

WATER PERMIT NO. 2786-2

Name of Applicant: **Blue Wing Recreation Corporation**

Address: **PO Box 9322, Rapid City SD 57709** Phone: **605 391-1162**

Amount of Water Claimed: **0.036 cfs** Total Acres: **NA**

Source of Water Supply: **groundwater (2 wells)**

Water to be used for: **commercial** County: **Pennington**

Type of Waste Disposal System:

Location: **near Sheridan Lake**

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

Corrected Application Received: Period of Annual Use: **May 1 – Sept 31**

Remarks: **Well # 1 (old well) will serve as backup supply**

Diversion Point: **Well #1 – NW 1/4 SW 1/4 and**

Well #2 – SW 1/4 NW 1/4 Sec 18-T1S-R6E

Land to be Irrigated: **NA**

Depth of Well: **280 & 370**

Well Driller: **Alexander Drilling**

Remarks:

Type of Map: **topo**

Prepared by:

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

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

	⊗				
	⊗				

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>2786-2</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. _____

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

1. Name to Appear on Water Permit Blue Wing Recreation Corporation
Mailing Address PO Box 9322 Rapid City, SD 57709
(Address) (City) (State) (Zip Code)
Phone 666 4344 Mobile 391 1162 Email valve@hills.net

2. Amount of water claimed 0.036 *CFS or 16 **GPM and 1.84 ***AF or 600,000 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 Wells (well #1 Backup) NW 1/4 SW 1/4

4. Location of point of diversion See MAP well #2 SW 1/4 NW 1/4 Sec 18-T1S-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? _____

5. County or counties where water will be used Pennington County, South Dakota
(example - NW 1/4 section 12-T104N-R53W)

6. Annual period during which water is to be used MAY - Sept 30

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)

SEASONAL RECREATION SINCE 1965 NOW AS
Blue Wing Recreation

I, Don Ross Knelt President, 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. 2786-2

Date of first receipt of application February 26, 2018.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2786-2 to Blue Wing Recreation Corporation, c/o Ron Rossknecht, President, PO Box 9322, Rapid City SD 57709 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. 2786-2 appropriates 1.84 acre-feet of water per year at a maximum diversion rate of 0.036 cubic feet of water per second from two wells completed into the Crystalline Rock Aquifer (280 and 370 feet deep) located in the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 Section 18-T1S-R6E for a water distribution system to supply seasonal mobile homes and campers in portions of the SW 1/4 NW 1/4, W 1/2 SW 1/4 Section 18-T1S-R6E and the SE 1/4 NE 1/4, E 1/2 SE 1/4 Section 13-T1S-R5E. The older well will serve as a backup supply. This site is located approximately 12 miles southwest of Rapid City near Sheridan Lake.
2. The water appropriated shall be used for the purpose of commercial 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: May 1 – September 30.
4. The date of approval of Permit No. 2786-2 is May 14, 2018.
5. The date from which applicant may claim right is February 26, 2018.
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 wells 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 Crystalline Rock.
3. Water Permit No. 2786-2 authorizes a total annual diversion of 1.84 acre feet of water.

WATER MANAGEMENT BOARD

By: Jeanne Goodman
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 1 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) 280 Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property 820' Property owned by others N/A

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) private septic or holding tanks

b) System Capacity (gallons) varies Year Constructed 1965-2012

c) Connected to the City of N/A 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)

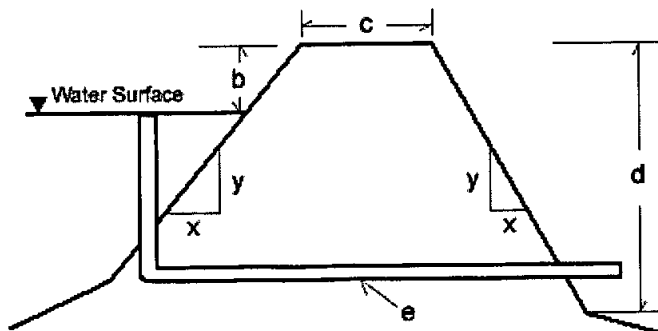
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



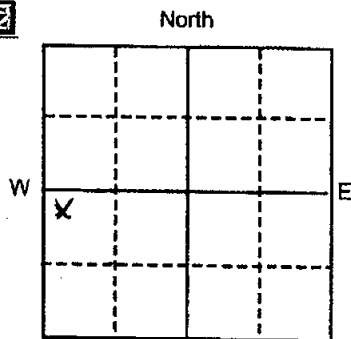
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NW ¼ SW ¼ Sec 18 Twp 1S Rg 6E

County Pennington

Please mark well location with an "X"



Well Completion Date

10/9/2017

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
300 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary downhole hammer

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
 If other describe Set 3(1)' of 6" 160 PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	0 FT	28 FT	8.75 IN
LB/FT	IN	28 FT	280 FT	6 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Portland II	3	Lb/gal	28 Ft	4 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure through trim pipe

SCREEN:

☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From _____ Feet to _____ Feet
 Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? w/chlorine solution

☐ No, Why Not?
 Lab to which water quality sample sent for analysis

Well Owner: Blue Wing Recreation Corp

Business Name:

Address: P.O. Box 9322

City, State, Zip: Rapid City SD 57709

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Drift	0	15
Hard grey schist	15	112
Brown schist fracture 20 gpm	112	114
Hard grey schist	114	172
Grey schist fracture 45 gpm	172	175
Hard grey schist	175	238
Brown schist fracture 50 gpm	238	239
Hard grey schist	239	245
Brown schist fractures 60 gpm	245	248

STATIC WATER LEVEL 70 AM 4/12/18 FEET

If flowing: closed in pressure 18.4 PSI

GPM flow 60+ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: w/air
☐ Bailed
☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Formation cont:

Hard grey schist 248-280

Crystalline Rock WR

This well was drilled under license # 324 and this report is true and accurate.

