

WATER PERMIT NO. 2821-2

Name of Applicant: Valerie Lauen

Address: 13315 S Hwy 16, Rapid City SD 57702

Phone: 605 342-4121

Amount of Water Claimed: 0.017 cfs (8 gpm)

Total Acres: NA

Source of Water Supply: groundwater (one existing well)

Water to be used for: commercial use

County: Pennington

Type of Waste Disposal System:

Location: approximately 2 miles southwest of Rockerville

PRIORITY

Date Received: 6-16-21

Application/License Fee: \$ 300

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks: Increase the diversion rate authorized by Vested Right No. 2224-2

Diversion Point: SW 1/4 SW 1/4 Sec 22-T1S-R6E

Land to be Irrigated: NA

Depth of Well: 30 feet deep

Well Driller:

Remarks:

Type of Map: topo

Prepared by:

			22		
	⊗				

Reviewed and the Number Assigned on: 6-16-21

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 2821-2**

Date of first receipt of application June 16, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2821-2 to Valerie Lauen, 13315 S Hwy 16, Rapid City SD 57702 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. 2821-2 increases the diversion rate authorized by Vested Water Right No. 2224-2. Vested Water Right No. 2224-2 authorizes 0.004 cubic feet of water per second (cfs) [2 gallons per minute] from one well completed into the Precambrian Rock Aquifer (30 feet deep) located in the SW 1/4 SW 1/4 Section 22-T1S-R6E. This permit authorizes increasing the diversion rate an additional 0.018 cfs [8 gallons per minute] from the existing well for commercial use at Hillside Country Cabins. This permit and Vested Water Right No. 2224-2 will authorize an amount not exceeding 1 acre-feet of water annually at a maximum pump rate of 10 gallons per minute. This site is located approximately two miles southwest of Rockerville SD.
2. The water appropriated shall be used for the purpose of commercial and domestic 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 from which applicant may claim right is June 16, 2021 (8 gallons per minute).
5. The date of approval of Permit No. 2821-2 is August 16, 2021.
6. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 2821-2 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Crystalline Rock aquifer.
3. Water Permit No. 2821-2 and Vested Water Right No. 2224-2, combined, authorize a total annual diversion of up to 1.0 acre-feet of water.

WATER MANAGEMENT BOARD

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

SEP 03 2021
date



JUN 16 2021

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2821-2</u>	(office use only) Hydrologic Unit <u>10/20/09</u>	WATER RIGHTS PROGRAM
	Basin <u>Upper Cheyenne</u>		
	Newspaper <u>Rapid City Journal</u>		

PAID

JUN 16 2021

Ck# 10453

Application For Permit To Appropriate Water Within The State Of 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. _____		
☐ Amendment/Correction to Permit No. _____		

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

• Addition to # 2224-2 to reflect actual usage

- Name to Appear on Water Permit Valerie Lauen
Mailing Address 13315 S. Hwy 16 Rapid City SD 57702
(Address) (City) (State) (Zip Code)
Phone (605) 342-4121 Mobile _____ Email vlauen@yahoo.com
- Amount of water claimed 0.018 *CFS or 8 **GPM and 1 ***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 Ground Water
- Location of point of diversion SW 1/4 SW 1/4 Sect 22 T15 Range 26 E County Penn.
(example - 3 wells in SW 1/4 NE 1/4 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? _____
(example - NW 1/4 section 12-T104N-R53W)
- County or counties where water will be used _____
- Annual period during which water is to be used Jan - Dec
- 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)

• Well Used For Commercial Use & Personal Use.

I, Valerie Lauen Owner, 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) ** See # 2224-2 water right.*

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 _____ Provide copy of log(s), if available. Drilled by _____

For either Existing or Proposed Wells:

c) Well Depth (required) _____ 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 Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

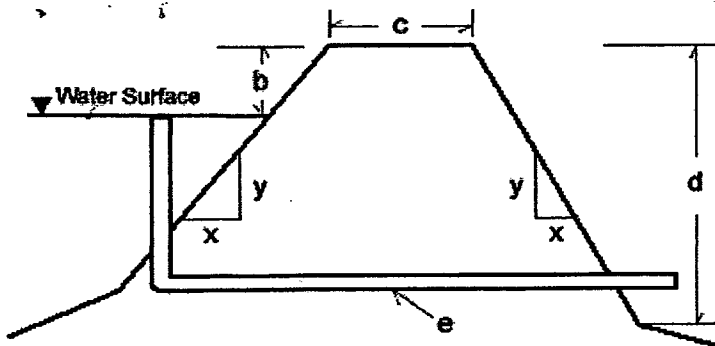
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date June 16, 2021

RECEIVED OF Hillside Country Cabins 13315 S Hwy 16 Rapid City SD 57702

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

Fee for Application for Permit No. <u>2821-2</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>100.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2821-2</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>300.00</u>

By Eric Gronlund
Chief Engineer
EM



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

November 19, 2020

Rickey and Tammey Mackey
Hillside Country Cabins
13315 S Highway 16
Rapid City SD 57702

Dear Mr. and Mrs. Mackey:

The South Dakota Water Management Board recently conducted a hearing on a new water permit application to appropriate water from new wells to be completed for a proposed development in the Rockerville area. During that hearing, the issue arose whether a number of existing business' in the area hold water rights for well(s) used to supply water at their business that reflect the actual use being made. This letter is to inquire whether Water Right No. 2224-2 held by Hillside Country Cottages reflects the amount of water being diverted.

