

WATER PERMIT NO. 1958-1

Name of Applicant: City of Sturgis

Address: 1040 Harley-Davidson Way, Sturgis SD 57785

Phone: 605 347-1832

Amount of Water Claimed: 0.088 cfs (40 gpm)

Total Acres: NA

Source of Water Supply: groundwater (one well)

Water to be used for: municipal use at water treatment facility

County: Meade

Type of Waste Disposal System:

Location: NW of Sturgis

PRIORITY

Date Received: 4-11-16

Application/License Fee: \$ 300

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE 1/4 SE 1/4 Sec 2-T5N-R5E

Land to be Irrigated: NA

Depth of Well: 650 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

		2		⊗	

Reviewed and the Number Assigned on: 4-11-16

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>1958-1</u> (office use only) Hydrologic Unit <u>10120202</u>
	Basin <u>Belle Fourche River</u>
	Newspaper <u>Meade Co. Times - Sturgis 605-347-2503</u>
	<u>Black Hills Pioneer - Spearfish 605-642-2761</u>

RECEIVED

APR 11 2016

WATER RIGHTS
PROGRAM

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

Check use(s) of water:

☒ Municipal	☐ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☒ Industrial	☐ Other	

Type of Application:

(check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____		
☐ Amendment/Correction to Permit No. _____		

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

- Name to Appear on Water Permit City of Sturgis
Mailing Address 1040 Harley-Davidson Way Sturgis SD 57785
(Address) (City) (State) (Zip Code)
Phone 605-347-3916 Mobile 605-347-1832 Email _____
- Amount of water claimed 0.088*CFS or 40 **GPM and 8.1 ***AF or 8.1 Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply Drilled well
- Location of point of diversion 1 well in NE 1/4 of SE 1/4, S2, T5N, R5E County Meade
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ No
If "Yes," where will water be used? _____
(example - NW1/4 section 12-T104N-R53W)
- County or counties where water will be used Meade
- Annual period during which water is to be used Year around (January through December)
- 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)

A new well is proposed to be drilled to supply process water for the Sturgis Wastewater Treatment Facility.

I, Rick J. Bush Rick J. Bush Director of Public Works, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

SOUTH DAKOTA
WATER PERMIT NO. 1958-1

Date of first receipt of application April 11, 2016.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1958-1 to the City of Sturgis, 1040 Harley-Davidson Way, Sturgis SD 57785 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. 1958-1 appropriates 8.1 acre feet of water annually at a maximum diversion rate of 0.088 cubic feet of water per second (40 gallons per minute) from one well to be completed into the Inyan Kara Aquifer (650 feet deep) located in the NE 1/4 SE 1/4 Section 2-T5N-R5E.
2. The water appropriated shall be used for the purpose of municipal use at the wastewater treatment facility 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. 1958-1 is May 31, 2016.
5. The date from which applicant may claim right is April 11, 2016.
6. One-fifth of the construction is to be completed on or before December 1, 2018.
7. All construction is to be completed on or before May 31, 2021.
8. Water is to be put to beneficial use on or before May 31, 2025.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Water Permit No. 1958-1 authorizes a total annual diversion of up to 8.1 acre feet of water annually from the Inyan Kara aquifer.
3. The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Inyan Kara aquifer.

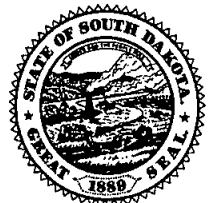
WATER MANAGEMENT BOARD

By: 

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

JUN 27 2016

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many 1 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (**required**) 650 ft. Depth to Top of Water Bearing Material 370 Depth to Water from Surface -40 ft.

d) Distance to nearest domestic well on applicant's property none Property owned by others no

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) treatment facility lagoons

b) System Capacity (gallons) 1,200,000.00 Year Constructed 1963

c) Connected to the City of Sturgis Sanitary System

3. Dugout Information

a) Surface Dimensions N/A 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)

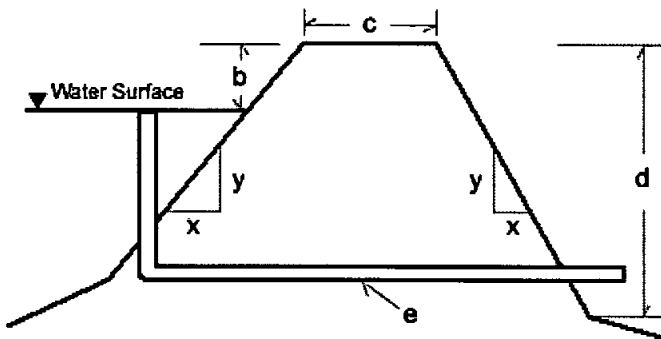
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





SYM	DATE	DESCRIPTION	APPR



STURGIS WASTEWATER SCREENING PROJECT
CITY OF STURGIS
STURGIS, SOUTH DAKOTA
WELL LOCATION AERIAL PHOTO

DRAWING TYPE	PRELIM
PREPARED BY	RF
CHECKED / APPROVED	DH DH
DATE	4/5/16
PROJECT NUMBER	05518-2014-001
SHEET	X of 00
DRAWING	



Calculate well pumping volume:

