2022 2:15:03 PM

Step Rate Test Data

Full Test and Recovery

Rate (gpm)	Elapsed Time	Drawdown
450	2.5	109.3
450	3	115.3
450	4	128.3
450	5	137.3
450	6	144.3
450	7	150.1
450	8	154.7
450	9.5	159.8
450	10	161.4
450	15	173.0
450	20	180.0
450	25	185.6
450	30	188.8
450	35	192.2
450	40	194.0
450	45	196.3
450	50	197.7
450	60	200.2
450	70	202.3
450	80	203.7
450	90	204.2
450	120	207.9
525	121	227.8
525	122	235.3
525	123	238.5
525	124	242.1
525	125	244.3
525	126	246.1
525	127	247.7
525	128	249.0
525	129	249.9
525	130	250.7
525	135	252.8
525	140	255.0
525	145	257.0
525	150	257.9
525	155	258.7
525	160	259.8
525	165	260.6
525	170	261.2
525	180	261.6
525	190	264.7
525	200	268.3
525	210	269.8

SWL 276.6
 SWL Probe 483.3
 Probe Depth 759.9

Step 1
 Rate (gpm)
 450

Elapsed Time Probe readings

1	205.1
3.5	201.1
4	200.6
5	200.5
6.5	199.5
7	199.4
8	198.2
9	197.7
10	196.7
15	194.0
21	193.3
25	192.6
30	192.5
35	191.7
40	191.2
45	190.7
50	190.2
60	188.9
70	188.8
80	188.7
90	188.2
120	187.1

Recovery

Rate (gpm) Elapsed Time Probe readings

0	1	290.5
	2	330.5
	3	354.7
	4	369.0
	5	378.6
	6	386.7
	7	393.8
	8	400.0
	9	405.2
	10	409.4
	15	424.0
	20	437.3
	25	445.3
	30	451.2
	35	455.7
	40	459.4
	45	461.3
	50	464.7
	60	468.4
	70	471.2
	80	473.2
	90	474.7
	120	477.7
	150	479.4
	180	480.5
	240	481.6
	300	482.2

7. Description of Project

The Sky Ridge Well is designated for 426 acre feet of municipal allocation and 150 acre feet of irrigation allocation at a rate of 600 gpm.

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date April 11, 2023

RECEIVED OF City of Spearfish 625 N 5th St., Spearfish SD 57783-2311

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

Fee for Application for Permit No. <u>2029-1</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>950.00</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>950.00</u>

By Eric Gronlund
Chief Engineer
me

Schlaak, Karen

From: Schultz, Ted <ted.schultz@foth.com>
Sent: Friday, March 17, 2023 3:46 PM
To: Duvall, Ron; miles.burtzlaff@cityofspearfish.com
Cc: Schlaak, Karen; Rodriguez, Rachel; Adam McMahon; McCutcheon, Kyle
Subject: FW: [EXT] [External] Water Permit Application for two Madison Wells
Attachments: Attachments.html

Ron,

Thank you for the comments. On behalf of the City of Spearfish I am submitting the second application for the municipal use on the Sky Ridge Well as listed in the application.

I have listed responses to the questions below in red. Please review and let me know if you have any additional questions. The City will prepare checks for both wells and will submit. Thank you.

Citrix Attachments

Expires April 16, 2023

Water Right Permit 3172023 Sky Ridge Mun...pal.pdf

42.8 MB

[Download Attachments](#)

Ted F. Schultz, PE

Senior Client Manager

Licensed in MN, WI, SD, ND, NE, WY



Foth Infrastructure & Environment, LLC

Mobile (605) 381-0433

foth.com

From: Duvall, Ron <Ron.Duvall@state.sd.us>
Sent: Wednesday, March 15, 2023 1:15 PM
To: miles.burtzlaff@cityofspearfish.com; Schultz, Ted <ted.schultz@foth.com>
Cc: Schlaak, Karen <Karen.Schlaak@state.sd.us>; Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: [External] Water Permit Application for two Madison Wells

Miles and Ted,

I have been out of the office for a few days but am now looking over your revised application for a new well and to add municipal use to an existing well covered by [Water Permit No. 2002-1](#) for irrigation use. I believe the best course of

action is to have separate applications for each well site given the distance between the well sites and that one of the wells is covered by an existing permit. The application for the existing well to add municipal use will also provide the opportunity to correct the location of the well which appears to have been drilled further south than anticipated. Permit No. 2002-1 describes the location as the NE1/4 NW1/4 and it appears to be in the SE1/4 NW1/4 section 22-T6N-R3E based on the map provided with the application.