Water Right No. 2224-2 appropriates 0.004 cubic feet of water per second (2 gallons per minute) from one well to supply the business. Specifically, as part of the recent hearing, the question arose whether two gallons per minute can feasibly meet the water needs of a business that has 18 cabins, log homes and an executive lodge with maximum occupancy of approximately 85 people.

If the water right for two gallons per minute from the well used by Hillside Country Cottages is less than the actual diversion being made, another water right permit will be needed for the pump rate in excess of the permitted amount.

Enclosed is an application form, instruction sheet and map to apply for a Permit to Appropriate Water within the State of South Dakota. If you have any questions, please contact Ron Duvall or me. We want to work with you to get the necessary permitting in place.

You can find more information about using water in South Dakota and the permitting process by visiting our website at <https://denr.sd.gov/des/wr/wr.aspx>.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

enclosures

1S 6E
Section: 16

1S 6E
Section: 15

1S 6E
Section: 14

1S 6E
Section: 21

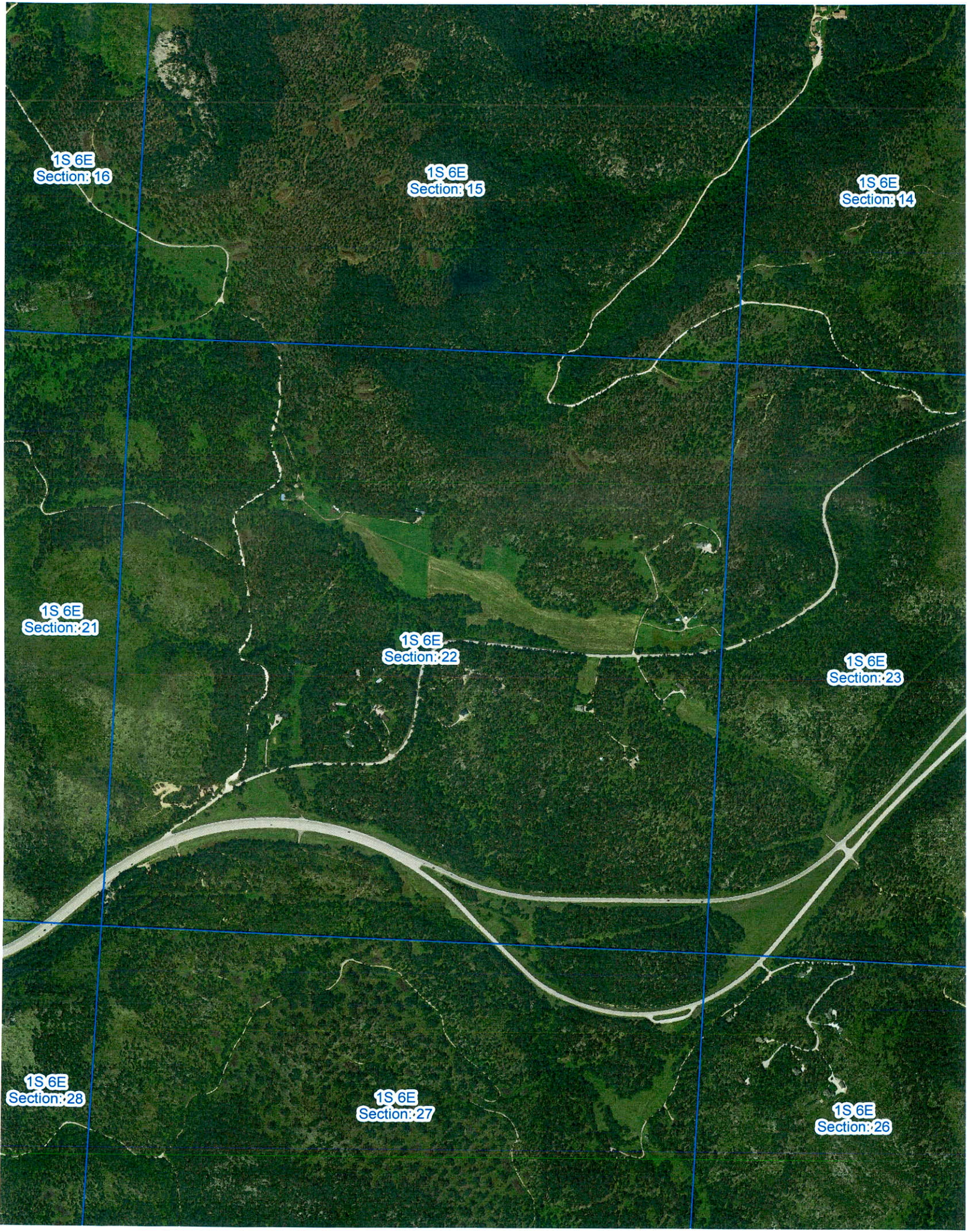
1S 6E
Section: 22

1S 6E
Section: 23

1S 6E
Section: 28

1S 6E
Section: 27

1S 6E
Section: 26





DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 26, 2021

Valerie Lauen
Hillside Country Cabins
13315 S Hwy 16
Rapid City SD 57702

Dear Ms. Lauen:

On November 19, 2020, we sent a letter inquiring whether Water Right No. 2224-2 held by Hillside Country Cottages reflects the amount of water being diverted for this commercial use. Water Right No. 2224-2 appropriates 0.004 cubic feet of water per second (2 gallons per minute) from one well to supply the business.

