

WATER PERMIT NO. 1677-1

Name of Applicant: Dan Mathis

Address: 1715 Scott Ave, Spearfish SD 57783

Phone: 642-2543

Amount of Water Claimed: 0.144 cfs (65 gpm)

Total Acres: NA

Source of Water Supply: groundwater (2 wells)

Water to be used for: suburban housing development

County: Lawrence

Type of Waste Disposal System:

Location: 1 mile southwest of Spearfish

PRIORITY Date Received: 11-24-98

Fee: \$150

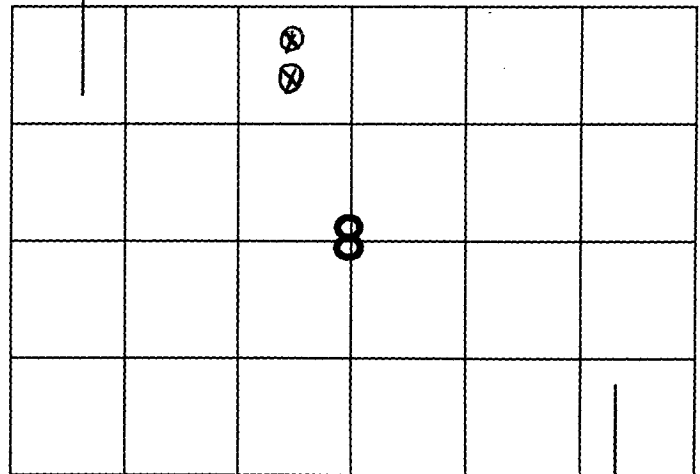
Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE ¼ NW ¼ Section 8-T6N-R2E

Land to be Irrigated:



Depth of Well: 340 feet deep

Well Driller: Ellingson Drilling

Remarks:

Type of Map: topo

Prepared by: Eric Gronlund

Reviewed and the Number Assigned on: 11-30-1998

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 1677-1**

Date of first receipt of application November 24, 1998.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1677-1 to Dan Mathis, 1715 Scott Ave, Spearfish SD 57783 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. 1677-1 appropriates 0.144 cubic feet of water per second (65 gallons per minute) from two wells 340 feet deep (Minnelusa Aquifer) located in the NE ¼ NW ¼ Section 8-T6N-R2E.
2. The water appropriated shall be used for the purpose of supplying water to a suburban housing development 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. 1677-1 is February 1, 1999.
5. The date from which applicant may claim right is November 24, 1998.
6. One-fifth of the construction is to be completed on or before August 1, 2001.
7. All construction is to be completed on or before February 1, 2004.
8. Water is to be put to beneficial use on or before February 1, 2008.
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 wells 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. The wells authorized by Permit No. 1677-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.

WATER MANAGEMENT BOARD

By: 
John Hatch, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

FEB 22 1999

date



FORM 2: Application for uses other than irrigation
(type or print)



Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	(office use only)	
	No. <u>1677-1</u>	Hydrologic Unit <u>10/20203</u>
	Basin <u>Belle Fourche River</u>	
Newspaper <u>Black Hills Pioneer, Spearfish, SD</u>		

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

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

- Name of Applicant Dan Mathis Phone 642-2543
 (check one) ☒ Owner ☐ Tenant/lessee
 Mailing Address 1715 Scott Ave Spearfish S.D. State 57783
 (Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 0.144 *CFS or 3065 **GPM ***AF
 (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply 2 wells minnelusa
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 2 wells tract 7
NE 1/4 NW 1/4 of Section 8, T6N, R2E, BHM.
 County Lawrence
- County or counties where water will be used Lawrence
- Annual period during which water is to be used 12 mo. January 1 - Dec. 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

STATE OF SOUTH DAKOTA)
County of Lawrence SS

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

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

CINDY HERMAN and sworn to before me this 10th day of November 19 98
My Commission Expires
April 4, 2001

Applicant's signature Dan Mathis

Cindy Herman
Notary Public/signature

Supplemental Information

(type or print in ink)



1. Well Information - Proposed Construction

- a) Drill Hole Diameter 7 7/8" Depth 340
- b) Casing Type PVC Diameter 6" Thickness Sch #40
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 200'
- f) Depth to Water (ground surface to water level) 78'
- g) Distance to nearest existing domestic well: 1/4 Mile
- On applicants property No On property owned by others Yes

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) Not Installed individual septic for each lot
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

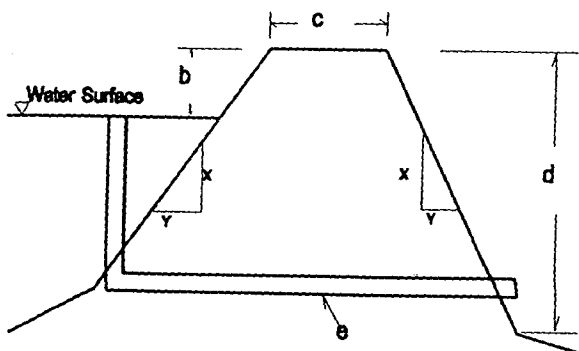
3. Dugout Information

- 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 _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

No 415928

Pierre, November 30, 1998

RECEIVED OF Teresa Grant-Mathis (Dan Mathis), 596 Mt. View Road, Spearfish, SD 57783
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>1677-1</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	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. _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

