

WATER PERMIT/ NO. 2275-2

Phone: 394-4165

Name of Applicant: City of Rapid City

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

Amount of Water Claimed: 1.13 Total Acres: _____

Source of Water Supply: groundwater

Water to be used for: municipal County: Pennington

About _____ miles _____ of _____

PRIORITY Date Received: 3-24-93 Fee: _____ Remarks: Increase

diversion rate on Permit No. 2155-2

Corrected Application Received: _____ Period of Annual Use: Jan 1 - Dec 31

WATER QUALITY APPROVAL RECEIVED: NA APPROVED/CONDITIONAL (Circle one)

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

Diversion Point: NW 1/4 SE 1/4 Sec 27-T2N-R7E

Land to be Irrigated: _____

Well Log: Driller: _____ Licensed YES _____ NO _____

Depth of Well: _____ REMARKS: _____

Type of Map: topo PREPARED BY: Daniel Bjerke Reviewed and the Number

Assigned on: 3-25-93 By: Karen Schlaak

Mail to:
Water Rights Division
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181
605 773-3352

No. 2275-2 Hydrologic Unit 10120110
Basin Upper Cheyenne
Newspaper Rapid City Journal
(office use only)



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

Check use of water:

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

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. 2086-2
☐ Amendment/Correction to Permit No. _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) _____
Increase the diversion rate for the well developed under Permit No. 2155-2.

- Name of Applicant City of Rapid City Phone (605) 394-4165
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 300 6th St Rapid City State SD 57701
(Street, RR, or Box) (City) (Zip Code)
- Amount of water claimed 1.13 *CFS or _____ **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 Ground water, Madison Aquifer
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) _____
NW1/4 SE1/4 Section 27 T2N- R7E
County Pennington
- County or counties where water will be used Pennington
- Annual period during which water is to be used January 1 - December 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)

This will increase the diversion rate to the developed level for Well No.10.

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)

STATE OF SOUTH DAKOTA)

County of Pennington ss

I, Ed McLaughlin, 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

Ed McLaughlin

Subscribed and sworn to before me this 22nd day of March 1993

Patricia Horton

Notary Public

SOUTH DAKOTA WATER PERMIT NO. 2275-2

Date of first receipt of application March 24, 1993.

The Water Management Board approved Water Permit Application No. 2275-2 on April 6, 1994 for the City of Rapid City, 300 6th 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. 2275-2 places to beneficial use 1.13 cubic feet of water per second (491 acre-feet of water annually) reserved by Future Use Permit No. 2086-2. Water Permit No. 2155-2 authorizes construction and placement to beneficial use 2.67 cfs (1160 acre-feet of water annually) of water appropriated and reserved by Future Use Permit No. 2086-2 from one well (Madison Formation) located in the NW 1/4 SE 1/4 Section 27-T2N-R7E. An inspection of Permit No. 2155-2 found the well capable of producing 3.80 cfs. This permit authorizes the increase of 1.13 cfs in the diversion rate from this well to the existing diversion rate of 3.80 cfs.
2. The water appropriated shall be used for the purpose of supplying water for the City of Rapid City 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. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

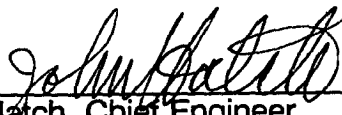
1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2275-2 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2275-2 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1, and Board Rule ARSD 74:02:01:37.
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 flow reduced to the amount needed or to a minimum when not being used. The well shall also be equipped with a pressure gauge and a record kept of any pressure fluctuations. Such records shall be available to the Chief Engineer upon request. If the wells are abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

(continued)

Water Permit No. 2275-2
City of Rapid City
Page 2

3. Water Permit No. 2155-2 and this permit, combined, authorize a total annual diversion of 1,651 acre-feet of water annually.
4. That the City report to the chief engineer annually the amount of water withdrawn each year under this permit.

WATER MANAGEMENT BOARD

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

NOV 14 1994
date

RECEIPT

413724

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ April 8, 19 93

RECEIVED OF City of Rapid City Finance Office, Rapid City SD

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

Fee for Application for Permit No. <u>2275-2</u> to Appropriate Water, to construct and to put water to beneficial use _____	300	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 _____		

(Any Other Work Provided by Law)	Total	300 00

By John Hater
Chief Engineer

KS



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

* I N V O I C E *

Invoice No. 20411 3-26-93

Accounts Payable
City Finance Office
300 6th St
Rapid City SD 57701

Your Purchase Order #'s: 272442, 272444 and 272447

Applications for Permit to Appropriate Water
Within the State of South Dakota

Water Permit Application No. 2270-2	\$425.00
Water Permit Application No. 2271-2	50.00
Water Permit Application No. 2272-2	50.00
Water Permit Application No. 2273-2	350.00
Water Permit Application No. 2274-2	50.00
Water Permit Application No. 2275-2	300.00
Water Permit Application No. 2276-2	225.00
Water Permit Application No. 2277-2	150.00

Please pay this amount:

\$1,600.00

to: Water Rights Division
523 E Capitol
Pierre SD 57501-3181

Karen Schlaak
KAREN SCHLAACK
Natural Resources Analyst
605 773-3352



City of Rapid City

RAPID CITY, SOUTH DAKOTA 57701

OFFICE OF CITY ATTORNEY

300 Sixth Street
Rapid City, South Dakota 57701
Telephone: 605-394-4140

March 25, 1993

Mr. Eric Gronlund
Division of Water Rights
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181



Dear Eric:

As per our conversation, attached is the verification form for Purchase Order #272447. This purchase order will cover the transfer application fees for Well Nos. 5 and 6 inadvertently omitted in previous correspondence. If you would please return all three verification forms to me I will ensure they are processed as quickly as possible.

Thank you for bringing these items to my attention; I apologize these were not included in the previous package. If you need anything else, please let me know.

Sincerely,

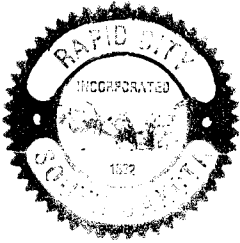
Patsy L. Horton
Legal Assistant

pc Dan Bjerke



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

Public Works Department

300 Sixth Street

605-394-4165

FAX 605-394-6636

March 23, 1993

Mr. Mark D. Rath
Natural Resources Engineer
Division of Water Rights
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181



Dear Mark:

Attached are several water permit applications as requested in your correspondence dated February 10, 1993. These applications concern the following diversion sites:

<u>Diversion Site</u>	<u>Permit Number</u>	<u>Fee</u>
Jackson Springs Gallery	432-2	\$425.00 —
City Springs Gallery	437-2	\$50.00 —
Well #5	2085-2	\$350.00 —
Well #6		
Well #9		
Well #10	2155-2	\$300.00 —
Meadowbrook Golf Course	0646-2A & 1998-2	\$225.00 ✓
Executive Golf Course	1931-2	\$150.00 ✓

In order to expedite payment for these application fees, would you please sign and return both verification forms. Mark, if any information has been omitted or incorrectly stated, please contact me or Patsy Horton in the City Attorney's Office at 394-4140 and we will correct them as soon as possible.

