

WATER PERMIT NO. 1956-1

Name of Applicant: Mattson, Inc.

Address: PO Box 269, Deadwood SD 57732 Phone: 605 920-1447

Amount of Water Claimed: 0.10 cfs Total Acres: NA

Source of Water Supply: groundwater (one well)

Water to be used for: suburban housing County: Lawrence

Type of Waste Disposal System:

Location: 1/2 mile northwest of Deadwood

PRIORITY Date Received: 11-30-15 Application/License Fee: \$ 300

Corrected Application Received: Period of Annual Use: January 1 – December 31

Remarks: Shirttail Gulch Subdivision

Diversion Point: SW 1/4 SE 1/4 Sec 13-T5N-R3E

Land to be Irrigated: NA

Depth of Well: 226 feet deep

Well Driller: Taylor Drilling

Remarks:

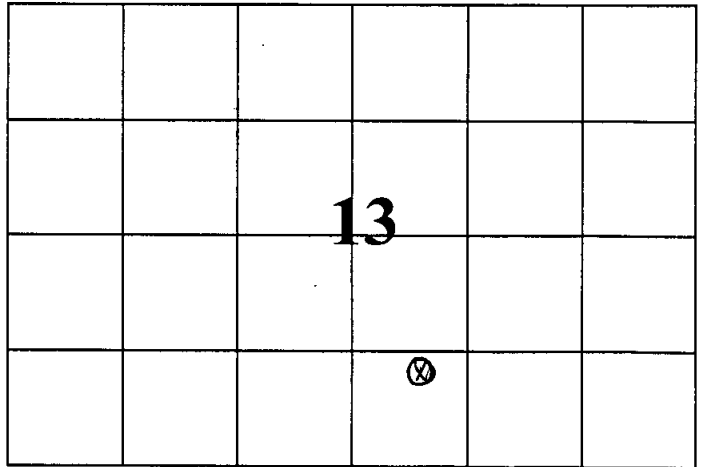
Type of Map: topo

Prepared by:

Reviewed and the Number Assigned on: 11-30-15

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

No. 1956-1 (office use only)
Hydrologic Unit 10120202
Basin Belle Fourche River
Newspaper Black Hills Pioneer, Spearfish
605-642-2761

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WATER RIGHTS
PROGRAM

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

Check use(s) of water:

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

Type of Application:
(check one)

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

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

1. Name to Appear on Water Permit Mattson, Inc.
(check one) ☐ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

Mailing Address P.O. Box 269 Deadwood S.D. 57732
(Address) (City) (State) (Zip Code)

Home Phone 605-397-0283 Cell 605-920-1447 Email JOHNBARRBH@YAHOO.COM

2. Amount of water claimed 0.10 *CFS or 45 **GPM 43 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply WATER WELL - MADISON FORMATION

4. Location of point of diversion Section 13, T5N, R3E, B.H.M. County LAWRENCE
(SW1/4 SE1/4) (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)

5. County or counties where water will be used LAWRENCE

6. Annual period during which water is to be used ALL YEAR - JAN. 1 - Dec. 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

New Well drilled to produce WATER complying with
S.D. WATER Quality standards FOR Shirt Tail Gulch
Subdivision Residents

I, Jon Mattson - Pres. Mattson, Inc., the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

2012-09

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)

SOUTH DAKOTA
WATER PERMIT NO. 1956-1

Date of first receipt of application November 30, 2015.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1956-1 to Mattson, Inc., c/o Jon Mattson, PO Box 269, Deadwood SD 57732 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. 1956-1 appropriates 0.10 cubic feet of water per second (up to 15 acre feet of water annually) from one well completed into the Madison Aquifer (226 feet deep) located in the SW 1/4 SE 1/4 Section 13-T5N-R3E for water distribution system at Shirttail Gulch Subdivision which is located in portions of Section 13-T5N-R3E.
2. The water appropriated shall be used for the purpose of a water distribution system 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. 1956-1 is February 16, 2016.
5. The date from which applicant may claim right is November 30, 2015.
6. One-fifth of the construction is to be completed on or before August 16, 2018.
7. All construction is to be completed on or before February 16, 2021.
8. Water is to be put to beneficial use on or before February 16, 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

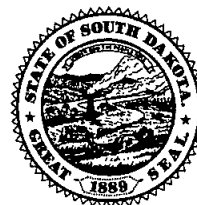
1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1956-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 1956-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. 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.
3. Water Permit No. 1956-1 authorizes a total annual diversion of up to 15.0 acre feet of water annually from the Madison aquifer.
4. The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.

WATER MANAGEMENT BOARD

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

MAR 17 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 Taylor Drilling
(if yes, please provide copies of logs)

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

c) Well Depth 226 Depth to Top of Water Bearing Material 220 Depth to Water from Surface 95

d) Distance to nearest existing domestic well:

On applicant's property 44 Feet On property owned by others

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) Individual Septic tanks

b) System Capacity (gallons) Year Constructed

c) Connected to the City of 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)