SEPARATE APPLICATIONS FOR EACH WELL IS ACCEPTABLE

Some other considerations for the existing well covered by No. 2002-1:

- Is the existing permitted pump rate of 1.33 cfs (600 gpm) authorized by No. 2002-1 to be increased or remain the same? **REMAIN AT 600 GPM.**
- Is the 426 acre-feet planned for municipal use to be placed to use out of [Future Use Permit No. 1872-1](#)? **YES**
- The application fee for 426 acre-feet of water is **\$950.00**. We don't need the additional \$200.00 license fee as that was paid when No. 2002-1 was permitted and it has not yet been licensed. **OK. THE CITY WILL SUBMIT A CHECK FOR \$950 FOR THE SKY RIDGE WELL.**

For the application for the proposed airport well:

- Is the pump rate of 800 gpm intended for just the airport well or was it a combination of both wells since the initial intent was to submit one application? I assume the 800 gpm is just for the proposed well but please confirm. **YES. 800 GPM FOR THE PROPOSED AIRPORT WELL - MUNICIPAL.**
- This water is to be taken from Future Use Permit No. 1872-1. If incorrect, please advise. **YES.**
- The application fee for 679 acre-feet is \$1,150.00 plus the \$200.00 license fee for a total of **\$1,350.00**. **OK. THE CITY WILL SUBMIT A CHECK FOR \$1350 FOR THE AIRPORT WELL.**

I believe the first application you submitted suffices for the proposed well. The legal description on that application matches the location of the proposed well. The second application you file can address adding municipal use to the existing well and also correcting the well site location. The maps already submitted are sufficient for both applications.

OK. THE SECOND APPLICATION FOR SKY RIDGE WELL TO ALLOW MUNICIPAL USE IS ATTACHED.

Please let me know if you have any questions.

Thank you,

Ron Duvall
Dept. of Agriculture & Natural Resources
Office of Water, Water Rights Program
605.773.3352
danr.sd.gov



DANR
SOUTH DAKOTA

CAUTION: This email originated from outside of Foth. Do not click on links or open attachments unless you recognize the sender and know the conten



DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

January 28, 2021

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

City of Spearfish
Brandy Kean, Public Works Director
625 N 5th St
Spearfish SD 57783

Dear Ms. Kean:

Future Use Permit No. 1872-1 will be reviewed for progress in the development and future plans for use of the water reserved. Water rights law requires publication of a notice in the county where water will be diverted or used. Notice of this review has been sent to the Black Hills Pioneer (605 642-2761). For your information, a copy of the Chief Engineer's recommendation is enclosed. Please review this notice prior to publication and notify this office, if you have any corrections or questions.

BE SURE TO CONTACT THE ABOVE NEWSPAPER IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE OF HEARING AND TO ARRANGE FOR PAYMENT. Early contact with the paper can eliminate delays. The publisher has been instructed to publish this notice on February 4, 2021. We must receive Proof of Publication before the future use review can be considered by the Water Management Board.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

enclosures



DENR
SOUTH DAKOTA

**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 FUTURE USE WATER PERMIT
NO. 1872-1, City of Spearfish SD**

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 Future Use Water Permit No. 1872-1, City of Spearfish, 625 N 5th St, Spearfish SD 57783.

The Chief Engineer is recommending that Future Use Permit No. 1872-1 REMAIN in EFFECT for 2,704 acre-feet annually because 1) there is reasonable probability that there may be development of the water reserved under Permit No. 1872-1, 2) the city has demonstrated a reasonable need for the water reserved by Permit No. 1872-1, 3) the proposed use will be a beneficial use and 4) it is in the public interest.

Maintaining the effectiveness of Future Use Permit No. 1872-1 is subject to payment of the \$285.00 fee pursuant to SDCL 46-2-13(2) within 60 days of notice to the city after the Board hearing.

Eric Gronlund, Chief Engineer
January 28, 2021

Instruction to Newspaper - Publish the following Notice on February 4, 2021. The City of Spearfish is responsible for payment.

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 1872-1

Notice is given that the Water Management Board will review Future Use Permit No. 1872-1 held by the City of Spearfish, c/o Brandy Kean, Public Works Director, 625 N 5th St, Spearfish SD 57783 for progress made in the development of the water reserved by the Permit and future plans for development of the water reserved by Permit No. 1872-1. This permit was approved 2007 and currently reserves 2,704 acre-feet from the Madison Aquifer. The area reserved for future water use is Sections 10, 15, 22, 26-29, 31-35, W 1/2 Section 36; all in T7N-R2E; Sections 1-18, E 1/2, NW 1/4 Section 19, Sections 20-29, 32-36; all in T6N-R2E; S 1/2 SW 1/4, SW 1/4 SE 1/4 Section 4, Sections 7-9, W 1/2, SW 1/4 NE 1/4, NW 1/4 SE 1/4 Section 14, Sections 15-22, N 1/2 NW 1/4 Section 23, Sections 27-33, E 1/2, E 1/2 NW 1/4, NW 1/4 NW 1/4, E 1/2 SW 1/4 Section 34; all in T6N-R3E. Water is reserved for municipal use for the City.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 1872-1 REMAIN in EFFECT for 2,704 acre-feet annually because 1) the reserved water may be developed, 2) there is need for the reserved water 3) the proposed use will be a beneficial use and 4) it is in the public interest.

The Water Management Board will conduct the hearing to review Future Use Permit No. 1872-1 at 10:00 am central time, March 3, 2021, in the Floyd Matthew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to 1) allow the permit to remain in effect, 2) amend the permit by adding qualifications, 3) cancel the permit for no development or no planned future development, or 4) take no action after it reaches a conclusion based upon facts presented at the public hearing.

Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the permit owner and the Chief Engineer by February 22, 2021. The Chief Engineer's address is "Water Rights Program", Joe Foss Building, 523 E Capitol Ave, Pierre SD 57501 (605 773-3352) and the permit holder's mailing address is given above. The petition may be informal, but it must include a statement describing the petitioner's interest in the future use permit, the reasons for petitioner's opposition to or support of continuing the future use permit, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The permit owner need not file a petition.

The hearing to review Future Use Permit No. 1872-1 will be conducted pursuant to the provisions of SDCL 46-1-14, 46-2-5, 46-2-9, 46-2-11, 46-5-38.1; Board Rules ARSD 74:02:01:25.01 thru 74:02:01:25.03 and contested case procedures contained in SDCL 1-26.

This hearing is an adversary proceeding. The permit owner or any person, after filing a petition, 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 State Supreme Court as provided by law.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this permit, to assure access to the hearing by the handicapped or obtain an interpreter for the hearing impaired may contact Ron Duvall, Water Rights Program, (605 773-3352) by February 22, 2021. The time of the hearing will be automatically delayed for at least 20 days upon written request of the permit owner or any person who has filed a petition to oppose or support continuance of the Future Use Permit. The request for a delay must be filed with the Chief Engineer by February 22, 2021.

According to SDCL 1-26-18.3, parties to a contested case may use the Office of Hearing Examiners to conduct a hearing if either a property right is being terminated or the dollar amount in controversy exceeds \$2,500.00. If any party chooses to use the Office of Hearing Examiners rather than the hearing procedure described above, then you need to notify the Chief Engineer (Water Rights Program 523 E Capitol Ave, Pierre SD) by February 15, 2021. Published once at the approximate cost of _____.



**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. 2029-1, City of Spearfish**

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. 2030-1, City of Spearfish, c/o Miles Burtzlaff, Water Superintendent, 625 North 5th Street, Spearfish SD 57783.

The Chief Engineer is recommending APPROVAL of Application No. 2029-1 with a twenty-year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although water was appropriated and reserved by Future Use Permit No. 1872-1, there is not sufficient evidence to justify issuing this permit without a 20 year term limitation, 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. 2029-1 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. 2029-1 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 Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.
4. Water Permit No. 2029-1 appropriates up to 426 acre-feet of water annually.

See report on application for additional information.

Eric Gronlund, Chief Engineer
June 6, 2023

**Report to the Chief Engineer on
Water Permit Application Nos. 2029-1 and 2030-1
City of Spearfish
22 May 2023**

Water Permit Application No. 2029-1 proposes to construct and place to beneficial use 426 acre-feet of water annually (ac-ft/yr) at a maximum diversion rate of 1.33 cubic feet of water per second (cfs), which is equivalent to approximately 600 gallons per minute (gpm), from one existing well authorized by Water Permit No. 2002-1 completed into the Madison aquifer (1,410 feet deep) located in the SE ¼ NW ¼ Section 22-T6N-R3E for irrigation use by the City of Spearfish. This application seeks to place water to beneficial use water reserved by Future Use Permit No. 1872-1 and also corrects the location of the well as authorized by Water Permit No. 2002-1 to the location described above. The combined maximum diversion rate authorized by Water Permit No. 2002-1 and this application may not exceed 1.33 cfs. The well site for Water Permit Application No. 2029-1 is located approximately 0.6 miles south of the junction of US Highway 85 and Interstate 90 near Spearfish, South Dakota.

Water Permit Application No. 2030-1 proposes to construct and place to beneficial use 679 ac-ft/yr at a maximum diversion rate 1.78 cfs, which is equivalent to approximately 800 gpm, from one well to be completed into the Madison aquifer (approximately 1,400 feet deep) located in the NE ¼ SE ¼ Section 17-T6N-R3E for municipal use by the City of Spearfish. This water was appropriated and reserved by Future Use Permit No. 1872-1. The well site for Water Permit Application No. 2030-1 is located near the Spearfish, South Dakota airport.

Future Use Permit No. 1872-1 currently reserves 2,704 ac-ft/yr. If these two permits are approved, 1,599 ac-ft/yr will remain reserved in the future use permit.

Aquifer: Madison Limestone (MDSN)

Hydrogeologic Characteristics

The Madison Group in South Dakota is a Lower Mississippian and Upper Devonian group of formations that in the Black Hills consists of the Englewood and Pahasapa Limestone formations [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 poor water quality far from the outcrops [4]. It crops out in the Black Hills and is buried elsewhere in South Dakota [3]. The Madison aquifer may be hydrologically connected to the underlying Deadwood aquifer. It is also hydrologically connected to the overlying Minnelusa aquifer [5]. The Minnelusa aquifer overlies the Madison unconformably [1], which means there was a period of erosion or weathering between when the Madison Group and the Minnelusa Formation were deposited. Transmissivity in the Madison aquifer mainly comes from secondary porosity features such as solution cavities, faults, and

fractures [5]. Because most of the transmissivity in the Madison aquifer comes from secondary porosity features, aquifer characteristics in the Madison aquifer vary greatly from location to location [5].

