

WATER PERMIT NO. 2669-2

Name of Applicant: Diocese of Rapid City & St. Elizabeth Seton Central School Corp.

Address: 606 Cathedral Dr, Rapid City SD 57701 Phone: 605343-3541

Amount of Water Claimed: 0.1 cfs Total Acres: 7

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Pennington

Type of Waste Disposal System:

Location: north of Rapid City along Sturgis Road between Rapid City of Blackhawk

PRIORITY Date Received: 5-27-11

Application/License Fee: \$300

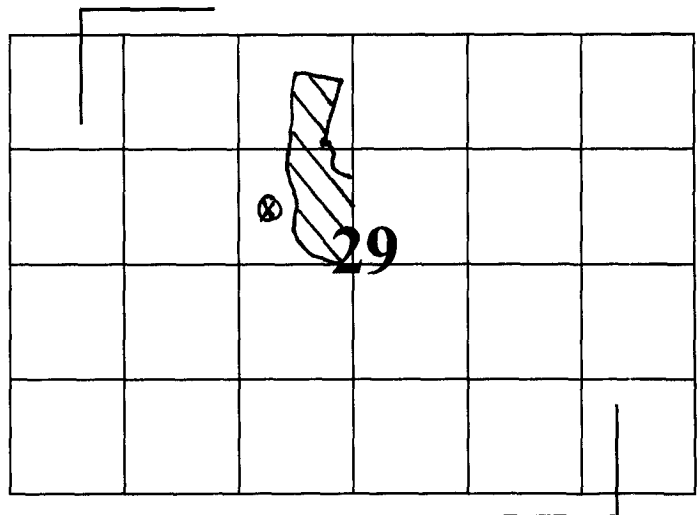
Corrected Application Received: 6-9-11

Period of Annual Use: May 1 – Oct 31

Remarks:

Diversion Point: SE ¼ NW ¼ Sec 29-T2N-R7E

Land to be Irrigated: E ½ NW ¼ Sec 29-T2N-R7E



Depth of Well: 900 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by: Jerry D Foster, PE

Reviewed and the Number Assigned on: 6-10-11

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2669-2</u> (office use only) Hydrologic Unit <u>10/2011</u>
	Basin <u>Upper Cheyenne</u>
	Newspaper <u>RC Journal PO Box 450</u> <u>605-394-8300</u> <u>57701</u>

RECEIVED

MAY 27 2011

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
 (Use predates Mar 2, 1955)

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

- Name of Applicant DIOCESE OF RAPID CITY & ST. ELIZABETH SETON CATHOLIC SCHOOL CORP. Phone 605-343-3541
 (check one) ☒ Owner ☐ Tenant/lessee 605-348-1477
 Mailing Address 606 Cathedral Drive Rapid City SD 57701
 (Address) (City) (State) (Zip Code)
- Amount of water claimed 0.1 *CFS or 45 **GPM 829 ***AF Total Acreage 7.0
 (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Madison formation
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County PENNINGTON
1 well SE1/4 NW1/4 TOWNSHIP 2N, RANGE 7E SEC 29
Address: 2101 CITY SPRINGS ROAD, RAPID CITY, SD 57701
- County or counties where water will be used PENNINGTON
- Annual period during which water is to be used MAY 1 - OCT 31
- List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
 (Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>E 1/2 NW 1/4 TOWNSHIP 2N RANGE 7E</u>			
<u>SEC 29</u>			

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

IRRIGATION FOR LAWN, TREES & SHRUBS SURROUNDING THE BUILDING.

STATE OF SOUTH DAKOTA)

County of Pennington) SS

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, Steven Biegler, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Steven BieglerSubscribed and sworn to before me this 25th day of May 20 11Notary Public signature Kathy A. Cordes

SOUTH DAKOTA
WATER PERMIT NO. 2669-2

Date of first receipt of application May 27, 2011.

Date of return to applicant for corrections, amendments or changes June 1, 2011.

Date of receipt of corrected application June 9, 2011.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2669-2 to Diocese of Rapid City and St. Elizabeth Seton Central School Corp, 606 Cathedral Drive, Rapid City SD 57701 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. 2669-2 appropriates 0.1 cubic feet of water per second from one well completed into the Madison Formation (950 feet deep) located in SE 1/4 NW 1/4 Section 29 for irrigation of 7 acres located in the E 1/2 NW 1/4 Section 29; all in T2N-R7E.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – October 31.
3. The date from which applicant may claim right is May 27, 2011.
4. The date of approval of Permit No. 2669-2 is September 2, 2011.
5. One-fifth of the construction is to be completed on or before March 2, 2014.
6. All construction is to be completed on or before September 2, 2016.
7. Water is to be put to beneficial use on or before September 2, 2020.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2669-2 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2669-2 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.
2. The well approved 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)

3. The well authorized by Permit No. 2669-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. The Permit Holder shall control withdrawals from the well so there is not a significant adverse effect on the water flow from area springs or a significant adverse effect on the water quality and character in area springs.

WATER MANAGEMENT BOARD

By: _____

Garland Erbele

Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

JAN 10 2012

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8 3/4" / 6 1/4" Depth 950'
- b) Casing Type STEEL Diameter 7" O.D. Thickness .317 wall
- c) Screen Type NA Diameter _____ Thickness _____
- d) Gravel Pack NA Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 740'
- f) Depth to Water (ground surface to water level) EST. 50-100'
- g) Distance to nearest existing domestic well:

On applicant's property NONE

On property owned by others 400 yds.
(230' deep)

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) NA
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