Thanks to both you and Eric for your assistance in this matter.

Sincerely,

Dan Bjerke, Public Works Director
Engineering and Utilities

plh



EQUAL HOUSING
OPPORTUNITY

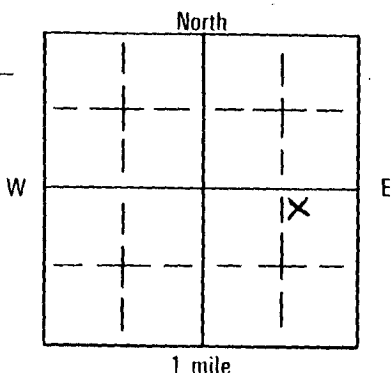
EQUAL OPPORTUNITY EMPLOYER

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location NE 1/4 SE 1/4 Sec 27 Twp 2N Rg 7E

County

BenningtonPlease mark well
location with
an "X"Well # 10Well Completion Date 8-7-91

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>80</u> LB/FT	<u>20</u> IN	<u>0</u> FT	<u>20</u> FT	<u>30</u> IN
<u>54.50</u> LB/FT	<u>13 3/4</u> IN	<u>0</u> FT	<u>1320</u> FT	<u>17 1/2</u> IN
<u>40.50</u> LB/FT	<u>10 3/4</u> IN	<u>1303</u> FT	<u>1426</u> FT	<u>12 1/4</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 1426 FEETWhat is grouting material? CementIf cement, number of sacks? 925Describe 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 Street Rapid City, SD 57701

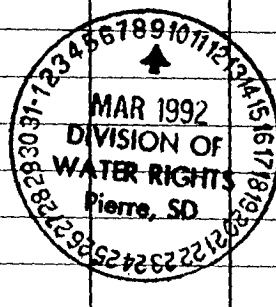
Well Log:

Depth

Formation

From

To

Sundance0150Spearfish15538Minnekahta538583Opeche583697Minnelusa697Madison1785

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure 34 PSIGPM flow 800 ± through _____ inch pipeControlled by ☐ Valve ☐ Reducers ☒ OtherIf other; specify Flowing well pitless adapterCan well be completely shut in? yes

WELL TEST DATA:

☒ Pumped☐ Bailed

Describe: _____

☐ Other

Pumping Level Below Land Surface

277 ft. After 48 Hrs. pumped 1800 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:

Robert Taylor Jr.

Signature of Well Owner:

Date _____

JOHN PAUL GRIES

Consulting Geologist

238 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA

City of Rapid City Water Well #10
Sec. 27, T. 2 N., R. 7 E., Penn. Co.
Drilled June-July 1991 by Taylor Drilling Co.
Geologic log by J. P. Gries
Electric log by Goodwell, Inc.
Cuttings filed at School of Mines, set. 684



Surface

20 - 40 no samples

Sundance formation

40 - 60 shale, blue-gray, 1/3; sandstone, fine, white, calcareous, 2/3
120 sandstone and siltstone, pale orange red, 60%; shale, gray, 40%
150 shale, blue gray; sand, fine to medium; gypsum, gray to white

Spearfish formation. Sample top 140'

150 - 180 redbeds; silt to sandstone; much primary & secondary gypsum
240 redbeds, all in siltstone range; still much gypsum
270 redbeds, 1/2; gypsum, 1/2
300 redbeds, 1/3; gypsum, 1/3
360 redbeds
420 redbeds, up to 50% gypsum
480 redbeds, trace of gypsum
540 redbeds

Minnekahta formatio Sample top 540', E-log top 538'

540 - 590 limestone, very finely crystalline, purple, lavender, brown, white

Opeche formation. Sample top 590 E-log top 583'

590 - 650 redbeds; siltstone, argillaceous, dark red to orange
660 redbeds; traces green shale and some gypsum
700 redbeds; traces gypsum
720 red beds; 1 large frosted quartz grain, orange
740 redbeds, plus some buff, poorly sorted sandstone

Minnelusa formation. Sample top 730' E-log top 697'

740 - 770 sandstone, fine to medium, coherent, white to yellow
780 sandstone, some frosted quartz grains; trace chert and dolomite
790 sandstone, same, and some light gray, finely crystalline dolomite
800 dolomite, very finely crystalline, glassy to earthy
820 dolomite, same, 1/2; sandstone, calcareous, yellow to white, 1/2
830 dolomite, same, 1/3; sandstone, same, 2/3
840 sandstone, same, 1/3; dolomite, same, 2/3
850 dolomite, mostly dark red, some sandy
870 dolomite, finely crystalline, earthy to clean, some sandy, dark red
880 dolomite, very finely crystalline, dark red, sandy; trace gray
890 sandstone, fine to medium, yellow to white, 2/3; dolomite, 1/3
900 sandstone, grading to sandy dolomite, mostly white, some lavender

Rapid City well #10, cont'd

- 900 - 910 sandstone, fine, white, pink, and yellow
- 920 sandstone, same, 70%; dolomite, finely crystalline, gray, 30%
- 960 dolomite, finely crystalline, red-brown to gray; some sandy
- 970 dolomite, same, 2/3; sandstone, 1/3; trace red clay
- 980 dolomite, same, 2/3; red clay, 1/3 Red Marker 964-978 E-log
- 990 dolomite, very finely crystalline, gray to lavender, 80%; sand, 20%
- 1000 dolomite, very finely crystalline, gray to lavender, earthy in part
- 10 dolomite, same; some very sandy
- 40 sandstone, fine, white to faintly lavender
- 50 sand, same, 1/3; dolomite, finely crystalline, earthy, gray to lav. 2/3
- 70 dolomite, finely crystalline, gray to lavender
- 80 dolomite, same, 70%; sandstone, fine, dolomitic, white, 30%
- 90 dolomite, finely crystalline, orange, lavender, gray, some sandy
- 1130 dolomite, finely crystalline, gray, pink, lavender; trace pale green
- 50 dolomite, finely crystalline, tan to greenish gray
- 60 dolomite, greenish gray to nearly white
- 70 dolomite, light gray to tan
- 90 dolomite, greenish gray to tan; some earthy
- 1200 dolomite, finely crystalline, light tan to gray; trace vuggy porosity
- 05 dolomite, same to greenish gray
- 10 dolomite, finely crystalline, tan to greenish gray
- 35 dolomite, finely crystalline, gray with greenish or pinkish cast
- 40 dolomite, same, with trace green shale
- 50 dolomite, same; trace sandy
- 55 dolomite, same, gray, tan, white; trace pyrite
- 60 dolomite, same, more sandy
- 65 dolomite, finely crystalline, gray, tan; some sandy
- 70 dolomite, fine to very finely crystalline, granular in part, gray to tan
- 90 dolomite, finely crystalline to lithographic, light gray to white
- 1315 dolomite, same, and trace greenish gray granular dolomite
- 25 dolomite, granular, gray to tan
- 35 dolomite, same, no sample saved; first rhombic dolomite crystals

