



PW112911-03
CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701

**Public Works Department
Engineering Services Division**

300 Sixth Street

Telephone: (605) 394-4154 Fax: (605) 355-3083

Web: www.rcgov.org

December 13, 2011

To: Public Works Committee/
Rapid City Council

From: Terry Wolterstorff
Public Works Director

Ref: Water Rights Transfer Application

This agenda item requests authorization for the Mayor to sign an "Application For Permit To Appropriate Water Within the State of South Dakota". This application, if approved by the South Dakota Board of Water and Natural Resources, will allow the City of Rapid City to transfer diversion of 1.73 cubic feet per second (cfs) of water from the South Side Irrigation Ditch near the Water Reclamation Facility to City drinking water collection points.

This water right has traditionally been used by the City of Rapid City to irrigate alfalfa grown on City owned fields near the Water Reclamation Facility (WRF). The City no longer has the need to irrigate these fields. This application will transfer the water diversion point from the South Side Irrigation Ditch to the City's drinking water collection points.



EQUAL OPPORTUNITY EMPLOYER

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

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only) No. _____ Hydrologic Unit _____
	Basin _____
	Newspaper _____

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

Check use(s) of water:

- | | | | |
|--|--|--|--|
| <input checked="" type="checkbox"/> Municipal | <input checked="" type="checkbox"/> Suburban Housing | <input type="checkbox"/> Recreational | <input type="checkbox"/> Institutional |
| <input checked="" type="checkbox"/> Rural Water System | <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Fish & Wildlife | <input type="checkbox"/> Geothermal Heat |
| <input checked="" type="checkbox"/> Domestic (over 18 gpm) | <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Other _____ | |

Type of Application:
(check one)

- New Vested Right (Use predates Mar 2, 1955) Future Use Reservation
- Place to Beneficial Use Water Reserved by Future Use Permit No. _____
- Amendment/Correction to Permit No. 2020-2

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

Change use and diversion points

1. Name of Applicant City of Rapid City Phone 605.394.4165

(check one) Owner Tenant/lessee

Mailing Address 300 Sixth Street Rapid City SD 57701
(Address) (City) (State) (Zip Code)

2. Amount of water claimed 1.73 *CFS or 274.1 **GPM 274.1 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Rapid Creek (See Attached Exhibit 1 For Maps)

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Pennington

See attached Exhibit 2 for legal descriptions of City of Rapid City water treatment plant and/or the City infiltration galleries located along Rapid Creek

5. County or counties where water will be used Pennington

6. Annual period during which water is to be used April 15-November 30

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Project will divert water from Rapid Creek to the City of Rapid City water treatment plant and/or the city infiltration galleries located along Rapid Creek. Alternatively, the project will, but not simultaneously, divert water from Rapid Creek to storage in Pactola Reservoir. See the attached Exhibit 3 (Engineering Report)

STATE OF SOUTH DAKOTA)
County of Pennington) SS

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

I, _____, 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.

Applicant's signature _____

Subscribed and sworn to before me this _____ day of _____ 20 _____

Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ 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 applicant's property _____ On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field)
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

3. Dugout Information

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

4. Water Storage Dams

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

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

United States Bureau of Reclamation
Department of Interior

- b) Freeboard 3.3 feet
- c) Crest Width 40 feet
Crest Length 5,200 feet including dikes
- d) Height 245 feet
- e) Primary Outlet Capacity 1,150 cfs
If pipe, diameter 2-2.75'x2.75'
- f) Secondary Spillway Capacity 245,000 cfs
Spillway Width 425 feet
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream 2.5:1
Downstream 2:1
- h) Surface Area of Impoundment 1,232 acres
- i) Storage 99,029.0 Acre Feet
- j) Drainage Area Above Dam 319.0 Acres