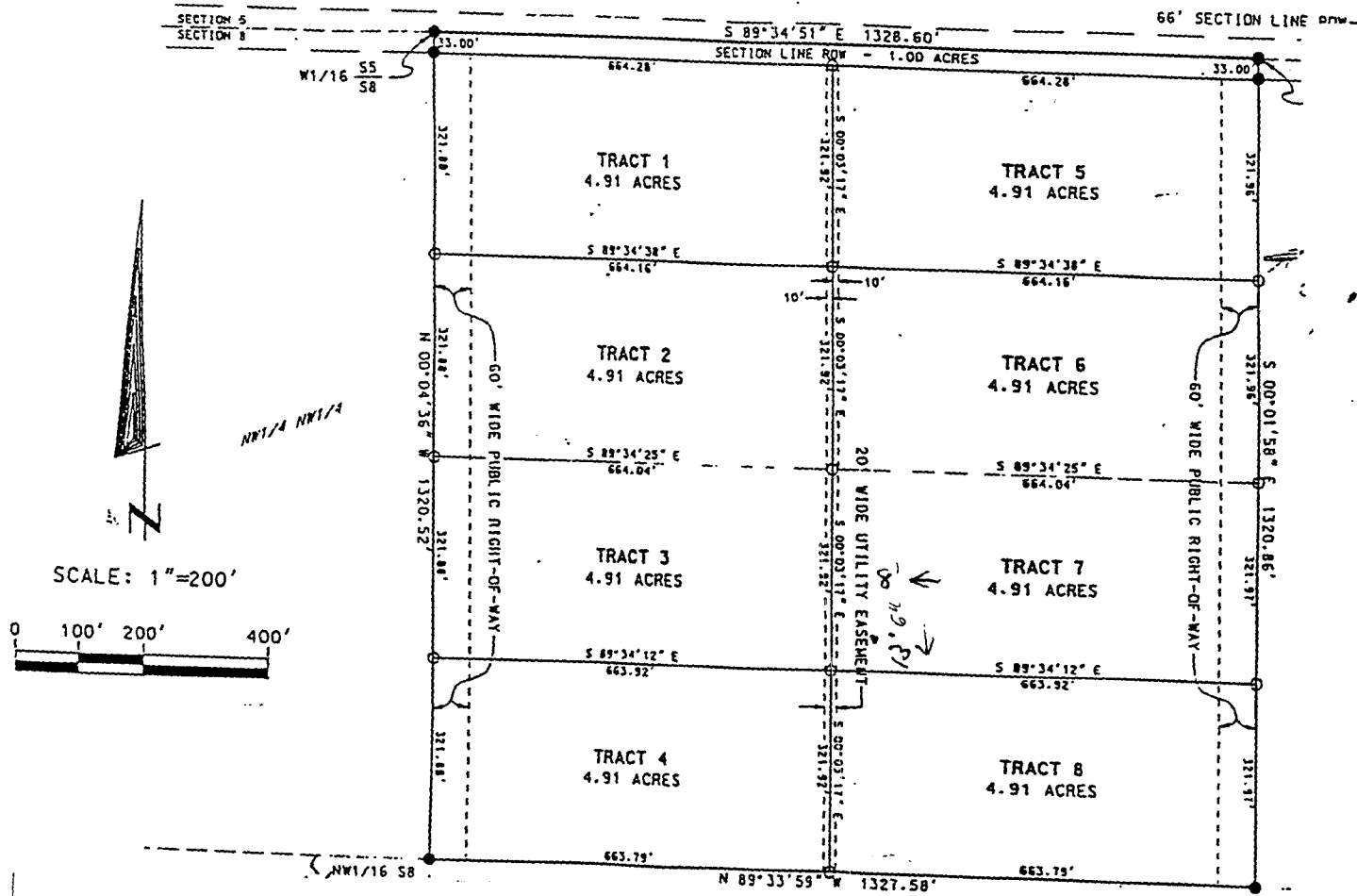
(Any Other Work Provided by Law)	Total	200 00

By

Chief Engineer

John Hatch (Signature)

District:
 Received
 97-4453

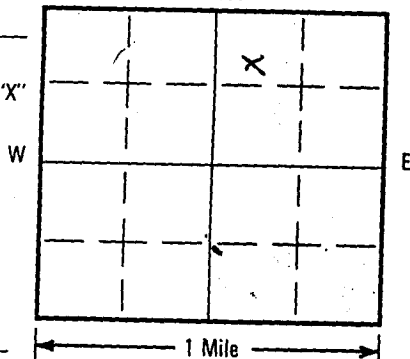


SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NE 1/4 NW 1/4 Sec 8 T6N R2E
 County Lawrence
 North

Please mark well location with an "X"



Well Completion Date

7-16-98

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 300 ft. from Drain field (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>5 1/2</u> LB/FT	<u>6</u> IN	<u>0</u> FT	<u>288</u> FT	<u>8 3/4</u> IN
_____ LB/FT	_____ IN	<u>288</u> FT	<u>340</u> FT	<u>5 1/8</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland</u>	<u>46</u>	_____ lb./gal	<u>0</u> ft	<u>288</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN 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: 1 gal chlorox

NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Dan Mathis

Business Name: _____

Address: 1715 SCOTT AVE.

Spearfish S.D. 57783

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Topsoil</u>	<u>0</u>	<u>4</u>
<u>gravel-boulders</u>	<u>4</u>	<u>22</u>
<u>red bed</u>	<u>22</u>	<u>70</u>
<u>Minnekahta</u>	<u>70</u>	<u>110</u>
<u>Opeche</u>	<u>110</u>	<u>200</u>
<u>Minnelusa Hard limestone</u>	<u>200</u>	<u>214</u>
<u>SOFT Sand-w/limc</u>	<u>214</u>	<u>285</u>
<u>hard PINK Sand + limc</u>	<u>285</u>	<u>318</u>
<u>hard-large grain Yel S/s</u>	<u>318</u>	<u>340</u>

STATIC WATER LEVEL 78 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: 32 gpm @ 260'

☐ Bailed _____

☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 32 GPM

REMARKS

This well was drilled under license # 93

And this report is true and accurate.