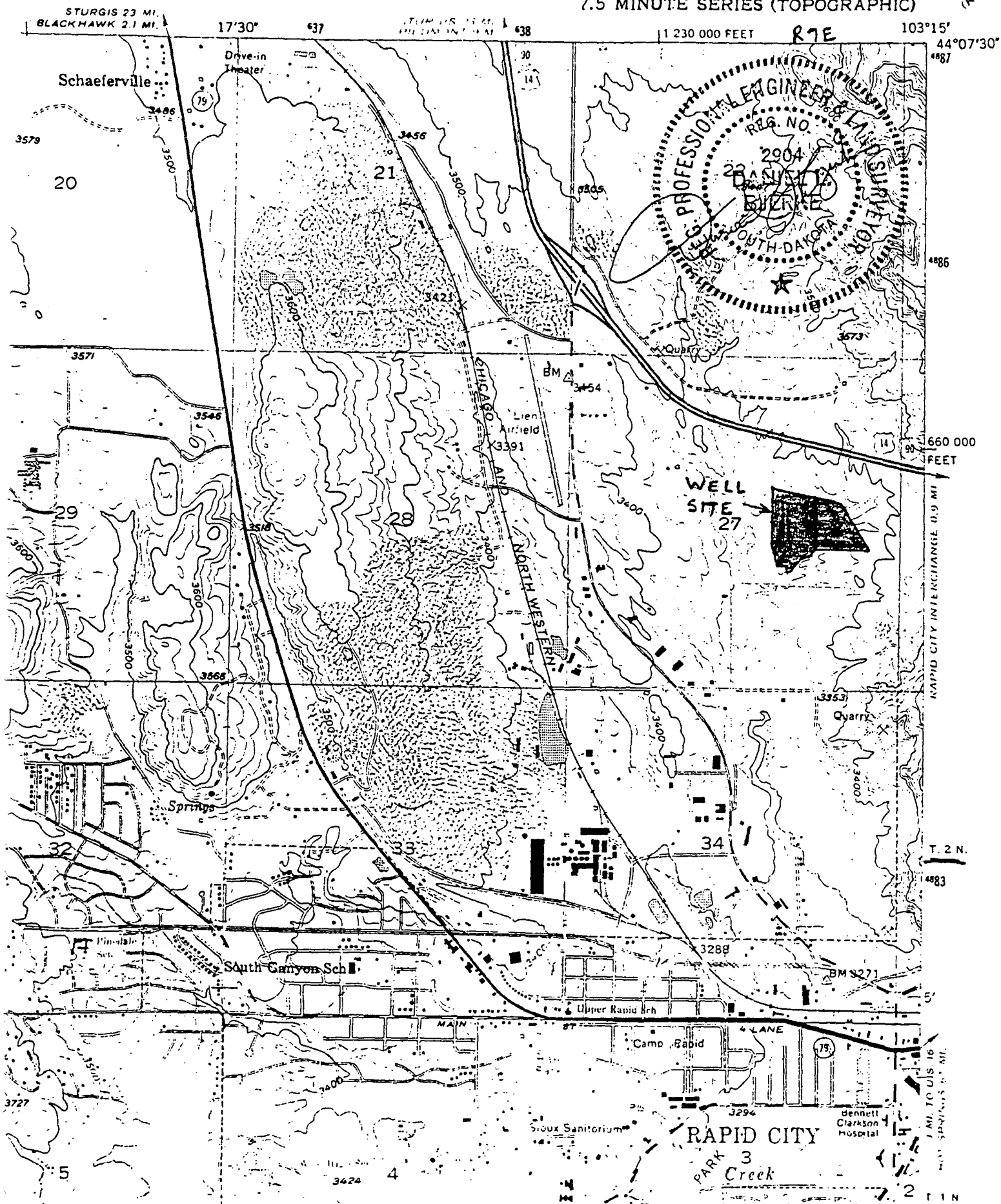
Madison formation Sample top 1335; E-log top 1348 or 1413'

- 1335-1340 dolomite, fine to medium crystalline, tan to white; drills to rhombs
- 45 dolomite, finely crystalline, tan; pieces cement shoe
- 55 dolomite, finely crystalline, tan to pink
- 65 dolomite, finely crystalline, tan, like 35-40
- 70 dolomite, finely crystalline, tan to white, drills to "cornmeal"
- 80 dolomite, same; mostly off-white
- 90 dolomite, fine to medium crystalline, rhombic, tan to white
- 95 dolomite, finely crystalline, tan to white
- 1420 dolomite, finely crystalline, gray to tan
- 30 dolomite, finely crystalline, nearly white
- 45 dolomite, finely crystalline, mostly light tan
- 60 dolomite, same, tan to white
- 70 dolomite, medium crystalline, white; some rhombic
- 90 dolomite, light tan to white; trace rhombic
- 1540 dolomite, finely crystalline, some rhombic; white

1540-1560	dolomite, finely crystalline, ray to white; not rhombic	
80	dolomite, finely crystalline, light tan to white	
1610	dolomite, finely crystalline, trace rhombic, light tan to white	
40	dolomite, finely crystalline, all white	
50	dolomite, medium crystalline, light gray to white	
60	dolomite, medium crystalline, some rhombic; light tan	
1750	dolomite, fine to medium crystalline, glassy, tan to gray	
80	dolomite, finely crystalline, mostly very light tan	
85	dolomite finely crystalline to rhombic, light tan to white	<u>Total depth</u>