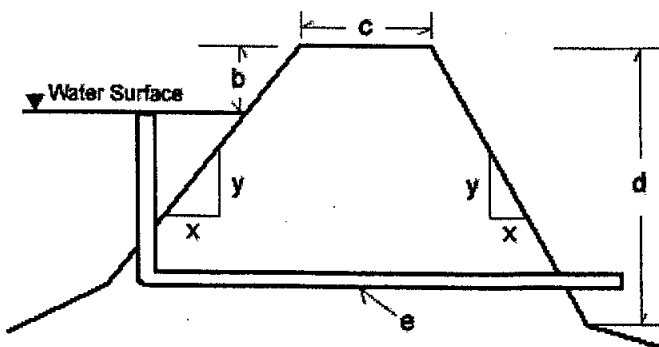
Upstream

Downstream

h) Surface Area of Impoundment

i) Storage Acre Feet

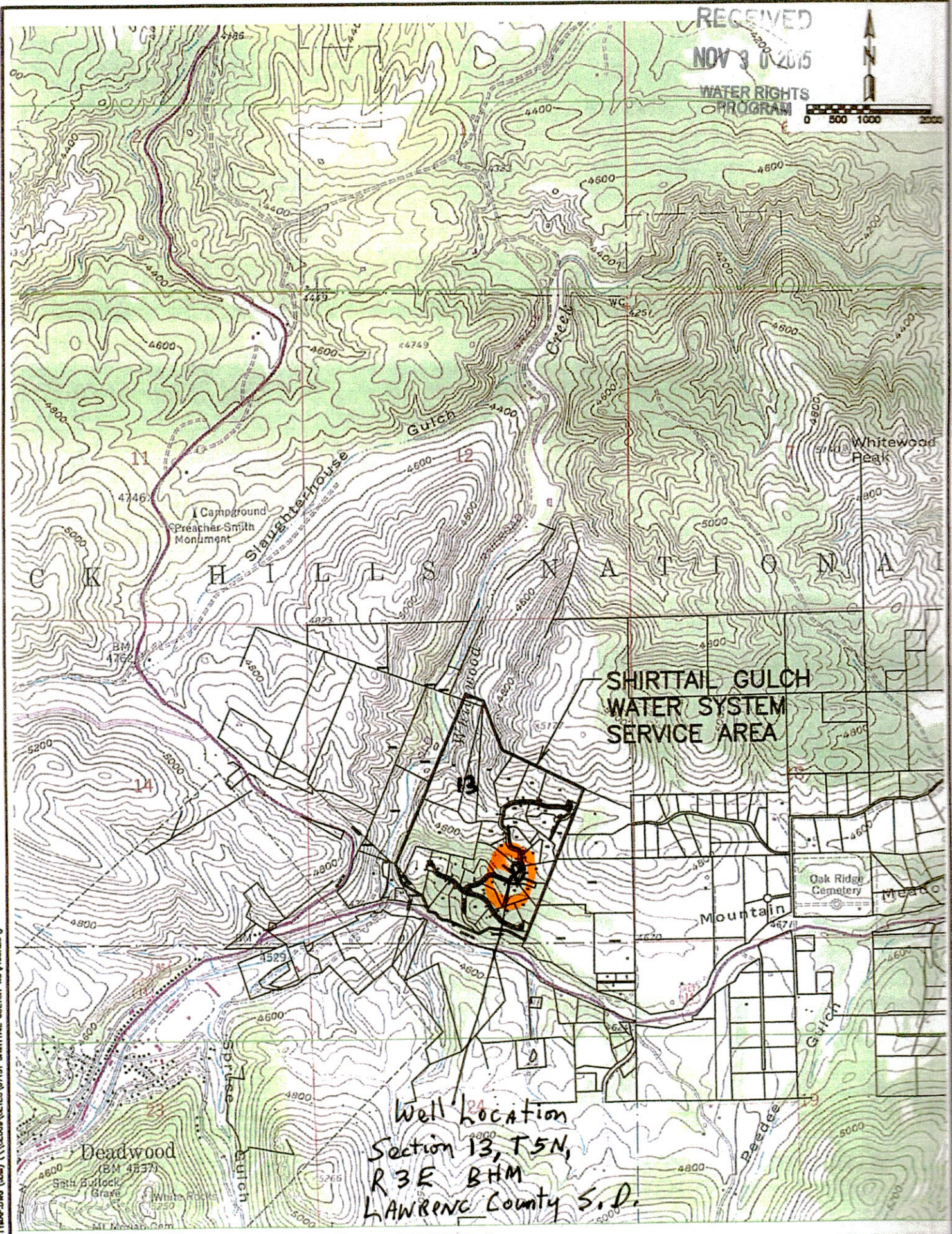
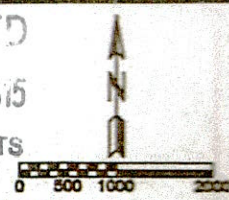
j) Drainage Area Above Dam Acres



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Well location
Section 13, T5N,
R3E BHM
Lawrence County S.D.

FIGURE 1
SHIRTTAIL GULCH WATER SYSTEM
VICINITY MAP



May 21, 2008 8:45:22 am
Drawing: VICINITYMAP.DWG (LAW) \\C0009\CETEC\07131 SHIRTTAIL GULCH WS\FIGURES\1

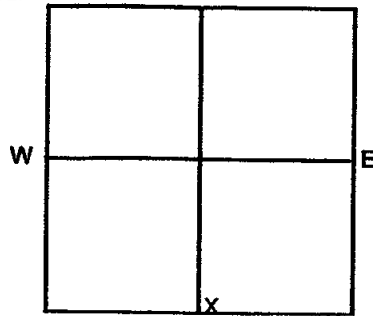
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SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE ¼ SE ¼ Sec 13 Twp 5N Rg 3ECounty Lawrence ☒

North

Please mark well
location with an "X"

Well Completion Date

10-15-15

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary-Air

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
15.5 LB/FT	5 IN	+2 FT	215 FT	7 IN
OH LB/FT	- IN	215 FT	226 FT	7 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	30	15 Lb/gal	0 Ft	215 Ft
		Lb/gal	Ft	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 analysisWell Owner: Jon Mattson

Business Name: _____

Address: PO Box 269City, State, Zip: Deadwood ☒ SD ☒ 57732

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Fill dirt	0	8
Red to orange clay	8	19
White and yellow limestone	19	
Layers of clay		108
White dolomite, red and orange clay	108	160
Tan and yellow limestone, red shale	160	208
Tan limestone, chert	208	226

STATIC WATER LEVEL _____ 95 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 developed☐ Bailed☒ Other

Pumping Level Below Land Surface

_____ 220 Ft. After _____ 4 Hrs. pumped _____ 150 GPM

_____ 140 Ft. After _____ 2 Hrs. pumped _____ 30 GPM

If pump installed, pump rate: _____ GPM

REMARKS

Test pumped Well @ 40 gpm for 72 hrs.
Water level 130.7 ftThis well was drilled under license # 331 and this
report is true and accurate.Drilling firm: Taylor Drilling Co.

Signature of License Representative:

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Signature of Well Owner or Equitable Property Holder:

Date: _____

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WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 11/30, 20 15

RECEIVED OF Mattson ~~Inc~~ PO Box 269 Deadwood SD 57732

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

Fee for Application for Permit No. <u>1956-1</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>1956-1</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. 07534

By J. Anne Goodman
Chief Engineer

Entity Detail	File Annual Report	Statement of Change	Forms
Name	MATTSON, INC.	<u>Obtain a Certificate of Good Standing</u>	
Corporate ID	DB033545		
Incorporation/Qualification Date	10/19/1993		
Home State	SOUTH DAKOTA		
Status	Good Standing		
Last Annual Report	2015		
Corporation Type	Domestic Business		
Stock Info	5,000 CM @ \$100.		

Registered Agent	Documents	Officers
------------------	-----------	----------

Registered Agent Name & Address

JON MATTSON
12772 ROTH RD
STURGIS, SD 57785

Mattson, Inc.
P.O. Box 269 Deadwood, SD 57732
605-920-1447 cell 605-347-0283

11-22-15

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WATER RIGHTS
PROGRAM

Eric Gronlund
Water Rights Program DENR
523 E. Capital Ave.
Pierre, SD 57501- 3182

Re: Shirttail Gulch Subdivision well

Dear Eric:

Enclosed please find application for permit to appropriate water from Mattson Inc. for the Shirt tail Subdivision well. A check for \$300.00 is enclosed.