In a phone conversation with Eric Gronlund, the need for a new water permit was discussed, if the peak pump rate is greater than 2 gallons per minute. You indicated a new pump had recently been installed. After verifying the peak pump rate, it is our understanding that an application would be submitted for the any amount greater than the permitted amount of 2 gallons per minute.

Enclosed is another application form and instruction sheet to apply for Permit to Appropriate Water within the State of South Dakota.

Also enclosed is another partially completed Notice of Transfer of Ownership form for the ownership change on Water Right No. 2224-2.

If you have any questions, please contact Ron Duvall or me. We want to work with you to get the necessary permitting in place.

Sincerely,

Karen Schlaak

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

enclosures



2224-2

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

May 17, 2021

Valerie Lauen
Hillside Country Cabins
13315 S Hwy 16
Rapid City SD 57702

Dear Ms. Lauen:

On December 1st, 2020, we spoke regarding water right permitting for Hillside Country Cabins. Currently, Water Right No. 2224-2 appropriates 2 gallons per minute (gpm) from one well to supply Hillside Country Cabins. At the time, you indicated a new pump had been installed and you planned to verify the peak pump rate with the understanding if the rate is greater than 2 gpm an application for the amount above 2 gpm will need to be filed. Having not received an application, a letter was sent on February 26th regarding water right permitting and the need to complete and file a Notice of Transfer of Ownership. To date, neither completed form has been submitted to the Water Rights Program. Enclosed are those two forms.

As you may recall, Hillside Country Cabins' existing water right was brought up by a petitioner contesting a new water permit application in the Rockerville area. Specifically, the petitioner stated that 2 gpm is not sufficient to meet the water supply needs at Hillside Country Cabins. Since that time, the individual has filed a complaint with the Water Rights Program seeking formal investigation into various water rights and commercial entities in the vicinity of Rockerville that are not properly permitted.

I am again contacting you to find out the status of filing the water permit application and transfer of ownership form. The completed form with the application fee and map can be returned to: Water Rights Program, 523 E Capitol Avenue, Pierre SD 57501. Please respond by June 17, 2021.

If the pump rate is not greater than 2 gpm, no additional water right permitting is needed. Please provide information to verify the peak pump rate is 2 gpm. Regardless, the notice of transfer of ownership will need to be filed.

Please understand Hillside Country Cabins does not currently have a legal right to pump at a rate greater than 2 gpm. The Water Rights Program's intent is to get Hillside Country Cabins to file the needed application to be in compliance with water rights law in South Dakota.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program, DANR
605 773-3352
Eric.gronlund@state.sd.us

Enclosure



**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. 2821-2, Valerie Lauen**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2821-2, Valerie Lauen, 13315 S Hwy 16, Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 2821-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under Water Permit No. 2821-2 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals under this Permit shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Crystalline Rock aquifer.
3. Water Permit No. 2821-2 and Vested Water Right No. 2224-2, combined, authorize a total annual diversion of up to 1.0 acre-feet of water.

See report on application for additional information.

Eric Gronlund

Eric Gronlund, Chief Engineer
July 29, 2021

REPORT ON PERMIT APPLICATION NO. 2821-2

Valerie Lauen

July 30, 2021

Water Permit Application No. 2821-2 requests an increase in the diversion rate authorized by Vested Water Right No. 2224-2. Vested Water Right No. 2224-2 authorizes a maximum pump rate of 0.004 cubic feet per second (cfs) (2 gallons per minute (gpm)) from one well completed into the Precambrian Rock aquifer (Crystalline Rock aquifer) (30 feet deep) located in the SW ¼ SW ¼ Section 22-T1S-R6E. The applicant is requesting to increase the maximum diversion rate an additional 0.018 cfs (8 gpm) from the existing well for commercial use at Hillside Country Cabins. This application, if approved and Vested Water Right No. 2224-2, will authorize an amount not exceeding 1 acre-feet of water annually at a maximum pump rate of 0.022 cfs (10 gpm). This site is located approximately two miles southwest of Rockerville, SD.

