

WATER PERMIT NO. 8018-3

Name of Applicant: GCC Ready Mix

Address: 1011 330th St, Bellingham MN 56212

Phone: 320-568-2211

Amount of Water Claimed: 0.22 cfs

Total Acres: NA

Source of Water Supply: groundwater (one well)

Water to be used for: commercial

County: Brookings

Type of Waste Disposal System:

Location: northwest edge of Brookings

PRIORITY

Date Received: 5-12-14

Application/License Fee: \$ 950

Corrected Application Received: 5-27-14

Period of Annual Use: Jan 1 – Dec 31

Remarks:

Diversion Point: NW 1/4 NW 1/4 Sec 23-T110N-
R50W

Land to be Irrigated: NA

Depth of Well: 53 feet deep

Well Driller: Kaiser Well Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 5-27-14

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

	⊗				
			23		

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8018-3</u>	(office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register</u>	
	<u>Box 177 52006-605-692-6271</u>	

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MAY 12 2014

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Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☐ 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.)

- Name of Applicant GCC Ready Mix Phone 320-568-2211
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 1011 330th St. Bellingham Mn. 56212
(Address) (City) (State) (Zip Code)
- Amount of water claimed 0.22 *CFS or 100 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply groundwater (one well)
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Brookings
OUTLOTS ADDITION, OLS 14-15 + OL "B" OF OL 18 OF NW 1/4 SEC.
23-110-50 (NW 1/4 NW 1/4)
- County or counties where water will be used Brookings
- Annual period during which water is to be used Year Round Jan 1 - Dec 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

STATE OF SOUTH DAKOTA)
County of Brookings)

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, Tom Henrich, 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 [Signature]Subscribed and sworn to before me this 7th day of May 20 14
[Signature]
 Notary Public signature

SOUTH DAKOTA
TEMPORARY WATER USE PERMIT NO. 8018-3

Date of first receipt of application May 12, 2014.

Date of return to applicant for corrections, amendments or changes May 13, 2014.

Date of receipt of corrected application May 22, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Temporary Water Use Permit No. 8018-3 to GCC Ready Mix, 1011 330th St, Bellingham MN 56212 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. Temporary Water Use Permit No. 8018-3 appropriates 0.22 cubic feet of water per second from one well to be completed into the Big Sioux:Six Mile Creek Aquifer (53 feet deep) located in the NW 1/4 NW 1/4 Section 23-T110N-R50W.
2. The water appropriated shall be used for the purpose of commercial use in concrete production and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 8018-3 is August 11, 2014.
5. The date from which applicant may claim right is May 12, 2014.
6. One-fifth of the construction is to be completed on or before February 11, 2017.
7. All construction is to be completed on or before August 11, 2019.
8. Water is to be put to beneficial use on or before August 11, 2023.
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 city of Brookings has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if or when the future use permit holder fully develops its reserve water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six month notice prior to cancellation of this temporary use permit.
2. The well authorized by Temporary Use Permit No. 8018-3 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.
3. The water permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Six Mile Creek management unit of the Big Sioux aquifer.

WATER MANAGEMENT BOARD

By: *Jeanne Goodman*

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

SEP 04 2014

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 Kaiserwell Drilling INC.
(if yes, please provide copies of logs)
- b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by KWP
- c) Well Depth 53' Depth to Top of Water Bearing Material 23 Depth to Water from Surface 8'
- d) Distance to nearest existing domestic well:
On applicant's property 200 On property owned by others 1000'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) SEPTIC TANK
- b) System Capacity (gallons) 1000 gal Year Constructed Tank installed in 1976
- c) Connected to the City of _____ Sanitary System New drain field installed in 2010 by Prussman

3. Dugout Information

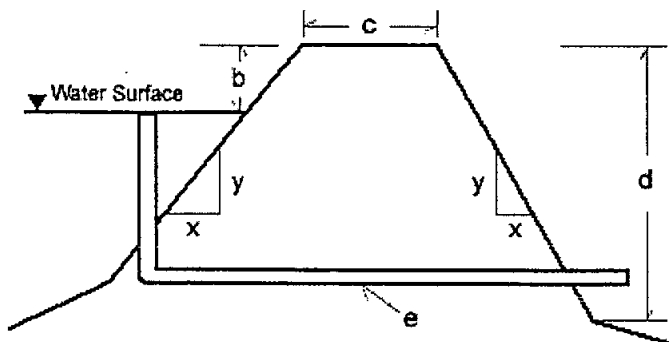
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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



Sec 15
T110N
R50W

Sec 14
T110N
R50W

Sec 13
T110N
R50W

Sec 22
T110N
R50W

Sec 23
T110N
R50W

Sec 24
T110N
R50W

Sec 27
T110N
R50W

Sec 26
T110N
R50W

Sec 25
T110N
R50W



1510 WESTERN AVE. BLOOMING S.D.



Google earth

feet
meters



200

800



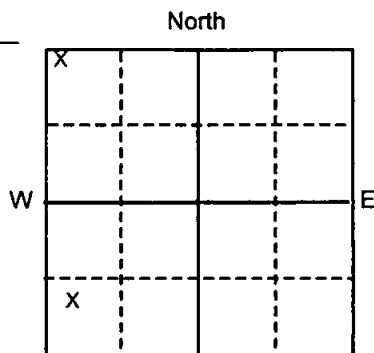
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SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NW ¼ NW ¼ Sec 23 Twp 110N Rg 50WCounty BROOKINGSPlease mark well
location with an "X"

Well Completion Date

11-6-2013

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

PROPOSED USE:

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

METHOD OF DRILLING:

DRD

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
21.0 LB/FT	5.00 IN	2.0 FT	43.0 FT	8.75 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
GWDF	10	54.0 Lb/gal	0.0 Ft	43.0 Ft
_____	_____	_____ Lb/gal	_____ Ft	_____ Ft