Please do not hesitate to contact me if you have any questions.

Very truly yours,



Jon Mattson

No. 1956-1

Water Rights Program - DENR Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 1956-1, Mattson Inc.

ADDRESS: COUNTY: Lawrence County

DATE: January 20, 2016 TELEPHONE:

RE: annual volume

Application No. 1956-1 proposes to appropriate 0.10 cfs from a Madison aquifer well to serve the Shirttail Gulch Subdivision near Deadwood. In filing the application, Mr. Jon Matteson requested an annual volume of 43 acre feet of water. This was based on a discussion with me that it is common to assign an annual volume based on pumping sixty percent of the time.

The staff report states water usage by this system in 2014, using the existing well completed into the Deadwood Formation was 5 acre feet of water based on reporting to the Drinking Water Program of DENR.

Currently, there are 24 homes served within this subdivision. This is what is on record with the Drinking Water Program (Friedeman, personal communication, January 20, 2016) and confirmed by a count of homes using Google map. On January 20, 2016, I called Mr. Mattson and asked if 24 homes was the subdivision's full build out. He stated there are still nine lots for sale and that 33 homes would be full build out for the subdivision.

A internet search was conducted of average water use per household. An EPA publication entitled "Water Sense" dated June 2008 states the average family of four uses 400 gallons per day (gpd). Applying this daily use for 33 homes results in an annual use of 14.8 acre feet of water.

$(33 \text{ homes} \times 400 \text{ gpd} \times 365 \text{ day/year} \div 325,828 \text{ gallons/acre-feet} = 14.8 \text{ acre feet per year})$

Another method to calculate annual water use would be the same as was done in United Order of South Dakota's Water Permit Application No. 2730-2. In that instance water use per capita demand for residential use is a maximum of 130 gpd based on Civil Engineer Reference Manual for PE Exam (Lindburg, 2012). The Drinking Water Program assumes 2.5 residence per home. This results in an annual use of 12 acre feet of water per year.

$(33 \text{ homes} \times 2.5 \text{ people/home} \times 130 \text{ gpd} \times 365 \text{ days/year} \div 325,828 \text{ gallons/ac-ft} = 12 \text{ ac-ft})$

Assuming four 4 people per home as is the case with the EPA publication, results in an annual use of 19.2 acre feet/year.

It is recognized that irrigation of lawns and landscaping in this area may be somewhat less than other areas in South Dakota. It is reasonable that the water permit be limited to 15 acre feet of water annually to allow full build-out at the subdivision and allow each home 400 gpd based on the EPA guidance.

This was discussed with Mr. Mattson and he expressed acceptance of this approach.

NAME: Eric Hunkland



Indoor Water Use in the United States

Americans use large quantities of water inside their homes. A family of four can use 400 gallons of water every day, and, on average, approximately 70 percent of that water is used indoors.

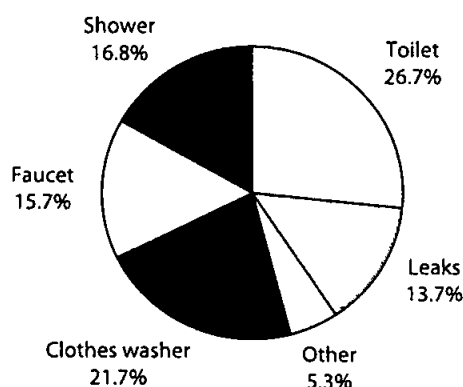
The bathroom is the largest consumer of indoor water. The toilet alone can use 27 percent of household water. Almost every activity or daily routine that happens in the home bathroom uses a large quantity of water. For example:

- Older toilets use between 3.5 and 7 gallons of water per flush. However, WaterSense® labeled toilets use at least 60 percent less water.
- A leaky toilet can waste about 200 gallons of water every day.
- A bathroom faucet generally runs at 2 gallons of water per minute. By turning off the tap while brushing your teeth or shaving, a person can save more than 200 gallons of water per month.

Outside the bathroom, there are many opportunities to save water. Here are some common water-efficiency measures, along with a few solutions to those problems you may not have known existed:

- High-efficiency washing machines can conserve large amounts of water. Traditional models can use 50 gallons or more of water per load, but newer, energy- and water-conserving models (front-loading or top-loading, non-agitator ones) use less than 27 gallons per load.

How Much Water Do We Use?



Source: American Water Works Association Research Foundation, "Residential End Uses of Water," 1999

- Washing the dishes with an open tap can use up to 20 gallons of water, but filling the sink or a bowl and closing the tap saves 10 of those gallons.
- Keeping a pitcher of water in the refrigerator saves time and water instead of running the tap until it gets cold.
- Not rinsing dishes prior to loading the dishwasher could save up to 10 gallons per load.

WaterSense, a partnership program sponsored by the U.S. Environmental Protection Agency, seeks to help families and businesses realize that they can reduce water use by doing just a few simple things, such as upgrading to higher quality, more efficient products. For more information, visit <www.epa.gov/watersense>.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

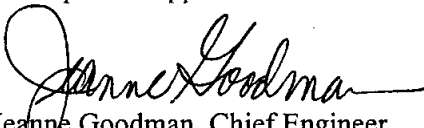
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1956-1, Mattson, Inc.**

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. 1956-1, Mattson, Inc., c/o Jon Mattson, PO Box 269, Deadwood SD 57732.

The Chief Engineer is recommending Approval of Application No. 1956-1 for 15 acre feet of water annually with a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1956-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 1956-1 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
2. 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.
3. Water Permit No. 1956-1 authorizes a total annual diversion of up to 15.0 acre feet of water annually from the Madison aquifer.
4. The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.

See report on application for additional information.


Jeanne Goodman, Chief Engineer
January 25, 2016

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO.1956-1
MATTSON, INC., C/O JON MATTSON
DECEMBER 28, 2015**

Water Permit Application No. 1956-1 proposes to appropriate up to 43 acre-feet of water annually, at a maximum diversion rate of 0.10 cubic feet of water per second (cfs), from a well completed into the Madison aquifer. The existing well that this application proposes to use is 226 feet deep and is located in the SW¼ SE¼ Sec.13, T5N-R3E. Water is to be used to supply a water distribution system at Shirttail Gulch Subdivision which is located less than one mile northeast of Deadwood, SD, in Sec.13,T5N-R3E.