The applicant submitted a well completion report for a well completed in January of 2023 in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 22-T6N-R3E, as reported by the driller. In actuality, the well is located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of the same section. This is the well for Water Permit Application No. 2029-1, and in the application documents, is referred to as the "Sky Ridge Well." The driller reported encountering the Madison Group from 946 feet below grade to 1,356 feet below grade. The driller grouted the well to a depth of 1,028 feet below grade and left an open hole below that point. The static water level at the time the well was completed was 276 feet below grade, which means this well is under confined conditions. Static water levels for wells in confined conditions are an indication of the pressure, or hydraulic head, in an aquifer, and not an indication of the quantity of water in the aquifer. At the point near Water Permit Application No. 2029-1, the hydraulic head in the Madison aquifer is approximately 670 feet above the top of the Madison Group. Water Permit Application No. 2030-1 is located approximately 1.7 miles northwest of the Sky Ridge Well and is likely to have similar aquifer characteristics and conditions at that location.

Applicable South Dakota Codified Law (SDCL)

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 a water distribution system as defined in SDCL 46-1-6(17). The Madison aquifer is older and stratigraphically lower than the Greenhorn Formation. Therefore, the Water Management Board's authority to approve this application is not restricted by whether or not recharge exceeds withdrawals. Furthermore, the availability of water for these applications was determined in approval of Future Use Permit No. 1872-1. However, a summary of a statewide and local hydrologic budget is included in this report for the information of the Chief Engineer and the Water Management Board.

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.

Availability of Water

Hydrologic Budgets

These applications propose no additional appropriation to what was already reserved in Future Use Permit No. 1872-1. A detailed statewide hydrologic budget is available from the "Report to the Chief Engineer on Water Permit Application No. 2028-1" [6]. In that report, average annual recharge to the Madison aquifer in South Dakota is estimated to be 137,000 ac-ft/yr, and the statewide estimated average annual withdrawal, including reservations for future use and permits that have been deferred, held in abeyance, or pending procedure, is 68,673 ac-ft/yr. Water Permit Application No. 2028-1 proposes to reserve for future use 440 ac-ft/yr in addition to the amount estimated in that report [6], so the total estimated average annual withdrawal from the Madison aquifer in South Dakota is 69,113 ac-ft/yr.

These applications also lie within boundaries of the local hydrologic budget studies by Carter, et al. [7] and by Putnam and Long [8]. The two different studies are similar but use different study area boundaries. These applications lie within the Carter, et al. [4] Subarea 2. The "Report to the Chief Engineer on Water Permit Application No. 2028-1" [6] provides details on withdrawals and recharge estimated for Subarea 2. The estimated average annual recharge to Subarea 2 is 15,100 ac-ft/yr and the estimated average annual withdrawal from Subarea 2 is 10,731 ac-ft/yr [6]. Water Permit Application No. 2028-1, if approved, would withdraw an additional 440 ac-ft/yr, so the total estimated average annual withdrawal from Carter, et al. [7] Subarea 2 is 11,171 ac-ft/yr.

A hydrologic budget for the study area delineated by Putnam and Long [8] is detailed in the "Report to the Chief Engineer on Water Permit Application No. 2027-1" [9]. The estimated average annual recharge from infiltration of precipitation and streamflow along the outcrop to the Madison aquifer in the Putnam and Long [8] study area is 12,968 ac-ft/yr [9]. The Putnam

and Long [8] study does not include groundwater inflow from areas in South Dakota outside of the study area. The estimated average annual withdrawal from Madison aquifer water rights/permits is 21,054 ac-ft/yr [9]. Water Permit Application No. 2027-1 is approved and added an additional 45 ac-ft/yr to that withdrawal [10], so the total estimated average annual withdrawal in the Putnam and Long [8] study area is 21,099 ac-ft/yr.

The statewide hydrologic budget and local hydrologic budget for Carter, et al. [7] Subarea 2 show estimates of recharge exceeding estimates of withdrawals [6]. The local hydrologic budget for the Putnam and Long [8] area shows recharge from precipitation and streamflow along the outcrop does not exceed withdrawals [9]. However, the Putnam and Long [8] study area boundaries and methods do not account for groundwater flow within the Madison aquifer from other areas in South Dakota. Therefore, based on the hydrologic budgets along with other information, there is reasonable probability recharge exceeds withdrawals in the Madison aquifer.

Observation Wells

Administrative Rule of South Dakota 74:02:05:07 requires that the Water Management Board rely upon the record of observation wells, in addition to other information, to determine that recharge exceeds withdrawals to approve an application. The Water Rights Program maintains 25 observation wells completed into the Madison aquifer [11]. The nearest Madison aquifer observation well to these applications is LA-95A, which is located approximately 0.7 miles northeast of Application No. 2029-1 and approximately 2 miles east of Application No. 2030-1. Figure 1 shows water levels from the top of the casing of Observation Well LA-95A [11]. Water level fluctuations in Observation Well LA-95A are representative of general behavior of the Madison aquifer in the area of this application. In general, water levels rise during periods of higher-than-average precipitation and decline during periods of lower-than-average precipitation. Water levels also show seasonal declines during the summer, as there are several wells in the area used for irrigation of a golf course. Following the spring recharge period, water levels tend to increase to their spring-time peaks. The response of the hydraulic head in the aquifer to climactic cycles indicates that natural discharge occurs from the aquifer. The Water Management Board has historically considered natural discharge to be available for capture.

