

WATER PERMIT NO. 7805-3

Name of Applicant: City of Sioux Falls Parks & Recreation

Address: 100 E 6th St, Sioux Falls SD 57104 Phone: 605 367-8233

Amount of Water Claimed: 0.16 cfs Total Acres: 8 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Minnehaha

Type of Waste Disposal System:

Location:

PRIORITY Date Received: 3-1-13 Application/License Fee: \$ 700

Corrected Application Received: 3-22-13 Period of Annual Use: April 1 – Oct 31

Remarks:

Diversion Point: NW 1/4 NW 1/4 Sec 28-T101N-
R48W

Land to be Irrigated: N 1/2 NW 1/4 Sec 28-T101N-
R48W

Depth of Well: 299 feet deep

Well Driller: Dave Putzke Well Drilling

Remarks:

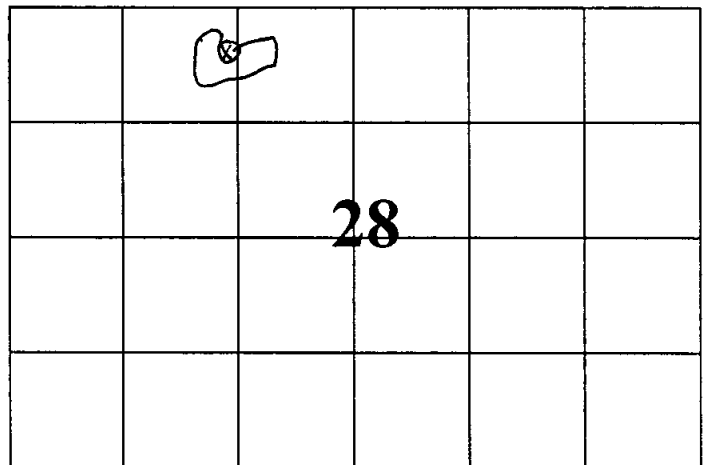
Type of Map:

Prepared by:

Reviewed and the Number Assigned on: 3-22-13

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>7805-3</u> (office use only)	Hydrologic Unit <u>10170203</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Argus Leader</u>	<u>P.O. Box 5034</u>
	<u>Sioux Falls 57117</u>	<u>605-331-2200</u>

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MAR - 1 2013

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.)

1. Name of Applicant City of Sioux Falls Parks & Recreation c/o Don Kearney Phone 605.367.8233
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 100 East 6th Street Sioux Falls SD 57104-8234
(Address) (City) (State) (Zip Code)

2. Amount of water claimed 0.16*CFS or 73**GPM 23.8***AF Total Acreage 8.00 acres
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Well

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Minnehaha
1 well in NW1/4 NW1/4 section 28-T101N-R48W

5. County or counties where water will be used Minnehaha County

6. Annual period during which water is to be used April 1 - Oct. 31

7. 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
NW1/4 NW1/4 section 28-101-48	2.8		
NE1/4 NW1/4 section 28-101-48	5.2		

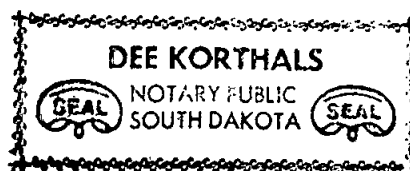
8. Give a description of the project. (Attach sheet if more space is needed)

Irrigation for turf, landscape plantings, and trees in newly established formal gardens and wedding lawn at the Mary Jo Wegner Arboretum on the east side of Sioux Falls. Proposed system intends to irrigate lawn, plantings, and trees as necessary to keep plantings vibrant.

STATE OF SOUTH DAKOTA)
County of Minnehaha) 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, Don Kearney, 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 Don KearneySubscribed and sworn to before me this 15th day of February 20 13

Dee Korthals
Notary Public signature

SOUTH DAKOTA
WATER PERMIT NO. 7805-3

Date of first receipt of application March 1, 2013.

Date of return to applicant for corrections, amendments or changes March 5, 2013.

Date of receipt of corrected application March 22, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7805-3 to City of Sioux Falls Parks & Recreation, c/o Don Kearney, 100 E 6th St, Sioux Falls SD 57104 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. 7805-3 appropriates 0.16 cubic feet of water per second (cfs) from one well to be completed into the Sioux Quartzite Aquifer (299 feet deep) located in the NW 1/4 NW 1/4 Section 28 for irrigation of 8 acres located in the N 1/2 NW 1/4 Section 28; all in T101N-R48W at the Mary Jo Wegner Arboretum.
2. The amount of the appropriation may not exceed 3 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: April 1 – October 31.
3. The date from which applicant may claim right is March 1, 2013.
4. The date of approval of Permit No. 7805-3 is June 10, 2013.
5. One-fifth of the construction is to be completed on or before December 10, 2015.
6. All construction is to be completed on or before June 10, 2018.
7. Water is to be put to beneficial use on or before June 10, 2022.
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. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7805-3 authorizes a maximum diversion rate of 0.16 cfs for the irrigation of 8 acres with an annual volume not to exceed 3 acre feet of water per acre per year.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

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

JUL 05 2013

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 4" Depth 299'
- b) Casing Type steel Diameter 6" Thickness sch 40
- c) Screen Type pvc tube Diameter 4" Thickness sch 40
- d) Gravel Pack gravel/sand Length of Gravel Pack 20'
- e) Depth to Top of Water Bearing Material 299'
- f) Depth to Water (ground surface to water level) 39'
- g) Distance to nearest existing domestic well:

On applicant's property 1018'

On property owned by others 1075'