Drilling firm: Alexander Drilling Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 10-19-17

RECEIVED

OCT 20 2017

WATER RIGHTS PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

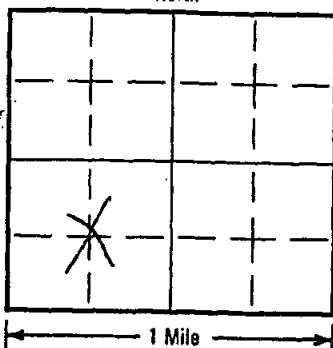
Location SW 1/4 Sec 18 Twp 15 Rg 6E
County PENN. North

Please mark well location with an "X"

Blue Wing Dev.
By Sheridan Lake

Well Completion Date

2-4-00



LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 150 ft. from Septic (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary Downhole Hammer

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe 106' - 6" PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>LB/FT</u>	<u>6</u> IN	<u>0</u> FT	<u>104</u> FT	<u>8</u> IN
<u>LB/FT</u>	<u>IN</u>	<u>FT</u>	<u>FT</u>	<u>IN</u>
<u>LB/FT</u>	<u>IN</u>	<u>FT</u>	<u>FT</u>	<u>IN</u>

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Pack</u>	<u>12</u>	<u>14-15</u> lb./gal	<u>Surface</u> ft.	<u>104</u> ft.
		lb./gal	ft.	ft.

Describe grouting procedure

SCREEN:

☐ Perforated pipe ☐ Manufactured None
Diameter IN Length FEET
Material None
Slot Size Set From Feet to Feet
Other information 0 gas hole

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? Casing Set Ad. Rock

Describe packer(s) and location?

DISINFECTION: Was well disinfected upon completion?

☒ YES, How:

Chlorine Solution

Laboratory sent to for water quality analysis

☐ NO, Why Not?

Well Owner: Blue Wing Dev. Corp

Business Name: P.O. Box 9322

Address: Rapid City S.D. 57709

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Duff</u>	<u>0</u>	<u>5</u>
<u>Schist Soft.</u>	<u>5</u>	<u>90</u>
<u>Schist Blk</u>	<u>90</u>	<u>164</u>
<u>Schist Fracture H₂O - 5gpm</u>	<u>164</u>	<u>166</u>
<u>Schist Blk Hd.</u>	<u>166</u>	<u>220</u>
<u>Schist Fracture H₂O - 20gpm</u>	<u>220</u>	<u>222</u>
<u>Schist Blk Hd.</u>	<u>222</u>	<u>300</u>
<u>Schist Fracture H₂O - 30gpm</u>	<u>300</u>	<u>305</u>
<u>Schist Hd. Blk.</u>	<u>305</u>	<u>320</u>

STATIC WATER LEVEL 120'

If flowing: closed in pressure

GPM flow through

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced Flowrate

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped w/AIR Describe: 30-7gpm

☐ Bailed

☐ Other

Pumping Level Below Land Surface

ft. After Hrs. pumped GPM

ft. After Hrs. pumped GPM

If pump installed, pump rate GPM

REMARKS Schist softer gray - 320-325

Schist gray soft. - 325-370

* Set pump at 300 ft.

This well was drilled under license # 324

And this report is true and accurate.

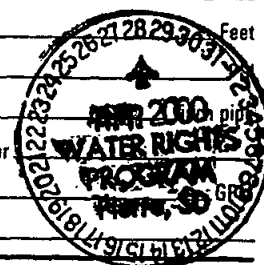
Drilling firm Alexander Drilling Inc

Signature of License Representative:

Raj Alexander

Signature of Well Owner or Equitable Property Holder

Date:



EPA ID#: 2196 System Name: Blue Wing Recreation Area

Sampler- Mr Ron Rossknecht Work Phone-(605)574-4360
Title- Blue Wing Corporatio
Address- PO Box 9322
Rapid City SD 57709-9322

Location- City: Hill City County: Pennington
Service Area- Recreation Area
PWS Owner Type- Private Ownership
Water Supply Type- Groundwater Supply

Population Served- 200 Service Connections- 85

Months that System is Open to Public-Season Opening Date- May 20th Season Closing Date- September 30th

Sources for Blue Wing Recreation Area

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	TREAT SITE - #1				Permanent	Treatment Plant	Non-Vulnerable	Disinfection - Hypochlorites
04	#1	2000	320	6	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant

Blue Wing Recreation Area Drinking Water Information
(System Information, Sampling Requirements, and Compliance Report)