Given:

$$Pumping_rate := 40 \cdot \frac{gal}{min}$$

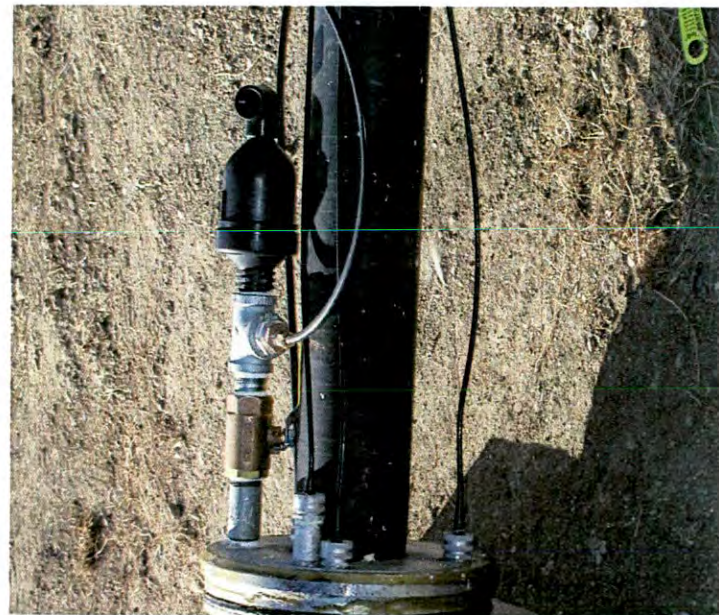
$$Hours_per_day := 3 \cdot hr$$

Calculate:

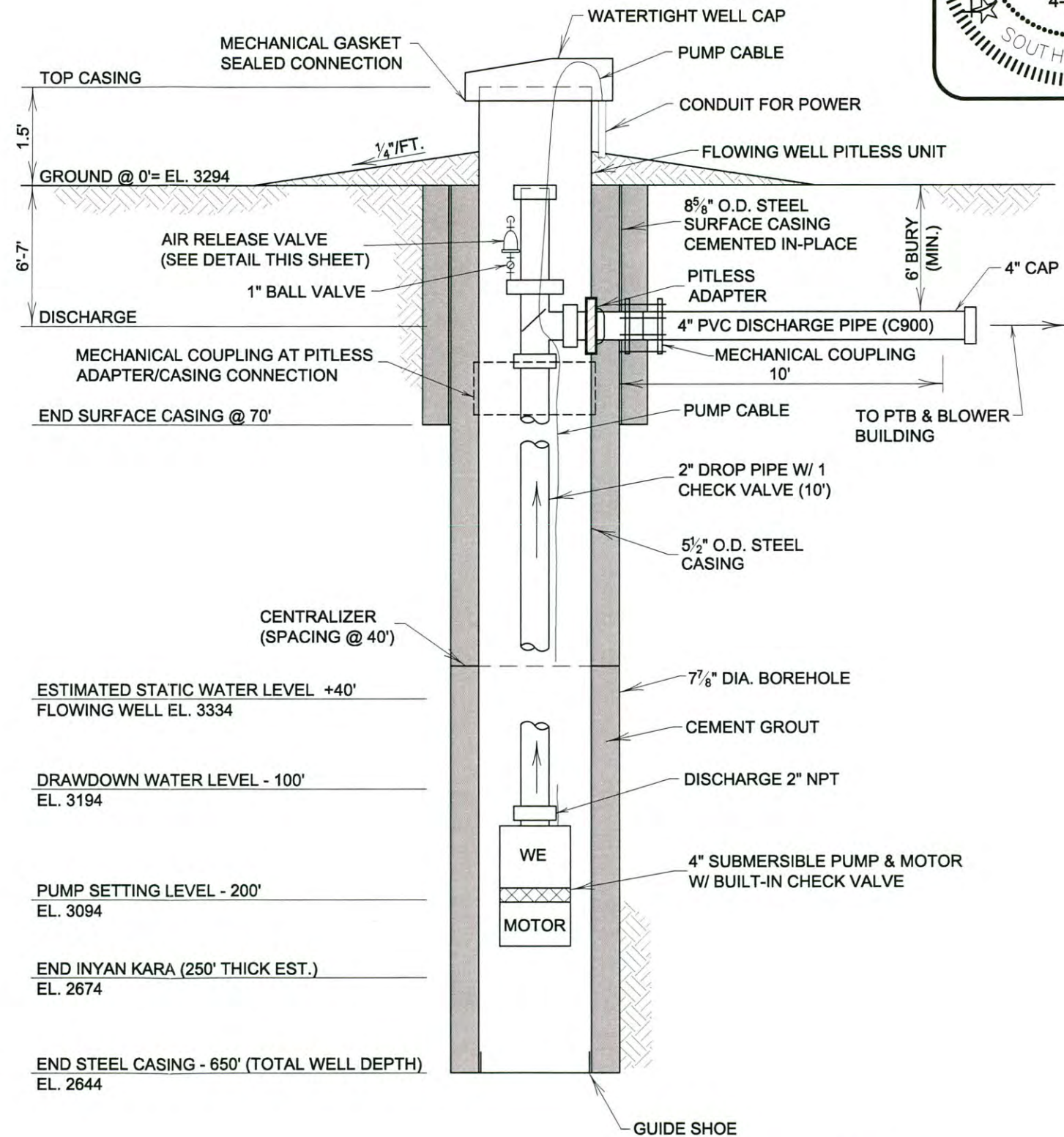
$$Usage := \frac{Pumping_rate \cdot Hours_per_day}{24 \cdot hr}$$

$$Usage = 7200 \frac{gal}{day}$$

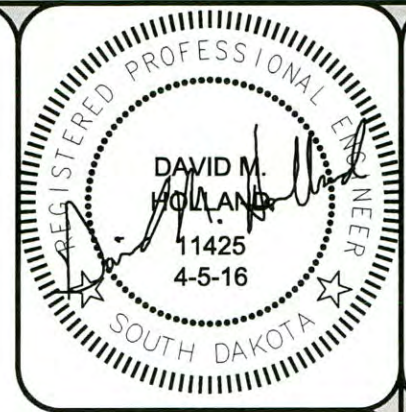
$$Usage = 8.07 \frac{acre \cdot ft}{yr}$$



AIR RELEASE VALVE DETAIL



NOTE:
PRELIMINARY SIZES
AND DEPTHS.