Aquifer: Crystalline Rock (CRSL)

Hydrogeology

The Crystalline Rock aquifers consists of localized aquifers in the Precambrian aged core of the Black Hills, where extensive fractures and weathering zones allow for the transmission of water (Driscoll & Carter, 2001). The Crystalline Rock aquifer is estimated to have an outcrop area of 574,000 acres (Rahn P. H., 1979). The Crystalline Rock that this application is completed into is composed primarily of quartz-mica schist and phyllite (Redden, Saxton, Terry, & Fahrenbach, 2016). The Crystalline Rock aquifer has very low primary porosity, so water movement in the aquifer is through secondary porosity (fractures, joints, and faults) (Rahn P. H., 1979). Figure 1 shows mapped faults near the proposed diversion point (Redden, Saxton, Terry, & Fahrenbach, 2016). Secondary porosity for the Crystalline Rock aquifer is highly variable and uneven and therefore is site-specific. Rahn (1979) estimated the effective porosity to be one percent of the outcrop area of the aquifer containing recoverable groundwater primarily in cracks and joints that occur within a depth of 500 feet of ground surface resulting in an estimated 2,900,000 acre-feet of recoverable water in storage for the Crystalline Rock aquifer in western South Dakota.

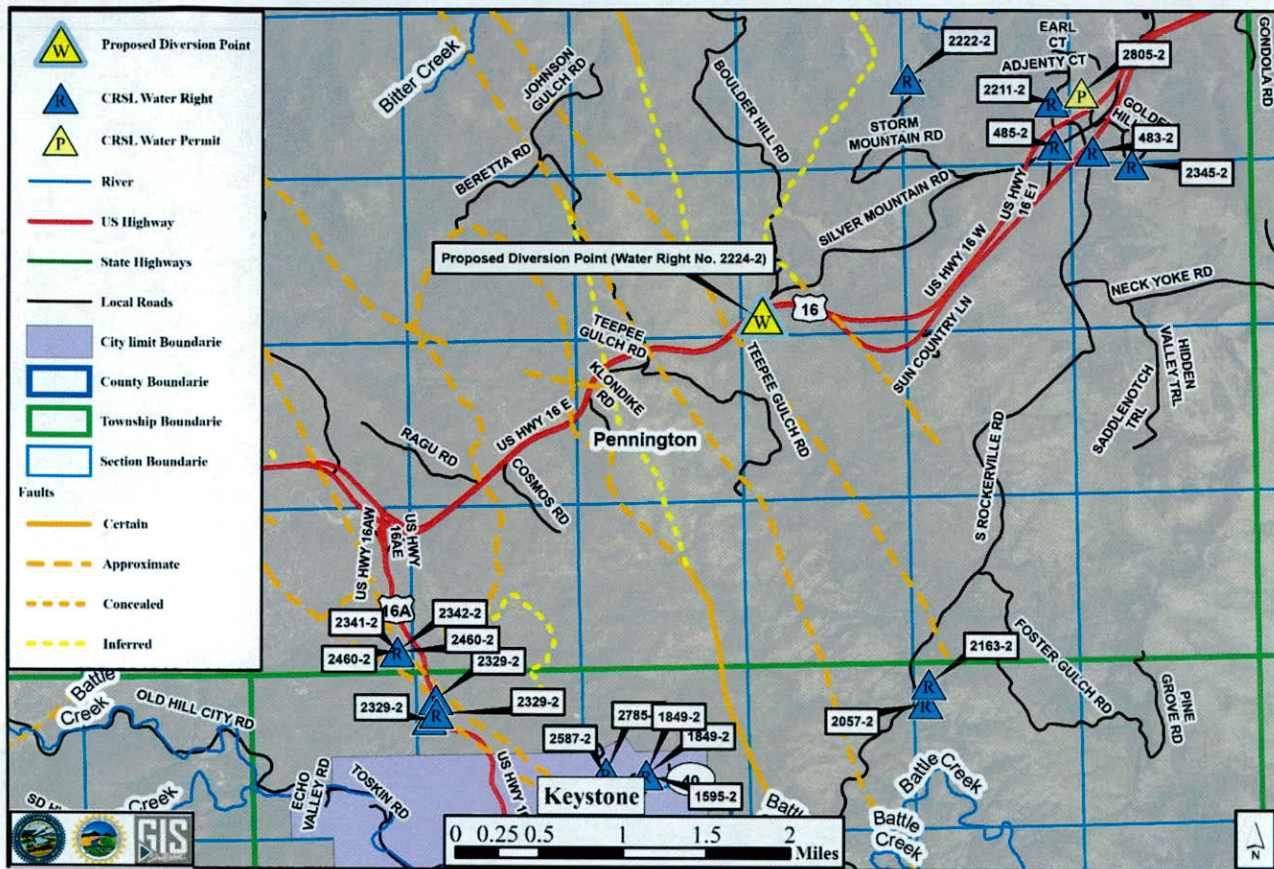


Figure 1: Map showing the location of the proposed diversion point, water rights/permits within approximately 3 miles of the proposed diversion points that are completed into the Crystalline Rock aquifer, named rivers, and fault locations (Redden, Saxton, Terry, & Fahrenbach, 2016; Water Rights, 2021a)

South Dakota Codified Law 46-2A-9

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

Water Availability

SDCL 46-6-3.1 is considered when evaluating the probability of unappropriated water from an aquifer and states, “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower

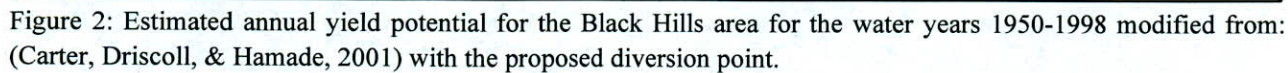
than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Crystalline Rock aquifer is older and lower than the Greenhorn Formation; however, there is no water distribution system involved as defined in SDCL 46-1-6(17).

