

WATER PERMIT NO. 2142-2

Phone: 394-4165

Name of Applicant: City of Rapid City

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

Amount of Water Claimed: 0.64 cfs

Total Acres: NA

Source of Water Supply: Rapid Creek

Water to be used for: municipal

County: Pennington

About _____ miles _____ of Rapid City

PROOF OF PUBLICATION: Received Not Received

APPLICATION: Approved _____ Subject to _____

F.F.& C/.L. Adopted	Not Approved	Deferred
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PRIORITY Date Received: 9/28/90 Fee: \$50 Remarks Change in use

of a portion of irrigated land under Murphy Ditch -1878 priority date from Rapid Creek

Corrected Application Received _____ Period of Annual Use _____

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

WI-1 Description same as Application	YES	NO	REMARKS

Diversion Point: SE1/4 NE1/4, SW1/4 SW1/4 Section

3, NW1/4 SE1/4 Section 8, SE1/4 NE1/4 Section 9;
(Pactola Reservoir Diversion)
all in T1N-R7E; and NW1/4 SW1/4 Sect. 2 T1N-R5E

Land to be Irrigated:

A hand-drawn map of the study area, showing the locations of four galleries and a water treatment plant. The map is overlaid with a grid consisting of dashed vertical lines and solid horizontal lines. The locations are marked with 'x' and labeled with numbers 8, 9, and 10. Jackson Springs Gallery is at the bottom left, Meadowbrook Gallery is at the bottom center, Sioux Park Gallery is at the top center, and Water Treatment Plant is at the top right.

Location	Marker	Label
Jackson Springs Gallery	8 x	Jackson Springs Gallery
Meadowbrook Gallery	9 x	Meadowbrook Gallery
Sioux Park Gallery	x	Sioux Park Gallery
Water Treatment Plant	10 x	Water Treatment Plant

Well Log: Driller: NA Licensed YES NO

Depth of Well: _____ REMARKS _____

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

Assigned on 10/10/90 By Eric Gronlund

No. 2142-2 Hydrologic Unit 10120110
Map No. _____ Basin Upper Cheyenne
Newspaper RC Journal, Box 450, RC, SD

523 E. Capitol
Pierre, SD 57501
(605) 773-3352
Letter 4/6/90

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. 1727-2 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. 394-4165

Post Office Address 300 6th Street, Rapid City State SD 57701
(Street, RR or Box) (City) (Zip Code)

2. Amount of water claimed (c.f.s.) .64 cfs not to exceed 85X af/yr, or 22X 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, SD

6. Annual period during which water is to be used 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)

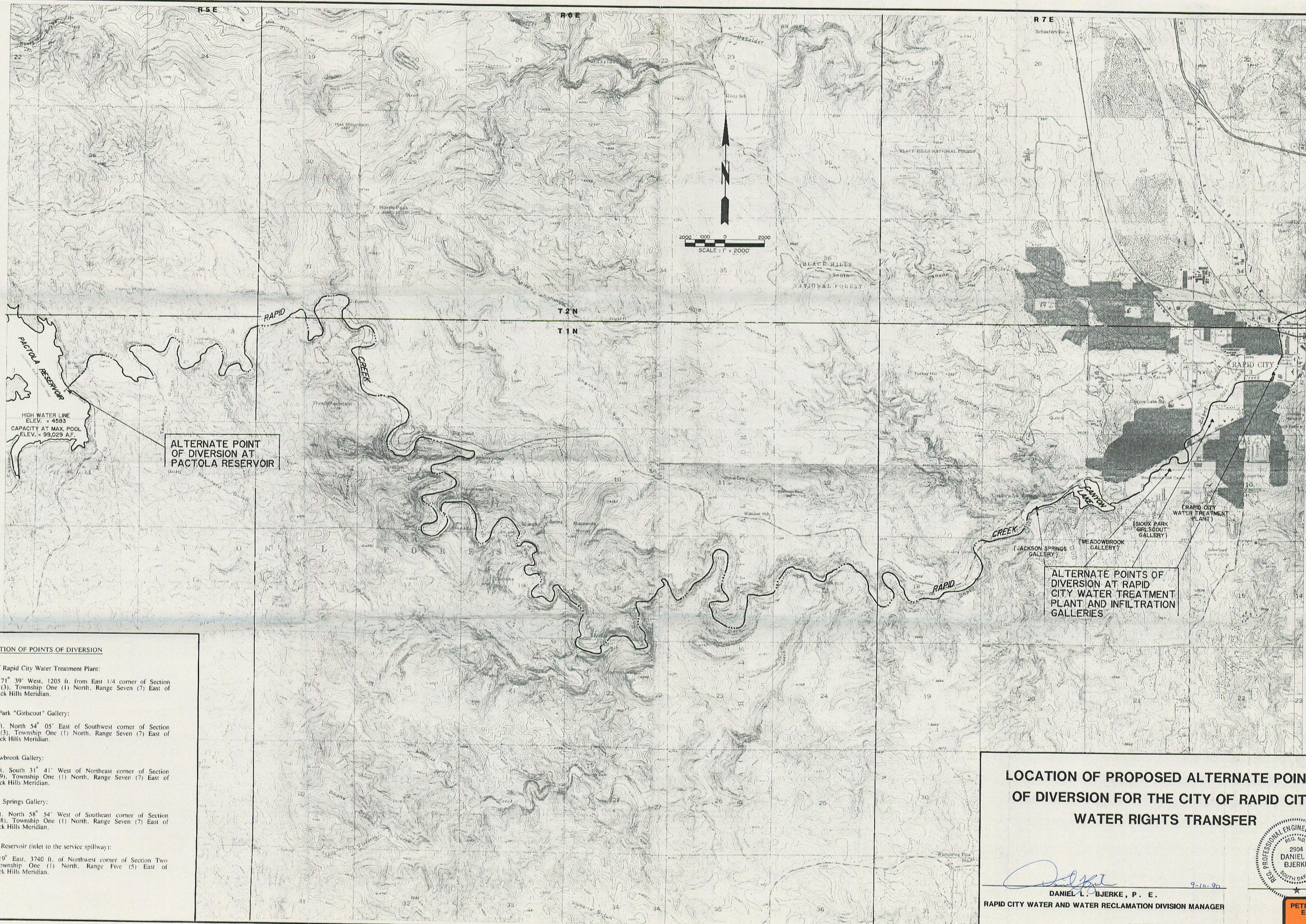
STATE OF SOUTH DAKOTA)
County of Pennington)^{ss}

I, Keith T. Carlyle, 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 _____

Subscribed and sworn to before me this 27th day of SEPTEMBER 1990

Robert T. [Signature]
Notary Public



LOCATION OF POINTS OF DIVERSION

City of Rapid City Water Treatment Plant:

North 71° 39' West, 1205 ft. from East 1/4 corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Sioux Park "Girl Scout" Gallery:

1270 ft. North 54° 05' East of Southwest corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Meadowbrook Gallery:

2032 ft. South 31° 41' West of Northeast corner of Section Nine (9), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Jackson Springs Gallery:

2943 ft. North 58° 54' West of Southeast corner of Section Eight (8), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Pactola Reservoir (inlet to the service spillway):

South 19° East, 3740 ft. of Northwest corner of Section Two (2), Township One (1) North, Range Five (5) East of the Black Hills Meridian.

LOCATION OF PROPOSED ALTERNATE POINTS OF DIVERSION FOR THE CITY OF RAPID CITY WATER RIGHTS TRANSFER

[Signature]
DANIEL L. BJERKE, P. E.

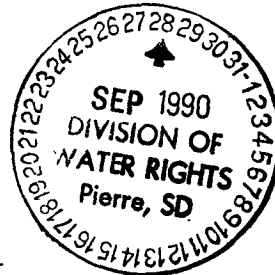
RAPID CITY WATER AND WATER RECLAMATION DIVISION MANAGER



PETITIONER'S EXHIBIT

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 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

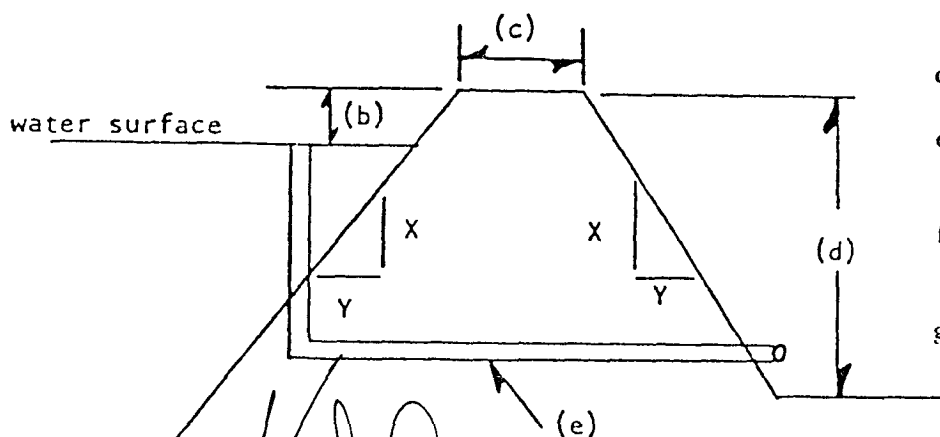
Downstream 2:1

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

Keith T. Carlyle, Mayor
City of Rapid City

SOUTH DAKOTA AMENDED WATER PERMIT NO. 2142-2

The Water Management Board approved Water Permit Application No. 2142-2 on May 1, 1991 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.

On May 7, 1992, the Water Management Board AMENDED the diversion rate in Water Permit No. 2142-2 from 0.64 cfs to 0.62 cfs. The reduction of the diversion rate will not cause a reduction in the monthly or total annual volumes of water to be diverted at the treatment plant, infiltration galleries or stored in Pactola Reservoir. Water Permit No. 2142-2 is subject to the following limitations, conditions or qualifications:

1. Water Permit No. 2142-2 transfers the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch (Rapid Valley Water Company, Inc.) to the city of Rapid City for municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses. The portion of Rapid creek natural flows transferred to the city is 0.62 cubic feet of water per second (cfs) with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, if stored in Pactola Reservoir. Historically, the 0.62 cfs has been used to irrigate approximately 49 acres located in Government Lot 2 (less highway and railroad right-of-way) and the unplatted portion of Lot B of Lot 1 (W $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 19, T1N, R9E also known as the Tyler property. The existing diversion point on Rapid Creek for Murphy Ditch is located in the SW $\frac{1}{4}$ Section 8, T1N, R8E. This permit changes the diversion point for the 0.62 cfs to diversion points for use by the city located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3 (Rapid City Water Treatment Plant); SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 3 (Sioux Park Gallery); SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 9 (Meadowbrook Gallery); NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 $\frac{1}{4}$ SW $\frac{1}{4}$ Section 2-T1N-R5E and the reservoir impounds water in portions of the 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 - October 31 for diversion from the Water Treatment Plant, 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 April 6, 1878.
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. 2142-2 is limited to a diversion rate of 0.62 cfs for a total annual volume of 77.9 acre-feet at Sioux Park Gallery (SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 3), Meadowbrook Gallery (SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 9), Jackson Springs Gallery (NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 8), and the Rapid City Water Treatment Plant (SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3), all in T1N-R7E. Maximum monthly diversion volumes at Pactola or the diversion points within Rapid City are as follows:

Month	Monthly acre-feet at Pactola	Monthly acre-feet at diversion points within Rapid City
May	8.8	10.3
June	10.2	12.1
July	13.9	16.3
August	17.8	21.0
September	12.1	14.2
October	3.4	4.0

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 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.
3. That the Water Management Board is retaining jurisdiction of Permit No. 2142-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2142-2.
4. Diversions to Pactola will be made so as not to interfere with the prior water rights of Leedy Ditch or Cleghorn Springs, any other prior water rights or any domestic rights.
5. The amount of water with an April 6, 1878, priority date which may be appropriated under Vested Water Right No. 1727-2 is decreased by 0.62 cfs.

WATER MANAGEMENT BOARD

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

NOV 14 1994
date

EXHIBIT 1

LEGAL DESCRIPTION OF IRRIGATED LAND
AFFECTED BY APPLICATION

Government Lot Two (2), less highway and railroad right-of-ways,
and the unplatted portion of Lot B of Lot One (1), Section
Nineteen (19), Township One (1) North, Range Nine (9) East of the
Black Hills Meridian, Pennington County, South Dakota, consisting
of 49.03 acres, more or less.



EXHIBIT 2

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

4. Location of Points of Diversion

City of Rapid City Water Treatment Plant:

North 71° 39' West, 1205 ft. from East $\frac{1}{4}$ corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Sioux Park "Girlscout" Gallery:

1270 ft. North 54° 05' East of Southwest corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

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Jackson Springs Gallery:

2943 ft. North 58° 54' West of Southeast corner of Section Eight (8), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Alternate Pactola Reservoir Diversion (Inlet to Service Spillway):

South 19° East, 3740 feet of Northwest Corner of Section Two (2), Township One (1) North, Range Five (5) East of the Black Hills Meridian.

Reservoir generally located in portions of Sections Two (2), Three (3), Four (4), Five (5), Ten (10) and Eleven (11), Township One (1) North, Range Five (5) East of the Black Hills Meridian, and portions of Sections Thirty-One (31), Thirty-Two (32), Thirty-Three (33) and Thirty-Four (34), Township One (1) North, Range Five (5) East of the Black Hills Meridian.

All of the above in Pennington County, South Dakota.



RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412875

Pierre, September 28, 1990

RECEIVED OF Leslie J. Englund, Attorney at Law, 731 St. Joseph 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>2142-2</u> to Appropriate Water, to construct works 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 Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer

Table 18.3 Comparison of Irrigation Systems in Relation to Site and Situation Factors

Site and Situation Factors	Improved Surface Systems			Sprinkler Systems	
	Redesigned Surface Systems	Level Basins	Intermittent Mechanical Move	Continuous Mechanical Move	Trickle Systems
Infiltration rate	Moderate to low	Moderate	All	Medium to high	Medium to high
Topography	Moderate slopes	Small slopes	Level to rolling	Level to rolling	Level to rolling
Crops	All	All	Generally shorter crops	All but trees and vineyards	All
Water supply	Large streams	Very large streams	Small streams	Small streams	Small streams, continuous and clean
Water quality	All but very high salts	All	nearly continuous harm plants	Salty water may harm plants	All—can potentially use high salt waters
Efficiency	Average 60–70%	Average 80%	Average 70–80%	Average 80%	Average 80–90%
Labor requirement	High, training required	Low, some training	Moderate, some training	Low, some training	Low to high, some training
Capital requirement	Low to moderate	Moderate	Moderate	Moderate	High
Energy requirement	Low	Low	Moderate to high	Moderate	Low to moderate
Management skill	Moderate	Moderate	Moderate	Some interference	May have considerable interference
Machinery operations	Medium to long fields	Short fields	Medium field length, small interference	Some interference circular fields	Long term, but durability unknown
Duration of use	Short to long	Long	Short to medium	Short to medium	All
Weather	All	All	Poor in windy conditions	Better in windy conditions than other sprinklers	Windy conditions reduce performance; good for cooling
Chemical application	Fair	Good	Good	Good	Very good

Source: Engineering 1977.

Jensen, M. E. (1973). *Consumptive Use of Water and Irrigation Water Requirements*. American Society of Civil Engineers, New York.

U. S. Soil Conservation Service (1967). "Irrigation Water Requirements." Tech. Release No. 21, Washington, D.C.

PROBLEMS

18.1. Determine the evapotranspiration and irrigation requirement for small grain where the monthly evapotranspiration coefficient $k = 0.65$ in the Blaney-Criddle formula. The average monthly temperatures for the three-month growing season are 21.6, 23.4, and 24.6°C, respectively. The percentages of daytime hours for the same period are 8.7, 9.3, and 9.5, and the average rainfall is 33, 49, and 54 mm (1.30, 1.91, and 2.13 in.), respectively. Assume the water application efficiency is 60 percent.

Table 18.3 Comparison of Irrigation Systems in Relation to Site and Situation Factors

Site and Situation Factors	Improved Surface Systems			Sprinkler Systems	
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Water quality	All but very high salts	All	nearly continuous harm plants	Salty water may harm plants	All—can potentially use high salt waters
Efficiency	Average 60–70%	Average 80%	Average 70–80%	Average 80%	Average 80–90%
Labor requirement	High, training required	Low, some training	Moderate, some training	Low, some training	Low to high, some training
Capital requirement	Low to moderate	Moderate	Moderate	Moderate	High
Energy requirement	Low	Low	Moderate to high	Moderate	Low to moderate
Management skill	Moderate	Moderate	Moderate	Some interference	May have considerable interference
Machinery operations	Medium to long fields	Short fields	Medium field length, small interference	Some interference circular fields	Long term, but durability unknown
Duration of use	Short to long	Long	Short to medium	Short to medium	All
Weather	All	All	Poor in windy conditions	Better in windy conditions than other sprinklers	Windy conditions reduce performance; good for cooling
Chemical application	Fair	Good	Good	Good	Very good

Source: Engineering 1977.

the average moisture content of the top 0.6 m (2 ft) of soil from 18 to 24 percent (dry weight basis). If the average dry density of the soil is 1201 kg/m³ (75 pcf), what is the water application efficiency?

18.3. A flow of 5.66 m³/s (200 cfs) is diverted from a river into a canal. Of this amount 4.25 m³/s (150 cfs) are delivered to farm land. The surface runoff from the irrigated area averages 0.71 m³/s (25 cfs) and the contribution to ground water is 0.42 m³/s (15 cfs). What is the water-conveyance efficiency? What is the water-application efficiency?

18.4. Determine the water-application efficiency and the uniformity coefficient if a stream of 0.085 m³/s (3 cfs) is delivered to the field for 2 hours, runoff averaged 0.042 m³/s (1.5 cfs) for 1 hour, and the depth of penetration of the water varied linearly from 1.68 m (5.5 ft) at the upper end to 1.06 m (3.5 ft) at the lower end of the field. The root zone depth is 1.68 m (5.5 ft).

SOIL & WATER
CONSERVATION
ENGINEERING TEXT

drainage water. The requirement when taken as the weighted concentration given by the electrical con-

water (EC_{ad}) which irrigation water (W_i)

mmhos/cm 5.24

the effective rainfall of the irrigation

inches/acre.

mmhos/cm,

mmhos/cm, $\alpha = 0.8$

$= 0.77$ mmhos/cm

2.1 inches.

ple would be 20.0 +

requirement, its limitations involved, can be found

Salinity Laboratory 3) 81.

of water a sprinkler system includes the net loss during irrigation, runoff, etc. Usually the estimating the various losses by dividing the overall irrigation ef-

as the ratio of the root zone and utilized in the field, the efficiency

ing field application may be any one or

- (1) evaporation losses from the surface of flowing water or evaporation in the air by sprinkler nozzle spray.
- (2) losses to deep percolation below the root zone.
- (3) evaporation from the soil during irrigation, or
- (4) runoff from the field.

Water application losses with properly designed sprinkler irrigation systems are limited to: (1) evaporation losses in the air from the sprinkler spray, (2) evaporation from the soil surface during irrigation, (3) possibly, evaporation from the intercepted leaf surfaces and some deep percolation loss. However, on this subject Hansen²⁷ says, "Studies by Winn⁸³ indicate evaporation from ground and foliage reduce by an equal amount the amount of moisture depleted from the soil by the plant. The evaporation from the jet can be rationalized as also reducing the transpiration since the evaporation absorbs energy that otherwise would be consumed in transpiration. The extent to which 'evaporation losses' are actually losses should be carefully investigated."

Christiansen¹¹ in his work on sprinkler irrigation in California studied direct evaporation loss from the spray. His conclusion was, "Even with application rates from .25 to .5 of an inch per hour, more than 10% of the water may be evaporated as it is applied during the afternoon in extremely hot dry periods. Evaporation losses at night however are usually very low."

Somerhalder⁶⁰ lists the following Table V-16 of irrigation efficiencies from sprinkled plots.