Describe grouting procedure

TREMIE/PPM

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 5.00 InchesLength 10.0 FeetMaterial PLASTICSlot Size .035 Set From 43.0 Feet to 53.0 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? _____
☐ No, Why Not? _____
Lab to which water
quality sample sent for analysisWell Owner: GCC READY MIX

Business Name: _____

Address: 1510WESTERN AVECity, State, Zip: BROOKINGS SD 57006

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	1
YELLOW GRAVEL MIXED	1	16
BLUE CLAY	16	23
MED GREY	23	37
COURSE GREY	37	43
MED-COURSE	43	53

STATIC WATER LEVEL 8.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: 100.0 GPM

REMARKS

WELL NOT HOOKED UP

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report is true and accurate.Drilling firm: KAISER WELL DRILLING INC

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 5/27, 20 14

RECEIVED OF GCC Consolidated Redi Mix 2825 W Paisano El Paso TX 79922

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

Fee for Application for Permit No. <u>8018-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>8018-3</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	950 00

No. **06865**

By J. [Signature] Goodman
Chief Engineer



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



March 26, 2014

GCC Ready Mix
1510 Western Ave
Brookings SD 57006

Dear Sir:

I am writing in regard to a well driller's report filed with our office on January 31, 2014 by Kaiser Well Drilling Inc. The report indicates they completed a well for GCC Ready Mix on November 6, 2013 for industrial use. Based on this information, you may need a water permit for this water use.

1. According to state law, a water permit is needed for any water use except for reasonable, private domestic use. Reasonable domestic use is defined as use of less than 25,920 gallons per day with a maximum rate not to exceed 25 gallons per minute.
2. Also, as a new well owner, you need to be aware of some of your responsibilities. Enclosed is a copy of "Well Owner Responsibilities". Please review these responsibilities to ensure you are complying with all of the requirements.

Enclosed is an application form and instruction sheet to apply for a water permit. The completed form with the application fee and map can be returned to: Water Rights Program, 523 E. Capitol, Pierre, SD 57501. Please respond by May 1, 2014.

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 Ron Duvall or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

Karen Schlaak

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

enclosures



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



May 13, 2014

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MAY 22 2014

WATER RIGHTS
PROGRAM

GCC Ready Mix
c/o Tom Henrich
1011 330th St
Bellingham MN 56212

Dear Mr. Henrich:

Thank you for submitting the *Application for a Permit to Appropriate Water* for commercial use in Brookings County. In order to complete the application, the following is required.

- Enclosed is the aerial photo map submitted with the application. The map needs to reference a government section corner or quarter corner including section, township and range. For your use, I have enclosed a map with those designations. Please mark the well location with an "X".
- The application/license fee will be \$950.00. Please submit this amount.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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

enclosure



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MAY 22 2014

WATER RIGHTS
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1011 330th St
Bellingham, MN 56212

Karen,

I attached the marked aerial map to this note. You should receive our payment of \$950.00 soon (it is being mailed from a different GCC office). Let me know if you need anything else.

Thank you,

Brianna Kanstrup

GCC Ready Mix
1011 330th St
Bellingham, MN 56212
320-568-2211

Gronlund, Eric

From: Brianna Kanstrup <bkanstrup@gcc.com>
Sent: Thursday, May 29, 2014 10:57 AM
To: Gronlund, Eric
Subject: Brookings Plant

Hi Eric,

I was able to find out the information about our Brookings plant that you called about a couple days ago.

It is used for concrete production. No recycling/reusing.

Let me know if you have any other questions.

Thanks,
BRIANNA KANSTRUP
GCC READY MIX
PH: 320-568-2211
FAX: 320-568-2612



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8018-3, GCC Ready Mix**

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. 8018-3, GCC Ready Mix, c/o Tom Henrich, 1011 330th Street, Bellingham MN 56212.

The Chief Engineer is recommending APPROVAL of Application No. 8018-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holder of a future use permit fully develops water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit 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 city of Brookings has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if or when the future use permit holder fully develops its reserve water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six month notice prior to cancellation of this temporary use permit.
2. The well authorized by Temporary Use Permit No. 8018-3 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.
3. The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Six Mile Creek management unit of the Big Sioux aquifer.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
July 24, 2014

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8018-3
GCC READY MIX
C/O TOM HENRICH
JULY 24, 2014

Water Permit Application No. 8018-3 proposes to appropriate water at a maximum diversion rate of 0.22 cubic feet of water per second (cfs) from one well to be completed into the Big Sioux: Six Mile Creek aquifer for commercial use in concrete production. The well is expected to be 53 feet deep and to be located in the NW ¼ NW ¼ Section 23; T110N-R50W in Brookings County.

AQUIFER: Six Mile Creek management unit of the Big Sioux aquifer (BS:SMC)

Aquifer Characteristics:

The Big Sioux aquifer is primarily “composed of well-sorted, very permeable glacial outwash sand and gravel, mostly medium to very coarse sand and very fine to medium gravel” (Hamilton, 1989). The Big Sioux: Six Mile Creek aquifer ranges in thickness of near zero to approximately 60 feet thick (Hamilton, 1986; Koch, 1980). The management unit is generally not buried in the area of this application, but may be buried by glacial till (Hamilton, 1986). In the area of the application, the water table of the management unit ranges from five to 10 feet below grade (Hamilton, 1986). The management unit is predominantly under unconfined conditions but may be confined locally especially when not near the Big Sioux River or major tributaries of the river (Hamilton, 1986).

