

Considered: _____

WATER PERMIT NO. 2249-2

Phone: 394-4165

Name of Applicant: City of Rapid City

Post Office Address: 300 Sixth Street

Amount of Water Claimed: 1.19 cfs Total Acres: _____

Source of Water Supply: Rapid Creek

Water to be used for: municipal County: Pennington

About _____ miles _____ of _____

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

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

PRIORITY Date Received: 9-23-92 Fee: _____ Remarks Change in use

of a portion of irrigated land under South Side Ditch - Bruce Weber property

Corrected Application Received 12/15/92 Period of Annual Use _____

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

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

Diversion Point: _____

Land to be Irrigated: Tract C Section 30-

T1N-R9E

Well Log: Driller: _____ Licensed YES ____ NO ____

Depth of Well: _____ REMARKS _____

Type of Map: _____ PREPARED BY: _____ Reviewed and the Number

Assigned on 9-29-92 By Karen Schlaak

**SOUTH DAKOTA
WATER PERMIT NO. 2249-2**

Date of first receipt of application September 23, 1992.

The Water Management Board approved Water Permit Application No. 2249-2 on May 5, 1993 for the 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. 2249-2 transfers the use of a portion of Rapid Creek natural flows historically used to irrigate 105.5 acres known as the Bruce Weber property. The portion of Rapid creek natural flows to be transferred to the city is 1.19 cubic feet of water per second (cfs) with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir. Historically, the 1.19 cfs has been used to irrigate approximately 105.5 acres located in Tract C (E 1/2 NW 1/4, NW 1/4 SW 1/4, E 1/2 SW 1/4) Section 30-T1N-R9E also known as the Bruce Weber property. The existing diversion point on Rapid Creek for South Side Ditch is located in the SE 1/4 NW 1/4 Section 15-T1N-R8E. This permit changes the diversion point for the 1.19 cfs to diversion points for use by the city to be located in the SE 1/4 NE 1/4 Section 3 (Rapid City Water Treatment Plant); SW 1/4 SW 1/4 Section 3 (Sioux Park Gallery); SE 1/4 NE 1/4 Section 9 (Meadowbrook Gallery); NW 1/4 SE 1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E or to allow storage in Pactola Reservoir. The location of the Pactola Reservoir diversion point is the NW 1/4 SW 1/4 Section 2-T1N-R5E and the reservoir impounds water in portions of the NW 1/4 SW 1/4 Section 2-T1N-R5E and the reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. This permit does not authorize any new water appropriation from Rapid Creek.
2. The water appropriated shall be used for the purpose of meeting Rapid City's water needs and may not exceed the amount of water needed for beneficial use for municipal, industrial, commercial, common distribution system, rural water system, suburban housing and domestic purposes.
3. The water is to be used during the following described annual period: May 1 - September 30 for diversion from the Water Treatment Plants, Sioux Park Gallery, Meadowbrook Gallery and Jackson springs Gallery and January 1 - December 31 for Pactola Reservoir diversion releases from storage.
4. The date from which applicant may claim right is May 3, 1880.
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. That Permit No. 2249-2 is limited to a diversion rate of 1.19 cfs for a total annual volume of 101.2 acre-feet at Pactola Reservoir or a total annual volume of 198.3 acre-feet at Sioux Park Gallery (SW 1/4 SW 1/4 Section 3), Meadowbrook Gallery (SE 1/4 NE 1/4 Section 9), Jackson Springs Gallery (NW 1/4 SE 1/4 Section 8), and the Rapid City Water Treatment Plant (SE 1/4 NE 1/4 Section 3), all in T1N-R7E. Maximum monthly diversion volumes at Pactola or the diversion points within Rapid City are as follows:

(continued)

<u>Monthly</u>	<u>Monthly acre-feet at Pactola</u>	<u>Monthly acre-feet at diversion points within Rapid City</u>
May	13.8	28.5
June	21.0	40.9
July	21.7	42.2
August	25.4	49.4
September	19.2	37.4
October	0.0	0.0

Diversions during a month may be made at either Pactola Reservoir or at the diversion points within Rapid City, but not simultaneously at both Pactola and the Rapid City diversion points.

2. That approval of Permit No. 2249-2 authorizes diversions of only natural flow water by the City of Rapid City.
3. That the City of Rapid City report to the Chief Engineer annually the amount of water withdrawn each month at Pactola Reservoir or the diversion points within Rapid City.
4. That the Water Management Board is retaining jurisdiction of Permit No. 2249-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2249-2.
5. Diversions under Permit No. 2249-2 may not interfere with existing water rights in effect prior to approval of No. 2249-2 or any domestic rights.
6. The amount of water with a May 3, 1880 priority date which may be appropriated under vested Water Right No. 2040-2 is reduced by 1.19 cfs.
7. Approval of Permit No. 2249-2 cancels irrigation of 7.5 acres in the E 1/2 NW 1/4, NW 1/4 SW 1/4 and E 1/2 SW 1/4 of Section 30-T1N-R9E which have been abandoned or forfeited and reduces No. 2040-2 by 0.09 cfs. Total reduction of No. 2040-2 is 1.28 cfs.

WATER MANAGEMENT BOARD

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

SEP 17 1993

 date

No. 2249-2 Hydrologic Unit 10120110
 Map No. _____ Basin Upper Cheyenne
 Newspaper Rapid City Journal, P.O. Box 450

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. 2040-2 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. N/A

☐ Construction to use water reserved by Future Use Permit No. N/A



1. Name of Applicant CITY OF RAPID CITY Phone No. (605) 394-4165

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

2. Amount of water claimed (c.f.s.) 1.19 CFS NOT TO EXCEED 198.3 AF/YR. OR 101.2 AF/YR. AT ALTERNATE PACTOLA RESERVOIR DIVERSION

3. Source of water supply RAPID CREEK (SEE ATTACHED EXHIBIT 1)

4. Location of point of diversion SEE ATTACHED EXHIBIT 2 FOR LEGAL DESCRIPTIONS OF CITY OF RAPID CITY WATER TREATMENT PLANT, GALLERIES AND ALTERNATE PACTOLA RESERVOIR DIVERSION POINTS.

County PENNINGTON

5. Counties where water will be used PENNINGTON COUNTY, SOUTH DAKOTA

6. Annual period during which water is to be used September 30
APRIL 15 THROUGH OCTOBER 15 (JANUARY 1 THROUGH DECEMBER 31 FOR PACTOLA DIVERSION RELEASES FROM STORAGE)

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)

THE PROJECT IS DESCRIBED IN DETAIL IN THE ACCOMPANYING WRIGHT WATER ENGINEERS, INC. REPORT. THE PROJECT WILL DIVERT WATER FROM RAPID CREEK TO THE CITY OF RAPID CITY WATER TREATMENT PLANT THROUGH THE EXISTING DIVERSION STRUCTURE ON RAPID CREEK, AND TO THE EXISTING INFILTRATION GALLERIES. THE PROJECT WILL ALSO, IN THE ALTERNATIVE BUT NOT SIMULTANEOUSLY, DIVERT WATER FROM RAPID CREEK TO STORAGE IN PACTOLA RESERVOIR.

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)^{ss}

I, EDWARD R. McLAUGHLIN, MAYOR FOR THE CITY OF RAPID CITY 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

12th day of September 1992

Jatney Norton
 Notary Public

Expires 2/18/2000

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction N/A

- a) Drill Hole Diameter _____ Depth _____
 - b) Casing Type _____ Diameter _____ Thickness _____
 - c) Screen Type _____ Diameter _____ Thickness _____
 - d) Gravel Pack Thickness _____ Length of Gravel Pack _____
 - e) Depth to Top of Water Bearing Material _____
 - f) Depth to Water (ground surface to water level) _____
 - g) Distance to nearest existing domestic well: _____
- On applicants property _____ On property owned by others _____

2. Dugout Information Estimates N/A

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

3. Water Storage Dams (EXISTING PACTOLA RESERVOIR)

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.

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

UNITED STATES BUREAU OF RECLAMATION
DEPARTMENT OF THE INTERIOR

b) Freeboard 3.3 FT

c) Crest Width 40 FT

Crest Length 5,200 FT (INCLUDING DIKES)

d) Height 245 FT

e) Primary Outlet Capacity 1,150 CFS
If Pipe, diameter TWO 2.75 FT X
2.75 FT GATES

f) Secondary Spillway Capacity 245,000 CFS
Spillway width 425 FT

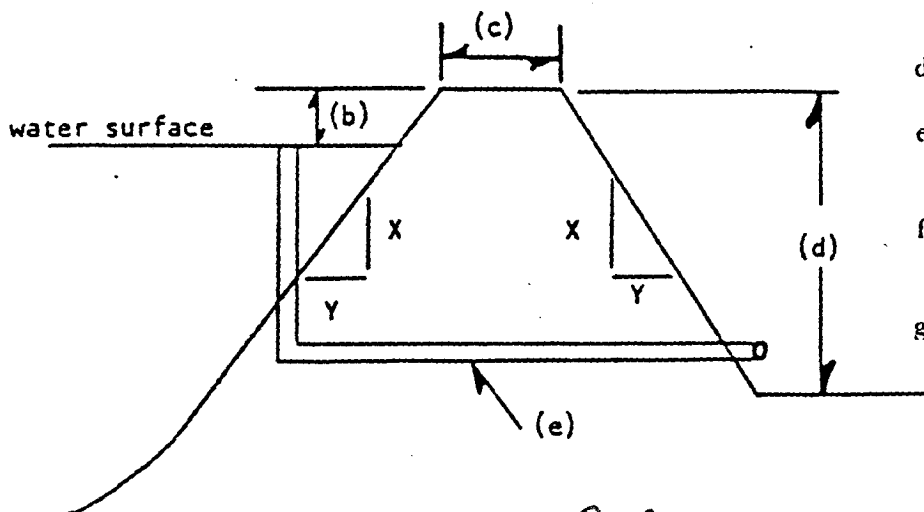
g) X & Y Slope
Upstream 2-1/2:1

Downstream 2:1

Surface Area of Impoundment 1,232 ACRES
1/

Storage 99,029 1/ acre feet

Drainage area above dam 319 SQ MI
1/ INCLUDES FLOOD POOL



Signature of Applicant

EDWARD R. McLAUGHLIN, Mayor
City of Rapid City

EXHIBIT 1

LEGAL DESCRIPTION OF IRRIGATED LAND
AFFECTED BY APPLICATION

Described as approximately 123 acres more or less of land which lies under the South Side Ditch, all irrigation water rights, 54 miners inches and 18 shares of stock in the South Side Ditch Water Co. this land all lies south of Rapid Creek and north of the fence line just south of the South Side Ditch which lies mostly parallel with the ditch and is a portion of Tract C of Section 30, Township One (1) North, Range Nine (9) East, Black Hills Meridian, Pennington County, South Dakota, as shown on Plat Book #7, Page 103.



APPLICATION FOR PERMIT TO APPROPRIATE WATER WITHIN THE STATE OF SOUTH DAKOTA





Wright Water Engineers, Inc.

DENVER OFFICE
2490 West 26th Ave., Suite 100 A
Denver, Colorado 80211
FAX (303) 480-1020
(303) 480-1700

GLENWOOD SPRINGS OFFICE
818 Colorado Avenue
P.O. Box 219
Glenwood Springs, Colorado 81602
FAX (303) 945-9210
Denver Line (303) 893-1608
(303) 945-7755

September 3, 1992

Mr. Daniel L. Bjerke, P.E./L.S.
Water/Wastewater Division Manager
City of Rapid City
300 Sixth Street
Rapid City, South Dakota 57701

Re: Weber Property Water Rights Transfer

Dear Mr. Bjerke:

Wright Water Engineers, Inc. has determined the irrigated acreage under the South Side Ditch belonging to Bruce C. Weber and the amount of water that can be transferred to Pactola Reservoir and the Rapid City water treatment plant and infiltration galleries based on data and engineering calculations detailed in the engineering report prepared for the Stromer property dated March 1992.

These calculations are based upon a flood irrigation efficiency of 50 percent and a 9.8 percent seepage loss for the South Side Ditch.

The October 27, 1987 vested rights for license No. 2040-2 on the South Side Ditch lists the 113 acres of South Side Ditch irrigated land south of Rapid Creek in the west half of the Section 30, Township 1 North, Range 9 East of the Black Hills Meridian. According to a map prepared by Mr. Craig Back with the Rapid City Wastewater Treatment Plant, approximately 105.5 acres of hay is irrigated. A 1981 ASCS aerial photograph does not give an acreage determination for the Weber property south of Rapid Creek. A telephone conference with the Pennington County ASCS office (Gary Witt, September 3, 1992) verified that there is no recorded irrigated acreage data available from ASCS for this property.

For purposes of the calculations herein, we have used 105.5 acres of hay as the irrigated crop on the Weber property.

The consumptive use calculations in the attached Table A yield the following:

- a. To storage in Pactola Reservoir, the average year transferable amount would be:

$$(105.5 \text{ acres}) \times (0.96 \text{ acre-feet/acre}) = 101.2 \text{ acre-feet.}$$



Mr. Dan Bjerke
September 3, 1992
Page 2



- b. To the city WTP and infiltration galleries, the average year transferable amount would be:

$$(105.5 \text{ acres}) \times (1.93 \text{ acre-feet/acre}) - 2.8 \text{ percent due to return flows from the Murphy and Cyclone ditches} = 198.3 \text{ acre-feet.}$$

The data and calculations for the 2.8 percent reduction due to return flows from the Cyclone and Murphy ditches which accrue to Rapid Creek upstream from the South Side Ditch headgate are presented in Appendix N of the Stomer engineering report (Engineering Report for Transfer of Stomer Property Portion of South Side Ditch Water Rights, Wright Water Engineers, Inc., March 1992).

The calculations to determine if a full irrigation supply was provided by the South Side Ditch to the Weber property are based on 1,313 acres of presently irrigated land for the South Side Ditch as agreed to in the January 3, 1992 telephone conference with Del Brosz and Mark Rath with the South Dakota Department of Environment and Natural Resources, Water Rights Division. The 1,313 acres consists of 1,078 acres irrigated under the South Side Ditch priority and 235 acres irrigated under the Little Giant Ditch priority.

The monthly transferable amounts to Pactola Reservoir and the City's WTP and infiltration galleries are presented in Tables B and C, respectively. Diversion at the alternate points of diversion at Pactola Reservoir and the water treatment plant and infiltration galleries will only take place during the permitted irrigation season for the South Side Ditch of April 15 to November 1; Tables B and C, however, include transferable amounts for only May through October because no historic diversion by the South Side Ditch is recorded for April.

The rate of diversion for the transferable amount from the Weber property is calculated by the following method:

$$\frac{105.5 \text{ acres}}{1,877 \text{ acres}} \times 23.4 \text{ cfs at the ditch headgate} \times (1.0 - 0.098) = 1.19 \text{ cfs}$$

where the 1,877 acres is the licensed acreage for the South Side Ditch, the 23.4 cfs is the licensed diversion, and the 9.8 percent carriage loss would remain in the ditch.

These transferable amounts and this rate of diversion insure that there will be no injury to downstream water rights, and that depletions to Rapid Creek will not exceed historic depletions.

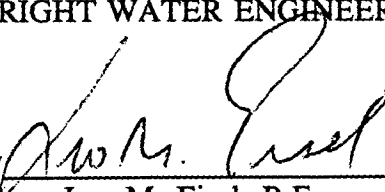
Mr. Dan Bjerke
September 3, 1992
Page 3

If you have any questions regarding these calculations, please do not hesitate to contact us.

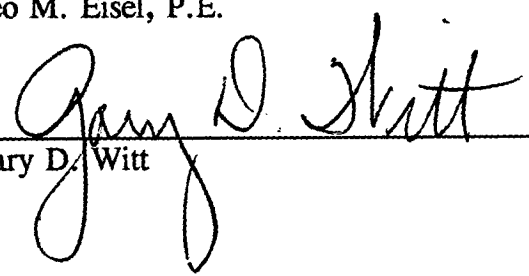
Sincerely,

WRIGHT WATER ENGINEERS, INC.

By


Leo M. Eisel, P.E.

By


Gary D. Witt

LME/GDW:ard
901-046.030
(RAPIDC/WEBERROP.GDW)
(2) copies sent for review





TABLE A

Q	R
MONTH	SOUTH SIDE WATER (AF)
MAY	404
JUN	580
JUL	599
AUG	701
SEP	531
TOTAL	2815

TRANSFERABLE AMOUNT FROM WEBER PROPERTY PORTION OF SOUTH SIDE DITCH WATER RIGHTS (AVERAGE)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MONTH	C.U. (IN)	PRECIP. (IN)	EFFECT. PRECIP. (IN)	PRECIP. ADJ. C.U. (IN)	EXCESS PRECIP. TO SOIL MOIST. DURING MONTH (IN)	SOIL MOIST. USED TO SATISFY ADJUST. C.U. (IN)	REMAIN. CROP REQUIR. (IN)	GROSS CROP NEEDS (IN)	FARM IRRIG. SUPPLY (IN)	EXCESS IRRIG. SOIL MOIST. CONTRIB. (IN)	ACCUM. SOIL MOIST. STORAGE AFTER IRRIG. (IN)	ADDITIONAL WATER REQUIRED TO MEET C.U. NEEDS FROM SUBIRRIG. (IN)	DEEP PERC. (25%) (IN)	SURFACE WATER RETURN FLOW (25%) (IN)	CLAIMED IRRIG. C.U. FOR TRANSFER (IN)
NOV	0.00	0.53	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00
DEC	0.00	0.41	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00
JAN	0.00	0.50	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.00	0.00
FEB	0.00	0.59	0.41	0.00	0.41	0.00	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00
MAR	0.00	1.11	0.78	0.00	0.78	0.00	0.00	0.00	0.00	0.00	3.13	0.00	0.00	0.00	0.00
APR	0.55	2.11	1.48	0.17	0.93	0.17	0.00	0.00	0.00	0.00	3.22	0.00	0.83	0.83	1.57
MAY	3.29	2.58	1.72	1.57	0.00	1.57	0.00	0.00	3.33	1.87	3.22	0.00	1.20	1.20	2.39
JUN	4.71	3.29	2.31	2.40	0.00	2.40	0.00	0.00	4.78	2.39	3.21	0.00	1.23	1.23	2.47
JUL	6.49	1.87	1.54	4.94	0.00	3.21	1.73	3.46	4.94	0.74	0.74	0.00	1.44	1.44	2.89
AUG	5.70	1.55	1.24	4.46	0.00	0.74	3.72	7.44	5.78	0.00	0.00	0.83	1.09	1.09	2.19
SEP	3.24	1.10	0.78	2.46	0.00	0.00	2.46	4.92	4.38	0.00	0.00	1.07	0.00	0.00	0.00
OCT	1.47	0.75	0.53	1.07	0.00	0.00	1.07	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	25.45	16.39	11.80	17.07	3.13	8.09	8.98	17.96	23.21	4.80	15.95	2.17	5.80	5.80	11.51

AVERAGE CONDITIONS, CROP = HAY

SOUTH SIDE DITCH AND LITTLE GIANT DITCH IRRIGATED ACREAGE (1989) = 1078 + 235 = 1313

9.8% SEEPAGE LOSS IN 1989

WEBER IRRIGATED ACREAGE = 105.5

50% IRRIGATION EFFICIENCY USING FLOOD IRRIGATION

DEEP PERCOLATION IS ONE HALF OF IRRIGATION INEFFICIENCY (25%) PLUS SOIL MOISTURE

OTHER HALF OF IRRIGATION INEFFICIENCY (25%) IS SURFACE WATER RETURN FLOW

PACT. = PACTOLA RESERVOIR

WTP = RAPID CITY WATER TREATMENT PLANT AND INFILTRATION GALLERIES

SOUTH SIDE DITCH AVERAGE MONTHLY DIVERSION IS FOR YEARS 1949-1979 DUE TO CONSISTENCY OF DATA

GROSS TRANSFERABLE AMOUNT FROM WEBER PROPERTY UNDER SOUTH SIDE DITCH			
	(INCHES)	(FEET)	(AC.FT)
TO PACT.	11.51	0.96	101.2
TO WTP	23.21	1.93	204.0

TABLE B

AVERAGE YEAR TRANSFERABLE CONSUMPTIVE USE TO STORAGE IN PACTOLA RESERVOIR

MONTH	FROM SOUTH SIDE DITCH*
MAY	13.8
JUN	21.0
JUL	21.7
AUG	25.4
SEP	19.2
OCT	0.0
TOTAL	101.2

* From column P in Table A for 105.5 acres of irrigation.