TABLE V-16
Inches of Water Applied and Made Available for Plant Use on
Alfalfa Sprinkled Plots

Year	Water Metered in Inches	Water Made Available for Plant Use Inches	Irrigation Efficiency Percent
1952	28.74	24.88	86.6
1953	29.22	24.04	82.3
Av.	28.98	24.46	84.4

A study of field application efficiencies at Redfield, South Dakota⁶⁰ for sprinkler irrigation shows efficiencies from 65 to 95 percent. Wind conditions varying from 2 to 19 miles per hour and the relative humidity from 30 to 75 percent and temperature from 60 to 90 degrees F. (See Table V-17)

struction. They must be installed at prescribed depths so that water readily moves between them and the soil to achieve equilibrium. Matric potential sensors measure the change in soil-water content of the porous block by determining the effect upon thermal conductivity. Devices in the block measure temperature change in the block resulting from an imposed heat pulse from a very small electrical heater.

Currently available sensors measure most reliably in the range of 0.1 to 1 bar, but they may be constructed to measure at higher soil-water suctions. Maintenance is fairly low, and the ceramic lasts for several years. They cost more than electrical resistance blocks and tensiometers. The manufacturer offers a variety of meter types and controls for irrigation equipment.

-sizing and operating irrigation systems

Two types of water application systems, sprinkler and drip systems, are particularly well suited to the climate, soils, and topography of the Southeast. Before equipment is purchased, the system capacity required to meet the crop's needs must be determined. After equipment is installed, it must be operated appropriately to meet the crop water requirements.

sprinkler systems

Sprinkler systems, either center-pivot or cable-tow, apply water as droplets that range in diameter from 0.04 to 0.28 inch (0.10 to 0.71 cm), depending on nozzle design and operating pressure. Larger droplets are less subject to being haphazardly dispersed by wind and to evaporative losses, but they can injure small or delicate plants more and can accelerate surface crusting in certain soils. Once droplets reach the soil surface, they either infiltrate and move downward by gravity and capillary forces, or produce runoff. While some lateral movement occurs, most of the movement is downward. To avoid runoff, a sprinkler system should apply water uniformly over the surface of the entire field at a rate less than the infiltration rate. Uneven water distribution results in too little water being applied in some areas, reducing crop yield, and too much in other areas, resulting in deep percolation losses, runoff and perhaps erosion, higher energy

costs, and reduced yields. The coefficient of uniformity (C_u) is the most commonly used measure of application uniformity. It compares application depths at selected locations to the mean value. Absolute uniformity is represented by a C_u of 100%. Systems with C_u values of 80% or higher are generally acceptable.

Application efficiency (E_a) is defined as the ratio of water retained in the water-regulation zone to the total water applied. It depends upon the losses from evaporation, runoff, and deep percolation. Since these losses generally represent water that is unavailable to the plants, the flow capacity of the system must be increased by the amount of these losses. Application efficiencies range from a low of 70% for high-volume traveling sprinklers under windy conditions to a high of 85% for low-pressure center-pivot systems under low-wind conditions.

A system's delivery capacity must be large enough to meet maximum daily potential evapotranspiration. Determining this capacity requires a knowledge of the area to be irrigated (A , in acres or hectares), the maximum evapotranspiration rate of the crop to be grown (ET , in inches or centimeters per day—see table 19), the application efficiency of the system (E_a , as a decimal fraction), and the hours of operation per day (h). The required capacity, Q_s , in gallons per minute or liters per second is

$$Q_s = (K \times ET \times A) / (E_a \cdot h), \quad (1)$$

where $K = 453$ for U.S. customary units and 27.8 for metric units.

The soil-water recharge (SWR, in inches or centimeters) of the root zone depends upon the soil depth to which water is regulated (D , in inches or centimeters), and the water retention of the

Table 19. Maximum evapotranspiration rates for selected crops

Crop	Evapotranspiration rate	
	Inch per day	Centimeter per day
Corn, cotton, peanuts, soybeans	0.3	0.76
Cucumbers, southern peas,		
snap beans	¹ 0.2-0.3	² 0.51-0.76
Peaches, pecans	² 0.2-0.3	² 0.51-0.76

¹Value depends on completeness of canopy.

²Value depends on type and amount of ground cover and on tree canopy.

Table 11-13 can be used as a rough guide to sprinkler-irrigation efficiencies. More locally adapted information may oftentimes be obtained from the local irrigation guide.

Table 11-13.--Water-application efficiencies for well-planned sprinkler systems¹

Depth of water applied per irrigation (acre-inches per acre)	Average wind movement, 0-4 mile per hour	
	Application rate under 0.5	Inches per hour more than 0.5
	<i>Percent</i>	<i>Percent</i>
Under 2.0	65	70
More than 2.0	70	75
	Average wind movement, 4-10 miles per hour	
Under 2.0	60	65
More than 2.0	65	70
	Average wind movement, 10-15 miles per hour	
Under 2.0	55	60
More than 2.0	60	65

¹ Use efficiencies 5 percent higher than shown for areas where peak consumptive use rates are less than 0.20 inch per day and for undertree irrigation in all areas.

Information from tables such as table 11-13 can be only general in nature. There is a real need for the measurement and evaluation of sprinkler-irrigation efficiencies under field conditions in all areas where this method of irrigation is used.

The procedure for evaluating sprinkler-irrigation systems is discussed in U. S. Department of Agriculture Agricultural Handbook 82, Methods for Evaluating Irrigation Systems, 1956.

Mechanized Sprinkler Equipment

Attempts have been made to reduce the work in moving portable lateral lines from one setting to the next. In recent years, several manufacturers have been working on the development of at least four types of mechanized sprinkler laterals described briefly as follows:

The cost of all these mechanized laterals is greater than that for comparable hand-move equipment. For this reason, a careful cost comparison should be made between the added expense of the equipment and the estimated savings in labor. This is particularly important in humid areas where sprinkler equipment may be used as little as 300 hours per year.

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LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

April 2, 1990



Mr. Delvin Brosz
Department of Water and Natural Resources
Division of Water Rights
Joe Foss Building
523 E. Capitol
Pierre, SD 57501

Re: City of Rapid City Water Matters

Dear Delvin:

Please provide copies of forms the Department anticipates will be required in a transfer of irrigation water to municipal use. Any instructions available would be appreciated. Will your office preview draft applications prior to actual filing?

Yours very truly,

Leslie J. England

LJE/cs

cc: Mike Strub



Department of Water & Natural Resources

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

April 6, 1990

Leslie J England, attorney
Suite 102, Western Mutual Building
731 St. Joseph Street
Rapid City SD 57701

Dear Mr. England:

This letter is in response to your letter dated April 2, 1990 to Del Brosz regarding a change in permitted water use.

Enclosed are application forms to apply for a permit to change water use from irrigation to municipal use. An instruction sheet is attached to the applications. The Supplemental Information forms may or may not be needed depending on the details of the application.

The application needs to include the following information:

- 1) A completed Form 2 and Supplemental Information sheet if needed.
- 2) A map showing the existing and any proposed diversion points completed in accordance with directions on the instruction sheet.
- 3) A \$50.00 application fee.

The Form 2 (Application for Permit) needs to include: 1) the "amount of water claimed" or, in this case, to be changed from one use to another, 2) the "location of point of diversion" which should include the legal description of the existing diversion point and the proposed location if the diversion point is to be moved, 3) "a brief description of the proposed project" which needs to include a plan of operation; a copy of any proposed agreements, contracts, etc. entered into by the parties; and any other descriptive information about the proposed project, 4) the remaining information on the Form 2 is self-explanatory and needs to be completed. The application may also need to include other information depending on the specifics of the proposed application.

A draft application may be submitted for the Division to preview. If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ron Duvall".

Ron Duvall
Natural Resources Engineer
605 773-3352
enc.

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

September 27, 1990

VIA FEDERAL EXPRESS

Mr. John Hatch
Chief Engineer
Water Rights Division
Department of Water and Natural Resources
Joe Foss Building
Pierre, SD 57501



RE: City of Rapid City Change of Use (Irrigation to
Municipal Change Application)

Dear Mr. Hatch:

Enclosed for filing please find two (2) completed and executed copies of Form 2, Application to Appropriate Water and two (2) completed and executed copies of Form 2A, along with my law firm check in the amount of \$50.00 representing the application fee. Maps entitled "Location of Proposed Alternate Points of Diversion for The City of Rapid City Water Rights Transfer" signed by Daniel L. Berjke, P.E., dated September 10, 1990 were previously submitted in duplicate original form to you for filing.

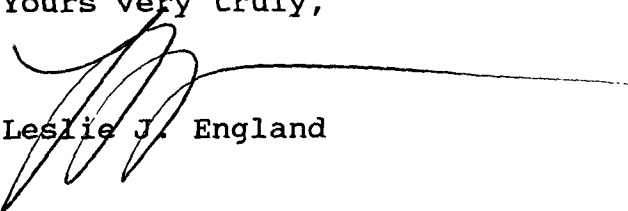
With respect to the application, please note that Recreational Use is not claimed. Also, the rate of diversion is .64 cfs not to exceed 85.1 acre feet per year, or 72.4 acre feet per year at the alternate Pactola Reservoir diversion. These annual amounts reflect seepage test results performed last week on the Murphy Ditch. The annual period of use is based upon the historical irrigation season of approximately April 15 through October 15. Changes to the Wright Water Engineers, Inc. report previously filed describing the project will be provided under separate cover.

If you have any questions about the application or enclo-

Mr. John Hatch
September 27, 1990
Page 2

tures, or any other matters in these regards, please do not
hesitate to contact me immediately. Thank you for your kind
attention to this application.

Yours very truly,



Leslie J. England

LJE/NMM
enclosures
cc Michael D. Strub
Tamara Pier

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

October 1, 1990



Mr. John Hatch
Chief Engineer
Water Rights Division
Department of Water and Natural Resources
Joe Foss Building
Pierre, SD 57501

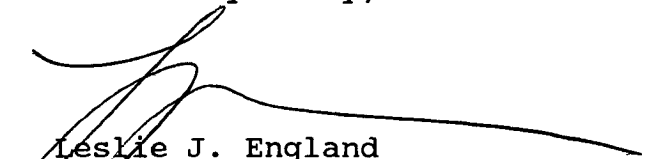
Re: Change of Irrigation Water Rights to Municipal Use

Dear Mr. Hatch:

The City of Rapid City recently negotiated the purchase of irrigated property with water rights on the Murphy Ditch in Rapid Valley, and applied to the Department of Water and Natural Resources for a hearing to be set later this year before the Water Management Board for approval of change of water use from irrigation to municipal purposes. This irrigated property had been listed for sale over the last year. Once the water rights are transferred to municipal use the land can be resold.

To ensure that state law is complied with, which requires no adverse impact on other water rights holders as a result of such a change of use, the City has hired water engineering consultants to assist in this process. An informational meeting to discuss this change of use and methods to avoid adverse impact on others, will be held at City Hall at 7:00 p.m. on Wednesday, October 10, 1990. This meeting is for Rapid Creek water users and their representatives, and representatives from the City of Rapid City, the South Dakota Department of Water and Natural Resources, and the United States Bureau of Reclamation, to give an overview of the change of use process and answer questions to eliminate confusion and address your concerns.

Yours very truly,


Leslie J. England
Attorney for the
City of Rapid City

LJE/tb

SOUTH Dakota Department of
Water & Natural Resources

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

October 12, 1990

NOTICE

TO: Michael Hickey, P.O. Box 2670, Rapid City, SD 57709
Rexford Hagg, P.O. Box 8008, Rapid City, SD 57709
Jerry Hammerquist, Box 26, Caputa, SD 57725
Joseph Lytle, 3125 Orchard Lane, Rapid City, SD 57701
Harry Morris, 116540 S. Buckston Rd, Silver Bow, MT 59750
David Lamb, RR 2, Box 160, Rapid City, SD 57701
Steve Murphy, RR 5, Box 140, Rapid City, SD 57701

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



SUBJECT: Water Permit Application No. 2142-2 to Transfer the Use of a
portion of Rapid Creek Natural Flows

The City of Rapid City has applied for a water permit to transfer the use of 0.64 cubic feet of water per second with annual volume limitations from Murphy Ditch to use by Rapid City. Enclosed is a copy of the notice of hearing to be published on October 17 & 24, 1990 in the Rapid City Journal.

enc.

Report on Water Permit Application No. 2142-2
City of Rapid City
October 11, 1990

Application No. 2142-2, City of Rapid City, proposes to change the use of appropriated water from irrigation to municipal use as allowed under South Dakota Codified Law (SDCL) 46-5-34.1. The application proposes to transfer the consumer portion of the water which has historically been used to irrigate land located in the W1/2 NW1/4, NW1/4 SW1/4 of Section 19-T1N-R9E. The appropriated water is water supplied by Rapid Valley Water Company, also known as Murphy Ditch, from Rapid Creek with a diversion point located in the SW1/4 of Section 8-T1N-R8E. The proposed diversion points will be in the SE1/4 NE1/4, SW1/4 SW1/4 Section 3, NW1/4 SE1/4 Section 8, SE1/4 NE1/4 Section 9; all in T1N-R7E (Rapid City water system diversion); and NW1/4 SW1/4 Section 2-T1N-R5E (Pactola Reservoir Diversion) with the reservoir impounding water in portions of Sections 2, 3, 4, 5, 10, 11 of T1N-R5E and Sections 31, 32, 33, 34 of T2N-R5E. The amount of water to be transferred is at a rate of 0.64 cubic feet of water per second (cfs) with the total annual volume being 77.9 acre-feet of water (ac-ft) at the water system diversion or 66.2 ac-ft at the Pactola Reservoir Diversion (Wright 1990).

Review of Existing Water Rights

The water to be transferred has been appropriated under Vested Water Right Claim No. 1727-2, Rapid Valley Water Company, with a priority date of April 6, 1878. If the transfer is approved, the April 6, 1878 priority date should be retained and the 17 cfs appropriated under Vested Water Right Claim No. 1727-2 should be decreased by 0.64 cfs to 16.36 cfs.

There are 61 existing water rights on Rapid Creek from Pactola Reservoir to the Cheyenne River. Of these, 3 water rights which appropriate approximately 3.37 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. 0646-2A, City of Rapid City, for 1.48 cfs, and Water Right No. 2023-2, Leedy Ditch, for 1.00 cfs.

Water Source

The vested water right claim held by Rapid Valley Water Company has historically appropriated natural flows from Rapid Creek due to the senior status of the water right. The appropriated water covered under this proposed transfer will continue to be from the natural flows of Rapid Creek.

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 having a priority before July 1, 1978, or to individual domestic users. The application proposes that the transfer be made at a diversion rate of 0.64 cfs. This is related to the amount of water delivered to the irrigated property minus seepage loss associated with the irrigation ditch. The volume of water which could be stored at Pactola Reservoir is 66.2 ac-ft annually. This volume of water is the amount of water calculated to have been consumed by the crop. The volume of water which can be diverted at the Rapid City water system intakes is 77.9 ac-ft annually. This volume of water is the amount of water consumed by the crop plus the amount of return water which is not used by the crop and is returned to Rapid Creek. The water which has been returned to Rapid Creek through the irrigation process would also be returned to Rapid Creek by Rapid City through their waste water treatment system. (Wright, 1990)

Water losses due to seepage in irrigation ditches located in the Rapid Valley have been estimated to average 30 percent. (U.S Bureau of Reclamation, 1990) Measurements completed by Wright Water Engineers Inc. on Rapid Valley Water Company ditch estimate seepage losses in the ditch to be at 11 percent. (Wright, 1990)

In reviewing measurements made by the Bureau of Reclamation on the Little Giant ditch and the South Side ditch, one can conclude that the 11 percent seepage loss for Rapid Valley Water Company ditch is reasonable. The Little Giant ditch and South Side ditch are in close proximity to the Rapid Valley Water Company ditch. Seepage loss rates for the Rapid Valley Water Company ditch would range from 5.5 percent to 17.3 percent when comparing the Little Giant ditch and Southside ditch rates.

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 of the water right and any effect upon existing water rights.

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.
2. The priority date of April 6, 1878 should be retained.

3. The amount of water requested to be transferred, 66.2 ac-ft and 77.9 ac-ft and the diversion rate of 0.64 cfs seem reasonable. The following table lists the monthly diversion volumes at each diversion point.

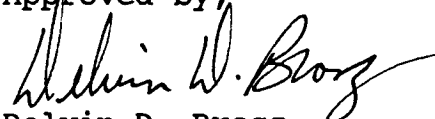
<u>Month</u>	<u>Monthly acre feet at diversion points within Rapid City</u>	<u>Monthly acre feet at Pactola</u>
May	10.3	8.8
June	12.1	10.2
July	16.3	13.9
August	21.0	17.8
September	14.2	12.1
October	4.0	3.4

4. The Water Management Board should continue to monitor the management and operation of the transfer of the water right and of existing water rights.



Mark D. Rath
Natural Resources Engineer II

Approved by,



Delvin D. Brosz
Natural Resources Engineer IV

References

1. Wright Water Engineers, Inc. 1990. Engineering Report for Transfer of Tyler Property Share of Validated 1878 Murphy Ditch Priority. 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 Water and Natural Resources. Division of Water Rights Records.

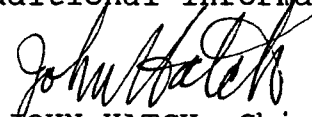
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2142-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2142-2, City of Rapid City, 300 Sixth Street, Rapid City SD.

The Chief Engineer is recommending APPROVAL of Application No. 2142-2 because 1) the proposed diversions can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) in the public interest.

(A revised APPROVAL Recommendation with qualifications will be prepared prior to the November 13, 1990 hearing.)

See report on application for additional information.



JOHN HATCH, Chief Engineer
October 11, 1990

REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2142-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2142-2, City of Rapid City, 300 Sixth Street, Rapid City SD.

The Chief Engineer is recommending APPROVAL of Application No. 2142-2 because 1) the proposed diversions can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) in the public interest with the following qualifications:

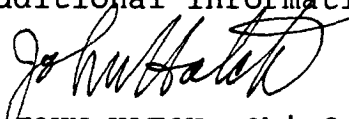
1. That Permit No. 2142-2 is limited to a diversion rate of 0.64 cfs for a total annual volume of 66.2 acre feet at Pactola Reservoir or a total annual volume of 77.9 acre feet at Sioux Park Gallery (SW1/4 SW1/4 Section 3), Meadowbrook Gallery (NW1/4 NE1/4 Section 9) Jackson Springs Gallery (NW1/4 SE1/4 Section 8) and the Rapid City Water Treatment Plant (SE1/4 NE1/4 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	8.8	10.3
June	10.2	12.1
July	13.9	16.3
August	17.8	21.0
September	12.1	14.2
October	3.4	4.0

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 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.
3. That the Water Management Board is retaining jurisdiction of Permit No. 2142-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2142-2.

See report on application for additional information.


JOHN HATCH, Chief Engineer
October 30, 1990



Department of Water & Natural Resources

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

October 11, 1990

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

Les Englund
Suite 102, Western Mutual Bldg
731 St. Joseph Street
Rapid City SD 57701

Dear Mr. Englund:

Water Permit Application No. 2142-2 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. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation will be sent to you at a later date. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Intent to Appropriate Water and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



Department of Water & Natural Resources

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

October 11, 1990

Rapid City Journal
Box 450
Rapid City SD 57709-0450

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 2142-2 to be published twice. Please publish the first notice on or before October 17, 1990 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 Sixth Street, Rapid City SD 57701.