Hedges and others (1982) estimated the Big Sioux: Six Mile Creek aquifer underlies approximately 4,200 acres while Koch (1982) modeled the entire Big Sioux aquifer with the portion covering the Six Mile Creek management unit as approximately 8,935 acres. Figure 1 is a map of the area including the Big Sioux: Six Mile Creek aquifer as estimated by Hedges and others (1982), shown in green, a cross-hatched area that represents the applicable portion of the model area for Koch (1980), the first occurrence of aquifer materials map from Schulz (2004), and the locations of the observation wells and water rights/permits completed into the Big Sioux: Six Mile Creek aquifer (Water Rights, 2014a and 2014b). The water rights/permits shown and labeled in Figure 1 are listed in Table 1. The first occurrence map, the background map in Figure 1, clearly shows that the Big Sioux: Six Mile Creek aquifer extends beyond the areas shown by both Koch (1980) and Hedges and others (1982), and the Six Mile Creek management unit is interconnected with other management units of the Big Sioux aquifer.

The test well log submitted with the application identified aquifer material from ground surface to 16 feet below grade, blue clay from 16 to 23 feet below ground surface, and aquifer material from 23 to 53 feet below grade. The static water level was 8 feet below grade in November 2013.

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 this 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 effects on existing rights from the aquifer that are pertinent to this application.

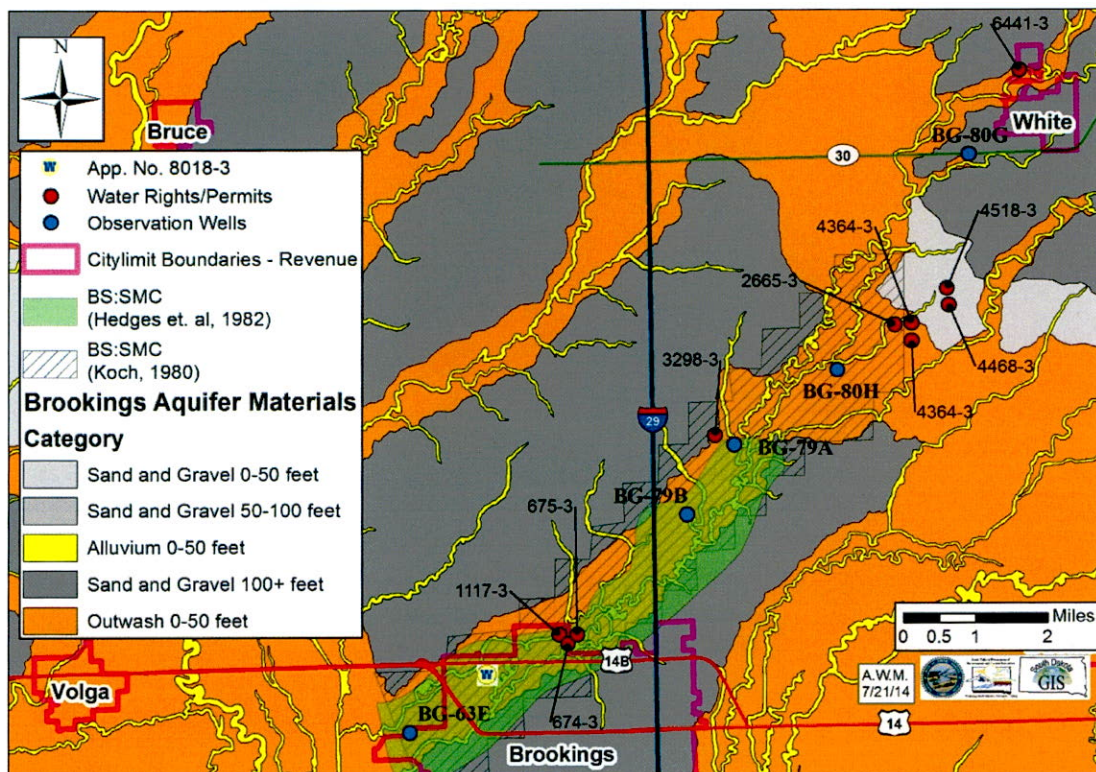


Figure 1- Map of the Six Mile Creek management unit from Hedges and others report (1982), model area from Koch (1980), and first occurrence of aquifer materials map from Schulz (2004) with observation wells and water rights/permits (Water Rights, 2014a and 2014b)

WATER AVAILABILITY:

This application proposes to appropriate water from the Big Sioux: Six Mile Creek aquifer. This application is estimated to use 6.1 acre-feet per year (ac-ft/yr) (Henrich, 2014). The probability of unappropriated water available from the 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 or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a public water system.

In applying SDCL 46-6-3.1, the Sixth Judicial Circuit Court ruled in 2005 that if the Water Management Board uses average annual recharge, then it should also use average annual withdrawals to determine if unappropriated water is available from the aquifer (*Hines v. South Dakota Dept. of Environ. and Nat'l Resources, Hughes County 04-37*) (Memorandum Decision, April 29, 2005).

A 2012 First Judicial Circuit Court's rulings ultimately stated that data must be present to show it is probable the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (*Hanson County Dairy v. Robert Bender and Stace Nelson*) (Memorandum Decision, April 11, 2012).

Later in 2012, the First Judicial Circuit Court stated that in deciding whether or not it is probable that the quantity of water withdrawn will exceed the quantity of the average estimated annual recharge is to be based according to the best information reasonably available, and that nothing in South Dakota law requires a recharge study (*Longview Farms, LLP v. South Dakota Dept. of Environ. and Nat'l Resources*) (Memorandum Decision, May 17, 2012).

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 to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors five observation wells completed into the Big Sioux: Six Mile Creek aquifer (Water Rights, 2014a). The location of the observation wells and water rights/permits are shown in Figure 1. In general, the hydrographs indicate a stable water level over the period of record. The water level in the observation wells shows good response to climatic conditions. The water level rises (recharge) during wet years and gradually declines during dry years. This indicates the aquifer is being recharged. The hydrographs for the observation wells completed into the management unit are shown in Figures 2, 3, 4, 5, and 6.