2. Wastewater Disposal System Information

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

3. Dugout Information

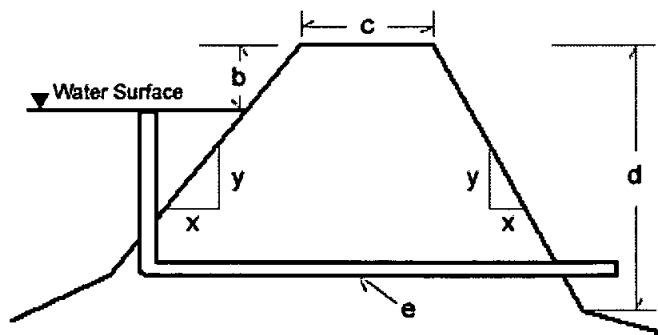
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres



IRRIGATION WELL LOCATED IN NW 1/4 NW 1/4, SECTION
28-101-48, MINNEHAHA COUNTY, SOUTH DAKOTA

OWNER
CITY OF SIOUX FALLS
PARKS & RECREATION
100 EAST 6TH ST.
SIOUX FALLS, SD 57104

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NORTH

0 100' 200'

SCALE: 1" = 200'

NW CORNER
SECT. 28-101-48
FOUND STONE

N87°39'44"E
1320.03'

NE CORNER NW 1/4 NW 1/4
SECT. 28-101-48
FOUND ALUM. CAP

NE 1/4 NW 1/4
SECTION 28-101-48

NW 1/4 NW 1/4
SECTION 28-101-48

S00°47'48"E
845.92'

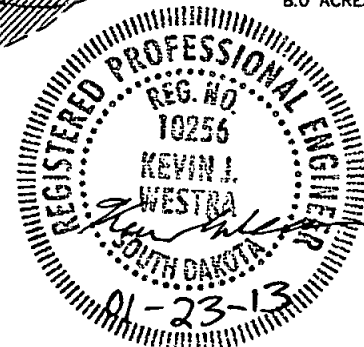
WELL LOCATION

S89°12'12"W
22.46'

MARY JO WEGNER
ARBORETUM

APPROXIMATE
IRRIGATION AREA
8.0 ACRES ±

HWY 42



**EHRHART
GRIFFIN &
ASSOCIATES**

- ENGINEERING
- PLANNING
- LAND SURVEYING

300 N. DAKOTA AVE., STE. 114
SIOUX FALLS, SOUTH DAKOTA 57104
PHONE: 605-339-7215
FAX: 605-339-7271

WATER PERMIT APPLICATION MAP

PROJECT TITLE:

MARY JO WEGNER ARBORETUM
SIOUX FALLS, SOUTH DAKOTA

PROJECT No:

DATE:

DRAWN BY:

CHECKED BY:

SD121045

1/23/13

KJW

KJW

SHEET NO.

1 OF 1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

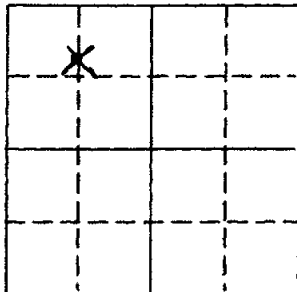
11-02

Location NW 1/4 NW 1/4 Sec 28 Twp 101N Rg 48W

County

Minnehaha

North



Please mark well location with an "X"

Well completion Date

8-15-12

1 Mile

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? None ft. from None (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>19.18</u> LB/FT	<u>6</u> IN	<u>0</u> FT	<u>39</u> FT	<u>10</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	Ft	Ft
		Lb/gal	Ft	Ft

Describe grouting procedure 1 1/2 BF Slurry Pump
W/ Drilling Rig

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? 5 gallons of

☐ No, Why Not? Chlorine

Lab sample sent to for water quality analysis

Pumped

Soak Health
Dept.

Please return WHITE COPY to: DENR Water Rights, 523 E. Capitol Ave., Pierre SD 57501

Well Owner:

Business Name: City of Sioux Falls Parks & Rec

Address1: 100 E 6th Street

Address2:

City, State, Zip: Sioux Falls, SD 57104

WELL LOG:

DEPTH

FORMATION	FROM	TO
<u>TOP Soil</u>	<u>0</u>	<u>2</u>
<u>Dry Gravel</u>	<u>2</u>	<u>16</u>
<u>Granite</u>	<u>16</u>	<u>19</u>
<u>Dry Gravel</u>	<u>19</u>	<u>39</u>
<u>Granite</u>	<u>39</u>	<u>302</u>

STATIC WATER LEVEL

39

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: AIR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

290 Ft. After 24 Hrs. pumped 73 GPM

Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate:

GPM

REMARKS

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SEP 12 2012

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This well was drilled under license # 439

And this report is true and accurate.

Drilling firm: Dave Putzke well Drilling & Repair Inc

Signature of License Representative:

Dave Putzke

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date:

8/28/12

The \$500⁰⁰ will be
direct deposited
into your account
Friday, March 1ST.

City of Sioux Falls

City of *Sioux Falls*



Finance

Providing a Better Quality of Life for You!

February 28, 2013

Vendor Number:
0001207

Name / Address:
SD DEPT OF ENVIRONMENT AND
NATURAL RESOURCES
DEPT OF REVENUE
PIERRE, SD 575013182

Email Address to send remittance notice to:
sandy.verhelst@state.sd.us

Payment Date:
Funds will be received at your financial institution on the following Monday.

Payment Number:
0031290

Payment Amount:
500.00

Please apply the payment of the items noted below to our account. The total amount noted above will be processed by the bank electronically.

Invoice #	Invoice Amount	Retainage Amount	Discount Amount	P O #	Project
IRRIGATION PERM	500.00	0.00	0.00	247291	107064

If you have any questions regarding this ACH payment, please contact Finance at 605-367-8860.