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

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

FIRST TRANSMITTAL NOTICE

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

No. _____

Date _____

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

Name

Newspaper

Instruction to Newspaper - Publish first Notice on or before October 17, 1990 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 2142-2 to Transfer Use

Notice is given that the City of Rapid City, 300 6th Street, Rapid City, SD 57701 has filed an application pursuant to SDCL 46-5-34.1 for a water permit to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch (Rapid Valley Water Company, Inc.) to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses to the City of Rapid City. The portion of Rapid Creek natural flows to be transferred to the city is 0.64 cubic feet of water per second (cfs) with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, if stored in Pactola Reservoir. Historically, the 0.64 cfs has been used to irrigate approximately 49 acres located in Government Lot 2 (less highway and railroad right-of-way) and the unplatted portion of Lot B of Lot 1 (W1/2 NW1/4, NW1/4 SW1/4) Section 19 T1N-R9E also known as the Tyler property. The existing diversion point on Rapid Creek for Murphy Ditch is located in the SW1/4 Section 8 T1N-R8E. This application is to change the diversion point for the 0.64 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); NW1/4 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 NW1/4 SW1/4 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 April 6, 1878 for use of 0.64 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2142-2 with qualifications because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water and 3) it is in the public interest. This application will be considered by the Water Management Board in the Caucus Room, City/School Administration Building, 300 6th Street, Rapid City, SD 57709 on November 13, 1990 at 10:00 am. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by November 5, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application and the signature and mailing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by November 5, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01:01 thru 74:02:01:12.02; 74:02:01:13.01 thru 74:02:01:15.

Oct. 17, 24 L341

**NOTICE OF HEARING
ON APPLICATION NO. 2142-2
TO TRANSFER USE**

Notice is given that the City of Rapid City, 300 6th Street, Rapid City, SD 57701 has filed an application pursuant to SDCL 46-5-34.1 for a water permit to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch (Rapid Valley Water Company, Inc.) to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses to the City of Rapid City. The portion of Rapid Creek natural flows to be transferred to the city is 0.64 cubic feet of water per second (cfs) with an annual volume limitation of 77.9 acre-feet. It diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, it stored in Pactola Reservoir. Historically, the 0.64 cfs has been used to irrigate approximately 49 acres located in Government Lot 2 (less highway and railroad right-of-way) and the unplatted portion of Lot B of Lot 1 (NW¼ NW¼, NW¼ SW¼) Section 19, T1N-R7E also known as the Tyler property. The existing diversion point on Rapid Creek for Murphy Ditch is located in the SW¼ Section 8, T1N-R5E. This application is to change the diversion point for the 0.64 cfs to diversion points for use by the city to be located in the SE¼ NE¼ Section 3 (Rapid City Water Treatment Plant), SW¼ SW¼ Section 3 (Sioux Park Gallery), NW¼ NE¼ Section 9 (Meadowbrook Gallery), NW¼ SE¼ 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 NW¼ SW¼ 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 April 6, 1878 for use of 0.64 cfs is to be retained by the city.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2142-2 with qualifications because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water and 3) it is in the public interest. This application will be considered by the Water Management Board in the Caucus Room, City/School Administration Building, 300 6th Street, Rapid City, SD 57709 on November 13, 1990 at 10:00 a.m. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by November 5, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, SD 57501, (605) 773-3352." The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application and the signature and mail-

Affidavit of Publication

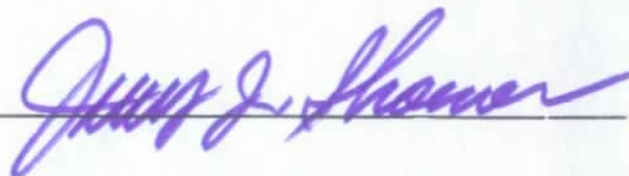


STATE OF SOUTH DAKOTA

SS.

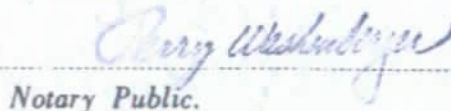
County of Pennington

I, Jerry J. Shoener, being first duly sworn, upon his oath says: That he is now and was at all times hereinafter mentioned, an employee of the RAPID CITY JOURNAL COMPANY, a corporation, of Rapid City, South Dakota, the owner and publisher of the RAPID CITY JOURNAL, a legal and daily newspaper printed and published in Rapid City, in said County of Pennington, and has full and personal knowledge of all the facts herein stated as follows: that said newspaper is and at all of the times herein mentioned has been a legal and daily newspaper with a bonafide paid circulation of at least Two Hundred copies daily, and has been printed and published in the English language, at and within an office maintained by the owner and publisher thereof, at Rapid City, in said Pennington County, and has been admitted to the United States mail under the second class mailing privilege for at least one year prior to the publication herein mentioned; that the advertisement, a printed copy of which, taken from said RAPID CITY JOURNAL, the paper in which the same was published, is attached to this sheet and made a part of this affidavit, was published in said newspaper once each week for two successive weeks, the first publication thereof being on the seventeenth day of October, 19 90, that the fees charged for the publication thereof are one hundred two Dollars and thirty-eight cents.



Subscribed and sworn to before me this 24th day of

October, 19 90.


Notary Public.

Commission expires April 13, 1995

ing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by November 5, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-5-33 thru 46-5-35; and Board Rules ARSD 74:02:01:01 thru 74:02:01:12.02; 74:02:01:13.01 thru 74:02:01:15.

IN THE _____ COURT
COUNTY OF PENNINGTON

**Publisher's and Attorney's
Affidavit**

Filed in the office of _____

on _____

the _____ day of _____

19____

Attorney for _____

Parties of Record for Water Permit Application No. 2142-2
City of Rapid City
November 5, 1990

Proponent

Leslie J. England, Attorney
Suite 102, Western Mutual Bldg
731 St. Joseph Street
Rapid City SD 57701

attorney for:

- City of Rapid City
300 Sixth Street
Rapid City SD 57701

Opponents

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

attorney for:

- Hawthorne Ditch Co., c/o Charles Johnson 1500 E 8th St SD 57701
- ✓ - Mary McMasters & Harry Morris, RR #5
Box 480, Rapid City SD 57701
- Rapid Valley Water Conservancy Dist.,
c/o Jerry Hammerquist
- ✓ - Rapid Valley Water Co. Inc., c/o David Lamb Box 2 - Box 160
RC, SD 57701

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

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

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

Melvin Brassfield
Box 24
Caputa SD 57725

✓ Jerry Hammerquist
Box 26
Caputa SD 7725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa SD 57725

Walter Jones, Secretary
Lone Tree Water Co.
RR #2 Box 4970
Rapid City SD 57701

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

October 15, 1990



Mr. John Hatch
Chief Engineer
Water Rights Division
Department of Water & Natural Resources
523 East Capitol Avenue
Pierre, SD 57501-3181

Dear Mr. Hatch:

This will acknowledge receipt of the Notice of Hearing on Application No. 2142-2 to transfer use from irrigation to municipal purposes on behalf of the City of Rapid City. Thank you and your staff for all of the assistance and timely review and approval of the application and supporting engineering report. On behalf of the City of Rapid City, Leo Eisel at Wright Water Engineers, Inc., and myself, your assistance and excellent cooperation are sincerely appreciated.

Yours very truly,



Leslie J. England

LJE/tb

cc: Michael D. Strub
Leo Eisel

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

October 24, 1990

Mr. Eric Gronlund
Water Rights Division
Department of Water and Natural Resources
523 East Capitol Avenue
Pierre, SD 57501

Re: Application No. 2142-2

Dear Eric:

This will confirm our discussions in your call yesterday to the effect that the City of Rapid City will request an automatic extension of the Noticed Hearing in the above referenced application. This written request will be provided sometime after November 1, 1990, and prior to the November 5, 1990, deadline.

Yours very truly,

Leslie J. England
Leslie J. England

LJE/tb

cc: Michael D. Strub
Tamara Pier



Water Rights Division -DWNR
Conversation or File Documentation

NAME OF PERSON OR FILE: Guy Warren - Wright Water Engineers

ADDRESS: Denver, CO

COUNTY:

DATE: 10/26/90

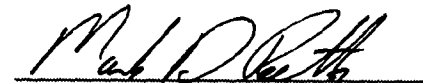
TELEPHONE: 303-480-1700

RE: Water transfer by Rapid City

COMMENTS:

I called Mr. Warren to clarify acres and formulas used in the Rapid City Report. I told him that the validated acres under Murphy Ditch would change from 1341 to 1305. I asked him to clarify if 36 acres owned by Marty Rypkema was included in the 55 acres irrigated from ditch diversion but had separate water rights. he said that it was not, but he did believe that the rest of the Rypkema property was. Mr. Warren also clarified formulas which they used.

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.



Mark D. Rath
Natural Resources Engineer II
DWNR, Water Rights Division



Department of Water & Natural Resources

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

October 31, 1990

Les Englund
Suite 102, Western Mutual Bldg
731 St. Joseph Street
Rapid City SD 57701

Dear Mr. Englund:

Enclosed is the Report and Recommendation of the Chief Engineer for
Water Permit Application No. 2142-2, City of Rapid City.

If you have any questions contact Eric Gronlund with our office.

Sincerely,

A handwritten signature in cursive script that reads "Marie R. Arthur".

MARIE R ARTHUR
Secretary
Water Rights Division
605 773-3352

enclosure

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

October 31, 1990



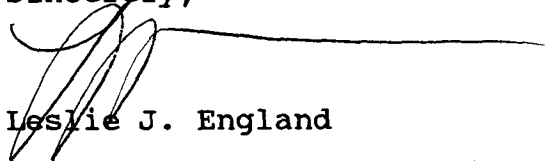
Mr. John Hatch
Chief Engineer
Water Rights Division
Department of Water & Natural Resources
523 East Capitol Avenue
Pierre, SD 57501-3181

RE: Application No. 2142-2

Dear Mr. Hatch:

Enclosed please find the City of Rapid City's written notice requesting a postponement of the date set for hearing on the above referenced application. Please cancel the original hearing on the application and reschedule the application for hearing by the Water Management Board not less than 20 days after the published day for the hearing.

Sincerely,



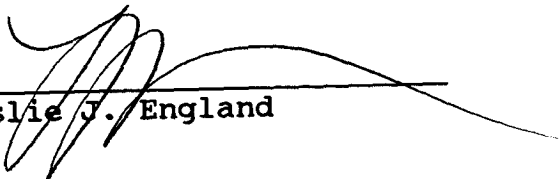
Leslie J. England

LJE/nmm
encl.

Mr. Michael Hickey, Attorney for Rapid
Valley Water Company, Inc. (courtesy copy)
Michael Strub, Public Works Director
Tamara Pier, Assistant City Attorney

by first class mail, proper postage affixed, this 31 day of
October, 1990 on the following person:

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



Leslie J. England

Water Rights Division -DWNR
Conversation or File Documentation

NAME OF PERSON OR FILE: Greg Wick

ADDRESS: Rapid City

COUNTY: Pennington

DATE: 11/1/90

TELEPHONE: 343-5670

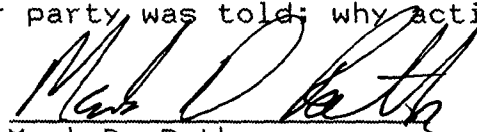
RE: Water rights on propoerties

COMMENTS:

Greg Wick called, he is with the Pennington Title Company, wanted to know what the water rights were on a piece of property on Murphy Ditch. He is researching the title for Rapid City on the Tyler Property and also on the Weber Property.

I told him that we were in the process of validating the water rights on Murphy Ditch which include these two properties, but as of yet I could not give him a definite answer whether the properties have a water right or not.

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.



Mark D. Rath
Natural Resources Engineer II
DWNR, Water Rights Division

File No. 2142-2

Water Rights Division -DWNR
Conversation or File Documentation

NAME OF PERSON OR FILE: Les Englund

ADDRESS: Rapid City COUNTY: Pennington

DATE: 11/1/90 TELEPHONE: 341-7600

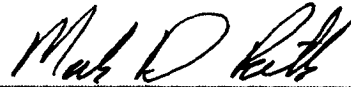
RE: Water rights transfer

COMMENTS:

Les Englund called wanted to know about the Leedy Ditch water right (2023-2) on Rapid Creek. He was wondering if it were connected to the water right the city purchased from Leedy Ditch.

He wanted copies of Water Right No. 2023-2 for his records. Also he said that as of now the city did not have any problems with the recommendations that we placed on Water Permit Application 2142-2.

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.



Mark D. Rath
Natural Resources Engineer II
DWNR, Water Rights Division

Bangs, McCullen, Butler, Foye & Simmons

Lawyers

George A. Bangs
W. A. McCullen (1943-1987)
Joseph M. Butler
Thomas H. Foye
Thomas E. Simmons
Ronald E. Clabaugh
Charles L. Riter
Allen G. Nelson
James P. Hurley

818 St. Joe Street
Mailing Address P. O. Box 2670
Rapid City, South Dakota 57709
605-343-1040
Telecopier 605-343-1503

Michael M. Hickey
Mark F. Marshall
Terry L. Hofer
Rebecca A. McMahon
Patrick K. Duffy
Rodney W. Schlauger
Matthew V. Ressegieu

November 2, 1990

Recycled Paper 

Mr. John Hatch, Chief Engineer
Division of Water Rights
SD Dept. of Water & Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

Re: Water Permit Application No. 2142-2
to Transfer use

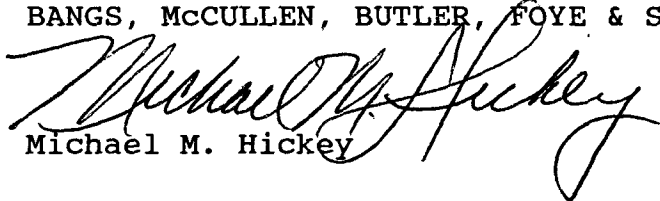
Dear Mr. Hatch:

Please find enclosed the original Objections to Application No. 2142-2 to Transfer Use of Mary McMasters and Harry Morris, Rapid Valley Water Conservancy District, Rapid Valley Water Company, Inc., and Hawthorne Ditch Company. By a copy of this letter, Mr. Leslie England is being sent a copy of these Objections. This is intended as service by mail.

If you have any questions or comments, please do not hesitate to contact me. Thank you.

Sincerely,

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS


Michael M. Hickey

MMH/dcc

cc: Leslie England
clients



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Hawthorne Ditch Company by and through its undersigned counsel of record and hereby files its objection to the Petition filed by the City of Rapid City for a permit to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch to municipal and domestic uses to the City. Said protest and objection is based upon the following grounds:

(1) That Hawthorne Ditch Company is the holder of a water right to the waters of Rapid Creek and is an interested party herein;

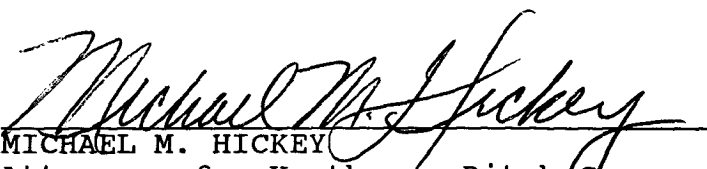
(2) That the proposed transfer would injure and be prejudicial to the rights of Hawthorne Ditch Company, and all other water users of Rapid Creek water;

(3) That the proposed transfer is not in the public interest and would unlawfully impair other existing water rights.

Dated this 2nd day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


MICHAEL M. HICKEY

Attorneys for Hawthorne Ditch Company
818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Mary McMasters and Harry Morris of Route 5, Box 480, Rapid City, South Dakota 57701, shareholders and members of Rapid Valley Water Company, Inc., by and through their undersigned counsel and hereby file an objection and protest to the application filed by the City of Rapid City with regard to the proposed transfer of water on Rapid Creek to municipal and domestic uses. This objection is based upon the following grounds:

(1) That the legal owner of the water being proposed to be transferred is the Rapid Valley Water Company, Inc., and not Dorothy Tyler;

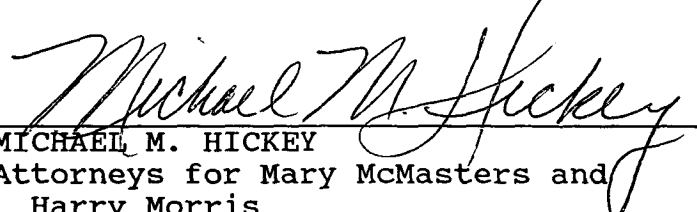
(2) That the transfer is not in the public interest and will impair the existing rights of the members and shareholders of Rapid Valley Water Company, Inc., and all other water users of Rapid Creek water;

(3) That the water right in question is intended for agricultural uses only and any transfer will diminish the value of the remaining land of the members and shareholders of Rapid Valley Water Company, Inc.

Dated this 2ND day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


MICHAEL M. HICKEY
Attorneys for Mary McMasters and
Harry Morris
818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

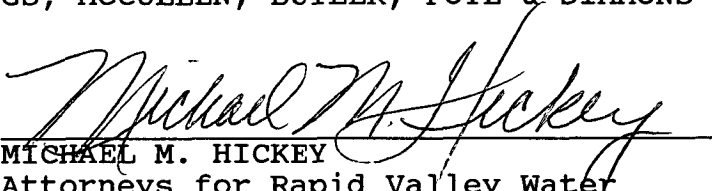
**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Rapid Valley Water Conservancy District, a party in interest in the above-entitled matter, and hereby files an objection and protest to the application for transfer of a water right filed by the City of Rapid City. This protest is based upon the grounds and for the reasons that the application and proposed transfer is not in the public interest, will impair and prejudice other existing water rights and contracts and is contrary to law.

Dated this 2ND day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


MICHAEL M. HICKEY
Attorneys for Rapid Valley Water
Conservancy District
818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Rapid Valley Water Company, Inc., by and through its undersigned counsel of record and hereby files its objection to the Petition filed by the City of Rapid City for a permit to transfer the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch to municipal and domestic uses to the City. Said protest and objection is based upon the following grounds:

(1) That the proposed transfer is not being made by the license holder and owner of the water right, which right is held and owned by Rapid Valley Water Company, Inc., and not Dorothy J. Tyler;

(2) That the proposed transfer would injure and be prejudicial to the rights of other members and shareholders of Rapid Valley Water Company, Inc.;

(3) That the proposed transfer is not in the public interest and would unlawfully impair other existing water rights.

Dated this 2nd day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:

Michael M. Hickey
MICHAEL M. HICKEY

Attorneys for Rapid Valley Water
Company, Inc.

818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



DEPARTMENT OF WATER & NATURAL RESOURCES

CERTIFICATE OF SERVICE

Mr. Leslie J. England
Attorney at Law
731 St. Joseph Street,
Suite 102, Western Mutual Bldg.
Rapid City, SD 57701

Dated this 2ND day of November, 1990.

BY:

STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now MARSH HEREFORD RANCH, a holder of a water right to the waters of Rapid Creek and a party in interest in the above-entitled matter and hereby files an objection and protest to the application for transfer of a water right filed by the City of Rapid City. This protest is based upon the grounds that the application and proposed transfer is not in the public interest and will impair and prejudice my existing water rights.

Dated this 2nd day of November, 1990.

Marsh Herford Ranch
Jerry Marsh
HCR 36 Box 35
RAPID CITY, S.D. 57725



STATE OF SOUTH DAKOTA
DEPARTMENT OF WATER & NATURAL RESOURCES



IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Jerry Hommesquist, a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 3 day of November, 1990.

Jerry Hommesquist

STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Ham Ranch Inc, a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 3 day of November, 1990.

Ham Ranch Inc
by G. Carl Ham, president

Ham Ranch Inc
HCR36 Box 34
Sapute. South Dakota
57225



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE

Comes now St. Germain Ditch Co., a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 3 day of November, 1990.

St. Germain Ditch Co. Keith Ham President

rd Ham

St. Germain Ditch Co.

Keith Ham

HCR 36 Box 34

Capota South Dakota

57225



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now MELVIN BRASSFIELD, a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 3rd day of November, 1990.

Melvin Brassfield
P.O. Box 24
CAPOTA, S D 57725



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE

Comes now Lone Tree Water Co., a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 17th day of November, 1990.

Walter Jones Sec.





STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

**OBJECTION TO APPLICATION
NO. 2142-2 TO TRANSFER USE**

Comes now Dustman Ranch Partnership, a holder of
a water right to the waters of Rapid Creek and a party in interest
in the above-entitled matter and hereby files an objection and
protest to the application for transfer of a water right filed by
the City of Rapid City. This protest is based upon the grounds
that the application and proposed transfer is not in the public
interest and will impair and prejudice my existing water rights.

Dated this 5 day of November, 1990.