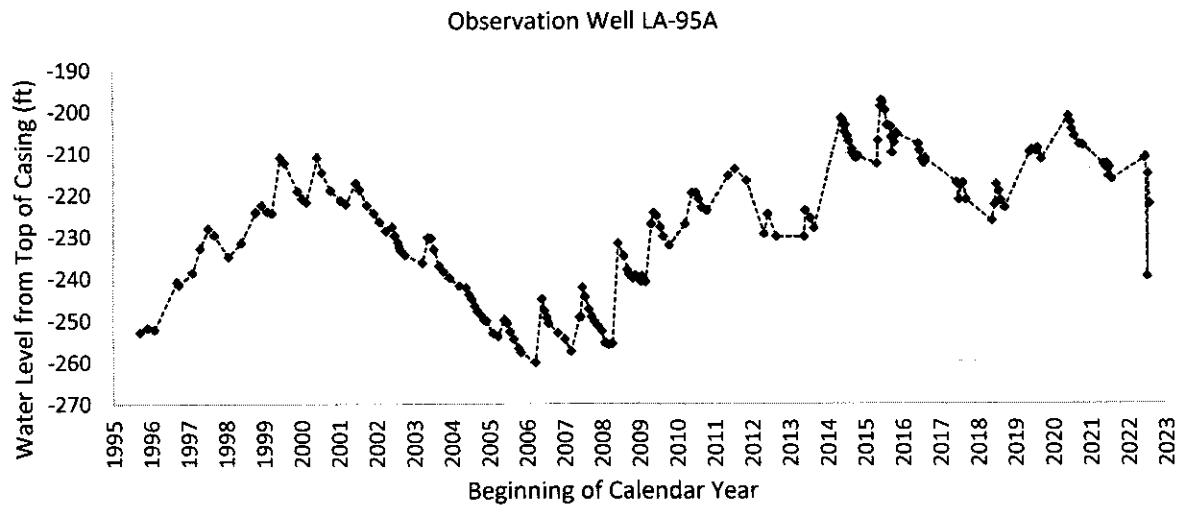


Figure 1: Water levels in Observation Well LA-95A [11]

Possibility of Unlawful Impairment of Existing Water Rights

The nearest water right/permit to Water Permit Application No. 2029-1 is Water Right No. 1931-1, which is located approximately 0.3 miles east of that application [10]. The nearest water right/permit to Water Permit Application No. 2030-1 is Water Right No. 1583-1, which is located approximately 0.9 miles southwest of that application [10]. Figure 2 shows water rights/permits in the area surrounding these applications, including the previous location of the well authorized by Water Permit No. 2002-1 which will be corrected if Water Permit Application No. 2029-1 is approved [10]. Table 1 provides details of the water rights/permits shown in Figure 2 [10]. There are several domestic wells on file with the Water Rights Program in the area surrounding these applications [12]. 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, a water right/permit causes an 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

Precise drawdown cannot be known unless there is an aquifer performance test with observation wells completed into areas of concern. 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 [13]. If hydraulic head in the aquifer declines below the placement of a pump or outlet of a flowing well, well owners may be required to lower their pumps or install pumps in

flowing wells to maintain their withdrawal rate. If the well does not meet the definition of an adversely impacted adequate well (ARSD 74:02:04:20(7)), the Water Management Board has not historically considered it an unlawful impairment of existing water rights. There is no record of well interference complaints in Lawrence County [14]. Observation wells completed into this aquifer near larger appropriative wells show limited drawdown when the large appropriative wells are in use [11] [10]. Given the lack of well interference complaints in Lawrence County and availability of approximately 670 feet of hydraulic head above the top of the aquifer in the area around this location, there is reasonable probability this application can be developed without unlawful impairment of existing water rights.