TABLE C

AVERAGE YEAR DIVERSION AT THE WATER TREATMENT PLANT AND INFILTRATION GALLERIES

MONTH	FROM SOUTH SIDE DITCH*
MAY	28.5
JUN	40.9
JUL	42.2
AUG	49.4
SEP	37.4
OCT	0.0
TOTAL	198.3

* From column J in Table A for 105.5 acres of irrigation
after subtracting return flows from upstream ditches



RECEIPT

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____, October 26, 19 92

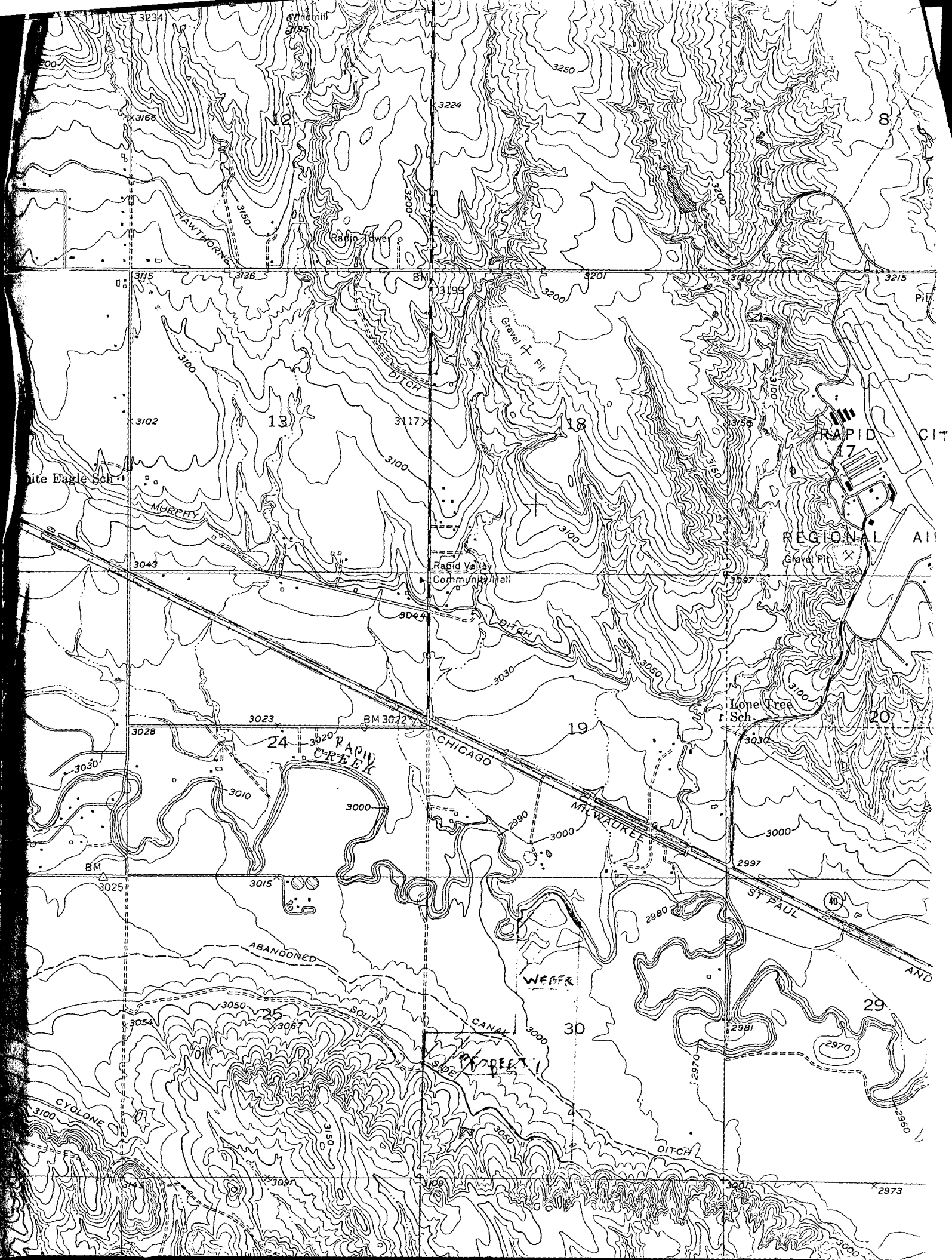
RECEIVED OF City of Rapid City (Bruce Weber), 300 Sixth St, Rapid City, SD 57701

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

Fee for Application for Permit No. <u>2249-2</u> to Appropriate Water, to construct and to put water to beneficial use _____	50	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer





CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

Public Works Department

300 Sixth Street

605-394-4165

FAX 605-394-6636



September 22, 1992

Mr. John Hatch, Chief Engineer
Water Rights Division
Department of Environment &
Natural Resources
523 East Capitol
Pierre, SD 57501

Re: Application for Permit to Appropriate Water

Dear Mr. Hatch:

Enclosed is an Application for Permit to Appropriate Water within the State of South Dakota for Bruce Weber's property located in Rapid Valley in addition to engineering data from Wright Water Engineers, Inc. regarding Weber's property. The \$50.00 application fee will be paid by Purchase Order No. 260645 and you should receive the check by October 9, 1992.

Thank you for your assistance in this transfer.

Sincerely,

Daniel L. Bjerke, P.E./L.S.
Public Works Engineering/Utilities Director

plh

pc Mayor Ed McLaughlin
Robert R. Jackson, City Attorney



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: City of Rapid City

ADDRESS: 300 Sixth Street

COUNTY: Pennington

DATE: 10/1/92

TELEPHONE: 394-4165

RE: Conversation with Dan Bjerke

COMMENTS:

The application for the change of use for Bruce Weber's stock in South Side Ditch company for irrigation to municipal use by Rapid City has been received. I contacted Mr. Bjerke on a typo on a legal description in 'Exhibit 2'. The typo occurs in the description of Pactola Diversion. The last part of that description should read "... and portions of Sections Thirty-One (31), Thirty-two (32), Thirty-three (33), and Thirty-Four (34), Township Two (2) North, Range Five (5) East of the Black Hills Meridian." The application has Township One (1) North and it should be Two (2) North. Mr. Bjerke requested I make this correction to the application.

I also stated that we would need a copy of a map outlining the acres that have been irrigated by Mr. Weber. Mr. Bjerke stated that they would send this in today. Also, Mr. Bjerke asked the the map of the Location of the points of diversions submitted with 2217-2 and 2218-2 be used for this application since the points of the treatment plant, galleries and Pactola are the same.

Finally, I stated that I didn't think it would be very likely that this application would be able to come before the Board at their December meeting.

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

NAME: Eric Thorslund



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

Public Works Department

300 Sixth Street

605-394-4165

FAX 605-394-6636



October 5, 1992

Mr. Mark Rath
Water Rights Division
SD Dept. of Environment & Natural Resources
Joe Foss Building
Pierre, SD 57501

Re: Application for Permit to Appropriate Water
Weber Property in Rapid Valley
City of Rapid City

Dear Mr. Rath:

Transmitted herewith is a location map of the irrigated portion of the Weber property identified in the application recently submitted to your office.

If there is additional information needed, please call me at 394-4165.

Sincerely,
CITY OF RAPID CITY

Daniel L. Bjerke
Public Works Director of Engineering/Utilities

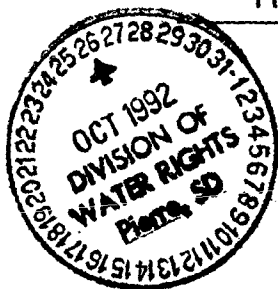


EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER



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

October 9, 1992

Mr. John Hatch, Chief Engineer
Water Rights Division
Department of Environment &
Natural Resources
523 East Capitol
Pierre, SD 57501

Re: Application for Permit to Appropriate Water

Dear Mr. Hatch:

Enclosed is the \$50.00 fee for the Application for Permit to Appropriate Water within the State of South Dakota for Bruce Weber's property located in Rapid Valley.

Thank you for your assistance in this transfer.

Sincerely,

Robert R. Jackson
City Attorney

plh

pc Mayor Ed McLaughlin
Daniel Bjerke, Public Works Director



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

Conversation or File Documentation

NAME OF PERSON OR FILE: WAYNE ANDERSON PRESIDENT, SOUTH SIDE PITCHADDRESS: RAPIR CITY COUNTY PENNINGTONDATE: 11/2/92 TELEPHONE 608RE: PROVIDING INFORMATION TO WRIGHT WATER

COMMENTS:

WAYNE ANDERSON CALLED ABOUT THE LETTER I HAD SENT
TO THE RUWCD CONTAINING WRIGHT WATER ENGINEERS COMMENTS
ABOUT THE DISTRICT'S ^{ANNUAL} IRRIGATION ACRES REPORT. HE SAID THAT
HE FELT WRIGHT WATER ENGINEERS USING A REDUCED NUMBER
OF ACRES SHORT CHANGES THE REMAINING IRRIGATORS IF THEY WANT
TO MAKE IMPROVEMENTS. I TOLD HIM THAT THE IRRIGATORS
PROBABLY DO NOT IRRIGATE THE TOTAL ~~THE~~ NUMBER OF ACRES
ALLOWED BY THE VARIOUS WATER RIGHTS, IN PARTICULAR SOUTH SIDE.
WRIGHT WATER ENGINEERS WOULD USE AN AVERAGE NUMBER OF
ACRES IF THE DISTRICT COULD SORT OUT WHAT LAND
WAS IRRIGATED BY A SPECIFIC IRRIGATOR IN A GIVEN YEAR.
WAYNE SAID HE DOESN'T BELIEVE THAT THE IRRIGATOR SHOULD
PROVIDE THIS INFORMATION FOR A PARTICULAR YEAR SINCE
IT WOULD BE USED AGAINST HIM

I CALLED JERRY HAMMERQUIST EXPLAINED TO HIM WHAT THE COMMENTS
THAT WRIGHT WATER ENGINEERS MADE. HE SAID HE UNDERSTOOD AND
WOULD SPEAK WITH THE SOUTH SIDE PEOPLE TO SEE IF THE
INFORMATION COULD BE PROVIDED. HE SAID THAT IF IT CHIR IT
WILL BE A DEAD ISSUE

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

NAME: Phil D. H.



Wright Water Engineers, Inc.

DENVER OFFICE
2490 West 26th Ave., Suite 100 A
Denver, Colorado 80211
FAX (303) 480-1020
(303) 480-1700



GLENWOOD SPRINGS OFFICE
818 Colorado Avenue
P.O. Box 219
Glenwood Springs, Colorado 81602
FAX (303) 945-9210
Denver Line (303) 893-1608
(303) 945-7755

December 14, 1992

Mr. Daniel L. Bjerke, P.E./L.S.
Water/Wastewater Division Manager
City of Rapid City
300 Sixth Street
Rapid City, South Dakota 57701

Re: Weber Property Water Rights Transfer

Dear Mr. Bjerke:

Wright Water Engineers, Inc. has determined the irrigated acreage under the South Side Ditch belonging to Bruce C. Weber and the amount of water that can be transferred to Pactola Reservoir and the Rapid City water treatment plant and infiltration galleries based on data and engineering calculations detailed in the engineering report prepared for the Stromer property dated March 1992.

Based upon discussions with Mr. Mark Rath at the South Dakota Department of Environment and Natural Resources, there have been minor changes to the consumptive use tables accompanying our September 3, 1992 letter report. These changes do not affect the transferable amounts of water claimed for the Weber property in the September 3, 1992 letter report. Therefore, this report supercedes the September 3 report but the only changes are in Table A and the Addition of Tables A-1 and A-2.

These calculations are based upon a flood irrigation efficiency of 50 percent and a 9.8 percent seepage loss for the South Side Ditch.

The October 27, 1987 vested rights for license No. 2040-2 on the South Side Ditch lists the 113 acres of South Side Ditch irrigated land south of Rapid Creek in the west half of the Section 30, Township 1 North, Range 9 East of the Black Hills Meridian. According to a map prepared by Mr. Craig Back with the Rapid City Wastewater Treatment Plant, approximately 105.5 acres of hay is irrigated. A 1981 ASCS aerial photograph does not give an acreage determination for the Weber property south of Rapid Creek. A telephone conference with the Pennington County ASCS office (Gary Witt, September 3, 1992) verified that there is no recorded irrigated acreage data available from ASCS for this property.

For purposes of the calculations herein, we have used 105.5 acres of hay as the irrigated crop on the Weber property.

The consumptive use calculations in the attached Table A yield the following:

- a. To storage in Pactola Reservoir, the average year transferable amount would be:
 $(105.5 \text{ acres}) \times (0.96 \text{ acre-feet/acre}) = 101.2 \text{ acre-feet}.$
- b. To the city WTP and infiltration galleries, the average year transferable amount would be:
 $(105.5 \text{ acres}) \times (1.93 \text{ acre-feet/acre}) - 2.8 \text{ percent due to return flows from the Murphy and Cyclone ditches (Table B)} = 198.3 \text{ acre-feet}.$

The data and calculations for the 2.8 percent reduction due to return flows from the Cyclone and Murphy ditches which accrue to Rapid Creek upstream from the South Side Ditch headgate are presented in Appendix N of the Stomer engineering report (Engineering Report for Transfer of Stomer Property Portion of South Side Ditch Water Rights, Wright Water Engineers, Inc., March 1992).

The calculations to determine if a full irrigation supply was provided by the South Side Ditch to the Weber property are based on 1,313 acres of presently irrigated land for the South Side Ditch as agreed to in the January 3, 1992 telephone conference with Del Brosz and Mark Rath with the South Dakota Department of Environment and Natural Resources, Water Rights Division. The 1,313 acres consists of 1,078 acres irrigated under the South Side Ditch priority and 235 acres irrigated under the Little Giant Ditch priority.

The monthly transferable amounts to Pactola Reservoir and the City's WTP and infiltration galleries are presented in Tables C and D, respectively. Diversion at the alternate points of diversion at Pactola Reservoir and the water treatment plant and infiltration galleries will only take place during the permitted irrigation season for the South Side Ditch of April 15 to November 1; Tables C and D, however, include transferable amounts for only May through September because no historic diversion by the South Side Ditch is recorded for April and October.

The rate of diversion for the transferable amount from the Weber property is calculated by the following method:

$$\frac{105.5 \text{ acres}}{1,877 \text{ acres}} \quad \times \quad 23.4 \text{ cfs at the ditch headgate} \quad \times \quad (1.0 - 0.098) = 1.19 \text{ cfs}$$

Mr. Daniel J. Bjerke
December 11, 1992
Page 3

where the 1,877 acres is the licensed acreage for the South Side Ditch, the 23.4 cfs is the licensed diversion, and the 9.8 percent carriage loss would remain in the ditch.

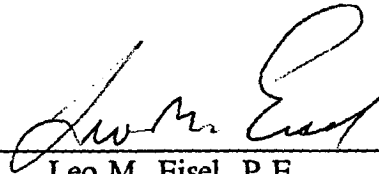
These transferable amounts and this rate of diversion insure that there will be no injury to downstream water rights, and that depletions to Rapid Creek will not exceed historic depletions.

If you have any questions regarding these calculations, please do not hesitate to contact us.

Sincerely,

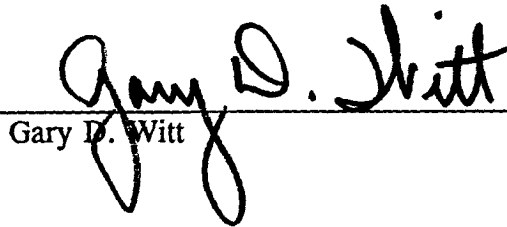
WRIGHT WATER ENGINEERS, INC.

By



Leo M. Eisel, P.E.

By



Gary D. Witt

LME/GDW:ard
901-046.030
(RAPIDC/WEBERROP.GDW)
cc: Mark Rath (2) copies

TABLE A

Q	R
MONTH	SOUTH SIDE WATER (AF)
MAY	404
JUN	580
JUL	599
AUG	701
SEP	531
TOTAL	2815

TRANSFERABLE AMOUNT FROM WEBER PROPERTY PORTION OF SOUTH SIDE DITCH WATER RIGHTS (AVERAGE)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MONTH	C.U. (IN)	PRECIP. (IN)	EFFECT. PRECIP. (IN)	PRECIP. ADJ. C.U. (IN)	EXCESS PRECIP. TO SOIL MOIST. DURING MONTH (IN)	SOIL MOIST. USED TO SATISFY ADJUST. C.U. (IN)	REMAIN. CROP REQUIR. (IN)	GROSS CROP NEEDS (IN)	FARM IRRIG. SUPPLY (IN)	EXCESS IRRIG. SOIL MOIST. CONTRIB. (IN)	ACCUM. SOIL MOIST. STORAGE AFTER IRRIG. (IN)	ADDITIONAL WATER REQUIRED TO MEET C.U. NEEDS FROM SUBIRRIG. (IN)	DEEP PERC. (25%) (IN)	SURFACE WATER RETURN FLOW (25%) (IN)	CLAIMED IRRIG. C.U. FOR TRANSFER (IN)
NOV	0.00	0.53	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00
DEC	0.00	0.41	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00
JAN	0.00	0.50	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.00	0.00
FEB	0.00	0.59	0.41	0.00	0.41	0.00	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00
MAR	0.00	1.11	0.78	0.00	0.78	0.00	0.00	0.00	0.00	0.00	2.20	0.00	0.00	0.00	0.00
APR	0.58	2.11	0.38	0.19	0.00	0.19	0.00	0.00	0.00	0.00	2.01	0.00	0.00	0.00	0.00
MAY	3.29	2.58	1.72	1.57	0.00	1.57	0.00	0.00	3.33	1.87	2.10	0.00	0.83	0.83	1.57
JUN	4.71	3.29	2.31	2.40	0.00	2.10	0.30	0.59	4.78	2.09	2.09	0.00	1.20	1.20	2.39
JUL	6.54	1.87	1.55	4.99	0.00	2.09	2.90	5.79	4.94	0.00	0.00	0.43	1.23	1.23	2.47
AUG	5.70	1.55	1.24	4.46	0.00	0.00	4.46	8.92	5.78	0.00	0.00	1.57	1.44	1.44	2.89
SEP	3.24	1.10	0.78	2.46	0.00	0.00	2.46	4.92	4.38	0.00	0.00	0.27	1.09	1.09	2.19
OCT	1.53	0.75	0.40	1.13	0.00	0.00	1.13	2.26	0.00	0.00	0.00	1.13	0.00	0.00	0.00
TOTAL	25.59	16.39	10.58	17.20	2.20	5.96	11.24	22.49	23.21	3.76	11.86	3.40	5.80	5.80	11.51

AVERAGE CONDITIONS, CROP = HAY

SOUTH SIDE DITCH AND LITTLE GIANT DITCH IRRIGATED ACREAGE (1989) = 1078 + 235 = 1313

9.8% SEEPAGE LOSS IN 1989

WEBER IRRIGATED ACREAGE = 105.5

50% IRRIGATION EFFICIENCY USING FLOOD IRRIGATION

DEEP PERCOLATION IS ONE HALF OF IRRIGATION INEFFICIENCY (25%) PLUS SOIL MOISTURE

OTHER HALF OF IRRIGATION INEFFICIENCY (25%) IS SURFACE WATER RETURN FLOW

PACT. = PACTOLA RESERVOIR

WTP = RAPID CITY WATER TREATMENT PLANT AND INFILTRATION GALLERIES

SOUTH SIDE DITCH AVERAGE MONTHLY DIVERSION IS FOR YEARS 1949-1979 DUE TO CONSISTENCY OF DATA

GROSS TRANSFERABLE AMOUNT FROM WEBER PROPERTY UNDER SOUTH SIDE DITCH			
	(INCHES)	(FEET)	(AC.FT)
TO PACT.	11.51	0.96	101.2
TO WTP	23.21	1.93	204.0

TABLE A-1

TR-21 CONSUMPTIVE USE CALCULATIONS (AVERAGE) - HAY

LATITUDE: 44 N

IRR. APPL. IN.: 3.00

f= 1.00067

CROP: HAY

STATION: RAPID CITY WSO AP

LIMIT: 45 F MEAN TEMP

YEAR: 49-54,56-59,63-68,70-79

MONTH	DAYS	TEMP	ADJ. TEMP.	% DAY	ADJ. DAY	CU FACTOR	CLIMATE COEFF.	GROWTH COEFF.	CU COEFF.	MONTH CU	MONTH PPT.	PPT. FACTOR	EFFECT. PPT.	ADJUSTED CU
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
JAN	--	--	--	6.48	0.00	0.0000	0.3000	0.49	0.1470	0.00	--	-0.12	0.00	0.00
FEB	--	--	--	6.57	0.00	0.0000	0.3000	0.57	0.1710	0.00	--	-0.12	0.00	0.00
MAR	--	--	--	8.29	0.00	0.0000	0.3000	0.73	0.2190	0.00	--	-0.12	0.00	0.00
APR	9	43.9	47.4	9.05	2.84	1.3466	0.5060	0.85	0.4301	0.58	0.63	0.38	0.38	0.20
MAY	31	55.4	55.4	10.25	10.25	5.6785	0.6444	0.90	0.5800	3.29	2.58	1.72	1.72	1.57
JUN	30	63.2	63.2	10.39	10.39	6.5665	0.7794	0.92	0.7170	4.71	3.29	2.31	2.31	2.40
JUL	31	72.3	72.3	10.49	10.49	7.5843	0.9368	0.92	0.8618	6.54	1.87	1.55	1.55	4.99
AUG	31	70.8	70.8	9.71	9.71	6.8747	0.9108	0.91	0.8289	5.70	1.55	1.24	1.24	4.46
SEP	30	60.5	60.5	8.41	8.41	5.0881	0.7327	0.87	0.6374	3.24	1.10	0.78	0.78	2.46
OCT	26	49.3	51.1	7.64	6.67	3.4062	0.5700	0.79	0.4503	1.53	0.63	0.40	0.40	1.13
NOV	--	--	--	6.50	0.00	0.0000	0.3000	0.67	0.2010	0.00	--	-0.12	0.00	0.00
DEC	--	--	--	6.22	0.00	0.0000	0.3000	0.55	0.1650	0.00	--	-0.12	0.00	0.00

SUM	188
-----	-----

INCHES	25.59	11.65		8.39	17.20
FEET	2.13	0.97		0.70	1.43

TABLE A-2

TR-21 CONSUMPTIVE USE CALCULATIONS (AVERAGE) - ALFALFA

LATITUDE: 44 N

IRR. APPL. IN.: 3.00

f= 1.00067

CROP: ALFALFA

STATION: RAPID CITY WSO AP

LIMIT: 50 F MEAN TEMP

YEAR: 49-54,56-59,63-68,70-79

MONTH	DAYS	TEMP	ADJ. TEMP.	% DAY	ADJ. DAY	CU FACTOR	CLIMATE COEFF.	GROWTH COEFF.	CU COEFF.	MONTH CU	MONTH PPT.	PPT. FACTOR	EFFECT. PPT.	ADJUSTED CU
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
JAN	--	--	--	6.48	0.00	0.0000	0.3000	0.63	0.1890	0.00	--	-0.12	0.00	0.0000
FEB	--	--	--	6.57	0.00	0.0000	0.3000	0.73	0.2190	0.00	--	-0.12	0.00	0.0000
MAR	--	--	--	8.29	0.00	0.0000	0.3000	0.86	0.2580	0.00	--	-0.12	0.00	0.0000
APR	--	--	--	9.05	0.00	0.0000	0.3000	0.99	0.2970	0.00	--	-0.12	0.00	0.0000
MAY	31	55.4	55.4	10.25	10.25	5.6785	0.6444	1.08	0.6960	3.95	2.58	1.79	1.79	2.1636
JUN	30	63.2	63.2	10.39	10.39	6.5665	0.7794	1.13	0.8807	5.78	3.29	2.46	2.46	3.3270
JUL	31	72.3	72.3	10.49	10.49	7.5843	0.9368	1.11	1.0398	7.89	1.87	1.67	1.67	6.2193
AUG	31	70.8	70.8	9.71	9.71	6.8747	0.9108	1.06	0.9655	6.64	1.55	1.31	1.31	5.3295
SEP	30	60.5	60.5	8.41	8.41	5.0881	0.7327	0.99	0.7253	3.69	1.10	0.80	0.80	2.8892
OCT	15	49.3	55.1	7.64	3.92	2.1579	0.6392	0.91	0.5817	1.26	0.36	0.21	0.21	1.0491
NOV	--	--	--	6.50	0.00	0.0000	0.3000	0.78	0.2340	0.00	--	-0.12	0.00	0.0000
DEC	--	--	--	6.22	0.00	0.0000	0.3000	0.64	0.1920	0.00	--	-0.12	0.00	0.0000

SUM	168
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INCHES	29.20	10.75		8.23	20.98
FEET	2.43			0.69	1.75

TABLE B

TRANSFERABLE AMOUNTS FROM WEBER PROPERTY PORTION OF THE SOUTH SIDE DITCH WATER RIGHTS

DIVERSION POINT	GROSS WEBER TRANSFER (IN)	GROSS WEBER TRANSFER (AF)	RETURN FLOW CONTRIBUTION (%)	RETURN FLOW CONTRIBUTION (AF)	NET TRANSFERABLE AMOUNT (AF)
AVERAGE TO WTP	23.2	204.0	2.8	5.7	198.3
AVERAGE TO PACTOLA	11.5	101.2	--	--	101.2

The return flow contribution is that portion of the Weber property South Side Ditch water rights that is composed of return flows from upstream ditches which reach Rapid Creek upstream from the South Side Ditch point of diversion. These percentages and amounts are calculated in Appendix N of the Stomer report.