2016 Certificate of Achievement Award.

Population Served: 200 **System Population:** 200

Certified Operator: Mr Ron Rossknecht PO Box 9322 Rapid City, SD 57709-9322	Work Phone: (605)574-4360 Home Phone: Cell Phone: Fax: (605)574-4680 Email: value@hills.net
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Financial Contact: Mr Ron Rossknecht PO Box 333 Hill City, SD 57745	Work Phone: (605)574-4360 Home Phone: Cell Phone: Fax: Email: value@hills.net
--	--

Other Contacts:

Last Inspection: May 18, 2016

Type of System: Non-Community **Area Served:** Pennington County

Number of Service Connections: 211 **Contamination Risk:** moderate

Water Produced And Used By The Blue Wing Recreation Area Public Water System

PWS Owner Type: Private Ownership **Service Area:** Recreation Area

Contract Laboratory: Midcontinent Laboratory

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date February 26, 20 18

RECEIVED OF Blue Wing Recreation Corporation PO Box 9322 Rapid City, SD 57709-9322

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

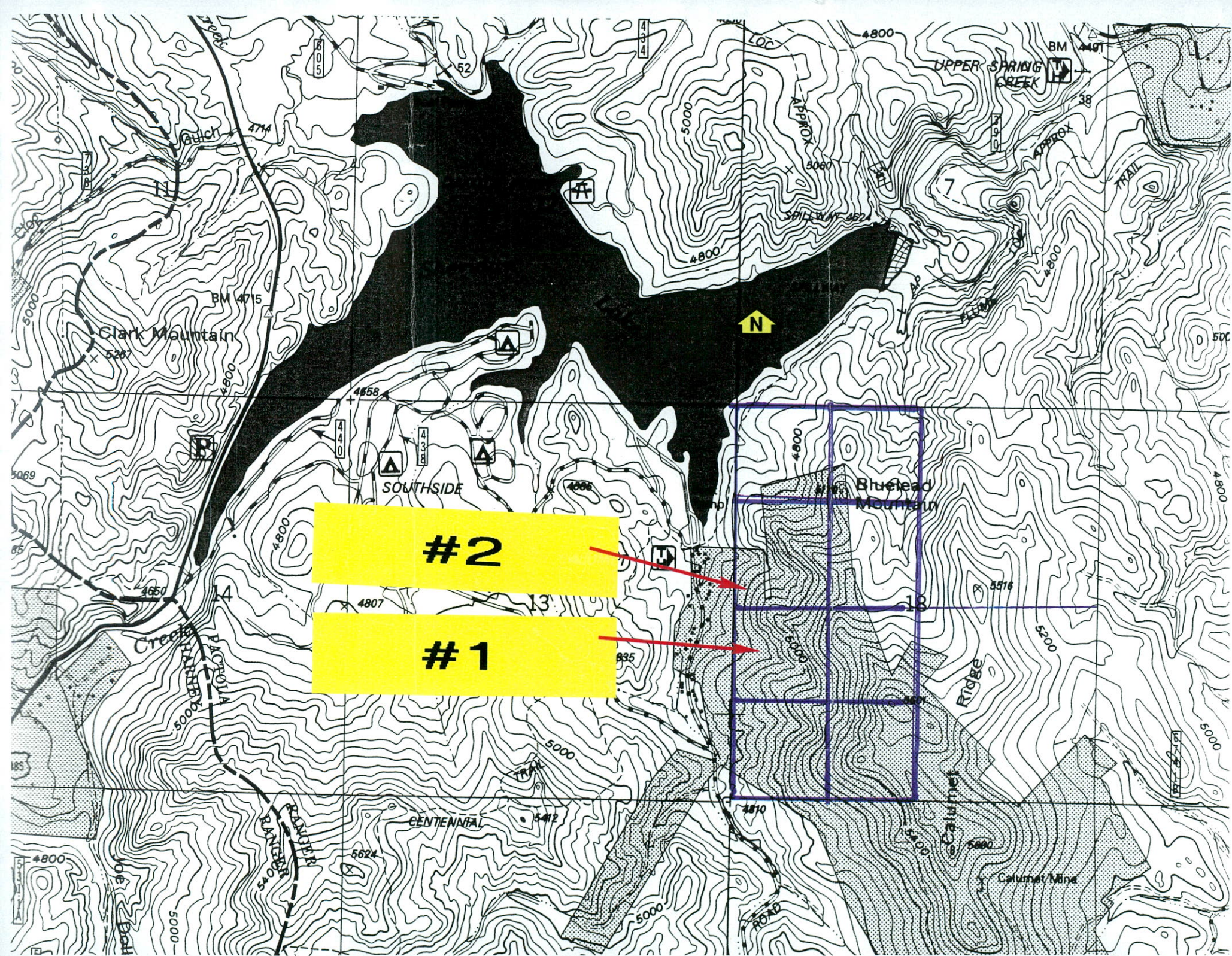
Fee for Application for Permit No. <u>2786-2</u> to Appropriate Water, to construct and to put water to beneficial use	000	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2786-2</u>	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	300 00

No. **08608**

By

Jeanne Goodman
Chief Engineer

2721



Addenda to SD Form – 1585LD V5

Form 2: Application for uses other than irrigation

Well #1 and Well #2 location map

Well #2 (North Well Drilled in 2017 * 16 GPM)