Diversion Site	Permit Nos.	Permit Status	Permitted Amount	Actual Amount	Proposed Action to be Taken
Girl Scouts Gallery	592-2 1955-2	LI PE	7.70	5.26	Reduce diversion rate to 5.26 cfs, 2.44 cfs to go back into future use authorized by Future Use Permit No. 439-2 then license.
Meadowbrook Gallery	431-2 439-2A	VR-V LI	7.72	7.72	License for 7.72 cfs.
Jackson Springs Gallery	432-2	VR-V	7.75	10.46	New application to increase diversion rate by 2.71 cfs, water to be taken out of future use authorized by Future Use Permit No. 439-2.
City Springs Gallery	437-2	VR-V	0.78	0.78	New application to transfer diversion point to Water Treatment Plant diversion point.
Water Treatment Plant	1865-2 2138-2	LI PE	61.98	61.98	Wait until diversion is transferred from City Springs Gallery.
Storybook Island	1997-2	PE	1.00	1.00	License as is.
Black Hills Pack	617-2	LI	0.50	0.50	Leave as is.
Waste Water	1087-2	PE	0.11	0.00	Cancel water right.
Well #1	433-2 2121-2	VR-V PE	1.01	1.01	License as is.
Well #2	438-2	VR-V	0.22	0.00	Cancel water right.
Well #3	435-2	VR-V	1.78	1.78	License as is.
Well #4	436-2	VR-V	1.55	1.55	License as is.
Well #5 Well #6 Well #9	2085-2	PE	8.01	12.42	New permit to increase diversion rate. Water from transfer of diversion authority for excess water from Well #8, Permit No. 2124-2; change in diversion point from Well #7, Permit No. 2125-2; and the balance from Future Use No. 2086-2.
Well #8	2124-2	PE	2.23	1.79	License for 1.79 cfs. Transfer diversion authority to Wells Nos. 5, 6, & 9.
Well #10	2155-2	PE	2.67	3.80	New permit to increase diversion rate, water to be taken from Future Use Permit No. 2086-2.
Well #7	2125-2	PE	2.23	0.00	Transfer diversion point to Wells Nos. 5, 6, & 9.
Airport	1959-2	VR-V	0.044	0.00	Cancel water right.
Meadowbrook Golf Course	0646-2A 1998-2	LI PE	1.48	2.44	New permit to change acres for the golf course (3 ac-ft/ac/yr limitation)
Executive Golf Course	1931-2	PE	0.10	1.77	New permit to increase diversion rate. (2 ac-ft/ac/yr limitation)
Arrowhead Golf Course	611-2	LI	2.38	1.00	Reduce license to 1.00 cfs.

5372 11 N
(RAPID C)



T 2 N, R 7 E, B.



Report on Water Permit Application No. 2275-2
City of Rapid City
December 13, 1993

Application No. 2275-2, City of Rapid City, proposes to place to beneficial use 1.13 cfs (491 ac-ft annually) of Madison Formation water appropriated and reserved by Future Use Permit No. 2086-2 (May 18, 1989 priority date) from an existing Madison Formation well. The annual volume is based on the expected maximum operation of a well no more than 60 percent of the time, which is considered reasonable for a water distribution system. The diversion point for this permit is to be from City Well No. 10 located in the NW1/4 SE1/4 of Section 27 T2N-R7E. The effect of this application, if approved, would be to reduce the 6,871 ac-ft of water reserved by Future Use Permit No. 2086-2 by 491 ac-ft.

City Well No. 10 is authorized by Water Permit No 2155-2 to appropriate 2.67 cfs from the Madison Aquifer with an annual volume limitation of 1160 ac-ft. A July 14, 1992 inspection of this permit found a well capable of consistently producing 3.80 cfs. This application proposes to place to beneficial use 1.13 cfs of water reserved by Future Use Permit No. 2086-2. If this application is approved Rapid City well No. 10 would be authorized to divert 3.80 cfs with an annual volume limitation of 1651 ac-ft.

Term Limitation

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

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

If approved these permits should be issued with a term limitation of 20 years.

Water Source

The source of water for the project is from the Madison Formation. 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 Madison underlies approximately 1,489,920 acres of Pennington County and contains

an estimated 29,798,400 ac-ft of recoverable water in storage in the county (Allen, 1984). The aquifer is under artesian conditions at location proposed by this application.

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, is water that Rapid, Box Elder and Spring Creeks lose when the creeks cross outcrops of the Madison (Peter, 1985). Recharge for the entire Madison has been estimated to range from 140,000 to 400,000 ac-ft per year (Woodward Clyde, 1981).

Pumping an individual well can cause drawdown which can potentially affect nearby wells. The cumulative affect of numerous withdrawals from a concentrated area, may lower the water levels over a fairly large area. A significant lowering of the potentiometric surface of the Madison could theoretically affect not only the Madison, but also other aquifers, spring flows and surface water flows (Buhler, 1993)

The Division of Water Rights monitors 14 observation wells completed into the Madison Formation. Records from the observation wells indicate the potentiometric surface fluctuates 30-40 feet per year in response to seasonal and climatic variations. Observation well data suggests that existing development has not adversely affected the Madison.

Review of Existing Water Rights

There are 32 existing water rights/permits appropriating water from the Madison Formation in the Rapid City area. Currently these 32 permits are authorized to appropriate 28.07 cfs with 5 of these permits, including Permit Nos 2124-2 and 2125-2 held by the City of Rapid City and authorized to appropriate 17.81 cfs. Table 1 shows the permits appropriating water from the Madison Formation in the Rapid City area:

Table 1

<u>Permit No</u>	<u>Permit Holder</u>	<u>Location</u>	<u>CFS</u>
1341-1	Black Hawk Water Co.	002N07E08BB	1.15
1534-1	Woodland Hills Community	002N06E01CC	0.06
454-2	Black Hills Power & Light	002N07E34CA	1.00
1133-2	Woodland Hills Community	002N06E01CC	0.04
1154-2	Westberry Trails Water	002N07E31CC	0.25
1295-2	Woodland Hills Community	002N06E01CC	0.20
1628-2	Copper Oaks Water Association	001S07E05CC	0.05
1726-2	Colonial Pine Hills	001N07E29DD	0.38
1748-2	Warren Water Company Inc.	001S07E08BA	0.03
1830-2A	City of Box Elder	002N09E29BB	1.11
1832-2	Weston Heights Home Owners	002N07E02DB	1.00
1838-2	Canyon Shadows Water Company	001N07E08AB	0.03

1845-2	Pinegrove Community Water Assoc.	001S07E20DD	0.08
1852-2	Ponderosa Water/Homeowner	002N07E31BA	0.12
1877-2	Hart Ranch Development Company	001S08E19BB	0.16
1911-2	Hart Ranch Development Company	001S07E11BA	1.29
1925-2	Ponderosa Park Development Assoc	001N07E31AC	0.10
1965-2	Highland Hills Water Association	001N07E32DA	0.10
2053-2	Spring Canyon Water Company	001S07E05CB	0.08
2053A-2	Spring Canyon Water Company	001S07E05L3	0.00
2085-2	City of Rapid City	002N07E32	8.01
2090-2	Chapel Lane Water Company	001N07E08DD	1.17
2095-2	Rapid Valley Water Service Co.	001N08E09CA	0.89
2106-2	Paul & Lana Wright	001N07E15AD	0.08
2108-2	Richard & Morry Clarkson	001N07E32BA	0.09
2110-2	Coca-Cola Bottling Company	002N07E27AC	0.25
2124-2	City of Rapid City	002N07E23DA	2.23
2125-2	City of Rapid City	001N07E01	2.23
2155-2	City of Rapid City	002N07E27	2.67
2156-2	City of Rapid City	001N07E16DC	2.67
2245-2	Cavalry Trail Home Owners	002N06E15DA	0.05
2256-2	Fisher Sand and Gravel	002N07E10C	0.50

The City of Rapid City reports, to the Division of Water Rights, their annual Madison Aquifer water use. In 1992 the City reported use of 4,236 ac-ft from the Madison. Based on the 1992, pumping records, the City could conceivably produce 8,000 - 10,000 ac-ft per year from the Madison, under existing permits (Buhler, 1993).