TABLE C

AVERAGE YEAR TRANSFERABLE CONSUMPTIVE USE TO STORAGE IN PACTOLA RESERVOIR

MONTH	FROM SOUTH SIDE DITCH*
MAY	13.8
JUN	21.0
JUL	21.7
AUG	25.4
SEP	19.2
OCT	0.0
TOTAL	101.2

* From column P in Table A for 105.5 acres of irrigation.

TABLE D

AVERAGE YEAR DIVERSION AT THE WATER TREATMENT PLANT AND INFILTRATION GALLERIES

MONTH	FROM SOUTH SIDE DITCH*
MAY	28.5
JUN	40.9
JUL	42.2
AUG	49.4
SEP	37.4
OCT	0.0
TOTAL	198.3

* From column J in Table A for 105.5 acres of irrigation
after subtracting return flows from upstream ditches

TABLE E

AVERAGE YEAR TRANSFERABLE CONSUMPTIVE USE TO STORAGE IN PACTOLA RESERVOIR

MONTH	TRANSFERABLE CONSUMPTIVE USE (ACRE-FEET)		
	FROM MURPHY DITCH*	FROM SOUTH SIDE DITCH**	TOTAL
MAY	4.1	13.8	17.9
JUN	5.0	21.0	26.0
JUL	6.8	21.7	28.5
AUG	8.7	25.4	34.1
SEP	5.9	19.2	25.2
OCT	1.8	0.0	1.8
TOTAL	32.4	101.2	133.6

* From column P in Table A for 31.4 acres of irrigation.

** From column P in Table B for 105.5 acres of irrigation.

TABLE F

AVERAGE YEAR DIVERSION AT THE WATER TREATMENT PLANT AND INFILTRATION GALLERIES

MONTH	AVERAGE YEAR DIVERSION (ACRE-FEET)		
	FROM MURPHY DITCH*	FROM SOUTH SIDE DITCH**	TOTAL
MAY	6.6	28.5	35.1
JUN	7.7	40.9	48.6
JUL	10.5	42.2	52.7
AUG	13.4	49.4	62.8
SEP	9.1	37.4	46.5
OCT	2.8	0.0	2.8
TOTAL	50.1	198.3	248.5

* From column J in Table A for 31.4 acres of irrigation

** From column J in Table B for 105.5 acres of irrigation
after subtracting return flows from upstream ditches

Report on Water Permit Application No. 2249-2
City of Rapid City
December 28, 1992

Application No. 2249-2, City of Rapid City, proposes to transfer an annual volume of 198.3 acre-feet of water (ac-ft), if diverted at the city's water treatment plant or infiltration galleries, or 101.2 ac-ft, if stored in Pactola Reservoir. The maximum diversion rate proposed for this transfer is 1.19 cubic feet of water per second (cfs) from the natural flows of Rapid Creek. The transfer is from irrigation to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses for the City of Rapid City. Application No. 2249-2 proposes to transfer South Side Ditch Company stockholder/landowner's water which has been historically used to irrigate 105.5 acres located in Tract C (E1/2 NW1/4, NW1/4 SW1/4 and E1/2 SW1/4) in Section 30-T1N-R9E, also known as the Weber property.

The source of water for the proposed transfer is from the natural flow of Rapid Creek, when available, through South Side ditch. Vested Water Right No. 2040-2, South Side Ditch, was validated for 23.40 cfs with a priority date of May 3, 1880. The existing diversion point for South Side ditch is located in the SE1/4 NW1/4 of Section 15 T1N-R8E. The locations of the diversion points for the proposed transfer are in the SE1/4 NE1/4 Section 3 (Rapid City Water Treatment Plant); SW1/4 SW1/4 Section 3 (Sioux Park Gallery); SE1/4 NE1/4 Section 9 (Meadowbrook Gallery); NW1/4 SE1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E and NW1/4 SW1/4 Section 2 T1N-R5E (Pactola Reservoir). Pactola Reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. This application does not request any new water appropriation from Rapid Creek and the validated priority date of May 3, 1880 is to be retained by the city.

Review of Existing Water Rights

The water to be transferred has been appropriated under Vested Water Right No. 2040-2, South Side Ditch, with a priority date of May 3, 1880. The water right authorized the irrigation of 113 acres of the Weber property. There are 105.5 acres located in the E1/2 NW1/4, NW1/4 SW1/4 and E1/2 SW1/4 in Section 30-T1N-R9E which have been continually irrigated.

There are 72 existing water rights/permits on Rapid Creek from Pactola Reservoir to the Cheyenne River. Of these, 14 water rights which appropriate approximately 28.37 cfs have priority dates which are senior to this proposed transfer. These are: Water Right No. 504-2, Cleghorn Springs Water Users, for 0.89 cfs; Water Right No. 2023-2, Leedy Ditch, for 1.00 cfs; Water Right Nos. 1727-2, 2239-2, 2240-2, 2241-2 and 2242-2 Rapid Valley Water Company, for 16.20 cfs; Water Right No. 1101-2, Rapid Valley Water Service Company, for 1.73 cfs; Water Right No. 653-

2, Little Giant Ditch, for 6.27 cfs. The City of Rapid City holds five Water Right/Permit Nos. 0646-2, 1998-2, 2142-2, 2199-2 and 2201-2 for a total of 2.28 cfs.

Review of the Proposed Transfer

SDCL 46-5-34.1 states that no transfer can occur unless the transfer can be made without detriment to existing rights, or to individual domestic use rights. SDCL 46-5-34.1 also states "No person who has transferred an irrigation right pursuant to this section may acquire another irrigation right for the same land." SDCL 46-2A-12 allows a change in use "only if the change does not unlawfully impair existing rights and is for a beneficial use and in the public interest." Calculations using accepted scientific methods and available climatic and cropping data have been made to insure that adverse affects on existing water rights do not occur.

The volume of water which could be stored in Pactola Reservoir is 101.2 ac-ft annually. This volume of water is equal to the amount of water estimated to have been consumed annually by the crop. The amount of water which can be diverted at Rapid City water system intakes is 198.3 ac-ft annually. This volume of water includes the amount of water consumed by the crop plus the return water to Rapid Creek. Murphy and Cyclone Ditches contribute return water, which becomes natural flow water, to Rapid Creek upstream of the South Side Ditch head gate. The Weber property has historically received a portion of this water as part of its natural flow. Because the source of this natural flow is located downstream of any of Rapid City's proposed diversion points, this water cannot be included in the volume of water transferred to the City's intakes. This extra water will be a benefit to downstream water rights.

The volume of water estimated to have been consumed by the crop is calculated on a monthly basis. For each month the maximum amount of water the crop would use is calculated. This is compared to the amount of water that is available for the crop's use based on historical ditch diversions and the total acreage irrigated annually from the ditch. A determination is made, on a monthly basis, whether maximum crop water usage or available water supply is the limiting factor. The lessor of these is used as the volume of water consumed by the crop for that particular month. Water which has been returned to Rapid Creek through irrigation would also be returned to Rapid Creek by Rapid City through their waste water treatment system. (Wright, 1992) If in the future, the City of Rapid City stops returning effluent to Rapid Creek, then the diversion proposed by this application will need to be recalculated to reflect that condition.

Farm turnouts do not have measuring devices, so actual individual diversions from the ditch are unknown. Water in the ditch is shared by the users as needed. Based on actual past operations, the calculated diversion rate transfer is based on a pro rata

share of the total ditch diversion. The proposed diversion rate transfer is based on water beneficially used as described under SDCL 46-1-8.

The transferable diversion rate is based on the pro rata share of water which is decreased by the 9.8 percent carriage loss that is to remain in the ditch. This gives a transferable diversion rate of 1.19 cfs.

If this transfer is approved, the diversion rate and acreage authorized by the May 3, 1880 priority date of Water Right No. 2040-2 should be decreased by 1.19 cfs and 105.5 acres due to the transfer. The diversion rate and acreage should be decreased an additional 0.09 cfs and 7.5 acres due to abandonment or forfeiture of irrigation. The total reduction of the South Side ditch water right will be 1.28 cfs and 113 acres.

The water available for transfer is only from the natural flow in Rapid Creek and does not include stored water or stored water releases from the Deerfield - Pactola Reservoirs.

To insure that the transfer of the water can be made without detriment to existing water rights, the Water Management Board should monitor the management and operation of the proposed transfer.

Conclusions

1. SDCL 46-5-34.1 allows for the transfer of irrigation water rights apart from the land to municipal use when the transfer can be made without causing detriment to existing rights. SDCL 46-2A-12 allows a change in use "only if the change does not unlawfully impair existing rights and is for a beneficial use and in the public interest."
2. The water has been historically used to irrigate 105.5 acres.
3. The priority date of May 3, 1880 should be retained.
4. The diversion rate to be transferred is 1.19 cfs, and is based on the pro-rated share of the total ditch diversion rate.
5. The amount of water requested to be transferred, 198.3 ac-ft and 101.2 ac-ft is reasonable. The following table lists the monthly diversion associated with each volume:

Month	Diversion at Pactola (ac-ft)	Diversion at Intakes (ac-ft)
----- May	----- 13.8	----- 28.5

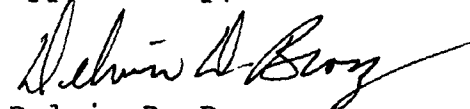
June	21.0	40.9
July	21.7	42.2
Aug	25.4	49.4
Sept	19.2	37.4
Oct	0.0	0.0

6. If application No. 2249-2 is approved, the authorized diversion rate and acreage for the South Side Ditch Water Right No. 2040-2 under the May 3, 1880 priority date should be decreased by 1.19 cfs and 105.5 acres.
7. There are 7.5 acres associated with the Weber property on which irrigation has been abandoned or forfeited. Water Right No. 2040-2 will be decreased by 7.5 acres and 0.09 cfs to reflect this.
8. The Water Management Board should continue to monitor the management and operation of the transfer of the water right and of existing water rights.
9. Approval of Application No. 2249-2, only approves transfer of natural flow water and does not include any rights to stored irrigation water available under contract from Pactola Reservoir.
10. Because natural flow water has not been available for No. 2040-2 during lower flow periods, approval of No. 2249-2 does not guarantee that natural flow water will be available for No. 2249-2 for diversion or storage during low flow periods.
11. SDCL 46-5-34.1 states "No person who has transferred an irrigation right pursuant to this section may acquire another irrigation right for the same land." The effect of approval of No. 2249-2 will be to retire the Weber property from irrigation by using neither natural flow water nor purchased stored water.



Mark D. Rath
Natural Resources Engineer II

Approved by,



Delvin D. Brosz
Natural Resources Engineer IV

References

1. Wright Water Engineers, Inc. 1992. Engineering Report for

Transfer of Stromer Property Portion of South Side Ditch Water Rights. Wright Water Engineers, Inc. Engineering Consultants, Denver, Colorado.

2. U.S. Bureau of Reclamation. 1990. Rapid Valley Water Management Study. U.S. Bureau of Reclamation, Belle Fourche Projects Office, Newell, South Dakota.
3. S.D. Department of Environment and Natural Resources. Division of Water Rights Records.

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2249-2, 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. 2249-2, City of Rapid City, 300 6th Street, Rapid City, SD 57701.

The Chief Engineer is recommending APPROVAL of Application No. 2249-2 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use, and 3) it is in the public interest with the following qualifications:

1. That Permit No. 2249-2 is limited to a diversion rate of 1.19 cfs for a total annual volume of 101.2 acre-feet at Pactola Reservoir or a total annual volume of 198.3 acre-feet at Sioux Park Gallery (SW 1/4 SW 1/4 Section 3), Meadowbrook Gallery (SE 1/4 NE 1/4 Section 9), Jackson Springs Gallery (NW 1/4 SE 1/4 Section 8), and the Rapid City Water Treatment Plant (SE 1/4 NE 1/4 Section 3), all in T1N, R7E. Maximum monthly diversion volumes at Pactola or the diversion points within Rapid City are as follows:

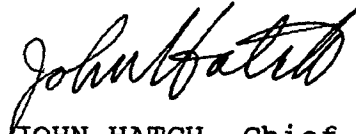
<u>Month</u>	<u>Monthly acre-feet at Pactola</u>	<u>Monthly acre-feet at diversion points within Rapid City</u>
May	13.8	28.5
June	21.0	40.9
July	21.7	42.2
August	25.4	49.4
September	19.2	37.4
October	0.0	0.0

Diversions during a month may be made at either Pactola Reservoir or at the diversion points within Rapid City, but not simultaneously at both Pactola and the Rapid City diversion points.

2. That approval of Permit No. 2249-2 authorizes diversions of only natural flow water by the City of Rapid City.
3. That the City of Rapid City report to the Chief Engineer annually the amount of water withdrawn each month at Pactola Reservoir or the diversion points within Rapid City.
4. That the Water Management Board is retaining jurisdiction of Permit No. 2249-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2249-2.

5. Diversions under Permit No. 2249-2 may not interfere with existing water rights in effect prior to approval of No. 2249-2 or any domestic rights.
6. The amount of water with a May 3, 1880, priority date which may be appropriated under Vested Water Right No. 2040-2 is reduced by 1.19 cfs.
7. Approval of Permit No. 2249-2 cancels irrigation of 7.5 acres in the E 1/2 NW 1/4, NW 1/4 SW 1/4 and E 1/2 SW 1/4 of Section 30, T1N, R9E which have been abandoned or forfeited and reduces No. 2040-2 by 0.09 cfs. Total reduction of No. 2040-2 is 1.28 cfs.

See report on application for additional information.

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

JOHN HATCH, Chief Engineer
January 12, 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.

January 14, 1993

Edward R. McLaughlin, Mayor
City of Rapid City
300 6th Street
Rapid City, SD 57701

Dear Mayor McLaughlin:

Water Permit Application No. 2249-2 for municipal use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Rapid City Journal printed at Rapid City, SD (Ph # 394-8300). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

cc: Dan Bjerke, P.E./L.S., Water/Wastewater Division Manager, City of Rapid City



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 14, 1993

Rapid City Journal
PO Box 450
Rapid City, SD 57709

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 2249-2 to be published twice. Please publish the first notice on January 21, 1993, 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 # 394-4165).

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 application 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 January 21, 1993, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 2249-2
to Appropriate Water to Transfer Use

Notice is given that the City of Rapid City, 300 6th Street, Rapid City, SD 57701 has filed Water Permit Application No. 2249-2 pursuant to 46-5-34.1 to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by South Side Ditch to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses by the City of Rapid City.

Water Permit No. 2249-2 is to transfer the use of a portion of Rapid Creek natural flows historically used to irrigate 105.5 acres known as the Bruce Weber property. The portion of Rapid Creek natural flows to be transferred to the city is 1.19 cubic feet of water per second (cfs) with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir. Historically, the 1.19 cfs has been used to irrigate approximately 105.5 acres located in Tract C (E 1/2 NW 1/4, NW 1/4 SW 1/4, E 1/2 SW 1/4) Section 30-T1N-R9E also known as the Bruce Weber property. The existing diversion point on Rapid Creek for South Side Ditch is located in the SE 1/4 NW 1/4 Section 15-T1N-R8E. This application is to change the diversion point for the 1.19 cfs to diversion points for use by the city to be located in the SE 1/4 NE 1/4 Section 3 (Rapid City Water Treatment Plant); SW 1/4 SW 1/4 Section 3 (Sioux Park Gallery); SE 1/4 NE 1/4 Section 9 (Meadowbrook Gallery); NW 1/4 SE 1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E or to allow storage in Pactola Reservoir. The location of the Pactola Reservoir diversion point is the NW 1/4 SW 1/4 Section 2-T1N-R5E and the reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. This application does not authorize any new water appropriation from Rapid Creek and the claimed priority date of May 3, 1880, for use of 1.19 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2249-3 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 this application 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 recommendation. 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 February 19, 1993. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

am. Called Journal 1/20/93 and made correction

The Board will consider this application at 10:30 ^{am.} p.m., March 3, 1993, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. 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 this application based on the facts presented at the public hearing. The March 3, 1993, 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 application. The request for an automatic delay must be filed by February 19, 1993.

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 February 19, 1993, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 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, 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; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Pennington) ss

I, Helena M. Bauer

certify that the attached printed Notice was

taken from the Rapid City Journal

printed and published in Rapid City

County of Pennington and State of

South Dakota. The notice was published in
the newspaper on the following two dates:

January 21, 1993

January 28, 1993

Cost of Printing: 13 6/16 inch legal

adv @ 5.10 per inch x 2 runs = \$136.44

Helena M. Bauer

(Signature)

Bookkeeper

(Title)

January 28-1993

(Date Signed)

Jan. 21, 28

L114

NOTICE OF HEARING ON APPLICATION NO. 2249-2 TO APPROPRIATE WATER TO TRANSFER USE

Notice is given that the City of Rapid City, 300 6th Street, Rapid City, SD 57701 has filed Water Permit Application No. 2249-2 pursuant to 46-5-34.1 to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by South Side Ditch to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses by the City of Rapid City.

Water Permit No. 2249-2 is to transfer the use of a portion of Rapid Creek natural flows historically used to irrigate 105.5 acres known as the Bruce Weber property. The portion of Rapid Creek natural flows to be transferred to the city is 1.19 cubic feet of water per second (cfs) with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir. Historically, the 1.19 cfs has been used to irrigate approximately 105.5 acres located in Tract C (E1/4 NW1/4, NW1/4 SW1/4, E1/2 SW1/4) Section 30-T1N-R5E also known as the Bruce Weber property. The existing diversion point on Rapid Creek for South Side Ditch is located in the SE1/4 NW1/4 Section 15-T1N-R5E. This application is to change the diversion point for the 1.19 cfs to diversion points for use by the city to be located in the SE1/4 NE1/4 Section 3 (Rapid City Water Treatment Plant); SW1/4 SW1/4 Section 3 (Sioux Park Gallery); SE1/4 NE1/4 Section 9 (Meadowbrook Gallery); NW1/4 SE1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E or to allow storage in Pactola Reservoir. The location of the Pactola Reservoir diversion point is the NW1/4 SW1/4 Section 2-T1N-R5E and the reservoir impounds water in portions of Sections 2, 3, 4, 5, 16, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. This application does not authorize any new water appropriation from Rapid Creek and the claimed priority date of May 3, 1880, for use of 1.19 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2249-2 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 this application 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 recommendation. 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 February 19, 1993. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.



The Board will consider this application at 10:30 a.m., March 31, 1993. Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, S.D. 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 this application based on the facts presented at the public hearing. The March 3, 1993, 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 application. The request for an automatic delay must be filed by February 19, 1993.