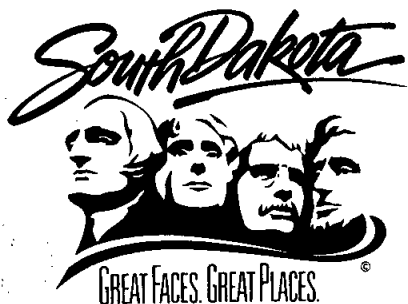
Located in SW1/4NW1/4, Section 18, T1S, R6E, BHM

Well #1 (South Well Drilled in 2000 * 9 GPM)

Located in NW1/4SW1/4, Section 18, T1S, R6E, BHM



Blue Wing Recreation Corporation – PO Box 9322, Rapid City, SD, 57709
Ron Rossknecht – (605) 391-1162



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 1, 2018

Blue Wing Recreation Corporation
Ron Rossknecht
PO Box 9322
Rapid City SD 57709

Dear Mr. Rossknecht:

The Water Rights Program recently became aware that the water use from the well completed by Alexander Drilling Inc. in October, 2017 is a commercial use of water. I am writing to ensure that you are aware of the water permit requirements in South Dakota.

According to state law, a water permit is needed for any water use except for reasonable, private domestic use. Examples of commercial uses that require a water rights permit are: truckstops; motels; restaurants; bars; clubs; tourist attractions; campgrounds or any other business operation.

I have reviewed our files and cannot find a water permit located in the SW 1/4 Section 18-T1S-R6E. There is a well completion report on file for a well completed in July, 2000 for Blue Wing Dev. Corp.

Enclosed are application forms and instruction sheet to apply for a water permit for commercial use. For your use, an aerial photo map for this location is included. Please mark the well(s) location with an "X". The completed forms with the application fee and map can be returned to: Water Rights Program, 523 E Capitol, Pierre SD 57501.

If you believe your water use does not require a water permit or that you have an existing permit, or if help is needed completing the application forms, please contact Eric Gronlund or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

Karen Schlaak
Water Rights Program
karen.schlaak@state.sd.us

enclosures

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, February 14, 2018 1:09 PM
To: 'Ron Rossknecht'
Attachments: Form 2A.pdf

Ron,
I reviewed your application. A couple of things that need clarification are:

Your map states Well #1 (south well) is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 18 and Well #2 (north well) is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 18. From the locations marked on your map, it appears that Well #1 (south well) is located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 19 and Well #2 (north well) is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18; all in T1S-R6E. Do you agree with these locations?

Did you say that Well #2 was a replacement well for Well #1? Or is this application for both wells?

Also please complete the attached Form 2A, regarding No. 2. Wastewater Disposal System Information.

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



From: Ron Rossknecht [<mailto:ron@value@hills.net>]
Sent: Wednesday, February 14, 2018 11:32 AM
To: Schlaak, Karen
Cc: Mark Balding; Ed Roth; James Roth; wessel.lori@yahoo.com; Bob Wessel
Subject: [EXT] Water Permit for Blue Wing Recreation Corporation

Hello Karen,

Please review and feel free to call with any questions. If this looks ok we will mail originals along with a check for \$300.

Respectfully Submitted,

Ron Rossknecht
(605) 391-1162

Gronlund, Eric

From: Ron Rossknecht <value@hills.net>
Sent: Tuesday, February 27, 2018 4:51 PM
To: Gronlund, Eric
Subject: [EXT] water permit application

No business other than our annual rent for seasonal mobile homes, campers, park models, and such.

Ron

----- Original Message -----

From: Gronlund, Eric
To: 'Ron Rossknecht'
Sent: Tuesday, February 27, 2018 3:30 PM
Subject: RE: water permit application

The application lists the use as "commercial". Am I correct in that the use serves as a water distribution system for a business as well as homes, cabins, RV's, etc. Eric

From: Ron Rossknecht [<mailto:value@hills.net>]
Sent: Tuesday, February 27, 2018 4:12 PM
To: Gronlund, Eric
Subject: [EXT] water permit application

Hello Eric,

I think this will work, I relocated the section line about 20 years ago. Blue Wing's borders are highlighted. Please call with any questions.

Ron L. Rossknecht
(605) 391-1162

----- Original Message -----

From: Gronlund, Eric
To: 'value@hills.net'
Sent: Tuesday, February 27, 2018 2:32 PM
Subject: water permit application

Ron – you can send me the map by replying to this email.

Eric Gronlund
Water Rights Program, DENR
605 773-3352

2786-2

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 2786-2, Blue Wing
Recreation Corporation

ADDRESS: COUNTY: Pennington

DATE: February 27, 2018 TELEPHONE: 605 391-1162

RE: annual volume

COMMENTS:

I called and spoke with Ron Rossknecht who is the applicant for No. 2786-2.

He indicated water use in 2016 of 299,900 gallons, 2015 of 332,730 gallons and their highest use year was 2005 at 405,753 gallons. They have about 16 more lots they can develop. He thought that 600,000 gallons per year (1.84 ac-ft) was a fair number.

He will be sending me a map showing the area served by the development.

NAME:

Eric Hunsley



**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. 2786-2, Blue Wing Recreation Corporation**

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. 2786-2, Blue Wing Recreation Corporation, c/o Ron Rossknecht, PO Box 9322, Rapid City SD 57709.