SYM	DATE	DESCRIPTION	APPR



STURGIS WASTEWATER SCREENING PROJECT
CITY OF STURGIS
STURGIS, SOUTH DAKOTA
WELL SCHEMATIC

CLIENT PROJECT NO.
DRAWING TYPE FINAL
PREPARED BY EJ
CHECKED / APPROVED DH DH
DATE 4/5/16
PROJECT NUMBER 05518-2014-001
SHEET X of 00
DRAWING

C4



1560 Concourse Drive
Rapid City, SD 57703
Phone (605) 341-7800
Fax (605) 341-7864

Letter of Transmittal

DATE: 04-08-2016	JOB NO: P05518-2014-001
ATTENTION: Water Rights	
RE: Sturgis Wastewater Screening Project	
New Water Well Supply	

TO: S.D. Dept. of Environment & Natural Resources
Water Rights
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3182

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**WATER RIGHTS
PROGRAM**

WE ARE ☒ SENDING
☐ HAND DELIVERING

☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change Order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Form 2: Application for uses other than irrigation.
1			Form 2A: Supplemental Information.
1			Attachments

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Reviewed ☐ Revise and resubmit
☐ For your use ☐ Rejected ☐ Resubmit _____ copies for approval
☐ As requested ☐ Make corrections noted ☐ Return _____ corrected prints
☐ For review and comment ☐ Other _____

REMARKS:

A check in the amount of \$300 will be sent once the City Council approves the appropriation of funds.

COPY TO: Rick Bush, City of Sturgis

SIGNED: _____

David Holland, PE

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 4/18, 20 16

RECEIVED OF City of Sturgis 1040 2nd St # 103 Sturgis SD 57785

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

Fee for Application for Permit No. <u>1958-1</u> to Appropriate Water, to construct and to put water to beneficial use	100	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>1958-1</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	300 00

No. 07824

By J. Lee Hoelmer Jr.
Chief Engineer



**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. 1958-1, City of Sturgis**

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. 1958-1, City of Sturgis, c/o Rick J Bush, Director of Public Works, 1040 Harley-Davidson Way, Sturgis SD 57785.

The Chief Engineer is recommending APPROVAL of Application No. 1958-1 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. Water Permit No. 1958-1 authorizes a total annual diversion of up to 8.1 acre feet of water annually from the Inyan Kara aquifer.
3. The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Inyan Kara aquifer.

See report on application for additional information.

Jeanne Goodman, Chief Engineer

May 9, 2016

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 1958-1
CITY OF STURGIS
APRIL 18, 2016**

Water Permit Application No. 1958-1 proposes to appropriate water from the Inyan Kara aquifer at a maximum rate of 8.1 acre-feet annually. This application proposes to divert water from a well approximately 650 feet deep, located in the NE¼SE¼ Sec. 2, T5N-R5E, at a peak diversion rate of 0.088 cubic feet of water per second (cfs). The application proposes to use the water for municipal use to supply process water for the Sturgis Wastewater Treatment Facility.

AQUIFER: INYAN KARA (INKR)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Inyan Kara aquifer is composed of the portions of the Lower Cretaceous age Inyan Kara Group that contain sufficient saturated permeable material to yield quantities of groundwater to wells. The Inyan Kara Group was deposited in shallow waters along the eastern shore of the Skull Creek Sea (Merewether, 1975) and in general, consists of a sequence of interbedded sandstones, siltstones, and mudstones. In the Black Hills, the transgressive disconformity marking the change from continental to marginal marine deposition divides the Inyan Kara Group into two lithogenetically distinct parts (Waage, 1959). The two geologic formations that form the Inyan Kara Group are: the Fall River Formation and the underlying Lakota Formation. The Fall River Formation, which is about 110-125 feet thick in the outcrop just south of this well site near Tilford, has been subdivided into three units: an upper unit composed of interbedded shale, siltstone, and sandstone; a middle unit of continental siltstone, claystone, with some sandstone; and a lower unit of interbedded shale, siltstone and thin beds of sandstone (Waage, 1959). The Lakota formation has been divided into five fairly distinct subunits in the Sturgis area. In descending order the units' lithology, in general terms are: Claystone and silty claystone; siltstone; Sandstone; Shale and Sandstone (Waage, 1959). The total thickness of the Inyan Kara Group in this area is estimated to be approximately 200 feet (Gries, 1981).

The Inyan Kara aquifer occurs at a regional scale, extending into Wyoming, North Dakota and Nebraska as well as a major portion of South Dakota. The Inyan Kara underlies over 36,000 square miles and contains over 324 million acre-feet of recoverable water in storage in western South Dakota alone (Allen and others, 1985). Although the Inyan Kara is areally extensive, only a portion of the water it contains is fresh. More than one-half of the water in the Inyan Kara is moderately saline, and the water is saline to brine in parts (Driscoll and others, 2002). The Inyan Kara Group outcrops within one mile of the well site proposed by this application and the top of the Inyan Kara is approximately 294 feet below grade at this well site (Carter and Redden, 1999). The potentiometric surface of the Inyan Kara aquifer is estimated to be approximately 3300 feet above mean sea level elevation in this area (Strobel and others, 2000). The aquifer is under confined conditions in this area, and the water level of a well at this proposed site is expected to be above grade (i.e. a flowing well).

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 reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and existing rights from the aquifer.

WATER AVAILABILITY:

This application proposes to appropriate water from the Inyan Kara aquifer at a maximum rate of 8.1 acre-foot per year. The probability of that unappropriated water is 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 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 water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue.