There are two existing future use permits reserving Madison Aquifer water for use within the Rapid City area. Future Use Permit No. 1833-2, Weston Heights Home Owners, currently has 211 ac-ft in reserve. Future Use Permit No. 2086-2, City of Rapid City, currently has 6,871 ac-ft in reserve.

Conclusions

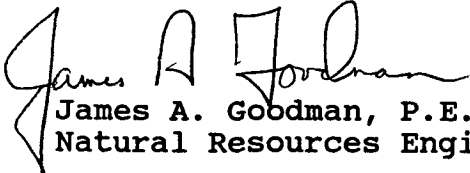
1. This application proposes to increase the diversion rate for City well No. 10, as authorized by Water Permit No. 2155-2, by 1.13 cfs with an annual limit of 491 ac-ft from the Madison Aquifer.
2. A July 14, 1992 water permit inspection found Rapid City Well No. 10 capable of consistently producing 3.80 cfs. This is 1.13 cfs greater the 2.67 cfs authorized.
3. Application No. 2275-2 proposes to place to beneficial use 1.13 cfs (491 ac-ft, annually) of Madison Formation water appropriated and reserved by Future Use Permit No. 2086-2 from well No. 10 authorized by Permit No. 2155-2.
4. If this application is approved, the volume of water remaining in reserve by Future Use Permit No. 2086-2 will be reduced by 491 ac-ft.

5. There is a reasonable probability that unappropriated water is available from the Madison Formation.
6. If approved, Rapid City well No. 10 would be authorized to divert a total of 3.80 cfs and an annual volume of 1651 ac-ft.
7. If approved, this permit should be issued with a term limitation of 20 years.
8. Adverse impacts to senior Madison Formation water rights are not expected.



Mark D. Rath
Natural Resources Engineer III

Approved by,



James A. Goodman, P.E.
Natural Resources Engineer IV

References

Allen, J.C., D.Iles, A.Peters, 1984. Analysis of Ground Water and Streamflow Data Western Dakotas Region of SD, Task 3 and 4, Ground Water Resources Inventory, for US Army Corps of Engineers, SD DWR, Division of Geologic Survey, Vermillion, SD 57069.

Buhler, Ken, 1993. Report on Water Permit Application No. 2256-2, Fisher Sand and Gravel S.D. DENR Division of Water Rights, Pierre, SD 57501.

Division of Water Rights, 1993. Water rights files. SD DENR Pierre, SD 57501.

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2275-2, City of Rapid City**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 2275-2, City of Rapid City, c/o Dan Bjerke, 300 6th Street, Rapid City, SD 57701.

The Chief Engineer is recommending DEFERRAL of Application No. 2275-2 to allow additional time to review the application.

See report on application for additional information.

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

JOHN HATCH, Chief Engineer
May 21, 1993

REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2275-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 2275-2, City of Rapid City, c/o Dan Bjerke, 300 6th Street, Rapid City, SD 57701.

The Chief Engineer is recommending APPROVAL of Application No. 2275-2 for a 20-year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20-year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2275-2 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the Permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2275-2 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1, and Board Rule ARSD 74:02:01:37.
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 flow reduced to the amount needed or to a minimum when not being used. 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, Chapter 74:02:04.
4. Water Permit No. 2155-2 and this application, combined, authorize a total annual diversion of 1,651 acre-feet of water annually.

5. That the City report to the chief engineer annually the amount of water withdrawn each year under this Permit.

See report on application for additional information.

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

JOHN HATCH, Chief Engineer
December 20, 1993



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

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

March 3, 1994

Dan Bjerke
City of Rapid City
300 6th Street
Rapid City, SD 57701

Dear Mr. Bjerke:

Vested Water Right Application No. 2294-2 and Water Permit Application Nos. 2271-2, 2272-2 and 2273-2, 2275-2 and 2276-2 for irrigation and municipal use 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 Rapid City Journal printed at Rapid City, SD (Ph # 394-8300). For your information, a copy of the notice, the recommendations of the Chief Engineer and the reports on the applications 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 applications.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendations, 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 applications.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

March 3, 1994

Rapid City Journal
PO Box 450
Rapid City, SD 57709-0450

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Vested Water Right Application No. 2294-2 and Water Permit Application Nos. 2271-2, 2272-2 and 2273-2, 2275-2 and 2276-2 to be published twice. Please publish the first notice on March 9, 1994, 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 the City of Rapid City, 300 6th Street, Rapid City, SD 57701 (Ph # 393-4165).

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. No action may be taken on the permit applications until proof of publication has been received.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

FIRST TRANSMITTAL NOTICE

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

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 March 9, 1994, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING To Validate
Vested Water Right Application No. 2294-2 and Application
Nos. 2271-2, 2272-2, 2273-2, 2275-2 and 2276-2 to Appropriate Water

Notice is given that the City of Rapid City, 300 6th St, Rapid City, SD 57701 has filed several applications. These applications were filed to bring several existing systems of the City, which were not developed as authorized by their associated water permits/rights, into compliance with water rights law. The vested water right claim, water permit applications, and chief engineer's recommendations are as follows:

Vested Right Claim No. 2294-2 requests validation of 1.48 cubic feet of water per second (cfs) from Rapid Creek and an annual volume limitation of 312 acre-feet. The diversion point is located in the SE 1/4 NE 1/4 Section 9 to irrigate 104 acres located in the SE 1/4 NE 1/4, NE 1/4 SE 1/4 Section 9 and the SW 1/4 NW 1/4, NW 1/4 SW 1/4 Section 10; all in T1N-R7E. Irrigation was authorized by Recognized Vested Water Right No. 0646-2A for Meadowbrook Golf Course. The water use has a claimed priority date of April 1, 1877. (Also see Water Permit Application No. 2276-2 below).

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends VALIDATION of Vested Water Right Application No. 2294-2 because 1) water has been appropriated as described for irrigation of 104 acres with a claimed priority date of April 1, 1877, 2) the use has been developed without unlawful impairment of existing rights, 3) it is a beneficial use of water, and 4) it is in the public interest.