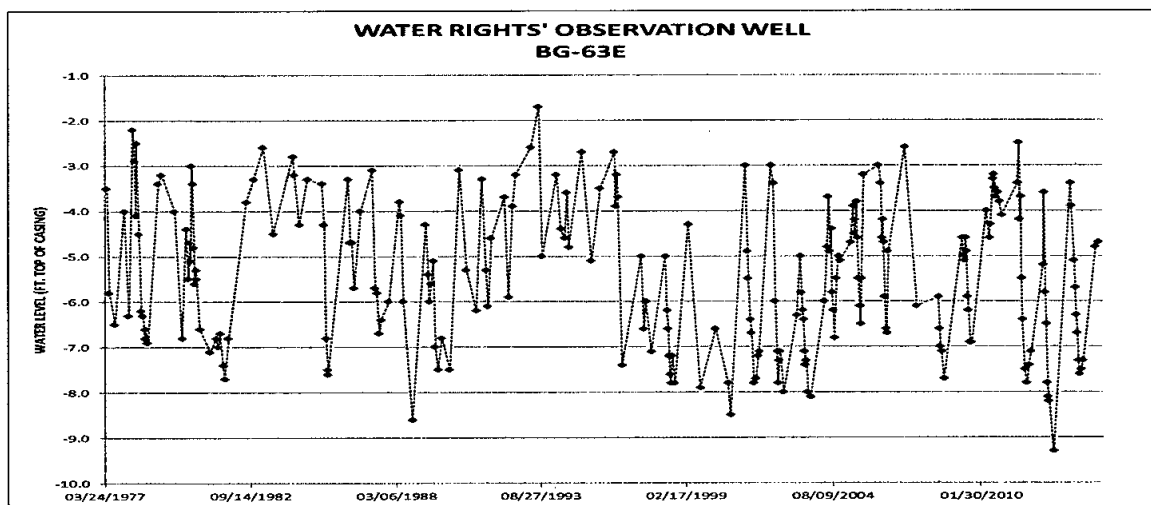


Figure 2- Hydrograph for observation well BG-63E (Water Rights, 2014a)

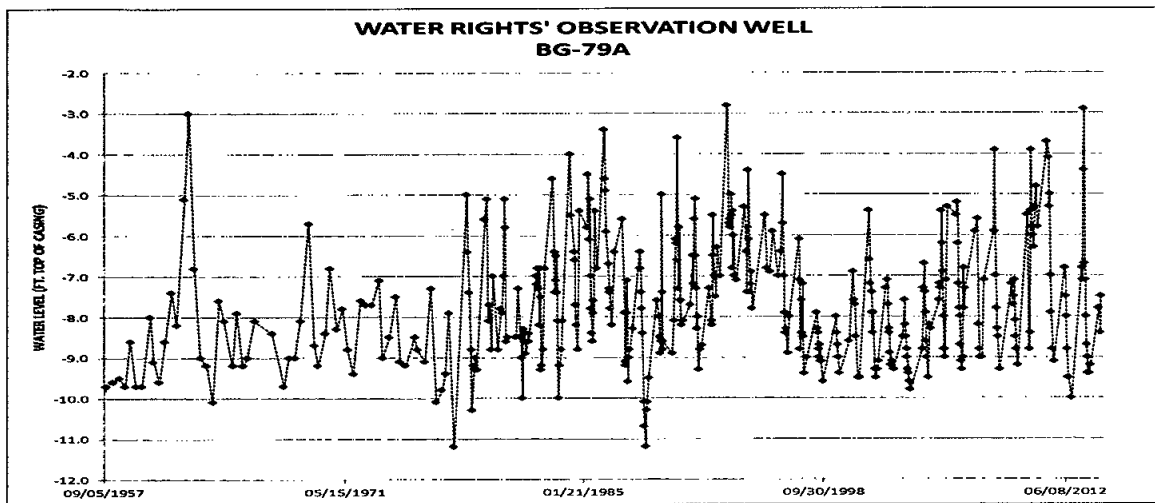


Figure 3- Hydrograph for observation well BG-79A (Water Rights, 2014a)

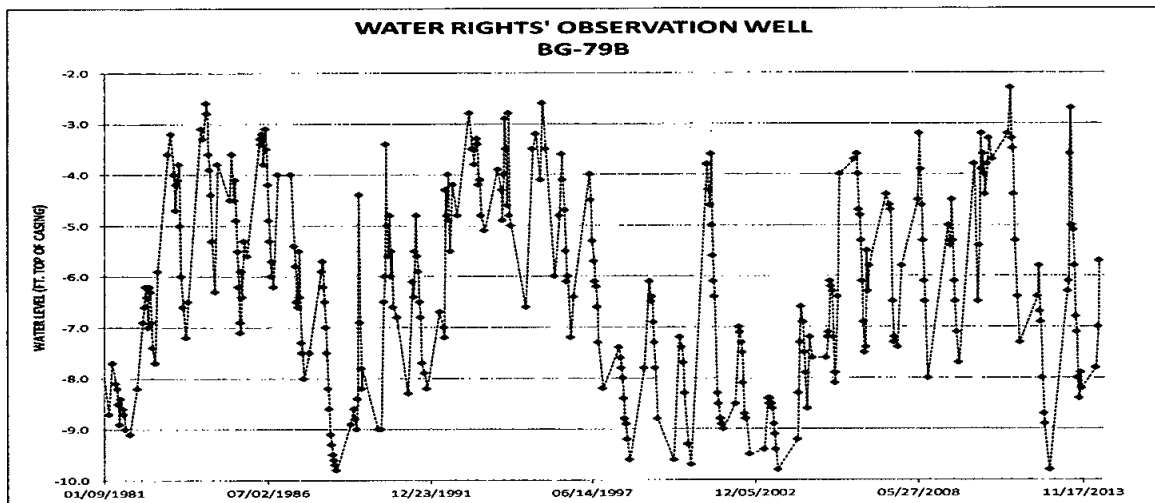


Figure 4- Hydrograph for observation well BG-79B (Water Rights, 2014a)