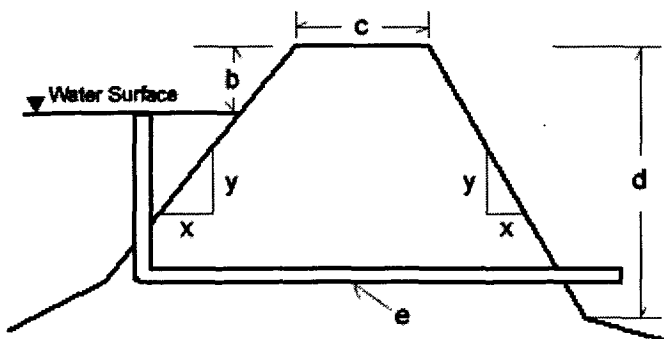
3. Dugout Information

- a) Surface Dimensions NA Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

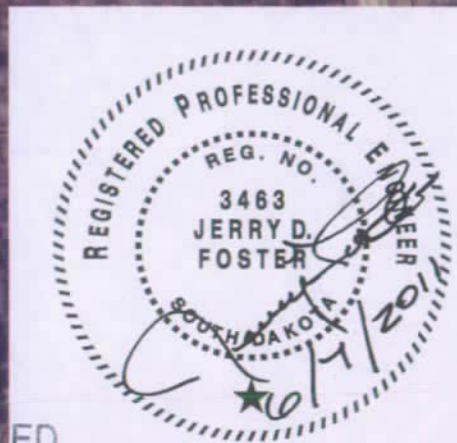
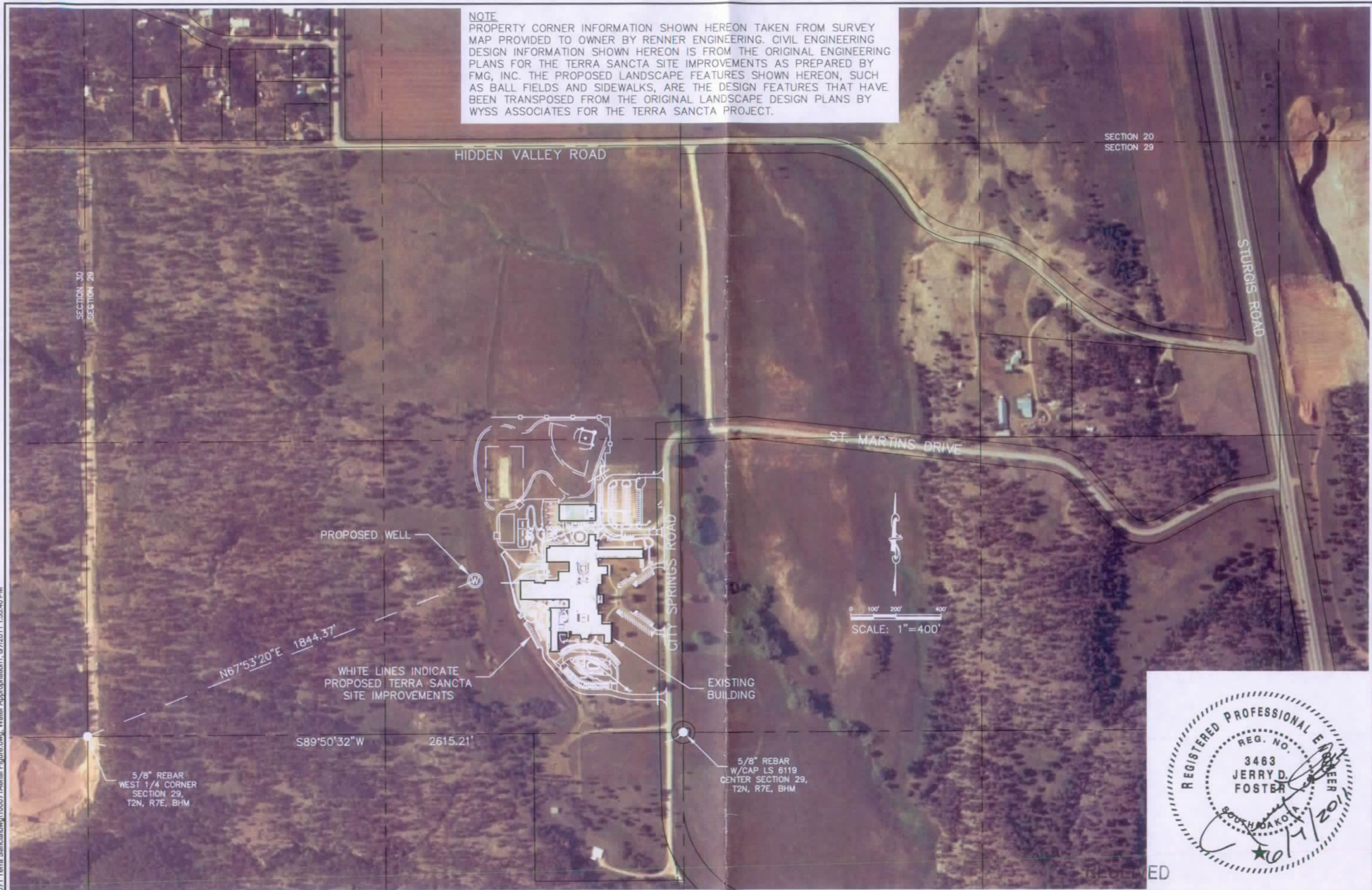
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- 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

H:\100071 Terra Sancta\dwg\100071Aerial Figure.dwg, Water Appropriation1, 6/7/2011 1:55:40 PM



FMG, Inc.
3700 Sturgis Road
Rapid City, SD 57702-0317
(605) 342-4105 FAX (605) 342-4222
www.fmgengineering.com



File Number:
100071
Location:
NW1/4 SECTION 29
T2N, R7E, BHM
Surveyed By:
Date:
Designed By:
Drawn By: KJS
Checked By: JDF

APPLICATION TO
APPROPRIATE WATER
DIOCESE OF RAPID CITY & ST. ELIZABETH
SETON CENTRAL SCHOOL CORP.
RAPID CITY, SOUTH DAKOTA

Revision / Date

Sheet Name:
PROPOSED WELL LOCATION

Sheet Number:
1
Total Sheets:
2

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WATER RIGHTS PROGRAM

NOTE
PROPERTY CORNER INFORMATION SHOWN HEREON TAKEN FROM SURVEY MAP PROVIDED TO OWNER BY RENNER ENGINEERING. CIVIL ENGINEERING DESIGN INFORMATION SHOWN HEREON IS FROM THE ORIGINAL ENGINEERING PLANS FOR THE TERRA SANCTA SITE IMPROVEMENTS AS PREPARED BY FMG, INC. THE PROPOSED LANDSCAPE FEATURES SHOWN HEREON, SUCH AS BALL FIELDS AND SIDEWALKS, ARE THE DESIGN FEATURES THAT HAVE BEEN TRANSPOSED FROM THE ORIGINAL LANDSCAPE DESIGN PLANS BY WYSS ASSOCIATES FOR THE TERRA SANCTA PROJECT.

0 50' 100' 200'
SCALE: 1"=200'

PROPOSED WELL

APPROXIMATE AREA TO BE IRRIGATED.
(LESS BUILDINGS, PARKING, WALKS
& OTHER HARD SCAPES)

CITY SPRINGS ROAD

WHITE LINES INDICATE
PROPOSED TERRA SANCTA
SITE IMPROVEMENTS

ST. MARTIN'S DRIVE



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APPLICATION TO
APPROPRIATE WATER
DIOCESE OF RAPID CITY & ST. ELIZABETH
SETON CENTRAL SCHOOL CORP.
RAPID CITY, SOUTH DAKOTA

Revision / Date

Sheet Name:

IRRIGATION
AREA

Sheet Number:

2

Total Sheets:

2

File Number:
100071
Location:
NW1/4 SECTION 29
T2N, R8E, B1M
Surveyed By:
Date:
Designed By:
Drawn By: K/S
Checked By: JDF

FMG, Inc.
3700 Sturgis Road
Rapid City, SD 57702-0317
(605) 342-4105 FAX (605) 342-4222
www.fmgengineering.com

JUNE 7, 2011

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 55/31, 2011

RECEIVED OF The Diocese of Rapid City PO Box 678 Rapid City SD 57709

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

Fee for Application for Permit No. <u>2669-2</u> to Appropriate Water, to construct and to put water to beneficial use	100	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>2669-2</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. **04986**

By

Shelley Erbe
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 1, 2011

Diocese of Rapid City
& St. Elizabeth Seton Central School Corp
c/o Steven Biegler
606 Cathedral Dr
Rapid City SD 57701

Dear Mr. Biegler:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation of the grounds around the facility. In order to complete the application the following is required.

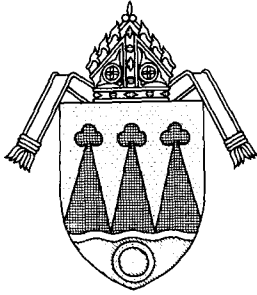
- A map (aerial photo) showing the proposed location of the well in relation to a government section corner or quarter corner by direction and distance is required. Please outline the area to be irrigated. The map must be signed by one of the following: Registered Land Surveyor, Registered Professional Engineer or by any other government employee who normally prepares maps as a part of his assigned duties (i.e. local NRCS office).
- On the application, Item No. 2, Amount of water claimed, you indicate 8.29 AF. Is this the amount of water you are proposing to use annually or possibly a storage pond?