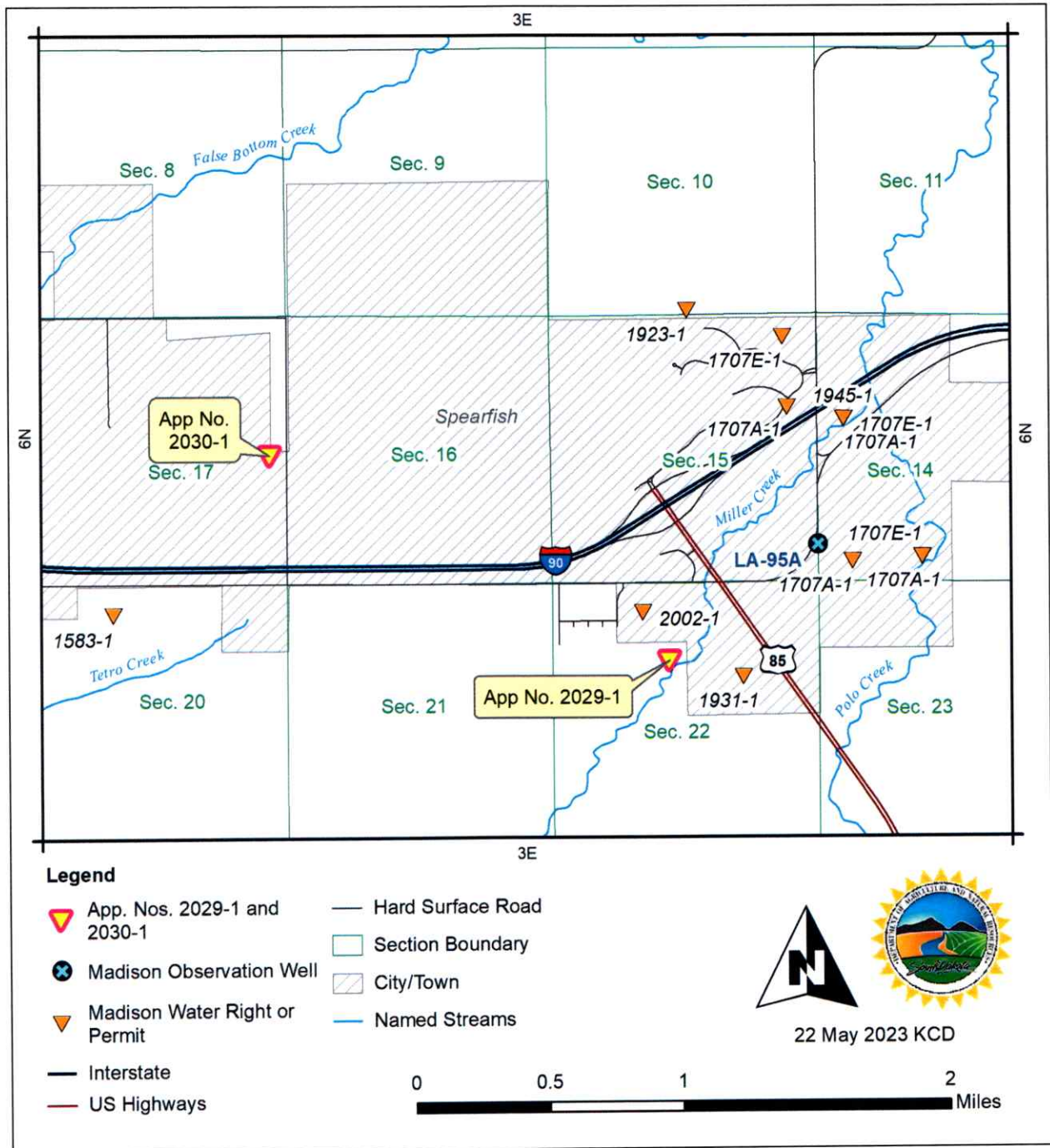


Figure 2: Madison water rights/permits near these applications, including the old location of Water Permit No. 2002-1, and the nearest Water Rights Program observation well that is completed into the Madison aquifer. [10] [11]

Report on Water Permit App. Nos. 2029-1 and 2030-1

Table 1: Water right/permit details for those shown in Figure 2 [10]

Permit No.	Status	Name/Business	Priority	Use Types	Max. CFS	Irrigated Acres	Section	Quarter-Quarter
2002-1	Permit	City Of Spearfish	2020-12-28	IRR	1.33	40.0	22	NE NW
1707A-1	Permit	Elkhorn Ridge @ Frawley Ranches LLC	2000-01-06	IRR, SHD, DOM	3.70	100.0	14	SE SW
							14	SW NW
							14	SW SW
							15	SE NW
1707E-1*	Permit	Elkhorn Ridge @ Frawley Ranches LLC	2000-01-06	IRR	0.00	0.0	14	SE SW
							14	SW NW
							15	NE NE
1931-1	License	Elkhorn Ridge @ Frawley Ranches LLC	2012-08-17	IRR, COM	0.17	3.3	22	SW NE
1945-1	Permit	Elkhorn Ridge @ Frawley Ranches LLC	2014-02-10	IRR	1.11	265.0	14	SW NW
1923-1	License	Roger & Jean Ranschau	2011-02-15	IRR, DOM	0.11	3.0	10	SW SE
1583-1	License	Will/Mary Ellen Lantis	1993-06-07	COM	0.04	N/A	20	NE NW
* Extends time to construct Permit No. 1707A-1								
DOM – Domestic, COM – Commercial, IRR – Irrigation, SHD – Suburban Housing Development								