Hydrologic Budget

Recharge

The Crystalline Rock aquifers receive recharge from the infiltration of precipitation and streamflow losses on the outcrop area (Driscoll & Carter, 2001). Driscoll & Carter (2001) estimated the recharge to the entirety of the Crystalline Rock aquifers for the years 1950-1998 within the core of the Black Hills to be equal to the average withdrawals (3,600 ac-ft/yr). However, Driscoll and Carter (2001) further concluded that the recharge to the Crystalline Rock aquifers must be much larger than that estimate to account for discharge to streams. Driscoll and Carter (2001) stated, in regard to the Crystalline Rock aquifers, “Recharge conditions are highly transient and have large spatial variability; thus, quantification is not attempted.”. While looking at faults and other significant geological features may allow for some limiting of areal extent, there is not sufficient data available to attempt a delineation of the localized Crystalline Rock aquifer with any level of certainty. Therefore, there is no average annual recharge estimate available for the localized Crystalline Rock aquifer the applicant proposes to use.

Carter and Driscoll (2001) also estimated annual yield potential. The estimated annual yield potential is essentially how much precipitation is left after subtracting evapotranspiration. Carter and Driscoll (2001) used a recharge factor to estimate how much of the annual yield could infiltrate and recharge an aquifer. While other bedrock aquifers in the Black Hills area, such as the Madison and Inyan Kara aquifers, have a recharge factor, Carter and Driscoll (2001) did not estimate one for the crystalline core of the Black Hills. This is due to the fact that the localized Crystalline Rock aquifers are not extensive regional aquifers and are highly variable in nature. Figure 2 is the map of the estimated annual yield from Carter and Driscoll's (2001) report with the location of the applicant's well marked. The Crystalline Rock aquifers near the applicant's location have an estimated annual yield likely between 1 and 2 in/yr. The annual yield potential is not appropriate to use as a recharge rate for the Crystalline Rock aquifers but does suggest an upper limit on a possible recharge rate.



Withdrawals

Currently, there are 17 water rights/permits authorized to withdraw water from the Crystalline Rock aquifer within approximately 3 miles of the proposed diversion point (Figure 1, Table 1) (Water Rights, 2021a). The nearest water right (Water Right No. 2222-2 for Storm Mountain Center) is approximately 1.7 miles to the northeast of the proposed diversion point (Water Rights, 2021a).

Table 1: Water rights authorized to withdraw water from the Crystalline Rock aquifer within approximately 3 miles of the proposed diversion point (Figure 1) (Water Rights, 2021a).

Permit No.	Name	Status	Use	Rate (cfs)	Permitted Volume (ac-ft/yr)	Estimated Annual Usage (ac-ft/yr)
479-2	Rockerville Gold Town Inc	LC	COM	0.09	N/A	39.12
483-2	Rockerville Trading Post	LC	COM	0.13	N/A	56.51
485-2	Rockerville Park	LC	COM	0.07	N/A	30.43
1595-2	Rocky Gulch LLC	LC	COM	0.07	N/A	30.43
1849-2	Town Of Keystone	LC	MUN	0.56	N/A	243.42
2057-2	Black Hills Childrens Home	LC	INS	0.019	N/A	8.26
2163-2	Black Hills Childrens Home	LC	INS	0.04	N/A	17.39
2211-2	Pine Haven Heritage Home	LC	COM	0.03	N/A	13.04
2222-2	Storm Mountain Center	LC	REC	0.04	N/A	17.39
2329-2	Little Guys LLC	LC	COM	0.1	N/A	43.47
2341-2	Danielle Banks	LC	COM	0.013	N/A	5.65
2342-2	Danielle Banks	LC	COM	0.044	N/A	19.13
2345-2	Rockerville Acres Sub-Div	LC	COM	0.024	N/A	10.43
2460-2	Kenneth D Knapp	LC	COM	0.033	N/A	14.34
2587-2	Town Of Keystone	LC	MUN	0.133	N/A	57.81
2785-2	Town Of Keystone	LC	MUN	0.167	24.6	24.60
2805-2	R & J LLC	PE	COM	0.044	4	4.00
LC = Water Right, COM = Commercial, MUN = Municipal, INS = Institutional, REC = Recreation, PE = Water Permit						

The estimated use of nearby water rights was calculated assuming that water rights not limited by an annual permitted volume will pump at the maximum permitted diversion rate 60 percent of the time. This estimation is standard throughout South Dakota but is likely an overestimation when applied to this aquifer due to diversion rates being limited by the unpredictable nature of the fracturing that comprises the localized Crystalline Rock aquifers. This application, if approved, would authorize the appropriation of 1 ac-ft/yr, assuming the application will use the entire permitted volume annually.