Water Balance:

Recharge:

Recharge to the Inyan Kara aquifer is through infiltration of precipitation at the outcrop, and the aquifer also appears to be receiving water from the underlying Paleozoic aquifers in Central South Dakota (Schoon, 1971; Lobmeyer, 1985). Average annual recharge rate has not been quantified for the Inyan Kara aquifer. However, annual recharge to the portion of the Inyan Kara aquifer that outcrops in South Dakota alone, from the precipitation component only, was estimated for 1950-1998 to be 11,600 acre-feet per year (Driscoll and Carter, 2001).

Withdrawals:

There are a total of 181 Water Rights/Permits appropriating water from the Inyan Kara aquifer in South Dakota (Water Rights 2016b). In addition, Future Use Permit 1780-2, Town of New Underwood, reserves 142 ac-ft/yr from the Inyan Kara aquifer for future use. The estimated average annual withdrawal of appropriations in South Dakota is less than 11,000 ac-ft/yr (Buhler, 2012). This estimate was based on: 1) annual water use reported in the latest public water system survey for municipal, suburban housing development and rural water system appropriations where applicable; 2) calculated annual use based on permitted animals and rates of 20 gallons per day for beef cattle, 5 gallons per day for swine, 15 gallons per 100 turkeys, and 9 gallons per 100 chickens for large confinement operations permitted by DENR; 3) irrigation questionnaire reporting for irrigation permits when available; 4) the most current water use reported for non-irrigation appropriations that are required to report, and 5) assuming unreported water rights/permits limited to an annual volume will be used to the maximum and water rights/permits limited by diversion rate will be used 60% of continuous pumping at the maximum diversion rate for their annual use period.

The estimated average annual withdrawal from the Inyan Kara (<11,000 ac-ft/yr) in South Dakota is less than the precipitation recharge component alone for the aquifer (11,600 ac-ft/yr). Therefore, there is a reasonable probability that there is 8.1 acre-feet of unappropriated water available annually to supply this proposed appropriation. The quantities of both the average

annual recharge and the average annual use for the Inyan Kara aquifer are both small percentages of the amount of water stored in the Inyan Kara aquifer.

The simple water budget comparing the estimated average annual recharge and the potential withdrawal by existing wells and current appropriations is not intended to suggest that all of the water that is in storage in the Inyan Kara aquifer or that all of the recharge to the aquifer is available for this appropriation. It is merely to demonstrate that in general the Inyan Kara aquifer is an immense resource that is relatively untapped.

Localized Hydrologic Budget:

This well site is located within one mile of the outcrop/recharge area of the Inyan Kara aquifer. Water rights/permits appropriating water from the area are shown in Figure 1 and Table 1. Based on the potentiometric surface of the Inyan Kara (Strobel and others, 2000) there are nine water permits/rights down gradient of this proposed well site and one water right (No. 1502-1) up gradient of the well site (see Figure 1 and Table 1).

Estimated water usage from Inyan Kara appropriations immediately up and down gradient of the well site proposed by this application are shown in Table 2.

Table 1. Inyan Kara aquifer appropriations in the vicinity of the well proposed by Application No. 1958-1 (Water Rights, 2016b).

PERMIT NO	NAME	PRIORITY DATE	STATUS	USE	CFS	ACRES
1487-1	GLENCOE CAMP RESORT II LLC	03/30/1990	LC	COM	0.27	
1502-1	USDI-BUREAU OF LAND MGMT	12/17/1990	LC	DOM	0.02	
1518A-1	ROD WOODRUFF	12/26/2006	LC	COM	0.1	
1615-1	GLENCOE CAMP RESORT II LLC	01/30/1995	LC	COM	0.1	
1706-1	CITY OF STURGIS	01/03/2000	LC	MUN	0.06	
1718A-1	ROD WOODRUFF	12/26/2006	LC	COM	0.04	
1724-1	MICHAEL BALLARD	05/03/2000	LC	COM	0.089	
1742-1	HENRY OR CONNIE PETERS	10/23/2000	PE	COM	0.1	
1762A-1	ROCH OR RITA BESTGEN	03/21/1961	LC	IRR	1.93	135.2
1773-1	BOUCHER & MCCREA TRUST	07/09/2002	PE	COM	0.044	
1804-1	ROSS LAMPHERE	06/06/2003	LC	COM	0.089	
1894-1	SMITTY LLC	11/26/2007	PE	SHD	0.067	
1906-1	CITY OF STURGIS	08/21/2009	LC	MUN	0.222	
431-1	LELAND H AKOVENKO	10/07/1959	LC	IRR	0.17	10.5

Appropriations in **GREEN** are immediately up or downgradient of the well site proposed by this application. LC= Water Right, PE= Water Permit, COM= Commercial, MUN= Municipal, IRR= Irrigation, SHD= Suburban Housing Development

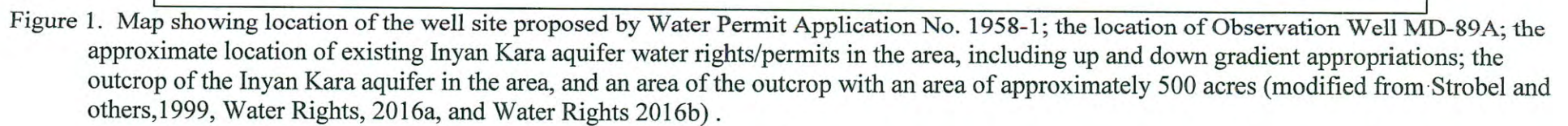
Table 2. Water Usage from the Inyan Kara aquifer immediately up and down gradient of the well site proposed by this application