Robert Dustman (Partner)

Dustman Ranch Partnership
Box 53
Caputa, S. D. 57725



Department of Water & Natural Resources

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

November 6, 1990

NOTICE

TO: Leslie J. England
Attorney for Applicant
Suite 102 Western Mutual Building
731 St. Joseph Street
Rapid City, SD 57701
and Parties of Record (see attached list)

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

SUBJECT: Automatic Delay of Hearing on Water Permit Application No.
2142-2, City of Rapid City

A petition on Water Permit Application No. 2142-2 has been filed by Leslie J. England, attorney representing the City of Rapid City. The petition requests postponement of the hearing. Therefore, the hearing on Application No. 2142-2 is automatically delayed pursuant to SDCL 46-2A-4 and 46-2A-5 and will not be held on November 13, 1990.

The Water Management Board will now consider Application No. 2142-2 on December 6, 1990 at 9:15 am, in the Deerfield Room, Hilton, 445 Mt. Rushmore Road, Rapid City, SD. The agenda time is an estimate. The actual time of the hearing may be later than 9:15 am due to prior agenda items. Applicable provisions of the Notice of Hearing published on October 17 and 24, 1990 in the Rapid City Journal will still apply at this hearing.

attachment

cc: Water Management Board
John Guhin, Deputy Attorney General
John Haak, Assistant Attorney General
Michael Strub, Public Works Director
Tamara Pier, Assistant City Attorney

CERTIFICATION

I hereby certify that on November 6, 1990 I have personally deposited with the U.S. Mail postage prepaid envelopes containing a Notice of Automatic Delay of Hearing on Water Permit Application No. 2142-2, City of Rapid City addressed as stated on the attached Parties of Record dated November 5, 1990.

Marie R. Arthur

Marie R. Arthur
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 7th day of November, 1990.

John Hatch
Notary Public



SOUTH DAKOTA
Department of
Water & Natural Resources

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

November 7, 1990

Jim Strain
500 1/2 West Boulevard
Suite 3
Rapid City, SD 57701

Dear Mr. Strain:

Enclosed is the information that you requested regarding Water Permit Application No. 2142-2. If I can assist you in any additional way, please feel free to contact me.

Sincerely,

Eric Gronlund
Water Rights Division
605 773-3352

enclosure

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

November 23, 1990



HAND DELIVERED

Mr. Michael Hickey
Attorney at Law
818 St. Joseph Street
P. O. Box 2760
Rapid City, SD 57709

RE: Revised Stipulation

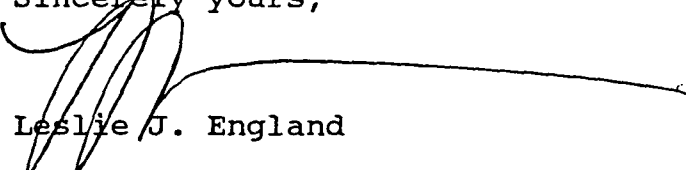
Dear Mike:

Enclosed please find the revised Stipulation for your execution upon review with your clients today. The Stipulation reflects John Haak's and John Hatch's concern about the Water Management Board's continuing jurisdiction over the title question, and contains their suggested language.

Paragraph I contains an additional phrase at the end of the sentence. Paragraph II refers to our desire to resolve the title question by mutual agreement. Paragraph III contains Haak's suggestion that "at this time the Water Management Board will only" determine quantification and other objection issues raised. This leaves the title issue open for later declaratory action by either the Water Management Board or the Circuit Court.

Thank you for your cooperation in attempting to settle this issue without litigation.

Sincerely yours,


Leslie J. England

LJE/nmm
enc.

cc John Hatch
John Haak
Michael Strub
Tamara Pier

STATE OF SOUTH DAKOTA

WATER MANAGEMENT BOARD

IN THE MATTER OF WATER	)	STIPULATION OF
RIGHT CHANGE OF USE	)	CITY OF RAPID CITY
APPLICATION NO. 2142-2	)	AND OPPONENTS MARY
OF THE CITY OF RAPID CITY,	)	McMASTERS AND HARRY MORRIS,
SOUTH DAKOTA	)	AND RAPID VALLEY WATER
	)	COMPANY, INC.

COMES NOW Applicant, City of Rapid City, and Opponents Mary McMasters and Harry Morris, and Rapid Valley Water Company, Inc., in the above-captioned action, and by and through the undersigned respective counsel, stipulate and agree as follows:

I.

The issue of legal ownership of the right to use Rapid Creek natural flows of water for irrigation on the Tyler property as described in the above-numbered Application, raised by said Opponents, can be determined either by agreement between the Applicant, Tyler the landowner, and the Rapid Valley Water Company, Inc. in a manner ensuring good and marketable title and ownership of said water right, or by quiet title action in the Circuit Court, Seventh Judicial Circuit, Pennington County, South Dakota, or by declaratory ruling by the Water Management Board.

II.

The parties to this Stipulation desire to resolve the ownership issue referred to in Paragraph I above by mutual agreement.

III.

The parties to this Stipulation agree that at this time the Water Management Board will only determine the ultimate issues in the pending change of use application with respect to quantifica-

tion of the allowable amount of transferable water, and adverse impact, injury, prejudice, public interest and diminution of property values as raised by the Opponents to this Application, but not the legal question of title during the hearing on change of use. This ownership issue may not have to be determined by litigation if the parties to this Stipulation are able to mutually resolve same.

Dated this ____ day of _____, 1990.

Leslie J. England
Attorney for Applicant,
City of Rapid City

Michael M. Hickey
Attorney for Opponents,
Mary McMasters and Harry
Morris, and Rapid Valley
Water Company, Inc.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served a copy of the foregoing Stipulation of City of Rapid City and Opponents Mary McMasters and Harry Morris, and Rapid Valley Water Company, Inc. upon the persons herein next designated, on the date shown below, by depositing the same in the United States Mail at Rapid City, South Dakota, first class postage prepaid, in an envelope addressed to said addressee, to-wit:

Michael M. Hickey
Attorney at Law
818 St. Joseph Street
P. O. Box 2760
Rapid City, SD 57709

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

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

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

Melvin Brassfield
Box 24
Caputa, SD 57725

Jerry Hammerquist
Box 26
Caputa, SD 57725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa, SD 57725

Walter Jones, Secretary
Lone Tree Water Co.
RR #2, Box 4970
Rapid City, SD 57701

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

John Haak
Asst. Attorney General
State Capitol Building
500 East Capitol
Pierre, SD 57501

which addresses are the last addresses of the addressees known to the subscriber.

Dated this ____ day of _____, 1990.

Leslie J. England

Bangs, McCullen, Butler, Foye & Simmons

Lawyers

George A. Bangs
W. A. McCullen (1943-1987)
Joseph M. Butler
Thomas H. Foye
Thomas E. Simmons
Ronald E. Clabaugh
Charles L. Riter
Allen G. Nelson
James P. Hurley

818 St. Joe Street
Mailing Address P. O. Box 2670
Rapid City, South Dakota 57709
605-343-1040
Telecopier 605-343-1503

Michael M. Hickey
Mark F. Marshall
Terry L. Hofer
Rebecca A. McMahon
Patrick K. Duffy
Rodney W. Schlauger
Matthew V. Ressegieu

November 26, 1990

Recycled Paper 

Mr. John Hatch, Chief Engineer
Division of Water Rights
SD Dept. of Water & Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

Re: Water Permit Application No. 2142-2
to Transfer use

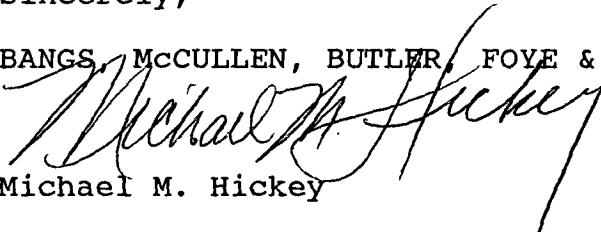
Dear Mr. Hatch:

Please find enclosed the original Motion for Continuance and Certificate of Service relative to the above matter. By a copy of this letter, Mr. Leslie England is being sent a copy of the same. This is intended as service by mail.

If you have any questions or comments, please do not hesitate to contact me. Thank you.

Sincerely,

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS


Michael M. Hickey

MMH/dcc

cc: Leslie England
clients



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

MOTION FOR CONTINUANCE

Comes now Rapid Valley Water Company, Inc., by and through its undersigned counsel of record and hereby files its motion to continue the hearing set for December 6, 1990. Said motion is based upon the following grounds:

(1) That Rapid Valley Water Company, Inc., and the experts retained by the Company need additional time to prepare for the hearing.

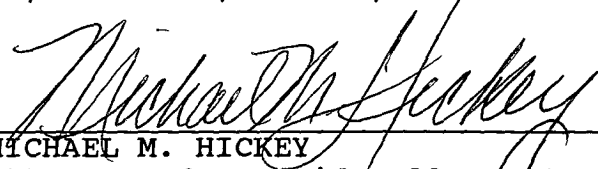
(2) That additional information is needed to accurately assess the conclusions reached by the experts for the City of Rapid City.

(3) That insufficient time has been afforded to conduct the discovery necessary to prepare for the hearing.

(4) That the rights of the Company would be prejudiced if a continuance is not granted.

Dated this 26th day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY: 

MICHAEL M. HICKEY
Attorneys for Rapid Valley Water
Company, Inc.
818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



STATE OF SOUTH DAKOTA

DEPARTMENT OF WATER & NATURAL RESOURCES

IN THE MATTER OF WATER)
PERMIT APPLICATION NO.)
2142-2 TO TRANSFER USE.)

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served copies of the Motion for Continuance upon the persons herein next designated, all on the date below shown, by depositing a copy thereof in the United States mail at Rapid City, South Dakota, postage prepaid, in envelopes addressed to said addressees, to wit:

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

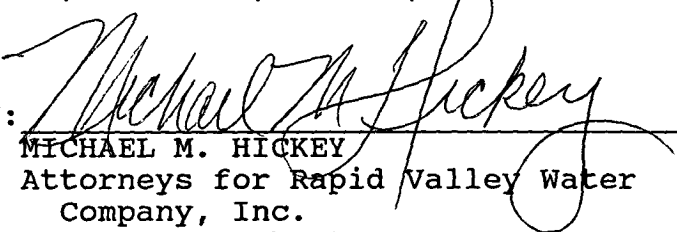
Mr. Leslie J. England
Attorney at Law
731 St. Joseph Street,
Suite 102, Western Mutual Bldg.
Rapid City, SD 57701

which addresses are the last addresses of the addressees known to the subscriber.

Dated this 26 day of November, 1990.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


MICHAEL M. HICKEY
Attorneys for Rapid Valley Water
Company, Inc.
818 St. Joseph St.; P.O. Box 2670
Rapid City, SD 57709
(605) 343-1040



LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

November 26, 1990



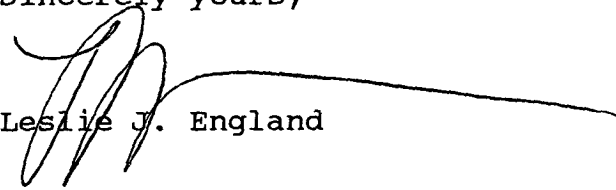
Mr. John Hatch
Chief Engineer
Water Rights Division
Department of Natural Resources
523 East Capitol
Pierre, SD 57501

RE: Application No. 2142-2

Dear Mr. Hatch:

Enclosed please find the City of Rapid City's Motion to Strike Objections of Lone Tree Water Company, Inc., and Dustman Ranch Partnership.

Sincerely yours,


Leslie J. England

LJE/nmm
encl.

cc: Michael Strub, Public Works Director
Tamara Pier, Assistant City Attorney

Michael M. Hickey
Attorney at Law
818 St. Joseph Street
P. O. Box 2760
Rapid City, SD 57709

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

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

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

Melvin Brassfield
Box 24
Caputa, SD 57725

Jerry Hammerquist
Box 26
Caputa, SD 57725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa, SD 57725

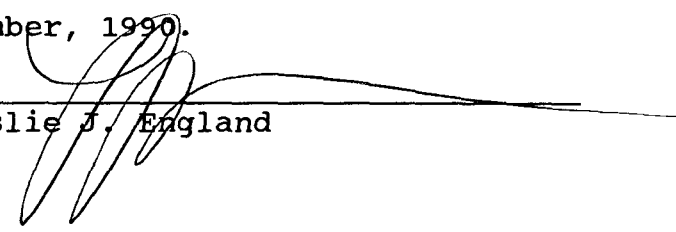
Walter Jones, Secretary
Lone Tree Water Co.
RR #2, Box 4970
Rapid City, SD 57701

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

John Haak
Asst. Attorney General
State Capitol Building
500 East Capitol
Pierre, SD 57501

which address is the last address of the addressee known to the subscriber.

Dated this 26 day of November, 1990.


Leslie J. England



LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

November 28, 1990



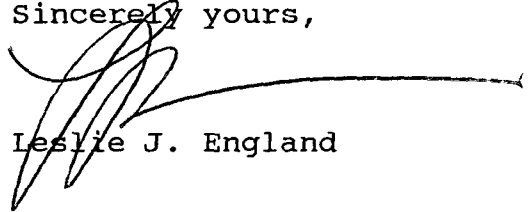
Mr. John Hatch, Chief Engineer
Division of Water Rights
South Dakota Department of
Water and National Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

RE: Water Permit Application No. 2142-2 To Transfer Use

Dear Mr. Hatch:

Enclosed please find for filing the executed Stipulation of the City of Rapid City and Opponents Mary McMasters and Harry Morris and Rapid Valley Water Company, Inc.

Sincerely yours,


Leslie J. England

LJE/nmm
enclosures

cc Michael Strub
Tamara Pier

STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD



IN THE MATTER OF WATER	)	STIPULATION OF
RIGHT CHANGE OF USE	)	CITY OF RAPID CITY
APPLICATION NO. 2142-2	)	AND OPPONENTS MARY
OF THE CITY OF RAPID CITY,	)	McMASTERS AND HARRY MORRIS,
SOUTH DAKOTA	)	AND RAPID VALLEY WATER
	)	COMPANY, INC.

COMES NOW Applicant, City of Rapid City, and Opponents Mary McMasters and Harry Morris, and Rapid Valley Water Company, Inc., in the above-captioned action, and by and through the undersigned respective counsel, stipulate and agree as follows:

I.

The issue of legal ownership of the right to use Rapid Creek natural flows of water for irrigation on the Tyler property as described in the above-numbered Application, raised by said Opponents, can be determined either by agreement between the Applicant, Tyler the landowner, and the Rapid Valley Water Company, Inc. in a manner ensuring good and marketable title and ownership of said water right, or by quiet title action in the Circuit Court, Seventh Judicial Circuit, Pennington County, South Dakota, or by declaratory ruling by the Water Management Board.

II.

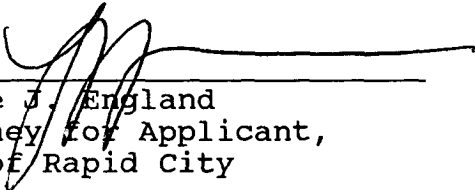
The parties to this Stipulation desire to resolve the ownership issue referred to in Paragraph I above by mutual agreement.

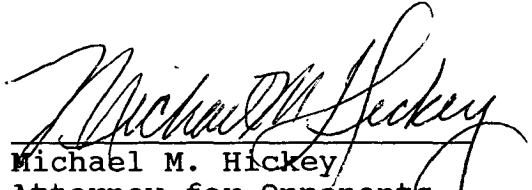
III.

The parties to this Stipulation agree that at this time the Water Management Board will only determine the ultimate issues in the pending change of use application with respect to quantifica-

tion of the allowable amount of transferable water, and adverse impact, injury, prejudice, public interest and diminution of property values as raised by the Opponents to this Application, but not the legal question of title during the hearing on change of use. This ownership issue may not have to be determined by litigation if the parties to this Stipulation are able to mutually resolve same.

Dated this 28 day of November, 1990.


Leslie J. England
Attorney for Applicant,
City of Rapid City


Michael M. Hickey
Attorney for Opponents,
Mary McMasters and Harry
Morris, and Rapid Valley
Water Company, Inc.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served a copy of the foregoing Stipulation of City of Rapid City and Opponents Mary McMasters and Harry Morris, and Rapid Valley Water Company, Inc. upon the persons herein next designated, on the date shown below, by depositing the same in the United States Mail at Rapid City, South Dakota, first class postage prepaid, in an envelope addressed to said addressee, to-wit:

Michael M. Hickey
Attorney at Law
818 St. Joseph Street
P. O. Box 2760
Rapid City, SD 57709

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

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

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

Melvin Brassfield
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Caputa, SD 57725

Jerry Hammerquist
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Caputa, SD 57725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa, SD 57725

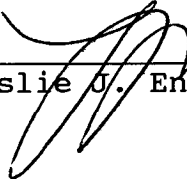
John Hatch
Chief Engineer
Water Rights Division
Department of Natural
Resources
523 East Capitol
Pierre, SD 57501

Walter Jones, Secretary
Lone Tree Water Co.
RR #2, Box 4970
Rapid City, SD 57701

John Haak
Asst. Attorney General
State Capitol Building
500 East Capitol
Pierre, SD 57501

which addresses are the last addresses of the addressees known to the subscriber.

Dated this 28 day of November, 1990.



Leslie J. England

LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

TELEPHONE (605) 341-7600
FAX (605) 343-4131

November 29, 1990

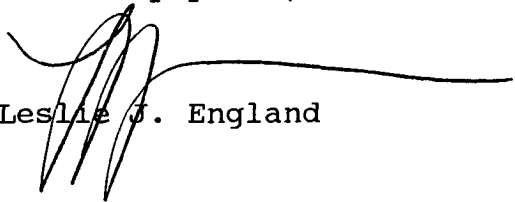
Mr. John Hatch, Chief Engineer
Division of Water Rights
South Dakota Department of
Water and National Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

RE: Water Permit Application No. 2142-2 To Transfer Use

Dear Mr. Hatch:

Enclosed please find for filing the executed Agreement to
Continuance in the above captioned matter. Thank you for your
kind attention to this matter.

Sincerely yours,


Leslie J. England

LJE/nmm
encl.

cc Michael Hickey
Michael Strub
Tamara Pier



STATE OF SOUTH DAKOTA

WATER MANAGEMENT BOARD

IN THE MATTER OF WATER	)	
RIGHT CHANGE OF USE	)	
APPLICATION NO. 2142-2	)	AGREEMENT TO
OF THE CITY OF RAPID CITY,	)	CONTINUANCE
SOUTH DAKOTA	)	

COMES NOW Applicant, City of Rapid City and in good faith to accommodate settlement negotiations agrees with Rapid Valley Water Company, Inc. to a continuance of the hearing set for December 6, 1990 as follows.

I.

Said hearing be continued to the next regularly scheduled meeting of the Water Management Board on February 27, 1991 based on the terms of this Agreement and the November 28, 1990 Stipulation of the City of Rapid City, Mary McMasters and Harry Morris, and the Rapid Valley Water Company;

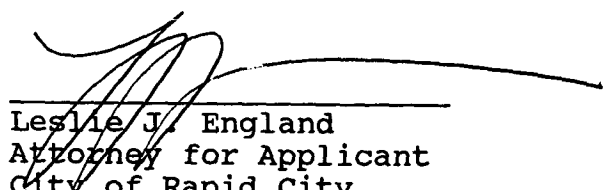
II.

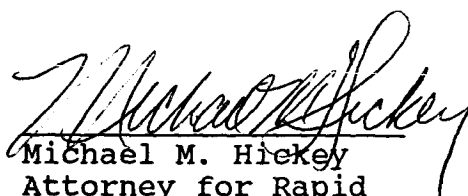
The Board of Directors of the Rapid Valley Water Company, Inc. and representatives from the City of Rapid City will commence settlement negotiations on December 6, 1990 at 1:00 P.M. at the City/School Administration Building, Rapid City, South Dakota.

III.

The parties request that the Water Management Board appoint a hearing examiner at its meeting on December 6, 1990, to facilitate the holding of a pre-hearing conference prior to the February 27, 1991 hearing if necessary.

