

Considered: _____

WATER PERMIT NO. 2156-2

Phone: 394-4165

Name of Applicant: Water Division, City of Rapid City

Post Office Address: 300 6th St., Rapid City, SD 57701

Amount of Water Claimed: 2.67 cfs (1160 ac-ft) Total Acres: _____

Source of Water Supply: _____

Water to be used for: municipal County: Pennington

About _____ miles _____ of Rapid City

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

F.F. & C/.L. Adopted _____ Not Approved _____ Deferred _____

PRIORITY Date Received: 12/28/90 Fee: \$425 Remarks Water reserved

by Future Use Permit No. 2086-2

Corrected Application Received _____ Period of Annual Use _____

WATER QUALITY APPROVAL RECEIVED _____ APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES _____ NO _____ REMARKS _____

Diversion Point: SW1/4 SE1/4 Section 16 T1N, R7E

Land to be Irrigated: _____

		16			
		x			

Well Log: Driller: _____ Licensed YES _____ NO _____

Depth of Well: 1130 REMARKS _____

Type of Map: Topo PREPARED BY: Dan Bjerke Reviewed and the Number

Assigned on 12/28/90 By Eric Gronlund

Mail to: Water Rights Div.
523 E. Capitol
Pierre, SD 57501
(605) 773-3352

No. _____ Hydrologic Unit _____
Map No. _____ Basin _____
Newspaper _____

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

Check use of water: Industrial ☐ Commercial ☐ Municipal ☒ Other Common Distribution System ☐
Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
Domestic ☐ (above 18gpm) Other ☐

Type of Application: Check one or more of the following

New ☐ Vested Right ☐ Future Use ☐ Change Use ☐

☐ Amend Permit No. _____ with old priority date retained

Change diversion point(s) ☐ Add diversion point(s) ☐ Other ☐

☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____

☒ Construction to use water reserved by Future Use Permit No. 2086-2



1. Name of Applicant Water Division, City of Rapid City Phone No. 394-4165

Post Office Address 300 Sixth St., Rapid City, State SD 57701
(Street, RR or Box) (City) Zip Code

2. Amount of water claimed (c.f.s.) 2.67 (1160 ac-ft/year)

3. Source of water supply Madison Aquifer

4. Location of point of diversion See attached sheet

SW $\frac{1}{4}$, SE $\frac{1}{4}$, Section 16, T1N, R7E, BHM

County Pennington

5. Counties where water will be used Pennington

6. Annual period during which water is to be used all year (January 1 - December 31)

7. Give a brief description of proposed 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)

Madison Formation Well (see attached sheets).

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map (see instruction)

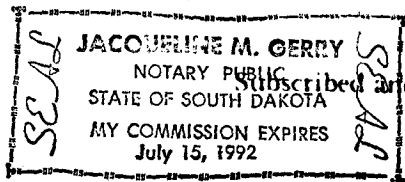
STATE OF SOUTH DAKOTA)
County of Pennington)⁵⁵

I, Keith T. Carlyle

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.

Signed _____

21st day of December 19 90



Jacqueline M. Gerry
Notary Public

Supplemental Information

(type or print in ink)



1. Well Information - Proposed construction

- Drill Hole Diameter 17 1/2" Depth 1130
- Casing Type Steel Diameter 13-3/8 Thickness 0.375 inch
- Screen Type open hole Diameter 12 1/2 Thickness none
- Gravel Pack Thickness none Length of Gravel Pack none
- Depth to Top of Water Bearing Material 1100
- Depth to Water (ground surface to water level) 100 feet (based on levels of existing wells)
- Distance to nearest existing domestic well: No Madison wells in vicinity of proposed well
On applicants property none On property owned by others 5000 feet

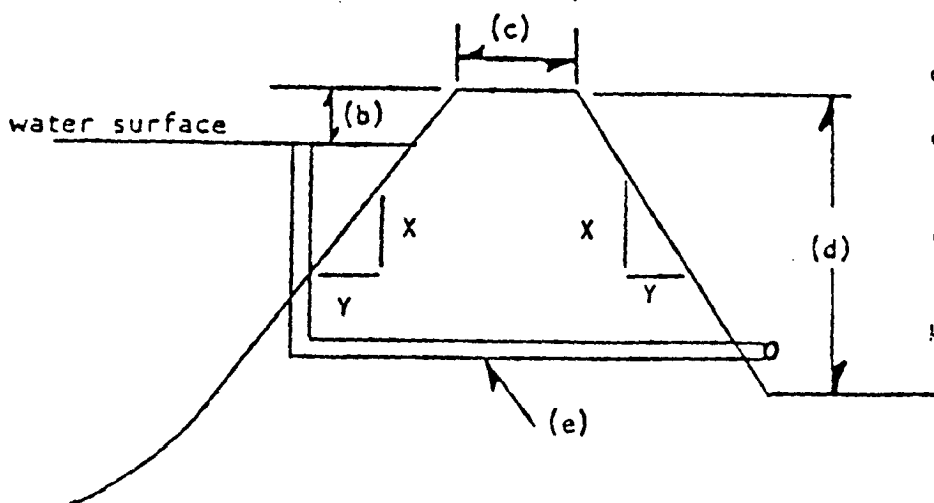
2. Dugout Information Estimates

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

3. Water Storage Dams

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

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



- Freeboard _____
- Crest Width _____
Crest Length _____
- Height _____
- Primary Outlet Capacity _____
If Pipe, diameter _____
- Secondary Spillway Capacity _____
Spillway width _____
- X & Y Slope
Upstream _____
Downstream _____
- Surface Area of Impoundment _____
- Storage _____ acre feet
- Drainage area above dam _____

Signature of Applicant _____

**SOUTH DAKOTA
WATER PERMIT No. 2156-2**

Date of first receipt of application December 28, 1990.

The Water Management Board approved Water Permit Application No. 2156-2 on February 27, 1991 for Water Division, City of Rapid City, 300 Sixth St., Rapid City, SD 57701 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. 2156-2 authorizes construction and placement to beneficial use 2.67 cubic feet of water per second (1160 acre feet annually) from one well (Madison Aquifer) approximately 1130 feet deep. The point of diversion is to be located in the SW1/4 SE1/4 Section 16, T1N, R7E. The water was appropriated and reserved by Future Use Permit No. 2086-2.
2. The water appropriated shall be used for the purpose of supplying city water and may not exceed the amount of water needed for beneficial use for municipal purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date from which applicant may claim right is May 18, 1989.
5. One-fifth of the construction is to be completed on or before August 27, 1993.
6. All construction is to be completed on or before February 27, 1996.
7. Water is to be put to beneficial use on or before February 27, 2000.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well authorized by Permit No. 2156-2 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 with cement (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:30.
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.