I will add in when I do Rct



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

March 5, 2013

City of Sioux Falls Parks & Recreation
c/o Don Kearney
100 East 6th St
Sioux Falls SD 57104-8234

Dear Mr. Kearney:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation at the Mary Jo Wegner Arboretum. In order to complete the application, the following is required.

- We have received your ACH payment for \$500. The application is \$500 and the license filing fee is \$200. Please submit an additional \$200.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

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



March 22, 2013

Vendor Number:
0001207

Name / Address:
SD DEPT OF ENVIRONMENT AND
NATURAL RESOURCES
DEPT OF REVENUE
PIERRE, SD 575013182

Email Address to send remittance notice to:
sandy.verhelst@state.sd.us

Payment Date:
Funds will be received at your financial institution on the following Monday.

Payment Number:
0031827

Payment Amount:
200.00

Please apply the payment of the items noted below to our account. The total amount noted above will be processed by the bank electronically.

Invoice #	Invoice Amount	Retainage Amount	Discount Amount	P O #	Project
ARBORETUM LICEN	200.00	0.00	0.00	248318	107064

If you have any questions regarding this ACH payment, please contact Finance at 605-367-8860.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

July 03, 2012

Don Kearney/ Sioux Falls Parks Dept.
100 E 6th Street
Sioux Falls, SD 57104

RE: New Well Sampling Results

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MAR - 1 2013
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Dear New Well Owner:

In order to assure that citizens of South Dakota are provided with a good quality water supply, the Centennial Environmental Protection Act of 1989 requires that all new domestic wells drilled in South Dakota have a bacteriological and partial chemical analysis of the water. The analyses are for information so that you can make an informed judgement as to the quality of the water.

Enclosed is a narrative of the water quality results that were previously sent to you by your laboratory. Questions or comments on this information may be directed to the Drinking Water Program:

Telephone: (605) 773-4053
Address: Lower Level - Foss Building, Pierre, SD 57501-3181

Thank you for your interest in the quality of South Dakota water.

Sincerely,

Judene Holan
Drinking Water Program

Enclosure

New Well Analysis

July 03, 2012

**Don Kearney/ Sioux Falls Parks
Dept.
100 E 6th Street
Sioux Falls, SD 57104**

Well Driller: Dave Putzke Drilling

Well Depth: 302 feet

Sample Date: June 20, 2012

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BACTERIOLOGICAL ANALYSIS IS SAFE

This report indicates that your new well is SAFE for drinking. It is recommended that the bacteriological quality of the water be retested at least annually. After heavy rains, snow melt, or flooding in the area of your well, a sample of water should be submitted for at least a bacteriological and nitrate analysis.

NITRATE 4.5 mg/l - Nitrate Level Not Of Concern

Nitrates in excess of 10 mg/l (as nitrogen) are of health significance to infants of one year or less, pregnant women, and nursing mothers. High nitrate water should not be used for infant feeding, in formulas, or for drinking or cooking by the mother while she is pregnant or nursing. Nitrates cannot be completely removed by any private water supply treatment device; however, distillation or reverse osmosis treatment can reduce the nitrate content of the water.

SODIUM 25.3 mg/l - CONSULT YOUR PHYSICIAN FOR INTERPRETATION

Sodium may be health significance to persons on a low salt diet. Most home water softeners are ion exchange (zeolite) water softeners. The sodium content is increased when water is passed through this type of softener. People on low sodium diets should consult their physician as to how much water may be consumed.

SULFATE 127 mg/l - Sulfate Level Not Of Concern

Water with a sulfate content in excess of 250 mg/l may have a bitter taste and have a laxative effect on persons not adapted to the water. Sulfates may contribute to odor problems. The sulfate content can be reduced in a private water supply through distillation or reverse osmosis treatment.

CONDUCTIVITY 756 microhms/cm - Conductivity Level Not of Concern

Conductivity measures the ability of water to conduct an electric current. It is related to the type and amount of dissolved chemicals in the water. In general, water having a conductivity of less than 1000 microhms is slightly mineralized, but should be suitable for human consumption. It may have some hardness and it is possible to have taste and odor problems. Depending upon the particular chemicals dissolved in the water, these problems may become more pronounced with increasing conductivity to the extent that levels greater than 2000 microhms may make the water objectionable to human use.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7805-3, City of Sioux Falls Parks and Recreation**

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. 7805-3, City of Sioux Falls Parks and Recreation, c/o Don Kearney, 100 E 6th Street, Sioux Falls SD 57104.

The Chief Engineer is recommending APPROVAL of Application No. 7805-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7805-3 authorizes a maximum diversion rate of 0.16 cfs for the irrigation of 8 acres with an annual volume not to exceed 3 acre feet of water per acre per year.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
May 17, 2013

REPORT TO THE CHIEF ENGINEER

WATER PERMIT APPLICATION NO. 7805-3 City of Sioux Falls Parks & Recreation, c/o Don Kearney April 17, 2013

Water Permit Application No. 7805-3 proposes to appropriate 23.8 acre feet of water per year (ac-ft/yr) at a maximum diversion rate of 0.16 cubic feet of water per second (cfs) from one well completed into the Sioux Quartzite. The well is expected to be 299 feet deep and located in the NW¼ NW¼ of Section 28, T101N-R48W. Water will be used to irrigate 8 acres located in N½ NW¼ of Section 28, T101N-R48W, in Minnehaha County. The application proposes a diversion rate and an annual volume greater than the statutory limit.