The Chief Engineer is recommending APPROVAL of Application No. 2786-2 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 wells 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 Crystalline Rock.
3. Water Permit No. 2786-2 authorizes a total annual diversion of 1.84 acre feet of water.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
April 27, 2018

REPORT ON APPLICATION NO. 2786-2
For Blue Wing Recreation Corporation, % Ron Rossknecht
April 24, 2018

Blue Wing Recreation Corporation has filed Water Permit Application No. 2786-2 for a water permit to appropriate 1.84 acre-feet of water annually at a maximum pump rate of 0.036 cubic feet of water per second (cfs) from two wells completed into the Crystalline Rock aquifer (approximately 280 and 370 feet deep) located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18, T1S-R6E. The water is for a commercial use in a water distribution system to supply seasonal mobile homes and campers in portions of the SW $\frac{1}{4}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$ Section 18, T1S-R6E and the SE $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$ Section 13, T1S-R5E. The older well will serve as a backup water supply. This is located approximately 12 miles southwest of Rapid City near Sheridan Lake in Pennington County, South Dakota.

AQUIFER – Crystalline Rock (CRSL)

The Precambrian aged crystalline rocks consist primarily of mica schist or phyllite, quartzite, amphibolite, meta-iron formations and graphitic schist. The Precambrian aged aquifer is not continuous and ground water conditions are controlled mainly by zones of secondary permeability caused by fracturing and weathering (Carter and others, 2003). The distribution, orientation and interconnection of these zones of secondary porosity and permeability are unpredictable, and the aquifer characteristics are site specific and highly variable.

Based on an estimated exposed area of 574,000 acres, water bearing material down to 500 feet, and an effective porosity of one percent, Rahn (1979) estimated the amount of recoverable water in the Crystalline Rock aquifer is 8,600,000 acre-feet.

According to the well completion report submitted with this application, grey schist was documented from ground surface to a depth of 248 feet. Fractures were documented at depths of 112 feet, 172 feet, 238 feet and 245 feet. The Crystalline Rock aquifer was able to produce water at a rate of 60 gallons per minute. The static water level was reported to be 70 feet below grade. The aquifer is under unconfined conditions, and the aquifer's water table is expected to be about the same elevation as local streams. The well completion report also indicates that the well is completed in accordance with SD Well Construction Standards (Water Rights, 2018c).

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

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for 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 existing rights within the Crystalline Rock aquifer.



WATER AVAILABILITY

The availability of unappropriated water from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older than or stratigraphically lower than the Greenhorn Formation and is used for a water distribution system, the Board need not take into consideration the balance of aquifer recharge and withdrawal. The Crystalline Rock aquifer is older than the Greenhorn Formation. However, the water is for a commercial use in a water distribution system, so water availability in the aquifer will need to be considered.

The Crystalline Rock aquifer is not a single regional aquifer but rather numerous localized aquifers. Recharge to the localized crystalline rock aquifer occurs through infiltration of precipitation falling on the outcrop, and through streamflow losses when the stages of area streams are higher than groundwater levels. Driscoll and Carter (2001) estimated recharge to the Crystalline Rock aquifers to be equal to withdrawals (3,600 acre-feet per year), however the recharge may likely be much higher to account for stream losses. Recharge conditions are highly transient and have large spatial variability, thus quantification is not attempted (Driscoll and Carter, 2001). Therefore, there are no estimates of average annual recharge or withdrawals from the aquifer.

OBSERVATION WELL DATA

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The Water Rights Program monitors two observation wells completed into the Crystalline Rock aquifer (Water Rights, 2018b). The hydrograph of CU-86A, located approximately 15 miles southwest, is shown in Figure 1. Due to the distance from the well that is to be used to supply this appropriation and the site specific nature of the aquifer, these observation wells do not describe the local characteristics of the aquifer. However, this data can provide representative general characteristics of the aquifer.