Water Permit/Right	Use	Assumption	Estimated Water Use
1487-1,1615-1,1724-1, 1742-1,1804-1,1518A-1, 1718A-1	Sturgis Rally campgrounds. Combined diversion rate: 0.788 cfs	Continuous pumping at authorized rate for three weeks during the Sturgis Motorcycle Rally	32.8 ac-ft/yr
1502-1	Livestock watering from May 1- Nov 1. maximum diversion rate: 0.02 cfs	Continuous pumping at authorized rate for 184 day authorized period of operation (May 1-Nov 1)	7.3 ac-ft/yr
1906-1	Municipal use (Sturgis Softball complex)	Average reported water use for 2009-2015	2.33 ac-ft/yr
1706-1	Municipal use (bathroom and shop at the Sturgis Airport) Maximum diversion rate: 0.06 cfs	One hour per day pumping (1615 gal/day)	1.8 ac-ft/yr
			<i>Total 44.23 ac-ft/yr</i>

Precipitation recharge to the Inyan Kara aquifer can be estimated using the yield-efficiency algorithm developed by Driscoll and Carter (2001). The average annual precipitation for this area, for water years 1961-1990, was approximately 21 inches per year (Driscoll and others, 2000). Carter and others (2001) estimate that approximately 7.5 percent of annual precipitation on the Madison aquifer outcrop recharges the aquifer. Recharge to the Inyan Kara aquifer is prescribed by multiplying the total yield for the Madison aquifer by a recharge factor for the Inyan Kara. The recharge factor for the Inyan Kara aquifer is reported to be 0.80 (Driscoll and Carter, 2001). Therefore the average annual precipitation recharge to the Inyan Kara aquifer is estimated to be approximately 1.26 inches per acre per year.

Including the 8.1 acre-feet per year that would be appropriated if Water Permit Application No. 1958-1 is approved, the total well withdrawals directly up and down gradient of this proposed well site, would be 52.33 acre-feet annually. At 1.26 inches per year an outcrop area of approximately 500 acres would generate 52.5 acre-feet of precipitation recharge annually.

Upon examination of Figure 1, it is reasonable to assume that precipitation recharge from an outcrop area larger than 500 acres is available to supply this proposed permit and appropriations immediately up and down gradient of it. Based on the conservative assumption that the only water available to supply this proposed permit and the appropriations immediately up and down gradient of it originates as precipitation recharge from directly up gradient of the appropriations (i.e. no stream loss recharge and no groundwater inflow from adjacent areas), average annual recharge can be expected to exceed average withdrawals for this area. Therefore, there is a reasonable probability that unappropriated water is available for this appropriation.



OBSERVATION WELL DATA:

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

The DENR-Water Rights Program monitors nine observation wells completed into the Inyan Kara aquifer statewide. Eight of these wells are located near the perimeter of the Black Hills. Observation well MD-89A is located approximately four and one-half miles northwest of the well site proposed by this application (see Figure 1) and can be considered representative for the aquifer on a regional scale in this area. A hydrograph for the observation well is shown in Figure 2.

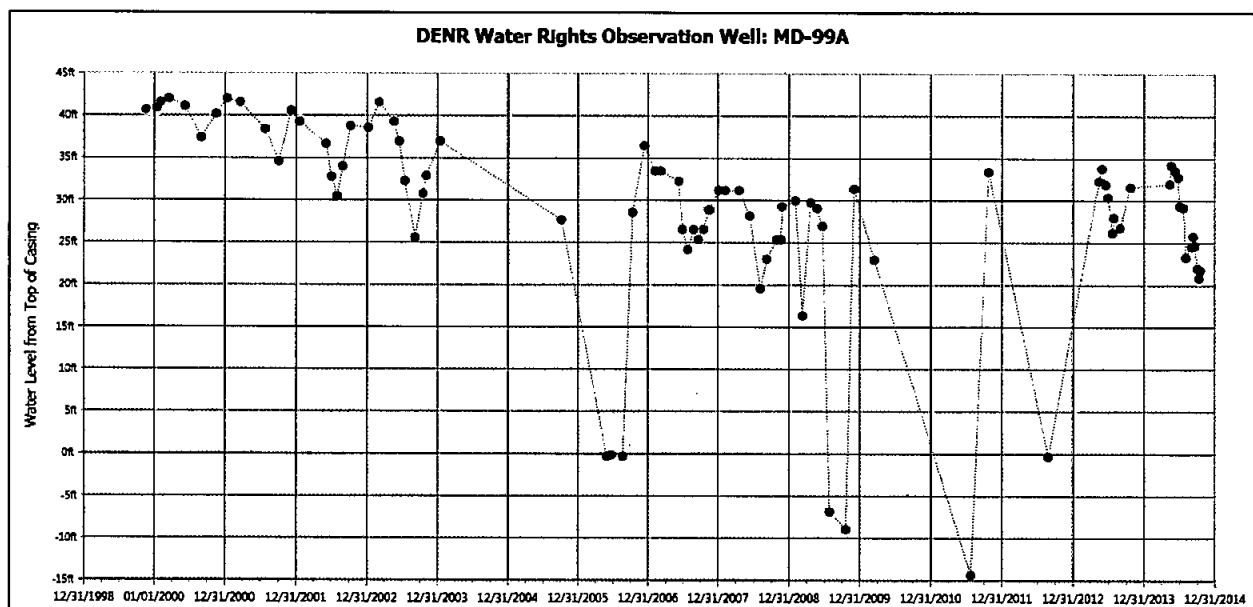


Figure 2. Hydrograph for DENR-Water Rights' observation well MD-89A which is completed into the Inyan Kara aquifer approximately four and one-half miles northwest of the well site proposed by Application No. 1958-1 (Water Rights, 2016a).