Dated this 29 day of November, 1990.


Leslie J. England
Attorney for Applicant
City of Rapid City


Michael M. Hickey
Attorney for Rapid
Valley Water
Company, Inc.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served a copy of the foregoing Agreement to Continuance upon the persons herein next designated, on the date shown below, by depositing the same in the United States Mail at Rapid City, South Dakota, first class postage prepaid, in an envelope addressed to said addressee, to-wit:

Michael M. Hickey
Attorney at Law
818 St. Joseph Street
P. O. Box 2760
Rapid City, SD 57709

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

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

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

Melvin Brassfield
Box 24
Caputa, SD 57725

Jerry Hammerquist
Box 26
Caputa, SD 57725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa, SD 57725

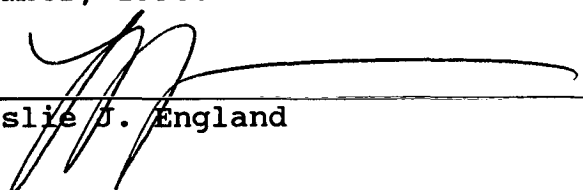
Walter Jones, Secretary
Lone Tree Water Co.
RR #2, Box 4970
Rapid City, SD 57701

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

John Haak
Asst. Attorney General
State Capitol Building
500 East Capitol
Pierre, SD 57501

which addresses are the last addresses of the addressees known to the subscriber.

Dated this 29 day of November, 1990.



Leslie J. England



DEPARTMENT OF WATER & NATURAL RESOURCES

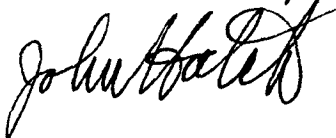
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

GREAT FACES. GREAT PLACES.

December 11, 1990

NOTICE

TO: City of Rapid City
300 6th Street
Rapid City, SD 57702
and Parties of Record (see attached list)

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

SUBJECT: Continuance of Water Permit Application No. 2142-2, City of Rapid City

The Water Management Board continued consideration of Water Permit Application No. 2142-2 at their December 6, 1990 meeting. This continuance was requested by the Rapid Valley Water Company, Inc. and the City of Rapid City to accommodate settlement negotiations. The Board also appointed Francis Brink as hearing examiner in order to facilitate the holding of a pre-hearing conference prior to the next Board meeting.

The Water Management Board will now consider Application No. 2142-2 on February 27, 1991 at 2:00 pm in the Meeting Room, Governor's Inn, 700 West Sioux Ave., Pierre, SD 57501. The agenda time is an estimate. The actual time of hearing may be later than 2:00 pm due to prior agenda items and it may become necessary to continue consideration of this application to the morning of February 28, 1991. Applicable provisions of the Notice of Hearing published October 17 & 24, 1990 in the Rapid City Journal will still apply at this hearing.

cc: John Guhin, Deputy Attorney General
John Haak, Assistant Attorney General

CERTIFICATION

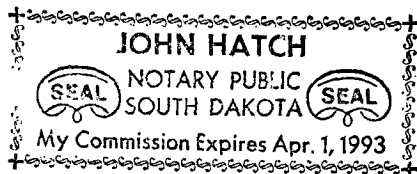
I hereby certify that on December 14, 1990 I have personally deposited with the U.S. Mail postage prepaid envelopes containing a Notice of Continuance of Water Permit Application No. 2142-2, City of Rapid City addressed as stated on the attached parties of record sheet.

Marie R. Arthur

Marie R. Arthur
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 3rd day of January, 1998.



day of January
Johnathan
Notary Public

STATE OF SOUTH DAKOTA



OFFICE OF ATTORNEY GENERAL

500 EAST CAPITOL
Pierre, South Dakota 57501-5070
Phone (605) 773-3215



ROGER A. TELLINGHUISEN

ATTORNEY GENERAL

December 12, 1990

Leslie J. England, Esq,
731 St. Joseph St #102
Rapid City, SD 57701

Michael M. Hickey, Esq.
P.O. Box 2670
Rapid City, SD 57709

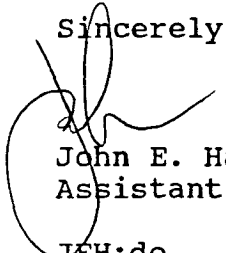
Re: In the Matter of Water Right Change of Use Application
No. 2142-2 of the City of Rapid City, South Dakota

Gentlemen:

This letter is to inform you that on December 6, 1990, at its meeting in Rapid City, the Water Management Board appointed Francis Brink to act as prehearing chairman in the above-referenced matter.

If you have any questions, please let me know.

Sincerely,


John E. Haak
Assistant Attorney General

JEH:do

cc: John Hatch ✓



DEPARTMENT OF WATER & NATURAL RESOURCES

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

January 30, 1991

NOTICE

TO: Mayor Keith Carlyle
City of Rapid City
300 6th Street
Rapid City, SD 57702
and Parties of Record (see attached list)

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

SUBJECT: Water Permit Application No. 2142-2, City of Rapid City

The Water Management Board continued consideration of Water Permit Application No. 2142-2 at their December 6, 1990 meeting. A notice was sent to all parties on December 11, 1990 scheduling the hearing on Application No. 2142-2 to resume on February 27, 1991 at 2:00 pm in the Meeting Room, Governor's Inn, 700 West Sioux Ave., Pierre, SD 57501.

This hearing has now been rescheduled to begin at 2:30 pm on February 27, 1991 at the above location. The agenda time is an estimate. The actual time of hearing may be later than 2:30 pm due to prior agenda items and it may become necessary to continue consideration of this application to the morning of February 28, 1991. Applicable provisions of the Notice of Hearing published October 17 & 24, 1990 in the Rapid City Journal will still apply at this hearing.

cc: John Haak, Assistant Attorney General
Mike Strub, Public Works Director
Dan Bjerke, Water Superintendent

CERTIFICATION

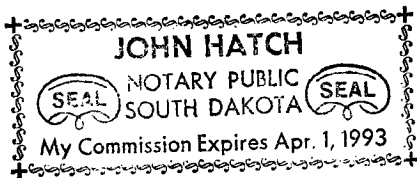
I hereby certify that on January 30, 1991 I have personally deposited with the U.S. Mail postage prepaid envelopes containing a Notice of Hearing on Water Permit Application No. 2142-2, City of Rapid City addressed as stated on the attached parties of record sheet.

Marie R. Arthur
Marie R. Arthur
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this ^{4th} ~~3rd~~ day of February, 1991.

John Walsh
Notary Public



Water Rights Division - DWNR
Conversation or File Documentation

File No. _____

NAME OF PERSON OR FILE: LES ENGLAND

ADDRESS: _____ COUNTY PENNINGTON

DATE: 2/6/91 TELEPHONE _____

RE: WATER RIGHT TRANSFER TO RAPID CITY

COMMENTS:

LES ENGLAND SAID THAT THEY HAD SENT TWO
COPIES OF 66 SIGNED & SEALED TRANSFER REPORT.
HE INDICATED THAT THEY WERE PREPARING A PRESENTATION
FOR THE WATER MANAGEMENT BOARD MEETING.

LEO EISEL & DAN BJERRE WOULD BE THE PRESENTERS
WITH A POSSIBILITY OF HAVING
AN ECONOMIST AND A BROKER AVAILABLE IF NEEDED.

HE ALSO SAID THEY MAY REQUEST A PREHEARING
MEETING WITH RODNEY FREEMAN.

HE INDICATED THAT THEY WERE TRYING TO WORK
OUT THE TITLE PROBLEM WITH THE DITCH COMPANY
BUT WOULD TRY TO KEEP THE HEARING CONCERNED WITH
THE NUMBERS DEALING WITH THE TRANSFER ONLY

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: Mark P. Keith

Water Rights Division -DWNR
Conversation or File Documentation

NAME OF PERSON OR FILE: Les England

ADDRESS: COUNTY: Pennington

DATE: 2/20/91

TELEPHONE: 605-341-7600

RE: Rapid City Water Transfer

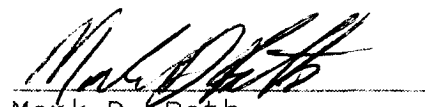
COMMENTS:

I called Les England and asked on the status of the transfer. He said that the City is working out a deal with Murphy Ditch which would keep them from opposing the transfer. Also the deal is tied to an agreement to lease Murphy Ditch water. He said that the only real concern which Murphy Ditch's Consultant had was about the amount of seepage loss there was. He indicated that there might need to be some additional studies which may need to be done.

He said that he has been talking to the different irrigation ditches along with the Rapid Valley Conservancy District. He feels that some of these may no longer oppose the transfer. He said that he is concerned that a few individuals may bring up the title question. Also he felt that some of the irrigators may actively contest the transfer.

I told him about my meeting with Murphy and Little Giant Ditches and the Conservancy District, that Jerry Marsh thought that Little Giant has some claim to irrigation on the Tyler property. I told him that I felt Little Giant would need to come in with an application to make a claim for the irrigation.

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.



Mark D. Rath
Natural Resources Engineer II
DWNR, Water Rights Division

File No.

1727-2, 2142-2

Water Rights Division -DWNR
Conversation or File Documentation

NAME OF PERSON OR FILE: Les England

ADDRESS: COUNTY: Pennington

DATE: 2/21/91 TELEPHONE:

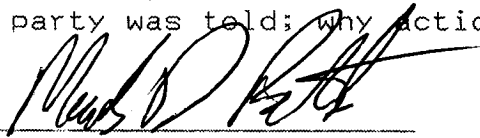
RE: Murphy Ditch Water Right and Transfer

COMMENTS:

Les England wanted to know what acreages would be added to the Murphy Ditch water right if the application is filed and approved. I gave him the legal locations Sec22-T1NR8E, Sec 10-T1NR8E, Sec15-T1NR8E and Sec24-T1NR8E approximately 85 acres.

He said that the Rapid Valley ditches and conservancy district lawyer felt that there would not be any opposition by them towards the transfer based on technical problems. Les England felt that there may be opposing it on personal reasons.

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.


Mark D. Rath
Natural Resources Engineer II
DWNR, Water Rights Division

*Nana our pa
mike Hickey*

STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD

IN THE MATTER OF WATER)
RIGHT CHANGE OF USE)
APPLICATION NO. 2142-2)
OF THE CITY OF RAPID CITY,)
SOUTH DAKOTA.)

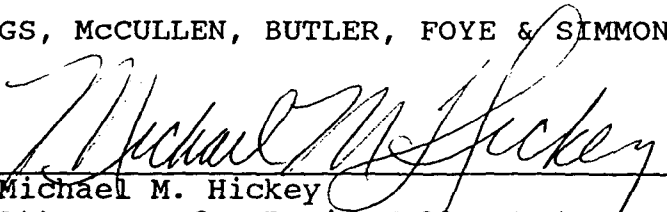
WITHDRAWAL OF OBJECTION
TO APPLICATION NO. 2142-2

Comes now Rapid Valley Water Company, Inc., by and through its undersigned attorney and hereby withdraws items numbered two (2) and three (3) of its Objection to the Application for Transfer of Water filed by the City of Rapid City. Said objector agrees that item number one (1) of its objection is subject to the stipulation of the parties dated November 28, 1990, and that any issue involving title to the water shall be resolved either by agreement of the parties or by the bringing of a quiet title action in the Circuit Court, Seventh Judicial Circuit, Pennington County, South Dakota. This withdrawal of objection is subject to the City's execution of an agreement between the City and the Rapid Valley Water Co. Inc., the implementation of the reasonably necessary suggestions of engineers retained by Rapid Valley Water Co., Inc. and the retention of jurisdiction over this matter by the Water Management Board.

Dated this 24 day of February, 1991.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


Michael M. Hickey
Attorneys for Rapid Valley Water
Company, Inc.
818 St. Joe; Box 2670
Rapid City, SD 57709
(605) 343-1040

STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD

IN THE MATTER OF WATER)
RIGHT CHANGE OF USE)
APPLICATION NO. 2142-2)
OF THE CITY OF RAPID CITY,)
SOUTH DAKOTA.)

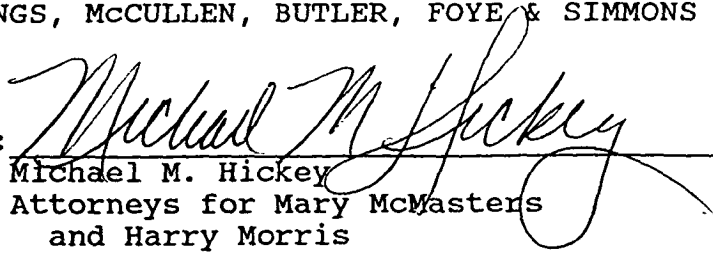
WITHDRAWAL OF OBJECTION
TO APPLICATION NO. 2142-2

Comes now Mary McMasters and Harry Morris by and through their undersigned attorney and hereby withdraws items numbered two (2) and three (3) of their Objection to the Application for Transfer of Water filed by the City of Rapid City. Said objectors agree that item number one (1) of their objection is subject to the stipulation of the parties dated November 28, 1990, and that any issue involving title to the water shall be resolved either by agreement of the parties or by the bringing of a quiet title action in the Circuit Court, Seventh Judicial Circuit, Pennington County, South Dakota. This withdrawal of objection is subject to the City's execution of an agreement between the City and the Rapid Valley Water Co. Inc., the implementation of the reasonably necessary suggestions of engineers retained by Rapid Valley Water Co., Inc. and the retention of jurisdiction over this matter by the Water Management Board.

Dated this 26th day of February, 1991.

BANGS, MCCULLEN, BUTLER, FOYE & SIMMONS

BY:


Michael M. Hickey
Attorneys for Mary McMasters
and Harry Morris
818 St. Joe; Box 2670
Rapid City, SD 57709
(605) 343-1040

STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD

IN THE MATTER OF WATER)
RIGHT CHANGE OF USE)
APPLICATION NO. 2142-2)
OF THE CITY OF RAPID CITY,)
SOUTH DAKOTA.)

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served a copy of the Withdrawal of Objection to Application No. 2142-2 of Mary McMasters and Harry Morris and Rapid Valley Water Company, Inc., upon the persons herein next designated, all on the date below shown, by hand delivering copies thereof in envelopes addressed to said addressees, to wit:

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

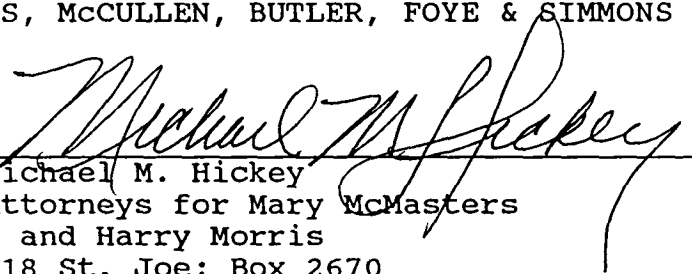
Mr. Leslie J. England
Attorney at Law
731 St. Joseph Street,
Suite 102, Western Mutual Bldg.
Rapid City, SD 57701

which addresses are the last addresses of the addressees known to the subscriber.

Dated this 27 day of February, 1991.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS

BY:


Michael M. Hickey
Attorneys for Mary McMasters
and Harry Morris
818 St. Joe; Box 2670
Rapid City, SD 57709
(605) 343-1040



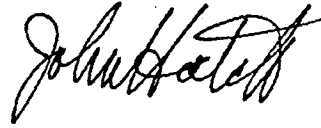
DEPARTMENT OF WATER & NATURAL RESOURCES

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

March 12, 1991

NOTICE

TO: Mayor Keith Carlyle
City of Rapid City
300 6th Street
Rapid City, SD 57702
and Parties of Record (see attached list)

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

SUBJECT: Preparation of Findings of Fact, Conclusions of Law and
Final Decision

The Water Management Board has directed John Guhin, the Board's attorney to prepare proposed Findings of Fact, Conclusions of Law and a Final Decision on Water Permit Application No. 2142-2, to transfer use. The Board will consider the proposed Findings, Conclusions and Final Decision at 1:00 pm, May 1, 1991, Chef Louie's meeting room, 601 East Havens, Mitchell, SD. The agenda time is an estimate. The actual time of consideration may be delayed due to prior agenda items.

The Board has requested that a copy of the proposed Findings, Conclusions and Final Decision be mailed to each Board member and all Parties of Record and their attorneys (copy enclosed) by April 11, 1991. Any comments pertaining to the proposed Findings, Conclusions and Decision are to be mailed to each Board member, the Board attorney and all Parties of Record and their attorneys by April 22, 1991.

The public hearing was completed February 27, 1991. No additional testimony will be received on May 1, 1991.

cc: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Mike Strub, Public Works Director
Dan Bjerke, Water and Wastewater Manager

CERTIFICATION

I hereby certify that on March 12, 1991, I have personally deposited with the U.S. Mail, postage prepaid envelopes containing a Notice regarding Preparation of Findings of Fact, Conclusions of Law and Final Decision on Water Permit Application No. 2142-2, to transfer use (for complete mailing address, see the Notice).

Jac R. Konop

JACI R. KONOP
Senior Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 13th day of March, 1991.

John Hatch
Notary Public



LESLIE J. ENGLAND
(ALSO ADMITTED IN COLORADO)

LAW FIRM OF
LESLIE JAMES ENGLAND
SUITE 102, WESTERN MUTUAL BUILDING
731 ST. JOSEPH STREET
RAPID CITY, SOUTH DAKOTA 57701

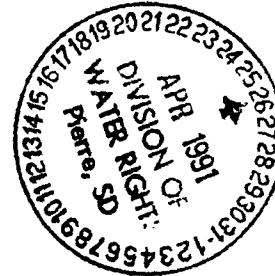
TELEPHONE (605) 341-7600
FAX (605) 343-4131

*Del
what about
this? JH*

April 25, 1991

VIA FEDERAL EXPRESS

Mr. John Hatch
Chief Engineer
South Dakota Department of
Water and Natural Resources
523 East Capitol Avenue
Pierre, SD 57501-3180

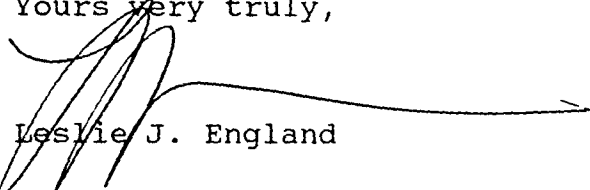


RE: Application No. 2142-2

Dear John:

Enclosed please find the City of Rapid City's Response to Proposed Findings of Fact, Conclusions of Law and Final Decision for filing. We concur with the Department's Response except that the plant outfall is downstream of the Tyler property.

Yours very truly,


Leslie J. England

LJE/nmm

cc Robert Jackson, Acting City Attorney
Michael Strub, Public Works Director

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT	)	
APPLICATION NO. 2142-2, AN	)	DEPARTMENT'S RESPONSE
APPLICATION OF THE CITY OF RAPID	)	TO PROPOSED FINDINGS
CITY TO TRANSFER THE USE OF WATER	)	OF FACT, CONCLUSIONS
APPROPRIATED UNDER VESTED WATER	)	OF LAW AND FINAL DECISION
RIGHT CLAIM NO. 1717-2.	)	

FINDINGS OF FACT

I.

On page 1, paragraph I, line 5, add "Inc." after "Company,".

II.

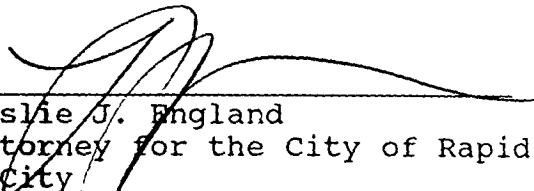
On page 1, paragraph II, line 3, add "Inc." after "Company,".

FINAL DECISION

III.

On page 7, paragraph I, line 4, a typographical error should be corrected in the spelling of "Meadowbrook".

Dated this 25 day of April, 1991.


Leslie J. England
Attorney for the City of Rapid
City
Suite 102, Western Mutual
Bldg.
730 St. Joseph Street
Rapid City, SD 57709
Phone: (605) 341-7600

CERTIFICATE OF SERVICE

The undersigned hereby certifies that true and correct copies of Findings of Fact, Conclusions of Law and Final Decision in the matter of In the Matter of Water Permit Application No.