There are a number of well completion reports on file with the SD DANR-Water Rights Program for domestic wells that appear to be completed into the Crystalline Rock aquifer in the area of the proposed diversion point (Water Rights, 2021b). It is also likely there are other domestic wells

pumping. Any responses to pumping are relatively short-term and are masked by recharge to and natural discharge from the aquifer. Over the period of record, the water levels for observation well CU-86A have fluctuated 45 feet. Recharge to, and natural discharge from aquifers can be captured for pumping. Water level data for observation well CU-86A shows the Crystalline Rock aquifer receives recharge, and while the observation well is not close enough to the proposed diversion point to show exactly what is happening in the area of this application, it still shows that the Crystalline Rock aquifers receive recharge.

Driscoll and Carter (2001) stated recharge to the Crystalline Rock aquifer must be much greater than the estimated 3,600 ac-ft/yr to account for the groundwater discharge that contributes to the base flow to many streams and is supported by the hydrograph for observation well CU-86A (Figure 3), which shows the water level generally rising over its period of record despite increased development of the aquifer in the area of the observation well.

When considering the hydrograph for observation well CU-86A, Driscoll's and Carter's (2001) commentary regarding recharge to the Crystalline Rock aquifer, the continued development of the Crystalline Rock aquifer, and the relatively small annual appropriation requested by this application, there is a reasonable probability unappropriated water is available for this proposed appropriation.

Potential For Unlawful Impairment Of Existing Water Rights

The nearest well completion report on file with SD DANR-Water Rights Program is approximately 0.1 miles to the northeast of the proposed diversion point for this application (Water Rights, 2021b). It is possible there are other wells completed into the Crystalline Rock aquifer within approximately 1 mile of the proposed diversion point for this application that are not on file with the SD DANR-Water Rights Program.

The nearest water right/permit (Water Right No. 2222-2) currently authorized to withdraw water from the Crystalline Rock aquifer is approximately 1.7 miles to the northeast of the proposed diversion point (Figure 1) (Water Rights, 2021a). Considering the applicant has been pumping under Vested Right No. 2224-2 for many years and the proximity of the proposed diversion point to nearby domestic users (approximately 0.1 miles northeast) in the area without any reports of well interference and the limited diversion rate requested by this application, there is a reasonable probability this application can be developed without unlawful impairment to nearby adequate wells (Water Rights, 2021a; Water Rights, 2021b; Water Rights, 2021e).

An adequate well as defined in ARSD 74:02:04:20(6):

“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.”

Due to the very low primary porosity of the Crystalline Rock aquifer and the highly variable and uneven nature of secondary porosity, 20 feet of saturated thickness may not be sufficient for a dependable water supply. Without conducting an aquifer performance test, the precise drawdown effects caused by pumping a well cannot be determined. Over the period of record, the water levels for observation well CU-86A (Figure 3) have fluctuated 45 feet due to climatic conditions. Pump depth requirements are detailed in ARSD 74:02:04:60(2), which states in part, “The depth of the pump setting shall be determined by dividing the specific capacity into the required yield and adding at least 10 additional feet to maintain pump inlet submergence below the maximum anticipated drawdown, where possible.”

There has only been one reported instance of well interference in Pennington County for wells completed into the Crystalline Rock aquifer. This involved Water Right No. 2572-2 during the permit’s initial development. The water right was limited to a maximum diversion rate of 18 gallons per minute, the limit for reasonable domestic use, by the Chief Engineer in October 2006. The permit holder reported to the Water Rights Program that the issue was resolved sometime before January 2009, and there have not been any other reports of well interference issues since then (Water Rights, 2021e).

Considering the continued development of the Crystalline Rock aquifer without a significant history of well interference complaints, the hydrograph for observation well CU-86A (Figure 3) and the natural fluctuations in water levels over the period of record, Driscoll’s and Carter’s (2001) commentary regarding recharge to the Crystalline Rock aquifer, the protection afforded to adequate wells by South Dakota Water Law, the long history of pumping by the applicant without reported interference issues, and the relatively small annual appropriation requested by this application, there is a reasonable probability unappropriated water is available for this proposed appropriation. If this application is approved, a qualification requiring the applicant to control their withdrawals, so there is not a reduction of needed water supplies in adequate wells, should be included.

Conclusions

1. Water Permit Application No. 2821-2 requests an increase in the diversion rate authorized by Vested Water Right No. 2224-2. Vested Water Right No. 2224-2 authorizes a maximum pump rate of 0.004 cubic feet per second (cfs) (2 gallons per minute (gpm)) from one well completed into the Precambrian Rock aquifer (Crystalline Rock aquifer) (30 feet deep) located in the SW ¼ SW ¼ Section 22-T1S-R6E. The applicant is requesting to increase the maximum diversion rate an additional 0.018 cfs (8 gpm) from the existing well for commercial use at Hillside Country Cabins.