(continued)

Water Permit No. 2156-2

Page 2

3. The well approved under this permit shall be valved and the flows reduced to the amount needed or shutoff when well water is not needed. The well shall also be equipped with a pressure gauge and records kept of any pressure fluctuations. Such records shall be available to the Chief Engineer upon request. If this well is abandoned or the permit is cancelled, the well must be plugged in accordance with Water Management Board Rules.

WATER MANAGEMENT BOARD

By: _____

John Hatch
Chief Engineer, Water Rights Division
Department of Water and Natural Resources

APR 25 1991

(date)

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412502

Pierre, January 23, 1991

RECEIVED OF City of Rapid City, 300 Sixth Street, Rapid City SD 57701

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

Fee for Application for Permit No. <u>2156-2</u> to Appropriate Water, to construct works and to put water to beneficial use _____	425	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 _____		
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	42500

By John Hatcher
Chief Engineer

INDIVIDUAL FACILITY INFORMATION*

School/facility name: CORRAL DRIVE PROPERTY

Address: _____
 Street City State Zip

Contact person (during inspection) _____

Phone No. (_____) _____ Ext. _____

Type of facility: Kindergarten _____; Elementary _____; Jr. high _____;
 Sr. high _____; Other _____

Gross area (including tunnel length x 32): _____ Sq. ft.

Approximate date of original construction: _____

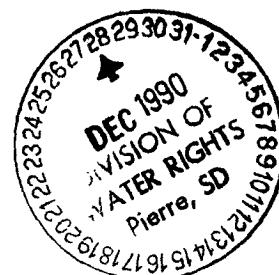
Renovated since original construction: Yes _____ No _____

Major construction type: Wood _____; Masonry _____; Concrete _____; Steel Frame _____;
 Other _____

Contains spray-applied plasters or fireproofing? Yes _____ No _____ Don't know _____

Beginning at the SE corner of Lot 1 of Tract 1 of Pine View Terrace in the SW 1/4 of the SE 1/4 of Section 16, T1N, R7E of the Black Hills Meridian, Pennington County, South Dakota; thence North 500 Feet to the NE corner of said Lot 1; thence Easterly approximately 954 Feet on a line that is parallel to the South Line of said Section 16 to the East Line of Tract 1 of Pine View Terrace; thence South along said East line of Tract 1 to the said South Line of Section 16; thence Westerly to the point of beginning, containing 10.95 acres, more or less.

Tract 3 and Tract 1 of Pine View Terrace in th SW1/4 of the SE1/4 and the NW 1/4 of the SE 1/4 of Section 16, Township One North, R7E of the Black Hills Meridian as shown by plat filed in the office of the Pennington County Register of Deeds on April 10, 1965, and recorded in Book 9 of Plats on Page 187, less Lot A of said Tract 1 as shown by the Plat thereof filed in the Office of the Pennington County Register of Deeds on September 16, 1975, and recorded in Book 14 of Plats at Page 46, containing 24.534 acres, more or less.



SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location SW 1/4 Sec 16 Twp 1N Rg 7ECounty
Pennington

North

W

E

1 mile

Please mark well
location with
an "X"Well # 11Well Completion Date 12-5-91

PROPOSED USE:

☐ Domestic ☒ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:

Air - Mud Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>54.50</u> LB/FT	<u>13 3/8</u> IN	<u>0</u> FT	<u>883</u> FT	<u>17 1/2</u> IN
<u>80</u> LB/FT	<u>20</u> IN	<u>0</u> FT	<u>20</u> FT	<u>30</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 883 FEETWhat is grouting material? CementIf cement, number of sacks? 770Describe grouting procedure pressure grouted
through casingWhat was grout weight? 15 LB/GALSCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet To _____ Feet

Slot Size _____ Set From _____ Feet To _____ Feet

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? _____

Was well disinfected upon completion? ☒ YES ☐ NOExplain Chlorine solution circulated in wellBacteriological analysis ☐ YES ☒ NOLaboratory sent to pump has not been set

Well Owner: Public Works Dept.

Name City of Rapid CityAddress 300 6th St. Rapid City, SD 57701

Well Log:

Depth

Formation

From

To

Spearfish018Minnakata Limestone186.3Opecha6.3161Minnelusa161837Madison8371283STATIC WATER LEVEL 63 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

If other: specify _____

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped☐ Bailed

Describe: _____

☐ Other

Pumping Level Below Land Surface

373 ft. After 48 Hrs. pumped 820 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

REMARKS:

This well was drilled under license # 331

And this report is true and accurate.

Drilling firm TAYLOR DRILLING COMPANY

Signature of License Representative:

Ralph Taylor

Signature of Well Owner:

Date _____

JOHN PAUL GRIES

Consulting Geologist

238 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA



Rapid City Water Well #11 (Corral Drive)
SE SW SE 16, T. 1 N., R. 7 E., Perm. Co., S.D.
Elev. T.D. 1283
Drilled October-December 1991 by Taylor Drilling Co.
Electric log by Goodwell Geologic log by J. P. Gries

Spearfish formation 0 - 18' EL/T

Redbeds.