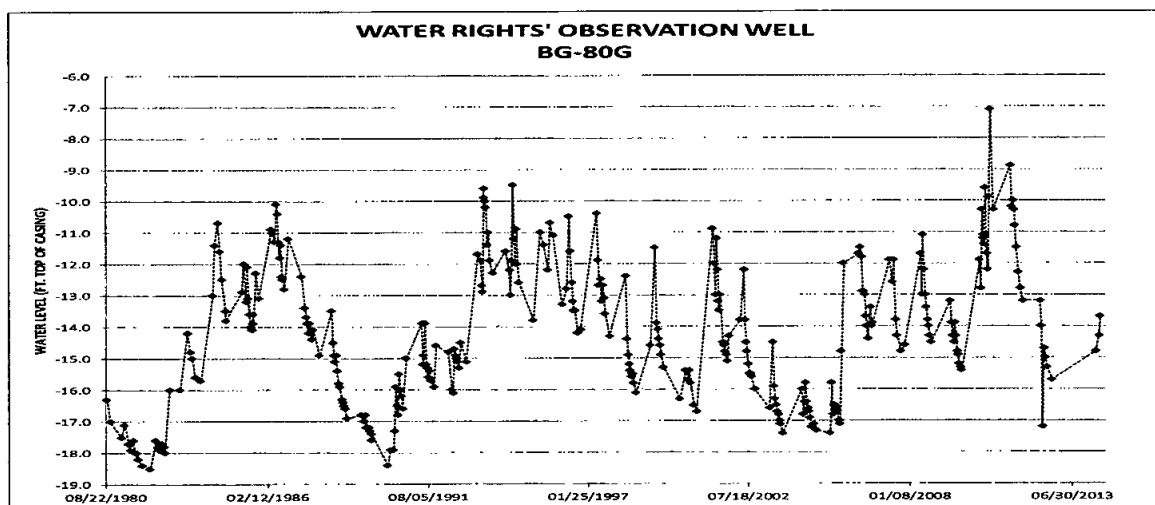


Figure 5- Hydrograph for observation well BG-80G (Water Rights, 2014a)

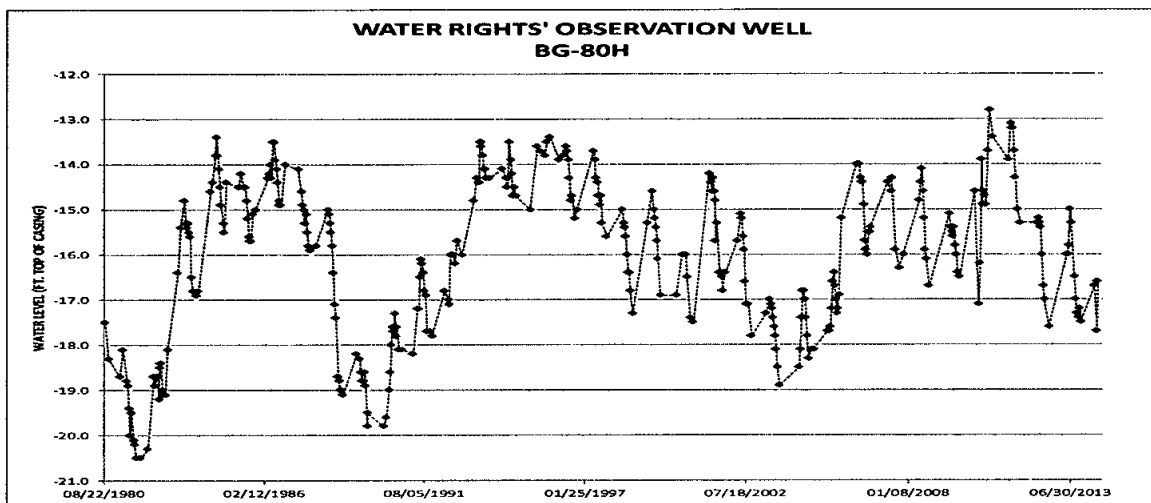


Figure 6- Hydrograph for observation well BG-80H (Water Rights, 2014a)

Hydrologic Budget:

Discharge:

Discharge from the Big Sioux: Six Mile Creek aquifer occurs due to outflow to the Big Sioux: Brookings aquifer and to Six Mile Creek, evapotranspiration, and well withdrawals (Hamilton, 1989). Currently, there are 12 water rights/permits authorizing the withdrawal of water and one future use permit, Future Use Permit No. 217-3 for the City of Brookings, reserving water from the Big Sioux: Six Mile Creek aquifer (Water Rights, 2014b). The water rights/permits and future use permit as well as expected maximum annual use is shown in Table 1. Since the water rights/permits are limited by diversion rate only, the expected maximum use is estimated on pumping at the maximum permitted diversion rate for 60 percent of the time. The actual pumpage from the Big Sioux: Six Mile Creek aquifer by the City of Brookings is shown in Table 2. The historic annual irrigation use from the management unit is shown in Table 3.