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT	)	FINDINGS OF FACT
APPLICATION NO. 2142-2, AN	)	CONCLUSIONS OF LAW
APPLICATION OF THE CITY OF RAPID	)	AND FINAL DECISION
CITY TO TRANSFER THE USE OF WATER	)	
APPROPRIATED UNDER VESTED WATER	)	
RIGHT CLAIM NO. 1727-2.	)	

FINDINGS OF FACT

I

The city of Rapid City has applied for a change in use of water which has historically been used to irrigate certain land owned by the Tyler family in Pennington County. The water in question is supplied by Rapid Valley Water Company, Inc., also known as Murphy Ditch, from Rapid Creek.

II

The water to be transferred has been appropriated under Vested Water Right Claim No. 1727-2, Rapid Valley Water Company, Inc. with a priority date of April 6, 1878.

III

The city of Rapid City wishes to change the diversion point either to Pactola Reservoir, a point to the west of the existing diversion point or to several diversion points within the city of Rapid City itself, at points west of the present diversion point.

IV

The average head gate diversion to the Tyler property from Murphy Ditch is historically 77.9 acre feet per year.



V

The water has been employed on the Tyler property to irrigate 49 acres of alfalfa.

VI

Of the 77.9 acre feet diverted, 66.2 acre feet per year is consumed by the alfalfa on an average annual basis.

VII

Of the remainder of the water, 3.9 acre feet per year is surface water return flow, 3.9 acre feet per year is ground water return flow and 3.9 acre feet per year is side roll sprinkler application loss.

VIII

As set forth above, Rapid City desires to transfer the use of the water in question to one of two diversion points. The first of the two diversion points is actually a group of diversion points within the city of Rapid City. These points are upstream (and westerly) from the present diversion point. The city of Rapid City claims the right to use the entire 77.9 acre feet per year average head gate diversion if it employs the Rapid City diversion points. The Board finds that recognition of this claim will not cause any detriment to those who hold water rights between the present point of diversion and the Rapid City points of diversion.

IX

The Board likewise concludes that there will be no harm to users below Rapid City from utilization of the Rapid

City diversion points if Rapid City diverts the entire 77.9 acre feet per year which is the average head gate diversion now allowed for the present water right. This is because the city of Rapid City returns approximately 40 percent of its total water diversion to points below Rapid City in return flow. Therefore, points below Rapid City will be receiving more water with the change in diversion point to Rapid City than they received when water was being utilized on the Tyler property.

X

The users below the present point of diversion will be protected, moreover, in that the times for the use of water are limited by the Final Decision to the times the water was used on the Tyler property, i.e. during specific months of the irrigation season and at specific quantities.

XI

The city of Rapid City has succeeded in carrying the burden of showing there will be no impairment of rights downstream of the present Tyler property from the change in diversion to points within the city of Rapid City.

XII

The city of Rapid City also desires the authority to change the point of diversion, in months when the Rapid City points of diversion are not used, to Pactola Reservoir. Pactola Reservoir is upstream of the present Tyler property point of diversion and is to the west.

XIII

The city of Rapid City asserts that if the Pactola diversion is utilized the proper diversion rate is 66.2 acre feet per year or the average amount of water consumed by the 49 acres of irrigated alfalfa on the Tyler property.

XIV

The Board concludes that the appropriate quantity of water which might be transferred to Pactola Reservoir storage from the Tyler property is 66.2 acre feet per year in that this was the average crop consumptive use.

XV

The Board also finds that Leedy Ditch Water Right No. 2023-2 has a priority date of April 1, 1877, and Cleghorn Springs Water Right No. 646-2A has a priority date of January 1, 1877. Both rights are senior to the Murphy Ditch water right of April 6, 1878. Both the Leedy Ditch diversion point and the Cleghorn Springs diversion point are between the Tyler property diversion point and Pactola Reservoir.

XVI

If the diversion point is transferred from the Tyler property to Pactola Reservoir, therefore, water may be stored above Leedy Ditch and Cleghorn Springs and may not reach them. The Final Decision is therefore conditioned accordingly to protect these prior rights.

XVII

Evidence was submitted by Mr. Marsh that the priority date of the Murphy Ditch water right was not, in fact, April 6, 1878, but was at least in the 1890s.

XVIII

The Board finds, contrary to its earlier tentative ruling, that the evidence of Mr. Marsh was not inadmissible as hearsay. The Board also finds, however, that the evidence submitted by Mr. Marsh did not concern the Murphy Ditch water right and is therefore irrelevant.

XIX

The Board finds that neither the change of point of diversion to Pactola Reservoir or to Rapid City will adversely affect the water quality of Rapid Creek.

XX

The Murphy Ditch diverts an average of 2,365 acre feet per year with an average seepage loss in the ditch of 260 acre feet. Therefore it is appropriate to, and the present claims do in fact, provide for the 11 percent seepage loss to remain in the present area. The Board finds further that the seepage loss calculations are subject to further refinement and therefore will retain jurisdiction of this matter, including the jurisdiction to adjust the amounts of water which may be diverted pursuant to this permit.

CONCLUSIONS OF LAW

1. The Board has jurisdiction of this matter.
2. The applicant's request for a change in use cannot be approved unless the transfer can be made without detriment to existing rights, is for beneficial uses, and is in the public interest.
3. The proposed change from irrigation use to municipal use is a beneficial use and is in the public interest. The Board finds specifically that the change is in support of Rapid City's long term plans for the development of a municipal water supply and that such long term planning is in the public benefit and should be encouraged.
4. Because this water right was established for irrigation purposes, the transferred water right may likewise only be used during the irrigation season as set out in the final decision below.
5. The water transferred under this application is limited to a diversion rate of 0.64 cfs, the historical maximum rate of diversion for the Tyler property.
6. The water utilized under this permit is limited to a total annual volume of 66.2 acre feet if diverted at Pactola Reservoir or a total annual volume of 77.9 acre feet at the Rapid City points of diversion. Diversions under this regime will not adversely affect the exercise of existing water rights when scheduled as set out in the Final Decision.

7. Additional information will be made available to the Board with regard to seepage rates and with regard to the hydrology of the area which may require adjustment of the monthly or total annual volumes authorized by this permit. Therefore, the Board retains jurisdiction to make such adjustments.

FINAL DECISION

Application No. 2142-2 is approved with the following qualifications:

1. That Permit No. 2142-2 is limited to a diversion rate of 0.64 cfs for a total annual volume of 77.9 acre feet at Sioux Park Gallery (SW1/4 SW1/4 Section 3), Meadowbrook Gallery (NW1/4 NE1/4 Section 9) Jackson Springs Gallery (NW1/4 SE1/4 Section 8) and the Rapid City Water Treatment Plant (SE1/4 NE1/4 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	8.8	10.3
June	10.2	12.1
July	13.9	16.3
August	17.8	21.0
September	12.1	14.2
October	3.4	4.0

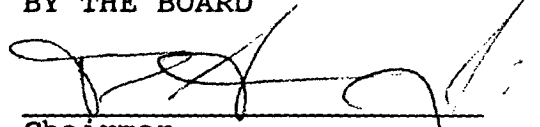
Diversions during a month may be made at either Pactola Reservoir or at the diversion points within Rapid City, but not simultaneously at both Pactola and the Rapid City diversion points.

2. That 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.
3. That the Water Management Board is retaining jurisdiction of Permit No. 2142-2 in the event that additional information shows that changes need to be made in the monthly or total annual volumes authorized by Permit No. 2142-2.

4. Diversions to Pactola will be made so as not to interfere with the prior water rights of Leedy Ditch or Cleghorn Springs, any other prior water rights or any domestic rights.
5. The amount of water with an April 6, 1878, priority date, which may be appropriated under Vested Water Right Claim No. 1727-2 is decreased by .64 cfs to 16.36 cfs.

Dated this 11th day of May, 1991.

BY THE BOARD



Chairman
Water Management Board

js

South Dakota



GREAT FACES. GREAT PLACES.

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

May 14, 1991

NOTICE

TO: Mayor Keith Carlyle
City of Rapid City
300 6th Street
Rapid City, SD 57702
and Parties of Record (see attached list)

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

SUBJECT: Adoption of Findings of Fact, Conclusions of Law and
Final Decision

This is to notify you that a Final Decision, including Findings of Fact and Conclusions of Law were adopted by the Water Management Board for Water Permit Application No. 2142-2 which was considered at the February 27, 1991, meeting.

A copy of the signed final Decision, Findings and Conclusion is enclosed for the applicant, Leslie England, Attorney, and Mike Hickey, Attorney. Copies will be furnished to anyone else upon request. South Dakota Statutes provide that the decision of the Board may be appealed to the Courts.

cc: Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on May 14, 1991, I have personally deposited with the U.S. Mail, postage prepaid envelopes containing a Notice regarding Adoption of Findings of Fact, Conclusions of Law and Final Decision on Water Permit Application No. 2142-2 (for complete mailing address, see the Notice).

Jaci R. Konop

JACI R. KONOP
Senior Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 15th day of May, 1991.



John Hatch
Notary Public



City of Rapid City

RAPID CITY, SOUTH DAKOTA 57701

Michael D. Strub, Public Works Director

Public Works Department

300 Sixth Street

605-394-4465



May 24, 1991

Mr. John Hatch, P.E.
Water Rights Division
SD Department of Environment and Natural Resources
Joe Foss Building
Pierre, SD 57501

Re: Water Rights Transfer
Tyler Property on the Murphy Ditch

Dear Mr. Hatch:

This letter serves as notice that the City of Rapid City has put to beneficial use the water transferred under Water Permit No. 2142-2. The City is using diversion points located within Rapid City. It is understood that the maximum diversion rate is 0.64 cfs and the monthly acre-feet at the diversions within the Rapid City are as follows:

May -----	10.3 ac.-ft.
June -----	12.1
July -----	16.3
August ----	21.0
September -	14.2
October ---	<u>4.0</u>

Total --- 77.9 ac.-ft.

If you have any questions, please contact me at 394-4165.

Sincerely,

Daniel L. Bjerke, PE/LS
Water/Water Reclamation Division Manager

cc: Bruce Laymon, Bureau of Reclamation
John Swanson, Water Master
Mike Strub, Public Works Director



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER



South Dakota



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**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

SEP 18 1991

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

Dear Mr. Bjerke:

Enclosed is Water Permit No. 2142-2 authorizing transfer of the use of a portion of Rapid Creek natural flows from Rapid Valley Water Company, Inc. to municipal, industrial, commercial, common distribution system, rural water system, suburban housing, and domestic uses to the City of Rapid City.

Very truly yours,

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

Enclosures

cc: Les Englund, Esq.

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: City of Rapid City

ADDRESS: _____ COUNTY: _____

DATE: 2/14/92 TELEPHONE: _____

RE: Rapid City's transfer applications from irrigation to municipal use

COMMENTS:

While reviewing the two recent applications for Rapid City's transfer of South Side Ditch irrigation water right to the city for municipal use, I found a discrepancy in the legal description for the Meadowbrook infiltration gallery. The legal notices for WP No. 2142-2 and Application Nos. 2217-2 and 2218-2 had the Meadowbrook Gallery described as being located in the NW1/4 NE1/4 Section 9, T1N, R7E. The application and the submitted map have this gallery located in the SE1/4 NE1/4 Section 9, T1N, R7E. Since the gallery is located less than 660 feet from the advertised quarter-quarter, the notice for hearing is still valid and Nos. 2142-2, 2217-2 and 2218-2 will not need to be readvertised.

The error occurred in that the applicant provided the following legal description: 2032 ft. South 31° 41' West of Northeast corner of Section 9, T1N, R7E. The angle used to locate gallery was taken as West 31 41' of the Northeast corner.

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 H. Henshaw



Wright Water Engineers, Inc.

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

February 25, 1992

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

Mr. Del Brosz
Water Rights Division
Department of Environment and Natural Resources
523 East Capitol
Joe Foss Building
Pierre, South Dakota 57501-3181



Dear Mr. Brosz:

As per our conversation of February 21, 1992, I am writing to explain the manner in which the maximum diversion rate was determined for the Pelle property transfer.

In our previous engineering report for the Tyler property, the maximum diversion rate was determined by multiplying the 36 miners inches held by Tyler (0.72 cfs) by 89 percent (1.0-0.11 due to seepage losses) to get 0.64 cfs. This diversion rate was determined for the entire 53 acres of Tyler irrigated land including the 4 acres that Pelle irrigates.

In recent months, we have discussed with your office the inequity of using the miners inch shares for determining the amount of water available to each irrigator. It was decided that a more appropriate method of determining the water rights would be based on a proportionate share of the total acres irrigated.

Therefore, the maximum diversion rate for the Pelle property (4 acres) proportionate share of the 1878 Murphy Ditch priority was calculated in the following manner:

$$(4 \text{ acres}/1,191 \text{ total acres}) (17 \text{ cfs}) (1.0-0.11) = 0.05 \text{ cfs}$$

Based on prorated acreage of 49 acres of irrigated land on the Tyler property (53 total acres minus the 4 acres Pelle irrigates) the maximum diversion rate would be:

$$(49 \text{ acres}/1,191 \text{ acres total}) (17 \text{ cfs}) (1.0-0.11) = 0.62 \text{ cfs}$$

Using the two diversion rates based on prorated acreage for the total 53 acres irrigated equals 0.67 cfs, which is 0.03 cfs greater than the calculation using the miners inches. This difference is quite small. However, in order to maintain continuity throughout future transfers, we feel the pro rata share of acreage calculation should be used.

This discrepancy can be corrected by using your continued jurisdiction over the Tyler transfer to reduce the maximum diversion rate to 0.62 cfs which, combined with the Pelle diversion

Mr. Del Brosz
February 25, 1992
Page 2

rate, is 0.67 cfs. Another correction method would be to reduce the Pelle rate to 0.03 cfs which, in combination with the approved Tyler rate, again equals 0.67 cfs.

We feel this matter should be addressed so that any questions concerning this matter can be answered in the March hearing.

Thank you for your time and consideration in this matter.

Sincerely, _____

WRIGHT WATER ENGINEERS, INC.

By Leo M. Eisel, and
Leo M. Eisel, P.E.

By Gary D. Witt
Gary D. Witt

LME/GDW:ard
901-046.010
(RAPIDC/LETTEXPL.GDW)
cc: Leslie England



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 27, 1992

Leo M. Eisel, P.E.
Wright Water Engineers, Inc.
2490 West 26th Ave., Suite 100 A
Denver, Colorado 80211

Dear Mr. Eisel:

I am writing in answer to your letter of February 25, 1992 regarding the diversion rates for the Tyler and Pelle transfers.

An explanation of the change in method will need to be presented to the Water Management Board during the Pelle transfer hearing. If the Board accepts the change, the Pelle transfer should be established at 0.05 cfs. We would then need to schedule a hearing, at a later Water Management Board meeting, to reduce the Tyler transfer to 0.62 cfs.

Sincerely,

Delvin D. Brosz, P.E.
Natural Resources Engineer
for John Hatch, Chief Engineer
Division of Water Rights
(605) 773-3352



April 13, 1992

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOTICE

TO: Mayor Ed McLaughlin
City of Rapid City
300 6th Street
Rapid City, SD 57702
and Parties of Record (see attached list)

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

SUBJECT: Reduction of the Diversion Rate Authorized by Water Permit
No. 2142-2, City of Rapid City

Water Permit No. 2142-2 transferred the use of a portion of Rapid Creek natural flows appropriated for irrigation use by Murphy Ditch (Rapid Valley Water Company, Inc.). The portion of Rapid Creek natural flows transferred to the city by this Permit is 0.64 cubic feet of water per second (cfs) with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, if stored in Pactola Reservoir.

The Water Management Board will consider reducing the diversion rate authorized by this Permit from 0.64 cfs to 0.62 cfs at 9:30 am on May 7, 1992 in the Conference Room, Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave., Pierre, SD 57501. The agenda time is an estimate. The actual time of consideration may be delayed due to prior agenda items.

The proposed reduction is based on additional information that has become available regarding this transfer. The Board in approving Permit No. 2142-2 retained jurisdiction in the event that additional information became available. The proposed reduction of the diversion rate will not cause a reduction in the monthly or total annual volumes of water to be diverted at the treatment plan, infiltration galleries or stored in Pactola Reservoir.

All parties to the original hearing for Permit No. 2142-2 may provide testimony to the Board regarding this reduction of the diversion rate. A copy of the report prepared on this issue is available upon request. Please feel free to contact Del Brosz or Mark Rath at 773-3352 if you have questions or wish to receive a copy of the report.

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

Parties of Record for Water Permit Application No. 2142-2
City of Rapid City
November 5, 1990

Proponent

Leslie J. England, Attorney
Suite 102, Western Mutual Bldg
731 St. Joseph Street
Rapid City SD 57701

attorney for:

- City of Rapid City
300 Sixth Street
Rapid City SD 57701

Opponents

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

attorney for:

- Hawthorne Ditch Co., c/o Charles Johnson 1500 C 27th St, Rapid City SD 57701
- Mary McMasters & Harry Morris, RR #5
Box 480, Rapid City SD 57701
- Rapid Valley Water Conservancy Dist.,
c/o Jerry Hammerquist
- Rapid Valley Water Co. Inc., c/o David Lamb
Rte 2 - Box 160
TC, SD 57701

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

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

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

Melvin Brassfield
Box 24
Caputa SD 57725

Jerry Hammerquist
Box 26
Caputa SD 7725

Robert Dustman
Dustman Ranch Partnership
Box 53
Caputa SD 57725

Walter Jones, Secretary
Lone Tree Water Co.
RR #2 Box 4970
Rapid City SD 57701

CERTIFICATION

I hereby certify that on April 13, 1992, I have personally deposited with the United States Mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated April 13, 1992, regarding Reduction of the Diversion Rate Authorized by Water Permit No. 2142-2, City of Rapid City addressed as stated below, and on the attached list:

Mayor Ed McLaughlin, City of Rapid City, 300 6th Street, Rapid City,
SD 57702.

Dan Bjerke, City of Rapid City, 300 6th Street, Rapid City, SD 57702.

Les England, Attorney, Suite 102, Western Mutual Bldg., 731 St. Joseph Street, Rapid City, SD 57701.

Copy Sent Inter-office To:

Diane Best, Assistant Attorney General, Capitol Building.

Chas F Frost

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 14th day of April, 1992.



John Hatch
Notary Public

REPORT ON DIVERSION RATE REDUCTION
WATER PERMIT NO. 2142-2
CITY OF RAPID CITY
April 22, 1992

The Water Management Board gave final approval to the transfer of 0.64 cubic feet of water per second (cfs) from the Rapid Valley Water Company, Vested Water Right No. 1727-2 to the City of Rapid City, Water Permit No. 2142-2 on May 1, 1991. The transfer was to change the use of water from irrigation of the Tyler property to municipal use by the City. The transfer has an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, if stored in Pactola Reservoir.

The 0.64 cfs diversion rate was based on shares of 36 miners inches assigned to the property by the Rapid Valley Water Company and was to be delivered at the field head gate for the 53 acres of Tyler property. The annual volume in acre-feet was based on 49 acres actually being irrigated. The assumption was made that irrigation had been abandoned or forfeited on another 4 acres.

Later information provided documentation that irrigation of the 4 acres had not been abandoned. The 4 acres are known as the Pelle property and a transfer of 0.05 cfs to the City of Rapid City was given preliminary approval by the Water Management Board on March 4, 1992. The information showed that diversion rates, in miners inches, assigned by the Rapid Valley Water Company to irrigated property are not uniform. In some cases there is no knowledge of the assigned diversion rates. Diversion rates based on miners inches have not been followed during actual ditch operations. The water is pooled between irrigators as needed. Farm turnouts do not have measuring devices, so actual individual diversions from the ditch are unknown. Based on actual past operations, the diversion rate transfer should be based on a pro rata share of the total ditch diversion.