AQUIFER: Sioux Quartzite (SOUX)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Sioux Quartzite consists of a pink, well cemented, occasionally fractured orthoquartzite. While not generally considered an aquifer, the Sioux Quartzite can yield sufficient water for a variety of uses in many locations in southeastern South Dakota, and is therefore considered a minor aquifer here (Lindgren and Niehus, 1992; Niehus, 1994). Characteristics of the Sioux Quartzite are extremely site specific. Well yields depend on local fracturing of the quartzite and porous zones of mudstone or poorly cemented sand; however, actual fracture development is generally unknown (Lindgren and Niehus, 1992). The total thickness of the quartzite is also unknown due to extreme hardness (Niehus, 1994). Consider however that wells commonly penetrate to a depth of 200 feet or less (Lindgren and Niehus, 1992). In southeastern South Dakota, the Sioux Quartzite is underlain by older Precambrian rocks and overlain by the Dakota Formation, Carlile or Pierre Shale, several glacial aquifers, or till, and is sometimes overlain by a thin layer of pink, weathered sand known as the Sioux Quartzite wash (Lindgren and Niehus, 1992; Niehus, 1994).

The Sioux Quartzite underlies all of Minnehaha County, and the water within is extensively used. Depth to the top of the quartzite ranges from near land surface to 510 feet below ground surface. The depth can be extremely variable within short distances. The aquifer is generally under confined conditions but can be under water table conditions near the outcrop areas, specifically southern Minnehaha County. The Sioux Quartzite aquifer is hydraulically connected to several area glacial aquifers and also surface waters near the outcrop, such as Split Rock Creek. Water in the quartzite predominately moves to the south and southwest, following the regional decline in the Sioux Quartzite surface (Lindgren and Niehus, 1992).

The proposed well site is located near an outcrop area of the Sioux Quartzite (Martin and others, 2004). The well completion report submitted with the application documents gravel from two to 39 feet below ground surface, which is likely the Sioux Quartzite wash, then granite down to 302 feet, which is the Sioux Quartzite. The static water level was 39 feet below ground surface in August, 2012.

SDCL 46-2A-9

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

WATER AVAILABILITY:

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable 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. Although the aquifer is older or lower than the greenhorn formation, a public water system is not involved; therefore, withdrawal/recharge issue must be considered.

Recharge to the Sioux Quartzite is by infiltration of precipitation in southern Minnehaha County where the Sioux Quartzite crops out, and likely from Split Rock Creek; however, recharge has not been quantified (Lindgren and Niehus, 1992; Niehus, 1994). Discharge from the Sioux Quartzite is to several overlying glacial aquifers, such as the Big Sioux, Brandon, and Wall Lake aquifers, and well withdrawals (Niehus and Lindgren, 1994). In addition to domestic wells, there are 56 water rights/permits appropriating water from the Sioux Quartzite in South Dakota (Water Rights, 2031b; Water Rights, 2013c).

The SD DENR-Water Rights Program does not monitor any observation wells completed into the Sioux Quartzite (Water Rights, 2013a). An observation well located approximately 13 miles northwest of the proposed well site recorded water level fluctuations of this aquifer from 1980 to 1987, which was compared to precipitation data in the area (Lindgren and Niehus, 1992). The hydrograph of this well and precipitation graph is shown in Figure 1. Water levels in the Sioux Quartzite show a correlation with long-term precipitation trends. Water levels undergo cyclic conditions, recharging during wet years and declining during dry years. During the period of record, water levels fluctuated at most nine feet in this well (Lindgren and Niehus, 1992).

An investigation of completion reports on record for nearby wells document that historically water levels in the Sioux Quartzite has remained at the same general level, demonstrating that withdrawals have not exceeded recharge from this aquifer (Water Rights, 2013c). The proposed appropriation is not expected to cause withdrawals to exceed recharge in the Sioux Quartzite aquifer.

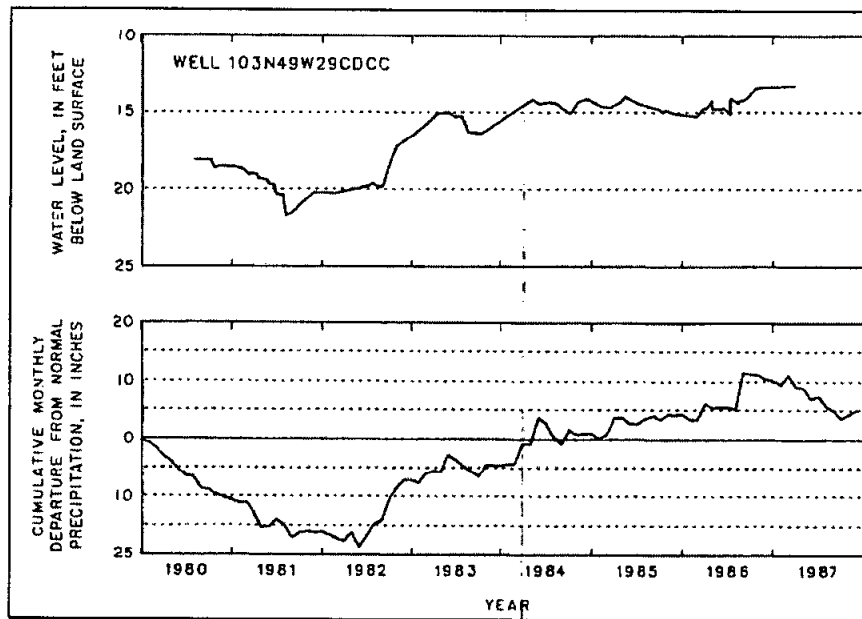


Figure 1: Hydrograph of an observation well completed into the Sioux Quartzite and cumulative monthly departure from normal precipitation at Sioux Falls (modified from Lindgren and Niehus, 1992)

IMPAIRMENT OF EXISTING RIGHTS:

The drawdown due to pumping in the Sioux Quartzite will occur, especially considering the generally small porosity; however, precise drawdown cannot be quantified without aquifer testing. Drawdown due to pumping is dependent on aquifer characteristics. The storativity of an aquifer affects the amplitude. Because the overall storativity of the Sioux Quartzite is expected to be low, drawdown could be significant. However, the well authorized by Water Right No. 6618-3 encountered favorable fractured rock to allow sufficient water yield. The fractures encountered could effectively increase the radius of influence, and thus decrease drawdown. The transmissivity of an aquifer affects the shape of the drawdown cone. Because the transmissivity of the Sioux Quartzite is expected to be low, the drawdown cone would be expected to be narrow and deep, resulting in a radius of measureable influence of only a few feet. In conclusion, water level fluctuations due to drawdown from pumpage is not expected to be significant compared to natural water level fluctuations in the aquifer.