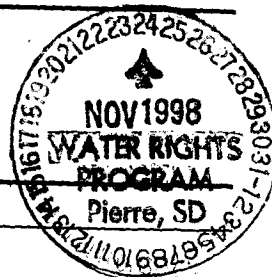
Drilling firm: ELLINGSON DRILLING

Signature of License Representative: _____

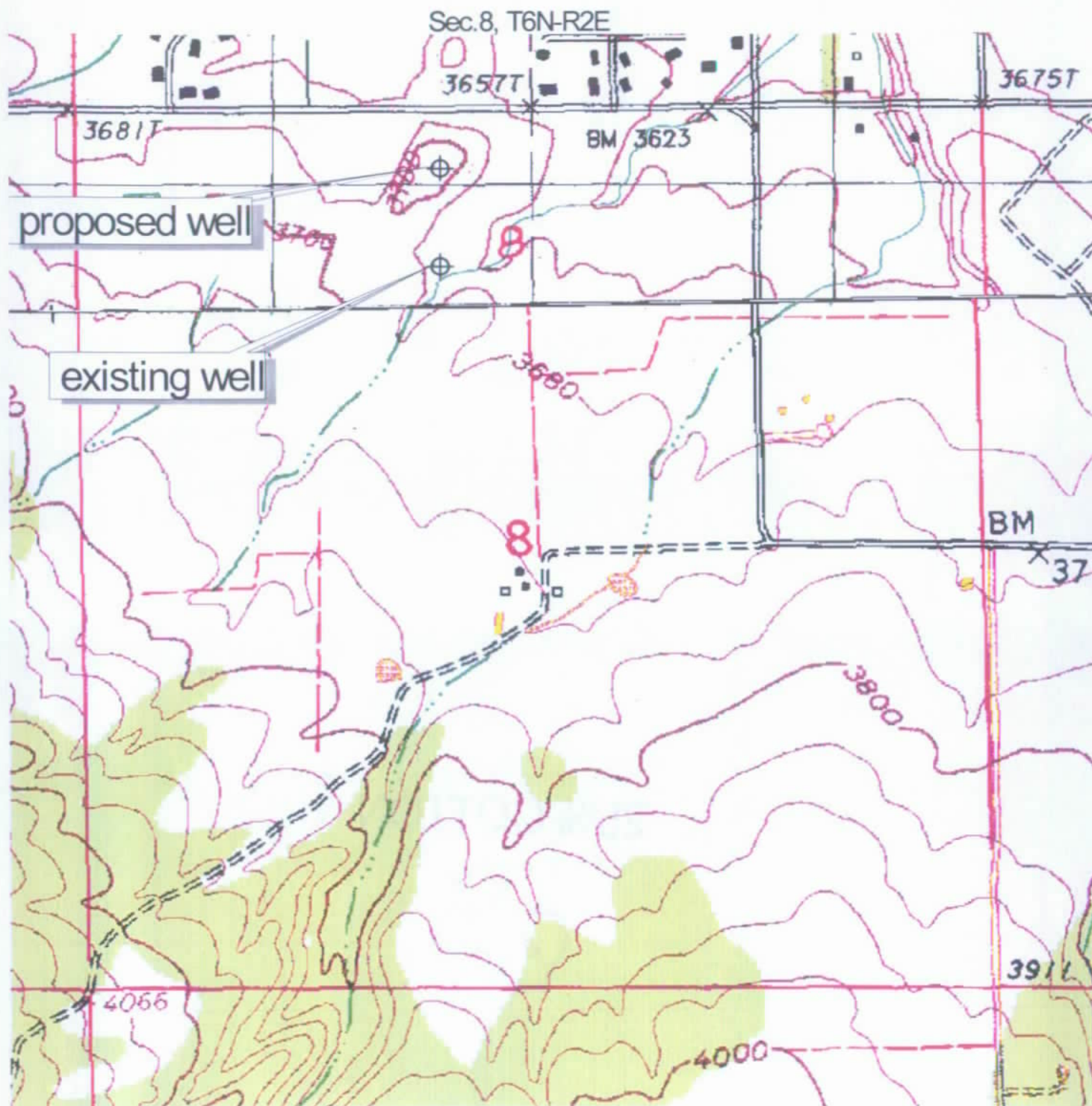
Signature of Well Owner or Equitable Property Holder: Dan Mathis

Signature of Well Owner or Equitable Property Holder: _____

Date: July 6 1998



Map for Water Permit Application No. 1677-1



Prepared by:

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
Water Rights Program

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Dan Mathis Water Permit Application

ADDRESS: COUNTY: Lawrence

DATE: 11/24/98 TELEPHONE:

RE: Assistance with map for water right permit application

COMMENTS:

On November 24, 1998, I visited with Mr. Mathis on-site of his proposed suburban housing development. This development is planned for 8 housing lots ranging in size from 4 to 5 acres.

Mr. Mathis showed me the location of the new well he had drilled. After some discussion he indicated his desire to drill a second Minnelusa Formation well. He amended his application to include a second well and doubled the appropriation of water to 65 gpm.

I located the wells by stepping off the distances from the known section and quarter section line.

Mr. Mathis indicated once the lots are sold he plans that they will organize and water association and the permit will then be transferred to the association.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Hendley

WATER PERMIT APPLICATION NO. 1677-1
DAN MATHIS
DECEMBER 17, 1998

Water Permit Application No. 1677-1 proposes to appropriate 0.144 cubic feet of water per second (65 gallons per minute) from two wells 340 feet deep (Minnelusa Formation) located in the NE ¼ NW ¼ Section 8, T6N-R2E. The water is for a suburban housing development.

AQUIFER: Minnelusa Aquifer (MNLS)

GENERAL:

The Minnelusa Aquifer is an assemblage of alternating beds of sandstone and dolomitic limestone with lesser amounts of red and black shale and chert approximately 400 feet thick in this area (Water Rights, 1998_a). Because the lithology of the Minnelusa is so variable, the porosity of the formation is also variable and difficult to determine. Well sorted sand lenses have porosity's approaching 25%, but generally the sands have porosity's of 10%. The average porosity of the Minnelusa is estimated to be 10% and the effective porosity is assumed to be 5% (Rahn, 1979). The Minnelusa formation underlies approximately 199,680 acres of Lawrence County and contains an estimated 5,591,040 acre-feet of recoverable water in storage (Allen, 1984). The aquifer is areally extensive around the Black Hills and is hydraulically connected into the counties surrounding Lawrence County. Ground water movement is probably toward the north and east (Kyllonen, 1987). There is no aquifer-test data available for the Minnelusa Aquifer at this site; therefore, the aquifer transmissivity and storage coefficient values are unknown. Estimates from regional studies of the aquifer indicate the aquifer transmissivity may range from 30 to 1000 ft²/d, and the storage coefficient ranges from 6.6×10^{-5} to 2×10^{-4} (Kyllonen, 1987). The top of the Minnelusa is reported to be 200 feet below ground surface on the completion report that accompanies this application. The report indicates the static water level of the well is 78 feet below grade and the well produces 32 gallons per minute.