Based on a pro rata share, the total diversion rate for the 54 acres of the Tyler and Pelle properties should be 0.67 cfs. Since 0.05 cfs was transferred for the Pelle property, this leaves 0.62 cfs for the Tyler property. The annual volume in acre-feet that was transferred for the Tyler property remains unchanged, since this was based on the 49 acres actually irrigated.

Transfer of irrigation water use to municipal use is allowed by SDCL 46-5-34.1, if the transfer can be made without detriment to existing rights, including individual domestic use rights.

Two things need to be considered when making a transfer. First, the diversion rate in cfs and secondly, the annual volume in acre-feet that can be transferred. The diversion rate transfer is very important for the ditch from which the transfer is being made. This is due to seepage loss in the ditch. The seepage

loss associated with the diversion rate transfer may not be transferred. What can be transferred is the diversion rate at the field turnout.

The annual volume of water transferred in acre feet is the volume of water consumptively used by the crop that is irrigated. This is water that was available only to the crop from which the water is transferred. The water was never available to any other crop or water right. The water delivered to the field and not used by the crop is considered return flow. Portions of these return flows become available to downstream irrigators. These return flows remain available after the transfer.

The consumptive use of the crop can be calculated by accepted scientific methods and available climatic data. Return flows can be estimated through the use of accepted scientific methods for field irrigation efficiency. Accepted irrigation efficiencies are 80 percent for sprinkler irrigation systems and approximately 50 percent for gravity irrigation systems. In general, all of the water losses due to inefficiencies do not return to the stream for use by downstream irrigators. Some of the losses go to evaporation, wind drift, deep percolation and soil moisture storage.

When transferred water is diverted to the city water treatment plant, a portion of the water, at least equal to the return flow from the irrigated field, is returned to Rapid Creek by the city waste water treatment plant. Therefore, the transfer does not affect downstream water rights. When water is transferred to Pactola Reservoir for storage, a volume of water equal to that not consumptively used by the crop is released as a replacement for return flows from the reservoir for downstream users. As the City of Rapid City continues to grow and City water demands increase, return flows from the waste water treatment plant will increase.

Since the irrigation ditches only measure water diversions from Rapid Creek at the main head gate of the ditch and not at each field head gate, only field averages for water delivered can be used. Some of the ditch companies have shares in miners inches designated to property but, water is not delivered on the basis of shares. Operations of the ditches are such that water is not measured. The water is pooled between irrigators as needed. The volume of water and the diversion rate to be transferred can only be based on a pro rata basis.

Water transferred from irrigated property to the City of Rapid City is based on the diversion rate to that property and the volume of water used by the crop on that property. The diversion rate, for the time period needed to deliver the volume of water consumptively used by the crop, is not available to other water users. The water consumptively used by the crop is not available to other water users. The transfers are based on natural flows of Rapid Creek that have been delivered to the crop. Water

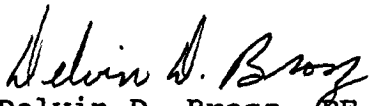
delivered to the crop from Pactola storage is not considered in the transfer.

Use of Rapid Creek natural flows is based on water right priority. All water rights that are senior to the Pactola Reservoir Water Right have priority to the natural flows. Water cannot be stored in Pactola Reservoir until all senior water rights have been served. When senior water rights do not call for the natural flows, the water can be stored in Pactola Reservoir. Water rights that are junior to Pactola Reservoir can only obtain water from Pactola Reservoir storage unless the reservoir has filled once during a year. If Pactola has filled natural flows become available on a priority basis.

The Water Management Board retains jurisdiction of water permits involving transfers to Rapid City in the event that additional information becomes available and changes need to be made in the diversion rate or volume of water transferred. This is the case in the diversion rate transfer from the Tyler property of Rapid Valley Water Company to the City of Rapid City.

Conclusions:

1. Due to additional information, the diversion rate for Water Permit No. 2142-2 should be reduced from 0.64 cfs to 0.62 cfs.
2. The annual volume of water in acre-feet that was transferred should remain unchanged.
3. The transfer is being made without detriment to existing water rights or domestic users.
4. Approval of the transfer is for natural flow water only and does not include any right to irrigation water available under contract from Pactola Reservoir.
5. Natural flow water includes water entering Pactola Reservoir which must be passed through the reservoir for downstream senior rights. Approval of a transfer application will allow water to be stored in Pactola or passed through for diversion downstream by Rapid City.


Delvin D. Brosz, PE
Natural Resources Engineer IV



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 24, 1992

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

Dear Mr. Bjerke:

Please find enclosed the following reports and recommendations for the City of Rapid City:

1. Report on the change in the diversion rate for Water Permit No. 2142-2.
2. Final report and recommendation for Water Permit Application No. 2217-2.
3. Final report and recommendation for Water Permit Application No. 2218-2.

These issues are scheduled to be considered by the Water Management Board on May 7, 1992, at 9:30 am in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Ave., Pierre, SD.

If you have any questions, please feel free to contact Mark Rath, Del Brosz, or myself.

Sincerely,

Eric Gronlund
Water Rights Division
(605) 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 24, 1992

Joseph Butler
Bangs, McCullen, Butler, Foye & Simmons
P.O. Box 2670
Rapid City, SD 57709

Dear Mr. Butler:

Please find enclosed the following reports and recommendations for the City of Rapid City:

1. Report on the change in the diversion rate for Water Permit No. 2142-2.
2. Final report and recommendation for Water Permit Application No. 2217-2.
3. Final report and recommendation for Water Permit Application No. 2218-2.

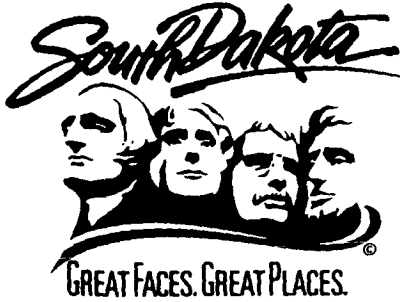
These issues are scheduled to be considered by the Water Management Board on May 7, 1992, at 9:30 am in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Ave., Pierre, SD.

If you have any questions, please feel free to contact Mark Rath, Del Brosz, or myself.

Sincerely,

Eric Gronlund
Water Rights Division
(605) 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 24, 1992

Michael Hickey
Bangs, McCullen, Butler, Foye & Simmons
P.O. Box 2670
Rapid City, SD 57709

Dear Mr. Hickey:

Please find enclosed the following reports and recommendations for the City of Rapid City:

1. Report on the change in the diversion rate for Water Permit No. 2142-2.
2. Final report and recommendation for Water Permit Application No. 2217-2.
3. Final report and recommendation for Water Permit Application No. 2218-2.

These issues are scheduled to be considered by the Water Management Board on May 7, 1992, at 9:30 am in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Ave., Pierre, SD.

If you have any questions, please feel free to contact Mark Rath, Del Brosz, or myself.

Sincerely,

Eric Gronlund
Water Rights Division
(605) 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 24, 1992

Les England
Suite 102, Rushmore Professional Building
731 St. Joseph Street
Rapid City, SD 57701

Dear Mr. England:

Please find enclosed the following reports and recommendations for the City of Rapid City:

1. Report on the change in the diversion rate for Water Permit No. 2142-2.
2. Final report and recommendation for Water Permit Application No. 2217-2.
3. Final report and recommendation for Water Permit Application No. 2218-2.

These issues are scheduled to be considered by the Water Management Board on May 7, 1992, at 9:30 am in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Ave., Pierre, SD.

If you have any questions, please feel free to contact Mark Rath, Del Brosz, or myself.

Sincerely,

Eric Gronlund
Water Rights Division
(605) 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOV 14 1994

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

Dear Mr. Bjerke:

Enclosed is Amended Water Permit No. 2142-2. The permit was amended based on a May 7, 1992 Water Management Board decision which reduced the diversion rate from 0.64 cfs to 0.62 cfs. Amendment of the permit also corrected the legal description of Meadowbrook Gallery.

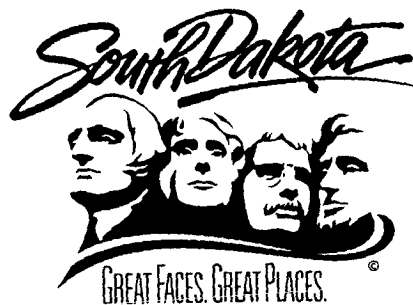
The reduction of the diversion rate will not cause a reduction in the monthly or total annual volumes of water to be diverted at the treatment plant, infiltration galleries or stored water in Pactola Reservoir.

If you have any questions concerning Amended Water Permit No. 2142-2, please contact us.

Very truly yours,

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

encl



**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

N^o 415954

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. 2142-2

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. 2142-2
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. 2142-2, bearing the priority of April 6, 1878, authorizing the diversion of 0.62 cu. ft. per second and an annual appropriation of 77.9 acre-feet if taken at Rapid City's municipal diversion points or 66.2 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 0.62 cu. ft. per second of water and an annual appropriation of 77.9 acre-feet if taken at Rapid City's municipal diversion points or 66.2 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 0.62 cfs and an annual appropriation of 77.9 acre-feet if taken at Rapid City's municipal diversion points or 66.2 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

9/21/98
Date

REPORT ON INSPECTION OF PERMIT NO. 2142-2

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:

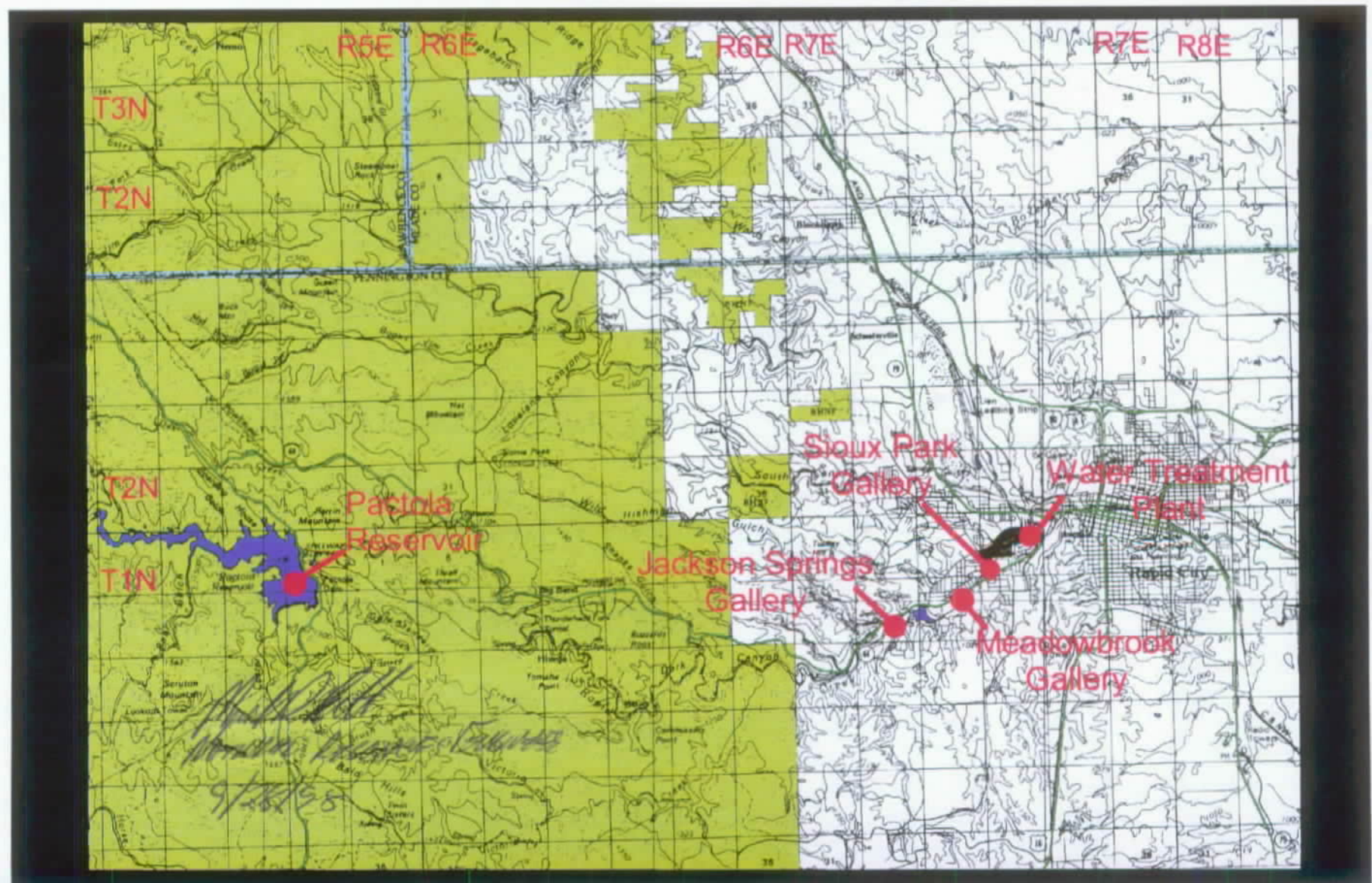
Municipal distribution system

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. 2142-2

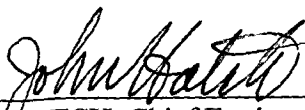
(1) The City of Rapid City, 300 6th St, Rapid City SD 57701 made Application No. 2142-2, September 28, 1990 for a water permit to divert 0.64 cubic feet of water per second (cfs) from Rapid Creek with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 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. 2142-2, with a priority date of April 6, 1878 (established by Murphy Ditch) was approved May 1, 1991 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.

On May 7, 1992, the Water Management Board amended the diversion rate in Water Permit No. 2142-2 from 0.64 cfs to 0.62 cfs.

(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 0.62 cfs from Rapid Creek with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 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.

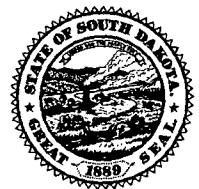
(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Rapid City, 300 6th St, Rapid City SD 57701 the holder and/or owner of Water Right No. 2142-2 is issued a license to appropriate water, the right to use 0.62 cfs from Rapid Creek with an annual volume limitation of 77.9 acre-feet, if diverted at the city's water treatment plant and infiltration galleries or 66.2 acre-feet, if stored in Pactola Reservoir with a priority date of April 6, 1878 (established by Murphy 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. 2142-2 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,

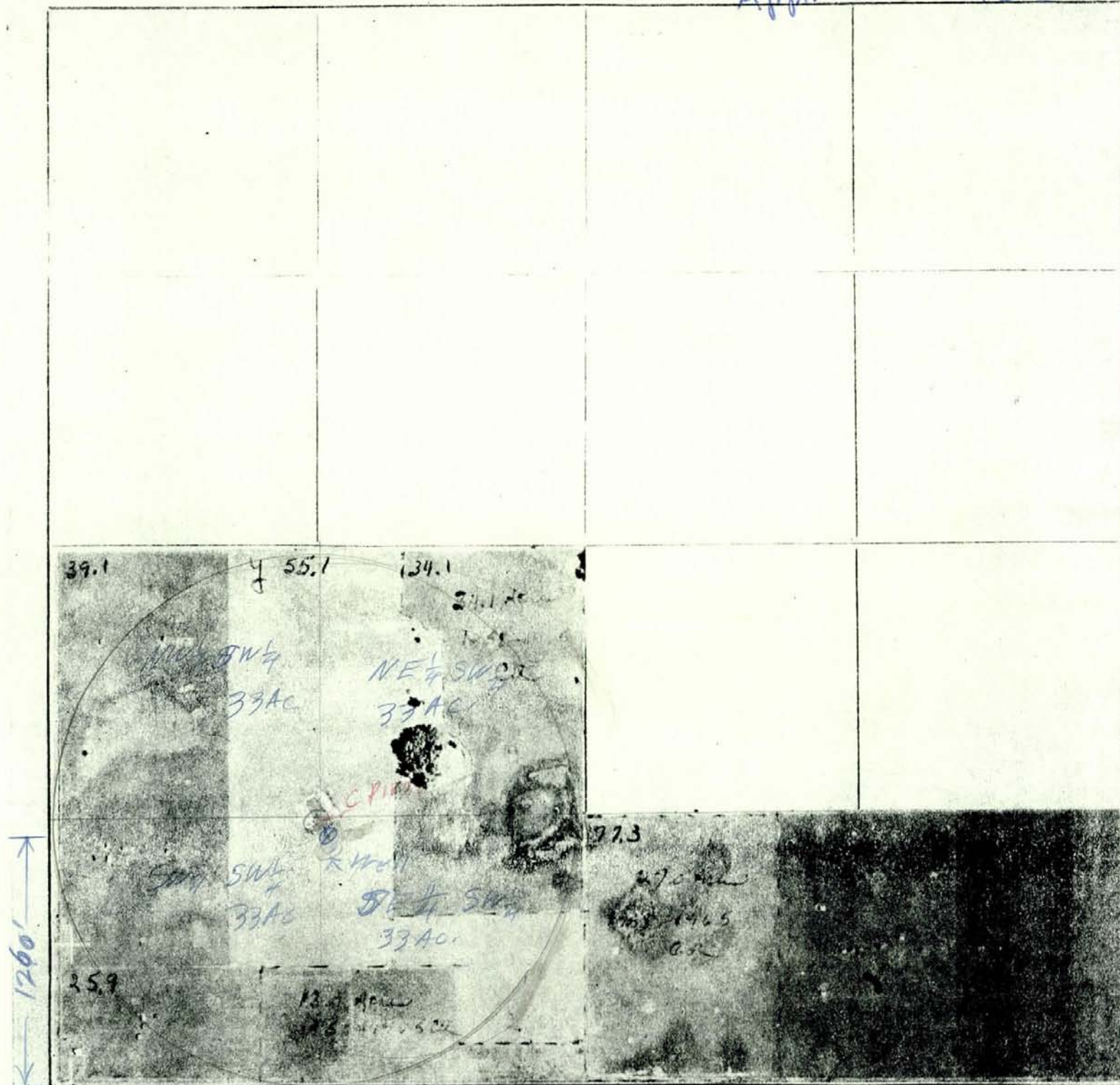
A handwritten signature in cursive script that reads "John Hatch".

