

WATER PERMIT NO. 2785-3/2

Name of Applicant: Town of Keystone

Address: PO Box 689 Phone: 605 666-4827

Amount of Water Claimed: 0.11 cfs Total Acres: NA

Source of Water Supply: groundwater (1 existing well)

Water to be used for: municipal County: Pennington

Type of Waste Disposal System:

Location: Keystone

PRIORITY Date Received: 2-26-18 Application/License Fee: \$ 300

Corrected Application Received: Period of Annual Use: Jan 1 – Dec 31

Remarks: Increasing diversion rate from existing well authorized by Water Right No. 2729-2

Diversion Point: NW 1/4 SW 1/4 Sec 4-T2S-R6E

Land to be Irrigated: NA

Depth of Well: 560 feet

Well Driller: Alexander Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 2-26-18

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

		4			
	⊗				

RECEIVED

FEB 26 2018

WATER RIGHTS
PROGRAM

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2785-2</u> (office use only) Hydrologic Unit <u>10120109</u>
	Basin <u>Upper Cheyenne</u>
	Newspaper <u>Rapid City Journal</u>

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. 2729-2

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

requesting an additional 50 gallons per minute from this
well (currently authorized for 50 gallons/min)

1. Name to Appear on Water Permit Town of Keystone
Mailing Address PO Box 689 Keystone SD 57751
(Address) (City) (State) (Zip Code)
Phone 605-666-4827 Mobile _____ Email cityclerk@mt-rushmore.net

2. Amount of water claimed .11 *CFS or 50 **GPM and 24.6 ***AF or 8,000,000 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)

3. Source of water supply Hard Rock fracture

4. Location of point of diversion NW 1/4 SW 1/4 Section 4 T2S R6E County Pennington
(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)

5. County or counties where water will be used Pennington

6. Annual period during which water is to be used year Round Jan 1 - Dec 31

7. 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)

Existing well deepened additional 260 ft. from 300 ft at the start.
Increased gallons/minute pumped for domestic supply.
Currently hold a permit for .11 cfs / 50 GPM asking for
an increase of .11 cfs / 50 GPM.

I, Jerry Przybylski Public Works Director, 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.

SOUTH DAKOTA
WATER PERMIT NO. 2785-2

Date of first receipt of application February 26, 2018.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2785-2 to Town of Keystone, PO Box 689, Keystone SD 57751 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. 2785-2 authorizes increasing the diversion rate authorized by Water Right No. 2729-2. Water Right No. 2729-2 appropriates 0.11 cubic feet of water per second (cfs) from one well completed into the Precambrian Crystalline Rock Aquifer (300 feet deep) located in the NW 1/4 SW 1/4 Section 4-T2S-R6E. The town has deepened this existing well from 300 feet to 560 feet (Precambrian Crystalline Rock Aquifer). This permit authorizes increasing the diversion rate by an additional 0.11 cfs for a total diversion rate of 0.22 cfs (100 gallons per minute) from the 560 feet deep well. This permit and Water Right No. 2729-2 combined will authorize a maximum diversion rate of 0.22 cfs and a maximum annual volume of 24.6 acre-feet of water.
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. 2785-2 is May 14, 2018.
5. The date from which applicant may claim right is February 26, 2018 (0.11 cfs).
6. One-fifth of the construction is to be completed on or before November 14, 2020.
7. All construction is to be completed on or before May 14, 2023.
8. Water is to be put to beneficial use on or before May 14, 2027.
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. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Precambrian Crystalline Rock.
3. Water Permit No. 2785-2 authorizes a total annual diversion of 24.6 acre feet of water.

WATER MANAGEMENT BOARD

By: 

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

MAY 17 2018

date



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 (5) ^{-total in Municipality} Provide copy of log(s), if available. Drilled by Alexander Drilling Inc

For either Existing or Proposed Wells: 1 well Deepened well #5 (2729-2) to 560ft

c) Well Depth (required) 300ft Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property Current before deepening. Now @ 560ft.
well #4 Property owned by others Unknown
(2587-2)

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)

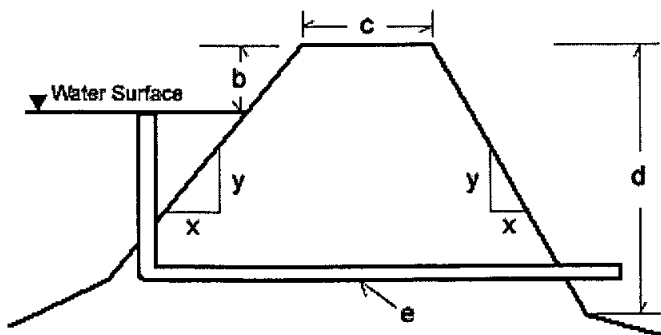
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Location	1/4	1/4	Sec	Twp	Rg
----------	-----	-----	-----	-----	----

North

A 4x4 grid with dashed lines. The left side is labeled 'W' and the right side is labeled 'E'.

12/8/2017

1 Mile

Rotary downhole hammer

Date:

REVIEW OF EXISTING WATER RIGHTS:

Any domestic wells in this area would be completed into the crystalline rock (Water Rights, 2014c). Water rights/ permits appropriating groundwater within approximately one mile of this site are shown in Figure 2 and Table 1.