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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



CHANCERY OFFICE

DIOCESE OF RAPID CITY

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JUN - 9 2011
WATER RIGHTS
PROGRAM

June 8, 2011

Karen Schlaak
Department of Energy & Natural Resources
Water Rights Program
523 E. Capitol Ave.
Pierre, SD 57501-3182

Dear Karen,

I apologize for my oversight when submitting the Application for Permit to Appropriate Water for irrigation at the Terra Sancta facility. Please find enclosed the following:

- The map prepared by FMG, Inc. that identifies the location of the proposed well.
- An outline of the area that is proposed to be irrigated. This area includes area that may not be irrigated until some future date.

In response to your question on Item No. 2, 8.29 acre feet of water is our best estimate of the amount of water we might use on an annual basis when all of the proposed area is irrigated. We do not plan to have a storage pond.

If you have any questions, please do not hesitate to call me.

Sincerely,

Leon Lunders
Diocesan Facility Manager
605-381-5063
llunders@diorc.org

Buhler, Ken

From: Wendi @ Taylor Drilling <wendi.taylordrilling@rushmore.com>
Sent: Friday, July 22, 2011 12:52 PM
To: Buhler, Ken
Subject: Test Well

Taylor Drilling is requesting permission to construct a test well for the Diocese of Rapid City prior to approval of a water permit.

The test well will be located at the Terra Sancta Facility in the S.E. 1/4, N.W. 1/4, Sec 29, T.2N, R.7E in Pennington Co.

The test well will be constructed in accordance with S.D. construction standards into the Madison Formation with an estimated depth of 950 ft.

Respectfully Submitted,

Kim Taylor
605-348-3600



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

July 25, 2011

Kim Taylor
Taylor Drilling Company
2310 Commerce Road
Rapid City, SD 57702

Dear Mr. Taylor:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to construct a test well in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 29, T2N-R7E, prior to approval of a water permit. The test well will be completed into the Madison aquifer and is expected to be approximately 950 feet deep. The test well must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application; and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit.

Very truly yours,

JAMES A. GOODMAN, P.E.
for GARLAND ERBELE, Chief Engineer
Water Rights Program
(605) 773-3352

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, August 24, 2011 3:38 PM
To: 'llunders@diorc.org'
Subject: Application form
Attachments: 2669A-2 application.pdf

Leon,
Attached is the drafted application for the additional 20 gallons per minute. Please review, make any necessary changes, sign and notarize the bottom portion of the application and return to this office with a \$100.00 application fee.

What we will do is issue the first permit (2669-2) for the 45 gpm once the time for receiving petitions has passed. Upon receipt of this application, we will again begin the process (report, recommendation, public notice) which will take approximately 2-3 months.

If you have any questions, let me know.

Karen Schlaak
Water Rights Program
Phone: 605 773-3352
Fax: 605 773-4068



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2669-2, Diocese of Rapid City and St. Elizabeth Seton Central School Corp.**

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. 2669-2, Diocese of Rapid City and St. Elizabeth Seton Central School Corp., c/o Steven Biegler, 606 Cathedral Drive, Rapid City SD 57701.

The Chief Engineer is recommending APPROVAL of Application No. 2669-2 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2669-2 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2669-2 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.
2. The well approved 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.
3. The well authorized by Permit No. 2669-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. The Permit Holder shall control withdrawals from the well so there is not a significant adverse effect on the water flow from area springs or a significant adverse effect on the water quality and character in area springs.

See report on application for additional information.

A handwritten signature in black ink, appearing to read "Garland Erbele". The signature is written in a cursive, flowing style.

Garland Erbele, Chief Engineer
August 8, 2011

WATER PERMIT APPLICATION NO. 2669-2
DIOCESE OF RAPID CITY
JUNE 29, 2011

Water Permit Application No. 2669-2 proposes to appropriate 0.10 cubic feet of water per second from a well to be completed into the Madison aquifer (approximately 950 feet deep) located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 29, T2N-R7E, Pennington County. The water is to be used to irrigate seven acres located in the E $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 29, T2N-R7E.

AQUIFER: Madison aquifer (MDSN)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Madison aquifer is a major regional aquifer that underlies parts of Montana, North Dakota, South Dakota, Wyoming and Canada. The aquifer underlies most of western South Dakota and parts of Eastern South Dakota (figure 1).

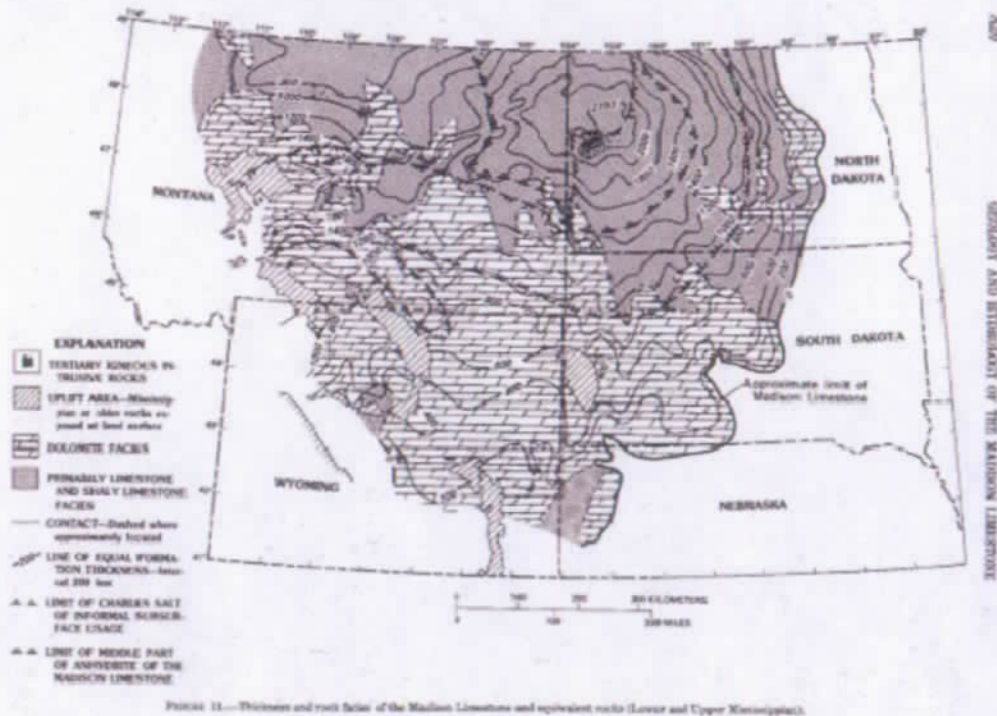


Figure 1. Areal extent of the Madison aquifer. Modified from Peterson (1984)

The Madison aquifer contains an estimated 644,827,200 acre-feet of recoverable water in storage in Western South Dakota (Allen and others, 1985) and 51,512,300 acre-feet of recoverable water in storage in Eastern South Dakota (Hedges and others, 1982).

The Madison aquifer occurs within the Mississippian aged Madison Limestone which is locally known as the Pahasapa Limestone. The top of the Madison Limestone is expected to be approximately 640 feet below grade (Carter and Redden, 1999a) at the site proposed by Application No. 2669-2. The Madison Limestone is a massive limestone and dolomite with relatively low primary permeability and porosity however, extensive secondary porosity and permeability does occur locally within the Madison. The average porosity of the Madison is estimated to be 11% and the effective porosity from which recoverable water can be obtained by wells is assumed to be 5% (Rahn, 1979). The upper portion of the Madison Limestone in particular is karstic with caves, solution collapse features and enlarged conduits. Although the Madison limestone is estimated to be between 375 feet (Gries, 1981) and 400 feet (Carter and Redden, 1999a, and Carter and Redden, 1999b) thick in this area, Long and Putnam (2002) only consider the upper 100-200 feet of the Madison Limestone the "Karstic Madison aquifer". The lower portion of the Madison Formation and the underlying Englewood Formation generally form a lower confining zone to the aquifer (Strobel and others, 1999). The Minnelusa Formation unconformably overlies the Madison aquifer and generally serves as an upper confining layer to the Madison. The average potentiometric surface of the Madison is expected to be approximately 3,480 feet msl or about 60 feet below grade at this proposed well site (Long and Putnam, 2002).