The observation well is located near a number of large capacity wells authorized by water rights/permits (Water Rights, 2016b). The water level fluctuations in the observation well hydrograph document the development of the aquifer in the area since 1989. The upward spikes on the hydrograph are the result of nearby high capacity flowing wells being shut down at the end of the irrigation season (Buhler, 2009). Additional wells were completed in the vicinity of the observation well in 2001, 2004, and in 2007 (2 wells). The increased use since 1998, which coincided with sod irrigation has produced the larger peak-to-peak amplitude that occurs in the right half of the hydrograph. In general, the hydrograph shows the aquifer is recharged, recovers from pumping, and although drought conditions are apparent in the mid-2000's, currently there is essentially the same amount of water in storage in the aquifer as there was in 1989. Since groundwater outflow from the Inyan Kara aquifer is a significant component to a hydrologic

budget for the aquifer, and is available for capture by well withdrawals, the observation well data documents that unappropriated water is available from the Inyan Kara aquifer.

EXISTING WATER RIGHTS:

Water rights/permits supplied by sources other than the Inyan Kara aquifer are not expected to be affected by Inyan Kara aquifer withdrawals since the aquifer is confined by the overlying Skull Creek shale and the underlying Morrison formation separates the aquifer from lower aquifers in this area.

There are a number of reports on file with the DENR-Water Rights Program for domestic use wells that are completed into the Inyan Kara aquifer in this area (Water Rights, 2016c). Water rights/permits appropriating water from the Inyan Kara aquifer in this area are shown in Figure 1 and Table 1. In addition, two water permit applications proposing appropriations from the Inyan Kara aquifer, Application Nos. 1476-1 and 1871-1, have been denied in this area.

Application No. 1476-1 proposed to construct a dugout in a “dry creek” that would fill from seepage from artesian well fed irrigation ponds located upstream of the proposed dugout. The Water Management Board ruled that if the permit was granted, irrigation from the dugout would deprive stock water to a user immediately below the proposed project.

Water Permit Application 1871-1, was denied because the Board concluded that the applicant did not meet his burden of proof to show that the application is in the public interest.

Since the Inyan Kara aquifer is under confined conditions, the artesian pressure of the aquifer is subject to fairly significant fluctuations due to pumping (see Figure 2). Drawdown from withdrawing water from a well, either by pumping it or allowing it to flow, may extend over a fairly large area. At this time, it is not practical to attempt to quantify the specific affect withdrawals from this well may have on area wells since aquifer characteristics have not been determined for this area.

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

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

An increase in operating expenses that may result from interference between wells is not necessarily an adverse impact. The Water Management Board considered this situation in the matter of Water Permit Application 2313-2, Coca-Cola Bottling Company of the Black Hills (Water Rights, 1995). The Board adopted findings of fact and conclusions of law that basically state that if the increased cost or decreased production is considered an adverse impact, it could

be in conflict with SDCL 46-1-4, which requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable.

Given the distance this proposed well site is from existing Inyan Kara aquifer wells supplying water rights/permits, and the relatively insignificant drawdown expected at the pumping well, interference is not expected to be adverse.

CONCLUSIONS:

1. Water Permit Application No. 1958-1 proposes to appropriate 8.1 acre-feet per year from the Inyan Kara aquifer at a maximum diversion rate of 0.088 cfs.
2. Approval of this application will not result in average annual withdrawals from the Inyan Kara aquifer to exceed the average annual recharge to the aquifer.
3. The Inyan Kara is a viable aquifer in this area, and there is a reasonable probability that unappropriated water is available for this proposed appropriation.
4. Well interference is not expected to be significant and will not adversely impact existing users.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

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- Water Rights, 2016b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD
- Water Rights, 2016c, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD

Notice is given that the City of Sturgis, c/o Rick J Bush, Director of Public Works, 1040 Harley-Davidson Way, Sturgis SD 57785 has filed an application for a water permit to appropriate 8.1 acre feet of water annually at a maximum diversion rate of 0.088 cubic feet of water per second (40 gallons per minute) from one well to be completed into the Inyan Kara Aquifer (650 feet deep) located in the NE 1/4 SE 1/4 Section 2-T5N-R5E for municipal use at the wastewater treatment facility.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1958-1 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 31, 2016.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

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

(Published once at the total approximate cost \$36.55).
Meade County Times

Affidavit of Publication

STATE OF SOUTH DAKOTA

County of Pennington

SS:

RECEIVED

JUN 02 2016

WATER RIGHTS
PROGRAM

Brandyn Crawford being first duly sworn, upon his/her oath says: That he/she is now and was at all time hereinafter mentioned, an employee of the Rapid City Journal, a corporation of Rapid City, South Dakota, the owner and publisher of the MEADE COUNTY TIMES, a legal and daily newspaper printed and published in Sturgis, in said County of Meade, and has full and personal knowledge of all the facts herein stated as follows: that said newspaper is and at all of the times herein mentioned has been a legal and daily newspaper with a bonafide paid circulation of at least Two Hundred copies weekly, and has been printed and published in the English language, at and within an office maintained by the owner and publisher thereof, at Sturgis, in said Meade County, and has been admitted to the United States mail under the second class mailing privilege for at least one year prior to the publication herein mentioned; that the advertisement, a printed copy of which, taken from said Meade County Times, the paper in which the same was published, is attached to this sheet and made a part of this affidavit, was published in said paper once each Week for one successive Week, the first publication there of being on the 18th day of May that the fees charged for the publication there of are Thirty Six dollars and forty five cents.

Subscribed and sworn to before me this 31st
day of May, 2016.