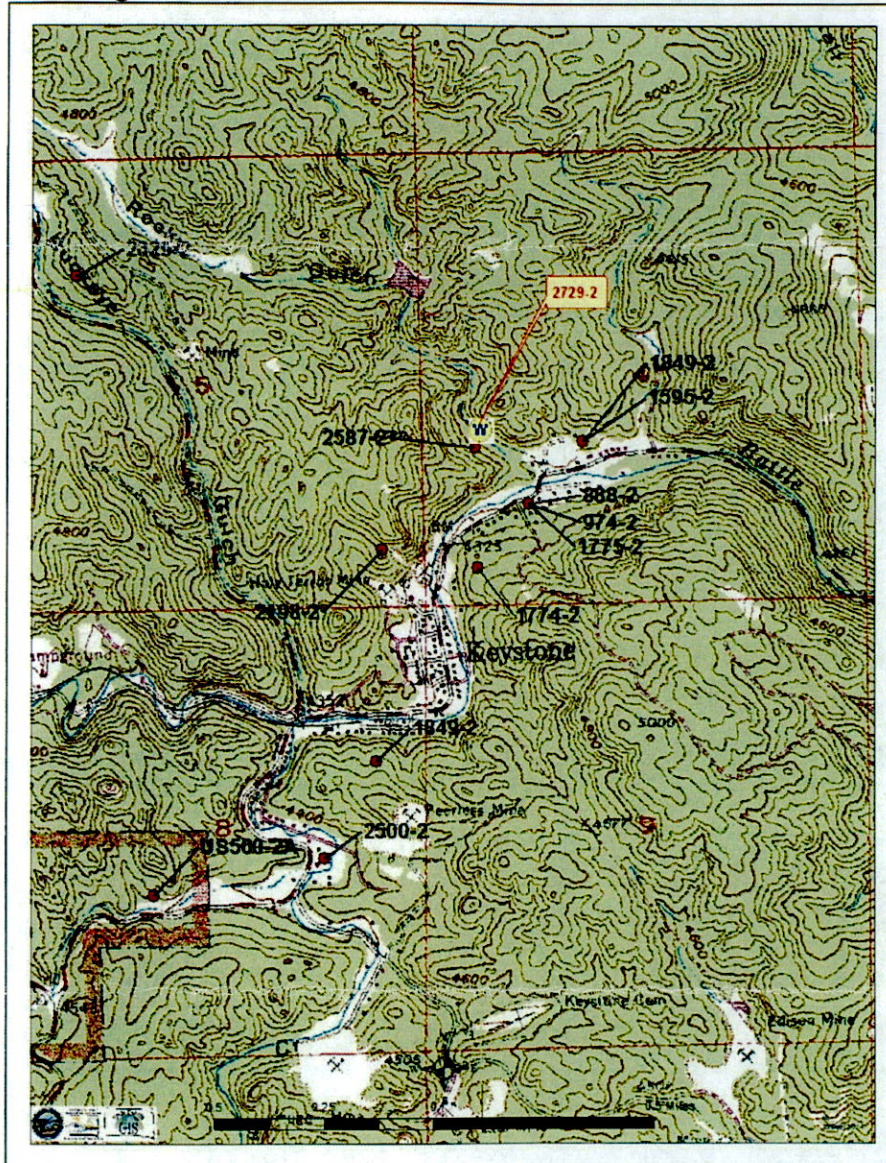


Figure 2. Water Rights/Permits in the vicinity of the well that Application No. 2729-2 proposes as a supply (Water Rights, 2014b).

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date February 26, 20 18

RECEIVED OF Town of Keystone Po Box 639 Keystone, SD 57751

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

Fee for Application for Permit No. _____ to Appropriate Water, ⁵⁰⁰ to Construct and to put water to beneficial use	800	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	700 00

No. **08609**

By

Jeanne Goodman
Chief Engineer

jm



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

January 5, 2018

2500-2
2587-2
2729-2

Town of Keystone
Jerry Przybylski, Public Works Director
PO Box 689
Keystone SD 57751

Dear Mr. Przybylski:

Pursuant to qualifications on Water Right Nos. 2729-2, 2500-2 and 2587-2, I am requesting that the Town of Keystone report the amount of water diverted during 2017. Please respond by January 31, 2018.

Also, we just received a well completion report from Alexander Drilling, Inc. It appears that they deepened Well #5 authorized by Water Right No. 2729-2. Water Right No. 2729-2 authorizes 0.11 cubic feet of water per second (50 gallons per minute) from this well. Has the diversion rate been increased from this well? Are you capable of pumping more than 50 gallons per minute? If so, an additional water right may be required.

If you have any questions concerning this or other water rights questions, please contact Karen Schlaak at (605) 773-3352. Water use data and/or questions can also be forwarded to Karen via email at karen.schlaak@state.sd.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ron Duvall'.

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

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, January 11, 2018 4:53 PM
To: 'cityclerk@mt-rushmore.net'
Subject: Water Right No. 2500-2 & application forms
Attachments: keystone.pdf

Attached is Water Right No. 2500-2 which I think is the well you stated is no longer used because of the arsenic problem. In order to cancel the water right, we will need confirmation from the city stating the same.

Also included are application forms to be completed if the deepened well authorized by Water Right 2729-2 produces more than the authorized 50 gallons per minute.

If you have questions, please contact Eric Gronlund or me.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 31, 2018 2:10 PM
To: 'Devin Lorimor'
Subject: RE: [EXT] Town of Keystone

Please be aware that any amount of water over 50 gpm will require an additional permit. The City will not have a legal right to use any amount of water over the 50 gpm until the additional permit is approved.

The application forms can be found on our website: denr.sd.gov/des/wr/wr.aspx

Karen

From: Devin Lorimor [<mailto:jrruss100@hotmail.com>]
Sent: Wednesday, January 31, 2018 12:17 PM
To: Schlaak, Karen
Subject: RE: [EXT] Town of Keystone

Hello Karen,

I apologize for the missing information, we did get the well finished and on our initial pump test was 4 hours at 100 gpm but we have not yet finalized that project meaning we do not have our pump in place and using it as of yet. When we do I am certain it will be over 50 gpm.

Thank you
Devin

Sent from my Samsung Galaxy smartphone.

----- Original message -----
From: "Schlaak, Karen" <Karen.Schlaak@state.sd.us>
Date: 1/30/18 3:18 PM (GMT-07:00)
To: 'Devin Lorimor' <jrruss100@hotmail.com>
Subject: RE: Town of Keystone

I am working on these reports and noticed I had asked an additional question in my letter requesting water usage amounts. That being:

Also, we just received a well completion report from Alexander Drilling, Inc. It appears that they deepened Well #5 authorized by Water Right No. 2729-2. Water Right No. 2729-2 authorizes 0.11 cubic feet of water per second (50 gallons per minute) from this well. Has the diversion rate been increased from this well? Are you capable of pumping more than 50 gallons per minute? If so, an additional water right may be required.

Once we know this information, we can determine what additional action, if any, needs to be taken to ensure the water permit accurately reflects the city's use.