A number of high yield wells, some capable of producing up to 2,500 gal/min, have been developed in the Madison aquifer where enhanced porosity and permeability features are favorable (Putnam and Long, 2009). The Rapid City area is characterized as having undergone extensive tectonic activity (Long and Putnam, 2002). The well site proposed by this application is located near a syncline-anticline set (Redden and DeWitt, 2008). The Madison is generally considered an excellent aquifer in terms of its potential to supply good quality water to relatively productive wells, especially near the outcrop (recharge area). This well site is located about three and one-half miles east of the main Madison outcrop (see figure 2), (Strobel and others, 1999).

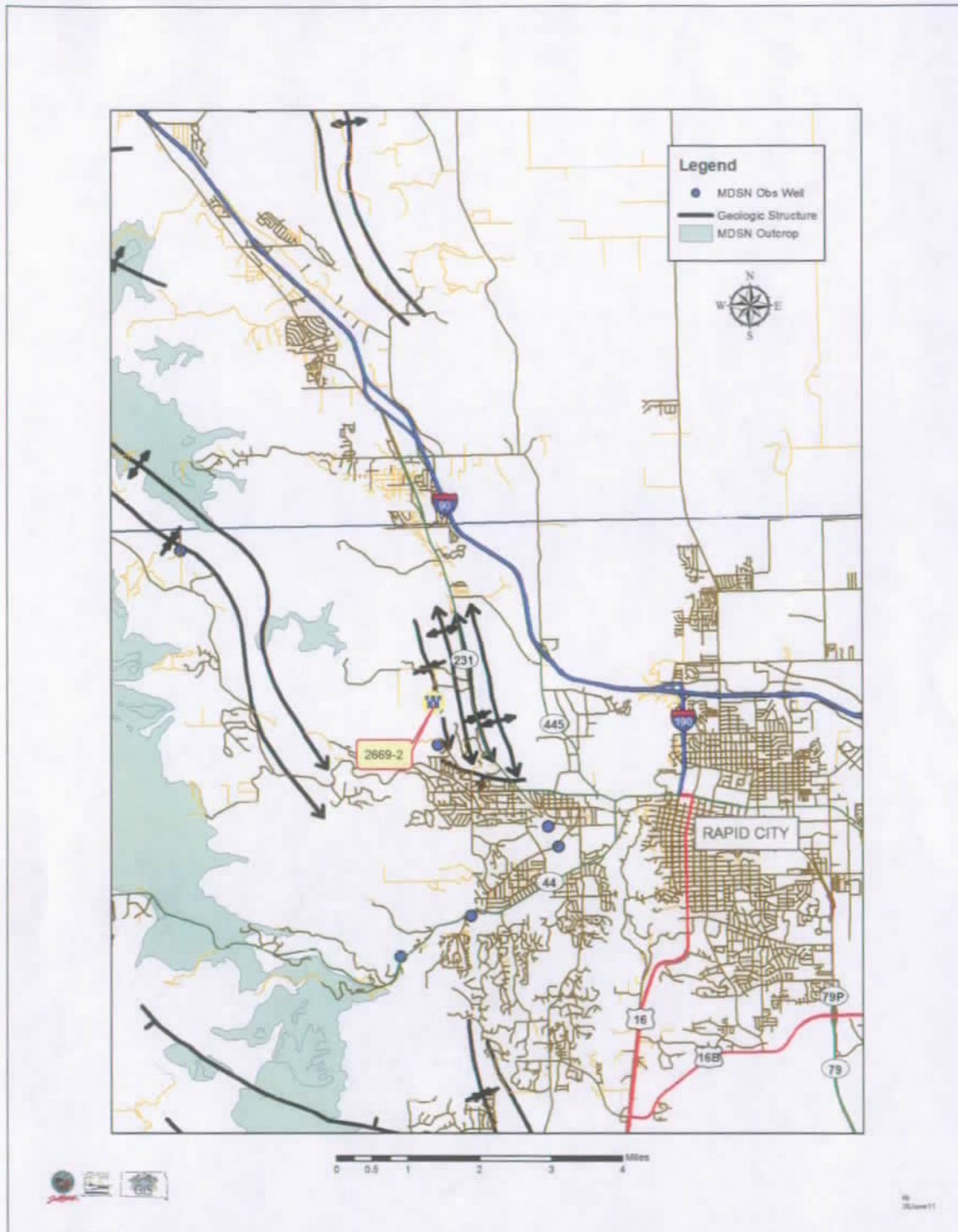


Figure 2. Location of 2669-2.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of

existing rights and that the proposed use is a beneficial use and in the public interest. This report will mainly address water availability and existing rights.

WATER AVAILABILITY:

The probability of unappropriated water available for appropriation can be evaluated by considering SDCL 46-6-3.1 which requires that:

“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.”

Water Balance:

Recharge to the Madison aquifer occurs through streamflow losses and direct infiltration of precipitation at the outcrop area and potentially from upward leakage from lower aquifers. Recharge to the Madison aquifer in South Dakota has been estimated to range from 140,000 to 400,000 acre-feet per year (Woodward-Clyde, 1981). Woodward-Clyde however, defined the Madison aquifer as everything between the Precambrian and the Cretaceous shales. As part of the Black Hills Hydrology Study, the average annual recharge to the Madison aquifer from 1931-1998 was estimated to be approximately 137,000 ac-ft/yr (Carter and others, 2001a).

Outflow from the Madison occurs primarily through springflow, regional outflow and water use. In addition, although the lower portion of the Minnelusa Formation generally inhibits the movement of water from the Madison aquifer to the Minnelusa aquifer, faults, fractures and collapse features may allow for movement of water between the two aquifers in some areas.

The high cost of Madison wells, except very near the outcrop, and the availability of groundwater from shallower sources, has limited domestic development from the aquifer. Carter and others, (2001b) estimate “Self-supply Domestic” and “Livestock Watering” only account for approximately 2.25% of the water use from the Madison aquifer. In general, well withdrawals from the Madison are for uses which require water rights/permits. The majority of the water rights/permits from the aquifer are from Butte, Lawrence, Meade, Pennington and Fall River Counties. The Madison supplies water for irrigation, geothermal, industrial, and commercial use. However, by far the major use of the aquifer is for water distribution systems (suburban housing development and municipal use). The cities of Spearfish, Belle Fourche, Sturgis, Rapid City, Box Elder, and Edgemont all depend on water from wells completed into the Madison aquifer.

There are currently a total of 162 appropriations plus one deferred application from the Madison aquifer in South Dakota. These appropriations include: seven future use permits, 129 water rights/permits for non-irrigation uses and 26 water rights/permits for irrigation (Water Rights, 2011b). Almost all water use from the Madison aquifer is from the Black Hills area. Withdrawals from all wells completed into the Madison aquifer in the Black Hills of South Dakota and Wyoming, where estimated to average 12,310 acre-feet annually from 1987-1996 (Carter and others, 2001b). Well withdrawals from the Madison aquifer for

2008 were estimated to be less than 20,000 ac-ft/yr (Water Rights, 2008). Table 1 lists new appropriations made from the Madison aquifer since the 2008 well withdrawal estimate was made. Table 2 lists the appropriations from the Madison aquifer that have been cancelled since the 2008 well withdrawals were estimated.