Minnekahta formation

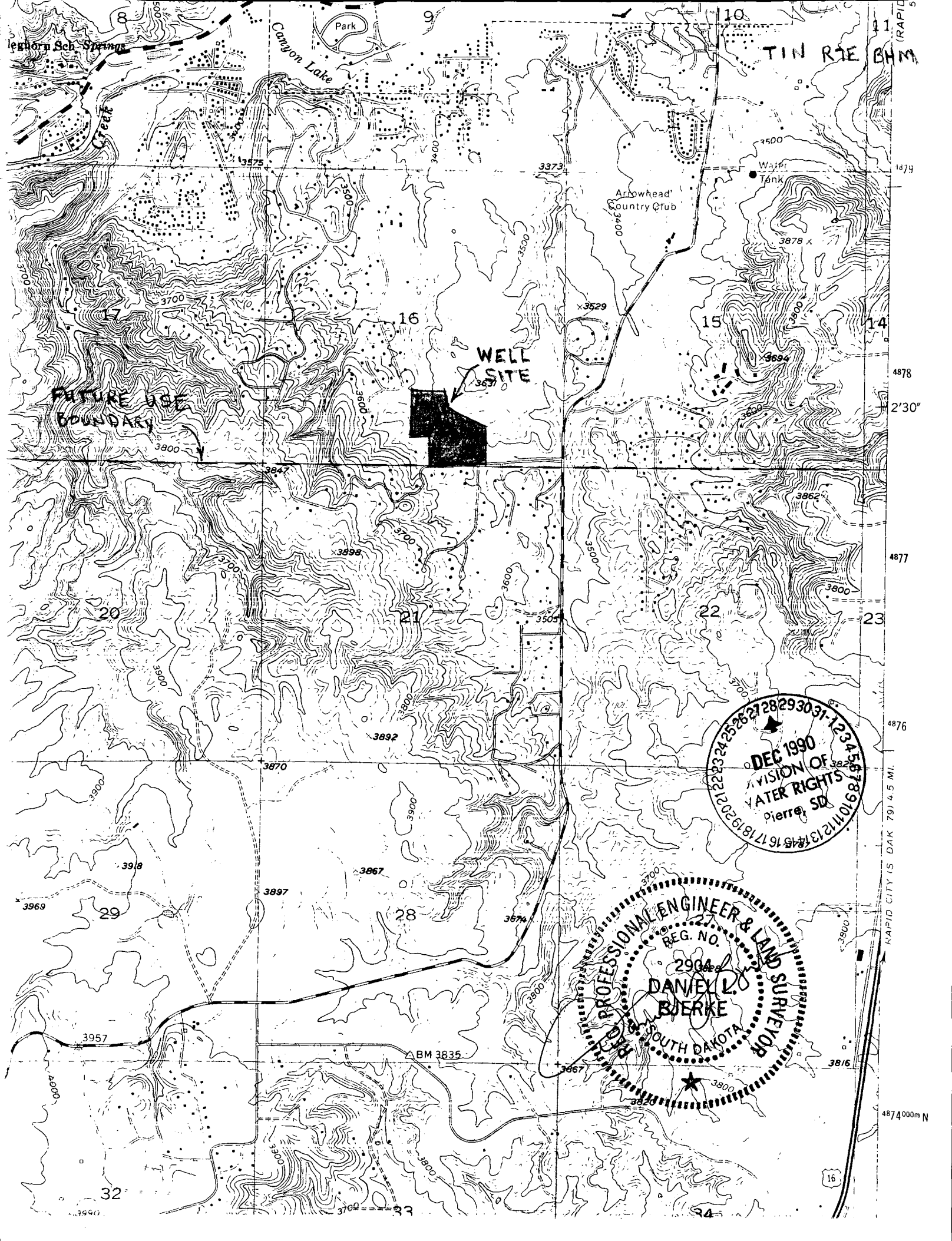
20 - 50 Limestone, finely crystalline, white to light red-brown

Opeche formation EL/T 63'

50 - 80 Limestone, same as above but redder; siltstone, lavender to red
120 redbeds, silty, trace anhydrite or gypsum
150 redbeds, same, no gypsum
180 redbeds, same; some embedded coarse sand grains; trace fine sand

Minnelusa formation EL/T 161'

180 - 210 sandstone, fine, coherent, white to slightly yellow
260 sand, fine, white, drills free
270 sand as above, some dolomite
290 sand, as above
300 sand, as above, and trace of dolomite
310 sand, same, more fine dolomite; sand may be cavings
320 sand, 70%; dolomite, mostly white to faintly pink, 30%
340 sand, fine, yellow to white
350 sandstone, cemented, yellow to white; trace dolomite. Switched to mud
360 sandstone, lavender to yellow and white
370 sandstone, same, 3/4; dolomite, fine, white, 1/4
380 sandstone, cemented, white to lavender, dolomitic, 2/3; dolomite, finely crystalline, white, 1/3
390 sandstone, cemented, white to lavender, dolomitic
400 sandstone, same, and some coarser, rounded frosted white grains
410 sandstone, same, 80%; dolomite, 20%
420 sandstone, as above, 1/2; dolomite, pure to very sandy, 1/2
430 sandstone, fine, white to faintly pink, drills to pellets
440 dolomite, finely crystalline, sandy, lavender, 3/4; dolomite, very finely crystalline, nearly white, no sand, 1/4
450 sandstone, very dolomitic, white to pale lavender to yellow
470 dolomite, very finely crystalline, red-brown to lavender, sandy
480 dolomite, very finely crystalline, pale lav. to white, mostly sandy
490 dolomite, finely crystalline, gray to slightly lavender, not sandy
520 sandstone, dolomitic, medium grained, white
530 dolomite, finely crystalline, gray to tan to pink, mostly nor sandy



leghorn Sch. Springs

Canyon Lake

Park

TIN RTE BHM

Arrowhead Country Club

Water Tank

WELL SITE

FUTURE USE BOUNDARY

DEC 1990
DIVISION OF
WATER RIGHTS
Pierre, SD

PROFESSIONAL ENGINEER & LAND SURVEYOR
REG. NO. 2904
DANIEL L. BUERKE
SOUTH DAKOTA

NAPID CITY IS DAK 79) 4.5 MI.

4874000m N

REPORT ON
WATER PERMIT APPLICATION
Nos. 2155-2 and 2156-2
CITY OF RAPID CITY
FEBRUARY 14, 1991

Water Permit Application No. 2155-2 proposes to construct and place to beneficial use 2.67 cubic feet of water per second (1160 acre feet annually) from one well approximately 1330 feet deep. The point of diversion is to be located in the N 1/2 SE 1/4 S 1/2 NE 1/4 Sec.27, T2N-R7E. The water was appropriated and reserved by Future Use Permit No. 2086-2. The water is to be used for municipal purposes by Rapid City.

Water Permit Application No. 2156-2 proposes to construct and place to beneficial use 2.67 cubic feet of water per second (1160 acre feet annually) from one well approximately 1330 feet deep. The point of diversion is to be located in the SW 1/4 SE 1/4 Sec.16, T1N-R7E. The water was appropriated and reserved by Future Use Permit No. 2086-2. The water is to be used for municipal purposes by Rapid City.

AQUIFER: MADISON LIMESTONE

INTRODUCTION:

SDCL 46-2A-9 requires that a permit to appropriate water may only be issued 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.