Karen Schlaak

SD DENR, Water Rights Program

(605) 773-3352



From: Devin Lorimor [<mailto:jrruss100@hotmail.com>]

Sent: Wednesday, January 17, 2018 4:12 PM

To: Schlaak, Karen

Subject: [EXT] Town of Keystone

Hello Karen, I am e-mailing you again because I was incorrect with the gallons pumped on well #4 and #5. This e-mail will contain the correct numbers.

Water Permit No. 2500-2 diverted zero (0) gallons. Location Roy Street well. (I spoke with the city clerk and she said that we will be keeping the permit on this site because the School of Mines uses this well for study.)

Water Permit No. 2587-2 pumped 8,549,139 gallons. Location Well #4 Harney Street. (Received new meter part way through the year because of lightning strike, this is the closest estimate we can get.)

Water Permit No. 2729-2 pumped 1,553,050 gallons. Location Well #5 Harney Street.

If you have any questions please contact me on my cell phone 605-430-5169 or City Hall at 605-666-4827.

Thank you for your help

Devin Lorimor

Public Works

Town of Keystone

Gronlund, Eric

From: Gronlund, Eric
Sent: Tuesday, February 27, 2018 4:10 PM
To: 'cityclerk@mt-rushmore.net'
Subject: water permit application for the city of Keystone

Mr. Przybylski

DENR received the water permit application filed by the city of Keystone for additional diversion rate authority from the well that is authorized by Water Right No. 2729-2. This well has recently been deepened to 560 feet.

In addition to the diversion rate, DENR requests the intended annual volume (in gallons or acre-feet) to be withdrawal from the well. In making the estimate, be reasonable but estimate the volume on the high side.

Thank you

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

2785-2

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 2785-2, Keystone

ADDRESS: COUNTY: Pennington

DATE: February 28, 2018 TELEPHONE: 605 666-4827

RE: annual volume

COMMENTS:

I called and spoke with Cassandra with the city of Keystone. She indicated the annual water use from Well No. 5 will be up to 8,000,000 million gallons. That equates to 24.6 acre feet of water..

NAME: Eric Humlund



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

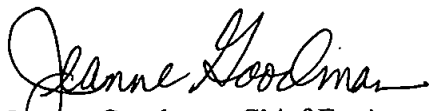
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2785-2, Town of Keystone**

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. 2785-2, Town of Keystone, c/o Jerry Przybylski, Public Works Director, PO Box 689, Keystone SD 57751.

The Chief Engineer is recommending APPROVAL of Application No. 2785-2 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 this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Precambrian Crystalline Rock.
3. Water Permit No. 2785-2 authorizes a total annual diversion of 24.6 acre feet of water.

See report on application for additional information.


Jeanne Goodman, Chief Engineer

April 26, 2018

Report to the Chief Engineer
Water Application No. 2785-2
Town of Keystone
April 23, 2018

Water Permit Application No. 2785-2 for the Town of Keystone c/o the Public Works Director proposes to appropriate water at a maximum instantaneous diversion rate of 0.11 cubic feet per second (cfs) with a maximum annual appropriation of 24.6 acre-feet from an existing well. The well for municipal use is located in the NW ¼ SW ¼ Section 4-T2S-R6E in Pennington County in Keystone. Water Right No. 2729-2 appropriates water at a maximum instantaneous diversion rate of 0.11 cfs from this well. This application is an increase of the diversion rate currently authorized from this well by Water Right No. 2729-2. The existing well was deepened from 300 feet to 560 feet into the Crystalline Rock aquifer. This application, if approved, and Water Right No. 2729-2 combined would appropriate water at a maximum instantaneous diversion rate of 0.22 cfs with a maximum annual appropriation of 24.6 acre-feet.

Aquifer: Crystalline Rock (CRSL)

Hydrogeology and Aquifer Characteristics

In western South Dakota, wells completed into the Precambrian aged crystalline rock have not encountered measureable amounts of groundwater outside of the Black Hills area (Driscoll and Carter, 2001). Rather than one single aquifer across the entire Precambrian aged core of the Black Hills, the Crystalline Rock aquifer consists of numerous localized aquifers in the core where extensive fractures or weathering zones allow for the transmission of water (Driscoll and Carter, 2001). The crystalline rocks of this aquifer have low primary porosities, so water is conveyed to wells along fractures, joints, and faults (Rahn, 1979). Therefore, water availability in the aquifer is site specific and depends upon the occurrence of fractures, joints, and faults (secondary porosity) in the subsurface at a given site.

The well site is located within the historic Keystone Mining District. Connolly (1929) notes, “the Keystone district comprises an area of extremely complex pre-Cambrian geology.” At least three main types of rock are identified within the district: ancient sediments now metamorphosed into slates, phyllites, quartzites, and mica shists; intrusive rock consisting primarily of Diorite; and granite pegmatites which intruded into all of the earlier rock type in the area (Connolly, 1929). All of these are considered to be crystalline rock types. The well for this application is within a quarter of a mile of several faults including the Keystone fault (Redden and DeWitt, 2008). The presence of faulting and folding in the area is indicative of potential for secondary porosity in the area. The crystalline rock of the aquifer is exposed at the surface throughout the area; therefore the aquifer is considered to be under unconfined conditions. However, due to the secondary porosity of the aquifer, it may not behave like a typical

unconfined aquifer. Buhler (2014) expected the static water levels of wells in this area to be similar in elevation to Battle Creek.

The well for this application was originally completed in February of 2014 with a depth of 300 feet below grade into the Crystalline Rock aquifer. The static water level at the time of completion was 15 feet below the measuring point. The well was then deepened to 560 feet below grade in December of 2017. The static water level after the well was deepened was 30 feet below the measuring point.

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

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

Water Availability

The probability of unappropriated water being available from the Crystalline Rock aquifer can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems." Additionally, pursuant to SDCL 46-1-6 (17) a water distribution system is defined as "a system of piping, valves, storage tanks, pumps, and appurtenances by which water is conveyed for domestic or municipal use by a common distribution system, including a municipality as defined in § 9-1-1, a nonprofit rural water supply company as defined in § 10-36A-1, a water user district as defined in § 46A-9-2, a sanitary district as defined in chapter 34A-5, or homes, including mobile homes as defined in § 32-3-1, and manufactured homes as defined in § 34-34A-1.1 supplied by a common distribution system." Here, the Crystalline Rock aquifer is older than the Greenhorn Formation, and a water distribution system is involved. However, the issue of recharge versus discharge will still be discussed.