Water Permit Application No. 2271-2 proposes to transfer the diversion authority for 2.23 cfs from one well (City Well No. 7 [which was not developed]) authorized by Water Permit No. 2125-2 to three wells (City Well Nos. 5, 6 and 9) which are authorized by Water Permit No. 2085-2. Water Permit No. 2125-2 authorized construction and placement to beneficial use 2.23 cfs (800 acre-feet of water annually) from one well (Madison Formation) located on the quarter section line of the NE 1/4 SW 1/4 and NW 1/4 SE 1/4 of Section 1-T1N-R7E reserved by Future Use Permit No. 2086-2. Water Permit No. 2085-2 appropriated 8.01 cfs from six Madison wells. An inspection of Permit No. 2085-2 found three wells developed and capable of producing 12.42 cfs located in the SE 1/4 NE 1/4 Section 32-T2N-R7E; SW 1/4 NW 1/4 Section 10-T1N-R7E and the NW 1/4 NW 1/4 Section 3-T1N-R7E. This application, if approved, would transfer the diversion authority from the one well authorized by Water Permit No. 2125-2 to the three wells developed under Water Permit No. 2085-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2271-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Water Permit Application No. 2272-2 proposes to transfer the diversion authority for 0.44 cfs from one well (City Well No. 8) authorized by Water Permit No. 2124-2 to three wells (City Well Nos. 5, 6 and 9) which are authorized by Water Permit No. 2085-2. Water Permit No. 2124-2 appropriated 2.23 cfs from one well (Madison Formation) located in the NE 1/4 SE 1/4 Section 23-T2N-R7E. An inspection of Permit No. 2124-2 found the works capable of diverting 1.79 cfs. Water Permit No. 2085-2 appropriated 8.01 cfs from six Madison wells. An inspection of Permit No. 2085-2 found three wells developed and capable of producing 12.42 cfs located in the SE 1/4 NE 1/4 Section 32-T2N-R7E; SW 1/4 NW 1/4 Section 10-T1N-R7E and the NW 1/4 NW 1/4 Section 3-T1N-R7E. This application, if approved, would transfer the diversion authority for 0.44 cfs authorized by Water Permit No. 2124-2 to the three wells developed under Water Permit No. 2085-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2272-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Water Permit Application No. 2273-2 proposes to increase the authorized diversion rate of 1.74 cfs (756 acre-feet of water annually) from the three wells developed under Water Permit No. 2085-2 by placing to beneficial use water reserved by Future Use Permit No. 2086-2. The three wells developed under Water Permit No. 2085-2 (previously described) are capable of diverting 12.42 cfs. Water Permit Application Nos. 2271-2 and 2272-2, combined, propose to transfer diversion authority for 2.67 cfs to the three wells authorized by Water Permit No. 2085-2. The increased diversion rate of 1.74 cfs (756 acre-feet of water annually) proposed by this application is the amount of water necessary to authorize additional pumping by the three wells authorized by Water Permit No. 2085-2, up to existing pumping capacity of 12.42 cfs.

Pursuant to SDCL 46-1-14 and 46-2A-20, the Chief Engineer is recommends APPROVAL of Application No. 2273-2 for a 20-year term because 1) although evidence is not available to justify issuing this permit without a 20-year term limitation, there is reasonable

probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest.

Water Permit Application No. 2275-2 proposes to place to beneficial use 1.33 cfs (491 acre-feet of water annually) from one well authorized by Water Permit No. 2155-2. Water Permit No. 2155-2 authorizes construction and placement to beneficial use 2.67 cfs (1160 acre-feet of water annually) of water appropriated and reserved by Future Use Permit No. 2086-2 from one well (Madison Formation) located in the NW 1/4 SE 1/4 Section 27-T2N-R7E. An inspection of Permit No. 2155-2 found the well capable of producing 3.80 cfs. This application, if approved, would authorize the increase of 1.33 cfs in the diversion rate from this well to the existing diversion rate of 3.80 cfs from the well.

Pursuant to SDCL 46-1-14 and 46-2A-20, the Chief Engineer is recommends APPROVAL of Application No. 2275-2 for a 20-year term because 1) although evidence is not available to justify issuing this permit without a 20-year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest.

Water Permit Application No. 2276-2 proposes to increase the authorized diversion rate by 2.09 cfs, add 16 irrigated acres, increase the annual volume limitation by 48 acre-feet and change the location of other irrigated acres claimed by Vested Right Claim No. 2294-2. Approval of this application is contingent on validation of Vested Right Claim No. 2294-2. This application, if approved, will authorize the change in location of the irrigated acreage and the irrigation of 16 additional acres located in portions of the SW 1/4 NE 1/4, N 1/2 SE 1/4, NE 1/4 SW 1/4, SE 1/4 NW 1/4, E 1/2 NE 1/4 Section 9; W 1/2 NW 1/4, NW 1/4 SW 1/4 Section 10; all in T1N-R7E. This application proposes to place to beneficial use an additional 2.09 cfs appropriated and reserved by Future Use Permit No. 1088-2 (June 28, 1971, priority date) from Rapid Creek. A diversion of 0.1 cfs of the requested diversion rate increase is to be used to provide flow through a golf course pond at the No. 18 green. This application also proposes to increase the annual volume limitation authorized by No. 2294-2 by 48 acre-feet for a total of 360 acre-feet.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2276-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Division, 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 March 28, 1994. 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 the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider these applications at 10:00 a.m., April 6, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing. The April 6, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by March 28, 1994.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. 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. Contact Eric Gronlund by March 28, 1994, at the above Water Rights Division address to request copies of information pertaining to these applications, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

These application are made pursuant to SDCL 46-1-1 thru 46-1-10, 46-1-12 thru 46-1-16; 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 thru 46-2A-18, 46-2A-20, 46-2A-21; 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, 46-5-37, 46-5-37.1, 46-5-49; 46-6-1 thru 46-6-2, 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15, 74:02:01:20 thru 74:02:01:22, 74:02:01:37 thru 74:02:01:37.02. Russell L. Stone, Acting Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County of Pennington) SSI, Helena M. Bauer

certify that the attached printed Notice was

taken from the Rapid City Journalprinted and published in Rapid CityCounty of Pennington and State ofSouth Dakota. The notice was published in
the newspaper on the following two dates:March 9, 1994March 16, 1994Cost of Printing: 29 9/16 inch @ 5.10Per inch run 2 times \$301.56

Helena M. Bauer
(Signature)

Bookkeeper

(Title)

March 16, 1994

(Date Signed)

March 9, 16 L436

NOTICE OF HEARING TO VALIDATE VESTED WATER RIGHT APPLICATION NO. 2294-2 AND APPLICATION NOS. 2271-2, 2272-2, 2273-2, 2275-2 AND 2276-2 TO APPROPRIATE WATER

Notice is given that the City of Rapid City, 300 6th St., Rapid City, SD 57701 has filed several applications. These applications were filed to bring several existing systems of the City, which were not developed as authorized by their associated water permits/rights, into compliance with water rights law. The vested water right claim, water permit applications, and chief engineer's recommendations are as follows:

Vested Right Claim No. 2294-2 requests validation of 1.48 cubic feet of water per second (cfs) from Rapid Creek and an annual volume limitation of 312 acre-feet. The diversion point is located in the SE¼ NE¼ Section 9, to irrigate 104 acres located in the SE¼ NE¼, NE¼ SE¼ Section 9 and the SW¼ NW¼, NW¼ SW¼ Section 10; all in T1N-R7E. Irrigation was authorized by Recognized Vested Water Right No. 0646-2A for Meadowbrook Golf Course. The water use has a claimed priority date of April 1, 1877. (Also see Water Permit Application No. 2276-2 below).