The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. SDCL 46-6-6.1 does not require protection of artesian head pressure as a means of groundwater delivery. However, reasonable domestic use must be assured before irrigation use is allowed. Therefore, when considering irrigation projects, the Water Management Board must give consideration to maintaining artesian head pressure as a method of delivery for domestic wells. To balance interests between irrigation use and delivery of groundwater by artesian pressure, ARSD 74:02:04:20(7) defines an adversely impacted domestic well as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”

The rule implies that 20 feet is an adequate depth of water for appropriators; however, 20 feet is seldom a sufficient depth of water in the Sioux Quartzite aquifer to be a dependable source for many uses. Due to the characteristics of the Sioux Quartzite, maximum drawdown due to pumpage is not limited by aquifer thickness, as is often the case, but instead limited by well depth. Therefore, in assessing adverse impairment of an adequate well in the Sioux Quartzite, the well depth must also be considered, though minimum well depth is not regulated.

ARSD 74:02:04:60 provides a quasi-minimum well depth standard by specifying that for installation of pumps in wells, depth of the pump setting shall be determined by dividing the specific capacity determined for the well into the required yield and adding at least ten additional feet. Interference in an adequate well where the pump is placed per ARSD 74:02:04:60 could be considered an adverse impact.

For example, when applying the information provided from the well completion report submitted with this application, the minimum depth for the well, which has a specific capacity of 0.29 gallons per minute per foot of drawdown, pumping at 73 gallons per minute, would be 261 feet below the static water level, or 300 feet below ground surface when applying the August, 2012, recording. The total well depth is 302 feet. Consider that the well was air developed, which is not as effective as a submersible pump; so, the specific capacity is likely greater, resulting in lesser minimum well depth. Also, note that the pump installation standard is not fixed to either the static water level or the specific capacity of the well at the time of construction. Water level, specific capacity, and the resulting minimum pump placement depth would be calculated considering seasonal and climatic conditions when examining a well interference situation.

In conclusion, if approved, the permit holder should control his withdrawals so there is not an unlawful impairment, or an adverse impact, of existing rights pursuant to SDCL 46-2A-9, and specifically considering SDCL 46-6-6.1, ARSD 74:02:04:20(7), and ARSD 74:02:04:60.

Existing Rights:

The well for this water permit application is located near other wells that could obtain water from the same Sioux Quartzite aquifer. However, other water rights completed into the Sioux Quartzite could in fact be completed into a different and independent fracture set or porous zone, in which case, well interference issues pertinent to this water permit application are not expected. Also, drawdown in the quartzite is not expected to be uniform due to fracture flow, in which case, some nearby wells could be more, or less, affected by the well for this water permit application than others.

In addition to domestic wells, there are several water rights/permits appropriating water from the Sioux Quartzite aquifer in the area of the pertinent well (Water Rights, 2013b; Water Rights, 2013c). Water Right No. 6618-3, Willow Run Golf LLC, is located approximately one half mile northwest. The next nearest water rights are located further than two miles from the pertinent well (Water Rights, 2013b).

When applying the information provided from the well completion report submitted with Water Right No. 6618-3, the minimum depth for the well, which has a specific capacity of 1.50 gallons

per minute per foot of drawdown, pumping at the maximum authorized diversion rate of 200 gallons per minute, would be 143 feet below the static water level, or 170 feet below ground surface when applying the April, 2004, recording. Consider again that the well was air developed; so, the specific capacity is likely greater, resulting in lesser minimum well depth. Also, note again that pump installation standard is not fixed to these parameters at the time of construction. Because the total depth is 280 feet, the well can comply with ARSD 74:02:04:60. Therefore, Water Right No. 6618-3 appears to be protected from impairment issues. In fact, the well is deep enough to allow lowering the pump to accommodate almost any interference issues.

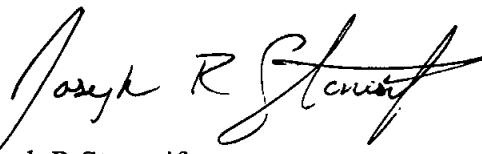
SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or the equivalent thereof, and the volume of water diverted may not exceed two ac-ft/yr per acre. The statute provides that the Water Management Board may allow a greater diversion, in volume or rate or both, if the method of irrigation so requires.

This water permit application proposes to appropriate 23.8 ac-ft/yr at a diversion rate of 0.16 cfs per eight acres, equaling an appropriation of 2.98 ac-ft/yr per acre at a diversion rate of 1.40 cfs per 70 acres. The application states that the project will consist of "Irrigation for turf, landscape plantings, and trees in newly established formal gardens and wedding lawn... as necessary to keep plantings vibrant." This could be a reasonable request.