WATER AVAILABILITY:

The Madison (Pahasapa) Limestone is a massive, fine to medium crystalline, cavernous limestone and dolomite, 300-400 feet thick in the Rapid City area. The importance of the Madison as an aquifer is largely due to randomly distributed zones of secondary porosity and permeability formed by weathering of exposed surfaces, groundwater solution and fracturing. These zones also play an important role in determining the hydraulic behavior of the Madison aquifer system and the response of the system to stress. The Madison underlies approximately 1,489,920 acres of Pennington County and contains an estimated 29,798,400 acre-feet of recoverable water in storage in the county (Allen, 1984). Estimates of the Madison's transmissivity range from 86 to 25,000 ft²/d, and estimates for the Madison's storage coefficient range from 1×10^{-6} to 1×10^{-4} (Peter, 1985). The aquifer is under artesian conditions at the locations proposed by these applications.

The Division of Water Rights monitors 10 observation wells completed into the Madison aquifer. Records from the observation wells indicate the potentiometric surface of the aquifer fluctuates 30-40 feet per year in response to seasonal and climatic variations. A downward

trend of the water levels in recent years is probably indicative of low annual precipitation from 1986 to present. Observation well data suggests that existing development has not adversely affected the aquifer.

SDCL 46-6-3.1 states that no application to appropriate groundwater may be approved if, according to the best information reasonable 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.

Recharge to the Madison aquifer occurs through streamflow losses and direct infiltration of precipitation at the outcrop area. A major source of recharge to the Madison aquifer in this area, (85% according to Peter), (Peter, 1985), is water that Rapid, Box Elder and Spring Creeks lose when the creeks cross outcrops of the Madison. Recharge for the entire Madison has been estimated to range from 140,000 to 400,000 acre-feet per year (Woodward Clyde, 1981).

Permit Nos. 2155-2 and 2156-2 propose placing to beneficial use water which has been appropriated and reserved by Future Use permit No. 2086-2, therefore these applications represent no increase in appropriation. The best information available indicates appropriation from the Madison does not exceed the recharge to the aquifer. It should be noted that SDCL 46-6-3.1 includes an exception which allows for approval of permits for the withdrawal 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. The Madison Aquifer is stratigraphically lower than the Greenhorn Formation.

EXISTING WATER RIGHTS

The high cost of Madison wells, except very near the outcrop, and the availability of groundwater from shallower aquifers, has limited domestic development and generally restricted usage from the Madison to those uses which require water rights. There are 27 permits/rights appropriating water from the Madison aquifer in Pennington county. The total diversion rate appropriated in Pennington County from the Madison is 22.82 cubic feet per second. Maximum appropriation based on 60% of the diversion rate would equal 9,912.5 acre-feet annually. Actual appropriation for water distribution systems is estimated to be less than 60%. In addition, Future Use Permit No. 2086-2 appropriates 9991 acre-feet per year from the Madison. Permits appropriating water from the Madison in the Rapid City Area include:

Permit No.	Owner	Location	Formation*	CFS
433-2	Rapid City	T1NR7E9b	#1 Mnls,Mdsn	0.84
454-2	BHP&L	T2NR7E34ca	Mnls,Mdsn	1.00
1124-2	Chapel Lane Water Co.	T1NR7E17aa T1NR7E8dd	#1 Mdsn #2 Mnls	0.56
1154-2	Westberry Trails Water	T2NR7E31cc	#1 Mdsn #2 Mnls	0.25

Permit No.	Owner	Location	Formation*	CFS
1726-2	Colonial Village Water Assn.	T1NR7E32c d d	#1 Ddwd #2 Mdsn #3 Mnls ?	
		T1NR7E 29dd	#4 Mdsn	0.50
1838-2	Canyon Shadows Water Co	T1NR7E 8ab	Mdsn	0.03
1852-2	Ponderosa Water/ Homeowner	T2NR7E 31ba b	#1 #2 Mdsn	0.12
1925-2	Ponderosa Park Dev. Assn.	T1NR7E 31ca	Mdsn ?	0.10
1965-2	Highland Hills Water Assn.	T1NR7E 32da	Mdsn	0.10
2085-2	Rapid City	T2NR7E 32ad T1NR7E 3bb T1NR7E 10b	#6 Mdsn #5 Mdsn ? Mdsn	8.01
2086-2	Rapid City	City Limits	Mdsn	9991 AF
2090-2	Chapel Lane Water Co.	T1NR7E 8dd	Mdsn	1.17
2095-2	Rapid Valley Water Serv.	T1NR8E 9ca	Mdsn	0.90
2106-2	Wright, Paul & Lana	T1NR7E 15ad	Mdsn	0.09
2108-2	Clarkson, Richard/ Morry	T1NR7E 32ba	Mdsn	0.09
2110-2	Coca-Cola Bottling Co.	T2NR7E 27ac	Mdsn	0.25
2121-2	Rapid City	same well as 433-2		0.17
2124-2	Rapid City	T2NR7E 23da	#8 Mdsn	2.23

* Mnls - Minnelusa and Mdsn - Madison

Permit application Nos. 2155-2 and 2156-2 propose to placing to beneficial use a portion of the water reserved by future use Permit No. 2086-2 for Rapid City.

Since the Madison is under artesian conditions except very near the outcrop, withdrawals from a large capacity well can cause a decline in the potentiometric surface over widespread areas. Two constant discharge aquifer tests were conducted in the Rapid City area during the spring of 1990. A well (City Well #6) was pumped continuously for four days at a rate of 700 gallons per minute (gpm). The resultant drawdown in the production well was 426 feet. Approximately 3,000 feet from the production well, the maximum drawdown in an observation well was reportably 1.5 feet. A second well (City Well #5), pumped for 7 days at 1,700 gpm resulted in maximum drawdown of 210 feet in the production well. Maximum drawdown in an observation well 11,700 feet from the production well was 1.4 feet, (Earl Green, personal communication with J. Goodman, 1990).

The Madison aquifer may be hydrologically connected to the overlying Minnelusa aquifer. Measurements taken in the Division of Water Right's Observation Wells indicate the water level of the Madison is

generally higher than the water level of the Minnelusa, thus suggesting the potential of the Madison contributing recharge to the Minnelusa. While significant effects to the Minnelusa water level do not appear to have resulted from present development, this connection cannot be ignored when considering long-term development.