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 Granlund by February 19, 1993, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 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, 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; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01 thru 74:02:01:15.

Robert E. Roberts
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 10, 1993

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

Dear Mr. Bjerke:

The original notice of hearing for Water Permit No. 2249-2 was published with an error. Therefore, the notice of hearing needs to be readvertised to correct the error. A notice of hearing has been sent to the Publisher of the Rapid City Journal printed at Rapid City, SD (Ph # 394-8300). Please review the notice prior to publication and notify this office, if you have any corrections or questions. Those people who originally filed petitions will be considered parties of record.

The cost of publication of this notice will be paid by the Division of Water Rights. Please contact us if you have any questions.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

cc: Parties of Record (see attached list)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 10, 1993

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

Attn: Legal Department

Enclosed is a Readvertisement of Notice of Hearing on Permit No. 2249-2 to be published twice. Please publish the first notice on March 17, 1993, with the second publication 7 days later.

Please bill the Water Rights Division for the cost of the advertisement.

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

FIRST TRANSMITTAL NOTICE

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

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Readvertisement of Notice of Hearing to Appropriate Water by Permit No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

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

Name _____

Newspaper _____

Instruction to Newspaper - Publish first Notice on March 17, 1993, with the second publication 7 days later.

NOTICE OF HEARING on Application No. 2249-2
to Appropriate Water to Transfer Use

Notice is given that the City of Rapid City, 300 6th Street, Rapid City, SD 57701 has filed Water Permit Application No. 2249-2 pursuant to 46-5-34.1 to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by South Side Ditch to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses by the City of Rapid City.

Water Permit No. 2249-2 is to transfer the use of a portion of Rapid Creek natural flows historically used to irrigate 105.5 acres known as the Bruce Weber property. The portion of Rapid Creek natural flows to be transferred to the city is 1.19 cubic feet of water per second (cfs) with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir. Historically, the 1.19 cfs has been used to irrigate approximately 105.5 acres located in Tract C (E 1/2 NW 1/4, NW 1/4 SW 1/4, E 1/2 SW 1/4) Section 30-T1N-R9E also known as the Bruce Weber property. The existing diversion point on Rapid Creek for South Side Ditch is located in the SE 1/4 NW 1/4 Section 15-T1N-R8E. This application is to change the diversion point for the 1.19 cfs to diversion points for use by the city to be located in the SE 1/4 NE 1/4 Section 3 (Rapid City Water Treatment Plant); SW 1/4 SW 1/4 Section 3 (Sioux Park Gallery); SE 1/4 NE 1/4 Section 9 (Meadowbrook Gallery); NW 1/4 SE 1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E or to allow storage in Pactola Reservoir. The location of the Pactola Reservoir diversion point is the NW 1/4 SW 1/4 Section 2-T1N-R5E and the reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. This application does not authorize any new water appropriation from Rapid Creek and the claimed priority date of May 3, 1880, for use of 1.19 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 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 this application 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 recommendation. 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 April 23, 1993. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Board will consider this application at 1:30 p.m., May 5, 1993, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. 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 this application based on the facts presented at the public hearing. The May 5, 1993, 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 application. The request for an automatic delay must be filed by April 23, 1993.

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 April 23, 1993, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 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, 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; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15;. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County of Pennington) ss

I, Helena M. Bauer

certify that the attached printed Notice was

taken from the

Rapid City Journal

printed and published in Rapid City

County of Pennington and State of

South Dakota. The notice was published in
 the newspaper on the following two dates:

March 17, 1993

March 24, 1993

Cost of Printing: 135.16

Helena M. Bauer
 (Signature)

Bookkeeper

(Title)

March 24, 1993

(Date Signed)



March 17, 24 L499

NOTICE OF HEARING ON APPLICATION NO. 2249-2 TO APPROPRIATE WATER TO TRANSFER USE

Notice is given that the City of Rapid City, 300 4th Street, Rapid City, SD 57701 has filed Water Permit Application No. 2249-2 pursuant to 46-5-34.1 to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by South Side Ditch to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses by the City of Rapid City.

Water Permit No. 2249-2 is to transfer the use of a portion of Rapid Creek natural flows historically used to irrigate 105.3 acres known as the Bruce Weber property. The portion of Rapid Creek natural flows to be transferred to the city is 1.19 cubic feet of water per second (cfs) with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir. Historically, the 1.19 cfs has been used to irrigate approximately 105.3 acres located in Tract C (E1/4NW1/4, NW1/4SW1/4, E1/4SW1/4) Section 30-T1N-R9E also known as the Bruce Weber property. The existing diversion point on Rapid Creek for South Side Ditch is located in the SE1/4NW1/4 Section 15-T1N-R9E. This application is to change the diversion point for the 1.19 cfs to diversion points for use by the city to be located in the SE1/4NE1/4 Section 3 (Rapid City Water Treatment Plant); SW1/4SW1/4 Section 3 (Sioux Park Gallery); SE1/4NE1/4 Section 9 (Meadowbrook Gallery); NW1/4SE1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E or to allow storage in Pactola Reservoir. The location of the Pactola Reservoir diversion point is the NW1/4SW1/4 Section 2-T1N-R3E and the reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 21, 22, 33, 34 of T2N-R5E. This application does not authorize any new water appropriate from Rapid Creek and the claimed priority date of May 3, 1880, for use of 1.19 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 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 this application 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 recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre SD 57501 (605-773-3332)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 23, 1993. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reason for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Board will consider this application at 1:30 p.m., May 5, 1993, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, S.D. 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 this application based on the facts presented at the public hearing. The May 5, 1993, 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 application. The request for an automatic delay must be filed by April 23, 1993.

Any hearing will be an adversary proceedings. 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 April 23, 1993, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 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, 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; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Robert E. Roberts
 Secretary
 Department of Environment
 and Natural Resources

PARTIES OF RECORD

WATER PERMIT APPLICATION NO. 2249-2

Applicant

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

Petition of Opposition

Jerry Hammerquist, President
Rapid Valley Conservancy District
P.O. Box 26
Caputa, SD 57725

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

Carl Ham
HCR 36, Box 34
Caputa, SD 57725

Jerry Marsh
Marsh Hereford Ranch, Inc.
HCR 36, Box 35
Caputa, SD 57725

Melvin Brassfield
Box 24
Caputa, SD 57725

H. Dale Gossard, President
Lone Tree Ditch Company
Rt. 2, Box 4980
Rapid City, SD 57701

Dustman Ranch
Box 53
Caputa, SD 57725

Mark Kieffer
HC 33 Box 8308
Rapid City, SD 57701

Bruce Laymon, Project Manager
Bureau of Reclamation
P.O. Box 226
Newell, SD 57760-0226



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 15, 1993

Jerry Hammerquist
Rapid Valley Conservancy District
Box 26
Caputa, SD 57725

Jerry Marsh
Marsh Hereford Ranch
HCR 36 Box 35
Caputa, SD 57725

Bruce Layman, Project Manager
Bureau of Reclamation
PO Box 226
Newell, SD 57760

Wayne Anderson, President
South Side Ditch
Rt 5 Box 460
Rapid City, SD 57701

RE: Water Permit Application No. 2249-2, City of Rapid City

Gentlemen:

We know that in the past you have been interested in applications made by the City of Rapid City. Enclosed for your information is a copy of the report, recommendation and Notice of Hearing in regard to the above-referenced matter.

If you have any questions or comments regarding this application, please feel free to contact Eric Gronlund at (605)773-3352.

Sincerely,

Jaci R. Konop
Senior Secretary
Water Rights Division

Enclosure



IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Belle Fourche Projects Office

P.O. Box 226

Newell, South Dakota 57760-0226

TAKE
PRIDE IN
AMERICA

WTR 4.10
BF-430

FEB 8 1993



Mr. John Hatch, Chief Engineer
Water Rights Division
South Dakota Department
of Water and Natural Resources
523 E Capitol
Pierre SD 57501-3181

Subject: Water Permit Application No. 2249-2, City of Rapid City (Water Rights)

Dear Mr. Hatch:

We appreciate the opportunity to comment on the subject water permit application. Since the Bureau of Reclamation has water rights for storage of Rapid Creek flows in Pactola and Deerfield Reservoirs, we continue to be interested in water permit applications in the Rapid Creek drainage.

This application addresses the transfer of water use from irrigation to municipal uses. The permit provisions allow for storage of 101.2 acre feet in Pactola Reservoir. Currently contracts for water from Pactola Reservoir do not include provisions for storage of senior rights in the reservoir. While we do not object to the language in the permit, we do point out that contractual provisions will need to be changed before any storage of water for senior rights can be accomplished. We request to continue to be listed as an interested party in this permit application.

We appreciate the consideration you have given in the past to notifying this office in such matters. Please continue to inform us of water permit applications in the Rapid Creek drainage. If you have any questions, please contact Craig Kjar at (605) 456-2695.

Sincerely,

Bruce M. Laymon
Project Manager

cc: Mr. Dan Bjerke
City of Rapid City
300 6th St
Rapid City SD 57701

Mr. Jerry Hammerquist
Rapid Valley Conservancy District
Box 26
Caputa SD 57725

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: City of Rapid City - WP Application No. 2249-2

ADDRESS: _____ COUNTY: _____

DATE: 2/8/93 TELEPHONE: _____

RE: Call to Dan Bjerke regarding error in publication

COMMENTS:

I contacted Dan Bjerke regarding an error I found in the notice of hearing for Water Permit Application No. 2249-2. The notice which was published in the Rapid City Journal on January 21 - 28, 1993 has a hearing date of March 31, 1993. The notice sent to the paper has the hearing date to be on March 3, 1993 and in fact in another portion of the hearing the correct date is listed. I stated that this error is something we would normally catch in the review of the first publication, however, in this case the error was not detected until after the Proof of Publication was submitted.

This office feels that this error requires the notice of hearing to be readvertised. This means the application will now need to be readvertised for the May 5 & 6, 1993 Water Management Board meeting. I stated I would probably wait until after the February 19, 1993 date to intervene prior to resending the notice of hearing for a May 5, 1993 hearing. This way we would get an indication if there was going to be any opposition

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

NAME: Eric Hronlund

Chief Engineer Water Rights Division Feb 18, 1993
Foss Building
523 E. Capitol
Pierre, S. Dak.



Dear Sir:

The Rapid Valley Water Conservancy District opposes the transfer of application No. 2249-2 on Bruce Weber property.

We feel existing rights will be impaired and also Rapid City does not have a storage contract with the Bureau of Reclamation's Portolan.

The Rapid Valley Water Conservancy District has the water contract with Bureau of Reclamation therefore the interest. We also request a delay from the March 3 hearing.

Sincerely yours,
Jerry Hommerquist
President
Box 24
Capota, S. Dak. 57725

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

We object to the water which would have returned to Rapid Creek as irrigation return flows being replaced by the City as Wastewater effluent. This, we believe, constitutes a definite reduction in the water quality, which is a detriment to existing water rights (SDCL 45-5-34.1). We believe that Rapid City should be allowed to divert only that portion of the water right assumed to have been consumed by the plants (101.2 acre feet annually) and that the balance of the 198.3 acre feet annually (97.2 acre feet) should remain in Rapid Creek to replace the water that would have been irrigation return flows.

*Hutchman Ranch
Box 53 Capota S.D. 57725*

cc: Rapid City

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

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cc: Rapid City

H. Dale Gossard
Pres: Lone Tree Ditch Company

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

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cc: Rapid City

Melvin Brassfield
Caputa & Link
Box 24
57725

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

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Marsh Hereford Ranch Inc.
HCR 36 BOX 35
Caputa, S. D. 57725

A handwritten signature in cursive script that reads "Jerry Marsh".

cc: Rapid City

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

We object to the water which would have returned to Rapid Creek as irrigation return flows being replaced by the City as Wastewater effluent. This, we believe, constitutes a definite reduction in the water quality, which is a detriment to existing water rights (SDCL 45-5-34.1). We believe that Rapid City should be allowed to divert only that portion of the water right assumed to have been consumed by the plants (101.2 acre feet annually) and that the balance of the 198.3 acre feet annually (97.2 acre feet) should remain in Rapid Creek to replace the water that would have been irrigation return flows.

Ham Ranch
by J. Carl Ham, Pres.

cc: Rapid City

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

We object to the water which would have returned to Rapid Creek as irrigation return flows being replaced by the City as Wastewater effluent. This, we believe, constitutes a definite reduction in the water quality, which is a detriment to existing water rights (SDCL 45-5-34.1). We believe that Rapid City should be allowed to divert only that portion of the water right assumed to have been consumed by the plants (101.2 acre feet annually) and that the balance of the 198.3 acre feet annually (97.2 acre feet) should remain in Rapid Creek to replace the water that would have been irrigation return flows.

St. Germain Irrigation Co.
Keith Ham President
KB Ham

cc: Rapid City

February 18, 1993

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S. D. 57501



Dear Sir:

We are filing this petition in objection to the approval of Application No. 2249-2, the transfer of irrigation water rights from Bruce Weber to the City of Rapid City for municipal use.

We object to the water which would have returned to Rapid Creek as irrigation return flows being replaced by the City as Wastewater effluent. This, we believe, constitutes a definite reduction in the water quality, which is a detriment to existing water rights (SDCL 45-5-34.1). We believe that Rapid City should be allowed to divert only that portion of the water right assumed to have been consumed by the plants (101.2 acre feet annually) and that the balance of the 198.3 acre feet annually (97.2 acre feet) should remain in Rapid Creek to replace the water that would have been irrigation return flows.

Maie M. Kuffner
Hc33 Box 8308
Rapid City SD 57701

cc: Rapid City



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 22, 1993

NOTICE

TO: Dan Bjerke
Public Works Director of Engineering/Utilities
City of Rapid City
300 6th Street
Rapid City, SD 57701
and Parties of Record (see attached list)

FROM: John Hatch, Chief Engineer *John Hatch*
Water Rights Division
605 773-3352

SUBJECT: Postponement of March 3, 1993 Hearing for Water
Permit Application No. 2249-2, City of Rapid City

Petitions in opposition to Water Permit Application No. 2249-2 have been filed with this office. The petition filed by the Rapid Valley Water Conservancy District also requested an automatic delay of the March 3, 1993 hearing date. Additionally, the notice of hearing for Water Permit Application No. 2249-2 was published with an error in date of the Water Management Board meeting. Due to this publication error and the request for an automatic delay, the Board will not consider this application on March 3, 1993.

The notice of hearing published January 21 and 28, 1993 in the Rapid City Journal stated in one sentence that the Water Management Board will consider this application on March 31, 1993 instead of the correct date of March 3, 1993. Since the notice of hearing was published with this error, the notice of hearing must be readvertised.

A notice of hearing readvertising Water Permit Application No. 2249-2 for the May 5, 1993 Board meeting will be sent to the Rapid City Journal for publication. All parties who have filed a petition will be considered parties to the May 5, 1993 hearing and will be notified of the time and place of the hearing on Application No. 2249-2.

Please contact Eric Gronlund at 773-3352 with any questions you may have regarding the readvertisement of the notice of hearing.

cc: Diane Best, Assistant Attorney General
Wayne Anderson

CERTIFICATION

I hereby certify that on February 22, 1993, I have personally deposited with the United States Mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated February 22, 1993, regarding Postponement of March 3, 1993 Hearing for Water Permit Application No. 2249-2, City of Rapid City addressed as stated below and on the attached list:

Dan Bjerke, Public Works Director of Engineering/Utilities, City of
Rapid City, 300 6th Street, Rapid City, SD 57701.

Wayne Anderson, President, South Side Ditch, Rt 5, Box 460, Rapid City, SD 57701.

Copy Sent Inter-office To:

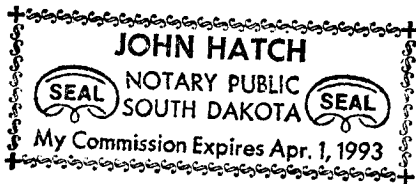
Diane Best, Assistant Attorney General, Capitol Building.

Cheryl F. Frost

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 23rd day of February, 1993.



John Hatch
Notary Public



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 23, 1993

NOTICE

TO: Mark Kieffer
HC 33, Box 8308
Rapid City, SD 57701

FROM: John Hatch, Chief Engineer
Water Rights Division
605 773-3352

SUBJECT: Water Permit Application No. 2249-2, City of Rapid City

Attached is a copy of a NOTICE dated February 22, 1993 regarding postponement of March 3, 1993 hearing on Water Permit Application No. 2249-2. Your petition was postmarked past the February 19, 1993 deadline to file a petition to intervene, however, since this application will need to be readvertised you will be considered a party of record to the hearing on this application.

Please contact Eric Gronlund at 773-3352 with any questions you have regarding this application.

enclosure

cc: Diane Best, Assistant Attorney General
Dan Bjerke, City of Rapid City

CERTIFICATION

I hereby certify that on February 23, 1993, I have personally deposited with the United States Mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated February 23, 1993, regarding Water Permit Application No. 2249-2, City of Rapid City, along with a copy of the Notice dated February 22, 1993 regarding postponement of March 3, 1993 hearing on Water Permit Application No. 2249-2 and a copy of the Parties of Record addressed as stated below:

Mark Kieffer, HC 33, Box 8308, Rapid City, SD 57701.

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

Copy Sent Inter-office To:

Diane Best, Assistant Attorney General, Capitol Building.

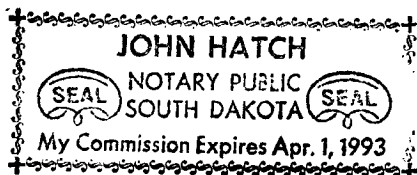
Cheryl F. Frost

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 24th day of February, 1993.

John Hatch
Notary Public





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 19, 1993

NOTICE

TO: Dan Bjerke
Public Works Director
City of Rapid City
300 6th Street
Rapid City, SD 57701
and Parties of Record (see attached list)

FROM: John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352

SUBJECT: Hearing on Water Permit Application No. 2249-2, City of
Rapid City

This notice is to serve as a reminder of the hearing before the
Water Management Board on Water Permit Application No. 2249-2.

The Water Management Board will consider Water Permit Application
No. 2249-2 on May 5, 1993 at 1:30 pm in the Conference Room,
Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol
Ave., Pierre, SD 57501. The agenda time is an estimate and may
be delayed due to prior agenda items. If testimony is not
complete by 5:00 pm the meeting will recess for the night and
reconvene at 8:00 am on May 6, 1993.

Applicable provisions of the notice of hearing published March 17
and 24, 1993 in the Rapid City Journal will still apply at this
hearing.

If you have any questions regarding the upcoming hearing on these
water permit applications, please contact Eric Gronlund at
773-3352.

cy: Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on April 19, 1993, I have personally deposited with the United States Mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated April 19, 1993, regarding Hearing on Water Permit Application No. 2249-2, City of Rapid City, along with a copy of the Parties of Record addressed as stated below and on the attached list:

Dan Bjerke, Public Works Director, City of Rapid City, 300 6th Street,
Rapid City, SD 57701.

Copy Sent Inter-office To:

Diane Best, Assistant Attorney General, Capitol Building.

Cheryl F. Frost

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 20th day of April, 1993.

John H. Hatt
Notary Public



JOHN HATCH, Notary Public
My Commission Expires
April 1, 2001



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

SEP 17 1993

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

Dear Mr. Bjerke:

Enclosed is Water Permit No. 2249-2 authorizing the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Very truly yours,

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

enclosures



**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 415960

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. 2249-2

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

50 00

50 00

By

Chief Engineer

John Hatch

Permit No. 2249-2
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 **City of Rapid City of 300 6th St, Rapid City SD** holder of Permit No. **2249-2**, bearing the priority of **May 3, 1880** authorizing the diversion of **1.19** cu. ft. per second and an annual appropriation of **198.3** acre-feet if taken at Rapid City's municipal diversion points or **101.2** acre-feet if stored in Pactola Reservoir of the natural flow waters of **surface water from Rapid Creek** for **municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic purposes**, in **Pennington** County.

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

A. Works used to divert the water:

Pumps at the water treatment plant, Jackson Springs Gallery Sioux (aka Girl Scout) Gallery, Meadowbrook Gallery and storage in Pactola Reservoir.

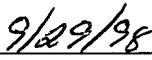
The system is in the following condition **good**. The points of diversion are located **in the SE1/4 NE1/4 Section 3 (Rapid City Water Treatment Plant); SW1/4 SW1/4 Section 3 (Sioux Park Gallery); SE1/4 NE1/4 Section 9 (Meadowbrook Gallery); NW1/4 SE1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E and NW1/4 SW1/4 Section 2 T1N-R5E (Pactola Reservoir). Pactola Reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E.** The permit holder is entitled to divert and convey to the place of use **1.19** cu. ft. per second of water and an annual appropriation of **198.3** acre-feet if taken at Rapid City's municipal diversion points or **101.2** acre-feet if stored in Pactola Reservoir which is to be used for **municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic purposes**. Water has been put to beneficial use to the maximum extent and the license should be issued for **1.19** cfs and an annual appropriation of **198.3** acre-feet if taken at Rapid City's municipal diversion points or **101.2** acre-feet if stored in Pactola Reservoir

Applicable permit qualifications have been complied with: **yes**

Exceptions to compliance are: **none**



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



Date

REPORT ON INSPECTION OF PERMIT NO. 2249-2

DATE OF INSPECTION: September 9, 1998

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

DIVERSION POINT LEGAL LOCATIONS: are in the SE1/4 NE1/4 Section 3 (Rapid City Water Treatment Plant); SW1/4 SW1/4 Section 3 (Sioux Park a.k.a. Girl Scout Gallery); SE1/4 NE1/4 Section 9 (Meadowbrook Gallery); NW1/4 SE1/4 Section 8 (Jackson Springs Gallery); all in T1N-R7E and NW1/4 SW1/4 Section 2 T1N-R5E (Pactola Reservoir). Pactola Reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E.