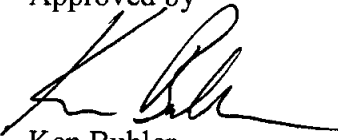
CONCLUSIONS:

1. Water Permit Application No. 7805-3 proposes to appropriate 23.8 ac-ft/yr at a maximum diversion rate of 0.16 cfs from one well completed into the Sioux Quartzite to irrigate 8 acres in Minnehaha County.
2. The Sioux Quartzite is a viable aquifer in this area.
3. The SD DENR-Water Rights Program does not monitor any observation wells completed into the Sioux Quartzite aquifer.
4. Historic water level data of area wells completed into the aquifer indicate withdrawals have not exceeded recharge and this application, if approved, will not cause withdrawals to exceed recharge.
5. The well for this water permit application is located near other wells that could obtain water from the same Sioux Quartzite aquifer. The nearest, Water Right No. 6618-3, is located approximately one half mile northwest of the pertinent well.
6. Impairment of existing rights can be considered specifically by SDCL 46-6-6.1 (head pressure not generally protected), ARSD 74:02:04:20(7) (adequate well), and ARSD 74:02:04:60 (quasi-minimum well depth).
7. There is a reasonable probability that any possible well inference due to the proposed appropriation will not adversely or unlawfully impair existing users.
8. The application proposes a diversion rate and an annual volume greater than the statutory limit. This could be considered reasonable request.



Joseph R Stonesifer
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Lindgren, R.J., and Niehus, C.A. 1992. Water Resources of Minnehaha County, South Dakota: U.S. Geological Survey Water-resources Investigations Report 91-4101, 80p
- Martin, J.E., Sawyer, J.F. Fahrenbach, M.D., Tomhave, D.W., Schulz, L.D. 2004. Geologic Map of South Dakota: South Dakota Geological Survey General Map 10, Scale 1:500,000
- Niehus, C.A., and Lindgren, R.J. 1994. Major Aquifers in Minnehaha County, South Dakota: South Dakota Geological Survey Information Pamphlet 46, 22 p.
- Water Rights. 2013a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

MAY 31 2013

WATER RIGHTS
PROGRAM

CUSTOMER NUMBER:	042513	Argus Leader P.O. Box 677349, Dallas, TX 75267-7349	
INVOICE NUMBER:	1416023		
RUN DATES:	5/29, 2013	LINES:	AMOUNT DUE: \$66.92

City of Sioux Falls-Park & Rec
% Don Kearney
100 E 6th St
Sioux Falls, SD 57104

DETACH THIS STUB AND RETURN WITH PAYMENT

PAYMENT DUE UPON RECEIPT

AFFIDAVIT OF PUBLICATION-

Customer Number: 042513
Invoice Number: 1416023

City of Sioux Falls-Park & Rec

Argus Leader

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

Linda Schulte being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Wednesday, the 29 day of May 2013
_____, the _____ day of _____ 2013
_____, the _____ day of _____ 2013
_____, the _____ day of _____ 2013
_____, the _____ day of _____ 2013
_____, the _____ day of _____ 2013
_____, the _____ day of _____ 2013

and that \$66.92 was charged for publishing the same

Linda Schulte

Subscribed and sworn to before 5/29/2013

J. Zimmerman
Notary Public, South Dakota

My Commission expires December 22, 2015

NOTICE OF APPLICATION NO. 7805-3 to Appropriate Water

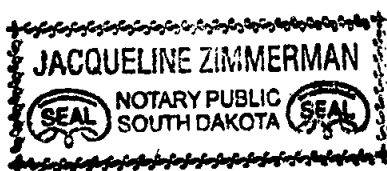
Notice is given that City of Sioux Falls Parks & Recreation, c/o Don Kearney, 100 E 6th St, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 0.16 cubic feet of water per second from one well to be completed into the Sioux Quartzite Aquifer (299 feet deep) located in the NW 1/4 NW 1/4 Section 28 for irrigation of 8 acres located in the N 1/2 NW 1/4 Section 28; all in T101N-R48W at the Mary Jo Wegner Arboretum. Applicant is requesting greater than the statutory limit for diversion rate and up to 3 acre feet per irrigated acre.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7805-3 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 June 10, 2013.

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 \$66.92.
1416023 May 29, 2013





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

May 20, 2013

Argus Leader
PO Box 5034
Sioux Falls SD 57117

ATTENTION: Legal Public Notice

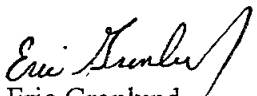
Enclosed is a Notice on Application No. 7805-3 to Appropriate Water. Please publish the notice once on May 29, 2013. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 City of Sioux Falls Parks & Recreation, c/o Don Kearney, 100 E 6th St, Sioux Falls SD 57104 (Ph # 605-367-8233).

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**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

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

May 20, 2013

City of Sioux Falls Parks & Recreation
Don Kearney
100 E 6th St
Sioux Falls SD 57104

Dear Mr. Kearney:

Water Permit Application No. 7805-3 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 Argus Leader printed at Sioux Falls SD (Ph # 605-331-2200). 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 May 29, 2013. 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. 7805-3 to Appropriate Water

Notice is given that City of Sioux Falls Parks & Recreation, c/o Don Kearney, 100 E 6th St, Sioux Falls SD 57104 has filed an application for a water permit to appropriate 0.16 cubic feet of water per second from one well to be completed into the Sioux Quartzite Aquifer (299 feet deep) located in the NW 1/4 NW 1/4 Section 28 for irrigation of 8 acres located in the N 1/2 NW 1/4 Section 28; all in T101N-R48W at the Mary Jo Wegner Arboretum. Applicant is requesting greater than the statutory limit for diversion rate and up to 3 acre feet per irrigated acre.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7805-3 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 June 10, 2013.