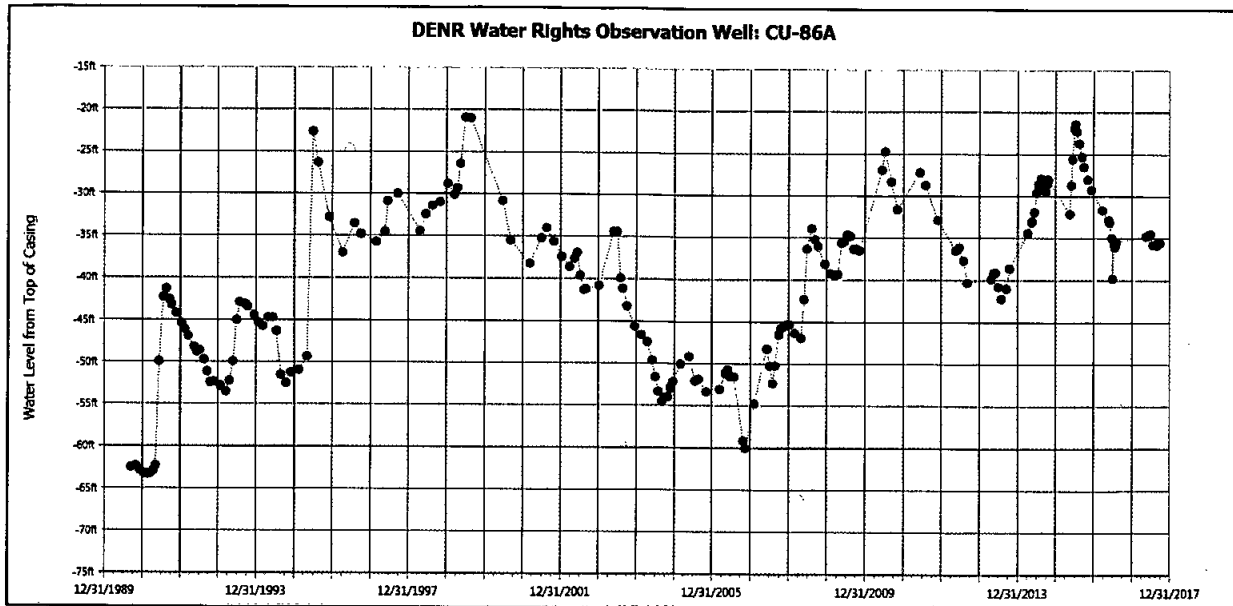


Figure 1. Hydrograph of observation well CU-86A (Water Rights, 2018b).

Water level data from the observation wells identify fluctuations of over 40 feet in response to varying climatic conditions, rising during wet years and gradually declining water levels during dry years. In general, the temporal effects of pumping are masked by climatic conditions indicating that additional water is available for well withdrawals to capture. Therefore, this proposed appropriation is not expected to cause withdrawals to exceed recharge in the Crystalline Rock aquifer in the area of the well site.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are several existing Water Rights appropriating ground water within a four mile radius of this application (Water Rights, 2018a). A list of the permits is included with this report labeled as Table 1 and illustrated in Figure 2. The nearest water right/permit appropriating water from the Crystalline Rock aquifer is Water Right No. 523-2 (0.03 cfs for commercial use) which is located approximately 2½ miles to the northwest of this proposed application.

Table 1. Table identifying Water Rights/Permits in the vicinity of this application (Water Rights, 2018a).
(LC = license, PE = permit, COM = commercial, INS = institutional, REC = recreational, DOM = domestic, IND = industrial)

Permit No.	Name	Status	Use	Rate (cfs)	Estimated Annual Use (acre-feet/yr)
523-2	BEAUDETTE	LC	COM	0.03	13.04
2004-2	ORLOSKE	LC	COM	0.02	8.69
2012A-2	BAPTIST CAMP JUDSON	LC	INS	0.04	17.39
2159-2	DAISEY ENTERPRISE LLC	LC	COM	0.07	30.43
2222-2	STORM MOUNTAIN CENTER	LC	REC/INS	0.04	17.39
2224-2	HILLSIDE COUNTRY COTTAGES	LC	COM	0.004	1.74
2232-2	MOUNTAIN VIEW LODGE	LC	COM	0.034	14.78
2238-2	MOORE	LC	COM/DOM	0.022	9.56
2246-2	COLLINS	LC	COM	0.022	9.56
2341-2	BANKS	LC	COM	0.013	5.65
2342-2	BANKS	LC	COM	0.044	19.13
2460-2	KNAPP	LC	COM	0.033	14.34
2492-2	RUSHMORE FOREST PRODUCTS	LC	IND/DOM	0.52	226.03
2506-2	DAISEY ENTERPRISE LLC	LC	COM	0.01	4.35
2529-2	PRAIRIE BERRY LLC	LC	COM	0.056	24.34
2589-2	OWENS	LC	COM	0.022	9.56
2719-2	PRAIRIE BERRY LLC	LC	COM	0.06	26.08
2742-2	VOORHEES HOSPITALITY LLC	LC	COM/DOM	0.056	10.00
2775-2	LARSEN	PE	COM	0.044	2.00

The estimated annual use was determined by assuming that: (1) future use permits will be fully developed; (2) appropriations with a specified annual rate limitation will divert to their maximum limit; and (3) appropriations limited by diversion rate only, will be used at 60 percent of full time usage at their maximum diversion rate.

Pumping groundwater in the Crystalline Rock aquifer will result in water level drawdown, which is dependent on aquifer characteristics in the immediate area of the well site. The effects of drawdown are not necessarily dependent on distance between wells because drawdown is not expected to be uniform in all directions due to fracture flow. Precise drawdown effects at the well site can only be quantified with aquifer testing.