Recharge to the aquifer is from infiltration of precipitation and streamflow losses. Discharge from the aquifer occurs through pumping from wells, evapotranspiration, and seepage to streams. Driscoll and Carter (2001) estimated recharge to the Crystalline Rock aquifers to be equal to withdrawals (3,600 acre-feet per year), however it was noted that actual recharge to the crystalline aquifers must be much larger than estimated to account for discharge to streams. Driscoll and Carter (2001) noted for crystalline rock aquifers, "Recharge conditions are highly

transient and have large spatial variability; thus, quantification is not attempted.” Additionally, data is not available to attempt delineation of the localized aquifers within the crystalline core area of the Black Hills. Therefore, there are no estimates of either average annual recharge to or average annual withdrawal from the localized aquifer.

Observation Wells

The Water Rights Program monitors two observation wells completed into the Crystalline Rock aquifer in the Black Hills. Neither of these observation wells are located in the immediate area of the well for Application No. 2785-2. Due to the site specific nature of the Crystalline Rock aquifer, these observation wells do not describe local characteristics in the aquifer. However, they can provide information as to general aquifer characteristics.

Observation well CU-86A is located about 12.5 miles to the southwest of the well site. The hydrograph for this observation well is shown in Figure 1. In examining Figure 1, water levels can be seen responding to climatic conditions rising during wet periods and decreasing during drier periods. Water levels fluctuate as much as 40 feet in this observation well in response to climatic conditions. The behavior of the Crystalline Rock aquifer in the area of observation well CU-86A should be similar to the aquifer in the area of this application, since the crystalline rock is exposed at both locations and experience similar climatic conditions. At the other Crystalline Rock aquifer observation well in the Black Hills (located about eight miles to the north northeast), the aquifer is overlain by other geologic units, which would affect recharge characteristics and make it less reflective of the characteristics of the aquifer at the well site. Therefore, only the hydrograph for observation well CU-86A is presented. In general when examining Figure 1, the effects of pumping from the aquifer are masked by climatic conditions indicating that the aquifer is dominated by natural conditions (recharge to and natural discharge from the aquifer). Since recharge to and natural discharge from the aquifer can be captured for well withdrawals, this proposed appropriation is not expected to cause withdrawals to exceed recharge in the area of the well sites.

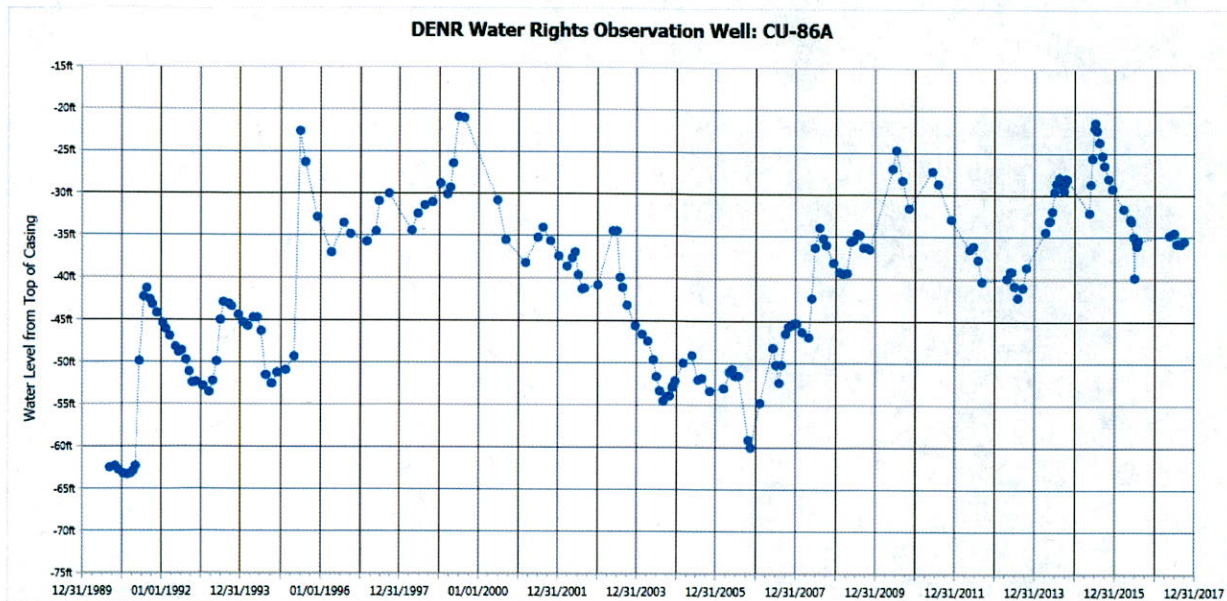


Figure 1: Hydrograph of Observation well CU-86A (Water Rights, 2018a)

Existing Users

Nearby water rights/permits currently authorized to appropriate groundwater and one application currently undergoing public notice are shown in Figure 2 and summarized in Table 1. The nearest water right completed in the Crystalline Rock aquifer to the well site for this application not belonging to the applicant is Water Right No. 1595-2 for Rocky Gulch LLC located about 0.24 miles to the east of the well for this application. Table 1 also shows estimated water use for the area water rights and the application in the area. Estimations assume that water rights/permits limited by maximum instantaneous diversion rate historically use less than 60% of the permitted diversion rate annually, and water rights/permit limited by an annual volume are assumed to use the full annual volume (Water Rights, 2018b). There are several domestic well completion reports on file with the Water Rights Program within one mile of this application that are all completed into the Crystalline Rock aquifer (Water Rights, 2018c). Most of these are older wells within the city limits, so it is possible the owners may have switched to municipal water (Water Rights, 2018c). Any domestic wells in the area not on file with the Water Rights Program are expected to be completed into the Crystalline Rock aquifer. Additionally, the well for Water Right No. 2587-2 held by the Town of Keystone appears to be closer to the well for this application than any of the domestic wells in the area on file with the Water Rights Program located (Water Rights, 2018b and 2018c).