Conclusions

1. Water Permit Application No. 2029-1 proposes to construct and place to beneficial use 426 ac-ft/yr at a maximum diversion rate of 1.33 cfs from one existing well authorized by Water Permit No. 2002-1 completed into the Madison aquifer located in the SE ¼ NW ¼ Section 22-T6N-R3E for municipal use by the City of Spearfish.
2. Water Permit Application No. 2029-1 also corrects the location of the well as authorized by Water Permit No. 2002-1 to the location described above.
3. The combined maximum diversion rate authorized by Water Permit No. 2002-1 and Water Permit Application No. 2029-1 may not exceed 1.33 cfs.
4. Water Permit Application No. 2030-1 proposes to construct and place to beneficial use 679 ac-ft/yr at a maximum diversion rate 1.78 cfs, from one well to be completed into the Madison located in the NE ¼ SE ¼ Section 17-T6N-R3E for municipal use by the City of Spearfish.
5. The water for these applications was appropriated and reserved by Future Use Permit No. 1872-1. Therefore, the Water Management Board has already determined that there is reasonable probability water is available for these applications.
6. There is reasonable probability these applications can be developed without unlawful impairment of existing water rights.



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

References

- [1] M. D. Fahrenbach, F. V. Steece, J. F. Sawyer, K. A. McCormick, G. L. McGillivray, L. D. Schulz and J. A. Redden, "South Dakota Stratigraphic Correlation Chart," SD DANR Geological Survey Program, Vermillion, South Dakota, 2010. Oil and Gas Investigation 3.
- [2] J. E. Martin, J. F. Sawyer, M. D. Fahrenbach, D. W. Tomhave and L. D. Schulz, "Geologic Map of South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 2004. General Map 10.
- [3] J. S. Downey, "Geohydrology of the Madison and associated aquifers in Parts of Montana, North Dakota, South Dakota, and Wyoming," United States Geological Survey, Alexandria, Virginia, 1984. Professional Paper 1273-G. Hydrologic Atlas 747.
- [4] J. M. Carter, D. G. Driscoll, J. E. Williamson and V. A. Lindquist, "Atlas of water resources in the Black Hills area, South Dakota," United States Geological Survey, 2002.
- [5] A. J. Long and L. D. Putnam, "Flow-system analysis of the Madison and Minnelusa aquifers in the Rapid City area, South Dakota - Conceptual model," United States Geological Survey, 2002. Water-Resources Investigations Report 02-4185.
- [6] K. C. Drennon, "Report to the Chief Engineer on Water Permit Application No. 2028-1," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2023.
- [7] J. M. Carter, D. G. Driscoll, G. R. Hamade and G. J. Jarrell, "Hydrologic budgets for the Madison and Minnelusa aquifers, Black Hills of South Dakota and Wyoming, Water Years 1987-96," United States Geological Survey, Rapid City, South Dakota, 2001. Water-Resources Investigations Report 01-4119.
- [8] L. D. Putnam and A. J. Long, "Characterization of Ground-Water Flow and Water Quality for the Madison and Minnelusa Aquifer in Northern Lawrence County, South Dakota," US Geological Survey, Reston, Virginia, 2007. Scientific Investigations Report 2007-5001.
- [9] K. C. Drennon, "Report to the Chief Engineer on Water Permit Application No. 2027-1," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2023.
- [10] SD DANR Water Rights Program, "Water Right Permit Files," Joe Foss Bldg., Pierre, South Dakota, 2023.
- [11] SD DANR Water Rights Program, "Observation wells," Pierre, South Dakota, 2022.
- [12] SD DANR Water Rights Program, "Water Well Completion Report Database," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2023.

Report on Water Permit App. Nos. 2029-1 and 2030-1

- [13] South Dakota Water Management Board, "On the Matter of Water Permit Application No. 2313-2 for Coca Cola Bottling Company," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 1995.
- [14] SD DANR Water Rights Program, "County Files," SD DANR Water Rights Program, Joe Foss Bldg., Pierre, South Dakota, 2022.



**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.**

June 8, 2023

City of Spearfish
c/o Miles Burtzlaff
625 N 5th Street
Spearfish SD 57783

Dear Mr. Burtzlaff:

Water Permit Application Nos. 2029-1 and 2030-1 for municipal 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,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish the Notice on June 15, 2023. The applicant is responsible for payment.

Notice of Application Nos. 2029-1 and 2030-1
to Construct and Place to Beneficial Use Water Reserved by Future Use Permit No. 1872-1

Notice is given that the City of Spearfish, c/o Miles Burtzloff, Water Supt, 625 N 5th St, Spearfish SD 57783 has filed the following applications for a water permit. Application No. 2029-1 proposes to construct and place to beneficial use 426 acre-feet of water annually at a maximum pump rate of 1.33 cubic feet of water per second (cfs) from one existing well completed into the Madison Aquifer (1,410 feet deep) located in the Tract V of Elkhorn Ridge Addition (SE 1/4 NW 1/4) Section 22-T6N-R3E for municipal use. This water was appropriated and reserved by Future Use Permit No. 1872-1. This application also corrects the location of the well as authorized by Water Permit No. 2002-1 to the location described above. The combined, maximum pump rate authorized by No. 2002-1 and this application may not exceed 1.33 cfs. The well site is located near the junction of Hwy 85 and I-90.