Interference is likely between wells completed into the Madison aquifer and possible in wells completed into the Minnelusa aquifer in the Rapid City area. If development from the Madison Aquifer requires the lowering of pumps in existing wells (either domestic wells or those wells with exiting permits), the question of unlawful impairment of existing rights may surface. SDCL 46-6-6.1 authorizes the Water Management Board to protect domestic water use by controlling large capacity wells without the necessity of requiring maintenance of artesian head pressure in a domestic use well. The statute also provides for the lowering of a water lift mechanism to a depth near the bottom of the groundwater supply or, in artesian aquifers to a substantial depth below the geological formation confining the ground water. Based on this statute, although well interference is likely, this interference may not be unlawful impairment.

As stated previously, a major percentage of the recharge to the Madison occurs from streamflow losses. There are numerous water rights and permits appropriating water from surface water sources in this area. Streamflow losses to the aquifer are directly influenced by the gradient between the surface water and the groundwater. An increase in the gradient caused by a decline in water levels in the Madison aquifer may increase the streamflow losses.

Springs and seeps sustain the base flow of all major streams that drain the Black Hills, including Elk Creek, Box Elder Creek, Spring Creek, Battle Creek, and Rapid Creek. Many of these springs or seeps are points of natural discharge from the Madison Aquifer. Small fluctuations in the Madison water table may have large fluctuations in discharge rate. Records identify seasonal fluctuations in discharge of springs such as City Springs (Rahn, 1973), Dome Springs (Rahn, 1973 and Crooks, 1968). Climatic effects of the discharge may be evident in discharge from some area springs. Most of the springs discharging from the Madison are at or near the outcrop of the aquifer where the aquifer is under unconfined conditions. Historic data of water table fluctuations in the unconfined portion of the Madison aquifer are not available, and the relationship between spring discharge and water level fluctuations is unknown.

CONCLUSIONS:

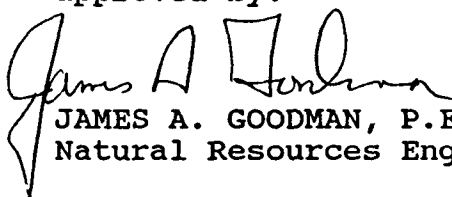
1. The Madison Aquifer is a viable aquifer in this area and there is a reasonable probability that unappropriated water is available from the aquifer.
2. Appropriation from the Madison Aquifer does not exceed recharge estimates for the Madison.

3. Well interference is possible at the well sites requested by this application. Well interference is not expected to result in unlawful impairment of existing rights.
4. The cumulative affects of the development of the Madison Aquifer on the baseflow of area streams are not known.
5. The wells to be used to supply water for these permits may flow at the surface. The wells must be controlled to the amount of flow necessary.
6. The wells proposed to supply these applications should be constructed in compliance with the SD Well Construction Standards.



KEN BUHLER
Natural Resources Engineer

approved by:



JAMES A. GOODMAN, P.E.
Natural Resources Engineer

BIBLIOGRAPHY

- Allen, J.C., D. Iles, A. Petres, 1984, Analysis of Ground Water and Streamflow Data Western Dakotas Region of South Dakota, Tasks 3 & 4: Groundwater Resources Inventory, Department of Water and Natural Resources, Division of Geological Survey, Vermillion, South Dakota, 57069, U.S. Army Corps of Engineers Contract No. DAWC ;45-82-C-0151
- Crooks, Thomas J., 1928, "Water Losses and gains across the Pahasapa Limestone, Box Elder Creek, Black Hills, South Dakota", Proc. S. D. Aca. Sci., Vol.47 (1968)
- Division of Water Rights, 1990, "Observation Well Files", SD DWNR-Division of Water Rights, Joe Foss Building, Pierre, SD, 57501
- Division of Water Rights, 1990, "Water Permit Files", SD DWNR-Division of Water Rights, Joe Foss Building, Pierre, SD, 57501
- Peter, K.D., 1985, Availability and Quality of Water from the Bedrock Aquifers in the Rapid City Area, South Dakota, USGS Water-Resources Investigations Report 85-4022, Rapid City, South Dakota

Woodward Clyde Consultants, 1981, Well Field Hydrology Technical Report, for the ETSI Coal Slurry Pipeline Project, U.S. Dept.of Interior, Bureau of Land Management

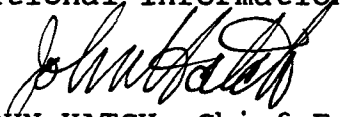
REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2156-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2156-2, City of Rapid City, 300 6th Street, Rapid City, SD.

The Chief Engineer is recommending APPROVAL of Application No. 2156-2 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) in the public interest with the following qualifications:

1. The well authorized by Permit No. 2156-2 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 with cement (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:30.
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. The well approved under this permit shall be valved and the flows reduced to the amount needed or shutoff when well water is not needed. The well shall also be equipped with a pressure gauge and records kept of any pressure fluctuations. Such records shall be available to the Chief Engineer upon request. If this well is abandoned or the permit cancelled, the well must be plugged in accordance with Water Management Board Rules.

See report on application for additional information.

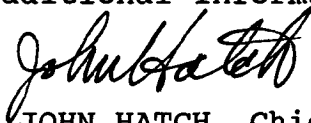

JOHN HATCH, Chief Engineer
February 25, 1991

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2156-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2156-2, City of Rapid City, Water Division, 300 Sixth St., Rapid City, SD 57701.

The Chief Engineer is recommending DEFERRAL of Application No. 2156-2 because there is currently a pending application from the Madison Formation.

See report on application for additional information.

A handwritten signature in cursive script, appearing to read "John Hatch".

JOHN HATCH, Chief Engineer
January 4, 1991



DEPARTMENT OF WATER & NATURAL RESOURCES

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

January 4, 1991

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

Dan Bjerke, Water Division Manager
Public Works Dept
City of Rapid City
300 Sixth Street
Rapid City SD 57701

Dear Mr. Bjerke:

Water Permit Application Nos. 2155-2 and 2156-2 for have 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 Journal printed at Rapid City SD. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation will be sent to you at a later date. 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 Intent to Appropriate Water 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. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT OF WATER & NATURAL RESOURCES

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

January 4, 1991

Rapid City Journal
Box 450
Rapid City SD 57709-0450

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application Nos. 2155-2 and 2156-2 to be published twice. Please publish the first notice on or before January 10, 1991 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 City of Rapid City, Public Works Dept., 300 Sixth Street, Rapid City SD 57701.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

CUT HERE

FIRST TRANSMITTAL NOTICE

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

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to
Appropriate Water by Application No. _____ 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 or before January 10, 1991 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application Nos. 2155-2 and 2156-2 to Appropriate Water

Notice is given that the City of Rapid City, Water Division, 300 Sixth St., Rapid City, SD 57701 has filed applications for Water Permit Nos. 2155-2 and 2156-2.