WATER SUPPLY Source: Rapid Creek

WATER TREATMENT PLANT

Pump\ Motor:

- | | |
|---------------------------------------|-----------------------------------|
| 1) Pump Make <u>Peerless</u> | 2) Model <u>258595</u> |
| 3) Capacity <u>5600</u> GPM | 4) Motor Make <u>GE</u> |
| 5) Model No. <u>5K405DP7011B FR2G</u> | 6) Horsepower rating <u>75</u> hp |

- | | |
|----------------------------------|------------------------------------|
| 1) Pump Make <u>Layne Bowler</u> | 2) Model <u>14MSL</u> |
| 3) Capacity <u>2780</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>326UP</u> | 6) Horsepower rating <u>30</u> hp |

- | | |
|-------------------------------|------------------------------------|
| 1) Pump Make <u>Vertiline</u> | 2) Model <u>27908</u> |
| 3) Capacity <u>5560</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>445UPY</u> | 6) Horsepower rating <u>60</u> hp |

- | | |
|----------------------------------|-----------------------------------|
| 1) Pump Make <u>Layne Bowler</u> | 2) Model <u>85522</u> |
| 3) Capacity <u>5875</u> GPM | 4) Motor Make <u>Louis Allis</u> |
| 5) Model No. <u>COG5B</u> | 6) Horsepower rating <u>60</u> hp |

- | | |
|-------------------------------|------------------------------------|
| 1) Pump Make <u>Vertiline</u> | 2) Model <u>27989</u> |
| 3) Capacity <u>8000</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>CFU</u> | 6) Horsepower rating <u>100</u> hp |

SIOUX PARK (a.k.a. Girl Scout) GALLERY

Pump\ Motor:

- | | |
|---------------------------------|------------------------------------|
| 1) Pump Make <u>Worthington</u> | 2) Model <u>12H13501</u> |
| 3) Capacity <u>1400</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>324UP</u> | 6) Horsepower rating <u>25</u> hp |

- | | |
|---------------------------------|------------------------------------|
| 1) Pump Make <u>Worthington</u> | 2) Model <u>12H13501</u> |
| 3) Capacity <u>1400</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>324UP</u> | 6) Horsepower rating <u>25</u> hp |

MEADOWBROOK GALLERY

Pump\ Motor:

- | | |
|---------------------------------|------------------------------------|
| 1) Pump Make <u>Worthington</u> | 2) Model <u>10QHA0</u> |
| 3) Capacity <u>1525</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>2743715</u> | 6) Horsepower rating <u>15</u> hp |

- | | |
|---------------------------------|------------------------------------|
| 1) Pump Make <u>Worthington</u> | 2) Model <u>10QHA0</u> |
| 3) Capacity <u>1475</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>2745675</u> | 6) Horsepower rating <u>15</u> hp |

- | | |
|---------------------------------|------------------------------------|
| 1) Pump Make <u>Worthington</u> | 2) Model <u>10QHA0</u> |
| 3) Capacity <u>1525</u> GPM | 4) Motor Make <u>US Electrical</u> |
| 5) Model No. <u>2744261</u> | 6) Horsepower rating <u>15</u> hp |

JACKSON SPRINGS GALLERY

Pump\ Motor:

- | | |
|-------------------------------------|-----------------------------------|
| 1) Pump Make <u>Fairbanks-Morse</u> | 2) Model <u>T4B242990A</u> |
| 3) Capacity <u>1390</u> GPM | 4) Motor Make <u>GE</u> |
| 5) Model No. <u>5K6258XH1A</u> | 6) Horsepower rating <u>75</u> hp |

Pump\ Motor:

- | | |
|-------------------------------------|------------------------------------|
| 1) Pump Make <u>Fairbanks-Morse</u> | 2) Model <u>T4B242992A</u> |
| 3) Capacity <u>2085</u> GPM | 4) Motor Make <u>GE</u> |
| 5) Model No. <u>5K6268XH1A</u> | 6) Horsepower rating <u>125</u> hp |

Pump\ Motor:

- | | |
|-------------------------------------|------------------------------------|
| 1) Pump Make <u>Fairbanks-Morse</u> | 2) Model <u>T4B242991A</u> |
| 3) Capacity <u>2085</u> GPM | 4) Motor Make <u>GE</u> |
| 5) Model No. <u>5K6258XH1A</u> | 6) Horsepower rating <u>125</u> hp |

PACTOLA RESERVOIR : This is a US Bureau of Reclamation dam with 55, 972 acre-feet of active storage

DISTRIBUTION LINES OR CANALS:

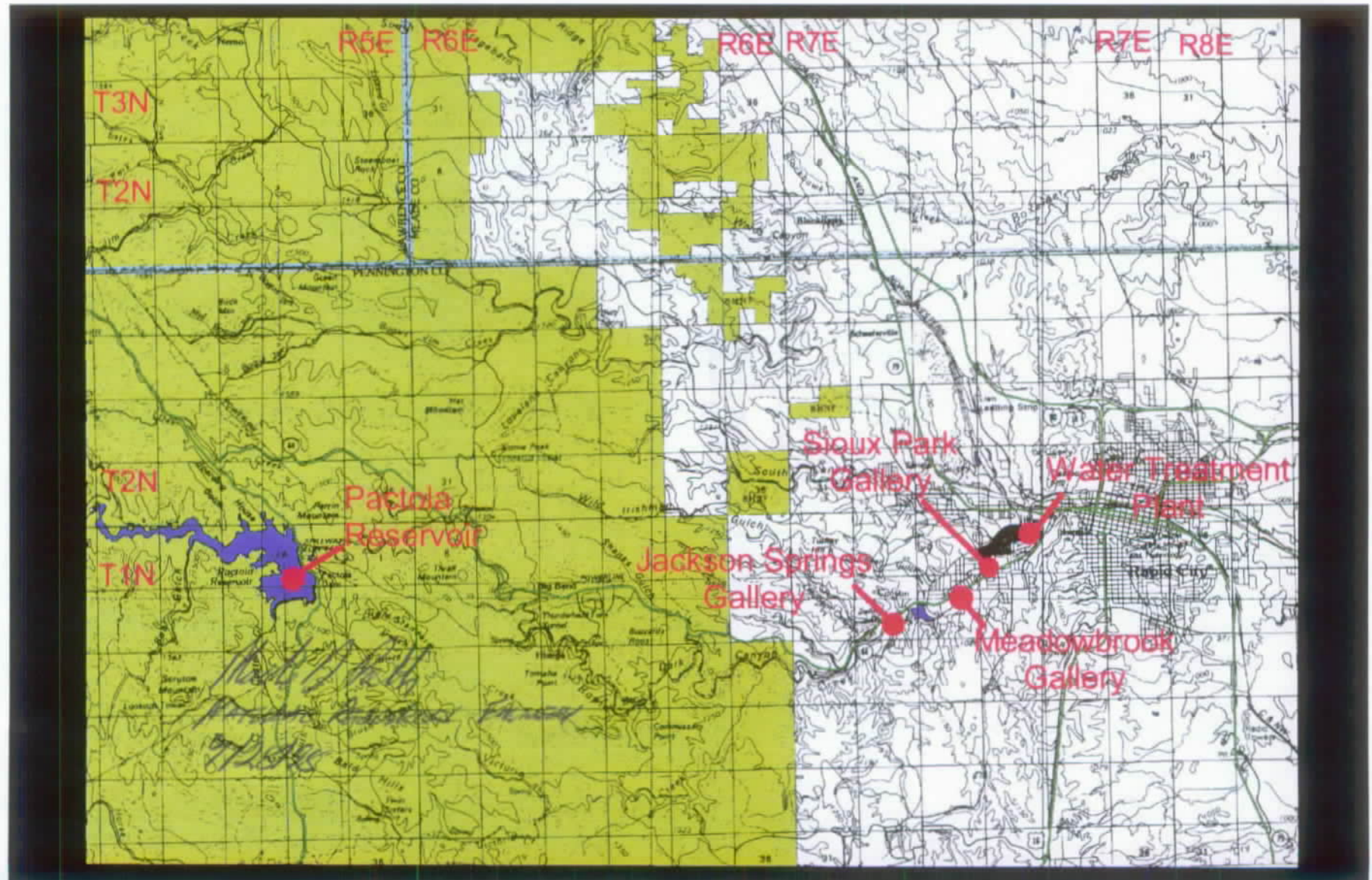
Municipal distribution system

PERMIT QUALIFICATIONS AND REGULATIONS:

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

COMMENTS: #

Area Map for Pactola Reservoir to Rapid City



STATE OF SOUTH DAKOTA

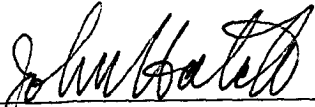
WATER LICENSE NO. 2249-2

(1) The City of Rapid City, 300 6th St, Rapid City SD 57701 made Application No. 2249-2, September 23, 1992 for a water permit to divert 1.19 cubic feet of water per second (cfs) from Rapid Creek with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir, Pennington County, South Dakota for municipal, industrial, commercial, common distribution system, rural water system, suburban housing and domestic purposes. Permit No. 2249-2, with a priority date of May 3, 1880 (established by South Side Ditch) was approved May 5, 1993 and issued to the City of Rapid City for diversion of water with construction of the described water supply system and the application to beneficial use of said water completed.

(2) It is certified that the City of Rapid City 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 1.19 cfs from Rapid Creek with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir for beneficial use. The location of the diversion points are: SE ¼ NE ¼ Section 3 (Rapid City Water Treatment Plant); SW ¼ SW ¼ Section 3 (Sioux Park Gallery); SE ¼ NE ¼ Section 9 (Meadowbrook Gallery); NW ¼ SE ¼ Section 8 (Jackson Springs Gallery); all in T1N-R7E and NW ¼ SW ¼ Section 2-T1N-R5E (Pactola Reservoir). Pactola Reservoir impounds water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E.

(3) The City of Rapid City 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. 2249-2 is issued a license to appropriate water, the right to use 1.19 cfs from Rapid Creek with an annual volume limitation of 198.3 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 101.2 acre-feet, if stored in Pactola Reservoir with a priority date of May 3, 1880 (established by South Side Ditch) from the locations specified in (2) of this license for municipal, industrial, commercial, common distribution system, rural water system, suburban housing and domestic purposes. This license is subject to any limitations or qualifications listed in Water Right No. 2249-2 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/denr

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



2249-2

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

September 30, 2005

INTERNAL MEMORANDUM

TO: Garland Erbele, Chief Engineer
DENR Water Rights Program

FROM: Donald E. Stroup *Donald E. Stroup*
Natural Resources Project Engineer
DENR Water Rights Program

SUBJECT: Rapid City – Rapid Valley Water Rights Transfers

A total of 16.75 cubic feet per second (cfs) of water has been transferred from Rapid Valley irrigation ditches to Rapid City, SD. The amounts of flow transferred and acres retired by ditch are:

<u>Ditch</u>	<u>Flow (cfs)</u>	<u>Acres</u>
Murphy	4.12	325
Little Giant	0.99	26
South Side	10.80	1001.8
Hawthorne	0.84	46

The locations of the land retired from irrigation are shown on the Rapid City-Rapid Valley Water Rights Transfers Map. Following is a list summarizing the water transfers from Rapid Valley irrigators to Rapid City:

- 2399-2:** Retired 52-acres and 0.75-cfs of Wileman property from future irrigation, 26-acres and 0.33-cfs from Murphy Ditch and 26-acres and 0.42-cfs from Little Giant Ditch. Land located in the NE¼ Section 24 T1N R8E and water via Murphy Ditch at the same location.
- 2316-2:** Retired 64-acres and 0.81-cfs of Morris property from future irrigation via Murphy Ditch. Land located in the SE¼ Section 9 T1N R8E and water via Murphy Ditch at the same location.
- 2201-1:** Retired 10-acres and 0.13-cfs of Long property from future irrigation via Murphy Ditch. Land located in the center of Section 14 T1N R8E and water via Murphy Ditch at the same location.
- 2199-2** Retired 4-acres and 0.05-cfs of Pelle property from future irrigation via Murphy Ditch. Land located in the NW¼ Section 19 T1N R9E and water via Murphy Ditch at the same location.
- 2142-2** Retired 49-acres and 0.62-cfs of Tyler property from future irrigation via Murphy Ditch. Land located in the NW¼ and SW¼ Section 19 T1N R9E and water via Murphy Ditch at the same location.

- 2469-2** Retired 27-acres and 0.34-cfs of Murphy property from future irrigation via Murphy Ditch. Land located in the NW¼ and SW¼ Section 14 T1N R8E and water via Murphy Ditch at the same location.
- 2512-2** Retired 145-acres and 1.84-cfs of Schroeder property from future irrigation via Murphy Ditch. Land located in Section 19 T1N R9E and water via Murphy Ditch at the same location.
- 2513-2** Retired 74.9-acres and 0.84-cfs of Steen property from future irrigation via South Side Ditch. Land located in the NE¼ Section 25, and SW¼ and SE¼ Section 24 T1N R8E and water via South Side Ditch in Section 25 T1N R8E. The turnout for the supplying lateral has a turn screw gate that is functional.
- 2234-2** Retired 70-acres and 0.79-cfs of Eisenbraun property from future irrigation via South Side Ditch. Land located in the NE¼ Section 26 T1N R8E and water via South Side Ditch at the same location. The turnout for the supplying lateral is into a buried pipeline capped with a plastic bucket.
- 2411-2** Retired 3.6-acres and 0.04-cfs of Eisenbraun property from future irrigation via South Side Ditch. Land located in the NE¼ Section 26 T1N R8E and water via South Side Ditch at the same location. The turnout for the supplying lateral is into a buried pipeline capped with a plastic bucket.
- 2397-2** Retired 59.3-acres and 0.59-cfs of Eisenbraun property from future irrigation via South Side Ditch. Land located in the NE¼ Section 26 T1N R8E and water via South Side Ditch at the same location. The turnout for the supplying lateral is into a buried pipeline capped with a plastic bucket.
- 2468-2** Retired 34.8-acres and 0.57-cfs of Howie property from future irrigation via Little Giant Ditch water delivered via Murphy Ditch. Land located in the SW¼ Section 19 and NW¼ Section 30 T1N R9E and water via Murphy Ditch in the NE¼ Section 19 T1N R9E. The turnout for the supplying lateral is blocked by a silted-in board.
- 2249-2** Retired 105.5-acres and 1.19-cfs of Weber property from future irrigation via South Side Ditch. Land located in the NW¼ and SW¼ Section 30 T1N R9E and water via South Side Ditch in the SW¼ Section 30 T1N R9E.
- 2296-2** Retired 253.4-acres and 2.85-cfs of Jundt property from future irrigation via South Side Ditch. Land located in Section 33 T1N R9E and water via South Side Ditch in the NE¼ Section 33 T1N R9E. The turnout for the supplying lateral is not blocked and ditch and lateral do not appear to be maintained.
- 2360-2** Retired 32.6-acres and 0.37-cfs of Soetaert property from future irrigation via South Side Ditch. Land located in the E½ Section 33 T1N R9E and water via South Side Ditch in the NE¼ Section 33 T1N R9E. The turnout for the supplying lateral is not blocked and ditch and lateral do not appear to be maintained.
- 2415-2** Retired 146-acres and 1.64-cfs of Howie property from future irrigation via South Side Ditch. Land located in the NE¼ and SE¼ Section 32 T1N R9E and water via South Side Ditch in the NE¼ Section 32 T1N R9E. The turnout for the supplying lateral is not blocked and ditch and lateral do not appear to be maintained.

- 3
- 2217-2** Retired 29.2-acres and 0.33-cfs of Keller property from future irrigation via South Side Ditch. Land located in the SE¼ Section 29 T1N R9E and water via South Side Ditch in the NE¼ Section 32 T1N R9E. The turnout for the supplying lateral is not blocked and ditch and lateral do not appear to be maintained.
- 2218-2** Retired 192.5-acres and 2.16-cfs of Stromer property from future irrigation via South Side Ditch. Land located in the NW¼, SW¼ , and SE¼ of Section 29 T1N R9E and water via South Side Ditch in the SW¼ Section 29 T1N R9E. The turnout for the supplying lateral is not blocked and ditch and lateral do not appear to be maintained.
- 2317-2** Retired 46-acres and 0.84-cfs of Morris property from future irrigation via Hawthorne Ditch. Land located in the center of Section 9 T1N R8E and water via Hawthorne Ditch in the NE¼ Section 9 T1N R8E. Hawthorne Ditch is now piped underground through the area where the turnout for the supplying lateral was and the new Elk Vale Road by-pass, a school, and Western Electric have been constructed where the lateral previous ran. There is no evidence of a lateral at the location.

cc: Individual Files

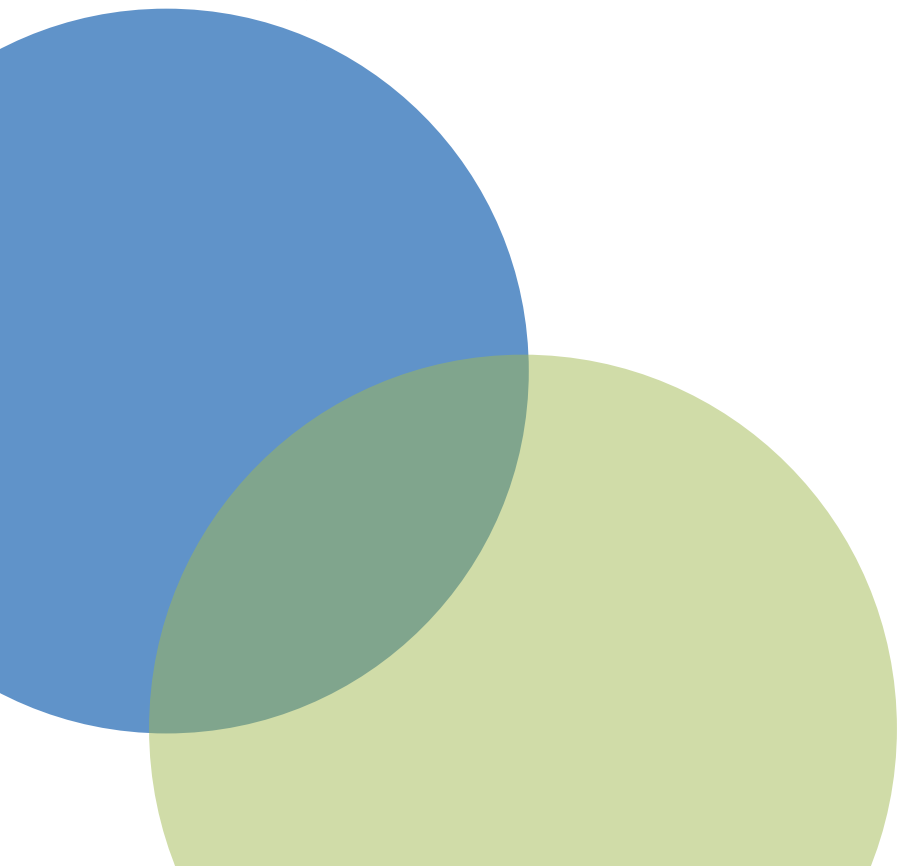
DOCUMENTATION OF
IRRIGATION DIVERSION POINT ABANDONMENT
FOR CITY OF RAPID CITY
PROJECT NO. 12-2034, CIP NO. 50922

Topical Report RSI-2317

prepared for

City of Rapid City
Public Works Department
Water Division
300 6th Street
Rapid City, SD 57701

January 2016



DOCUMENTATION OF
IRRIGATION DIVERSION POINT ABANDONMENT
FOR CITY OF RAPID CITY
PROJECT NO. 12-2034, CIP NO. 50922

Topical Report RSI-2317

by

Peter P. Rausch
Curtis D. Anderson
Adam J. Rutz
Jared K. Oswald

RESPEC
3824 Jet Drive
Rapid City, South Dakota 57703

prepared for

City of Rapid City
Public Works Department
Water Division
300 6th Street
Rapid City, SD 57701

January 2016

TABLE OF CONTENTS

1.0 BACKGROUND	1
2.0 DATA SOURCES	2
3.0 IRRIGATION DITCH SUMMARIES	4
3.1 CYCLONE DITCH	4
3.1.1 Permit 2655-2	4
3.1.1.1 Turnout	4
3.1.1.2 Access	4
3.1.1.3 Disablement	4
3.2 HAWTHORNE DITCH	5
3.2.1 Permit 2317-2	5
3.2.1.1 Turnout	6
3.2.1.2 Access	6
3.2.1.3 Disablement	6
3.3 MURPHY DITCH	6
3.3.1 Permit 2316-2	6
3.3.1.1 Turnout	7
3.3.1.2 Access	8
3.3.1.3 Disablement	8
3.3.2 Permit 2469-2	10
3.3.2.1 Turnouts	10
3.3.2.2 Access	10
3.3.2.3 Disablement	11
3.3.3 Permit 2201-2	13
3.3.3.1 Turnout	13
3.3.3.2 Access	13
3.3.3.3 Disablement	13
3.3.4 Permit 2399-2	14
3.3.4.1 Turnouts	14
3.3.4.2 Access	14
3.3.4.3 Disablement	16
3.3.5 Permit 2468-2	18
3.3.5.1 Turnouts	18
3.3.5.2 Access	18
3.3.5.3 Disablement	18
3.3.6 Permits 2142-2 and 2199-2	19
3.3.6.1 Turnout	19
3.3.6.2 Access	19
3.3.6.3 Disablement	19
3.3.7 Permit 2512-2	20