Permit No.	Name	Status	Use	CFS	Acres	Expected Use (ac-ft)
216-3	City of Brookings	LC	MUN	3.85		1672.4
217-3	City of Brookings	FU	MUN	0		1612 ¹
674-3	City of Brookings	LC	MUN	1.33		577.7
675-3	City of Brookings	LC	MUN	1.33		577.7
1117-3	City of Brookings	LC	MUN	1.44		625.5
1296-3	City of Brookings	LC	MUN	1.33		577.7
2665-3	Walter Olson	LC	IRR	1.86	130	
3298-3	Horace Fishback Trust	LC	IRR	1.54	108	
4364-3	Kenneth & Tamara Krein	LC	IRR	3	255	
4468-3	Alvin Schmidt	LC	IRR	1.78	280	
4518-3	Glenn Thompson	LC	IRR	2.79	304	
6441-3	Six Mile Creek Golf Course	LC	IRR	0.67	51	
LC= Water Right, FU= Future Use, MUN= Municipal, IRR= Irrigation, ¹ = Future Use Reservation						
Total						5643
Total w/o future use						4031

Table 1- Water Rights/Permits authorized to withdraw water from the Big Sioux: Six Mile Creek aquifer including future use reservation volume (Water Rights, 2014b)

Year	Water Pumped (ac-ft)
2000	623.7
2001	582.6
2002	797.5
2003	488.8
2004	415.7
2005	428.5
2006	599.8
2007	597.1
2008	1206.6
2009	1042.2
2010	524.4
2011	459.9
2012	870.6
2013	735.8
Avg.	669.5

Table 2- Water pumpage from the management unit by the City of Brookings (Naatjes, 2014)

Year	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)
2012	8	4120	878.39
2011	8	4120	134.26
2010	8	4120	36.02
2009	8	4120	185.38
2008	8	4120	407.27
2007	8	4120	409.61
2006	8	4120	425.21
2005	8	4120	233.68
2004	8	4120	490.81
2003	7	4018	619.05
2002	7	4018	673.19
2001	7	4018	486.75
2000	7	4018	301.61
1999	7	4018	580.54
1998	7	4018	589.74
1997	7	4018	778
1996	7	4018	392.21
1995	7	4018	48.17
1994	7	4018	450.85
1993	7	4018	41
1992	7	4018	208.3
1991	7	4018	381
1990	7	4018	276
1989	7	4018	624.8
1988	7	4980	1177
1987	3	1950	91
1986	4	2334	0
1985	4	2334	131
1984	4	2334	111
1983	3	1950	124.67
1982	3	1950	113.23
1981	8	4682	118
1980	8	4682	126.29
1979	8	4682	77
Min	3	1950	0
Max	8	4980	1177
Avg.	6.7	3800.8	344.7

Table 3- Historic irrigation water use from the Big Sioux: Six Mile Creek aquifer (Water Rights, 1980-2013)

Recharge:

Recharge is primarily from infiltration of precipitation (Hamilton, 1989) and may come from area streams and the Big Sioux River during periods of high stage in the streams and river. Both Koch (1980) and Hedges and others (1985) estimated recharge to the Big Sioux aquifer. Table 4 shows the recharge rates as well as the recharge estimates using the area of Koch's (1980) model. The most likely range of recharge rates is 3.6 to 5 in/yr.

Report	Methodology		Recharge Rate (in/yr)	Recharge Rate (ac-ft/yr) ^A
Koch, 1980	Permeability Rate	Unconfined	6.57	
		Confined	3.29	
	Hydrologic Budget ^B		4.8	3,574
	Best Fit Model		3.6	2,681
Hedges and others, 1985	Observation Well		5	3,723
^A = using Koch's (1980) area, 8,935 acres, ^B = Simulated hydrologic budget under equilibrium				

Table 4- Estimate recharge rates to the Big Sioux: Six Mile Creek aquifer

Hydrologic Budget:

Recharge to the management unit, based on the model area from Koch (1980) and recharge rates from both Koch and Hedges and others (1982), ranges from 2,681 to 3,723 ac-ft/yr. Increased pumping can capture water that is lost to stream flow and evapotranspiration. Average annual irrigation withdrawal is 344.7 ac-ft/yr and the future use reservation for the City of Brookings is 1,612 ac-ft/yr. The future use reservation can be fully developed. The City of Brookings current average annual withdrawal is 669.5 ac-ft/yr with a maximum, since 2000, of 1,206 ac-ft/yr. However, the expected maximum usage by the city is 4,031 ac-ft/yr, which is pumping 60 percent of the time at the permitted diversion rate.

Naatjes (2014), the water/waste water plants operations foreman for the city, stated the City of Brookings obtains approximately 24 percent of its water from the Big Sioux: Six Mile Creek aquifer on average. Furthermore, Naatjes (2014) said the City of Brookings is initiating a water study in 2014 with the intention of building a new water treatment plant within the next 5 to 10 years. If the plant were placed near Six Mile Creek, Naatjes (2014) expected the pumpage by the city from the management unit to likely double or triple.

At the current level of development the City of Brookings on average pumps 669.5 ac-ft/yr from the management unit. That is 9.97 percent of permitted maximum pumpage or pumping at the maximum permitted rate on average 2.4 hours per day (hr/d). Assuming the most likely range of recharge to the management unit, 2,681 to 3,574 ac-ft/yr, full development of the city's future use permit, and irrigation pumpage staying constant, the City of Brookings would only need to increase pumpage from 9.97 percent of permitted maximum to between 10.78 and 24.07 percent of maximum (2.6 to 5.7 hr/d) to have average annual withdrawals and future use reservation exceed average annual recharge. The city in 2008 pumped at 18 percent of maximum permitted pumpage (4.3 hr/d). Thus, an increase in pumpage by the city is very possible. Increasing

pumpage from the existing municipal permits plus full development of future use reservation plus constant average irrigation withdrawals may exceed recharge to the management unit. Therefore, there is not a reasonable probability that unappropriated water is available for this proposed appropriation.

However, SDCL 46-5-39 allows the water reserved by a future use permit to be put to beneficial use until the water reserved by the future use permit is put to beneficial use by the future use permit holder. When the future use permit is developed, the chief engineer may cancel the temporary permit as long as at least six months notice is given to the temporary permit holder. Therefore, there is a reasonable probability that unappropriated water is available for this proposed appropriation under a temporary permit pursuant to SDCL 46-5-39.