Water Permit Application No. 2155-2 is to construct and place to beneficial use 2.67 cubic feet of water per second (1160 acre feet annually) from one well (Madison Aquifer) approximately 1330 feet deep. The point of diversion is to be located in the N1/2 SE1/4, S1/2 NE1/4 Section 27, T2N, R7E. The water was appropriated and reserved by Future Use Permit No. 2086-2. The water is to be used for municipal purposes by the city.

Water Permit Application No. 2156-2 is to construct and place to beneficial use 2.67 cubic feet of water per second (1160 acre feet annually) from one well (Madison Aquifer) approximately 1130 feet deep. The point of diversion is to be located in the SW1/4 SE1/4 Section 16, T1N, R7E. The water was appropriated and reserved by Future Use Permit No. 2086-2. The water is to be used for municipal purposes by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends DEFERRAL of Application Nos. 2155-2 and 2156-2 because there is currently a pending application from the Madison Formation. These applications will be considered by the Water Management Board in Meeting Room, Governors Inn, 700 West Sioux Avenue, Pierre, SD February 27, 1991 at 10:30 am. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny either of these applications based on the facts presented at the public hearing.

Although the Chief Engineer has recommended DEFERRAL, any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by February 15, 1991. These applications will probably not be readvertised. Parties will be given personal notice of any future hearings. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications and the signature and mailing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on these applications or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by February 15, 1991.

These applications is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; 46-5-38 thru 46-5-40; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
 County _____)

I, Mary K. Garness
 certify that the attached printed Notice was taken
 from the Rapid City Journal

A newspaper which during the whole time of publication of
 said notice herein after stated, has been and is printed and
 published in the _____

City _____ of Rapid City

County of Pennington and State of South Dakota;
 that the said notice was published in said newspaper on the
 following two dates:

January 10, 1991

January 17, 1991

Mary K. Garness
 (Signature)

Bookkeeper
 (Title)

January 17, 1991
 (Date Signed)

Cost of Printing: Ran 10 4/16 inches legal advertising

in the Rapid City Journal on January 10 & January

17 @ \$4.20 per inch = \$86.10

Ran public notice of hearing L035

Jan. 10, 17 L035

NOTICE OF HEARING ON APPLICATION NOS. 2155-2 AND 2156-2 TO APPROPRIATE WATER

Notice is given that the City of
 Rapid City, Water Division, 300
 Sixth St., Rapid City, SD 57701 has
 filed applications for Water Per-
 mit Nos. 2155-2 and 2156-2.

Water Permit Application No.
 2155-2 is to construct and place to
 beneficial use 2.67 cubic feet of
 water per second (1160 acre feet
 annually) from one well (Madison
 Aquifer) approximately 1330 feet
 deep. The point of diversion is to
 be located in the NW 1/4 SE 1/4
 NE 1/4 Section 27, T2N, R7E. The
 water was appropriated and re-
 served by Future Use Permit No.
 2086-2. The water is to be used for
 municipal purposes by the city.

Water Permit Application No.
 2156-2 is to construct and place to
 beneficial use 2.67 cubic feet of
 water per second (1160 acre feet
 annually) from one well (Madison
 Aquifer) approximately 1130 feet
 deep. The point of diversion is to
 be located in the SW 1/4 SE 1/4 Section
 16, T1N, R7E. The water was ap-
 propriated and reserved by Future
 Use Permit No. 2086-2. The water
 is to be used for municipal pur-
 poses by the city.

Pursuant to SDCL 46-2A-2, the
 chief Engineer of the Water Rights
 Division recommends DEFER-
 RAL of Application Nos. 2155-2 and
 2156-2 because there is currently a
 pending application from the
 Madison Formation. These appli-
 cations will be considered by the
 Water Management Board in
 Meeting Room, Governors Inn, 700
 West Sioux Avenue, Pierre, S.D.,
 February 27, 1991 at 10:30 a.m. The
 Chief Engineer's recommendation
 is not final or binding upon the
 Board. The Board is authorized to
 1) approve, 2) approve with quali-
 fications, 3) defer or 4) deny either
 of these applications based on the
 facts presented at the public hear-
 ing.

Although the Chief Engineer has
 recommended DEFERRAL, any
 interested person that intends to
 participate in the hearing before
 the Board by presenting evidence
 or cross-examining witnesses ac-
 cording to SDCL 1-26, must file a
 written petition with BOTH the
 applicant and Chief Engineer by
 February 15, 1991. These appli-
 cations will probably not be read-
 vertised. Parties will be given
 personal notice of any future
 hearings. The Chief Engineer's
 address is "Water Rights Division,
 Foss Building, 523 E. Capitol,
 Pierre, SD 57501 (605-773-3352)."
 The petition may be informal, but
 must include a statement describ-
 ing the petitioner's interest in the
 applications, the petitioner's rea-
 sons for opposing or supporting the
 applications and signature and
 mailing address of the petitioner
 or legal counsel if legal counsel is
 obtained. The applicant need not
 file a petition. Contact the Water
 Rights Division to request infor-
 mation on these applications or to
 assure access to the hearing by the
 handicapped.

This hearing is an adversary
 proceeding. Any person filing a
 petition and/or the applicant have
 the right to be represented by a
 lawyer. These and other due pro-
 cess rights will be forfeited if not
 exercised. Decisions of the Board
 may be appealed to the Circuit
 Court and State Supreme Court as
 provided by law. The time of the
 hearing will also be automatically
 delayed for at least twenty days
 upon written request to the Chief
 Engineer from the applicant or a
 petitioner. The request for a delay
 must be received by February 15,
 1991.

These applications are made
 pursuant to SDCL 46-1-1 thru 46-1-9,
 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9,
 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru
 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-
 15; 46-5-1 thru 46-5-11, 46-5-13 thru
 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-
 5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-
 6.1, 46-6-10, 46-6-13, 46-6-14; 46-5-38
 thru 46-5-40; and Board Rules
 ARSD 74 02-01-01 thru 74-02-01-15;





DEPARTMENT OF WATER & NATURAL RESOURCES

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

January 4, 1991

Mr. Frank Simpson
1116 Jackson Blvd.
Rapid City, SD 57702

Dear Mr. Simpson:

Enclosed is a copy of a notice of hearing for water permit applications filed by the city of Rapid City. The point of diversion for Application No. 2155-2 is in the same locality as the point of diversion of your pending permit application (No. 2137-2).