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

ks

enclosures

Appl. No 2142-3



Legal Description

SW⁴-26 and S²SE⁴-26-78-63'

~~map# 1311-3~~ w/r 2,42-3



2142-2

**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.

- 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

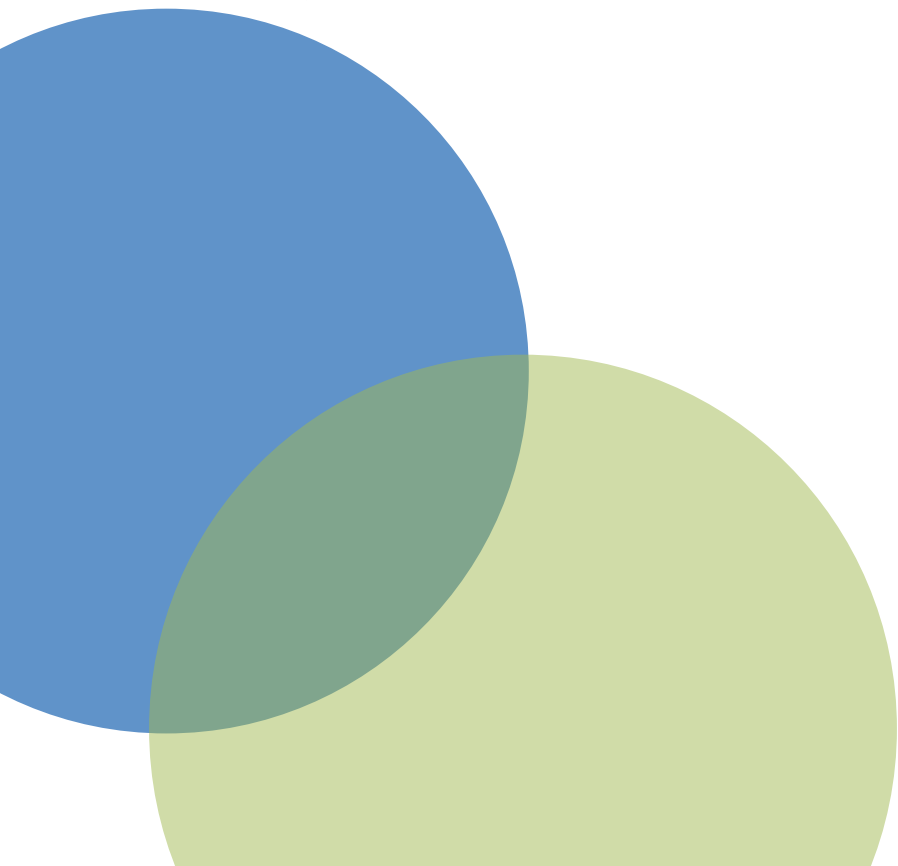
DOCUMENTATION OF
IRRIGATION DIVERSION POINT ABANDONMENT
FOR CITY OF RAPID CITY
PROJECT NO. 12-2034, CIP NO. 50922

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

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Rapid City, SD 57701

January 2016

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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 *Disablement*

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

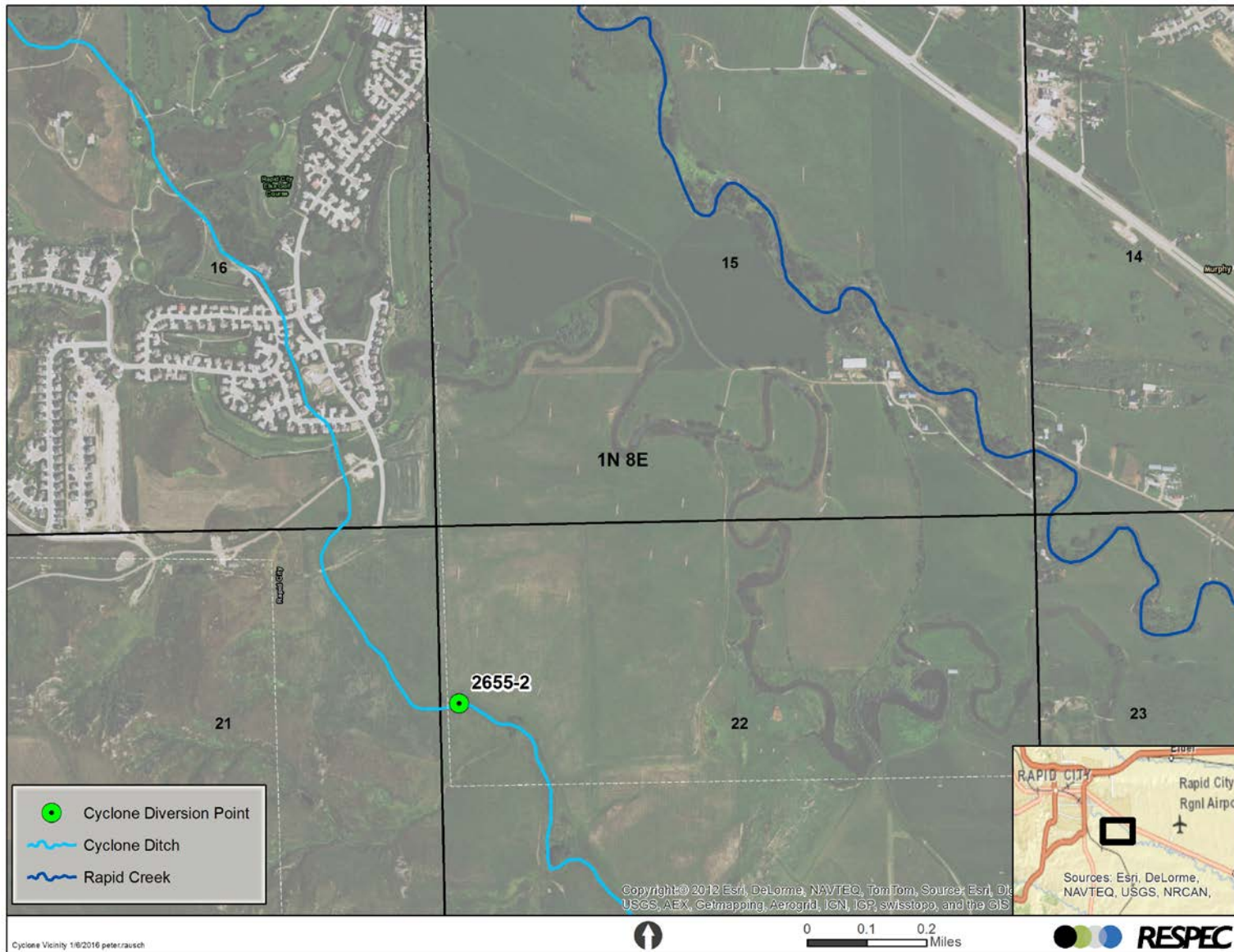


Figure A-1. Cyclone Ditch Turnout Vicinity Map.



Figure A-2. Hawthorne Ditch Turnout Vicinity Map.

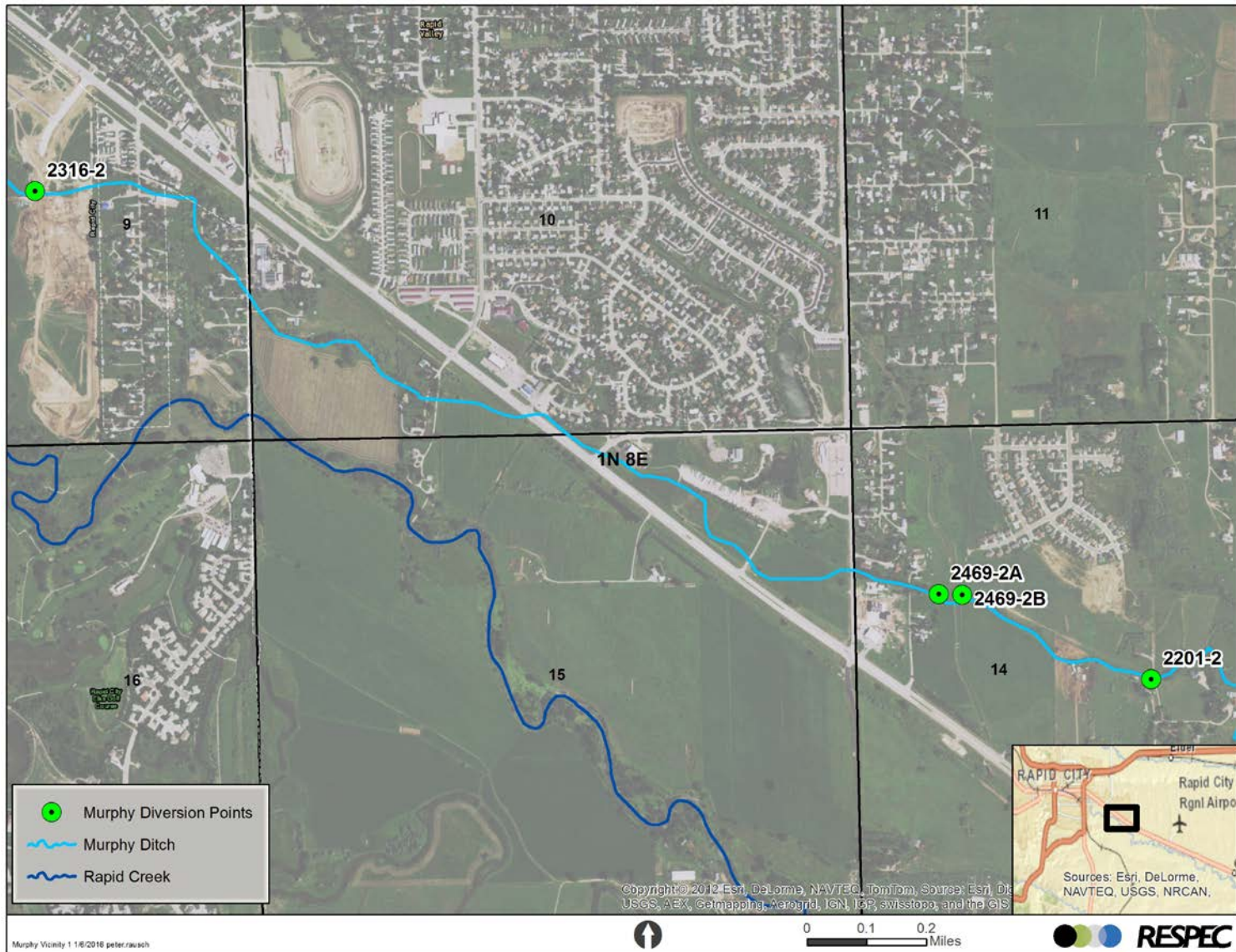


Figure A-3. Murphy Ditch Turnout Vicinity Map (1 of 2).

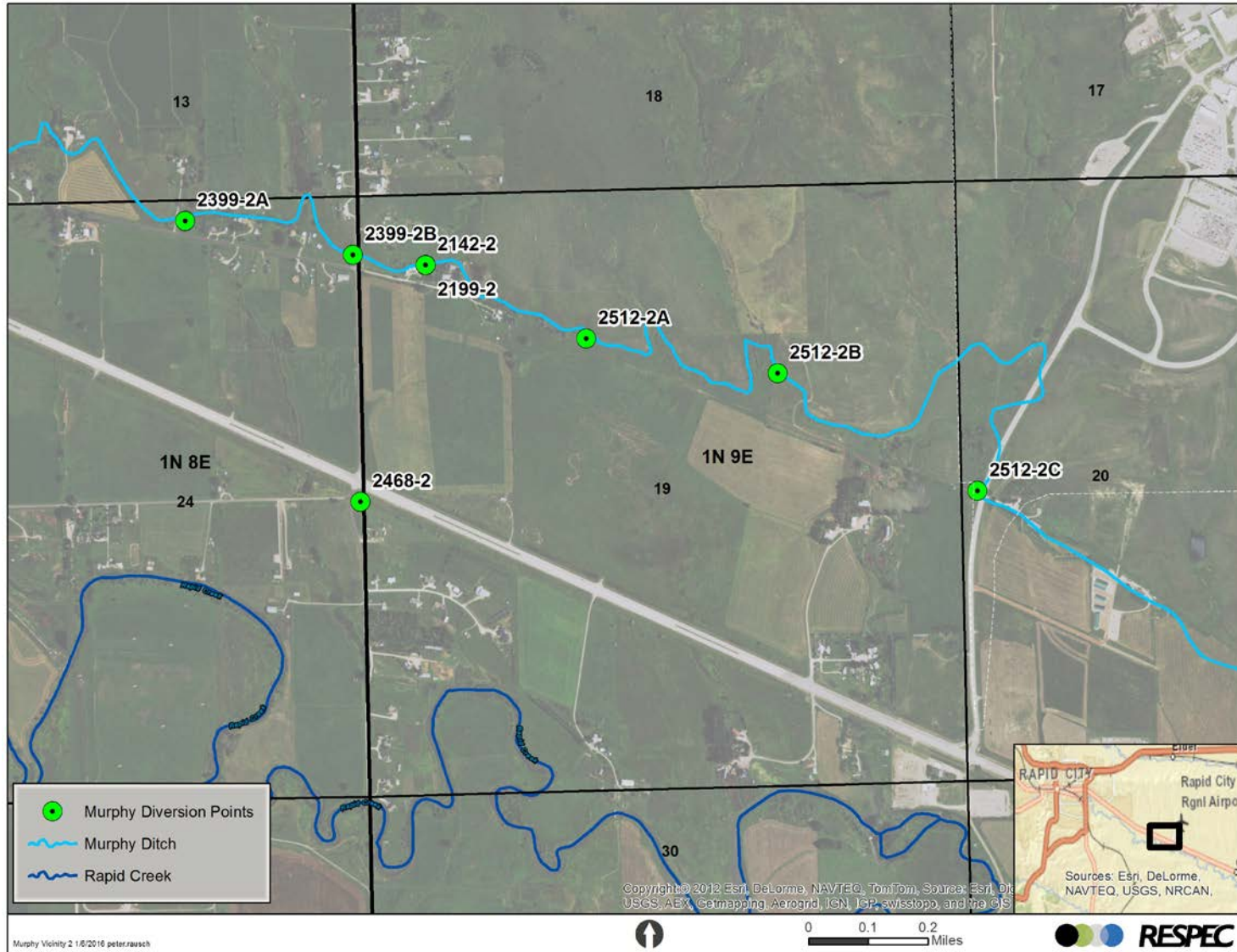


Figure A-4. Murphy Ditch Turnout Vicinity Map (2 of 2).



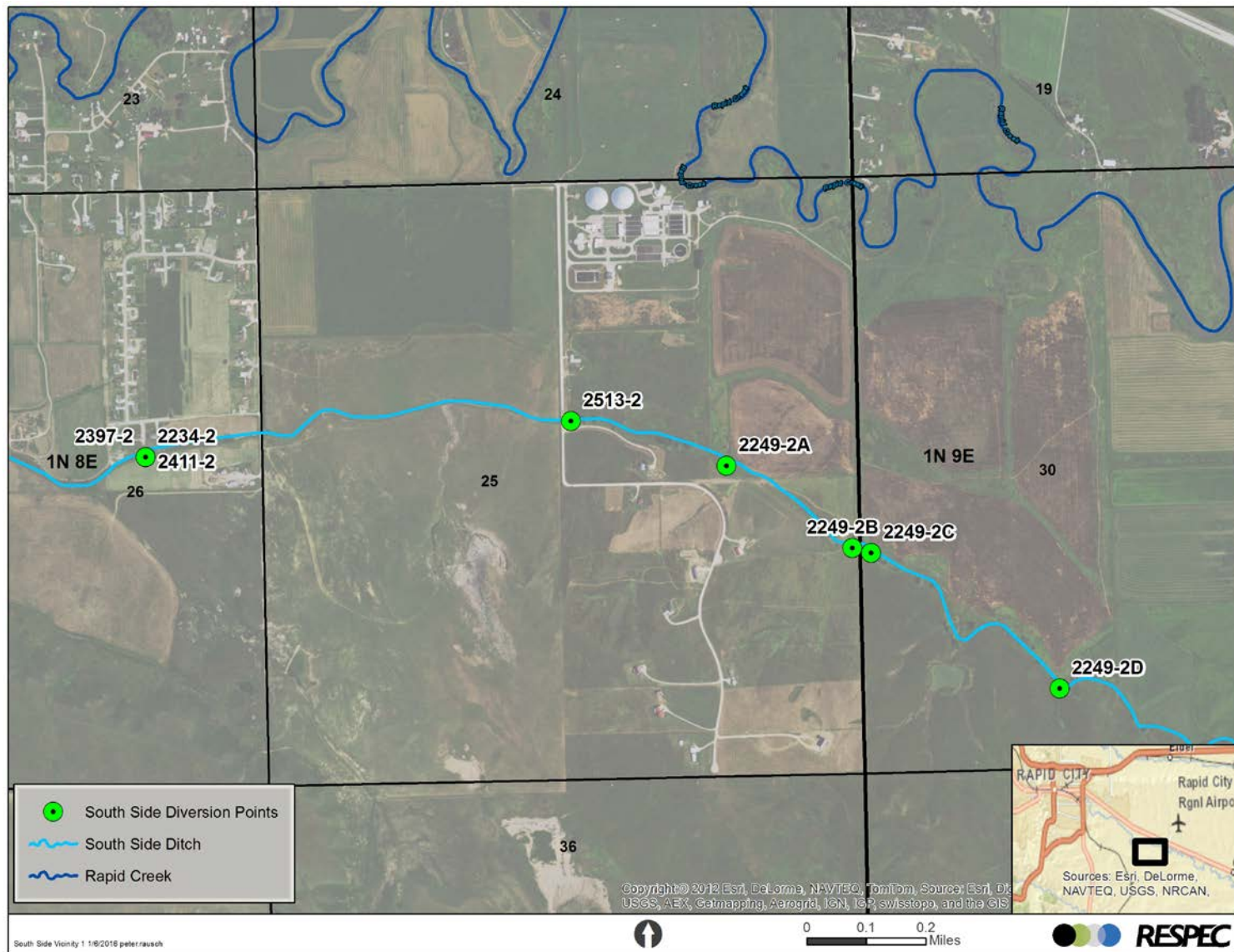


Figure A-5. South Side Ditch Turnout Vicinity Map (1 of 2).

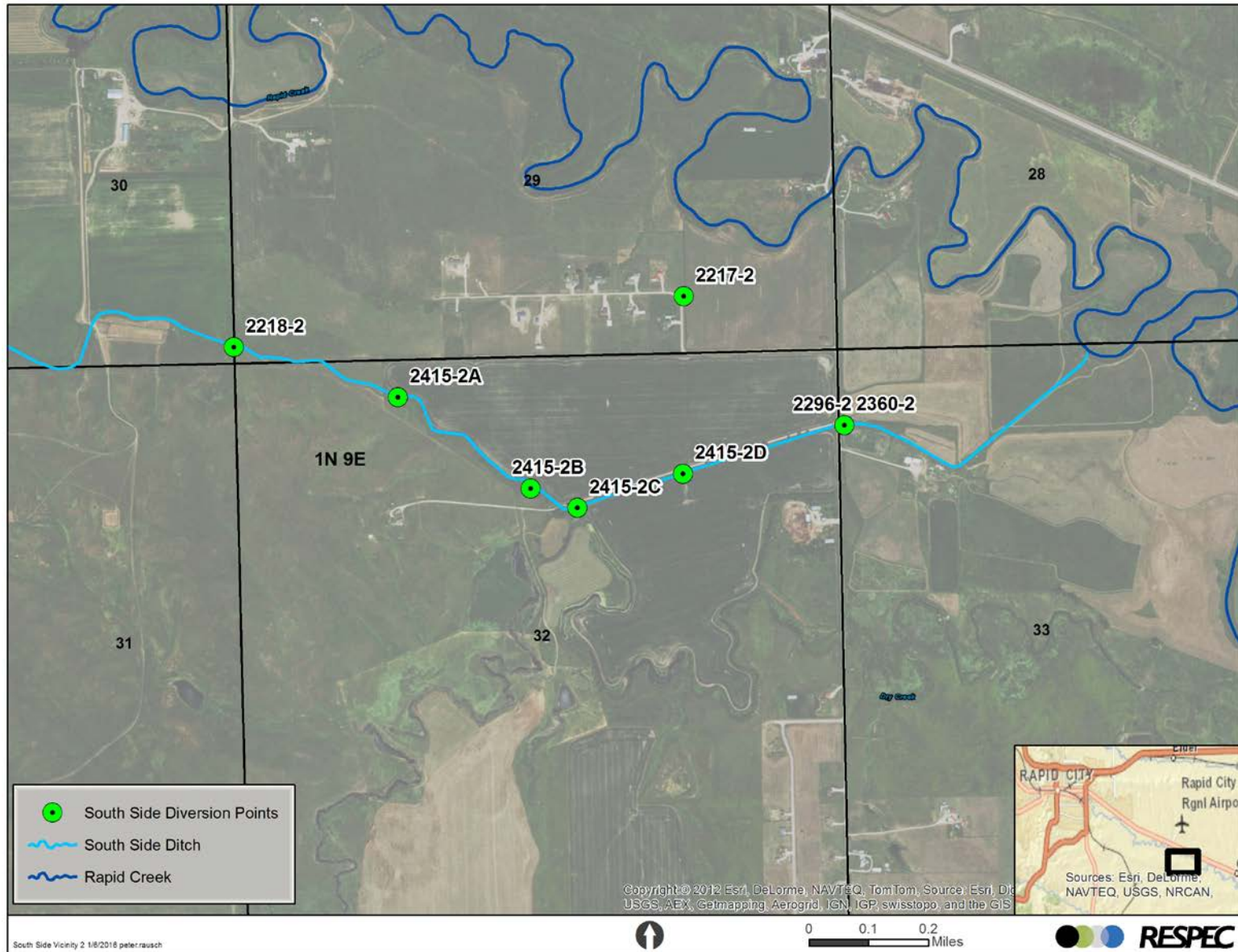


Figure A-6. South Side Ditch Turnout Vicinity Map (2 of 2)