

WATER PERMIT NO. 2642-2

Name of Applicant: **City of Rapid City**

Address: **300 6th St, Rapid City SD**

Phone: **605 394-4165**

Amount of Water Claimed: **2.77 cfs**

Total Acres: **NA**

Source of Water Supply: **Rapid Creek**

Water to be used for: **municipal**

County: **PE**

Type of Waste Disposal System:

Location:

PRIORITY

Date Received: **9-25-09**

Application/License Fee: **\$1850**

Corrected Application Received:

Period of Annual Use: **January 1 – December 31**

Remarks: **Withdrawing from Future Use Permit No. 1088-2**

Diversion Point: **S ½ Sec 8-T1N-R7E**

Land to be Irrigated: **NA**

Depth of Well: **NA**

Well Driller:

Remarks:

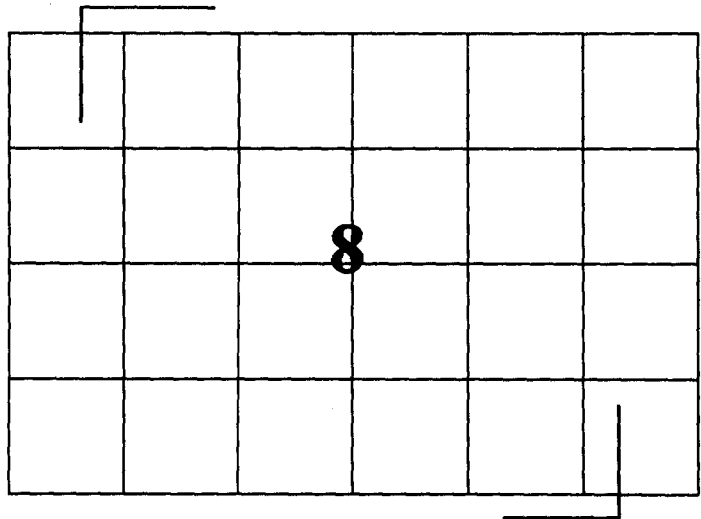
Type of Map: **topo**

Prepared by: **Daniel J Berke, PE**

Reviewed and the Number Assigned on: **9-28-09**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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SEP 25 2009
WATER RIGHTS
PROGRAM

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>2642-2</u> (office use only) Hydrologic Unit <u>10120110</u>
	Basin <u>upper Chyenne</u>
	Newspaper <u>Rapid City Journal P.O. Box 450</u>
	<u>605-394-8300 Legal Advertising 57701</u>

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

Check use(s) of water:

- | | | | |
|--|--|--|--|
| ☒ Municipal | ☒ Suburban Housing | ☐ Recreational | ☐ Institutional |
| ☒ Rural Water System | ☒ Commercial | ☐ Fish & Wildlife | ☐ Geothermal Heat |
| ☒ Domestic (over 18 gpm) | ☒ Industrial | ☐ 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. 1088-2
☐ Amendment/Correction to Permit No. _____

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

- Name of Applicant City of Rapid City Phone (605) 394-4165
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 300 Sixth Street Rapid City State SD 57701
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 2.77 *CFS or 1203 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Rapid Creek
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Pennington
New Intake Structure on Rapid Creek located approximately 3220 feet N 66 degrees and 18 minutes W of the SE Corner of Sec. 8, T1N, R7E of the Black Hills Meridian, Pennington County, South Dakota.
- County or counties where water will be used Pennington
- Annual period during which water is to be used January 1st through December 31st
- 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)
New Intake Structure on Rapid Creek (see attached map) will divert water directly from Rapid Creek. The water will be transported to a new raw water pumping station. Water will be pumped to the new Jackson Springs Water Treatment Plant.

STATE OF SOUTH DAKOTA)

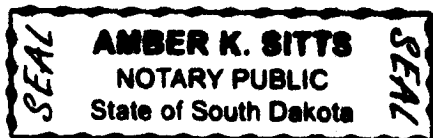
County of Pennington) SS

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

I, Alan Hank, Mayor, 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 21 day of September 20 09



Notary Public signature

SOUTH DAKOTA
WATER PERMIT NO. 2642-2

Date of first receipt of application September 25, 2009.