WATER AVAILABILITY:

The Water Rights Program monitors 21 observation wells completed into the Minnelusa aquifer in the Black Hills area. Water Rights Observation Well LA-87B is located approximately 5 miles west of this well site. With the exception of the data from 1988 to 1991, the hydrograph (see figure 1), is fairly typical for the Minnelusa Aquifer. That is, the water levels reach their peak in the early summer each year and gradually decline until spring. The majority of the recharge to the system occurs between March and July. The likely explanation for the period between 1988 to 1991 is that the "open hole" portion of the well filled in with sand making the well less responsive to changes in water levels from 1988 until it was rehabilitated in 1991.

WATER RIGHTS' OBSERVATION WELL
LA-87B

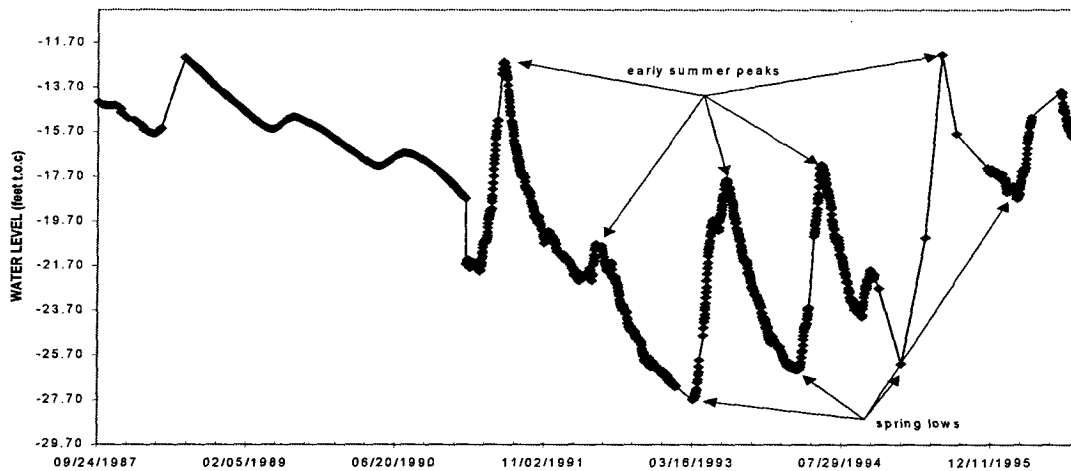


Figure 1. Typical Minnelusa Aquifer Hydrograph.

The well site proposed by this application is within three miles of six Water Rights' Observation Wells. Three of these wells (LA-86A, LA-88B, and LA-96C) are completed into the Minnelusa Aquifer. The period of record for LA-96C is limited since the well was only completed 7/16/97; therefore a hydrograph for the well is not included in this report. Observation Well LA-86A is located approximately 1 mile north of the site. A hydrograph for this observation well (figure 2) shows a fluctuation of 18.8 feet between the highest water level recorded (1/28/98) and the lowest water level recorded (8/24/94); and clearly shows the aquifer is recharged.

WATER RIGHTS' OBSERVATION WELL
LA-86A

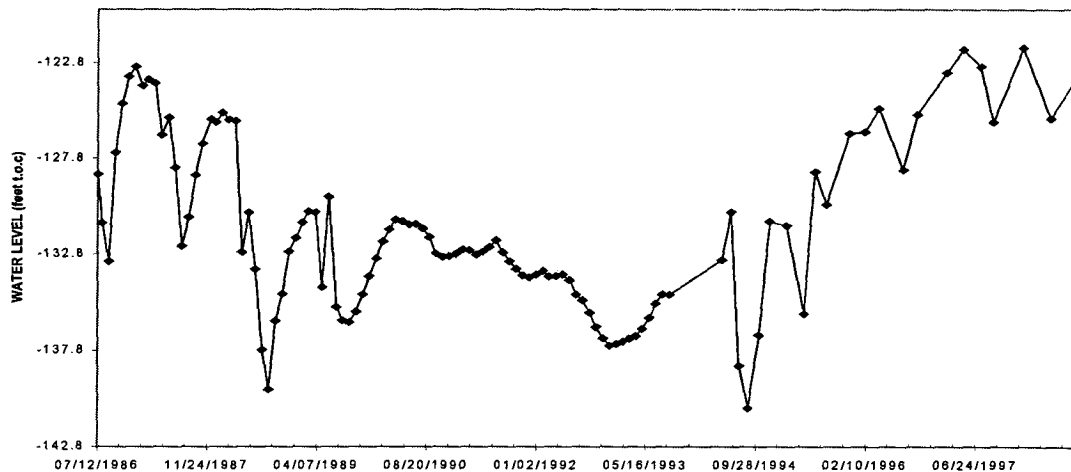


Figure 2. Minnelusa Aquifer Hydrograph

The hydrograph for the well shows a period from 1989 through 1994 when the well was not as responsive to recharge and discharge as it was before or after that period. Again, the likely explanation for this period is that the "open hole" portion of the well filled in with sand from 1989

until it was rehabilitated in 1994. Hydrographs of other wells in the area suggest that the lowest water levels in the area occurred in 1992. It is possible that because of the “dampening” of the sanded in intake area, “lowest” water levels in 1992 were not recorded.

Observation well (LA-88B), located approximately 3 miles south east of this well site also shows the aquifer is recharged, see figure 3.