EXISTING WATER RIGHTS:

The nearest wells authorized by water rights/permits are approximately 1.1 miles northeast of the proposed well site (Water Rights, 2014b). There are a number of domestic wells on file with the SD DENR-Water Rights Program within approximately 0.5 miles of the proposed well site (Water Rights, 2014c). The nearest domestic well on file with the DENR-Water Rights Program is approximately one-quarter mile south of the proposed well site (Water Rights, 2014c).

Six Mile Creek is a Topeka Shiner stream. The well site proposed by this application is approximately one-quarter mile from Six Mile Creek. At that distance and the small diversion rate requested by this application, there is a reasonable probability that the pumping proposed by this application will not have an effect on the streamflow of Six Mile Creek, and therefore, no effect on the Topeka Shiner from any pumping proposed by this application.

In the area of this application, the Big Sioux: Six Mile Creek aquifer is under unconfined conditions. Since the Big Sioux: Six Mile Creek aquifer is under unconfined conditions, drawdown created from pumping the proposed well for this application is not likely to be significant far from the pumped well. The observation well hydrographs document that drawdown due to pumping is minimal. This is shown in the hydrographs for observation wells BG-79A and BG-79B, which are both within one-half mile of a high capacity well. Therefore, due to the distance between wells, the low drawdown created by pumping high capacity wells completed into the Big Sioux: Six Mile Creek, and the very small diversion rate, there is a reasonable probability that this proposed diversion can be made without adversely impacting existing appropriative or domestic users.

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the management unit is under unconfined conditions, drawdown due to pumping would not be significant far from the well site. Therefore, nearby adequate wells are not expected to be adversely or unlawfully impaired by this proposed diversion.

The Big Sioux: Six Mile Creek aquifer is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when the withdrawal exceeds recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the

aquifer. If the saturated thickness is reduced to the extent that water rights/permits can no longer pump at their developed or "historically established" diversion rates, this may be considered an adverse impact. If approved, the water permit should include a qualification that the well owner should 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.

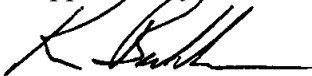
CONCLUSIONS:

1. This application proposes to appropriate water from the Big Sioux: Six Mile Creek aquifer at a maximum diversion rate of 0.22 cfs for commercial use in concrete production.
2. Based on the best information available, there is not a reasonable probability that unappropriated water is available for this proposed appropriation.
3. However, SDCL 46-5-39 allows for water reserved by a future use permit to be put to beneficial use until the holder of the future use permit can put the water to beneficial use. Therefore, pursuant to SDCL 46-5-39 there is a reasonable probability that there is unappropriated water available for this proposed appropriation under a temporary permit.
4. There is a reasonable probability that the diversion proposed by this application will not adversely impact existing appropriative or domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

Circuit Court of South Dakota, First Judicial Circuit, 2012, May 17, 2012 Memorandum Decision re: Longview Farms, LLP v. South Dakota Dept. of Environ. and Nat'l. Resources.

Circuit Court of South Dakota, First Judicial Circuit, 2012, April 12, 2012 Memorandum Decision re: Hanson County Dairy v. Robert Bender and Stace Nelson.

Circuit Court of South Dakota, Sixth Judicial Circuit, 2005, April 29, 2005 Memorandum Decision re: HU04-37 Hines v. SD Department of Environment and Natural Resources.

Hamilton, L.J. 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota. Water-Resources Investigations Report 88-4185. U.S. Geological Survey. Huron, SD.

Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.

Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.

Henrich, T. 2014. Personal Communication. Tom Henrich, Regional Manager GCC Ready Mix. July 21, 2014. Phone Call.

Koch, N.C. 1980. Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota. Water-Resources Investigations 80-100. U.S. Geological Survey. Huron, South Dakota.

Naatjes, T. 2014. "Groundwater use by Six Mile Creek." Message to Adam Mathiowetz; from Tony Naatjes Water/Waste Water Plants Operations Foreman, City of Brookings. July 9, 2014. E-mail.

Water Rights. 1980-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.

Water Rights. 2014a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2014b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights. 2014c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

AUG - 6 2014

WATER RIGHTS
PROGRAM

Affidavit of Publication

10/

State of South Dakota

ss

County of Brookings

Jennifer Milligan of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

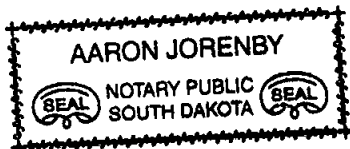
Leg#856 Notice on Application NO 8018-3 to Appropriate Water

same was published, is hereto attached marked Exhibit
said newspaper for _____ 1 times, to-wit:

August 1, 2014

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

twenty-five dollars and sixty cents \$25.60



August

4th

day of

2014

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires February 22, 2020.

Legal 856, 1x, 8/1
NOTICE OF APPLICA-
TION NO. 8018-3 to
Appropriate Water

Notice is given that GCC Ready Mix, c/o Tom Henrich, 1011 330th St, Bellingham MN 56212 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second from one well to be completed into the Big Sioux-Six Mile Creek Aquifer (53 feet deep) located in the NW 1/4 NW 1/4 Section 23-T110N-R50W for commercial use in concrete production.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8018-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holder of a future use permit fully develops water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use 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 August 11, 2014.

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 once at the total approximate cost of \$25.60.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



July 24, 2014

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 8018-3 to Appropriate Water. Please publish the notice once on August 1, 2014. 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 and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is GCC Ready Mix, c/o Tom Henrich, 1011 330th St, Bellingham MN 56212 (Ph # 320-568-2211).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

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



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(S) RIGHT AWAY.**

July 24, 2014

GCC Ready Mix
Tom Henrich
1011 330th St
Bellingham MN 56212

Dear Mr. Henrich:

Water Permit Application No. 8018-3 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 Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) 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(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
enclosures

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

Instruction to Newspaper - Publish the Notice on August 1, 2014. 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.