PERMIT NO	NAME	USE	CFS	ANNUAL APPROPRIATION (AC-FT/YR)
1899-1	DAVIS RANCHES INC	IRR	1.43	200
1910-1	CITY OF STURGIS WATER COMPANY	COM	1.44	724
1911-1	STURGIS WATER COMPANY	MUN	0.89	645
1916-1	HILLS MATERIALS CO.	IND	0.222	*96
1923-1	JIM MONTIETH	IRR	1.33	42.5
2631-2	CITY OF BOX ELDER	MUN	1.00	435
2632-2	CITY OF BOX ELDER	MUN	1.00	435
2633-2	SOUTHERN BLACK HILLS WATER SYSTEM	RWS	0.67	484
2634-2	EBEN W STREETER	RWS	0.00	0
				TOTAL = 3,061.5 ac-ft/yr
* not limited to an annual volume, appropriation calculated at 60% continuous pumping at maximum diversion rate				

Table 1. New appropriations from the Madison aquifer since 2008 review

PERMIT NO	NAME	USE	CFS	ANNUAL APPROPRIATION (AC-FT/YR)
1569-1	STAGEBARN SANITARY DIST	SHD	0.28	121.63*
1676-1	STAGEBARN SUBDIVISION	SHD	0.28	121.63*
1807-1	28 BOMB WING	IND	1.11	806.00
1875-1	28 BOMB WING	INS	1.33	968.00
2392-2	SCHWARZ TRUST	COM	0.25	108.60*
2440-2	TETRAD CORPORATION	DOM	0.17	72.54*
				TOTAL = 2,198.4 ac-ft/yr
* not limited to an annual volume, appropriation calculated at 60% continuous pumping at maximum diversion rate				

Table 2. Appropriations from the Madison aquifer that have been cancelled since the 2008 review

Accounting for the changes represented by tables 1 and 2, the total well withdrawals from the Madison aquifer is still expected to be approximately 20,000 ac-ft/yr.

A simple water balance comparing the estimated average annual recharge and the potential withdrawal by existing wells and current appropriations shows that unappropriated water is available from the Madison aquifer to satisfy additional appropriations.

A water budget is not intended to suggest that all of the water that is in storage in the Madison or that all of the recharge to the aquifer is available for this appropriation, merely to demonstrate that in general the Madison aquifer is an immense resource that is relatively untapped.

Localized Hydrologic Budget

On a more localized scale, Long and Putnam (2002) evaluated an area which includes Rapid City and the surrounding area, and Putnam and Long (2009) modeled an area consisting of approximately 1000 square miles centered just east of the well site proposed by Application No. 2669-2. The estimated water-budget components for the Madison aquifer under steady-state conditions are shown in table 3.

Madison Water-budget rate (cfs)		
Inflow	Component	Total
	Streamflow recharge	36.2
	Areal Recharge	15.1
	Upward leakage from Deadwood aquifer	6.3
Total Inflow		57.6
Outflow	Springflow	32.8
	Water use	6.7
	Regional outflow	12.2
Total Outflow		51.7

Table 3. Estimated water-budget components for the Madison aquifer for steady-state simulation modified from Putnam and Long (2009).

In addition to the components identified in table 3, there may also be leakage from the Madison aquifer to the Minnelusa aquifer in this area. The average net leakage from the Madison to the Minnelusa was estimated to be 8 cfs for a somewhat similar area (Long and Putnam 2002)

Observation Well Data:

The Water Rights Program monitors 26 observation wells completed into the Madison aquifer in the Black Hills area (Water Rights, 2011a). This well site is located within about four miles of five Water Rights' observation wells completed into the Madison aquifer (see figure 2). Hydrographs for the wells show the aquifer's response to climatic conditions and clearly demonstrate the system is recharged, (see figures 3-7).

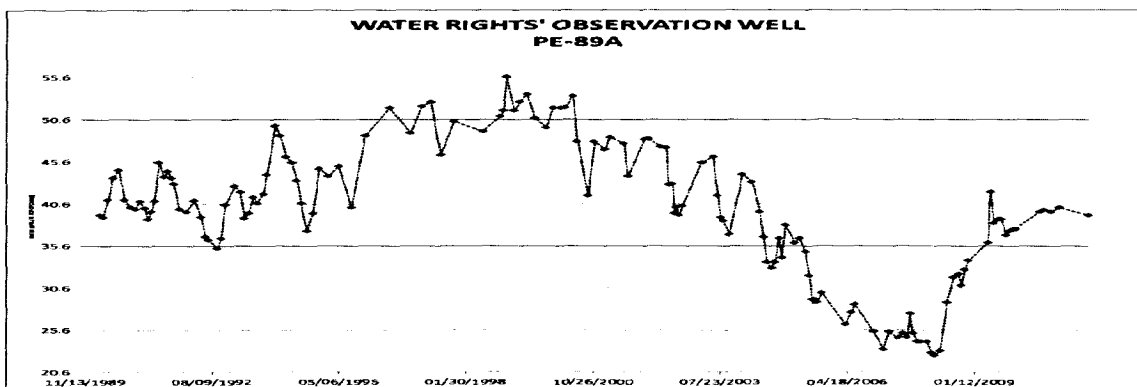


Figure 3. Hydrograph of Water Rights' Observation well located approximately three miles south of the well site proposed by Application No. 2669-2

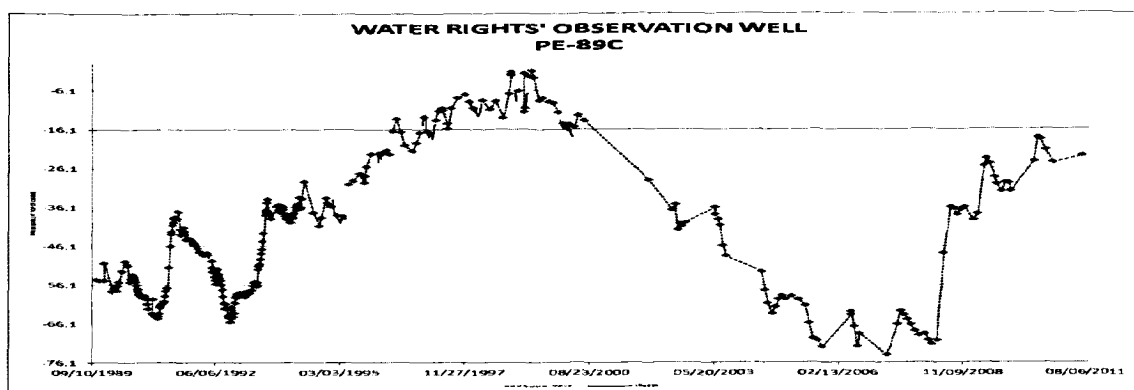


Figure 4. Hydrograph of Water Rights' Observation well located approximately one half mile south of the well site proposed by Application No. 2669-2

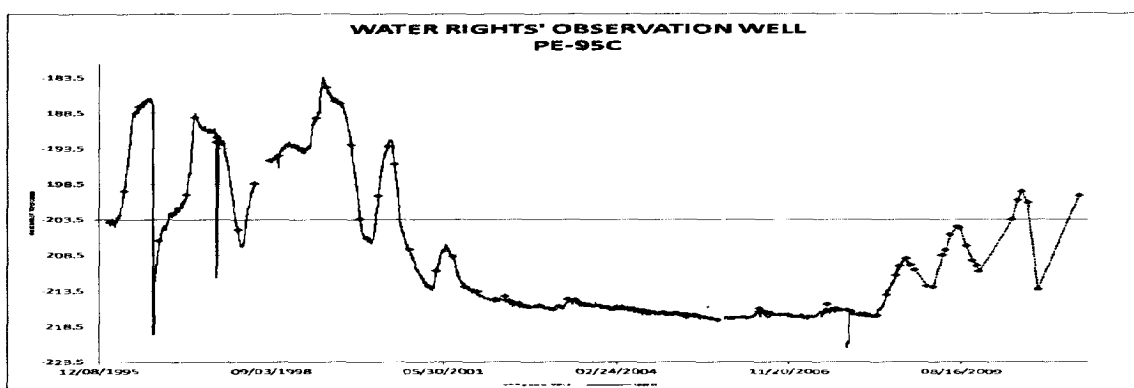


Figure 5. Hydrograph of Water Rights' Observation well located approximately four miles northwest of the well site proposed by Application No. 2669-2