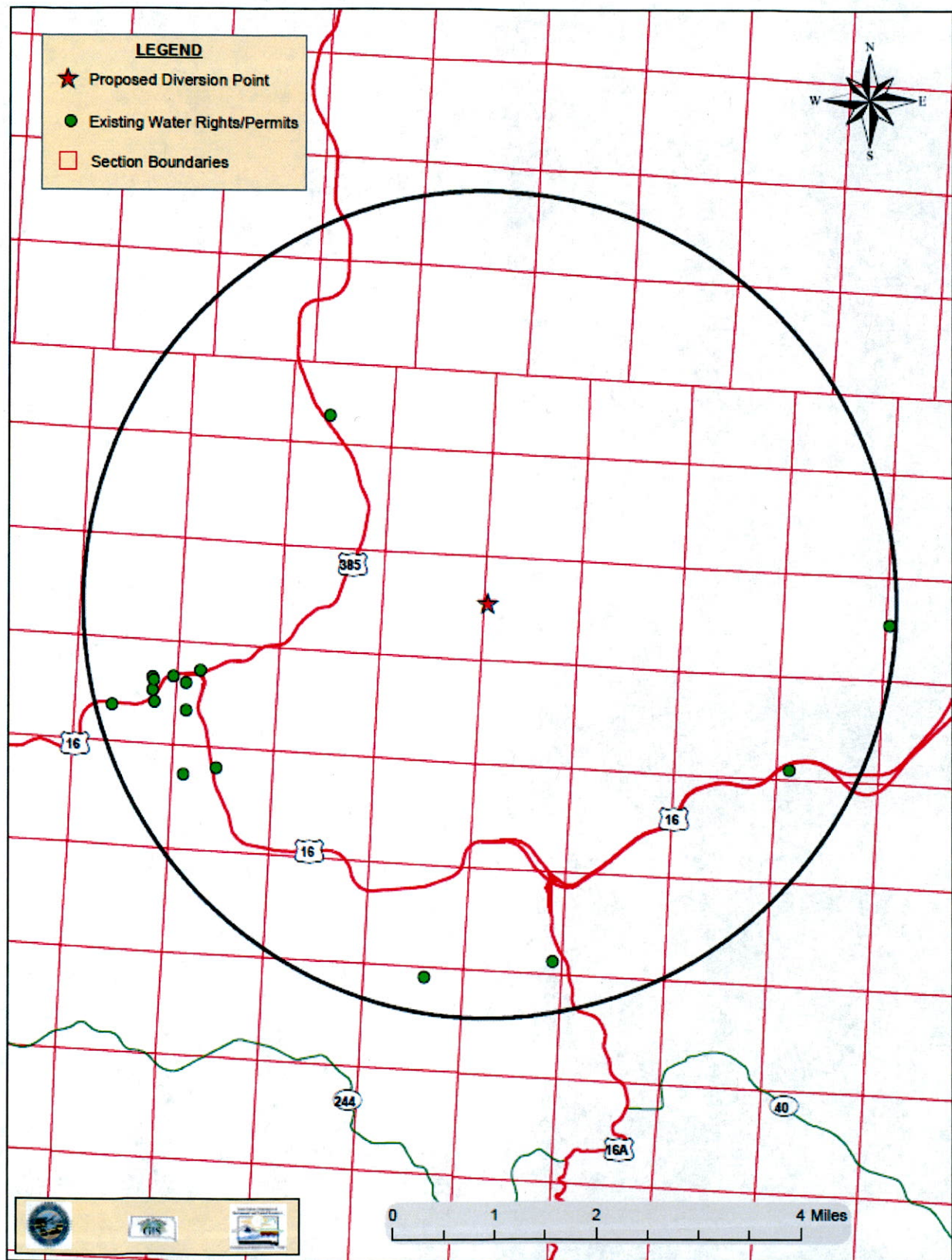


Figure 2. Approximate location of diversion points for water rights/permits appropriating water from Crystalline Rock aquifer. Dark circle denotes a four mile radius of Application No. 2786-2 (if approved).

The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. SDCL 46-6-6.1 does not require protection of artesian head pressure as a means of groundwater delivery. Additionally, ARSD 74:02:04:20(7) defines an adversely impacted domestic well and implies that 20 feet of saturated thickness of the aquifer is adequate. However, because the porosity of the crystalline rock is often low, 20 feet of saturated thickness could be insufficient for a dependable water source, and so this definition of an adequate well could be inapplicable. The relatively low pump rate this application proposes is not expected to result in significant drawdown. While the effects of drawdown have not been quantified, water level fluctuations due to pumping are not expected to be significant when compared to natural water level fluctuations in the aquifer. Therefore, there is reasonable probability that unappropriated water is available for this proposed appropriation.

CONCLUSIONS

1. Water Permit Application No. 2786-2 proposes to appropriate 1.84 acre-feet of water annually at a maximum pump rate of 0.036 cubic feet of water per second (cfs) from two wells completed into the Crystalline Rock aquifer.
2. The Crystalline Rock aquifer is a viable groundwater source and there is a reasonable probability that unappropriated water is available for this appropriation.
3. The aquifer is under unconfined conditions at this site. The well completion report filed with this application indicates a static water level of 70 feet. The pumping rate is small and interference should not be a concern.
4. The wells authorized for this application are completed in accordance with SD Well Construction Standards.
5. Well interference is not expected to be significant and will not adversely impact existing users (domestic or appropriative).


Aaron R. Tieman
Natural Resources Engineer
DENR, Water Rights Program

REFERENCES

Carter, J., Driscoll, D., Sawyer, J., 2003, Ground Water Resources in the Black Hills Area, South Dakota, U.S. Geological Survey Water-Resources Investigations Report 03-4049, Rapid City, SD, 57701.

Driscoll, D.G., and Carter, J.M., 2001, Hydrologic Conditions and Budgets for the Black Hills of South Dakota: U.S. Geological Survey Water-Resources Investigations Report 01-4226, 143 p.