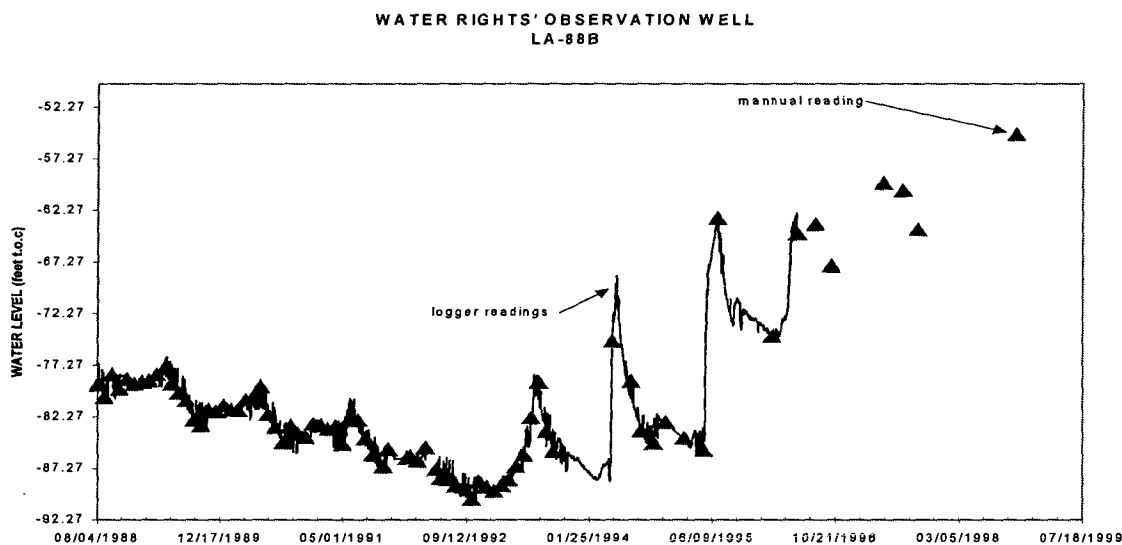


Figure 3. Minnelusa Aquifer Hydrograph

It is interesting to note that unlike a typical Minnelusa aquifer hydrograph, the water levels are highest in LA-88B in late spring (around May 30) and the water levels are lowest in the fall (around Oct.30). The water levels generally are highest in LA-86A in the late-winter (Jan.-Apr.) and are lowest in late summer (about Aug.30). This may be indicative of the influence of pumping in the Spearfish area. In any case it is obvious from the hydrographs that withdrawals have not exceeded recharge for the period of record of the hydrographs.

There are reports of declines of the potentiometric surface of the Minnelusa Aquifer in the Spearfish area since the first wells were completed. Although Cox, (1962), alluded to poor well construction as one reason some wells were experiencing decreased flow and/or pressure, he did report that "a serious overdraft" [withdrawals exceed recharge] of the Minnelusa aquifer exists in the Spearfish-Belle Fourche area. Kyllonen, (1987) reported that the potentiometric surface of the Minnelusa aquifer has declined as much as 99 feet in the Spearfish area. This decline in head is blamed on reduced recharge to the Minnelusa in the early 20th century due to the diversion of most of the flow of Spearfish Creek around the outcrop of the Minnelusa Formation. Measurements taken from Water Rights' Observation wells suggest the system has established local equilibrium, as indicated by relatively constant water levels since 1963 (Water Rights, 1998_p). Long term water-level declines are not apparent from hydrographs of any of these observation wells. The observation well data suggests that at the existing level of development, the aquifer is capable of sustaining additional withdrawals.

AFFECTS ON EXISTING RIGHTS:

There are 154 Water Rights/Permits that appropriate water from the aquifer in South Dakota (Water Rights, 1999). There are 48 permits/rights appropriating water from the Minnelusa aquifer in Lawrence County (Water Rights, 1998), where the aquifer is used primarily for suburban housing development, commercial, municipal and irrigation use. There are 22 irrigation permits/rights from the Minnelusa Aquifer in Lawrence County; most of these are located just north of Spearfish. Since 1987, the average annual pumpage reported for irrigation has been about 1,500 acre-feet per year. As much as 2591 acre-feet in 1988 and as little as 579 acre-feet in 1993 was pumped from the Minnelusa in Lawrence County (Water Rights, 1998). This irrigation usage may explain the atypical highs and lows on area observation well hydrographs. In addition, Future Use Permit No. 969-1, Black Hills State University, reserves 96 acre-feet annually. There are a number of domestic wells completed into the Minnelusa Aquifer on file with the Water Rights Program (Water Rights, 1998).

There are 17 Water Rights/Permits appropriating groundwater within one and one half miles of the site proposed by this application. Six of these appropriations are from the Minnelusa Aquifer. The nearest appropriation, Water Right No. 1528-1, Westfield Homeowners Assn., is also from the Minnelusa Aquifer and is approximately one half mile south east of this site. Any well interference this proposed use would have on these or other water rights/permits is not expected to be adverse due to the distance between wells, and the relatively low diversion rate requested by this application.

Special Consideration:

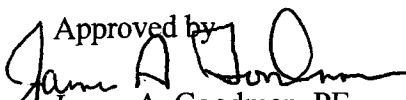
This development is planned for eight housing lots ranging in size from four to five acres. The housing development plans to utilize individual septic tanks to dispose of effluent.

CONCLUSIONS:

1. The Minnelusa Aquifer is a viable aquifer in this area, and water is available for this appropriation.
2. The Minnelusa is under artesian conditions and drawdown due to this diversion can be expected. This drawdown is not expected to adversely affect adequate wells in the area.
3. The effluent from this suburban housing development will be disposed of through individual septic systems.
4. The Completion Report submitted with this application indicates the existing well has been constructed in compliance with the SD Well Construction Standards.



Ken Buhler
Natural Resources Engineer

Approved by 
James A. Goodman, PE
Natural Resources Engineer

REFERENCES:

- Allen, J.C., D.Iles, A.Petres, 1984, Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota, Task 3 & 4: Groundwater Resources Inventory, US Army Corps of Engineers Contract DAWC 45-82-C-015, SD DENR-Division of Geological Survey, Vermillion SD
- Cox, E.J., 1962, Artesian Water, Minnelusa and Pahasapa Formations, Spearfish-Belle Fourche Area, South Dakota Geological Survey, Special Report 19, Vermillion, SD
- Kyllonen, D.P., K. Peter, 1987, GeoHydrology and Water Quality of the Inyan Kara, Minnelusa, and Madison Aquifers of the Northern Black Hills, South Dakota and Wyoming, and Bear Lodge Mountains, Wyoming, U.S. Geological Survey, Water Resources Investigations Report 86-4158, Rapid City, SD
- Rahn, P.H., 1979, Ground Water Resources of Western South Dakota, US Army Corps of Engineers, Draft Report-Final
- Water Rights Program, 1998_a, "Domestic Well Log Files" DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1998_b, "Observation Well Files" DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1998_c, "Water Permit Files" DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1998_d, "Irrigation Report by County" DENR-Water Rights Program, Joe Foss Building, Pierre, SD

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1677-1, Dan Mathis**

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. 1677-1, Dan Mathis, 1715 Scott Avenue, Spearfish SD 57783.