TABLE OF CONTENTS

3.3.7.1	Turnouts.....	20
3.3.7.2	Access	20
3.3.7.3	Disablement.....	20
3.4	SOUTH SIDE DITCH	23
3.4.1	Permits 2234-2, 2397-2, and 2411-2	24
3.4.1.1	Turnouts.....	24
3.4.1.2	Access	24
3.4.1.3	Disablement.....	24
3.4.2	Permit 2513-2	25
3.4.2.1	Turnouts.....	25
3.4.2.2	Access	27
3.4.2.3	Disablement.....	27
3.4.3	Permit 2249-2	28
3.4.3.1	Turnouts.....	28
3.4.3.2	Access	32
3.4.3.3	Disablement.....	32
3.4.4	Permit 2218-2	36
3.4.4.1	Turnouts.....	36
3.4.4.2	Access	36
3.4.4.3	Disablement.....	36
3.4.5	Permit 2415-2	37
3.4.5.1	Turnouts.....	37
3.4.5.2	Access	41
3.4.5.3	Disablement.....	41
3.4.6	Permit 2217-2	46
3.4.6.1	Turnouts.....	46
3.4.6.2	Access	46
3.4.6.3	Disablement.....	46
3.4.7	Permit 2296-2 and 2360-2	47
3.4.7.1	Turnouts.....	47
3.4.7.2	Access	47
3.4.7.3	Disablement.....	47
4.0	PERMITS AND REGULATIONS	48
4.1	CLEAN WATER ACT SECTION 404 PERMIT.....	48
4.2	CLEAN WATER ACT SECTION 402 PERMIT.....	48
4.3	FLOODPLAIN DEVELOPMENT PERMITS	48
4.4	HISTORIC PRESERVATION.....	48
5.0	REFERENCES	49
	APPENDIX A TURNOUT VICINITY MAPS.....	A-1

LIST OF TABLES

TABLE	PAGE
2-1 Information for Water Rights Transferred to the City of Rapid City.....	3
3-1 Cyclone Ditch Turnout Information	4
3-2 Hawthorne Ditch Turnout Information	5
3-3 Murphy Ditch Turnout Information	6
3-4 South Side Ditch Turnout Information.....	24

LIST OF FIGURES

FIGURE	PAGE
3-1 The Turnout Ditch (Left Arrow) and Former Location of Flume (Right Arrow) Associated With Permit 2655-2	5
3-2 Wooden Flume Used as a Check for Permit 2316-2	7
3-3 Opening to 12-Inch-Diameter Corrugated Metal Pipe Turnout for Permit 2316-2.....	7
3-4 Removal of Turnout associated with Permit 2316-2	8
3-5 Removal of Turnout associated with Permit 2316-2	9
3-6 Pipe Turnout A for Permit 2469-2	10
3-7 Pipe Turnout B for Permit 2469-2	11
3-8 Removal of Turnout A Associated with Permit 2469-2	12
3-9 Removal of Turnout B Associated with Permit 2469-2	12
3-10 Photograph Taken From in the Murphy Ditch Running Right to Left (Bank in Foreground Is Likely Former Turnout Location for Permit 2201-2).....	13
3-11 Wooden Remains Found Near the Site for Permit 2201-2.....	14
3-12 Backfill Material at the Former Location of Turnout A for Permit 2399-2.....	15
3-13 Turnout B for Permit 2399-2 (The 12-Inch Steel Canal Gate was Located on the Far Bank Adjacent to the Concrete Culvert, and Murphy Ditch Runs Right to Left).....	15
3-14 Removal of Turnout B for Permit 2399-2 Located on Murphy Ditch on Radar Road.	16
3-15 Removal of Turnout B for Permit 2399-2 Located on Murphy Ditch on Radar Road.....	17
3-16 Disabled Turnout Ditch for Permit 2468-2 Running From the Foreground to the Background Along the East Side of Radar Hill Road (The Lateral Ditch Is in the Left Foreground, Turning Left at the Visible Tree Root).....	18
3-17 Former Location of the Turnout for Permits 2142-2 and 2199-2 (The Concrete Check Structure and a Disconnected Corrugated Metal Pipe Segment Sit on the Far Bank, and Murphy Ditch Flows Right to Left).....	19
3-18 Pipe Used for Turnout A of Permit 2512-2 (Red Arrow).....	20
3-19 Plywood Headgate for Turnout B of Permit 2512-2.	21
3-20 Junction Box With 24-Inch Canal Gate for Turnout C of Permit 2512-2 (Turnout C Shown With Red Arrow, Leading South).....	21
3-21 Removal of Turnout C for Permit 2512-2 Located on Murphy Ditch on the East Side of Airport Road.....	22
3-22 Removal of Turnout C for Permit 2512-2 Located on Murphy Ditch on the East Side of Airport Road Going South to the Airport.....	23
3-23 Turnout for Permit 2234-2	25
3-24 Inlet Structure, Weir Box, and Air Vent Associated With Turnout 2513-2	26

LIST OF FIGURES (continued)

FIGURE	PAGE
3-25 Inlet Structure, Weir Box, and Air Vent Associated With Turnout 2513-2	26
3-26 Inside the Weir Box for Turnout 2513-2.....	27
3-27 Removal of Turnout for Permit 2513-2	28
3-28 Turnout A structure Associated with Permit 2249-2	29
3-29 Culvert Crossing Used as a Check for Turnout B Associated with Permit 2249-2	29
3-30 Outlet end of Turnout B pipe (Red Arrow). (Looking South, Towards South Side Ditch)	30
3-31 Second Culvert Crossing, Used as Check for Turnout C Associated With Permit 2249-2	30
3-32 Wooden Structure (Red Arrow) for Turnout C Associated With Permit 2249-	31
3-33 Metal Framed Canal Gate of Turnout D Associated With Permit 2249-2.....	31
3-34 Turnout D Division Box Associated With Permit 2249-2	32
3-35 Turnout A Associated with Permit 2249-2.....	33
3-36 Turnout B Associated with Permit 2249-2.....	33
3-37 Turnout C Associated With Permit 2249-2	34
3-38 Turnout D Associated With Permit 2249-2.....	34
3-39 Turnout D Associated With Permit 2249-2.....	35
3-40 Turnout D Associated With Permit 2249-2.....	35
3-41 Turnout for Permit 2218-2	36
3-42 Turnout A for Permit 2415-2	37
3-43 Wooden Flume Used as a Check for Turnout A of Permit 2415-2.....	38
3-44 Turnout B (Red Arrow) and the Flume Associated with Permit 2415-2.....	38
3-45 Turnout C (Red Arrow) and the Wooden Weir Associated With Permit 2415-2	39
3-46 Turnout C and the 24-Inch-Diameter Concrete Pipe (Red Arrow) Associated With Permit 2415-2	39
3-47 Concrete Flume/Check Structure for Turnout D Associated With Permit 2415-2 (Looking Downstream).....	40
3-48 North Flume/Check Structure Wall and Outlet for Turnout D Associated With Permit 2415-2	40
3-49 South Flume/Check Structure Wall and Outlet for Turnout D Associated With Permit 2415-2	41
3-50 Removal of Turnout A associated with Permit 2415-2	42
3-51 Turnout A Wooden Flume Structure Associated With Permit 2415-2, Removed.....	43
3-52 Turnout B Associated With Permit 2415-2. Timber Turnout Removed.....	43
3-53 Turnout B Associated With Permit 2415-2. Wooden Flume Structure Removed	44

LIST OF FIGURES (continued)

FIGURE	PAGE
3-54 Turnout C Associated With Permit 2415-2 Timber Gate Turnout Structure, Concrete Abutments, and Timber Weir Check Structure Removed.....	44
3-55 Turnout C Associated With Permit 2415-2	45
3-56 Turnout D Associated With Permit 2415-2.....	45
3-57 Turnout D Associated With Permit 2415-2.....	46
3-58 Turnout Associated With Permit 2296-2 and Permit 2360-2, Currently Serving an Active Permit for 50 Acres Irrigated by Mr. Donald Jundt	47
A-1 Cyclone Ditch Turnout Vicinity Map.	A-2
A-2 Hawthorne Ditch Turnout Vicinity Map.	A-3
A-3 Murphy Ditch Turnout Vicinity Map (1 of 2).....	A-4
A-4 Murphy Ditch Turnout Vicinity Map (2 of 2).....	A-5
A-5 South Side Ditch Turnout Vicinity Map (1 of 2).	A-6
A-6 South Side Ditch Turnout Vicinity Map (2 of 2)	A-7

1.0 BACKGROUND

The City of Rapid City has obtained the water permits from several irrigators served by Rapid Creek in the Rapid Valley area. According to the South Dakota Department of Environment and Natural Resources (SD DENR) Water Rights Division, the holder of a transferred permit shall permanently render inoperable the structural means of diverting water to land that is no longer subject to the water permit. The City of Rapid City has record of transfers and has now completed abandonment of the aforementioned diversion structures. The abandonment of the structures was performed by the City of Rapid City and reviewed by SD DENR personnel. This report documents the permits transferred, the diversion points associated with those permits, and the abandonment of those diversion points.

2.0 DATA SOURCES

Six sources were used to identify the diversion structures (turnouts) to be disabled. The first is the South Dakota Water Rights Program online permit database that is operated by the SD DENR [2012]. This database includes water rights documentation for each of the Rapid Valley irrigation ditches, identifies all permit transfers, and has documentation for individual water rights permits.

The second source is the Rapid Valley Water Management Study, which was completed in 1990 by the U.S. Bureau of Reclamation for ditches that have storage in Deerfield Reservoir, including the South Side, Cyclone, Little Giant, and Hawthorne irrigation ditches [U.S. Bureau of Reclamation, 1990]. The Murphy Ditch was excluded from the Rapid Valley Water Management Study because its water right is for natural Rapid Creek flows and, therefore, contractually has no storage in Deerfield Reservoir managed by the Bureau of Reclamation. The documentation from the study includes photographs of irrigation turnouts; associated notes; and irrigation ditch maps with turnout locations, photograph locations, and irrigated acreages.

The third source is an undocumented study conducted by the City of Rapid City in 2008. This study includes photographs of irrigation turnouts, associated notes, and maps that include data pertinent to water rights transferred to the city. The last three sources include parcel delineation and owner information from RapidMap [City of Rapid City and Pennington County, 2014], field investigations, and direct communication with irrigation ditch personnel and landowners.

Searches were conducted within the SD DENR Water Rights Program database to identify the water rights transferred to the City of Rapid City. Permit documentation associated with these transfers was downloaded. The water rights flow rate, acreage, location, previous owner, and approval date were identified for each transfer and this information is provided in Table 2-1.

By combining the information from Table 2-1 with the data from the RapidMap geodatabase, the parcels associated with each transfer were identified. Then, structure location maps from the Rapid Valley Water Management Study were used to identify the locations of turnouts requiring disablement. These locations were field-verified with help from ditch personnel and were recorded with Global Positioning System (GPS). Verified structure locations were digitized with ArcGIS mapping software.

Table 2-1. Information for Water Rights Transferred to the City of Rapid City

Permit No.	Ditch(s)	Previous Owner	Acres	Flow (cfs) ^(a)	Section	Township	Range	Quarter	Transfer Date
2655-2	Cyclone	Lamb	58	0.83	22	1N	8E	SW NW, NW NW	12/1/2010
2317-2	Hawthorne	Morris	46	0.84	9	1N	8E	SW NE, SE NW, NE SW, NW SE	5/1/1996
2399-2	Little Giant and Murphy	Wileman	52	0.75	24	1N	8E	E NE	5/7/1998
2468-2	Little Giant via Murphy	Howie	34.8	0.57	19; 30	1N	9E	W SW; NW NW	12/5/2001
2142-2	Murphy	Tyler	49	0.62	19	1N	9E	W NW, NW SW	5/1/1991
2199-2	Murphy	Pelle	4	0.05	19	1N	9E	NW NW	5/7/1992
2201-2	Murphy	Long	10	0.13	14	1N	8E	C	5/7/1992
2316-2	Murphy	Morris	64	0.81	9	1N	8E	W SE	5/1/1996
2469-2	Murphy	Murphy	27	0.34	14	1N	8E	S NW, N SW	12/5/2001
2512-2	Murphy	Schroeder	145	1.84	19	1N	9E	E NW, NE SW, SW SE, N SE, S NE	12/3/2003
2217-2	South Side	Keller	29.2	0.33	29	1N	9E	SE SE	7/22/1992
2218-2	South Side	Stromer	192.5	2.16	29	1N	9E	SW	7/22/1992
2234-2	South Side	Eisenbraun	70	0.79	26	1N	8E	E NE	5/1/1996
2249-2	South Side	Weber	105.5	1.19	30	1N	9E	E NW, NW SW, E SW	5/5/1993
2296-2	South Side	Jundt	253.4	2.85	28; 33	1N	9E	SW, SW SE; NW, W NE, NW SE, N SW	1/6/1994
2360-2	South Side	Soetaert	32.6	0.37	33	1N	9E	W NW	7/10/1996
2397-2	South Side	Eisenbraun	59.3	0.59	26	1N	8E	W NE	2/25/1998
2411-2	South Side	Eisenbraun	3.6	0.04	26	1N	8E	N NE	10/1/1998
2415-2	South Side	Howie	146	1.64	32	1N	9E	NE, N SE	12/2/1998
2513-2	South Side	Steen	74.9	0.84	24; 25	1N	8E	W SE; SW NE	12/3/2003

(a) cfs = cubic feet per second

3.0 IRRIGATION DITCH SUMMARIES

The information gathered for turnouts to parcels with water rights transferred from irrigation use to the City of Rapid City is described by permit number in the following sections. The information includes each turnout location, access, and disablement information. All maps can be found in Appendix A.

All references to compacted backfill or compacted embankment were completed according to City of Rapid City Specifications Section 14-Embankment. Rapid City Specifications are located at www.rcgov.org under Departments – Public Works – Engineering Services – Standard Specifications & Details 2007.

3.1 CYCLONE DITCH

A single Cyclone Ditch water right has been transferred to the City of Rapid City with a single associated turnout. Table 3-1 describes the turnout location and Figure A-1 maps the vicinity. The following section describes the turnout details.

Table 3-1. Cyclone Ditch Turnout Information

Turnout	Longitude	Latitude	Adjacent Landowner
2655-2	-103.151	44.034	David Lamb

3.1.1 Permit 2655-2

This permit is for 58 acres and 0.85 cubic feet per second (cfs) transferred from Mr. David Lamb.

3.1.1.1 Turnout

The single turnout for this permit was an open ditch cut through the bank of Cyclone Ditch. Water was directed down the turnout ditch by boarding up a steel flume immediately downstream in the Cyclone Ditch.

3.1.1.2 Access

The turnout was located adjacent to property owned by the Rapid City Area School District No. 51-4 (PIN 3822100004). Direct access to the site is along an over 1-mile, two-track road that runs through fields on property owned by Mr. David Lamb. It is accessible by a private driveway at 4555 Reservoir Road, south of East Highway 44.

3.1.1.3 Disablement

The flume has been removed, the turnout ditch filled, and the ditch reshaped by the landowner as illustrated in Figure 3-1.



Figure 3-1. The Turnout Ditch (Left Arrow) and Former Location of Flume (Right Arrow) Associated With Permit 2655-2. Cyclone Ditch Runs From Foreground to Background Through Large Concrete Pipe.

3.2 HAWTHORNE DITCH

A single Hawthorne Ditch water right has been transferred to the City of Rapid City with a single associated turnout. Table 3-2 provides the turnout location and Figure A-2 maps the vicinity. The following section describes the turnout details.

Table 3-2. Hawthorne Ditch Turnout Information

Turnout	Longitude	Latitude	Current Landowner
2317-2	-103.162	44.064	N/A

3.2.1 Permit 2317-2

This permit is for 46 acres and 0.84 cfs transferred from Mr. Morris.

3.2.1.1 Turnout

The supplying lateral and turnout for this permit no longer exist. An internal memorandum of SD DENR dated September 30, 2005, states “Hawthorne Ditch is now piped underground through the area where the turnout for the supplying lateral was and the new Elk Vale Road bypass, a school, and (the West River Electric Association building) have been constructed where the lateral previously ran. There is no evidence of a lateral at the location” [Stroup, 2005]. This statement was field-verified.

3.2.1.2 Access

The approximate, former location of the turnout is along East Highway 44 near the Elk Vale Road bypass.

3.2.1.3 Disablement

The turnout was previously disabled.

3.3 MURPHY DITCH

Eight Murphy Ditch water rights have been transferred to the City of Rapid City, and 11 associated turnout locations are described in Table 3-3 in order from upstream to downstream. Two vicinity maps of the turnouts are illustrated by Figures A-3 and A-4. The following sections describe each of the Murphy Ditch turnout locations by permit. The ditch has a 20-foot easement on either side for access and maintenance.

Table 3-3. Murphy Ditch Turnout Information

Turnout	Longitude	Latitude	Adjacent Landowner
2316-2	-103.158	44.059	Yasmeen Dream
2469-2 A	-103.128	44.049	Dennis Murphy
2469-2 B	-103.127	44.049	Dennis Murphy
2201-2	-103.121	44.047	Ramona Buchholz
2399-2 A	-103.097	44.038	Michelle Minnerath
2399-2 B	-103.091	44.037	Penn. Co. ROW
2468-2	-103.091	44.031	SD DOT
2142-2 and 2199-2	-103.089	44.037	Randall Albers or Melvin Ross
2512-2 A	-103.083	44.035	Rapid City
2512-2 B	-103.077	44.034	Rapid City
2512-2 C	-103.070	44.031	Rapid City ROW

3.3.1 Permit 2316-2

This permit is for 64 acres and 0.81 cfs transferred from Mr. Morris.

3.3.1.1 Turnout

A single turnout was associated with this permit. A wooden flume within the Murphy Ditch was used to check water up to a 12-inch-diameter corrugated metal pipe (CMP). The flume throat was 8 feet long, 4 feet 8 inches wide, and 4 feet 2 inches tall. The CMP was sedimented in and remained in segments. Figure 3-2 is a photograph of the flume and Figure 3-3 is a photograph of the CMP opening.



Figure 3-2. Wooden Flume Used as a Check for Permit 2316-2.



Figure 3-3. Opening to 12-Inch-Diameter Corrugated Metal Pipe Turnout for Permit 2316-2.

3.3.1.2 Access

The flume and pipe were adjacent to property owned by Yasmeen Dream that is accessible from Lytle Lane off of East Highway 44.

3.3.1.3 Disablement

The following are the procedures the City of Rapid City used in disabling the Permit 2316-2 turnout:

- Removed the wooden flume and all associated concrete from Murphy Ditch
- Removed the upstream CMP section from the ditch embankment
- Backfilled with compacted embankment material where items were removed
- Reshaped the ditch banks through the project area to match the cross section of existing banks outside of the project area

Figure 3-4 and Figure 3-5 document removal of the turnout.



Figure 3-4. Removal of Turnout associated with Permit 2316-2. Date 3/20/2014



Figure 3-5. Removal of Turnout associated with Permit 2316-2. Date 3/20/2014

3.3.2 Permit 2469-2

This permit is for 27 acres and 0.34 cfs transferred from Ms. Arlene Murphy.

3.3.2.1 Turnouts

Two turnouts were associated with this permit, and they were located at either end of an inverted siphon through which the Murphy Ditch passes. Both turnouts were approximately 10-inch-diameter plastic pipes through the ditch bank. The upstream pipe (Turnout A) was mostly buried and is shown in Figure 3-6. The downstream pipe (Turnout B) was exposed, as illustrated in Figure 3-7.



Figure 3-6. Pipe Turnout A for Permit 2469-2.

3.3.2.2 Access

Both turnouts were adjacent to property owned by Dennis Murphy (PIN 3814105010), and the sites are accessible from a private driveway at 5670 East Highway 44. Direct access to both turnouts was through fields along a two-track path. Access to the Turnout B site requires crossing an existing drainage or can alternatively be accessed by a two-track path off the end of Springfield Road.



Figure 3-7. Pipe Turnout B for Permit 2469-2.

3.3.2.3 *Disablingment*

The following are the procedures the City of Rapid City used in disabling the Permit 2469-2 turnouts

- Removed both pipe turnouts from the ditch embankment
- Backfilled with compacted embankment material to match the existing bank cross section

Figures 3-8 and Figure 3-9 document removal of the turnouts.



Figure 3-8. Removal of Turnout A Associated With Permit 2469-2. Date 4/22/2014



Figure 3-9. Removal of Turnout B Associated With Permit 2469-2. Date 4/22/2014.

3.3.3 Permit 2201-2

This permit is for 10 acres and 0.13 cfs transferred from Mr. Long.

3.3.3.1 Turnout

The old turnout ditch for this permit was identified, but the turnout had been removed. No evidence of a turnout could be identified on the ditch side of the bank, as illustrated in Figure 3-10. The remains of wooden structures, possibly related to the turnout, were found nearby, as shown in Figure 3-11.

3.3.3.2 Access

The site is adjacent to property owned by Ms. Ramona Buchholz (PIN 3814326004) and is located directly west of Apple Tree Road. It is accessible from East Highway 44.

3.3.3.3 Disablement

The structure was previously disabled.



Figure 3-10. Photograph Taken From in the Murphy Ditch Running Right to Left (Bank in Foreground Is Likely Former Turnout Location for Permit 2201-2).