2. This application, if approved and Vested Water Right No. 2224-2 will authorize an amount not exceeding 1 acre-feet of water annually at a maximum pump rate of 0.022 cfs (10 gpm).
3. There is a reasonable probability that the diversion proposed by this application will not unlawfully impair adequate wells for existing water rights and domestic use.
4. There is a reasonable probability unappropriated water is available for this proposed appropriation.


Timothy Magstadt

Natural Resources Engineer II
SD DANR – Water Rights Program

Co-Authored:



Adam Mathiowetz, PE
Natural Resources Engineer III
SD DANR-Water Rights Program

References

- Carter, J. M., Driscoll, D. G., & Hamade, G. R. (2001). *Estimated Recharge to the Madison and Minnelusa Aquifers in the Black Hills Area, South Dakota and Wyoming, Water Years 1931-98; Water-Resources Investigations Report 00-4278*. Rapid City, South Dakota: United States Geological Survey.
- Driscoll, D. G., & Carter, J. M. (2001). *Hydrologic Conditions and Budgets for the Black Hills of South Dakota, Through Water Year 1998; Water-Resources Investigations Report 01-4226*. Rapid City, South Dakota: U.S. Geological Survey.
- Kilts, W. K. (2018). *Report to the Chief Engineer Water Permit No. 2789-2 Rushmore Cave*. Pierre, South Dakota: SD DANR-Water Rights Program.
- Rahn, P. H. (1979). *Ground Water Resources of Western South Dakota*. Rapid City: Department of Geology and Geological Engineering South Dakota School of Mines and Technology.
- Redden, J. A., Saxton, S. L., Terry, M. P., & Fahrenbach, M. D. (2016). *Geologic Map of the Mount Rushmore Quadrangle, South Dakota: 7.5 Minute Series Geologic Quadrangle Map 26*. Rapid City: South Dakota Geological Survey Program.
- Water Rights. (2021a). *Water Right/Permit Files*. Joe Foss Bldg., Pierre, South Dakota.: SD DANR-Water Rights Program.
- Water Rights. (2021b). *Well Completion Report Files*. Joe Foss Bldg., Pierre, South Dakota.: SD DANR-Water Rights Program.
- Water Rights. (2021c). *Observation Well Database*. Joe Foss Bldg., Pierre, South Dakota.: SD DANR-Water Rights Program.
- Water Rights. (2021e). *Pennington County Complaint/Investigation File*. Pierre, South Dakota: SD DANR-Water Rights Program, Joe Foss Bldg.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, July 28, 2021 4:46 PM
To: vlauen@yahoo.com
Subject: Water Permit Application No. 2821-2
Attachments: 1575.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 you tomorrow.

Karen Schlaak

DANR - Water Rights Program

(605) 773-3352

Website: <https://danr.sd.gov>



*** Proof of Publication ***

STATE OF SOUTH DAKOTA)

County of Pennington)

SS:

Valerie Lauen

13315 S HWY 16

RAPID CITY SD 57702

ORDER NUMBER 34298

RECEIVED

AUG 09 2021

WATER RIGHTS
PROGRAM

The undersigned, being duly sworn, upon his/her oath says: That he/she is now and was at all time hereinafter mentioned, a clerk of the RAPID CITY JOURNAL, a corporation of Rapid City, South Dakota, a legal and daily newspaper printed and published in Rapid City, in said County of Pennington, and has full and personal knowledge of all the facts herein stated as follows: that said newspaper is and at all of the times herein mentioned has been a legal and daily newspaper with a bonafide paid circulation of at least Two Hundred copies daily, and has been printed and published for at least one year prior to the first date of the published notice.

This affidavit is a true and corrected copy of notice which appeared

in said newspaper once each day for one
successive day, the first publication there of being on the
5 day of August, 20 21.

Larry Breasler

Section: Legal

Category: 0084 Water Permits

PUBLISHED ON: 08/05/2021

TOTAL AD COST: 53.69

FILED ON: 8/5/2021

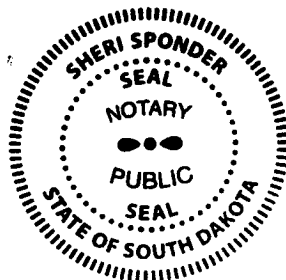
Subscribed and sworn to before me this

6th day of August, 20 21.

Sheri Spender Notary Public

My commission expires

November 21, 20 25



August 5 L34298
NOTICE OF APPLICATION NO.

2821-2 to Appropriate Water

Notice is given that Valerie Lauen, 13315 S Hwy 16, Rapid City SD 57702 has filed an application for a water permit to increase the diversion rate authorized by Vested Water Right No. 2224-2. Vested Water Right No. 2224-2 authorizes 0.004 cubic feet of water per second (cfs) [2 gallons per minute] from one well completed into the Precambrian Rock Aquifer (30 feet deep) located in the SW 1/4 SW 1/4 Section 22-T1S-R6E. The applicant is requesting to increase the diversion rate an additional 0.018 cfs [8 gallons per minute] from the existing well for commercial use at Hillside Country Cabins. This application, if approved, and Vested Water Right No. 2224-2 will authorize an amount not exceeding 1 acre-feet of water annually at a maximum pump rate of 10 gallons per minute. This site is located approximately two miles southwest of Rockerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2821-2 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duval for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by August 16, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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 \$53.69)

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, July 28, 2021 4:42 PM
To: Rapid City Journal (legals@rapidcityjournal.com)
Subject: 2821-2, Valerie Lauen
Attachments: 2821-2public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on August 5, 2021.