AQUIFER: MADISON AQUIFER (MDSN)

GEOLOGY AND AQUIFER CHARACTERISTICS:

Strobel and others, (1999) consider the Madison aquifer as composed of the Madison (Pahasapa) Limestone and Englewood Formation. The Madison aquifer is a regional aquifer that underlies portions of Montana, Nebraska, North Dakota, South Dakota, Wyoming and parts of Canada (Peterson, 1984). The Madison aquifer contains an estimated 644,827,200 acre-feet of recoverable water in storage in western South Dakota (Allen and others, 1985) and 51,512,300 acre-feet of recoverable water in storage in eastern South Dakota (Hedges and others, 1982). The Madison Limestone is a massive limestone and dolomite with relatively low primary permeability and porosity. However, extensive secondary porosity and permeability does occur locally within the Madison. The Madison aquifer is most productive in the upper part of the Madison Limestone. The upper third of the Madison is karstic with caves, solution collapse features and enlarged conduits resulting in extensive secondary permeability and creating potentially the most productive aquifer in the Black Hills (Kyllonen and Peter, 1987). The Englewood Formation, a limestone below the Madison Limestone, is included in this hydrologic unit because of the hydraulic connection between the two units and relatively minor thickness of the Englewood Formation in outcrop areas. The lower portion of the Madison Limestone and the Englewood Formation are generally considered confining zones.

The well that this permit application proposes to use as a water source is located on the Madison outcrop/recharge area within the upper half of the limestone. Wells penetrating the Madison Limestone in this area report a thickness of as much as 442 feet (Water Rights, 2015c). A nearby well completed into the Deadwood aquifer for Jon Mattson, identifies 310 feet of Madison Limestone (Water Rights, 2015c). The geology in the area of this well site is fairly complex with numerous Tertiary aged intrusives, faulting and folding. This well site is located within one mile of the southernmost extent of the Madison in this area. Whitewood Creek has completely incised the Madison aquifer less than one-half mile west of this well site, thus preventing lateral groundwater inflow to the area from the west. An east-west trending normal fault has been identified less than one-half mile north of this well site (Darton, 1925). The north side of the fault has been upthrown several hundred feet (Mark D. Fahrenbach, personal communication, December 22, 2015).

Groundwater flow in this area is to the northeast at approximately 200 to 300 feet per mile (Putnam, 2000, and McKaskey, 2013).

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 from the aquifer and the potential for impairment of existing rights.

WATER AVAILABILITY:

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

“No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.”

Water Permit Application No. 1956-1 proposes to appropriate water from the Madison aquifer, a water source that is older than the Greenhorn Formation, and the water is to be used by a water distribution system.

Water Balance:

On a regional scale, recharge to the Madison aquifer generally occurs through streamflow losses and direct infiltration of precipitation at the outcrop area. However, due to the geology of this area and the location of this well in relation to the edge of the Madison Limestone, for this well site the aquifer must be considered on a localized scale. As stated earlier, Whitewood Creek, the fault located just north of this well site, the southern edge of the Madison outcrop, and the groundwater flow direction all act to limit the influence of the regional flow system in this area. A relatively limited area is available to contribute water that can be captured by this well.

Millions of tons of mill tailings were discharged into Whitewood Creek and its tributaries between 1876 and 1977. These fine-ground mill tailings may have effectively sealed the loss zones along Whitewood Creek (Hortness and Driscoll, 1998). Therefore, the sole source of recharge to this localized portion of the Madison aquifer is through direct infiltration of precipitation. Carter and others, (2000) estimated the average annual recharge from precipitation on outcrops of the Madison Limestone and Minnelusa Formations in the Black Hills for water years 1950-1998. The estimated average annual recharge from precipitation in the area of the outcrop of the Madison this application proposes to use was estimated to be between four and five inches per year for the period of 1950-1998 (Carter and others, 2000). Because of the complex geology of this area, the areal extent of the portion of the Madison aquifer that could contribute water for capture by wells cannot be delineated with the data that is currently available. Therefore, although a recharge rate in inches per acre per year has been estimated, a total annual recharge rate for this isolated portion of the Madison aquifer cannot be established.

Groundwater discharges from this localized portion of the Madison aquifer are primarily through groundwater outflow and well withdrawals. Groundwater outflow from this area is to the northeast except for an area immediately upgradient of the fault mentioned above. Where the displacement of the Madison aquifer by the fault is sufficient, the fault restricts flow to the north, and the groundwater flow direction is to the east.

Well withdrawals from the Madison aquifer in this area are limited. There are only three completion reports on file with the DENR-Water Rights Program for wells completed into the Madison aquifer in the vicinity of the well this application proposes to use. Two of these wells are for domestic use and the third well supplies Water Right No. 1863-2, * Seventy-Six Ranch Estates. The well that supplies Water Right No. 1863-2 appears to be north of the fault that defines the northern boundary of the area contributing water that could be captured by this well (Darton,1925) (Redden and DeWitt,2008). Therefore, the Seventy-Six Ranch Estates well withdraws water from a different “contributing area” than the one the well this application proposes to pump from.

Although this application proposes to divert water at a maximum annual rate of 43 acre-feet per year, historically this water distribution system, which has been supplied by a different source (i.e. Deadwood aquifer), has used considerably less water. Water usage by this system for 2014 was reported to be 1,658,800 gallons, the equivalent to five ac-ft/yr (Barb Friedeman, personal communication, December 29, 2015). In considering the availability of unappropriated water for this appropriation, an annual rate of 43 acre-feet per year is used. Well withdrawals due to domestic wells can be considered by assuming one acre-feet of water will supply a family of five for one year, and assuming there are less than seven domestic use wells completed into the same localized portion of the Madison aquifer that the well to be used for this appropriation is completed into. Therefore, total well withdrawals from this area are assumed to be less than 50 acre-feet annually. At an average recharge rate of four to five inches per year, the total contributing area necessary to result in an annual recharge greater than the estimated well withdrawals from the area would be between 120 and 150 acres. Review of the geology, with consideration of groundwater flow direction suggests that the contributing area exceeds 150 acres, thus average annual recharge to this localized portion of the Madison aquifer will exceed well withdrawals from the area. Therefore, there is a reasonable probability that unappropriated water is available for this appropriation. It should be noted that although average annual recharge is expected to exceed average annual withdrawals for this localized portion of the Madison aquifer, the area contributing water that can be captured by well withdrawals is rather small, and water availability could be susceptible to drought conditions.

Although the localized portion of the Madison aquifer this well is to be supplied from has a limited areal extent that contributes recharge to it, some recharge to this area does contribute to the regional flow system through groundwater outflow. The availability of water for existing downgradient users is dependent in part by water from this area. The availability of unappropriated water for downgradient users can be evaluated by considering more regional water budgets.