Application No. 2030-1 proposes to construct and place to beneficial use 679 acre-feet of water annually at a maximum pump rate of 1.78 cfs from one well to be completed into the Madison Aquifer (approximately 1,410 feet deep) located in the NE 1/4 SE 1/4 Section 17-T6N-R3E for municipal use. This water was appropriated and reserved by Future Use Permit No. 1872-1. The well site is located near the city of Spearfish airport.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 2029-1 and 2030-1 with qualifications because 1) although water was appropriated and reserved by Future Use Permit No. 1872-1, there is not sufficient evidence to justify issuing this permit without a 20 year term limitation, 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. The Chief Engineer's recommendation with qualifications, the applications, 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 these applications or recommendations shall allege that the applications, 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 applications, or other matter concerning the applications 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 applications with BOTH the applicant and Chief Engineer. A petition opposing the applications 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 recommendations, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by June 26, 2023.

The petition shall include a statement describing the unique injury upon approval of the applications on the petitioner, the petitioner's reasons for opposing the applications, 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 applications 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 June 26, 2023.

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

Published once at the total approximate cost of_

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, June 8, 2023 11:32 AM
To: legals@bhpioneer.com
Subject: 2029-1 - 2030-1 City of Spearfish - Public Notice
Attachments: 2029-1 2030-1 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on June 15, 2023.

City of Spearfish, c/o Miles Burtzlaff, Water Supt, 625 N 5th St, Spearfish SD 57783, (605-645-1395 or 605-642-1333) has been notified to contact you to authorize publication and arrange for payment.

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

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

Thank you,

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



RECEIVED

JUN 26 2023

OFFICE OF
WATER

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
Nos 2029-1 and 2030-1

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 15th day of June, 2023, and the last publication on the _____ day of _____, _____, that the full amount of fees charged for publishing same, to-wit: The sum of \$ 50.95, 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 23rd day of June, 2023

[Signature]

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

**Notice of Application
Nos. 2029-1 and 2030-1
to Construct and
Place to Beneficial
Use Water Reserved
by Future Use Permit
No. 1872-1**

Notice is given that the City of Spearfish, c/o Miles Burtzloff, Water Supt, 625 N 5th St, Spearfish SD 57783 has filed the following applications for a water permit. Application No. 2029-1 proposes to construct and place to beneficial use 426 acre-feet of water annually at a maximum pump rate of 1.33 cubic feet of water per second (cfs) from one existing well completed into the Madison Aquifer (1,410 feet deep) located in the Tract V of Elkhorn Ridge Addition (SE 1/4 NW 1/4) Section 22-T6N-R3E for municipal use. This water was appropriated and reserved by Future Use Permit No. 1872-1. This application also corrects the location of the well as authorized by Water Permit No. 2002-1 to the location described above. The combined, maximum pump rate authorized by No. 2002-1 and this application may not exceed 1.33 cfs. The well site is located near the junction of Hwy 85 and I-90.

Application No. 2030-1 proposes to construct and place to beneficial use 679

acre-feet of water annually at a maximum pump rate of 1.78 cfs from one well to be completed into the Madison Aquifer (approximately 1,410 feet deep) located in the NE 1/4 SE 1/4 Section 17-T6N-R3E for municipal use. This water was appropriated and reserved by Future Use Permit No. 1872-1. The well site is located near the city of Spearfish airport.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 2029-1 and 2030-1 with qualifications because 1) although water was appropriated and reserved by Future Use Permit No. 1872-1, there is not sufficient evidence to justify issuing this permit without a 20 year term limitation, 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. The Chief Engineer's recommendation with qualifications, the applications, 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 these applications or recommendations shall allege that the applications, 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 applications, or other matter concerning the applications 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 applications

with BOTH the applicant and Chief Engineer. A petition opposing the applications 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 recommendations, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by June 26, 2023.

The petition shall include a statement describing the unique injury upon approval of the applications on the petitioner, the petitioner's reasons for opposing the applications, 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 applications 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 June 26, 2023.

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

Published once at the total approximate cost of \$51.43 and can be viewed free of charge at www.sd-publicnotices.com.

**#520
Jun 15**

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Thursday, June 8, 2023 11:38 AM
To: miles.burtzlaff@cityofspearfish.com
Subject: 2029-1 - 2030-1 City of Spearfish - Public Notice
Attachments: Spearfish_rec.pdf; Letter&Notice.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(s) as soon as possible to authorize publication and arrange for payment.** This information is being mailed to you today.

Thank you,

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





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUL 12 2023

City of Spearfish
c/o Miles Burtzlaff, Water Supt.
625 N 5th Street
Spearfish SD 57783

Dear Mr. Burtzlaff:

Enclosed are Water Permit Nos. 2029-1 and 2030-1 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses 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 Gonlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
on DANR Website**

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

Application No.: 2029-1

Name of Applicant: City of Spearfish, c/o Miles Burtzlaff

Date of Posting: 6/12/2023

Date of Removal: 7/12/2023



Ron Duvall, Water Rights Permitting Administrator



Date

Subscribed and sworn to before me, a notary public, this 14 day of July, 20 23.



Notary Public - South Dakota
My commission expires:
Rachel Rodriguez
My Commission Expires
May 16, 2029

(SEAL)