Rahn, P.H., 1979. Groundwater Resources of Western South Dakota. Department of Geology and Geological Engineering, South Dakota School of Mines and Technology, Project #2533. Rapid City, SD.

Water Right, 2018a, Water Right/Permit Files, SD DENR, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

Water Right, 2018b, Observation Well Database, SD DENR, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

Water Right, 2018c, Well Completion Report Files, SD DENR, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

RECEIVED

MAY 11 2018

WATER RIGHTS
PROGRAM

Affidavit of Publication

May 4 L21082159
NOTICE OF APPLICATION NO.
2786-2 to Appropriate Water

Notice is given that Blue Wing Recreation Corporation, c/o Ron Rossknecht, PO Box 9322, Rapid City SD 57709 has filed an application for a water permit to appropriate 1.84 acre-feet of water per year at a maximum diversion rate of 0.036 cubic feet of water per second from two wells completed into the Crystalline Rock Aquifer (280 and 370 feet deep) located in the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 Section 18-T1S-R6E for commercial use in a water distribution

system to supply seasonal mobile homes and campers in portions of the SW 1/4 NW 1/4, W 1/2 SW 1/4 Section 18-T1S-R6E and the SE 1/4 NE 1/4, E 1/2 SE 1/4 Section 13-T1S-R5E. The older well will serve as a backup supply. This site is located approximately 12 miles southwest of Rapid City near Sheridan Lake.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2786-2 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 \$65.69)

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 4th day of May 2018 that the fees charged for the publication there of are 65 dollars and 69 cents.

Sheri Sponder

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

Henri Sanford

Notary public

8/21/2019

My commission expires

KERRI BERARD



NOTARY PUBLIC



SOUTH DAKOTA

Schlaak, Karen

From: Schlaak, Karen
Sent: Friday, April 27, 2018 9:22 AM
To: RCY Legals (legals@rapidcityjournal.com)
Subject: 2786-2, Blue Wing Recreation Corporation
Attachments: 2786-2public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on May 4, 2018.

Blue Wing Recreation Corporation, c/o Ron Rossknecht, PO Box 9322, Rapid City SD 57709 (605 666-4344 or 605 391-1162) 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 27, 2018

Blue Wing Recreation Corporation
c/o Ron Rossknecht
PO Box 9322
Rapid City SD 57709

Dear Mr. Rossknecht:

Water Permit Application No. 2786-2 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 (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
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. 2786-2 to Appropriate Water

Notice is given that Blue Wing Recreation Corporation, c/o Ron Rossknecht, PO Box 9322, Rapid City SD 57709 has filed an application for a water permit to appropriate 1.84 acre-feet of water per year at a maximum diversion rate of 0.036 cubic feet of water per second from two wells completed into the Crystalline Rock Aquifer (280 and 370 feet deep) located in the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 Section 18-T1S-R6E for commercial use in a water distribution system to supply seasonal mobile homes and campers in portions of the SW 1/4 NW 1/4, W 1/2 SW 1/4 Section 18-T1S-R6E and the SE 1/4 NE 1/4, E 1/2 SE 1/4 Section 13-T1S-R5E. The older well will serve as a backup supply. This site is located approximately 12 miles southwest of Rapid City near Sheridan Lake.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2786-2 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

Blue Wing Recreation Corporation
c/o Ron Rossknecht, President
PO Box 9322
Rapid City SD 57709

Dear Mr. Rossknecht:

Enclosed is Water Permit No. 2786-2 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

2786-2

RECEIVED

MAY 25 2018

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 5-23-18TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

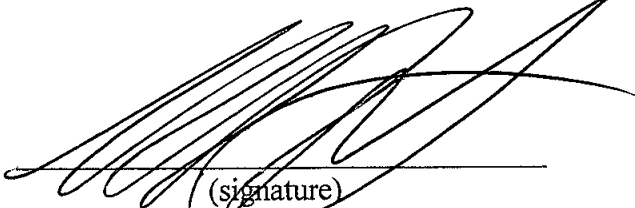
FROM:

Blue Wing Recreation Corporation
(name)PO Box 9322
(address)Rapid City, S.D. 57709
(city, state, zip)(605) 391-1162
(phone)

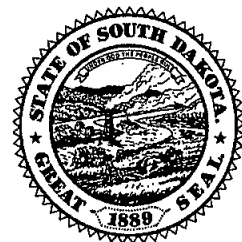
I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 2786-2 states that the water use system is to be constructed by10-15-17, and water is to be put to beneficial use by 10-15-17.
(date) (date)The water use system was completed on 10-15-17.
(date)Applying the water to beneficial use was completed on 10-15-17.
(date)

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


(signature)

7-98

Don Fossbuck



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 29, 2018

2786-2

Ron Rossknecht
Blue Wing Recreation
PO Box 9322
Rapid City SD 57709

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. 2786-2 is 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

Note: I am returning the copy of the permit you sent in. This is your copy to keep.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

OCT 31 2018

Blue Wing Recreation Corporation
c/o Ron Rossknecht, President
PO Box 9322
Rapid City SD 57709

Dear Mr. Rossknecht:

Enclosed are Water Permit and Water License No. 2790-2. These are the final water right documents completing your process of obtaining a Water Right.

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

Note: The applicable portions of No. 2786-2 are incorporated into Water License No. 2790-2.

enclosure