Carter and others (2001):

Carter and others (2001) developed hydrologic budgets for the Madison and Minnelusa aquifers combined, using nine subareas to cover the Black Hills. The subareas were identified on the basis of hypothetical flowpaths and were selected with the intent of minimizing flow across the boundaries. The well that is to be used to supply this appropriation is located in Carter and others' (2001) subarea 2. The hydrologic budgets for this subarea balanced from 1987-1996, by

* Water Right 1963-2 was given a Division 2 designation in error when issued. It should be a Division 1 permit.

estimating that water enters the subarea through streamflow recharge, precipitation recharge and groundwater inflow. Water is assumed to exit the subarea through groundwater outflow and well withdrawals (see Table 1).

Stream-flow recharge	Precipitation recharge	Minnelusa ground-water inflow	Madison ground-water inflow	Minnelusa ground-water outflow	Madison ground-water outflow	Artesian spring-flow	Well withdrawals
27.1 cfs	10.8 cfs	0 cfs	36.9 cfs	35.6 cfs	43.7 cfs	0 cfs	3.7 cfs

Table 1. Hydrologic budget for the subareas that includes the area near the well site proposed by Application No. 1956-1 for Water Years 1987-1996. Modified from (Carter and others, 2001b).

There are currently 21 water rights/permits, appropriating water from the Madison aquifer from the subarea that includes this proposed well site. Although domestic use supply wells are completed into the Madison aquifer in this subarea, their use is not significant to a hydrologic budget for the subarea. The amount of water that can be expected to be withdrawn through appropriative uses from the Madison can be estimated by assuming: 1) water rights/permits limited by an annual rate will pump the entire annual rate appropriated, and 2) water rights/permits limited only by instantaneous diversion rate will pump at the maximum permitted diversion rate 60 percent of the time. Under current appropriations, given the assumptions listed above, well withdrawals from the subarea are estimated to be less than 9 cfs. Other variables of a hydrologic budget for these subareas, (i.e. springflow, groundwater inflow and groundwater outflow) are all dependent on the groundwater gradient at the subarea boundaries or near the springs. The increase of well withdrawals compared with the estimates given in Table 1 has resulted in adjustments to the other interdependent variables of the hydrologic budget to achieve a new dynamic equilibrium (i.e. balanced water budget) for the area. It can be assumed that with a very subtle change in the hydraulic gradient at either the inflow zone or the outflow zone, a new dynamic equilibrium would be established in this area with virtually immeasurable impacts to the amount of water in transient storage. Therefore, there is a reasonable probability that unappropriated water is available from this subarea for this proposed use.

Putnam and Long (2007):

On a more localized scale, Putnam and Long (2007) evaluated an area consisting of approximately 416 square miles that included the well that is to be used to supply Permit No. 1956-1 (see Figure 1.)

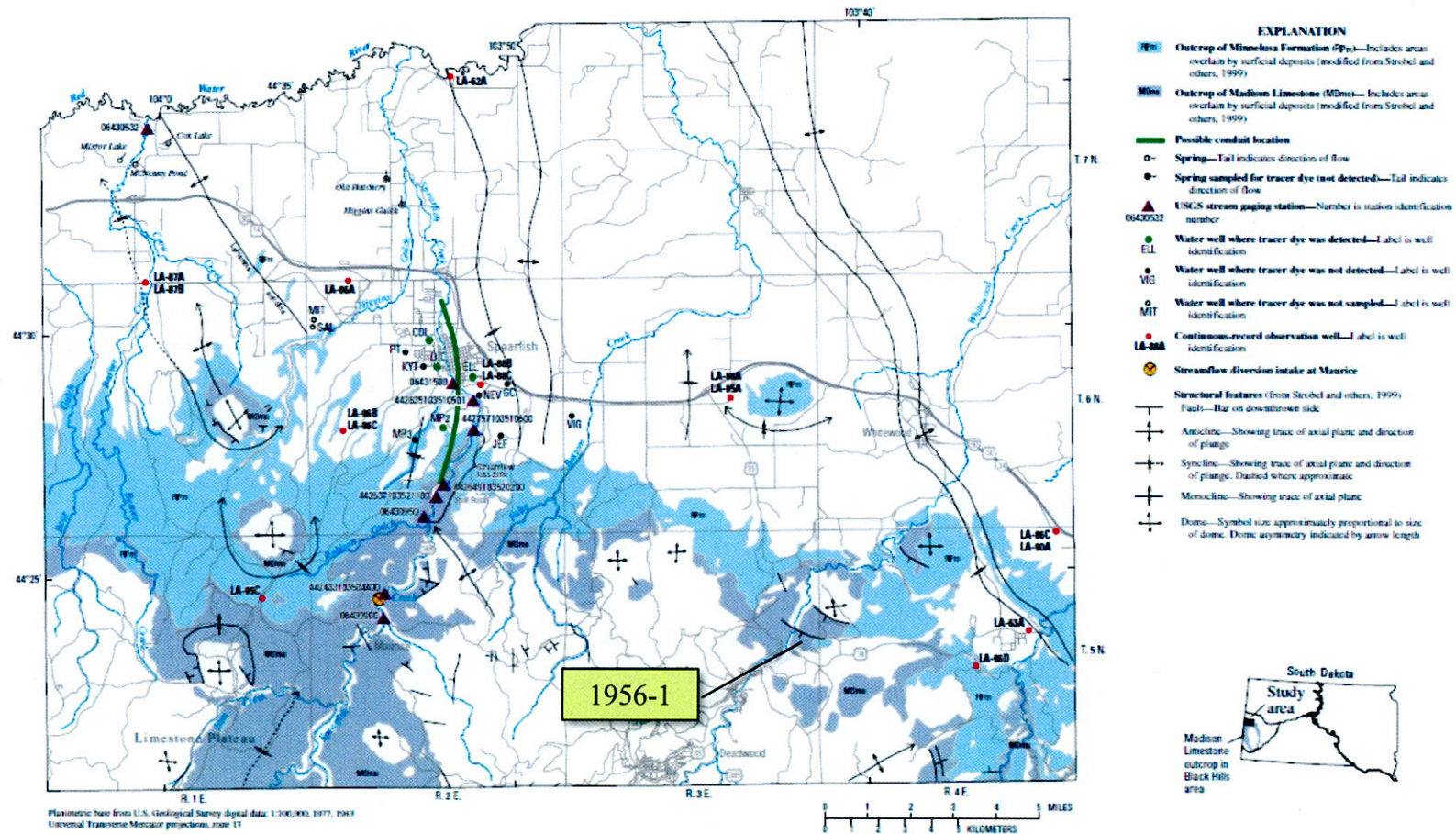


Figure 1. Location of Putnam and Long (2007) study area, (modified from (Putnam and Long, 2007))