Dustin Rice
Notary public

My Commission Expires
July 1, 2020

SEAL NOTARY PUBLIC SEAL
SOUTH DAKOTA

My commission expires

RECEIVED

MAY 23 2016

WATER RIGHTS
PROGRAM

NOTICE OF
APPLICATION
NO. 1958-1

to Appropriate Water

Notice is given that the City of Sturgis, c/o Rick J Bush, Director of Public Works, 1040 Harley-Davidson Way, Sturgis SD 57785 has filed an application for a water permit to appropriate 8.1 acre feet of water annually at a maximum diversion rate of 0.088 cubic feet of water per second (40 gallons per minute) from one well to be completed into the Inyan Kara Aquifer (650 feet deep) located in the NE 1/4 SE 1/4 Section 2-T5N-R5E for municipal use at the wastewater treatment facility.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1958-1 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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

Published once at the
total approximate cost of
\$25.87.

#344
May 18

Affidavit of Publication

STATE OF SOUTH DAKOTA:

COUNTY OF LAWRENCE:

Letitia Lister of said County and State being first duly sworn, on her oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Letitia Lister, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Letitia Lister, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice of Application
No. 1958-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 1 successive and consecutive weeks, the first publication being made on the 18th day of May, 2016, and the last publication on the day of , , that the full amount of fees charged for publishing same, to-wit: The sum of \$ 25.87, insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

Letitia Lister
Subscribed and sworn to before me this 18th day of May, 2016

Richard Richards
Notary Public, Lawrence County, South Dakota
My commission expires: 10-24-2016

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, May 10, 2016 9:28 AM
To: MCTT.News@rapidcityjournal.com
Subject: 1958-1, City of Sturgis
Attachments: 1958-1publicnov2015.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on May 18, 2016.

City of Sturgis, Rick J Bush, Director of Public Works, 1040 Harley-Davidson Way, Sturgis SD 57785 (605 347-3916 c – 605 347-1832) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, May 10, 2016 9:29 AM
To: Legals (legals@bhpioneer.com)
Subject: 1958-1, City of Sturgis
Attachments: 1958-1publicnov2015.short1.docx; FORM8.FRM.doc

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Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

May 9, 2016

City of Sturgis
Rick J Bush, Director of Public Works
1040 Harley-Davidson Way
Sturgis SD 57785

Dear Mr. Bush:

Water Permit Application No. 1958-1 has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Meade County Times-Tribune printed at Sturgis SD (Ph # 605-347-2503) and the Black Hills Pioneer printed at Spearfish SD (Ph # 605-642-2761). 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.

NOTICE OF APPLICATION NO. 1958-1 to Appropriate Water

Notice is given that the City of Sturgis, c/o Rick J Bush, Director of Public Works, 1040 Harley-Davidson Way, Sturgis SD 57785 has filed an application for a water permit to appropriate 8.1 acre feet of water annually at a maximum diversion rate of 0.088 cubic feet of water per second (40 gallons per minute) from one well to be completed into the Inyan Kara Aquifer (650 feet deep) located in the NE 1/4 SE 1/4 Section 2-T5N-R5E for municipal use at the wastewater treatment facility.

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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

JUN 27 2016

City of Sturgis
Rick J Bush
1040 Harley Davidson Way
Sturgis SD 57785

Dear Mr. Bush:

Enclosed is Water Permit No. 1958-1 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

1958-1

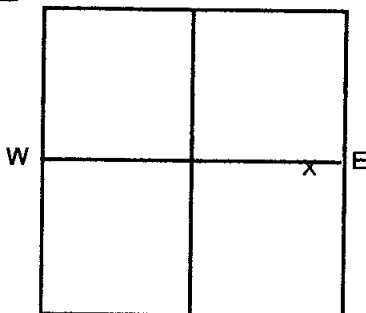
SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 SE 1/4 Sec 2 Twp 5N Rg SECounty Meade

North

Please mark well
location with an "X"

Well Completion Date

10-25-16

1 Mile

 Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.):
210 ft. from Sewage Lagoon (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary-Mud

CASING DATA:

☒ Steel ☐ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
24 LB/FT	8 5/8 IN	82 FT	0 FT	13 3/8 IN
15.5 LB/FT	5 1/2 IN	605 FT	+2 FT	7 7/8 IN
OH LB/FT	IN	605 FT	627 FT	7 7/8 IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Portland	65	15 Lb/gal	82 Ft	0 Ft
Portland	135	15 Lb/gal	605 Ft	0 Ft

Describe grouting procedure

Pressure grouted through casing

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?

Chlorine solution

☐ No, Why Not?Lab to which water
quality sample sent for analysis _____Well Owner: City of Sturgis

Business Name: _____

Address: 1057 Dudley StreetCity, State, Zip: Sturgis ☒ SD ☒ 57785

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil, gravel & shale	0	63
Sandstone 15-20 gpm	63	65
Belle Fourche	65	145
Mowry	145	250
Skull Creek	250	447
Fall River	447	572
Fuson	572	605
Lakota Sandstone	605	627
Morrison	627	647

STATIC WATER LEVEL _____ 0 FEET

If flowing: closed in pressure _____ 4 PSI

GPM flow 12 through _____ 2 Inch pipeControlled by ☒ Valve ☐ Reducers ☒ Other Pitless adapter

Reduced flow rate _____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air developed
 400' 3 Hrs. @ approx 100 gpm
☐ Bailed
 300' 3 Hrs @ 83 gpm
☒ Other

Pumping Level Below Land Surface

_____ 200 Ft. After _____ 2 Hrs. pumped _____ 72 GPM

_____ 100 Ft. After _____ 2 Hrs. pumped _____ 42 GPM

If pump installed, pump rate: _____ GPM

REMARKS

IB

This well was drilled under license # 331 and this report is true and accurate.Drilling firm: Taylor Drilling Co.