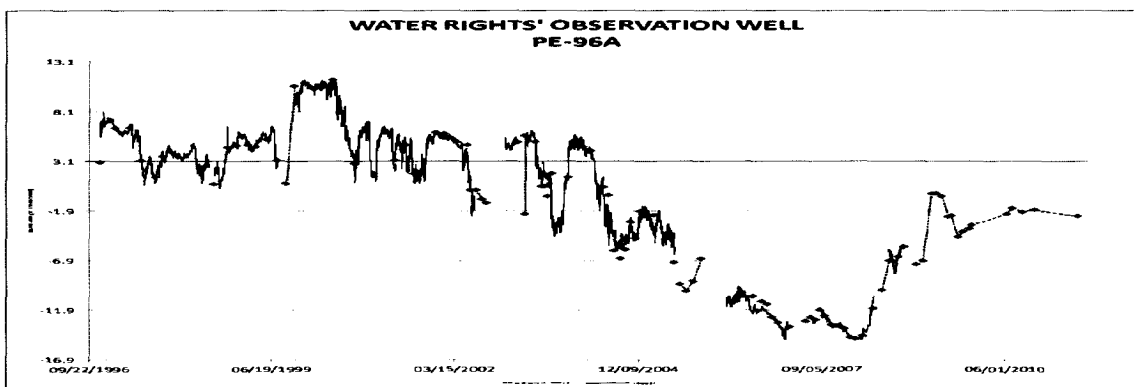


Figure 6. Hydrograph of Water Rights' Observation well located approximately three and one-half miles south-southwest of the well site proposed by Application No. 2669-2

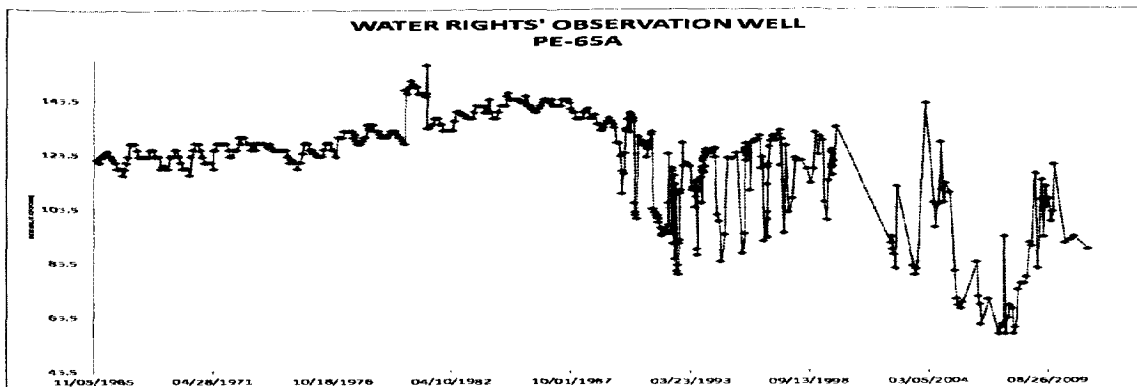


Figure 7. Hydrograph of Water Rights' Observation well located approximately two and one-half miles southeast of the well site proposed by Application No. 2669-2.

The hydrographs show the potentiometric surface measured at these sites rose during the late 1990's and the late 2000's in response to wet climatic conditions. The water levels decreased in the early 2000's in response to less recharge.

A comparison of these hydrographs with data from other Water Rights' Observation wells completed into the Madison aquifer, suggest the fluctuations shown in figures 3-6 are representative of climatic conditions instead of pumping from the aquifer. Figure 7 documents the effect of pumping from Rapid City well #5 which is located approximately 1600 feet away and capable of diverting 2700 gallons per minute (Water Rights, 1992). The observation well data verifies that for the period of record, withdrawals have not exceeded recharge.

AFFECTS ON EXISTING RIGHTS:

There are a number of completion reports on file with the DENR-Water Rights Program for wells in this vicinity (Water Rights, 2011c). There are 35 Water Rights/Permits and two Future Use Permits appropriating groundwater within approximately two and one-half miles of the well site proposed by this application. The approximate location of the diversion points for the groundwater appropriations are shown in figure 8. Existing Water Rights/Permits appropriating water from the Madison aquifer within approximately two and one-half miles of this well site are shown in table 4.

PERMIT NO.	NAME	STATUS	USE	CFS	DIST. TO 2669-2
1154-2	WESTBERRY TRAILS WATER	LC	SHD	0.25	1.85 miles
1852-2	PONDEROSA WATER/HOMEOWNER	PE	SHD	0.12	1.25 miles
2273-2	CITY OF RAPID CITY	LC	MUN	11.06	1 mile
2275-2	CITY OF RAPID CITY	LC	MUN	3.8	2.4 miles & 2 miles*
2313-2	COCA-COLA BOTTLING	LC	IRR	0.33	2 miles
2584-2	FARRAR REAL ESTATE	PE	IND	0.17	2.4 miles
454-2	BLACK HILLS CORPORATION	LC	IND	1	2.2 miles
SHD= Suburban housing development, MUN= Municipal, IRR= Irrigation, IND= Industrial * two diversion points					

Table 4. Madison aquifer appropriations within approximately 2.5 miles of 2669-2

In addition to the appropriations listed in Table 4, Rapid City's Future Use Permit No. 2086-2 reserves 4,075 ac-ft/yr from the Madison aquifer from an area that includes the well site proposed by Application No. 2669-2. A permit to construct works and place water reserved by a future use permit to beneficial use could only be approved if there would be no unlawful impairment of existing rights. Therefore, if Application No. 2669-2 is approved, consideration must be given to impairment to the right, even though it would have a junior priority date, if the City elects to apply for a permit to develop the future well site in this vicinity.