An average annual recharge rate to the Madison aquifer for the area was estimated to be 16.5 cfs. Sources of recharge in the area were identified as areal recharge (8.0 cfs), streamflow recharge from Spearfish Creek (6.5 cfs) and streamflow recharge from False Bottom Creek (2.0 cfs) (Putnam and Long, 2007). In addition, Putnam and Long (2007) estimated an average annual recharge rate of 2.0 cfs to the Madison and Minnelusa aquifers combined from Bear Gulch and an average annual recharge rate of 2.0 cfs to the Madison and Minnelusa aquifers combined from Beaver Creek. There have been 43 water permit applications approved for appropriations from the Madison aquifer from the Putnam/Long study area. The status of these applications is shown in Table 2.

STATUS	NUMBER
Approved and licensed	25
Approved and not licensed	14
Future Use reservation	1
Incorporated into a license	3

Table 2. Water permit applications from the Madison aquifer from the Putnam/Long study area.

The amount of water expected to be withdrawn through appropriative uses from the Madison aquifer from the area shown in Figure 1 was estimated by assuming: 1) water rights/permits limited by an annual rate will pump the entire rate appropriated, 2) water rights/permits limited only by instantaneous diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and 3) the future use permits can be fully developed. The average annual withdrawal under current appropriations from the Madison aquifer from the Putnam/Long area is estimated to be less than 12,000 acre-feet per year (16.5 cfs).

It is likely that the average annual recharge rate to the Madison aquifer that originates in the area shown in Figure 1 exceeds the expected average annual withdrawal that will result from the current appropriations. It is important to note that in addition to the recharge that originates in the area, water enters the Madison aquifer in this area from groundwater inflow from the west. The regional aspect of the Madison aquifer in this area is demonstrated most clearly in the fact that Putnam and Long (2007) identified the discharge from artesian springs in the area exceeds the recharge that occurs within the area.

AFFECTS ON EXISTING RIGHTS:

Water Rights/Permits supplied by wells completed into aquifers that are stratigraphically above or below the Madison are not expected to be affected by Madison aquifer withdrawals since the lower Minnelusa Formation and the lower Madison Limestone generally serve as upper and lower confining units for the Madison aquifer.

The nearest water right/permit appropriating water from the Madison aquifer from the well this application proposes to use is Water Right No. 1863-2, Seventy-Six Ranch Estates (Water Rights, 2015b). The well that supplies Water Right No. 1863-2 is situated on the opposite side of a fault that has sufficient displacement to provide a hydrologic barrier between the wells, therefore well interference between the wells is not expected. Other Madison appropriation diversion points are sufficient distance from this well that interference is not expected.

Adequate domestic wells are not expected to be adversely impacted if this water permit is approved because of the relatively low diversion rate proposed by this application.

TERM LIMITATION:

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

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

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

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

CONCLUSIONS:

1. The Madison aquifer is a major regional aquifer and a viable source of water.
2. This application proposes to appropriate up to 43 acre feet per year at a maximum diversion rate of 0.10 cubic feet of water per second.
3. There is a limited recharge area to contribute water that can be captured by this appropriation.
4. There is a reasonable probability that average annual recharge to the "contributing area" for this appropriation will exceed withdrawals, including this permit (if approved) from the area.
5. Although average annual withdrawals will not exceed average annual recharge, due to the limited size of the recharge area available to contribute water that can be captured by this appropriation, Madison aquifer appropriations from this area may be susceptible to drought conditions.
6. There is a reasonable probability that unappropriated water is available in the Madison aquifer to supply this appropriation.
7. There is a reasonable probability this appropriation can be made without adversely impacting existing water rights including domestic users.
8. Information is not available to justify issuing these permits without a term limitation of 20 years.



Ken Buhler
SD DENR-Water Rights

REFERENCES:

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Water Rights Program, 2015a, Observation Well Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501

Water Rights Program, 2015b, Water Permit/Right Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501

Water Rights Program, 2015c, Well Completion Report Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501

RECEIVED

FEB 08 2016

WATER RIGHTS
PROGRAM

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. 1956-1

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 3rd day of Feb 2016, and the last publication on the day of , , that the full amount of fees charged for publishing same, to-wit: The sum of \$ 26.68, 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 4th day of Feb, 2016

Anthony Richards
Notary Public, Lawrence County, South Dakota

My commission expires: 10-24-2016

NOTICE OF APPLICATION NO. 1956-1

to Appropriate Water

Notice is given that Mattson, Inc., c/o Jon Mattson, PO Box 269, Deadwood SD 57732 has filed an application for a water permit to appropriate 0.10 cubic feet of water per second (up to 43 acre feet of water annually) from one well completed into the Madison Aquifer (226 feet deep) located in the SW 1/4 SE 1/4 Section 13-T5N-R3E for water distribution system at Shirttail Gulch Subdivision which is located in portions of Section 13-T5N-R3E.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1956-1 for 15 acre feet of water annually subject to a 20-year term limitation because 1) although evidence is not available to justify issuing the permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available, 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. 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 February 16, 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.

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

Published once at the
total approximate cost of
\$27.58.

#973
Feb. 3

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 27, 2016 10:20 AM
To: Legals (legals@bhpioneer.com)
Subject: 1956-1, Mattson, Inc.
Attachments: 1956-1nov2015newpublic.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on February 3, 2016.

Mattson, Inc. c/o Jon Mattson, PO Box 269, Deadwood SD 57732, (605 347-0283 or c 605 320-1447) 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



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.**

January 26, 2016

Mattson, Inc
Jon Mattson
PO Box 269
Deadwood SD 57732

Dear Mr. Mattson:

Water Permit Application No. 1956-1 for water system distribution use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to 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. 1956-1 to Appropriate Water

Notice is given that Mattson, Inc., c/o Jon Mattson, PO Box 269, Deadwood SD 57732 has filed an application for a water permit to appropriate 0.10 cubic feet of water per second (up to 43 acre feet of water annually) from one well completed into the Madison Aquifer (226 feet deep) located in the SW 1/4 SE 1/4 Section 13-T5N-R3E for water distribution system at Shirttail Gulch Subdivision which is located in portions of Section 13-T5N-R3E.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1956-1 for 15 acre feet of water annually subject to a 20-year term limitation because 1) although evidence is not available to justify issuing the permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available, 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. 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 February 16, 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.