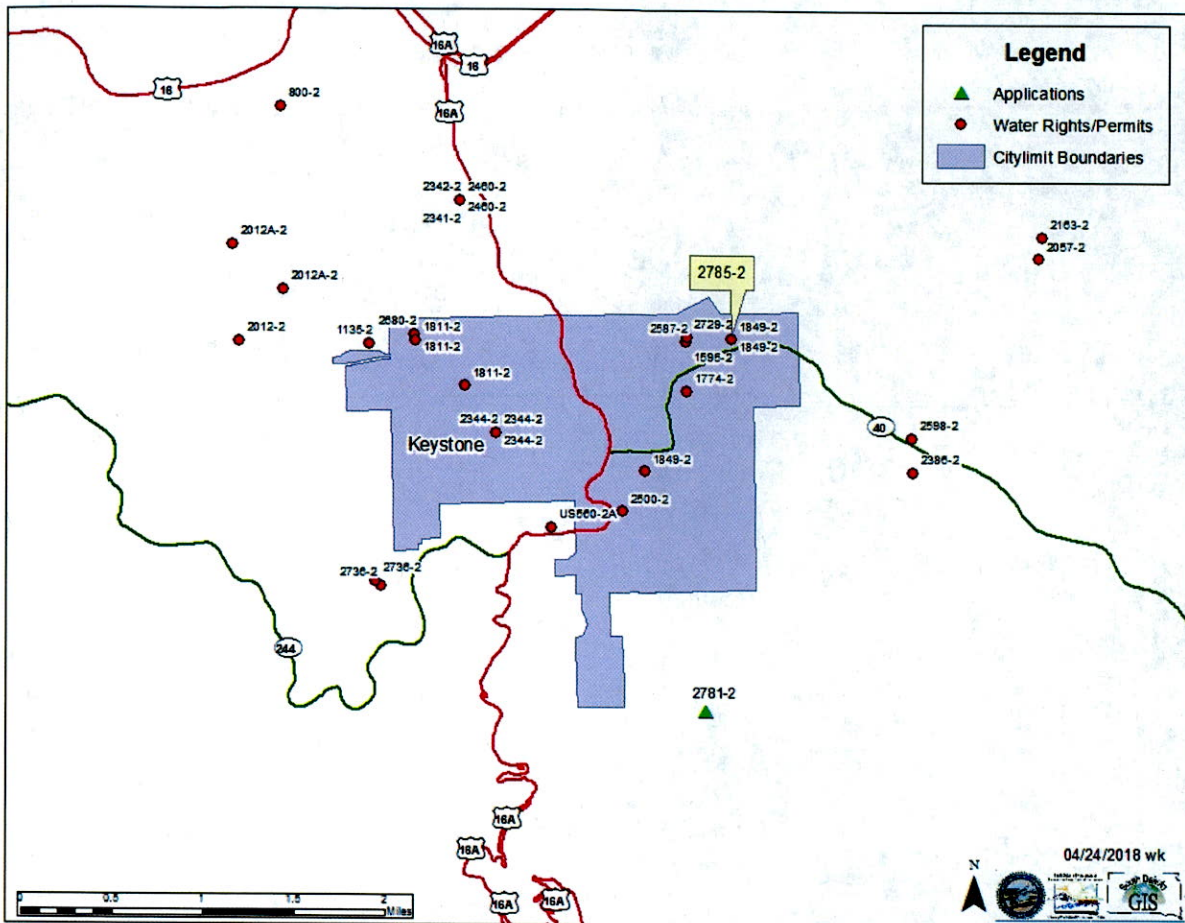


Figure 2: Water rights/permits and application undergoing public notice in the area currently authorized to appropriate groundwater (Water Rights, 2018b)

Table 1: Summary of Water Rights shown in Figure 2 (Water Rights, 2018b)

Permit No.	Name	Status	Source	Use	Rate (cfs)	Estimated water use (acre-feet per year)
US560-2A	US NATIONAL PARK SERVICE	LC	CRSL	COM	0.066	28.7
800-2	TRIPLE R RANCH CAMP	LC	Springs	FWP & REC	2.000	868.8
1135-2	JOHN KINYON	LC	CRSL	COM	0.030	13.0
1595-2	ROCKY GULCH LLC	LC	CRSL	COM	0.070	30.4
1774-2	MINERAL TECHNOLOGY CORP	LC	CRSL	COM	0.090	39.1
1811-2	BREEZE INC	LC	CRSL	COM & DOM	0.067	29.1
1849-2	TOWN OF KEYSTONE	LC	CRSL	MUN	0.560	243.3
2012A-2	BAPTIST CAMP JUDSON	LC	CRSL	INS	0.040	17.4
2012-2	BAPTIST CAMP JUDSON	LC	CRSL	INS	0.040	17.4
2057-2	BLACK HILLS CHILDRENS HOME	LC	CRSL	INS	0.019	8.3
2163-2	BLACK HILLS CHILDRENS HOME	LC	CRSL	INS	0.040	17.4
2342-2	DANIELLE BANKS	LC	CRSL	COM	0.044	19.1
2341-2	DANIELLE BANKS	LC	CRSL	COM	0.013	5.6
2344-2	MIKE VINTON	LC	CRSL	COM	0.044	19.1
2386-2	TOWN OF KEYSTONE	LC	CRSL	MUN	0.089	38.7
2460-2	KENNETH D. KNAPP	LC	CRSL	COM	0.033	14.3
2500-2	TOWN OF KEYSTONE	LC	CRSL	MUN	0.220	96*
2587-2	TOWN OF KEYSTONE	LC	CRSL	MUN	0.133	57.8
2598-2	GRANITE POINT LLC	LC	CRSL	SHD	0.067	29.1
2680-2	BREEZE INC	LC	CRSL	COM	0.029	12.6
2729-2	TOWN OF KEYSTONE	LC	CRSL	MUN	0.110	limited by this application
2736-2	MT RUSHMORE NAT'L MEMORIAL	LC	CRSL	REC & COM	0.122	53.0
2781-2	UNDER CANVAS	AP	CRSL	COM	0.033	8*
MUN- municipal, COM- commercial, INS- institutional, IRR- irrigation, AP-application, LC-licensed, SHD-suburban housing development, DOM-domestic, FWP- fish and wildlife propagation, REC-recreation						
*subject to an annual volume limit						