The Chief Engineer is recommending APPROVAL of Application No. 1677-1 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. The well authorized by Permit No. 1677-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.

See report on application for additional information.



JOHN HATCH, Chief Engineer
January 7, 1999



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

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

January 8, 1999

Dan Mathis
1715 Scott Ave.
Spearfish, SD 57783

Dear Mr. Mathis:

Water Permit Application No. 1677-1 for suburban housing development has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Black Hills Pioneer printed at Spearfish, SD (Ph # (605) 642-2761). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has 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.



January 8, 1999

Black Hills Pioneer
P.O. Box 7
Spearfish, SD 57783-0007

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 1677-1 to Appropriate Water to be published twice. Please publish the first notice on January 15, 1999, with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Dan Mathis, 1715 Scott Ave., Spearfish, SD 57783 (Ph # (605) 642-2543).

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

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

No. 1677-1

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

Date _____

We are in receipt of your letter of January 8, 1999, enclosing Notice of Hearing to Appropriate Water by Application No. 1677-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on January 15, 1999, with the second publication 7 days later.
The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1677-1 to Appropriate Water

Notice is given that Dan Mathis, 1715 Scott Ave, Spearfish SD 57783 has filed an application for a water permit to appropriate 0.144 cubic feet of water per second (65 gallons per minute) from two wells 340 feet deep (Minnelusa Aquifer) located in the NE ¼ NW ¼ Section 8-T6N-R2E. The water is for a suburban housing development.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1677-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 1, 1999.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

Affidavit of Publication

STATE OF SOUTH DAKOTA)
COUNTY OF LAWRENCE)

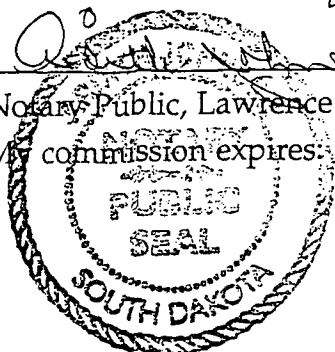
Billy T. Masterson, Jr. of said County and State being first duly sworn, on his oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Billy T. Masterson, and has been such a newspaper during 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, Billy T. Masterson, Jr., 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:

#466 Notice of Hearing on
Application No 1677-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 2 successive and consecutive weeks, the first publication being made on the 15th day of Jan, 19 99, and the last publication on the 22nd day of Jan, 19 99, that the full amount of fees charged for publishing same, to-wit: The sum of \$ 36.45, 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.

[Signature]
Subscribed and sworn to before me this 22nd day of Jan, 19 99.

[Signature]
Notary Public, Lawrence County, South Dakota
My commission expires: 10-24-2004



NOTICE OF APPLICATION NO. 1677-1 To Appropriate Water

NOTICE IS GIVEN that Dan Mathis, 1715 Scott Ave., Spearfish SD 57783 has filed an application for a water permit to appropriate 0.144 cubic feet of water per second (65 gallons per minute) from two wells 340 feet deep (Minnelusa Aquifer) located in the NE 1/4 NW 1/4 Section 8, T6N, R2E. The water is for a suburban housing development.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1677-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended; unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

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Nettie H. Myers,
Secretary,
Department of Environment
and Natural Resources.

#466
Jan. 15, 22



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

FEB 22 1999

Dan Mathis
1715 Scott Ave.
Spearfish, SD 57783

Dear Mr. Mathis:

Enclosed is Water Permit No. 1677-1 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

October 27, 2016

No. 1677-1

Mathis Homeowners Association
c/o Randy Deibert
1715 Scott Ave
Spearfish SD 57783

Dear Mr. Deibert:

On October 6, 2016 the investigation of the water use system that supplies the Mathis Homeowners Association authorized by Water Permit No. 1677-1, was completed by Steve Quissell, a staff engineer with our program. The water permit is currently listed in the name of Dan Mathis.

Enclosed is a partially completed "Notice of Transfer" form for use in filing an ownership/name change on Water Permit No. 1677-1.

The transfer form should be checked over for accuracy and signed by the new owner. Upon completion, return the form to our office with a required filing fee of \$50.00.

If the permit should remain in the name of Dan Mathis or if you have questions, please contact Genny McMath or me.

Sincerely,

Karen Schlaak

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

enclosure

RECEIVED

APR 27 2017

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 1677-1

Date: _____

I/We request that Water Right/Permit No. 1677-1

formerly owned by: Dan Mathis

be transferred to: (name & address) MATH'S HOMEOWNERS ASSOCIATION,
1725 Scott Ave., Spearfish, SD

Telephone No. 605-722-2602

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

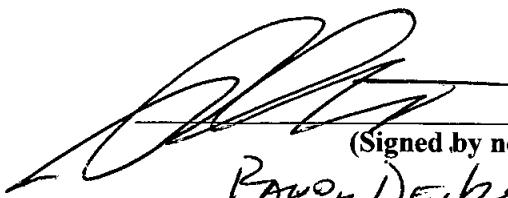
2 wells located in the NE 1/4 NW 1/4 Section 8-T6N-R2E for suburban housing development

I/We understand that the validity of Water Right/Permit No. 1677-1 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

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 required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We MATH'S HOMEOWNERS ASSOCIATION, the new owner, certify that the above information is true and correct.