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

MAR 17 2016

Mattson Inc
Jon Mattson
PO Box 269
Deadwood SD 57732

Dear Mr. Mattson:

Enclosed is Water Permit No. 1956-1 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

1956-1
RECEIVED

APR 29 2016

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date

4/27/16TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Mattson, Inc.
(name)Box 269
(address)Deadwood, S.D. 57732
(city, state, zip)605-920-1447

(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.

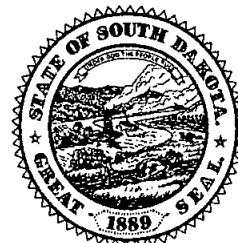
Water Permit No. 1956-1 states that the water use system is to be constructed by Feb. 16, 2021, and water is to be put to beneficial use by Feb. 16, 2025.
(date) (date)

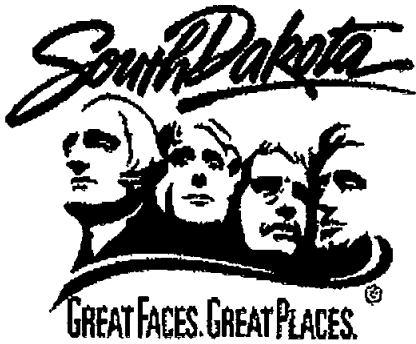
The water use system was completed on April 26, 2016.
(date)

Applying the water to beneficial use was completed on April 26, 2016.
(date)

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

Jon Mattson - Pres.
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

May 4, 2016

1956-1

Jon Mattson
Mattson Inc
PO Box 269
Deadwood SD 57732-0269

Dear Mr. Mattson:

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

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 1956-1

I have this day, Aug 18, 2017 made a thorough examination of the water use system constructed by **Mattson Inc, % Jon Mattson, P.O. Box 269, Deadwood SD 57732** of Permit No. **1956-1**, bearing the priority of **11/30/2015** authorizing the diversion of **0.10** cu. ft. per second water from one well for suburban housing purposes, in Lawrence County.

Inspection contact & relationship to permit holder, if applicable: **Jon Mattson, President**
605-920-1447

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Taylor Drilling (2015)
- 2) No. of Wells 1
- 3) Depth(s) 226 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 5"
- 2) Length 215 feet
- 3) Type steel

Screen:

- 1) Type open hole
- 2) Length 11 feet
- 3) Static water level 95 feet

Pump:

- 1) Make Grundfos
- 2) Model 25S50-26
- 3) Size 4"
- 4) Capacity 25 GPM (Pump test @ completion – 40 gpm @ 130.7 ft., Air test @ completion – 30 gpm @ 140', 150 gpm @ 220') This is a variable speed pump set to deliver 25 gpm to the elevated storage.
- 5) Horsepower rating 5 hp

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

- 1) Type PVC
- 2) Size 4-6" inches
- 3) Length various feet

C. Works used to apply water to beneficial use:

The well delivers water to a twin 20,000 gallon above ground steel storage tanks. The storage tanks gravity feed to the homes. At full build out the well will serve 33 lots in Shirttail Gulch Subdivision. At the time of inspection 25 homes were occupied and 1 under construction

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:
1,261' N and 1,862' W of the SE corner Section 13 T5N R3E (44.391066, -103.696796)
2. The works are capable of diverting and conveying to the place of use **0.056** cu. ft. per second (25 gpm) of water which is to be used for **suburban housing** use and the license should be issued for **0.056** cfs.
3. All structures, wells and lands on map: **No, only the well and storage locations.**

F. Comments or other permit(s) associated with the project: This well replaces an old well on the property which was drilled in 1997 (743' deep) and is currently in standby mode.



Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Date report completed: Aug 25, 2017