NOTICE OF APPLICATION NO. 8018-3 to Appropriate Water

Notice is given that GCC Ready Mix, c/o Tom Henrich, 1011 330th St, Bellingham MN 56212 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second from one well to be completed into the Big Sioux:Six Mile Creek Aquifer (53 feet deep) located in the NW 1/4 NW 1/4 Section 23-T110N-R50W for commercial use in concrete production.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8018-3 as a TEMPORARY USE PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary use permit until holder of a future use permit fully develops water reserved from their future use permit, 2) the proposed diversion can be developed as a temporary use permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use 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 August 11, 2014.

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 once at the total approximate cost of_____.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



SEP 04 2014

GCC Redi Mix
Tom Henrich
1011 330th St
Bellingham MN 56212

Dear Mr. Henrich:

Enclosed is Temporary Water Use Permit No. 8018-3 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,

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

enclosures

8018-3
RECEIVED
SEP 15 2014
WATER RIGHTS
PROGRAM

NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date 9/11/14

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

FROM:

GCC Ready Mix
(name)
1011 330th St.
(address)
Bellingham, MN 56212
(city, state, zip)

320-568-2211
(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. 8018-3 states that the water use system is to be constructed by

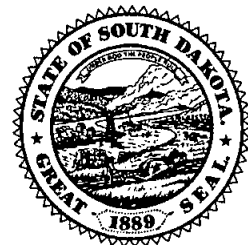
Aug. 11, 2019, and water is to be put to beneficial use by Aug. 11, 2023.
(date) (date)

The water use system was completed on 11-6-2013.
(date)

Applying the water to beneficial use was completed on 11-6-2013.
(date)

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

Buanna Kanstorp
(signature)





**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



September 15, 2014

8018-3

GCC Ready Mix
1011 330th St
Bellingham MN 56212

Dear Sir:

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 authorized under Water Permit No. 8018-3.

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,

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8018-3

I have this day, 26 October 2015, made a thorough examination of the water use system constructed by GCC Ready Mix, 1011 330th St., Bellingham, MN 56212 of Permit No. 8018-3, bearing the priority of 12 May 2014 authorizing the diversion of 0.22 cu. ft. per second of the waters of Six Mile Creek management unit of the Big Sioux aquifer for commercial use in concrete production, in Brookings County.

Inspection contact & relationship to permit holder, if applicable: **Luke Henrich**
Transportation manager

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Kaiser Well Drilling
- 2) No. of Wells one
- 3) Depth(s) 53 feet
- 4) Well log is available Yes

Comments:

Casing:

- 1) Diameter 5 inches
- 2) Length 43 feet
- 3) Type PVC

Screen:

- 1) Type PVC
- 2) Length 10 feet
- 3) Static water level 8 feet (6 November 2013)

Pump:

- 1) Make Goulds Submersible
- 2) Model 80GS75
- 3) Size 75 horsepower
- 4) Capacity 80 GPM

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

Well is located approximately 120 feet north of the office building and approximately 175 feet north west of the batch plant. The well is completed with a pitless adaptor and buried plastic pipes transport water from the well to the two buildings.

C. Works used to apply water to beneficial use: To supply redi mix cement plant

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA
- 3) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: 900 feet south and 525 feet east of the north west corner of Sec. 23, T110n-R60W, (Lat/Lon: 44.32372/-96.80660).
50
2. The works are capable of diverting and conveying to the place of use 0.178 cu. ft. per second of water which is to be used for commercial use. The license should be issued for 0.178 cfs.
3. All structures, wells and lands on map Yes



Ken Buhler

DENR, Water Rights Program

Date report completed: 1 January 2016

NW Corner
Sec.23, T110N-R50W

900'

525'

Legend

W Well



330

165

330 Feet

Base Map: FSA-2012-Statewide





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

8018-3

APR 12 2016

GCC Ready Mix
1011 330th St
Bellingham MN 56212

Dear Sir:

Enclosed is Reissued Temporary Water Use Permit No. 8018-3. This temporary water use permit was issued to reflect the system as developed. The reissued permit is based on an October 26, 2015 investigation done by Ken Buhler, a staff engineer with our program. A copy of his map is included showing the location of the diversion point and project facility.

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

The Reissued Temporary Water Use Permit is subject to the qualifications listed in the permit. If you have any questions, please contact our office.

Sincerely,

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

enclosures

**REISSUED
SOUTH DAKOTA
TEMPORARY WATER USE PERMIT NO. 8018-3
AS DEVELOPED**

On August 11, 2014, the Chief Engineer, on behalf of the Water Management Board, issued Temporary Water Use Permit No. 8018-3 to GCC Ready Mix, 1011 330th St, Bellingham MN 56212 authorizing construction of the water use system and placement of water to beneficial use.

1. On October 26, 2015, an investigation was conducted of the water use system described in Temporary Water Use Permit No. 8018-3. The investigation found the system had been developed as follows: A 53 feet deep well completed into the Big Sioux:Six Mile Creek Aquifer located 900 feet south and 525 feet east of the NW corner of Section 23-T110N-R50W (NW 1/4 NW 1/4) diverts 0.178 cubic feet of water per second for commercial use in concrete production.
2. The water is to be used during the following described annual period: January 1 – December 31.
3. The date from which applicant may claim right is May 12, 2014.
4. 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 city of Brookings has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to these prior rights if or when the future use permit holder fully develops its reserve water supply. The permit may be subject to cancellation when the water reserved under these future use permits is put to beneficial use. The Chief Engineer must provide the permit holder six month notice prior to cancellation of this temporary use permit.
2. The well authorized by Temporary Use Permit No. 8018-3 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. ***The well was drilled by Kaiser Well Drilling Inc. in November 2013. A copy of the log is on file with the Water Rights Program.***
3. The water permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Six Mile Creek management unit of the Big Sioux aquifer. ***Annual water use records are on file with the Water Rights Program.***

WATER MANAGEMENT BOARD

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

APR 12 2016

date