(Signed by new owner)
Randy Deibert 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 4/27, 20 17

RECEIVED OF Mathis Addition Homeowners 1725 Scott Ave Spearfish SD 57783

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 <u>1677-1</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____	50	00
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	50 00

No. **08239**

By Jeanne Goodman JD
Chief Engineer

1677-1

Tract 6

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

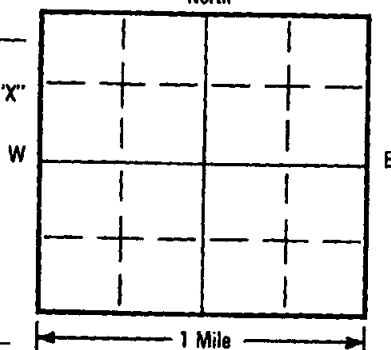
Location NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 8 Twp 6 N Rg 2E

County

Lawrence

North

Please mark well location with an "X"



Well Completion Date

4-10-99

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 150 ft. from drainfield (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>Sch 40</u> <u>180</u> LB/FT	<u>6 5/8</u> IN	<u>0</u> FT	<u>300</u> FT	<u>8 3/4</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland</u>	<u>55</u>	_____ lb./gal	<u>0</u> ft	<u>300</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN 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: 1 gal chlorox

_____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Dan MathisBusiness Name: 1715 Scott AveAddress: Spearfish SD 57783

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
gravel	0	30
red bed + gyp	30	120
minn kahta	120	152
opeche	152	247
Pink lime + soft sand	247	290
lime + sand stone	290	325

STATIC WATER LEVEL 44 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Air PumpedDescribe: 45 gpm at 200'☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped

_____ ft. After _____ Hrs. pumped

If pump installed, pump rate _____

REMARKS

This well was drilled under license # 93

And this report is true and accurate.

Drilling firm Ellingson Drilling

Signature of License Representative:

Jerry Ellingson

Signature of Well Owner or Equitable Property Holder:

Dan MathisDate: 4-10-99

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 1677-1

I have this day, October 6, 2016, made a thorough examination of the water use system constructed by Mathis Homeowners Association, 1715 Scott Ave., Spearfish, SD 57783 of Permit No. 1677-1, bearing the priority of 11/24/1998 authorizing the diversion of .144 cu. ft. per second of water from two wells for suburban housing development purposes, in Lawrence County.

Inspection contact & relationship to permit holder, if applicable: **Randy Deibert, HOA president**
1715 Scott Ave., Spearfish, SD 57783
605-645-1680 (cell)

A. Works used to divert the water:

Well Information:

- | | |
|---|--|
| 1) Well Drilling Firm: <u>Ellingson Drilling (1998)</u> | Well Drilling Firm: <u>Ellingson Drilling (1999)</u> |
| 2) Well No. <u>1 (south well)</u> | Well No. <u>2 (north well)</u> |
| 3) Depth <u>340</u> feet | Depth <u>325</u> feet |
| 4) Well log <u>Yes</u> | Well log <u>Yes</u> |

Comments: The two wells have piping installed between the well pits that can be connected in the event of well or pump problems, but the wells and pressure systems are operated as two separate systems.

Casing:

- | | |
|-----------------------------|--------------------------|
| 1) Diameter <u>6</u> inches | Diameter <u>6</u> inches |
| 2) Length <u>288</u> feet | Length <u>300</u> feet |
| 3) Type <u>PVC</u> | Type <u>PVC</u> |

Screen:

- | | |
|--------------------------------------|-----------------------------------|
| 1) Type <u>N/A</u> | Type <u>N/A</u> |
| 2) Length <u>---</u> feet | Length <u>---</u> feet |
| 3) Static water level <u>78</u> feet | Static water level <u>44</u> feet |

Pump:

- | | |
|--|--|
| 1) Make <u>Gould</u> | Make <u>Gould</u> |
| 2) Model <u>18GS30</u> | Model <u>18GS30</u> |
| 3) Size <u>4"</u> | Size <u>4"</u> |
| 4) Capacity <u>25.5</u> GPM | Capacity <u>28.5</u> GPM |
| 5) Horsepower rating <u>3</u> hp | Horsepower rating <u>3</u> hp |
| 6) Pressure @ well head: <u>40-60</u> psi. | Pressure @ well head: <u>40-60</u> psi |

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

- 1) Type PE pipe
- 2) Size 1" inches
- 3) Length varys for each home feet

C. Works used to apply water to beneficial use:

Each well utilizes pressure tanks operating at a 40/60 setting. There is no central storage. The south well currently serves 3 homes with one additional connection possible. The north well currently serves 2 homes with two additional connections possible. The development will have 8 homes when fully developed and covenants do not allow for subdividing acreages.

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 points of diversion located as follows:

South Well

994' S and 2,013' E of the NW corner Section 8 T6N R2E (44.500499, -103.90285)

North Well

365' S and 1,998' E of the NW corner Section 8 T6N R2E (44.502227, -103.902884)

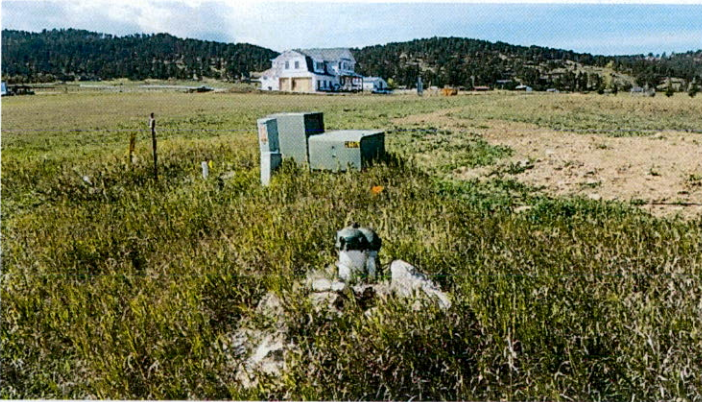
2. The works are capable of diverting and conveying to the place of use .12 cu. ft. per second (**54 gpm**) of water which is to be used for **suburban development** use and the license should be issued for **.12 cfs**.
3. All structures, wells and lands on map – **Yes**

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



Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

Date report completed: 10/20/2016



south well (1998)