Stand-by Well and pump house



Pump appurtenances



Twin 20,000 gallon steel storage

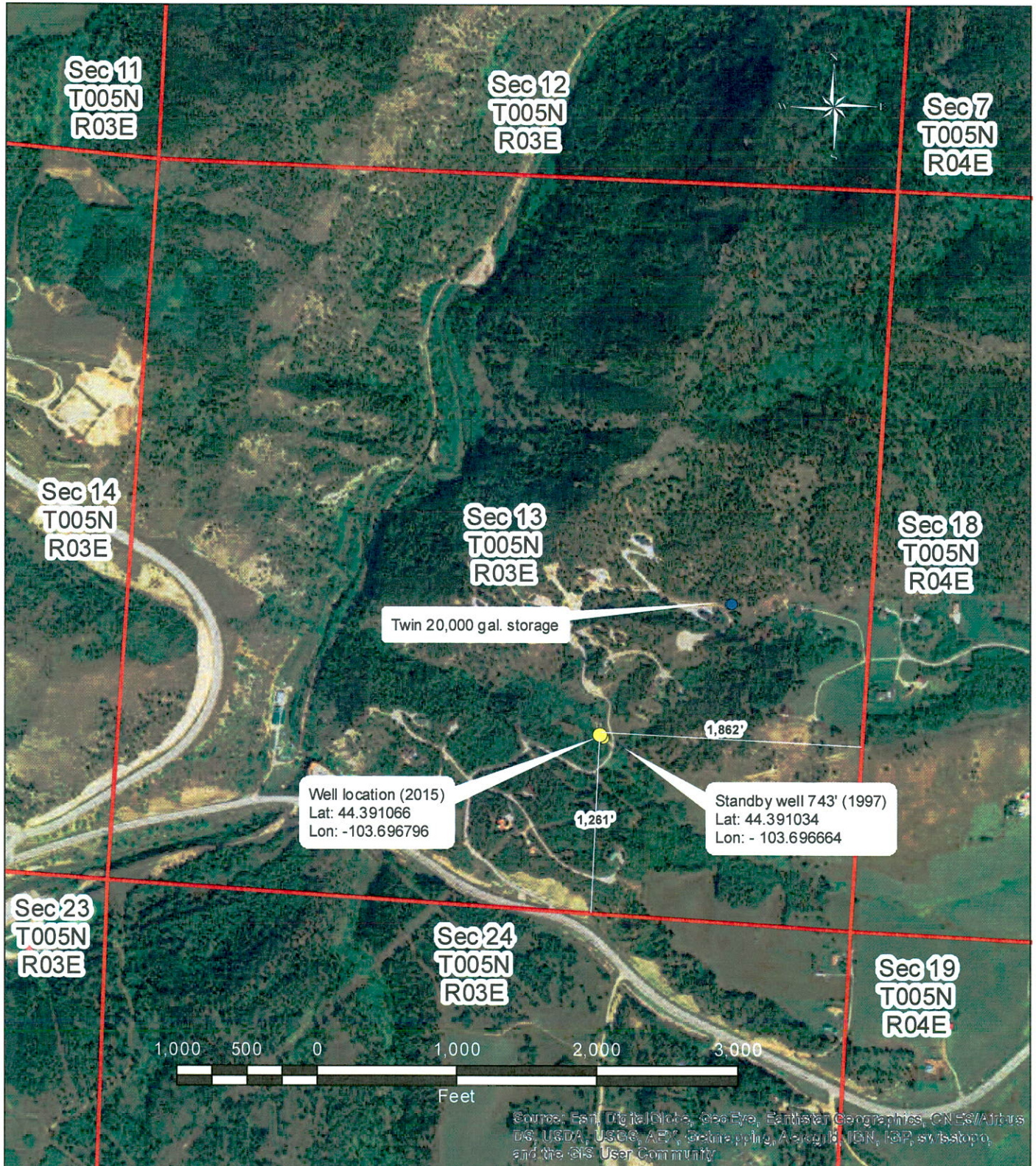


2015 well and pump house

Water Right # 1956-1

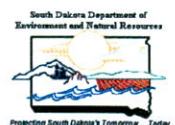
Mattson Inc.

8/18/2017



Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program



McMath, Genny

From: Gronlund, Eric
Sent: Monday, August 28, 2017 3:28 PM
To: Quissell, Steve; McMath, Genny
Subject: No. 1956-1, Mattson

The EOW indicates an old well drilled in 1997 is currently in standby mode. The 1997 well is completed into the Deadwood aquifer and therefore will not be included on the water license as an additional diversion point since it is a different water source than authorized by Permit No. 1956-1.

I think the Madison well was drilled since the Deadwood well's water quality didn't meet standards. I presume we don't know the diversion capability from this 1997 well. If it is over 18 gpm, a water permit would be needed even if kept on standby.

Genny can proceed to license No. 1956-1. Cover letter that goes with issued water license should include a statement that if 1997 standby well produces more than 18 gpm a permit needs to be obtained.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

OCT 10 2017

1956-1

Jon Mattson
Mattson Inc
PO Box 269
Deadwood SD 57732

Dear Mr. Mattson:

Enclosed is Water License No. 1956-1. 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

Note: The investigation of your water use system found a well drilled in 1997 into the Deadwood Aquifer. Our understanding is the well is maintained as a standby source of water. If this well produces over 18 gallons of water per minute, a water permit will need to be obtained.

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 1956-1

(1) Mattson Inc., PO Box 269, Deadwood SD 57732 made Application No. 1956-1, November 30, 2015 for a water permit to divert 0.10 cubic feet of water per second (up to 15 acre feet of water annually) from ground water, one well (Madison Aquifer), Lawrence County, South Dakota for suburban housing development purposes. Permit No. 1956-1, with a priority date of November 30, 2015 was approved February 16, 2016 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 16, 2021 and for the application to beneficial use of said water on or before February 16, 2025.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on April 29, 2016. The "*Notice*" stated the water use system was completed and the water placed to beneficial use on April 26, 2016.

(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 0.056 cubic feet of water per second (up to 15 acre feet of water annually) for beneficial use. The location of the diversion point is 1,261'N and 1,862'W of the SE corner of Section 13, T5N, R3E (SW ¼ SE ¼, Latitude 44.391066, Longitude -103.696796)

(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 serves users within the Shirt Tail Gulch Subdivision.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Mattson Inc., PO Box 269, Deadwood SD 57732 the holder and/or owner of Water Right No. 1956-1 is issued a license to appropriate water, the right to use 0.056 cubic feet of water per second from ground water, one well (Madison Aquifer) with a priority date of November 30, 2015 from the location specified in (2) of this license for suburban housing development purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 1956-1 and subject to the following qualifications:

- In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1956-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the Permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 1956-1 may also be cancelled for non-construction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1, and Board Rule ARSD 74:02:01:37.
- 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.

continued

Water License No. 1956-1

- Water Permit No. 1956-1 authorizes a total annual diversion of up to 15.0 acre feet of water annually from the Madison Aquifer.
- The Water Permit Holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison Aquifer.



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

OCT 10 2017

date



NOTICE OF TRANSFER OF OWNERSHIP

For assistance call 1-800-335-3352

1956-1
PAID

SEP 16 2019

Ck# 2025

Mail to: PMB 2020
DENR - Water Rights Program
523 E Capitol Ave
Pierre, SD 57501-3182

SEP 16 2019

WATER RIGHTS
PROGRAM

Water Right/Permit No. 1956-1

Date: August 20, 2019

I/We request that Water Right/Permit No. 1956-1 med by:

Mattson Inc, PO Box 269, Deadwood SD 57732

bc transferred to:

New Owner Name: Shirt Tail Gulch Homeowners Association

Address: 500 S Alexander

City, State, Zip: Clay Center, NE 68933

Telephone No. 402-657-9290

Title to the following described land(s)/property has been transferred as described above:

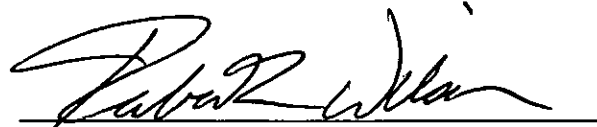
well in SW 1/4 SE 1/4 Section 13-T5N-R3E

☒ I understand that the validity of Water Right/Permit No. 1956-1 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is included to cover the filing fee as required by SDCL 46-2-13.

I, Robert C. Wilson, President, the new owner, certify that the above information is true and correct.


(signed by new owner)
Robert C. Wilson, President

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date **September 16**, 20**19**

RECEIVED OF **Shirrtail Gulch Subdivision 500 S Alexander Clay Center, NE 68933**

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	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. _____		
Fee for Filing Transfer Form 1956-1		
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. _____	50	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	

No. **09207**

By Joanne Goodman
Chief Engineer *Jm*

1956-1



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

September 16, 2019

1956-1

Robert C Wilson, President
Shirt Tail Gulch Homeowners Association
500 S Alexander
Clay Center NE 68933

Dear Mr. Wilson:

I am writing to acknowledge receipt of the transfer form and filing fee you submitted for changing ownership on Water Right No. 1956-1.

The ownership change has been completed. No. 1956-1 formerly held by Mattson Inc., is now listed under Shirt Tail Gulch Homeowners Association.

Enclosed for your records is Receipt No. 09207 in the amount of \$50 which was paid for filing the ownership change. If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Genny McMath". The signature is fluid and cursive, with the first name "Genny" being more prominent than the last name "McMath".

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

enclosure