This notice will be published in the Rapid City Journal for two consecutive weeks beginning January 10, 1991.

If you have any questions, please feel free to contact this office.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Division
605 773-3352

enclosure



DEPARTMENT OF WATER & NATURAL RESOURCES

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

GREAT FACES. GREAT PLACES.

APR 25 1991

Keith T. Carlyle
City of Rapid City
300 Sixth Street
Rapid City, SD 57701

Dear Mr. Carlyle:

Enclosed is Water Permit No. 2156-2 authorizing construction of your water diversion system and put the water to beneficial use, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

November 5, 1998

Daniel L Bjerke
City of Rapid City
300 6th St
Rapid City SD 57701-2724

Dear Mr. Bjerke:

The investigation of the City of Rapid City's water use systems was conducted on September 9, 1998, by Mark Rath, staff engineer. The investigation included the extent of application of water to beneficial use, as developed under each permit. The final water right documents, the Water Licenses, can now be issued. Below is a list of the permits that were investigated.

Permit No.	amount	source	
2136-2	0.78 cfs	Rapid Creek	Sioux Park
2138-2	12.38 cfs	Rapid Creek	Water Treatment Plant
* 2274-2	0.78 cfs	Rapid Creek	Water Treatment Plant
2156-2	1.11 cfs	Madison Formation	SW ¼ SE ¼ Sec 16-T1N-R7E
transfer the use of a portion of Rapid Creek flows			formerly known as
2142-2	0.62 cfs	Murphy Ditch	Tyler property
2199-2	0.05 cfs	Murphy Ditch	Pelle property
2201-2	0.13 cfs	Murphy Ditch	Long property
2217-2	0.33 cfs	South Side Ditch	Keller property
2218-2	2.16 cfs	South Side Ditch	Stromer property
2234-2	0.79 cfs	South Side Ditch	Eisenbraun property
2249-2	1.19 cfs	South Side Ditch	Weber property
2296-2	2.85 cfs	South Side Ditch	Jundt property
2316-2	0.81 cfs	Murphy Ditch	Morris property
2317-2	0.84 cfs	Hawthorne Ditch	Morris property
2360-2	0.37 cfs	South Side Ditch	Soetaert property
2397-2	0.59 cfs	South Side Ditch	Eisenbraun property
2399-2	0.75 cfs	Murphy & Little Giant Ditch	Wileman property

* license fee already submitted

Statutes require that we charge \$50.00 fee for the investigation and issuance of the each Water License. Upon receipt of the \$800.00 fee (16 permits x \$50) we will process the Water Licenses.

Please sent fee to: Dept. of Environment & Natural Resources, Water Rights Program, 523 E. Capitol, Pierre, SD 57501-3181. If you have questions, please contact us.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

NO 415953

Pierre, December 9, 19 98

RECEIVED OF City of Rapid City, 300 6th St., Rapid City, SD 57701-2724
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 _____

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. 2156-2

50 00

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

50 00

By _____
Chief Engineer

John Hatch

Permit No. 2156-2
Upper Cheyenne River - Water District

Report Of Examination Of Works

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

On, September 9, 1998, I made a thorough examination of the water use system constructed by the City of Rapid City of 300 6th St, Rapid City SD holder of Permit No. 2156-2, bearing the priority of May 18, 1989 authorizing the diversion of 2.67 cu. ft. per second of the waters of groundwater, Madison Aquifer for municipal purposes, in Pennington County.

I have to report on the conditions of the same as follows:

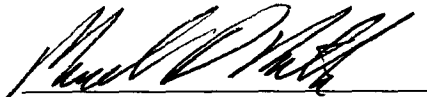
A. Works used to divert the water:

An American Turbine pump with a 500 gpm capacity

The system is in the following condition good. The point of diversion is located from the SE corner of Sec 16 T1N-R7E: 1530 ft W and 120 ft N. The works are capable of diverting and conveying to the place of use 1.11 cu. ft. per second of water which is to be used for municipal purposes. Water has been put to beneficial use to the maximum extent and the license should be issued for 1.11 cfs.

Applicable permit qualifications have been complied with: yes

Exceptions to compliance are: none



Mark D. Rath
Natural Resources Engineer
DENR, Water Rights Program

10/5/98

Date

REPORT ON INSPECTION OF PERMIT NO. 2156-2

DATE OF INSPECTION: 9/9/1998

Contact Person & Address: John Wagner, 300 6th St, Rapid City SD 57701

DIVERSION POINT LEGAL LOCATION: from the SE corner of Sec 16 T1N-R7RE: 1530 ft W and 120 ft N

WATER SUPPLY Source: groundwater, Madison Aquifer

Well Information:

- | | |
|---|-------------------------------------|
| 1) Well Drilling Firm: <u>Taylor Drilling</u> | 2) No. of Wells <u>1</u> |
| 3) Depth(s) <u>1283</u> feet | 4) Well log is available <u>yes</u> |

Casing:

- | | |
|----------------------------------|---------------------------|
| 1) Diameter <u>13 3/8</u> inches | 2) Length <u>883</u> feet |
| 3) Type <u>steel</u> | |

Screen:

- | | |
|--------------------------------------|---------------------------|
| 1) Type <u>open hole</u> | 2) Length <u>400</u> feet |
| 3) Static water level <u>63</u> feet | |

Pump\ Motor:

- | | |
|--------------------------------------|------------------------------------|
| 1) Pump Make <u>American Turbine</u> | 2) Model <u>10L20</u> |
| 3) Capacity <u>500</u> GPM | 4) Motor Make <u>Hitachi</u> |
| 5) Model No. <u>VT1</u> | 6) Horsepower rating <u>100</u> hp |