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends VALIDATION of Vested Water Right Application No. 2294-2 because 1) water has been appropriated as described for irrigation of 104 acres with a claimed priority date of April 1, 1877, 2) the use has been developed without unlawful impairment of existing rights, 3) it is a beneficial use of water, and 4) it is in the public interest.

Water Permit Application No. 2271-2 proposes to transfer the diversion authority for 2.23 cfs from one well (City Well No. 7 [which was not developed]) authorized by Water Permit No. 2125-2 to three wells (City Well Nos. 5, 6 and 9) which are authorized by Water Permit No. 2085-2. Water Permit No. 2125-2 authorized construction and placement to beneficial use 2.23 cfs (800 acre-feet of water annually) from one well (Madison Formation) located on the quarter section line of the NE¼ SW¼ and NW¼ SE¼ of Section 1-T1N-R7E reserved by Future Use Permit No. 2084-2. Water Permit No. 2085-2 appropriated 8.01 cfs from six Madison wells. An inspection of Permit No. 2085-2 found three wells developed and capable of producing 12.42 cfs located in the SE¼ NE¼ Section 32-T2N-R7E; SW¼ NW¼ Section 10-T1N-R7E and the NW¼ NW¼ Section 3-T1N-R7E. This application, if approved, would transfer the diversion authority from the one well authorized by Water Permit No. 2125-2 to the three wells developed under Water Permit No. 2085-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2271-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Water Permit Application No. 2272-2 proposes to transfer the diversion authority for 0.44 cfs from one well (City Well No. 8) authorized by Water Permit No. 2124-2 to three wells (City Well Nos. 5, 6 and 9) which are authorized by Water Permit No. 2085-2. Water Permit No. 2124-2 appropriated 2.23 cfs from one well (Madison Formation) located in the NE¼ SE¼ Section 23-T2N-R7E. An inspection of Permit No. 2124-2 found the works capable of diverting 1.79 cfs. Water Permit No. 2085-2 appropriated 8.01 cfs from six Madison wells. An inspection of Permit No. 2085-2 found three wells developed and capable of producing 12.42 cfs located in the SE¼ NE¼ Section 32-T2N-R7E; SW¼ NW¼ Section 10-T1N-R7E and the NW¼ NW¼ Section 3-T1N-R7E. This application, if approved, would transfer the diversion authority for 0.44 cfs authorized by Water Permit No. 2124-2 to the three wells developed under Water Permit No. 2085-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2272-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Water Permit Application No. 2273-2 proposes to increase the authorized diversion rate of 1.74 cfs (756 acre-feet of water annually) from the three wells developed under Water Permit No. 2085-2 by placing to beneficial use water reserved by Future Use Permit No. 2084-2. The three wells developed under Water Permit No. 2085-2 (previously described) are capable of diverting 12.42 cfs. Water Permit Application Nos. 2271-2 and 2272-2, combined, propose to transfer diversion authority for 2.67 cfs to the three wells authorized by Water Permit No. 2085-2. The increased diversion rate of 1.74 cfs (756 acre-feet of water annually) proposed by this application is the amount of water necessary to authorize additional pumping by the three wells authorized by Water Permit No. 2085-2, up to existing pumping capacity of 12.42 cfs.

Pursuant to SDCL 46-1-14 and 46-2A-20, the Chief Engineer recommends APPROVAL of Application No. 2273-2 for a 20-year term because 1) although evidence is not available to justify issuing this permit without a 20-year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest.

Water Permit Application No. 2275-2 proposes to place to beneficial use 1.33 cfs (491 acre-feet of water annually) from one well authorized by Water Permit No. 2155-2. Water Permit No. 2155-2 authorizes construction and placement to beneficial use 2.67 cfs (1160 acre-feet of water annually) of water appropriated and reserved by Future Use Permit No. 2084-2 from one well (Madison Formation) located in the NW¼ SE¼ Section 27-T2N-R7E. An inspection of Permit No. 2155-2 found the well capable of producing 3.80 cfs. This application, if approved, would authorize the increase of 1.33 cfs in the diversion rate from this well to the existing diversion rate of 3.80 cfs from the well.

Pursuant to SDCL 46-1-14 and 46-2A-20, the Chief Engineer recommends APPROVAL of Application No. 2275-2 for a 20-year term because 1) although evidence is not available to justify issuing this permit without a 20-year limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest.

Water Permit Application No. 2276-2 proposes to increase the authorized diversion rate by 2.09 cfs, add 16 irrigated acres, increase the annual volume limitation by 48 acre-feet and change the location of other irrigated acres claimed by Vested Right Claim No. 2294-2. Approval of this application is contingent on validation of Vested Right Claim No. 2294-2. This application, if approved, will authorize the change in location of the irrigated acreage and the irrigation of 16 additional acres located in portions of the SW¼ NE¼, NW¼ SE¼, NE¼ SW¼, SE¼ NW¼, E¼ NE¼ Section 9; W¼ NW¼, NW¼ SW¼ Section 10; all in T1N-R7E. This application proposes to place to beneficial use an additional 2.09 cfs appropriated and reserved by Future Use Permit No. 1088-2 (June 28, 1971, priority date) from Rapid Creek. A diversion of 0.1 cfs of the requested diversion rate increase is to be used to provide flow through a golf course pond at the No. 18 green. This application also proposes to increase the annual volume limitation authorized by No. 2294-2 by 48 acre-feet for a 10-

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2276-2 with qualifications because, 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 East Capitol, Pierre, SD 57501, (605-773-3357)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 28, 1994. 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 the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider these applications at 10:00 a.m., April 6, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, S.D. The Chief Engineer's recommendation are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing. The April 6, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by March 28, 1994.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. 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. Contract Eric Gronlund by March 28, 1994, at the above Water Rights Division address to request copies of information pertaining to these applications, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

These applications are made pursuant to SDCL 46-1-1 thru 46-1-10, 46-1-12 thru 46-1-16; 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 thru 46-2A-18, 46-2A-20, 46-2A-21; 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, 46-5-37, 46-5-37.1, 46-5-49; 46-6-1 thru 46-6-2, 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15, 74:02:01:20 thru 74:02:01:22, 74:02:01:37 thru 74:02:01:37.02.

Russell L. Stone
Acting Secretary
Department of Environment
and Natural Resources



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

March 4, 1994

Dear :

Enclosed is a copy of the Notice of Hearing for Vested Water Right Application No. 2294-2 and Water Permit Application Nos. 2271-2, 2272-2, 2273-2, 2275-2 and 2276-2 for the City of Rapid City. The Notice of Hearing is scheduled to be published in the Rapid City Journal for two consecutive weeks beginning March 9, 1994.

A copy of the notice of hearing on the applications is being sent to you because of your previous interest in Rapid City's water permit applications.

If you have any questions or would like to request a copy of the report on any of the applications, please feel free to contact mark rath or myself at 773-3352.