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**

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PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

JUL 05 2013

City of Sioux Falls Parks & Recreation
Don Kearney
100 E 6th St
Sioux Falls SD 57104

Dear Mr. Kearney:

Enclosed is Water Permit No. 7805-3 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

RECEIVED
SEP 16 2013
WATER RIGHTS
PROGRAM

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

Date

9/11/13

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

FROM:

Tony Miedema ; City of Sioux Falls Parks + Recreation Dept.
(name)

100 E. 6th Street
(address)

Sioux Falls, SD 57104-5929
(city, state, zip)

(605) 367-8217
(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. 7805-3 states that the water use system is to be constructed by

June 10, 2018
(date)

, and water is to be put to beneficial use by June 10, 2022
(date)

The water use system was completed on

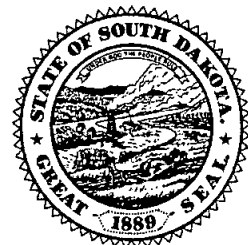
pm. August 13, 2013
(date)

Applying the water to beneficial use was completed on

August 19, 2013
(date)

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

[Signature]
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

September 16, 2013

7805-3

Tony Miedema
Sioux Falls Parks and Recreation Dept
100 E 6th St
Sioux Falls SD 57104-5929

Dear Mr. Miedema:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that the city is completed with the water use system authorized under Water Permit No. 7805-3 (Mary Jo Wegner Arboretum).

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

Permit No. 7805-3
Big Sioux River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, **October 15, 2013**, made a thorough examination of the water use system constructed by **City of Sioux Falls Parks & Recreation** of **100 E 6th Street, Sioux Falls, SD 57104** holder of Permit No. **7805-3**, bearing the priority of **March 3, 2013** authorizing the diversion of **0.16** cu. ft. per second of the waters of **Sioux Quartzite aquifer** for **irrigation** purposes, in **Minnehaha** County.

Inspection contact & relationship to permit holder, if applicable: **Diane Gildemaster, District Park Supervisor 605.367.8222**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Dave Putzke Well Drilling and Repair**
- 2) No. of Wells **1**
- 3) Depth(s) **302** feet
- 4) Well log is available **Yes**
- 5) Comment: **completed 8-15-2013**

Casing:

- 1) Diameter **6** inches
- 2) Length **39** feet
- 3) Type **steel**

Screen:

- 1) Type **Sioux Quartzite formation**
- 2) Length **263** feet
- 3) Static water level **39** feet

Pump:

- 1) Make **Grunfos submersible**
- 2) Model **855150-11**
- 3) Size **6"**
- 4) Capacity **72** GPM

Motor:

- 1) Make **submersible**
- 2) Model No.
- 3) Horsepower rating **15** hp

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

- 1) Type **pvc**
- 2) Size **2** inches
- 3) Length **1370** feet

C. Works used to apply water to beneficial use:

Sprinkler System:

- 1) Make Rianbird
- 2) Number of heads 89+
- 3) Capacity 72 GPM
- 4) Comments run a combination of sprinkler heads up to 72 gpm

Chemigation Equipment:

- 1) Does chemigate No

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 Yes
- 3) Exceptions to compliance are: None

The system is in good condition with the point(s) of diversion located as follows: 845' S and 1298' E of the NW corner Section 28-T101N-R48W (43.52690185, -96.60595935). The works are capable of diverting and conveying to the place of use 0.16 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

Section 28-T101N-R48W:

NE $\frac{1}{4}$ NW $\frac{1}{4}$ 2.8 acres

NW $\frac{1}{4}$ NW $\frac{1}{4}$ 5.2 acres

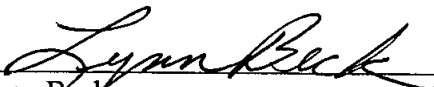
comprising a total of 8 acres of land and the license should be issued for 0.16 cfs.

All structures, wells and lands on map Yes

Comments or other permit(s) associated with the project:

Permit No. 7805-3 authorizes a maximum diversion rate greater than 1-cfs per 70 acres pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires. Permit No. 7805-3 authorizes a maximum diversion rate of 0.16-cfs for the irrigation of 8 acres with an annual volume not to exceed 3 ac-ft of water per acre per year.