Figure 3-11. Wooden Remains Found Near the Site for Permit 2201-2.

3.3.4 Permit 2399-2

This permit is for 52 acres and 0.75 cfs transferred from Mr. Wesley Wileman.

3.3.4.1 *Turnouts*

Two turnout locations were associated with this permit. Turnout A had been removed but was not properly backfilled, as illustrated in Figure 3-12. A meeting on site with Mr. Jeep Williams, watermaster for Murphy Ditch, in April 2014 verified that the backfill at that site has been repaired since the photograph was taken. Turnout B was a 12-inch steel canal gate, as shown in Figure 3-13.

3.3.4.2 *Access*

The Turnout A site is adjacent to property owned by Ms. Michelle Minnerath (PIN 3824200002) and is north of Morris Lane. Direct access to the location is through a field with no defined path. Turnout B was located in the west ditch of Radar Hill Road.



Figure 3-12. Backfill Material at the Former Location of Turnout A for Permit 2399-2. This area has since had material added to the bank.



Figure 3-13. Turnout B for Permit 2399-2 (The 12-Inch Steel Canal Gate was Located on the Far Bank Adjacent to the Concrete Culvert, and Murphy Ditch Runs Right to Left).

3.3.4.3 *Disablement*

The following are the procedures the City of Rapid City used in disabling the Permit 2399-2 turnouts:

- Turnout A was previously disabled
- Turnout B
 - Removed the canal gate from Murphy Ditch
 - Removed a portion of the pipe from the ditch bank and backfilled with compacted embankment material to match the existing bank cross section

Figure 3-14 and Figure 3-15 document removal of Turnout B.



Figure 3-14. Removal of Turnout B for Permit 2399-2 Located on Murphy Ditch on Radar Road.
Date 4/22/2014



Figure 3-15. Removal of Turnout B for Permit 2399-2 Located on Murphy Ditch on Radar Road.
Date 4/22/2014

3.3.5 Permit 2468-2

This permit is for 34.8 acres and 0.57 cfs transferred from Mr. Gordon Howie.

3.3.5.1 *Turnouts*

A single turnout for this permit was once located on a lateral ditch. The turnout ditch was identified, as shown in Figure 3-16, but no turnout structure exists.



Figure 3-16. Disabled Turnout Ditch for Permit 2468-2 Running From the Foreground to the Background Along the East Side of Radar Hill Road (The Lateral Ditch Is in the Left Foreground, Turning Left at the Visible Tree Root).

3.3.5.2 *Access*

The site is located on property owned by the South Dakota Department of Transportation (SD DOT) on the east side of Radar Hill Road, south of East Highway 44 (PIN 3824427001).

3.3.5.3 *Disablement*

The structure was previously disabled.

3.3.6 Permits 2142-2 and 2199-2

Permit 2142-2 is for 49 acres and 0.62 cfs transferred from Mr. Tyler. Permit 2199-2 is for 4 acres and 0.05 cfs transferred from Mr. Pelle.

3.3.6.1 Turnout

A single turnout location was used for these two permits. Upon inspection, the turnout ditch was identified and a short, disconnected segment of a 12-inch-diameter CMP was found lying in the ditch at the site, but an existing turnout structure was not evident. The concrete check structure for the turnout has been removed and sits on the ditch bank at the location illustrated in Figure 3-17.



Figure 3-17. Former Location of the Turnout for Permits 2142-2 and 2199-2 (The Concrete Check Structure and a Disconnected Corrugated Metal Pipe Segment Sit on the Far Bank, and Murphy Ditch Flows Right to Left).

3.3.6.2 Access

The site is adjacent to property owned by Mr. Randall Albers (PIN 3919100002) along Morris Lane. Direct access to the site is through the Albers property or the neighboring property owned by Melvin Ross (PIN 391900001), or from the top side of the Murphy Ditch through Mr. Jerry Olson's property.

3.3.6.3 Disablement

The structure was previously disabled and no further action was required, as per a meeting with SD DENR personnel in April 2014.

3.3.7 Permit 2512-2

This permit is for 145 acres and 1.84 cfs transferred from Ms. Marilyn Schroeder.

3.3.7.1 Turnouts

Three turnouts were associated with this permit. Turnout A was a 10-inch-diameter plastic pipe through the ditch bank but was capped and buried, as shown in Figure 3-18. Turnout B was a clay pipe 12-inches in diameter and 20 feet long through the ditch bank. The downstream end of this pipe was previously buried. Figure 3-19 is a photograph of a plywood headgate used for Turnout B. Turnout C was a 24-inch steel canal gate secured in a concrete junction box, as shown in Figure 3-20. The junction box is on a lateral ditch and is shared with an identical gate for a separate, active permit.



Figure 3-18. Pipe Used for Turnout A of Permit 2512-2 (Red Arrow).

3.3.7.2 Access

Turnouts A and B were located adjacent to property owned by the City of Rapid City (PIN 3919200001). Turnout C was located in the west right-of-way for Airport Road.

3.3.7.3 Disablement

The following are the procedures the City of Rapid City used in disabling the Permit 2512-2 turnouts:

- Turnout A was previously disabled and no further action was required per discussion with the Murphy Ditch watermaster and SD DENR personnel in April 2014.
- Turnout B was previously disabled and no further action was required per discussion with the Murphy Ditch watermaster and SD DENR personnel in April 2014.

- Turnout C

- Removed the canal gate and disabled the pipe with a Class M-5 concrete plug.

Figure 3-21 and Figure 3-22 document disablement of the Turnout C structure.



Figure 3-19. Plywood Headgate for Turnout B of Permit 2512-2.



Figure 3-20. Junction Box With 24-Inch Canal Gate for Turnout C of Permit 2512-2 (Turnout C Shown With Red Arrow, Leading South).



Figure 3-21. Removal of Turnout C for Permit 2512-2 Located on Murphy Ditch on the East Side of Airport Road. Date 4/22/2014



Figure 3-22. Removal of Turnout C for Permit 2512-2 Located on Murphy Ditch on the East Side of Airport Road Going South to the Airport. Date 4/22/2014.

3.4 SOUTH SIDE DITCH

Ten South Side Ditch water rights have been transferred to the City of Rapid City, and 13 associated turnout locations were identified by using maps from the Rapid Valley Water Management Study [U.S. Bureau of Reclamation, 1990] and field investigations. The locations are described in Table 3-4 from upstream to downstream. Two vicinity maps of the turnouts are provided by Figures A-5 and A-6.

Table 3-4. South Side Ditch Turnout Information

Turnout	Longitude	Latitude	Adjacent Landowner
2234-2, 2397-2 & 2411-2	-103.115	44.017	Reinhold Eisenbraun (south) Randy Christensen (north)
2513-2	-103.100	44.018	City of Rapid City
2249-2 A	-103.095	44.017	City of Rapid City
2249-2 B	-103.091	44.015	City of Rapid City
2249-2 C	-103.091	44.015	City of Rapid City
2249-2 D	-103.084	44.011	City of Rapid City
2218-2	-103.071	44.010	Merlin Stromer
2415-2 A	-103.065	44.008	Matt Bowen
2415-2 B	-103.061	44.006	Matt Bowen
2415-2 C	-103.059	44.006	Matt Bowen
2415-2 D	-103.056	44.006	Matt Bowen
2217-2	-103.056	44.011	Leonard V. Keller Trust
2296-2 and 2360-2	-103.05	44.007	Donald Jundt

3.4.1 Permits 2234-2, 2397-2, and 2411-2

Permit 2234-2 is for 70 acres and 0.79 cfs, Permit 2397-2 is for 59.3 acres and 0.59 cfs, and Permit 2411-2 is for 3.6 acres and 0.04 cfs, all transferred from Mr. Reinhold Eisenbraun.

3.4.1.1 Turnouts

One turnout structure could be found in the described vicinity of these permits, located in Section 26, 1N 8E. The ditch was walked for approximately 1/2 mile to the west and the only turnout found is shown in Figure 3-23.

3.4.1.2 Access

The turnout for Permit 2234-2 is accessed off of Highway 44 by turning south on Anderson Rd. and continuing south past Southside Dr. approximately 3/8 mile to South Side Ditch. The site is approximately 1/4 mile west. The land north of the ditch, including the structure, is owned by Mr. Randy Christensen, and the land south of the ditch is owned by Mr. Eisenbraun.

3.4.1.3 Disablement

The structure was previously disabled, and no further action was required by SD DENR personnel.



Figure 3-23. Turnout for Permit 2234-2. Note the headwall sticking out of the snow just upstream from the culvert crossing on the left or north side of the ditch (red arrow). The ditch behind the headwall has been filled in.

3.4.2 Permit 2513-2

This permit is for 74.9 acres and 0.84 cfs transferred from Mr. Steen.

3.4.2.1 Turnouts

One turnout was associated with Permit 2513-2. The turnout was located straight south of the Rapid City Water Treatment Plant near the middle of section 25 on South Side Ditch. The turnout inlet structure was concrete with a 15-inch canal gate and PVC pipe going under the north bank to a weir box. On the north side of the weir box, 15-inch PVC pipe ran from the box to a vertical PVC air vent and then continued north. Figures 3-24, 3-25, and 3-26 show the structures associated with Permit 2513-2.



Figure 3-24. Inlet Structure, Weir Box, and Air Vent Associated With Turnout 2513-2.



Figure 3-25. Inlet Structure, Weir Box, and Air Vent Associated With Turnout 2513-2.



Figure 3-26. Inside the Weir Box for Turnout 2513-2. Note center wall weir and PVC pipe exiting the box.

3.4.2.2 Access

The site is located on land owned by the City of Rapid City and occupied by Mr. Bud Steen. The site may be accessed by turning off Highway 44 on Anderson Rd., then turning east on Southside Dr. to the treatment plant, then south on Redemption Road at the west edge of the treatment plant. At South Side Ditch, the site is located just east of the road.

3.4.2.3 Disablement

The following are the procedures the City of Rapid City used in disabling the turnout associated with Permit 2513-2:

- Cut existing turnout pipe 5 feet north from air vent
- Removed the air vent, inlet structure, and appurtenances.
- Backfilled with compacted embankment material

Figure 3-27 documents disablement of the structure.



Figure 3-27. Removal of Turnout for Permit 2513-2. Headgate removed, measurement box filled with dirt and pipeline air vent removed. Date: 10/29/2015

3.4.3 Permit 2249-2

This permit is for 105.5 acres and 1.19 cfs transferred from Mr. Weber.

3.4.3.1 *Turnouts*

Four turnouts were associated with Permit 2249-2. Turnout A was located 1,500 feet downstream from the Permit 2513-2 turnout site and consisted of a steel-framed headgate and concrete headwall. The structure is shown in Figure 3-28.

Turnout B was located upstream from a culvert crossing, shown in Figure 3-29. This culvert was used as a check structure for Turnout B and is located just west of the line between Section 25, 1N 8E and Section 30, 1N 9E. Figure 3-30 shows the outlet end of the Turnout B pipe.

Turnout C consisted of a wooden structure on the north bank of South Side Ditch, just upstream from a second culvert crossing, shown in Figure 3-31. The Turnout C site is shown in Figure 3-32 and located just east of the line between Section 25, 1N 8E and Section 30, 1N 9E.

Turnout D was located in the SW1/4 of Section 30 T1N R9E and consisted of a steel frame canal gate and division box. The gate is shown in Figure 3-33 and the division box is shown in Figure 3-34.



Figure 3-28. Turnout A structure Associated with Permit 2249-2.



Figure 3-29. Culvert Crossing Used as a Check for Turnout B Associated with Permit 2249-2.



Figure 3-30. Outlet end of Turnout B pipe (Red Arrow). (Looking South, Towards South Side Ditch).



Figure 3-31. Second Culvert Crossing, Used as Check for Turnout C Associated With Permit 2249-2.



Figure 3-32. Wooden Structure (Red Arrow) for Turnout C Associated With Permit 2249-2. This structure is immediately upstream of the culvert crossing in Figure 3-31, on the north bank.



Figure 3-33. Metal Framed Canal Gate of Turnout D Associated With Permit 2249-2.



Figure 3-34. Turnout D Division Box Associated With Permit 2249-2. Date 10/30/2015.

3.4.3.2 Access

The turnout sites may be accessed by turning south from Highway 44 on Anderson Rd., then east on Southside Dr. to the treatment plant. The sites are adjacent to property owned by the City of Rapid City, southeast from the treatment plant.

3.4.3.3 Disablement

The following are the procedures the City of Rapid City used in disabling turnouts A, B, C, and D associated with Permit 2249-2:

- Turnout A
 - Removed turnout head gate
 - Placed concrete plug in turnout pipe
 - Filled turnout ditch with compacted material
- Turnout B
 - Removed pipe and structure
 - Backfilled with compacted embankment material to match existing ditch cross section
- Turnout C
 - Removed the wooden structure
 - Backfilled with compacted embankment material to match existing ditch cross section
- Turnout B
 - Removed the steel framed canal gate and structure
 - Backfilled with compacted embankment material to match the existing ditch cross section

Figures 3-35 through Figure 3-40 document the disablement of these four turnouts.



Figure 3-35. Turnout A Associated with Permit 2249-2. Headgate removed, turnout pipe filled with concrete, and outlet filled in. Date 10/29/2015



Figure 3-36. Turnout B Associated with Permit 2249-2. The old turnout structure has been removed. Date 10/29/2015.



Figure 3-37. Turnout C Associated With Permit 2249-2. Removed turnout structure. Date 10/29/2015.



Figure 3-38. Turnout D Associated With Permit 2249-2, removed by the City. Date 10/30/2015



Figure 3-39. Turnout D Associated With Permit 2249-2. Turnout being backfilled. Date 10/30/2015.



Figure 3-40. Turnout D Associated With Permit 2249-2. Photo of the division box being removed and backfilled by the City. Date 10/30/2015.

3.4.4 Permit 2218-2

This permit is for 192.5 acres and 2.16 cfs transferred from Mr. Merlin Stromer.

3.4.4.1 Turnouts

One turnout was associated with Permit 2218-2. The turnout consisted of a pipe inlet, a metal valve well, and an air vent immediately downstream of the valve well, shown in Figure 3-41.

3.4.4.2 Access

The turnout site for Permit 2218-2 is located turning south on Airport Road from Highway 44 and travelling about 0.7 miles to the driveway into Mr. Merlin Stromer's property, then another 0.3 miles south through the Stromer property to South Side Ditch.

3.4.4.3 Disablement

A discussion with Mr. Merlin Stromer in April of 2014 was that after Mr. Stromer sold his water rights to the city, he hired a contractor to disable the turnout. No water can be or has been delivered through the turnout since the water right transfer. Discussion with SD DENR was that this would satisfy abandonment requirements and the turnout would not be disturbed since it has been disabled.



Figure 3-41. Turnout for Permit 2218-2. This turnout has been disabled and will not be disturbed.

3.4.5 Permit 2415-2

This permit is for 146 acres and 1.64 cfs transferred from Mr. Gordon Howie.

3.4.5.1 Turnouts

Four turnouts were associated with Permit 2415-2, designated Turnout A through Turnout D (upstream to downstream on the South Side Ditch). Turnout A consisted of a gate structure composed of timber and is shown in Figure 3-42. A wooden flume was used as a check structure for Turnout A, located approximately 35 feet downstream and shown in Figure 3-43.

Turnout B was also a gate structure composed of timbers. As shown in Figure 3-44, a wooden flume was located next to Turnout B (Turnout B indicated by red arrow) and was used as a check structure.

Turnout C consisted of a wooden gate structure supported by concrete abutments. Figure 3-45 displays Turnout C (red arrow) along with a wooden weir check structure located downstream from Turnout C. The ditch from Turnout C led to a 24-inch-diameter concrete pipe that was used to convey diverted water, shown in Figure 3-46.

Turnout D consisted of a concrete flume/check structure, shown in Figure 3-47. The structure included outlets on both the north and south walls, with timbers used to convey diverted water from the structure. Figures 3-48 and 3-49 show the north and south outlets, respectively.



Figure 3-42. Turnout A for Permit 2415-2. The turnout is composed of timber.



Figure 3-43. Wooden Flume Used as a Check for Turnout A of Permit 2415-2.



Figure 3-44. Turnout B (Red Arrow) and the Flume Associated with Permit 2415-2.



Figure 3-45. Turnout C (Red Arrow) and the Wooden Weir Associated With Permit 2415-2.



Figure 3-46. Turnout C and the 24-Inch-Diameter Concrete Pipe (Red Arrow) Associated With Permit 2415-2.



Figure 3-47. Concrete Flume/Check Structure for Turnout D Associated With Permit 2415-2 (Looking Downstream).



Figure 3-48. North Flume/Check Structure Wall and Outlet for Turnout D Associated With Permit 2415-2.



Figure 3-49. South Flume/Check Structure Wall and Outlet for Turnout D Associated With Permit 2415-2.

3.4.5.2 Access

Turnouts A through D are adjacent to property owned by Mr. Matt Bowen (PINs 3932100003 and 3932200001). The sites are accessed by travelling approximately 1/2 mile south on Bradsky Road from Highway 44 to a private drive just north of the South Side Ditch crossing.

- The Turnout A and Turnout B sites are accessed by travelling west on the private drive for approximately 1/2 mile from Bradsky Road, crossing South Side Ditch, then leaving the private drive and following South Side Ditch along its south bank.
- The Turnout C and Turnout D sites are accessed from the private drive on the north bank of South Side Ditch, approximately 1/2 mile and 1/4 mile west of Bradsky Road, respectively.

3.4.5.3 Disablement

The following are the procedures the City of Rapid City used in disabling the four turnouts associated with Permit 2415-2.

- Turnout A
 - o Removed the timber turnout and the wooden flume structure
 - o Backfilled with compacted embankment material to match existing ditch cross section

- Turnout B
 - o Removed the timber turnout and the wooden flume structure
 - o Backfilled with compacted embankment material to match existing ditch cross section
- Turnout C
 - o Removed the wooden gate turnout structure, concrete abutments, and wooden weir check structure from South Side Ditch
 - o Backfilled ditch banks with compacted embankment material to match existing ditch cross section
 - o Backfilled existing turnout ditch from South Side Ditch to existing concrete pipe with compacted material to match existing adjacent grade
- Turnout D
 - o Removed the concrete inlets and wooden turnouts from the north and south banks.
 - o Backfilled with compacted embankment material to match existing ditch cross section.

Figures 3-50 through 3-57 document the disablement of the structures associated with the four turnouts.



Figure 3-50. Removal of Turnout A associated with Permit 2415-2. Date 7/30/2015



Figure 3-51. Turnout A Wooden Flume Structure Associated With Permit 2415-2, removed. Date 7/30/2015



Figure 3-52. Turnout B Associated With Permit 2415-2. Timber Turnout Removed. Date 7/30/2015.



Figure 3-53. Turnout B Associated With Permit 2415-2. Wooden Flume Structure Removed. Date 7/30/2015.



Figure 3-54. Turnout C Associated With Permit 2415-2 Timber Gate Turnout Structure, Concrete Abutments, and Timber Weir Check Structure Removed. Date 7/30/2015.



Figure 3-55. Turnout C Associated With Permit 2415-2. Turnout ditch filled in. Date 7/30/2015.



Figure 3-56. Turnout D Associated With Permit 2415-2. Headgate removed and concrete plug put in place for south turnout. Date 7/30/2015



Figure 3-57. Turnout D Associated With Permit 2415-2. Headgate removed and concrete plug put in place for north turnout. Date 7/30/2015.

3.4.6 Permit 2217-2

This permit is for 29.2 acres and 0.33 cfs transferred from Mr. Leonard Keller.

3.4.6.1 *Turnouts*

No turnouts associated with this permit were located.

3.4.6.2 *Access*

The site is along Back Country Trail off of Bradsky Road.

3.4.6.3 *Disablement*

This turnout was previously disabled.

3.4.7 Permit 2296-2 and Permit 2360-2

Permit 2296-2 is for 253.4 acres and 2.85 cfs transferred from Mr. Donald Jundt. Permit 2360-2 is for 32.6 acres and 0.37 cfs transferred from Mr. Soetaert.

3.4.7.1 Turnouts

The turnout structure associated with transferred Permit 2296-2 and transferred Permit 2360-2, shown in Figure 3-58, also serves the active Permit 2526-2 for 0.71 cfs currently serving 50 acres of irrigated land owned by Mr. Donald Jundt. The turnout will not be disabled.



Figure 3-58. Turnout Associated With Permit 2296-2 and Permit 2360-2, Currently Serving an Active Permit for 50 Acres Irrigated by Mr. Donald Jundt.

3.4.7.2 Access

The turnout for Permit 2296-2 and Permit 2360-2 is located approximately 1/2 mile south of Highway 44 on the east side of Bradsky Road at the South Side Ditch. All associated structures are on property owned by Mr. Donald Jundt.

3.4.7.3 Disablement

No disablement was required.

4.0 PERMITS AND REGULATIONS

4.1 CLEAN WATER ACT SECTION 404 PERMIT

According to the U.S. Army Corps of Engineers [2007]:

“Under Section 404(f)(1)(C) of the CWA (see also 33 CFR 323.4(a)(3) and 40 CFR 232.3(c)(3)), discharges of dredged or fill material associated with construction or maintenance of irrigation ditches, or the maintenance (but not construction) of drainage ditches, are not prohibited by or otherwise subject to regulation under Section 404 of the CWA (i.e., these activities are exempt from the need to obtain a Section 404 Permit from the Department of the Army (DA)). Discharges of dredged or fill material associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant to and functionally related to irrigation ditches are included in the exemption for irrigation ditches.”

A 404 Permit was not required.