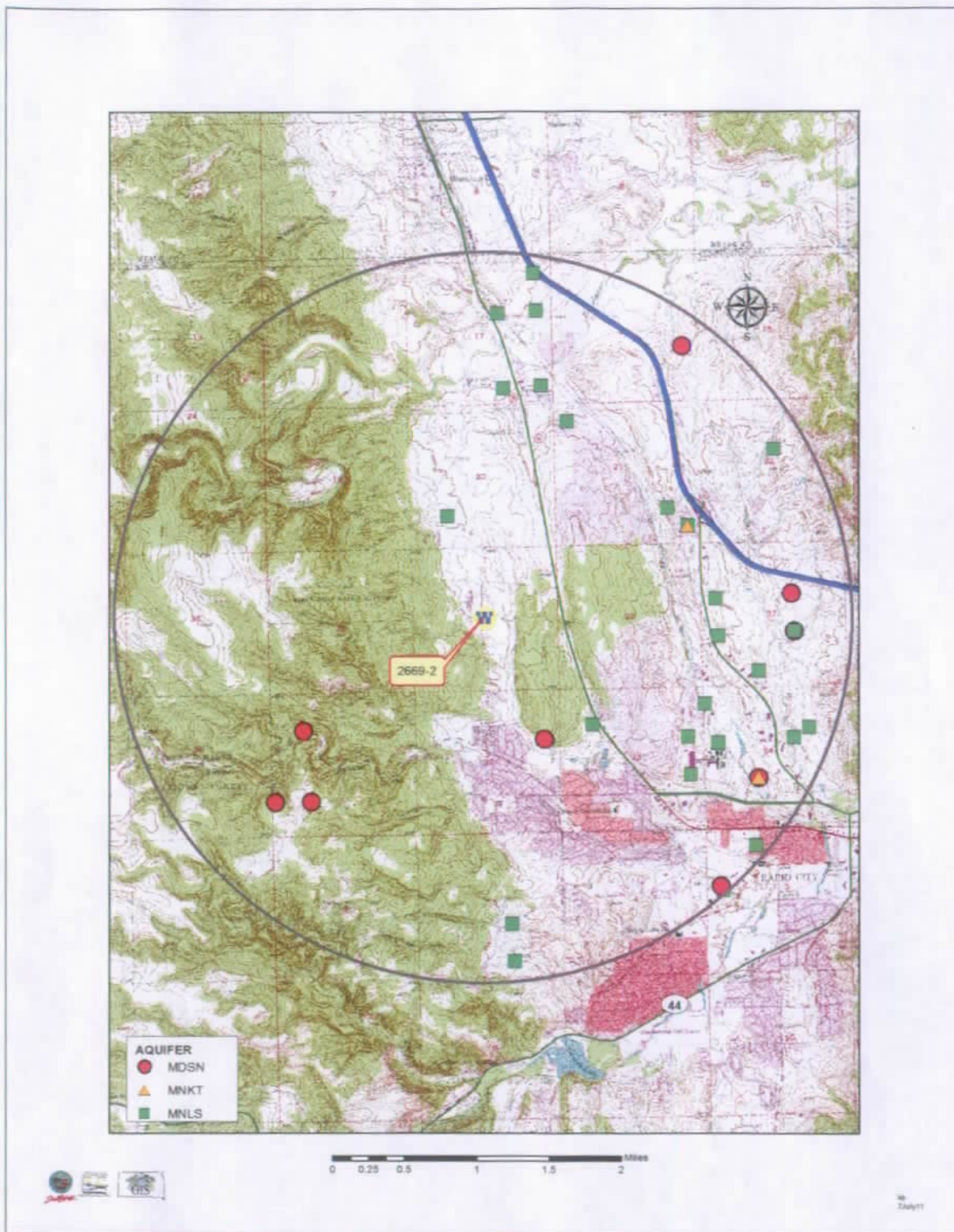


Figure 8. Vicinity map with approximate locations of groundwater appropriations within approximately 2.5 miles of the well proposed by Application No. 2669-2

Since the Madison is under artesian conditions in this area, drawdown from pumping a well may extend over a fairly large area. The transmissivity of the aquifer is very heterogenous with values that range from 500 to 20,000 ft²/d (Putnam and Long, 2002). In addition the aquifer characteristics of the Madison can vary considerably within a short distance (Greene, 1993).

Considering the distances involved to existing wells and the relatively low diversion rate proposed by this application, well interference should not be significant. This is especially the case when considering the Madison is under artesian conditions with 580 feet of head pressure at this well site and further recognizing that there is over 60 feet of natural fluctuation in this area (see figure 4).

Wells supplying existing Water Rights/Permits and domestic uses are protected from adverse impacts per Water Management Board rules 74:02:04 and 74:02:05, which were promulgated pursuant to SDCL 46-6-6.1. These rules provide for the regulation of large capacity wells to the degree necessary to maintain an adequate depth of water for a prior appropriator in wells that have the ability to produce water **independent of artesian pressure**. Simply put, the pump placement in a prior appropriator's well is not necessarily protected.

If the water levels in the Madison aquifer were to decline, owners of existing wells bear the responsibility of lowering the pump inlet in the well to the top of the aquifer, if necessary. Increased lift would decrease the pump discharge; or require a larger pump or a different type of a pump to maintain the same output.

An increase in operating expenses that may result from interference between wells is not necessarily an adverse impact. The Water Management Board considered this situation in the matter of Water Permit Application 2313-2, Coca-Cola Bottling Company of the Black Hills (Water Rights, 1995). The Board adopted findings of fact and conclusions of law that basically state that if the increased cost or decreased production is considered an adverse impact, it could be in conflict with SDCL 46-1-4, which requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable.

It should be noted, that well interference (drawdown) measured at Water Rights' observation wells located near high capacity municipal wells in Spearfish, Sturgis and Rapid City has never been significant (e.g. see figure 7).

Given the distance between the well site proposed by this application and existing Madison wells well interference is not expected to be adverse.

SPRINGS:

There are a number of springs in the Rapid City area (see figure 9) that based on hydrochemistry, originate from the Madison aquifer (Putnam and Long, 2009). These springs are classified as Type 2 springs by Rahn and Gries (1973), meaning "The springs do not dry up and serve as points of permanent discharge from the carbonate aquifer."



Figure 9. Springs in the Rapid City area in relation to the well site proposed by Application No. 2669-2.

Flow from some area springs can be relatively steady, whereas flow from others may fluctuate considerably. Topographic altitude, hydraulic head variation, and hydraulic properties of the overlying material can all affect springflow rates (Long and Putnam, 2002). The average springflow from the area for Water Years 88-97 was estimated to be 31 cfs. Total springflow averaged 25.3 cfs during dry periods and 37.4 cfs for wet periods. (Long and Putnam, 2002).

A decline of the potentiometric surface in the vicinity of the springs could decrease spring discharge. In the past, the Water Management Board has recognized that South Dakota Water Law does not protect artesian head pressure as a means of diversion and determined that well interference resulting in decreased discharge from “artesian” springs probably does not constitute an adverse impact. The Board has however recognized that “public interest” concerns exist if decreased discharge of springs and ultimately base flows in area streams could result from well interference. In fact, when considering the deferral of Water Permit Application No. 2585-2 for Southern Black Hills Water System, the Water Management Board adopted a conclusion of law (No. 11) which states in part “The only protection South Dakota law provides when considering an application for an underground water permit for flow from an artesian spring is under the public interest criteria.” (Water Rights, 2007).

Putnam and Long (2009) developed a numerical groundwater-flow model of the Minnelusa and Madison aquifers in the Rapid City area to analyze the effect of additional stress on the aquifers’ water levels and on the discharge of area springs. Their simulated effect of increased pumping from existing production wells on springflow from Jackson-Cleghorn Springs was a decrease in springflow equal to about 30 percent of the increase in pumping rate at 6 months increasing to about 50 percent of the increase in pumping rate after 10 years of pumping. Putnam and Long (2009) concluded that “The influence of potential pumping stresses on springflow is an important consideration in evaluating management alternatives”.

The Putnam and Long model is one of the most detailed and is probably the most representative models currently available for the Rapid City area; however, the model is limited by simplifying assumptions necessary to represent this complex hydrogeologic system. Under steady-state conditions, the simulated potentiometric surface for the Madison was more frequently lower than the observed hydraulic head (i.e. the model overstated drawdown in the area). Since the reduction of springflow is in part hydraulic head dependent, it can be inferred that the actual reduction of springflow that has resulted from the 7 cfs pumping is also less than 3.5 cfs (50% of the pumping rate after 10 years of pumping). Regardless of the precision of the model, it is clear that this appropriation (14 ac-ft/yr) will have an insignificant impact on the springflow. This is particularly true in light of the natural variability of the spring discharge.

In theory, the cumulative impact of pumping from the Madison aquifer could eventually affect springflow. If this and subsequent permits approved from the Madison aquifer in this area contain a qualification similar to Qualification No. 5 on Permit No. 2633-2, (i.e. “The Applicant, Water Permit Holder, under this permit shall control withdrawals from the well so there is not a significant adverse effect on the water flow from area springs or a significant adverse effect on the water quality and character in area springs”), the Water

Management Board would have the ability to reduce withdrawals on a priority basis if it is determined that the springflow has been “ significantly adversely effected.”