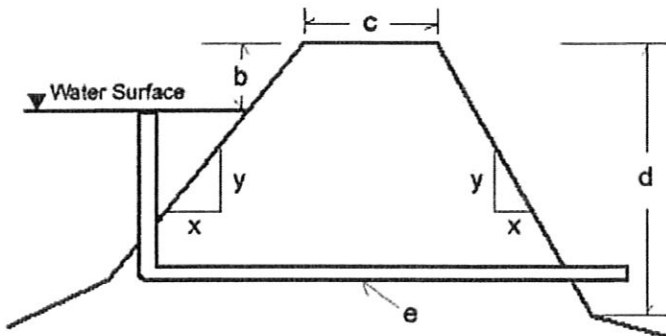







EXHIBIT 1

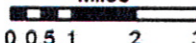


	Acres To Transfer
	South Side Ditch
	Pactola Diversion
	Rapid Creek

N

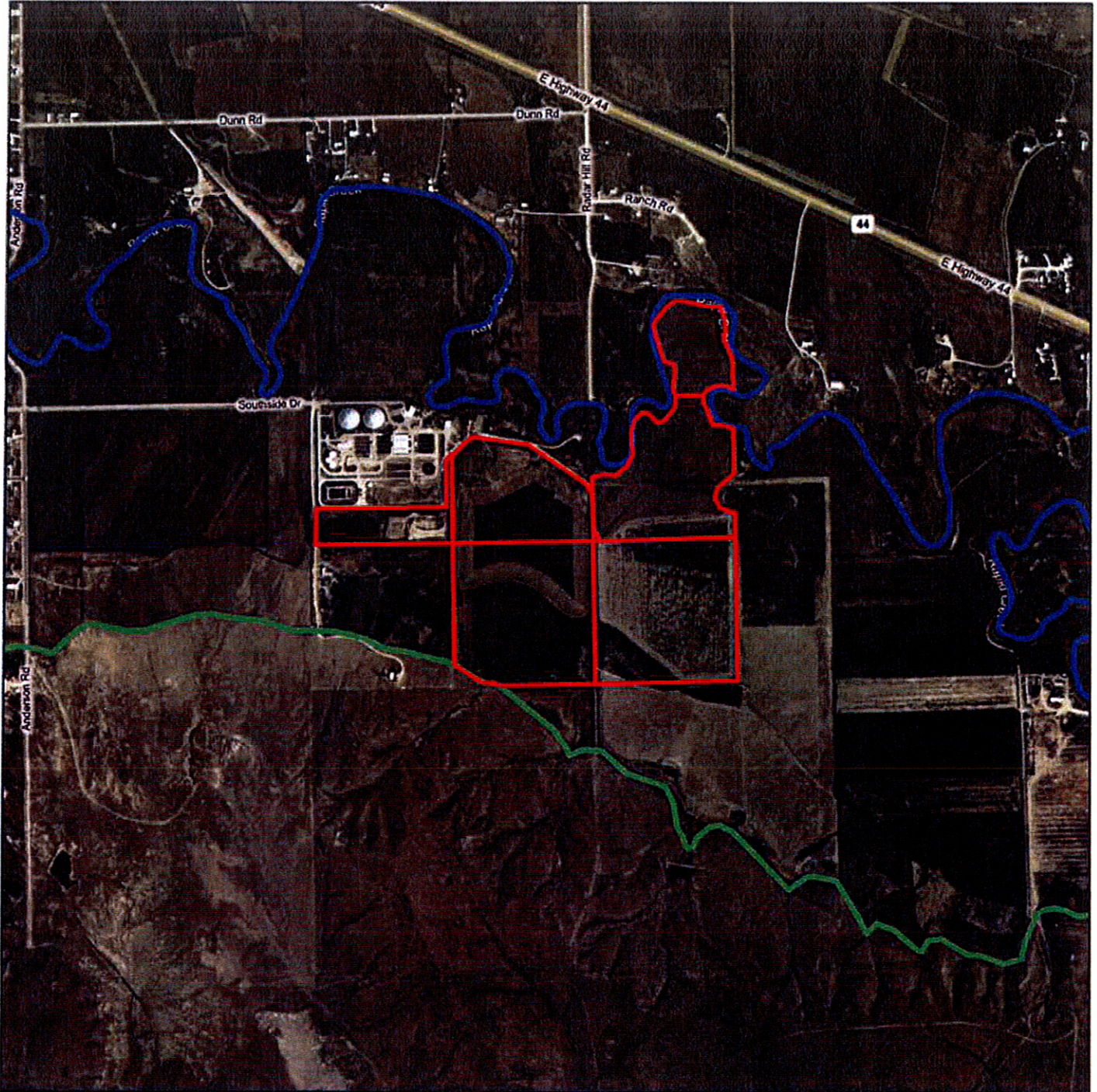


Miles






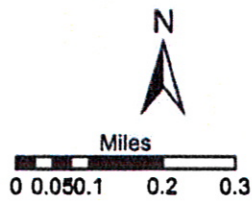
RESPEC
WATER & NATURAL RESOURCES

Created By: J. Oswald
Date: 6/20/11
MXD: SouthSide.mxd



Legend

-  Rapid Creek
-  South Side Ditch
-  Acres To Transfer



Created By: J. Oswald
Date: 6/20/11
MXD: SouthSide.mxd

EXHIBIT 2

EXHIBIT 2**APPLICATION FOR PERMIT TO APPROPRIATE
WATER WITHIN THE STATE OF SOUTH DAKOTA****LOCATION OF POINT OF DIVERSION**City of Rapid City Water Treatment Plant

North 71 degrees 39 feet West, 1,205 feet 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 "Girl Scout" Gallery

1,270 feet north 54 degrees 05 feet East of Southwest corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Meadowbrook Gallery

2,032 feet South 31 degrees 41 feet West of Northeast corner of Section Nine (9), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Jackson Springs Gallery

2,943 feet North 58 degrees 54 feet 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 degrees East 3,740 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.