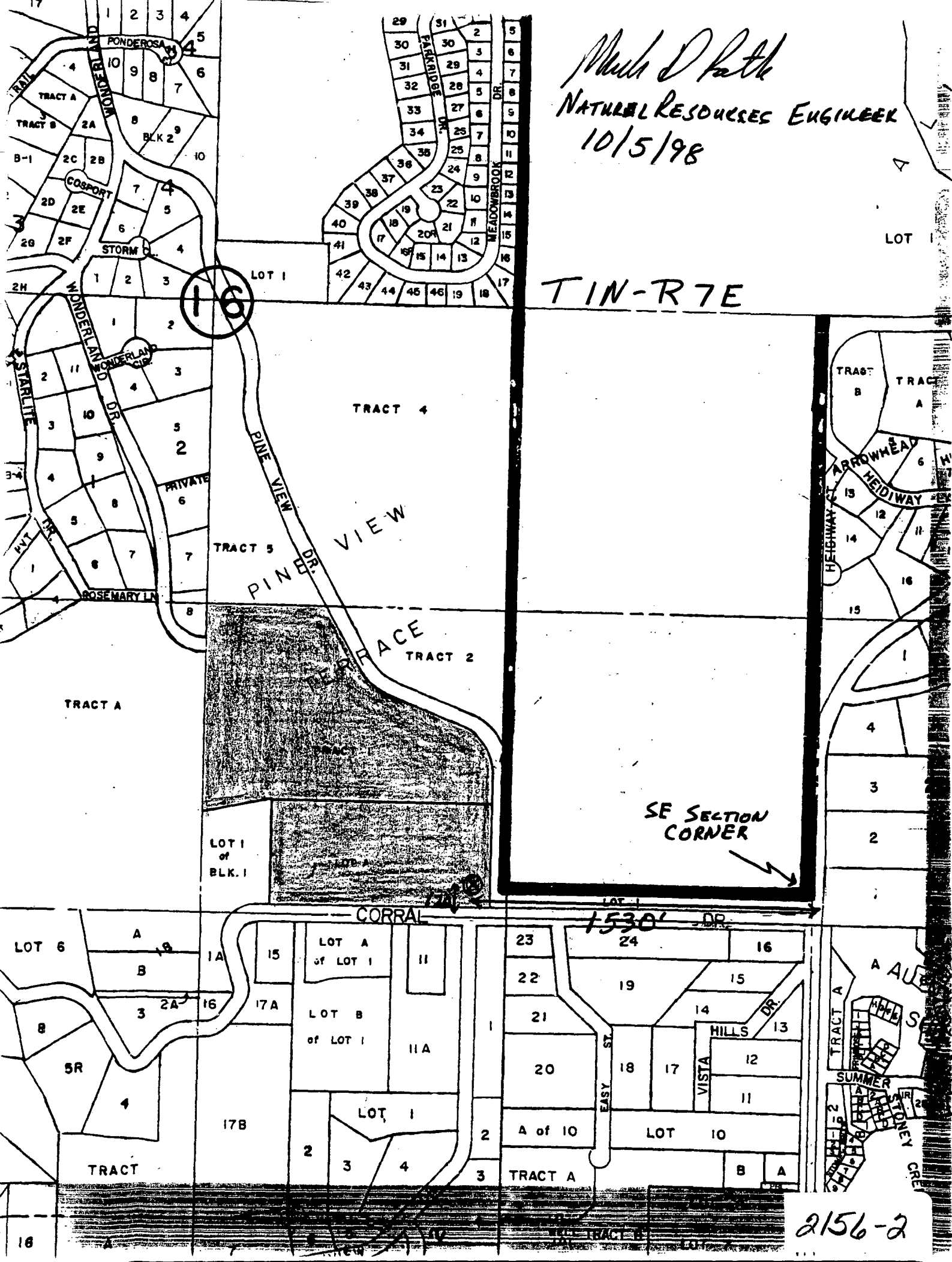
DISTRIBUTION LINES OR CANALS:

- 1) Type Municipal distribution system

- | |
|--|
| 1) Special qualifications to permit being abided by <u>yes</u> |
| 2) All structures, wells and lands on map <u>yes</u> |

COMMENTS: The water for this permit came out of future use, the balance of the water not licensed from this permit should be returned to future use.

Mark D. Rath
NATURAL RESOURCES ENGINEER
10/5/98



2156-2

STATE OF SOUTH DAKOTA

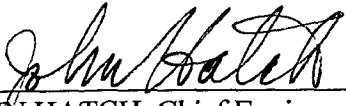
WATER LICENSE NO. 2156-2

(1) The City of Rapid City, 300 6th St, Rapid City SD 57701 made Application No. 2156-2, December 28, 1990 for a water permit to divert 2.67 cubic feet of water per second (1160 acre-feet annually) from groundwater (one well), Pennington County, South Dakota for municipal purposes. Permit No. 2156-2, with a priority date of May 18, 1989 (established by Future Use Permit No. 2086-2) was approved February 27, 1991 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 27, 1996 and for the application to beneficial use of said water on or before February 27, 2000.

(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 1.11 cubic feet of water per second (482 acre-feet annually) for beneficial use. The location of the diversion point is 1,530 feet west and 120 feet north of the southeast corner of Section 16-T1N-R7E (SW ¼ SE ¼).

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

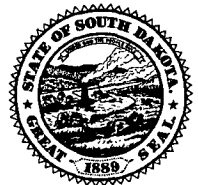
(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Rapid City, 300 6th St, Rapid City SD 57701 the holder and/or owner of Water Right No. 2156-2 is issued a license to appropriate water, the right to use 1.11 cubic feet of water per second (482 acre-feet annually) from groundwater (one well) with a priority date of May 18, 1989 (established by Future Use Permit No. 2086-2) from the location specified in (2) of this license for municipal use. This license is subject to any limitations or qualifications listed in Water Right No. 2156-2 and subject to South Dakota State Law.



JOHN HATCH, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 15 1999

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JAN 15 1999

Daniel L Bjerke
City of Rapid City
300 6th St
Rapid City SD 57701-2724

Dear Mr. Bjerke:

Enclosed are the Water Licenses and receipts for the investigation and issuance of the water licenses. These water licenses are the final document which complete the process of obtaining a water right.

As long as the City of Rapid City uses the water beneficially, as stated in the water licenses, State Water Law provides that the City has a continuing right to use the water.

Very truly yours,

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

ks

enclosures

2156-2



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

JUL 15 2010

2156-2
2520-2

John Wagner, Water Supt
City of Rapid City
300 6th Street
Rapid City SD 57701

Dear Mr. Wagner:

Enclosed is Water License No. 2520-2. This is the final water right document completing the process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 2520-2, 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Note: The applicable portions of Water Right No. 2156-2 were incorporated into Water License No. 2520-2.