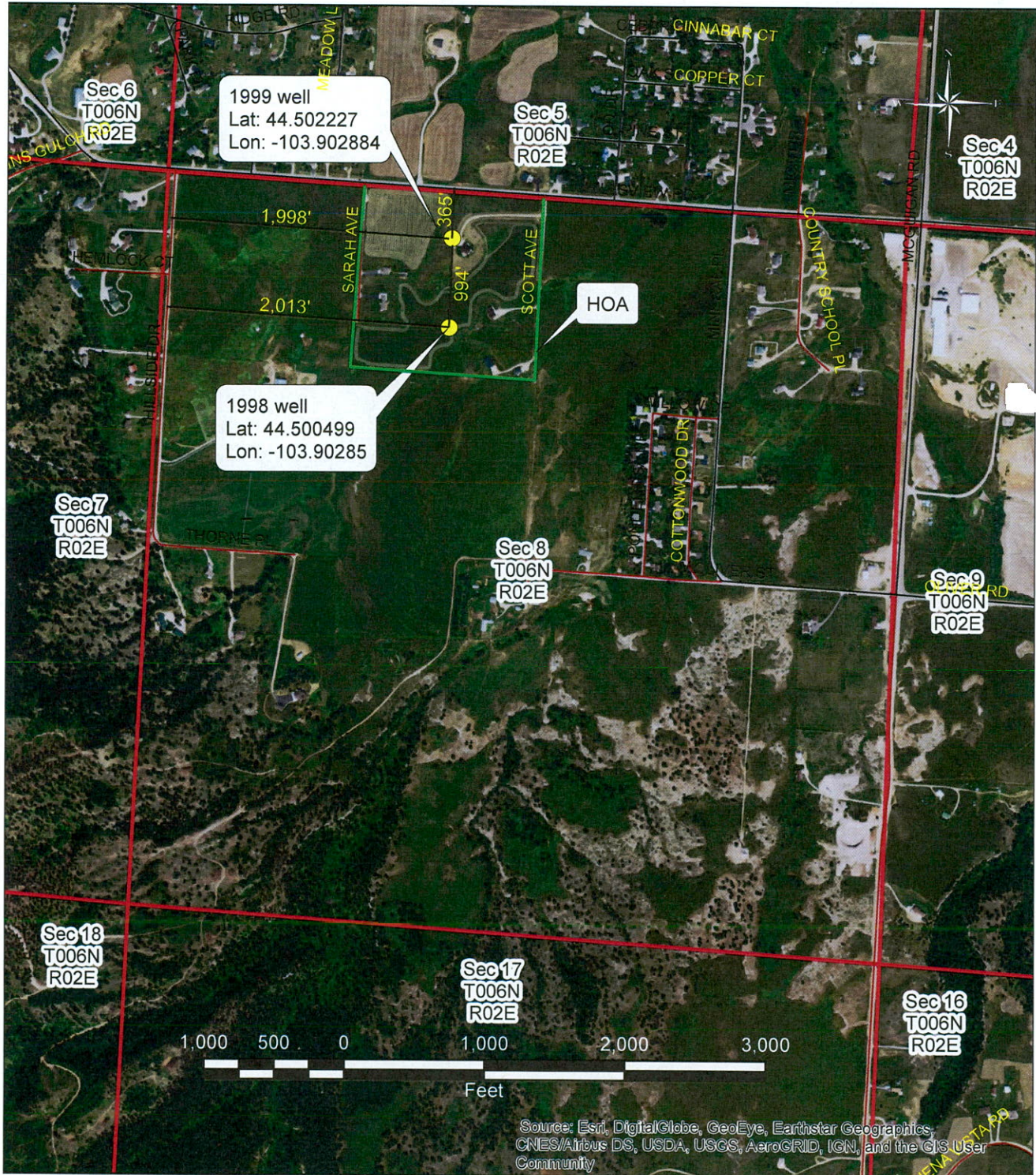


north well (1999)



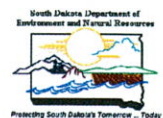
south well pit

Water Right #1677-1
Mathis Home Owners Assn.
10/20/2016



Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

1677-1

MAY 30 2017

Mathis Homeowners Association
c/o Randy Deibert, President
1725 Scott Ave
Spearfish SD 57783

Dear Mr. Deibert:

Enclosed is Water License No. 1677-1. This is the final water right document completing the process of obtaining a Water Right. Also, included with the license is a map prepared by the staff engineer who conducted the investigation. Enclosed is the receipt for \$50.00 which you paid for the Notice of Transfer of Ownership.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right No. 1677-1, 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. 1677-1

(1) Dan Mathis, 1715 Scott Ave, Spearfish SD 57783 made Application No. 1677-1, November 24, 1998 for a water permit to divert 0.144 cubic feet of water per second from two wells - Minnelusa Aquifer, Lawrence County, South Dakota for suburban housing development purposes. Permit No. 1677-1, with a priority date of November 24, 1998 was approved February 1, 1999 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 1, 2004 and for the application to beneficial use of water on or before February 1, 2008.

On April 27, 2017, Water Permit No. 1677-1 was transferred to Mathis Homeowners Association, c/o Randy Deibert, 1725 Scott Ave, Spearfish SD 57783.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 1677-1 is issued a license, bearing a priority date of November 24, 1998 to appropriate 0.12 cubic feet of water per second from two wells - Minnelusa Aquifer for suburban housing development purposes.

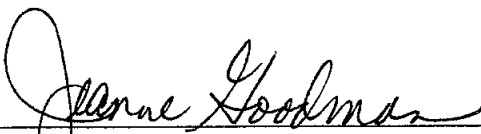
The diversion points are located as follows:

South well – 994 feet S and 2,013 feet E of the NW corner Section 8-T6N-R2E (NE 1/4 NW 1/4).

North well – 365 feet S and 1,998 feet E of the NW corner Section 8-T6N-R2E (NE 1/4 NW 1/4).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 1677-1 including the following qualifications:

- The wells 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.
- The wells authorized by Permit No. 1677-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28. *The wells were drilled by Ellingson Drilling. Copies of the logs are on file with the Water Rights Program.*


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

MAY 30 2017
date