An adequate well as defined by Administrative Rule of South Dakota (ARSD) 74:02:04:20(6) is “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 as possible to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet.” In the past the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. ARSD 74:02:04:20(7) defines an adversely impacted domestic well as, “a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs.” While in most aquifers 20 feet is an adequate depth of water for domestic wells, in the Crystalline Rock aquifer 20 feet below the top of the aquifer is seldom a sufficient depth for a well to be a dependable water supply. This is due to the low porosity of the crystalline rock and water availability at a given location being linked to the unpredictable occurrence of secondary porosity, so wells that meet the definition of an adequate well might not yield sufficient water for a well owner’s needs. The precise drawdown effects at the well site will depend on aquifer characteristics in the immediate vicinity of the well, and determination of the exact effects would

require additional data and testing. A review of the Town of Keystone's existing water rights does not indicate a history of interference complaints. Additionally, Keystone is likely to impact the town's other nearby well (assuming the wells' secondary porosity are connected) before impacting other users in the area. Furthermore, water levels in the Crystalline Rock aquifer are known to vary based on climatic conditions; Figure 1 demonstrates a water level variability of 40 feet as a result of climatic conditions. Taking all the above into consideration this application is not expected to adversely impact existing users.

Conclusions

1. Water Permit Application No. 2785-2 for the Town of Keystone proposes to appropriate water at a maximum instantaneous diversion rate of 0.11 cubic feet per second (cfs) with a maximum annual appropriation of 24.6 acre-feet from an existing well in the Crystalline Rock aquifer for municipal use. This is an increase of the diversion rate currently authorized from this well by Water Right No. 2729-2.
2. Water Right No. 2729-2 appropriates water at a maximum instantaneous diversion rate of 0.11 cfs from this well. This application, if approved, and Water Right No. 2729-2 combined would appropriate water at a maximum instantaneous diversion rate of 0.22 cfs with a maximum annual appropriation of 24.6 acre-feet.
3. The Crystalline Rock aquifer is older and stratigraphically lower than the Greenhorn Formation and this application is for a water distribution system so the issue of recharge versus discharge need not be considered. However, while the average annual recharge to the Crystalline Rock aquifer has not been quantified; the best information reasonably available suggests there is a reasonable probability there is unappropriated water available from the aquifer for this application.
4. Available information indicates that any well interference as a result of this application, if approved, is not expected to be adverse.


Whitney Kirts

SDDENR-Water Rights Program

References

- Buhler, K. 2014. Report to the Chief Engineer on Water Permit Application 2729-2: Town of Keystone. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Connolly, J.P., 1929. Gold Deposits of the Keystone District: The Black Hills Engineer, Volume 17. No. 1. The South Dakota State School of Mines, Rapid City, SD.
- Driscoll, D. G. and 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. USGS. Rapid City, SD.
- Rahn, P. H., 1979, Ground Water Resources of Western South Dakota. South Dakota School of Mines and Technology Project #2533. Rapid City, South Dakota. p 2-1 to 2-3.
- Redden, J.A., and DeWitt, E., 2008, Maps showing geology, structure, and geophysics of the central Black Hills, South Dakota: U.S. Geological Survey Scientific Investigations Map 2777.
- Water Rights. 2018a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2018b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2018c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

MAY 11 2018

WATER RIGHTS
PROGRAM

May 3 L21082058
NOTICE OF APPLICATION NO.
2785-2 to Appropriate Water

Affidavit of Publication

STATE OF SOUTH DAKOTA

County of Pennington

SS:

Sheri Sponder being first duly sworn, upon his/her oath says: That he/she is now and was at all time hereinafter mentioned, an employee of the RAPID CITY JOURNAL, a corporation of Rapid City, South Dakota, the owner and publisher of the RAPID CITY JOURNAL, 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 in the English language, at and within an office maintained by the owner and publisher thereof, at Rapid City, in said Pennington County, and has been admitted to the United States mail under the second class mailing privilege for at least one year prior to the publication herein mentioned; that the advertisement, a printed copy of which, taken from said Rapid City Journal, the paper in which the same was published, is attached to this sheet and made a part of this affidavit, was published in said paper once each

day for one successive
day, the first publication there of being on the
3rd day of May 2018 that the fees charged for
the publication there of are 68 dollars
and 54 cents.

Sheri Sponder

Subscribed and sworn to before me this 9th
day of May, 2018.

Kerri Berard

Notary public

8/21/2019

My commission expires

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2785-2 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 Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

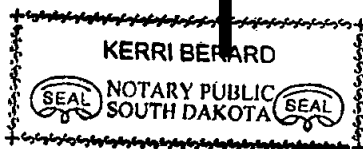
Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss 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 May 14, 2018.

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.

Steven M. Pirner, Secretary
Department of Environment and
Natural Resources

(Published once at the total approximate
cost of \$68.54)



Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, April 26, 2018 1:06 PM
To: RCY Legals (legals@rapidcityjournal.com)
Subject: 2785-2, Town of Keystone
Attachments: 2785-2public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on May 3, 2018.

Town of Keystone, c/o Jerry Przybylski, Public Works Director, PO Box 689, Keystone SD 57751 (605 666-4827) 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
SD DENR, Water Rights Program
(605) 773-3352





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

April 26, 2018

Town of Keystone
c/o Jerry Przybylski, Public Works Director
PO Box 689
Keystone SD 57751

Dear Mr. Przybylski:

Water Permit Application No. 2785-2 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 Rapid City Journal (Ph # 605-394-8300). 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,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

NOTICE OF APPLICATION NO. 2785-2 to Appropriate Water

Notice is given that the Town of Keystone, Jerry Przybylski, Public Works Director, PO Box 689, Keystone SD 57751 has filed an application for a water permit to increase the diversion rate authorized by Water Right No. 2729-2. Water Right No. 2729-2 appropriates 0.11 cubic feet of water per second (cfs) from one well completed into the Precambrian Crystalline Rock Aquifer (300 feet deep) located in the NW 1/4 SW 1/4 Section 4-T2S-R6E. The town has deepened this existing well from 300 feet to 560 feet (Precambrian Crystalline Rock Aquifer) and is requesting to increase the diversion rate by an additional 0.11 cfs for a total diversion rate of 0.22 cfs (100 gallons per minute) from the 560 feet deep well for municipal use. This application, if approved, and Water Right No. 2729-2 combined will authorize a maximum diversion rate of 0.22 cfs and a maximum annual volume of 24.6 acre-feet of water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2785-2 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 Eric Gronlund 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 May 14, 2018.