Sincerely,

Eric Gronlund
Natural Resources Engineer III
Water Rights Division

enclosure

(Vested Water Right Application No. 2294-2)
(Water Permit Application Nos. 2271-2, 2272-2, 2273-2, 2275-2, 2276-2)

THE ATTACHED LETTER WAS SENT TO THE FOLLOWING:

Bruce Laymon, Project Manager
Bureau of Reclamation
P.O. Box 226
Newell, SD 57760

Harry Morris
116580 S. Buxton Rd.
Butte, MT 59750-9717

Rapid Valley Water Company, Inc.
Rt 2, Box 160
Rapid City, SD 57701

Keith Ham, President
St. Germain Ditch
HCR 36, Box 34
Caputa, SD 57725

Walter Jones, Secretary
Lone Tree Water Company
RR 2, Box 4970
Rapid City, SD 57701

Don Jundt
South Side Ditch
Rt 2, Box 4920A
Rapid City, SD 57701

Michael M. Hickey, Attorney
818 St. Joseph Street
P.O. Box 2670
Rapid City, SD 57709-2670

Charles Johnson
Hawthorne Ditch Company
1500 East 27th Street
Rapid City, SD 57701

David Lamb
RR 2, Box 223
Rapid City, SD 57701

Melvin Brassfield
Box 24
Caputa, SD 57725

A. Carl Ham
Ham Ranch, Inc.
HCR 36, Box 34
Caputa, SD 57725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa, SD 57725

THE ATTACHED LETTER WAS SENT INTER-OFFICE TO THE FOLLOWING:

Tim Olson
Water Permits Coordinator
Department of Game, Fish & Parks
Joe Foss Building
Pierre, SD 57501



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

SEP 6 1995

2124-2
2275-2

Dan Bjerke
City of Rapid City
300 6th St.
Rapid City, SD 57701

Dear Mr. Bjerke:

Enclosed are Water License Nos. 2124-2 and 2275-2. These are the final water right documents completing your process of obtaining a Water Right. Enclosed are Receipt Nos. 414318 and 414359 in the amount of \$50.00 each which you paid for the inspection and issuance of the Water Licenses.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right Nos. 2124-2 and 2275-2, constructs replacement wells and does not plan to use the old wells, the old wells are 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 Licenses, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,

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

rd
enclosures

NOTE: The applicable portions of Water Permit No. 2155-2 have been incorporated into this Water License No. 2275-2.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

NOV 14 1994

Dan Bjerke
City of Rapid City
300 6th Street
Rapid City, SD 57701

Dear Mr. Bjerke:

Enclosed is Water Permit No. 2275-2 authorizing your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

The final inspection has been completed on this Permit, and we are ready to issue the Water License. Statutes require we charge \$50 for the inspection and issuance of the final papers. Upon receipt of this amount the Water License will be sent to you.

Very truly yours,

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

enclosures

RECEIPT

414359

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____, December 22, 19 94

RECEIVED OF City of Rapid City, Rapid City, SD

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. <u>2275-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer

Permit No. 2275-2
Upper Cheyenne River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

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

On I made a thorough examination of the water use system constructed by the City of Rapid City of 300 6th St, Rapid City, SD 57701 holder of Permit No. 2275-2, bearing the priority of May, 18 1989 authorizing the diversion of 3.80 cu. ft. per second and the use of 1651 acre-feet of the waters of the Madison Formation for Municipal Use purposes, in Pennington County.

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

- A. Works used to divert the water:
A 1710 gpm Hitachi submersible pump.
- B. Works used to transport water to place of use:
Municipal water distribution system

The system is in the following condition good. The point of diversion is located NW1/4 SE1/4 S27-T2N-R7E (from the NE corner of S27, 1320 feet W and 2640 feet S). The works are capable of diverting and conveying to the place of use 3.80 cu. ft. per second of water and annually using 1651 acre-feet of water which is to be used for municipal. Water has been put to beneficial use and the license should be issued for 3.80 cfs and the annual use of 1651 acre-feet.

Applicable permit qualifications have been complied with: Yes

Exceptions to compliance are: none Date: 9/26/94



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

REPORT ON INSPECTION OF PERMIT NO. 2275-2

DATE OF INSPECTION: 7/14/1992

Other permit(s) associated with the project: **2155-2**

DIVERSION POINT LEGAL LOCATION: NW1/4 SE1/4 S27-T2N-R7E

WELL INFORMATION:

- 1) Well Drilling Firm: Taylor Drilling Company
- 2) No. of Wells 1
- 3) Depth(s) **1785** feet
- 4) Well log is available Y
- 5) Comment:

Casing:

- 1) Diameter 20, 13 & 11 inches
- 2) Length 1426 feet
- 3) Type steel

Screen:

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

Pump:

- 1) Make Hitachi submersible
- 2) Model
- 3) Size
- 4) Capacity 1710 GPM

Motor:

- 1) Make Hitachi
- 2) Model No.
- 3) Horsepower rating hp

DISTRIBUTION LINES OR CANALS:

- 1) Type Municipal distribution

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit NA
- 2) Special qualifications to permit being abided by Y
- 3) All structures, wells and lands on map Y
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2275-2

(1) The City of Rapid City, 300 6th St, Rapid City SD 57701 made Application No. 2275-2, March 24, 1993 for a water permit to appropriate 1.13 cubic feet of water per second (491 acre-feet of water annually) from groundwater (one well), Pennington County, South Dakota for municipal use purposes. Permit No. 2275-2, with a priority date of May 18, 1989 (established under Future Use Permit No. 2086-2) was approved April 6, 1994 and issued to the applicant for diversion of water with construction of the described water supply system completed and the application to beneficial use of said water completed.

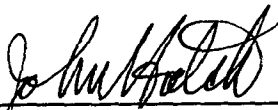
Water Permit No. 2155-2 authorizes construction and placement to beneficial use, 2.67 cfs (1,160 acre-feet annually) of water reserved by Future Use Permit No. 2086-2. Water Permit No. 2275-2 authorizes diversion of an additional 1.13 cfs (water reserved by Future Use Permit No. 2086-2) from the well constructed under No. 2155-2.

The applicable portions of Water Permit No. 2155-2 have been incorporated into this Water License No. 2275-2. A priority date of May 18, 1989 (established under Future Use Permit No. 2086-2) will be retained.

(2) It is certified that the applicant 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 3.80 cubic feet of water per second (1651 acre-feet of water annually) for beneficial use. The location of the diversion point is 1320 feet west and 2640 feet south of the northeast corner (NW 1/4 SE 1/4) Section 27-T2N-R7E.

(3) The applicant 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 the holder and/or owner of Water Permit No. 2275-2 is issued a license to appropriate water, the right to use 3.80 cubic feet of water per second (1651 acre-feet of water annually) from groundwater (one well) with a priority date of May 18, 1989 from the location specified in (2) of this license. The water is to be used for the purpose of municipal use. This license is subject to any limitations or qualifications listed in Water Permit No. 2275-2 and subject to South Dakota State Law.



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

SEP 6 1995

date