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

RECEIVED

DEC - 5 2016

Date: _____

WATER RIGHTS
PROGRAM

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 1958-1

I have this day, August 24, 2017 made a thorough examination of the water use system constructed by **City of Sturgis, 1040 Harley Davidson Way, Sturgis, SD 57785** of Permit No. **1958-1**, bearing the priority of **4/11/2016** authorizing the diversion of **0.088** cu. ft. per second of the water from one well for municipal purposes, in Meade County.

Inspection contact & relationship to permit holder, if applicable: **Rick Bush, Director of Public Works**
605-347-1832

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Taylor Drilling (10/2016)
- 2) No. of Wells 1
- 3) Depth(s) 647 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 8 5/8" - 0 to 82', 5 1/2" +2 to 605'
- 2) Length 605 feet
- 3) Type Steel

Screen:

- 1) Type open hole
- 2) Length 42 feet
- 3) Static water level 0 feet (12 gpm flowing well, closed in pressure 4 psi.)
Air Test at completion 100 ft. @ 42 gpm, 200 ft. @ 72 gpm, 300 ft. @ 83 gpm, 400 ft. @ 100 gpm

Pump:

- 1) Make Grundfos
- 2) Model 40S50-12 (set @ 200 ft.)
- 3) Size 4"
- 4) Capacity 40 gpm
- 5) Horsepower rating 5 hp (variable speed drive set @ 70 psi.)

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

- 1) Type PVC
- 2) Size 6"
- 3) Length 300 feet

C. Works used to apply water to beneficial use:

The well supplies the wastewater treatment plant. The largest use at the plant is for cleaning the automated bar screen which requires a 20 second flow each time the screen loads to capacity with solids. The frequency of cleaning varies with flow coming into the plant but averages about once each hour. The well also serves domestic uses at the plant which includes drinking water and restrooms. The well will serve these same purposes at the new wastewater treatment plant, which is to be completed in 2020.

D. Compliance with Permit Requirements:

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

E. Condition and Location:

1. The system is in good condition with the point of diversion located as follows:
2,520' N and 273' W of the SE corner Section 2T 5N R5E (44.423374, -103.469396)
2. The works are capable of diverting and conveying to the place of use **0.089** cu. ft. per second (40 gpm) of water which is to be used for **municipal** use and the license should be issued for **0.089** cfs.
3. All structures, wells and lands on map: **Yes**

F. Comments or other permit(s) associated with the project: none



Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Date Report Completed: **August 25, 2017**



Well head with water treatment plant in background



One of three Sturgis City lagoons

Water Right # 1958-1
City of Sturgis
August 24, 2017

Sec 35
T006N
R05E

Sec 36
T006N
R05E

Sec 31
T006N
R06E

Sec 2
T005N
R05E

Well location
Lat: 44.423374
Lon: -103.469396

273'

Water Treatment Plant

2,520'

City Lagoons
Sec 1
T005N
R05E

Sec 6
T005N
R06E

Sec 11
T005N
R05E

Sec 12
T005N
R05E

Sec 7
T005N
R06E

Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGA, swisstopo, and the GIS User Community

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

MAIL TO: PMB 2020

Date

8/24/17

DENR - Water Rights Program

523 E Capitol Ave

Pierre, SD 57501-3182

ph. (605) 773-3352

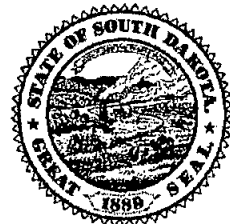
FROM:

Rick Bush - City of Sturgis
(name)1040 HARLEY DAVIDSON WAY
(address)Sturgis S.D. 57785 605-347-1832
(city) (state) (zip) (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. 1958-1 states that the water use system is to be constructed by5/31/2021, and water is to be put to beneficial use by 5/31/2025
(date) (date)The water use system was completed on well completion 10/25/16
Jan 1, 2017
(date)Applying the water to beneficial use was completed on Jan 1, 2017
(date)

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

Rick BushX Rick Bush 8-24-17



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

OCT 10 2017

1958-1

Rick Bush, Public Works Director
City of Sturgis
1040 Harley Davidson Way
Sturgis SD 57785

Dear Mr. Bush:

Enclosed is Water License No. 1958-1. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 1958-1**

(1) City of Sturgis, 1040 Harley Davidson Way, Sturgis SD 57785 made Application No. 1958-1, April 11, 2016 for a water permit to divert 0.088 cubic feet of water per second (8.1 acre feet of water annually) from ground water, one well (Inyan Kara Aquifer), Meade County, South Dakota for municipal purposes at the wastewater treatment facility. Permit No. 1958-1, with a priority date of April 11, 2016 was approved May 31, 2016 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 31, 2021 and for the application to beneficial use of said water on or before May 31, 2021.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.088 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 2,520' N and 273' W of the SE corner Section 2, T5N R5E (NE ¼ SE ¼, Latitude 44.423374, Longitude -103.469396)

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use. The well supplies the wastewater treatment plant with the largest use for cleaning the automated bar screen. The well also serves domestic uses at the plant including drinking water and restrooms.

(4) Pursuant to South Dakota Water Law 46-5-30.1 City of Sturgis, 1040 Harley Davidson Way, Sturgis SD 57785 the holder and/or owner of Water Right No. 1958-1 is issued a license to appropriate water, the right to use 0.088 cubic feet of water per second from ground water, one well (Inyan Kara Aquifer) with a priority date of April 11, 2016 from the location specified in (2) of this license for municipal purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 1958-1 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.
- Water Right No. 1958-1 authorizes a total annual diversion of up to 8.1 acre feet of water annually from the Inyan Kara Aquifer.
- The Water Right Holder shall report to the chief Engineer annually the amount of water withdrawn from the Inyan Kara Aquifer.



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

OCT 10 2017
date