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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

MAY 17 2018

Town of Keystone
c/o Jerry Przybylski, Mayor
PO Box 689
Keystone SD 57751

Dear Mayor Przybylski:

Enclosed is Water Permit No. 2785-2 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

2785-2
RECEIVED

MAY 24 2018

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date

5/22/18

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Town of Keystone

(name)

PO Box 689

(address)

Keystone SD 57751

(city, state, zip)

605-6666-4827

(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 2785-2 states that the water use system is to be constructed by

4/30/18

(date)

, and water is to be put to beneficial use by

5/14/18

(date)

The water use system was completed on

4/30/18

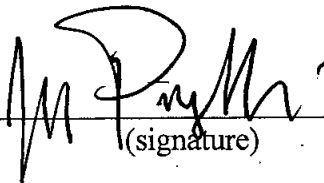
(date)

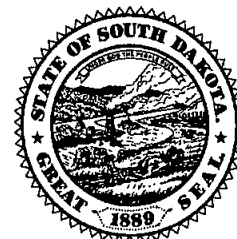
Applying the water to beneficial use was completed on

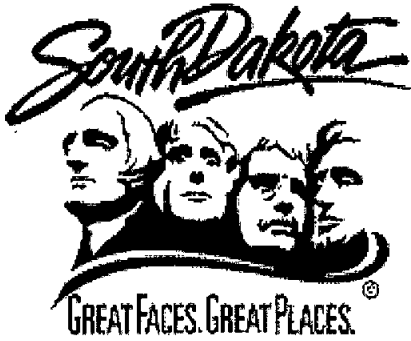
5/14/18

(date)

You may schedule an investigation so that the water license may be issued.


(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

June 1, 2018

2785-2

Jerry Przybylski, Public Works Director
Town of Keystone
PO Box 689
Keystone SD 57751

Dear Sir:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know the water use system authorized under Water Permit No. 2785-2 has been completed.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Genny McMath".

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 2785-2

I have this day August 28, 2018 made a thorough examination of the water use system constructed by **Town of Keystone, P.O. Box 689, Keystone, SD 57751** of Permit No. **2785-2**, bearing the priority of **2/26/2018** authorizing the diversion of **0.11** cu. ft. per second of additional water from one well currently authorized by Water Right No. **2729-2** for municipal purposes, in Pennington County.

Inspection contact & relationship to permit holder, if applicable: **Jerry Przybylski, Public Works Director**
605-666-4827
Correspondence % **Cassandra Ott**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Alexander Drilling (Drilled in 2014 to 300', deepened 12/2017 to 560')
- 2) No. of Wells 1
- 3) Depth(s) 560 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 8" (+2 to -35)
- 2) Length 37 feet
- 3) Type Steel

Screen:

- 1) Type open hole
- 2) Length 525 feet
- 3) Static water level 30 feet

Pump:

- 1) Make Grundfos
- 2) Model 85S150-13
- 3) Size 6"
- 4) Capacity 75 GPM (metered rate)
- 5) Horsepower rating 15 hp (discharge pressure @ well house approx. 80 psi)

Note: The well was air tested at 100 gpm from 400' depth

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

- 1) Type PVC
- 2) Size Various inches
- 3) Length -- feet

C. Works used to apply water to beneficial use:

Keystone utilizes five wells which pump to three elevated storage tanks ranging from 135,000 to 150,000 gallons each. The system serves the entire town of Keystone.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: Yes,
- 2) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good condition with the point of diversion located as follows:
2,050' N and 712' E of the SW corner Section 4 T2S R6E (43.902603, -103.416645)
2. The works are capable of diverting and conveying to the place of use **0.167** cu. ft. per second (75 gpm) of water which is to be used for municipal use and license No. 2785-2 should incorporate Water Right No. 2729-2 and be issued for 0.167 cfs (75 gpm). Priority date should be August 11, 2014 for 0.11 cfs (50 gpm) and 2/26/2018 for 0.056 cfs (25 gpm).
3. All structures, wells and lands on map: **No, well only**

F. Comments or other permit(s) associated with the project: Water Right No. 2729-2 authorized 0.11 cfs (50 gpm) from Keystone well #5. The Town deepened this well in 2017 from 300 feet to 560 feet and installed a larger pump. Permit No. 2785-2 increased the diversion rate an additional 0.11 cfs for a total diversion of 0.22 cfs (100 gpm). The Town of Keystone also has Licensed Water Right Nos. 1849-2, 2386-2, 2500-2, and 2587-2.



Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

Date report completed: 8/282018

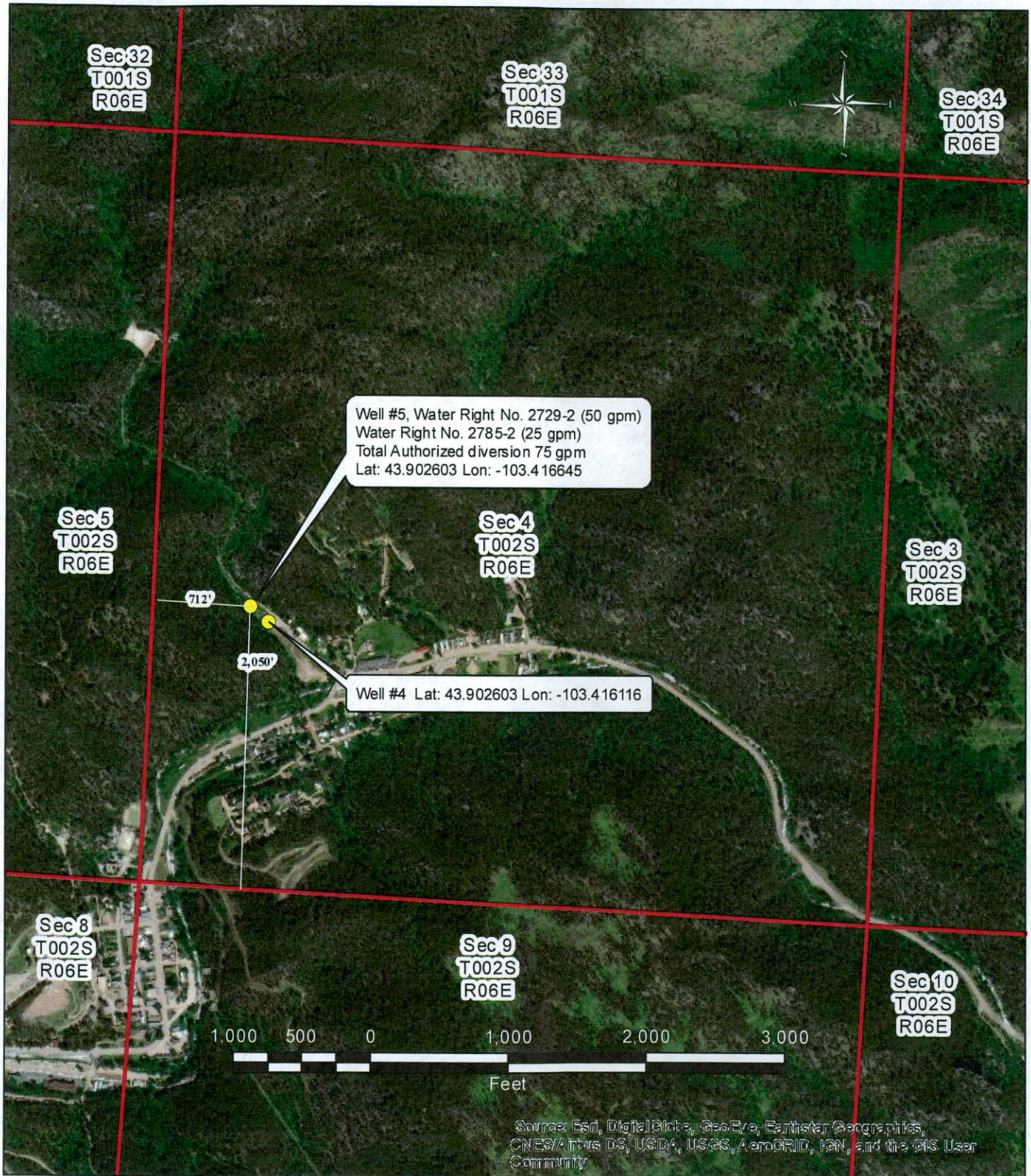


Well # 5 and pump house, well head is located under locked box on left of photo (security)



Pump house appurtenances

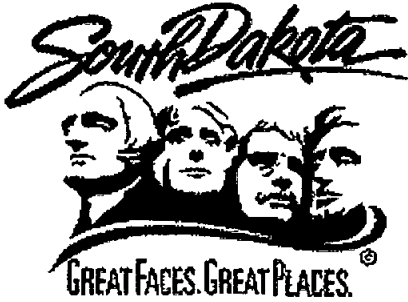
Water Right #2785-2
Town of Keystone
8/28/2018



Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

SEP 12 2018

2729-2
2785-2

Cassandra Ott
Town of Keystone
PO Box 689
Keystone SD 57751-0689

Dear Ms. Ott:

Enclosed is Water License No. 2785-2. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

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

enclosures

Note: Upon licensing, the applicable portions of Water Right No. 2729-2 were incorporated into Water License No. 2785-2.

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 2785-2

(1) The Town of Keystone, PO Box 689, Keystone SD 57751-0689 made Application No. 2785-2, February 26, 2018 for a water permit to increase the diversion rate authorized under Water Right No. 2729-2 from 0.11 to 0.22 cubic feet of water per second (cfs) diverted from ground water, one well (Precambrian Crystalline Rock Aquifer), located in Pennington County, South Dakota for municipal purposes. Permit No. 2785-2, with a priority date of February 26, 2018 (for the additional 0.11 cfs) was approved May 14, 2018 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 14, 2023 and for the application to beneficial use of water on or before May 14, 2027.

Water Right No. 2729-2, carrying an August 11, 2014 priority date, authorizes 0.11 cfs from a well 300 feet deep. The well, completed into the Precambrian Crystalline Rock Aquifer was deepened from 300 feet to 560 feet in December, 2017.

An investigation of the water use system found the well producing a total of 75 gallons of water per minute or 0.167 cfs. **The applicable portions of Water Right No. 2729-2 are incorporated into this Water License No. 2785-2.** A priority date of August 11, 2014 is retained for the initial 50 gallons per minute or 0.11 cfs as established under No. 2785-2. A priority date of February 26, 2018 is retained for the remaining 25 gallons per minute or 0.056 cfs as established under No. 2785-2.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 0.167 cubic feet of water per second (75 gallons per minute) for beneficial use. The location of the diversion point (known as Well #5) is:

- 2,050'N and 712'E of the SW corner of Section 4, T2S, R6E (NW ¼ SW ¼).
Latitude 43.902603, Longitude -103.416645)

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

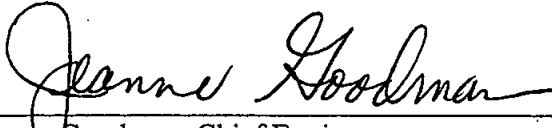
(4) Pursuant to South Dakota Water Law 46-5-30.1 the Town of Keystone, PO Box 689, Keystone SD 57751 the holder and/or owner of Water Right No. 2785-2 is issued a license to appropriate water, the right to use 0.167 cubic feet of water per second from ground water, one well (Precambrian Crystalline Rock Aquifer) with priority dates of August 11, 2014 (0.11 cfs) and February 26, 2018 (0.056 cfs) from the location specified in (2) of this license for municipal purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2785-2 and subject to the following qualifications:

- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

continued

- The water right holder shall report to the Chief Engineer annually the amount of water withdrawn from the Precambrian Crystalline Rock.
- Water Right No. 2785-2 authorizes a total annual diversion of 24.6 acre feet of water.



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

SEP 12 2018

date