4.2 CLEAN WATER ACT SECTION 402 PERMIT

According to the South Dakota Department of Environment and Natural Resources [2010] Section 2.2.2:

“Storm water discharges from operators disturbing less than one acre that are part of a larger common plan of development or sale that, combined, disturb one or more acres.”

The combination of ground area disturbed by the combination of all disablements associated with this project did not exceed 1 acre.

A 402 Permit was not required.

4.3 FLOODPLAIN DEVELOPMENT PERMITS

After reviewing both the Pennington County and Rapid City Flood Insurance Rate Maps, it was determined that none of the disablement sites lie within the 100-year floodplain.

Floodplain permits were not required.

4.4 HISTORIC PRESERVATION

As required by State Preservation Law (South Dakota Codified Law (SDCL) 1-19A-11.1), the Office of History was given notice and an opportunity to investigate and comment on this proposed project. The Office of History concluded that the irrigation ditches in Rapid Valley are listed on neither the State nor the National Register of Historic Places. Additionally, because federal funding will not be used for this proposed project, Section 106 of the National Historic Preservation Act did not apply.

5.0 REFERENCES

City of Rapid City and Pennington County, 2012. *RapidMap*, retrieved September 19, 2012, from <http://www.rcgov.org/GIS/rapidmap.html>

South Dakota Department of Environment and Natural Resources, 2012. *South Dakota Water Rights*, retrieved September 19, 2012, from <http://denr.sd.gov/des/wr/dbwrsearch.aspx>

South Dakota Department of Environment and Natural Resources, 2010. *General Permit for Storm Water Discharges Associated With Construction Activities*, prepared by the South Dakota Department of Environment and Natural Resources, Pierre, SD.

Stroup, D. E., 2005. *Rapid City – Rapid Valley Water Rights Transfers*, internal memorandum from D. E. Stroup, South Dakota Department of Environment and Natural Resources, Water Rights Program, Pierre, SD, to G. Eberle, South Dakota Department of Environment and Natural Resources, Water Rights Program, Pierre, SD, September 30.

U.S. Army Corps of Engineers, 1990. *Exemptions for Construction or Maintenance of Irrigation Ditches and Maintenance of Drainage Ditches under Section 404 of Clean Water Act*, Regulatory Guidance Letter, prepared by U.S. Army Corps of Engineers, Washington, DC, July 4.

U.S. Bureau of Reclamation, 1990. *Rapid Valley Water Management Study*, prepared by U.S. Bureau of Reclamation, Newell, South Dakota.

APPENDIX A

TURNOUT VICINITY MAPS

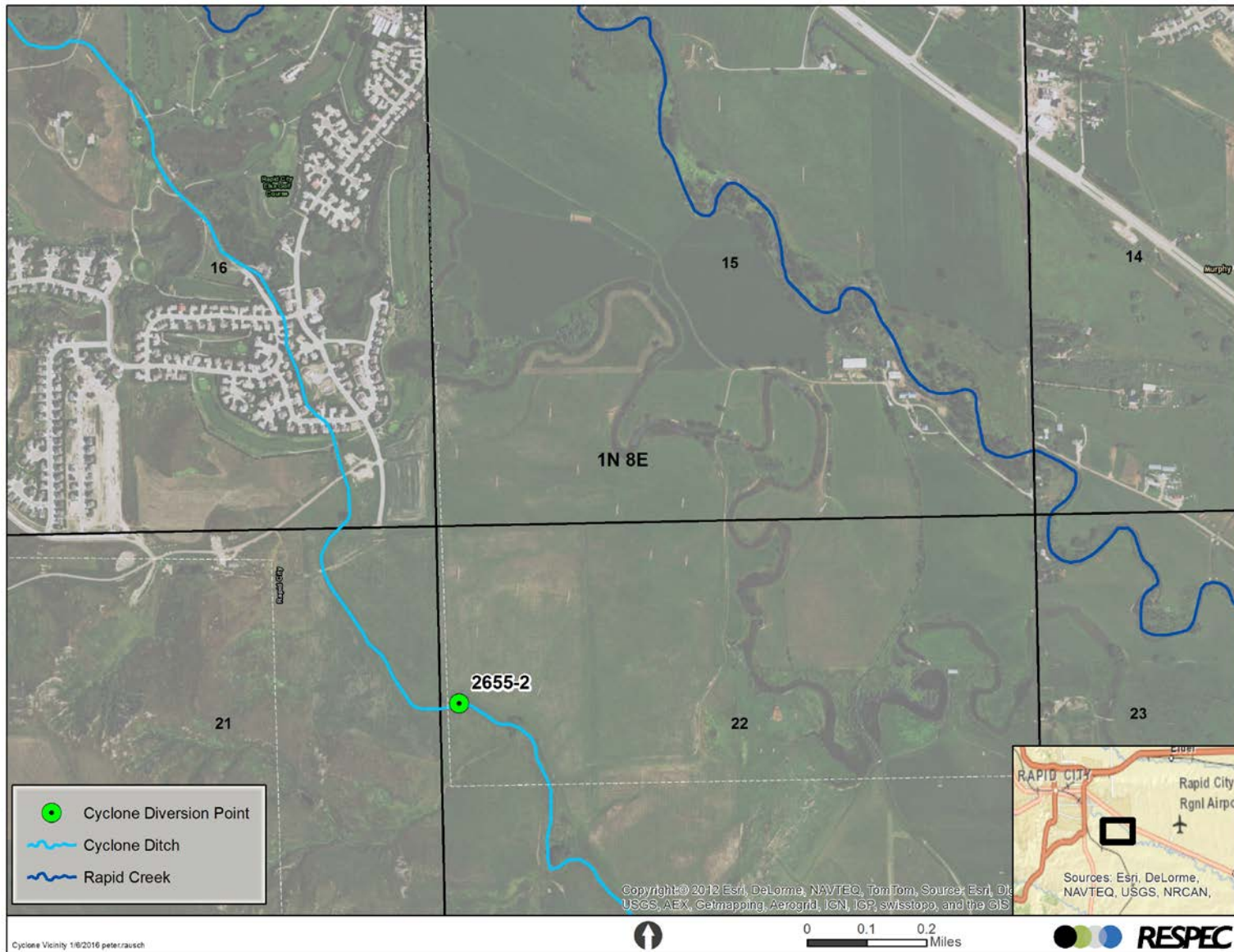


Figure A-1. Cyclone Ditch Turnout Vicinity Map.



Figure A-2. Hawthorne Ditch Turnout Vicinity Map.

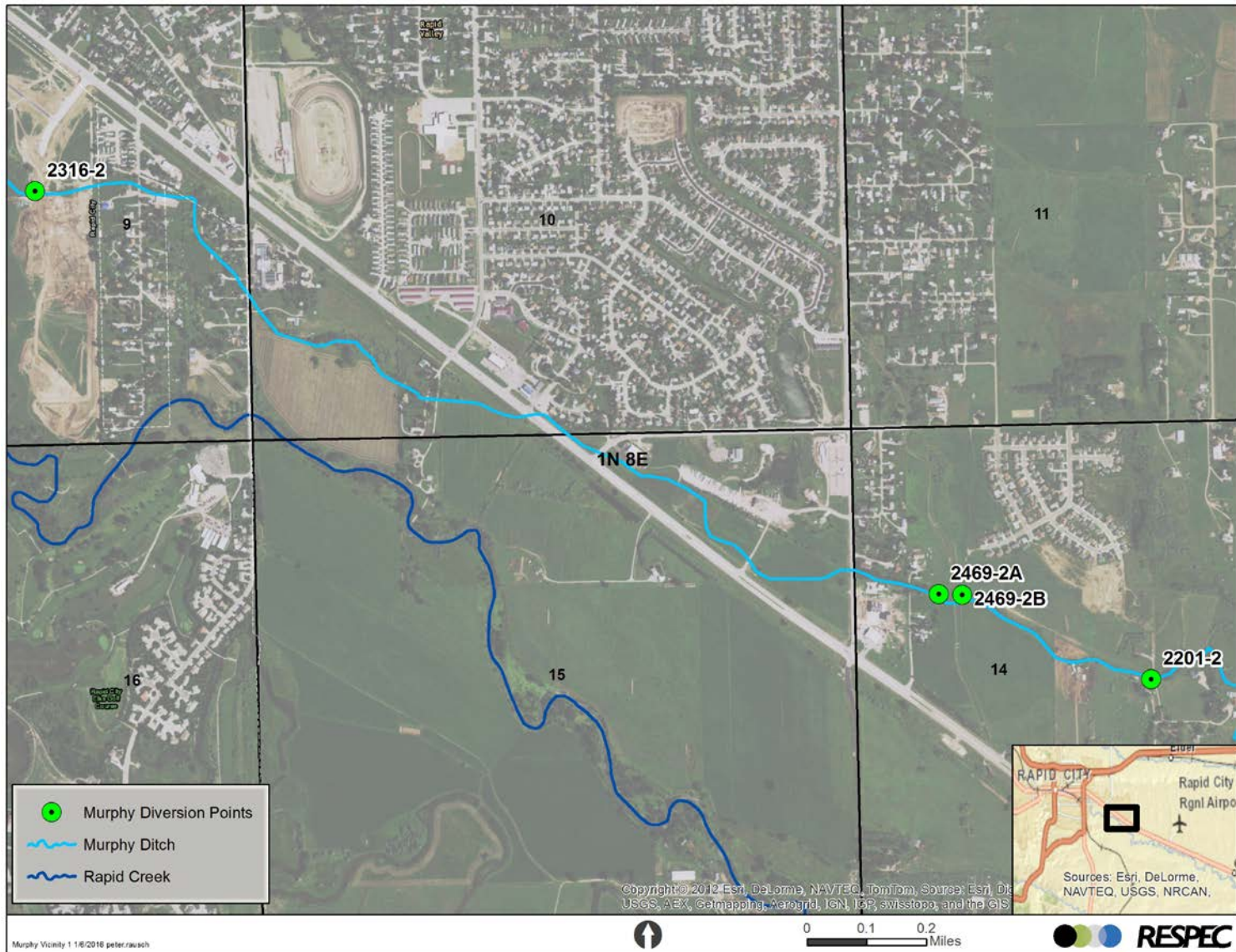


Figure A-3. Murphy Ditch Turnout Vicinity Map (1 of 2).

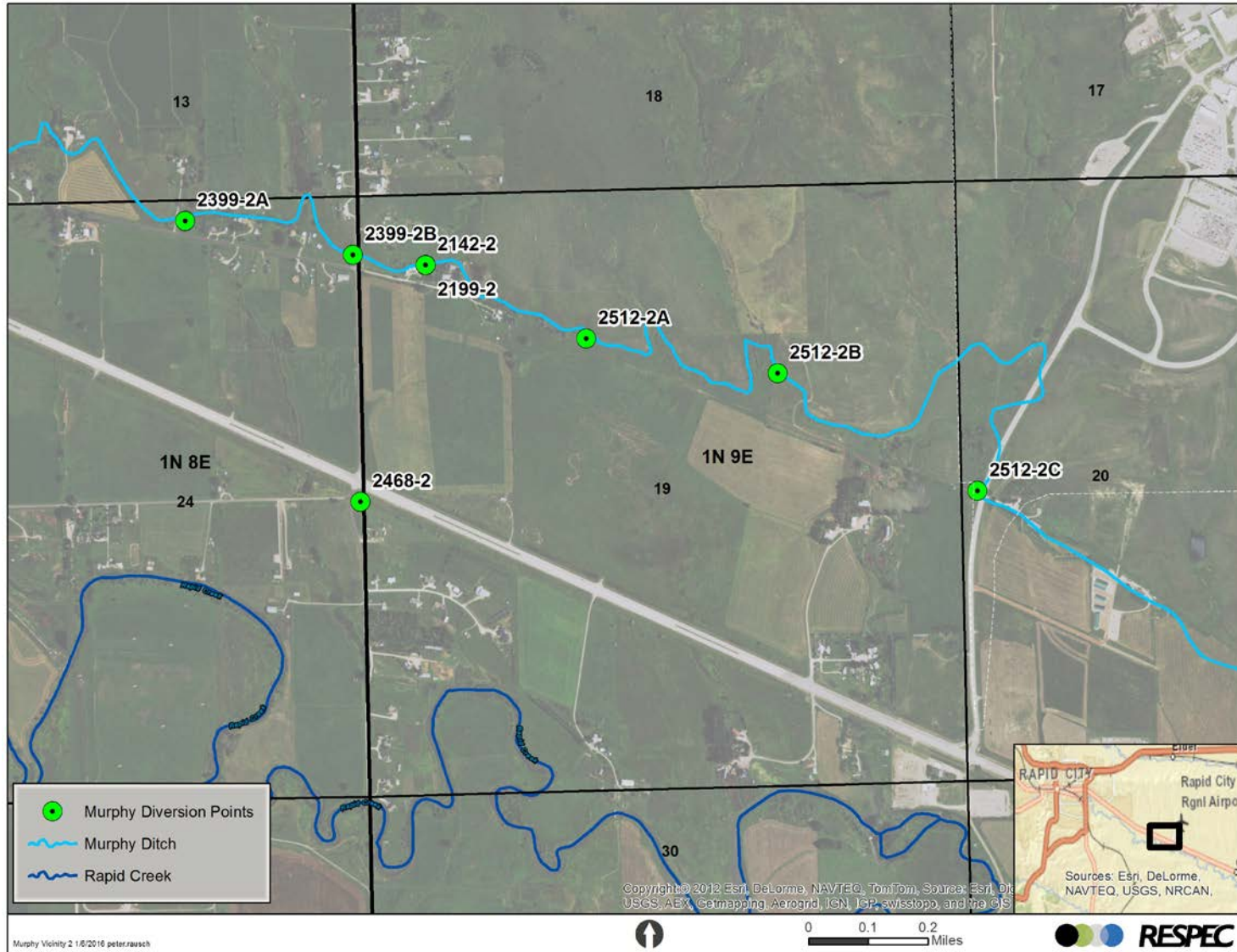


Figure A-4. Murphy Ditch Turnout Vicinity Map (2 of 2).



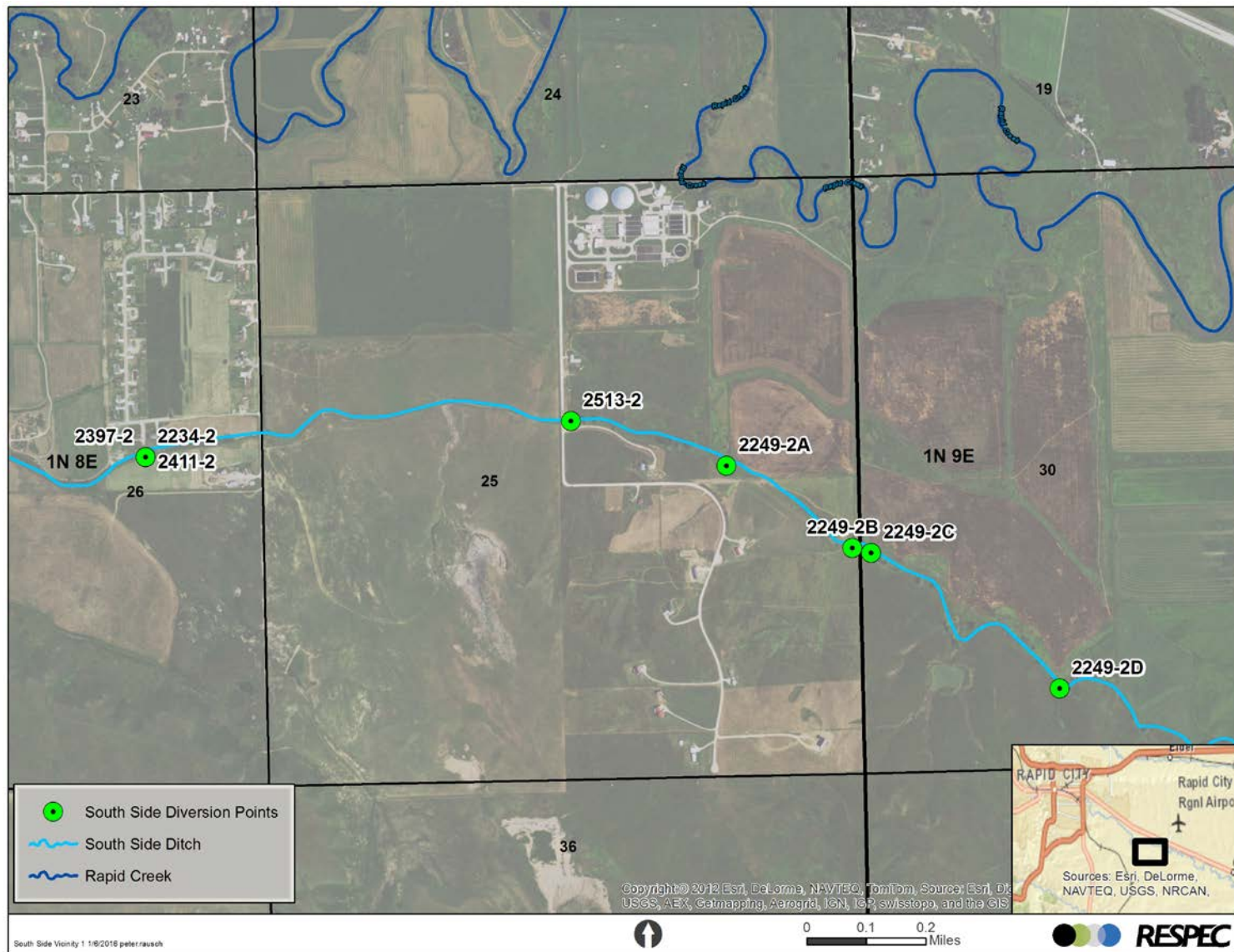


Figure A-5. South Side Ditch Turnout Vicinity Map (1 of 2).

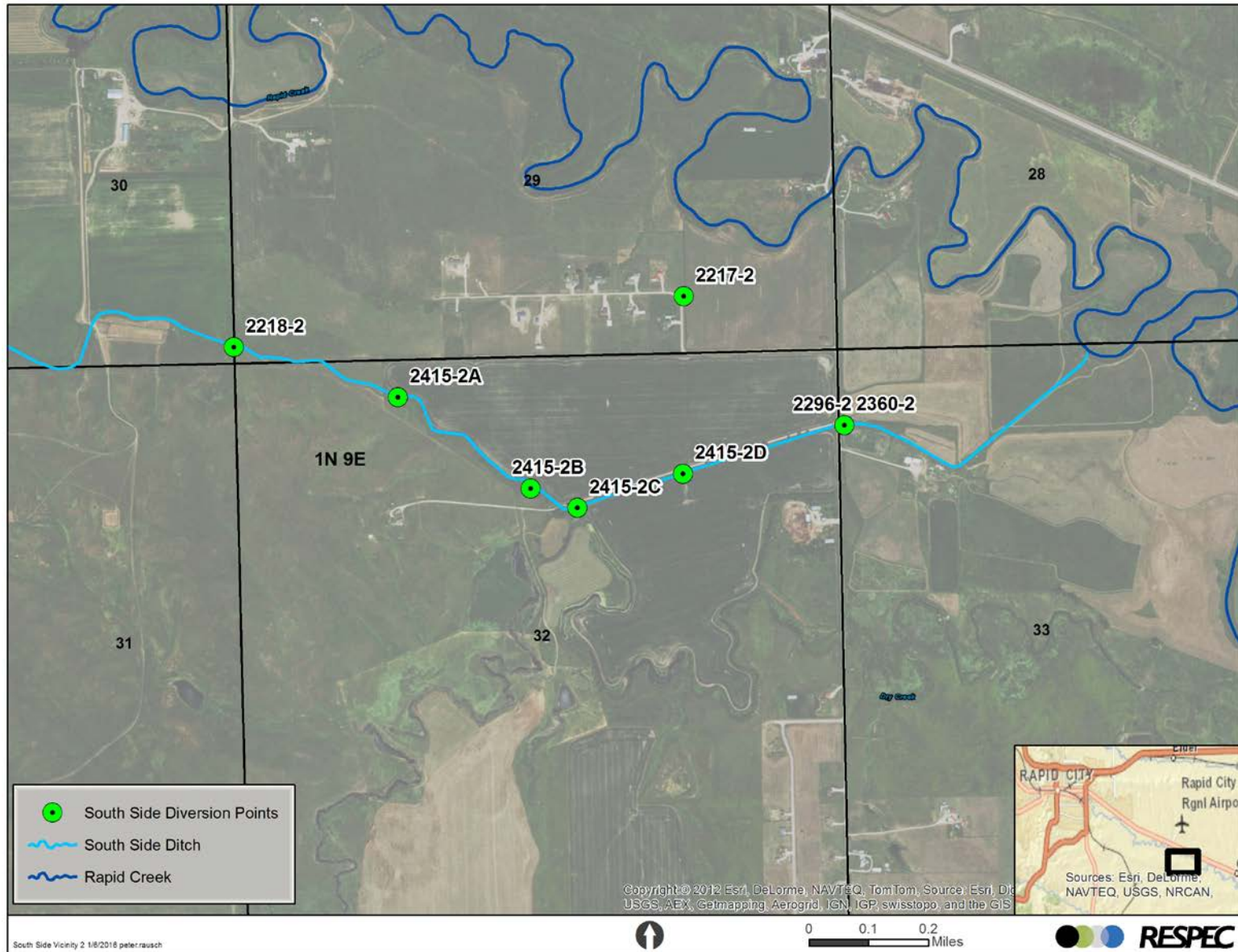


Figure A-6. South Side Ditch Turnout Vicinity Map (2 of 2)