TERM LIMITATION:

SDCL 46-2A-20 requires that "... no water permit for construction of works to withdraw water from the Madison formation in Butte, Fall River, Custer, Lawrence, Meade and Pennington counties may be issued for a term of more than twenty years, unless the water management board determines, based upon the evidence presented at the hearing that:

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

Pursuant to SCL 46-2A-21, “at the end of the twenty-year limitation, the board may cancel a permit or amend the permit with a new term limitation of up to twenty years, if the board is unable to make a finding after notice and hearing that sufficient information is available to delete the term.”

Although the criteria for approval of a water permit established by SDCL 46-2A-9 are met, (i.e., there is a reasonable probability that unappropriated water is available for the applicant's proposed use, and this proposed diversion can be developed without unlawful impairment of existing rights); evidence is not available to justify issuing this permit without a term limitation of 20 years.

CONCLUSIONS:

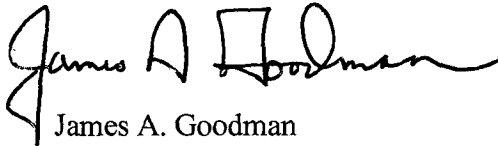
1. The Madison aquifer is a major regional aquifer and a viable source of water for this proposed appropriation.
2. This application proposes to appropriate 0.10 cubic feet of water per second. This appropriation total is 14 ac-ft/yr
3. There is a reasonable probability that unappropriated water is available in the Madison aquifer to supply this appropriation.
4. There is a reasonable probability this appropriation can be made without adversely impacting existing water rights including domestic users.
5. Information is not available to justify issuing these permits without a term limitation of 20 years.
6. Following notice and a public hearing, the Water Management Board can cancel this permit or amend it with a new term limitation after twenty years.
7. This proposed diversion will not have a significant impact on area springflow.



Ken Buhler

SD DENR-Water Rights Program

Approved by



James A. Goodman

SD DENR-Water Rights Program

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Affidavit of Publication

RECEIVED

STATE OF SOUTH DAKOTA

SEP 14 2011

County of Pennington

SS:

WATER RIGHTS
PROGRAM

Aug. 17, 24

L20600208

NOTICE OF APPLICATION

NO. 2669-2 to Appropriate Water

Notice is given that Diocese of Rapid City and St. Elizabeth Seton Central School Corp., c/o Steven Biegler, 606 Cathedral Drive, Rapid City SD 57701 has filed an application for a water permit to appropriate 0.1 cubic feet of water per second from one well completed into the Madison Formation (950 feet deep) located in SE 1/4 NW 1/4 Section 29 for irrigation of 7 acres located in the E 1/2 NW 1/4 Section 29; all in T2N-R7E.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends AP-PROVAL of Application No. 2669-2 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

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 September 5, 2011.

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. Contact Eric Granlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

(Published twice at the total approximate cost of \$103.24).

Carina Tyler 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 Week for two successive weeks, the first publication there of being on the Seventeenth day of August that the fees charged for the publication there of are One hundred three dollars and twenty four cents.

Carina Tyler

Subscribed and sworn to before me this 12th day of September, 2011.

Kerri Berard

Notary public

KERRI BERARD
NOTARY PUBLIC

MY COMM. EXP. AUGUST 21, 2013

My commission expires



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 8, 2011

Rapid City Journal
PO Box 450
Rapid City SD 57709

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2669-2 to Appropriate Water to be published twice. Please publish the first notice on August 16, 2011 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Diocese of Rapid City, St. Elizabeth Seton Central School Corp., c/o Leon Lunders, PO Box 678, Rapid City SD 57709 (Ph # 605-343-3541).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 2669-2

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of August 8, 2011 enclosing Notice to Appropriate Water by Application No. 2669-2 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

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

August 8, 2011

Diocese of Rapid City
St Elizabeth Seton Central School Corp
Leon Lunders
PO Box 678
Rapid City SD 57709

Dear Mr. Lunders:

Water Permit Application No. 2669-2 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Rapid City Journal printed at Rapid City SD (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, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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
eric.gronlund@state.sd.us

enclosures

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

Instruction to Newspaper - Publish first Notice on August 16, 2011 with the second publication 7 days later. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2669-2 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

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 September 2, 2011.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published twice at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

JAN 10 2012

Diocese of Rapid City
St Elizabeth Seton Central School Corp
Leon Lunders
606 Cathedral Dr
Rapid City SD 57701

Dear Mr. Lunders:

Enclosed is Water Permit No. 2669-2 authorizing construction of your 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures



2669-2
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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Sincerely,

Garland Erbe

Garland Erbe, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

— please delete.

— please delete
all previous correspondence
referred to permit # 2673-2.
2669-2 does not include request for 0.044 cfs
additional use. Leon

RECEIVED

JAN 18 2012

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 1-17-2012

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

FROM: Diocese of Rapid City & St. Elizabeth Seton Central School Corp.
Leon Lunders (name)
606 Cathedral Dr. (address)
Rapid City SD 57701 (city, state, zip) 605-343-3541 (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.

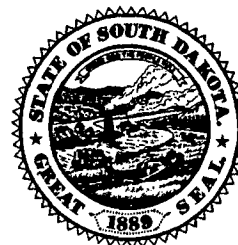
Water Permit No. 2673-2 states that the water use system is to be constructed by November 16, 2016, and water is to be put to beneficial use by November 16, 2020.
(date) (date)

The water use system was completed on August 19, 2011.
(date)

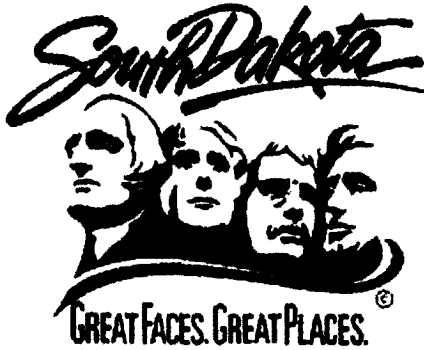
Applying the water to beneficial use was completed on JANUARY 17, 2012.
(date)

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

Leon Lunders
(signature)



2669-2



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

February 2, 2012

2669-2
2673-2

Leon Lunders
Diocese of Rapid City
St Elizabeth Seton Central School Corporation
606 Cathedral Dr
Rapid City SD 57701

Dear Mr. Lunders:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with the water use system.

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 the project and the staff inspection has no bearing on your water permits. Someone from our office will contact you prior to the inspection to set up a time that is convenient for you.

Prior to sending in the completion form, I spoke with you on the phone concerning the permits. At that time you were thinking that one of the permits was a duplication and not needed. I reviewed the permits and both are needed. Water Permit No. 2669-2 was the first permit and authorized use of water from the Madison well for irrigation of 7 acres. Water Permit No. 2673-2 was obtained to increase the diversion rate from the same well. When the project is inspected and licensed, the two permits will be then be incorporated together and one license will be issued.

I am returning the original copies of the permits to you. They are for your records. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath".

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

2669-2



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

JUL 05 2013

2669-2
2673-2

Leon Lunders
Diocese of Rapid City &
St Elizabeth Seton Central School
606 Cathedral Dr
Rapid City SD 57701

Dear Mr. Lunders:

Enclosed is Water License No. 2673-2. 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 the owner of an existing well, such as the well authorized by Water Right No. 2673-2, 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.

The applicable portions of Water Permit No. 2669-2 were incorporated into Water License No. 2673-2. 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