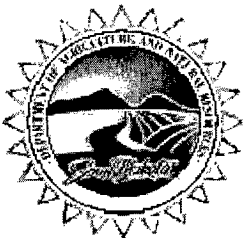
Valerie Lauen, 13315 S Hwy 16, Rapid City SD 57702 (605 342-4121) has been notified to contact you to authorize publication and arrange for payment.

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.

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.**

July 29, 2021

Valerie Lauen
13315 S Hwy 16
Rapid City SD 57702

Dear Ms. Lauen:

Water Permit Application No. 2821-2 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Rapid City Journal printed at Rapid City SD (Ph # 605 394-8336). 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.

NOTICE OF APPLICATION NO. 2821-2 to Appropriate Water

Notice is given that Valerie Lauen, 13315 S Hwy 16, Rapid City SD 57702 has filed an application for a water permit to increase the diversion rate authorized by Vested Water Right No. 2224-2. Vested Water Right No. 2224-2 authorizes 0.004 cubic feet of water per second (cfs) [2 gallons per minute] from one well completed into the Precambrian Rock Aquifer (30 feet deep) located in the SW 1/4 SW 1/4 Section 22-T1S-R6E. The applicant is requesting to increase the diversion rate an additional 0.018 cfs [8 gallons per minute] from the existing well for commercial use at Hillside Country Cabins. This application, if approved, and Vested Water Right No. 2224-2 will authorize an amount not exceeding 1 acre-feet of water annually at a maximum pump rate of 10 gallons per minute. This site is located approximately two miles southwest of Rockerville SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2821-2 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.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 or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by August 16, 2021.

The petition may be informal but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

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_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

SEP 08 2021

Valerie Lauen
13315 S Hwy 16
Rapid City SD 57702

Dear Ms. Lauen:

Enclosed is Water Permit No. 2821-2 authorizing your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

Sincerely,

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

enclosures

PAID

FEB 27 2026

Ck# CC

Rec't# _____

NOTICE OF TRANSFER OF OWNERSHIP

For assistance call (605) 773-3352

Mail to: SD DANR, Water Rights Program
523 E Capitol Ave
Pierre, SD 57501-3182

Water Right/Permit No. 2821-2

Date: 27-Feb-2026

I/We request that Water Right/Permit No. 2821-2 formerly owned by:
Val Lauren be transferred to:

New Owner Name: Hillside Holdings LLC
Address: 13315 US-16 mobile: (605) 385-0627
City, State, Zip Rapid City, SD, 57702 email: info@hillsidecountrycabins.com

Title to the following described land(s)/property has been transferred as described above:

☒ I understand that the validity of Water Right/Permit No. 2821-2 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is included to cover the filing fee as required by SDCL 46-2-13.

I, Trystin Morales, the new owner, certify that the above information is true and correct.


(signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five-year construction period has expired. Once a water permit is developed, an inspection is conducted to issue a water right license for the project as developed. A water permit/right may be cancelled for one or more of the following reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three-year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

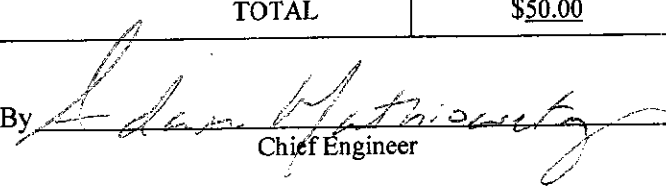
Date February 27, 2026

RECEIVED OF Hillside Holdings LLC 13315 US-16 Rapid City, SD 57702

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. _____	\$ _____
Fee for Filing Transfer Form #2821-2 _____	\$50.00
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	\$50.00

By


Chief Engineer



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

March 2, 2026

2821-2

Hillside Holdings LLC
13315 US-16
Rapid City, SD 57702

Dear Trystin Morales,

The South Dakota Water Rights Program is in receipt of the "Notice of Transfer of Ownership" form and the required fee you submitted for Water Permit No. 2821-2. Enclosed is a receipt of payment for your records.

Water Permit No. 2821-3, previously held by Valerie Lauren, is now listed under Hillside Holdings LLC. I have also updated your contact information in our system.

As a reminder, so long as you use the water beneficially, as stated in the Permit (copy enclosed), State Water Laws provide that you have a continuing right to use the water. Should the water not be put to beneficial use for a period longer than 3 consecutive years, without legal excuse, the Permit will be subject to cancellation.

If you have any questions, please contact me.

Sincerely,

Shannon Konst
Water Rights Program
605 773-3352
Shannon.konst@state.sd.us

NOTE: The validity of Water Permit No. 2821-2 has not been determined by this transfer action. Only the Water Management Board has the authority to determine if a water permit/right is valid.

enclosure