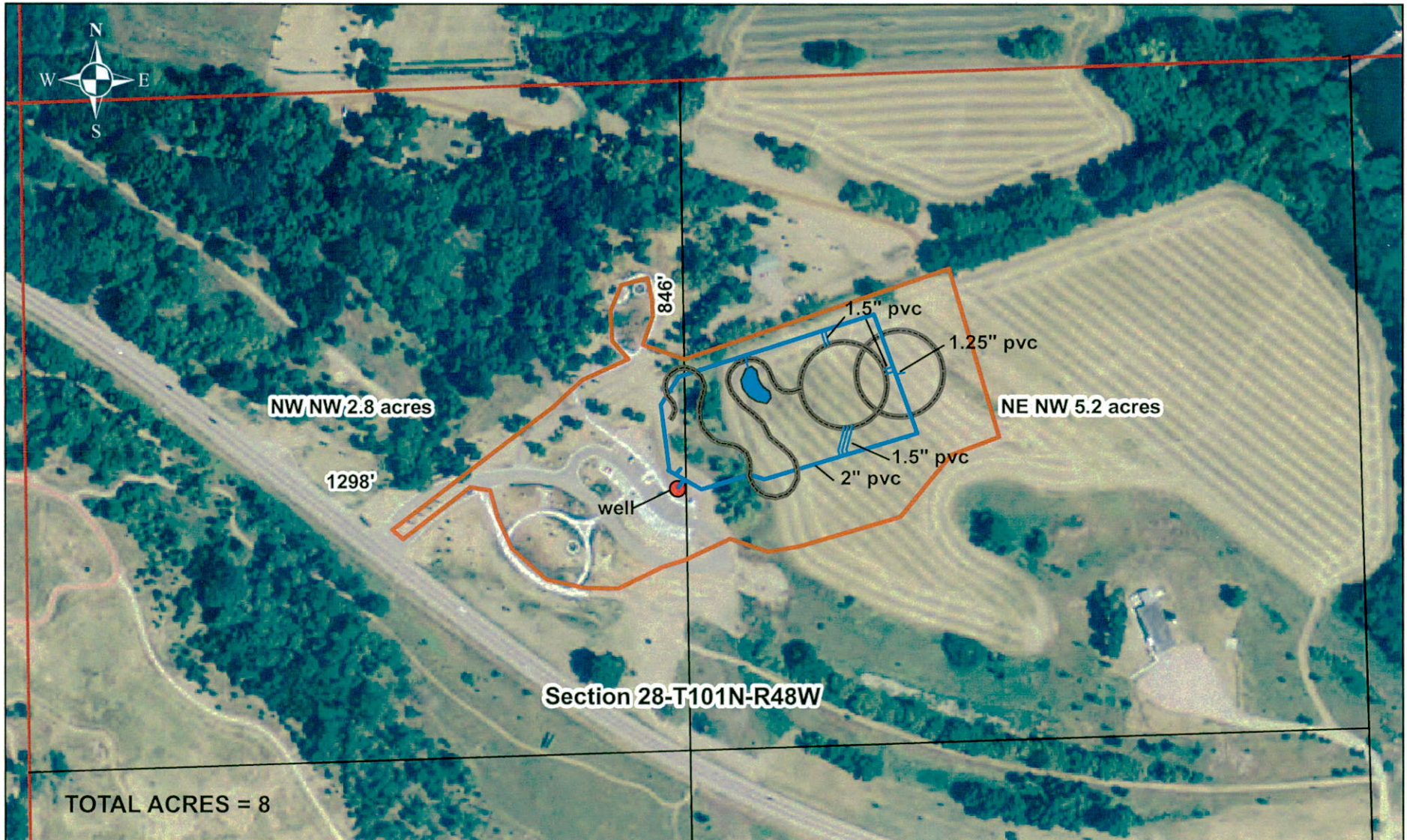
In addition to irrigation, water is used for potable water and geothermal use in the building. The small pond gets water from the geothermal system. The amount is less than 18 gpm for municipal use and does not need further permitting.


Lynn Beck

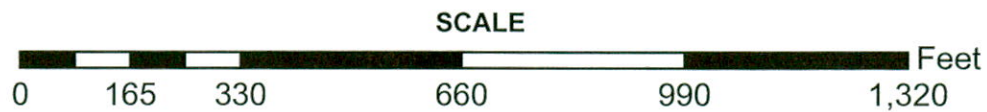
Natural Resources Engineer III
DENR, Water Rights Program

Date report completed: December 2, 2013

WATER LICENSE NO. 7805-3
CITY OF SIOUX FALLS PARKS & RECREATION
December 2, 2013



Lynn Beck
Lynn Beck
Natural Resources Engineer III
SD DENR - Water Rights Program





DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



APR 14 2014

7805-3

Don Kearney
City of Sioux Falls Parks & Rec Dept
100 E 6th St
Sioux Falls SD 57104

Dear Mr. Kearney:

Enclosed is Water License No. 7805-3. 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. 7805-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7805-3**

(1) The City of Sioux Falls Parks & Recreation, 100 E 6th St, Sioux Falls SD 57104 made Application No. 7805-3, March 1, 2013 for a water permit to divert 0.16 cubic feet of water per second from ground water (one well – Sioux Quartzite), Minnehaha County, South Dakota for irrigation purposes. Permit No. 7805-3, with a priority date of March 1, 2013 was approved June 10, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 10, 2018 and for the application to beneficial use of said water on or before June 10, 2022.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on September 16, 2013 indicating the water use system was completed on August 13, 2013 and the water placed to beneficial use on August 19, 2013.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 0.16 cubic feet of water per second for beneficial use.

The location of the diversion point is 845 feet south and 1,298 feet east of the NW corner of Section 28, T101N, R48W (NW ¼ NW ¼).

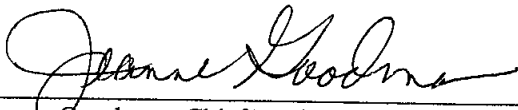
(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 28, T101N, R48W	NE ¼ NW ¼	2.8 acres
	NW ¼ NW ¼	<u>5.2 acres</u>
	Total	8.0 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Sioux Falls Parks & Recreation, 100 E 6th St, Sioux Falls SD 57104 the holder and/or owner of Water Right No. 7805-3 is issued a license to appropriate water, the right to use 0.16 cubic feet of water per second from ground water (one well – Sioux Quartzite) with a priority date of March 1, 2013 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7805-3 and subject to the following qualifications:

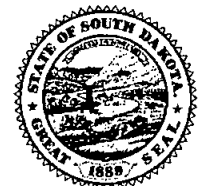
- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7805-3 authorizes a maximum diversion rate of 0.16 cfs for the irrigation of 8 acres with an annual volume not to exceed 3 acre feet of water per acre per year.
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

APR 14 2014

date



7805-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

November 13, 2018

Kelby Mieras
Sioux Falls Parks & Rec Dept
PO Box 7402
Sioux Falls SD 57117-7402

RE: Water Permit/Right Nos. 4231-3, 5416-3, 5512-3, 5556-3, 5698-3, 6157-3, 6210A-3 & 7805-3

Dear Sir:

Enclosed is a "Notice" dated October 30, 2018 concerning the 2018 irrigation questionnaires.

The notice was originally mailed to 100 E 6th St, Sioux Falls. The post office notified us that your address has changed and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

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

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

enclosures