The Water Management Board approved Water Permit No. 2642-2 on March 10, 2010 for the City of Rapid City, 300 6th St, Rapid City SD 57701 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2642-3 authorizes to construct and place to beneficial use 1,203 acre feet of water annually from Rapid Creek at a maximum diversion rate of 2.77 cubic feet of water per second (cfs). The point of diversion from Rapid Creek is located in the SE ¼ SW ¼ Section 8, T1N, R7E. This water is appropriated and reserved by Future Use Permit No. 1088-2.
2. The water appropriated shall be used for the purpose of municipal, rural water system, domestic, suburban housing, commercial and industrial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date from which applicant may claim right is June 28, 1971 (established by Water Right No. 1088-2).
5. One-fifth of the construction is to be completed on or before September 10, 2012.
6. All construction is to be completed on or before March 10, 2015.
7. Water is to be put to beneficial use on or before March 10, 2019.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. There are prior water rights downstream on Rapid Creek (irrigation and domestic use, including livestock watering). Natural flows of Rapid Creek as needed for these prior water rights shall be by-passed under this permit. Water Rights covering storage of water in Deerfield and Pactola Reservoirs were acquired by the United States (U.S. No. 509-2 and U.S. No. 518-2, respectively). Use of such water by Rapid City is provided by the Deerfield and Pactola contracts with the United States (Bureau of Reclamation). To the extent that water is available under these contracts, it may be used under Permit No. 2642-2 to serve, replace or supplement withdrawals from the natural flows of Rapid Creek, or those flows remaining (which may be zero flows) after water is by-passed as needed for the downstream prior water rights.
2. Diversions under this permit are limited to natural flows that exceed 10 cubic feet per second as measured at USGS gaging station Rapid City above Canyon Lake near Rapid City No. 06412500. During the period April 1 through September 30 when flows are between 10 cfs and 20 cfs, diversions are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversion being released supplemental water.

(continued)

3. The city of Rapid City shall report to the Chief Engineer annually the amount of water withdrawn from the Rapid Creek.
4. Permit No. 2642-2 is subject to compliance with South Dakota Drinking Water Standards.
5. This permit is subject to any written orders by the Chief Engineer.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 15 2010

date



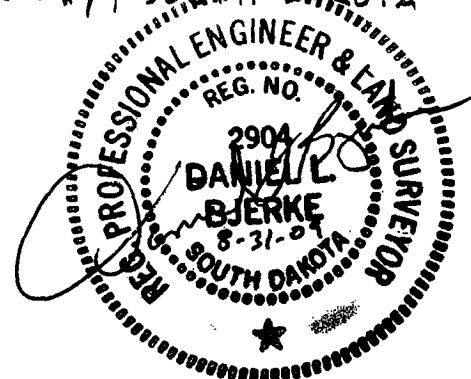


T1N, R7E, BHM, PENNINGTON COUNTY, SOUTH DAKOTA

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SEP 25 2009

WATER RIGHTS
PROGRAM



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/21, 20 09

RECEIVED OF City of Rapid City 300 6th 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>2642-2</u> to Appropriate Water, to construct and to put water to beneficial use	1650	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. <u>2642-2</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1850 00

No. 04254

By Garland Erbe
Chief Engineer



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

September 24, 2009

Water Rights Program
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3181

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SEP 25 2009

**WATER RIGHTS
PROGRAM**

Ref: Applications for Permit to Appropriate Water
Jackson Springs Water Treatment Plant

Gentlemen:

The City of Rapid City (City) is undertaking a project for design and construction of a water treatment plant and related facilities near its Jackson Springs water source. To ensure an adequate supply of water for this facility the City is submitting four Applications for Permit to Appropriate Water within the State of South Dakota. Therefore, enclosed please find:

- Two copies each of four original Applications for Permit to Appropriate Water within the State of South Dakota as related to the water source for the proposed Jackson Springs Water Treatment Plant.
- Two copies of a figure that gives an overview of the proposed Jackson Springs Water Treatment Plant and related facilities.

If you have questions or need additional information concerning this submittal or the proposed treatment plant please contact me at (605) 394-4154.

Sincerely,

Dan Coon
Project Manager

Cc: Anthony Beeson – Burns and McDonnell w/
Dan Bjerke – KAD Engineering w/
Robert Ellis – City of Rapid City w/o
John Wagner – City of Rapid City w/

Enclosure



EQUAL OPPORTUNITY EMPLOYER

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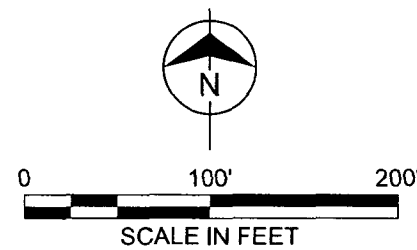
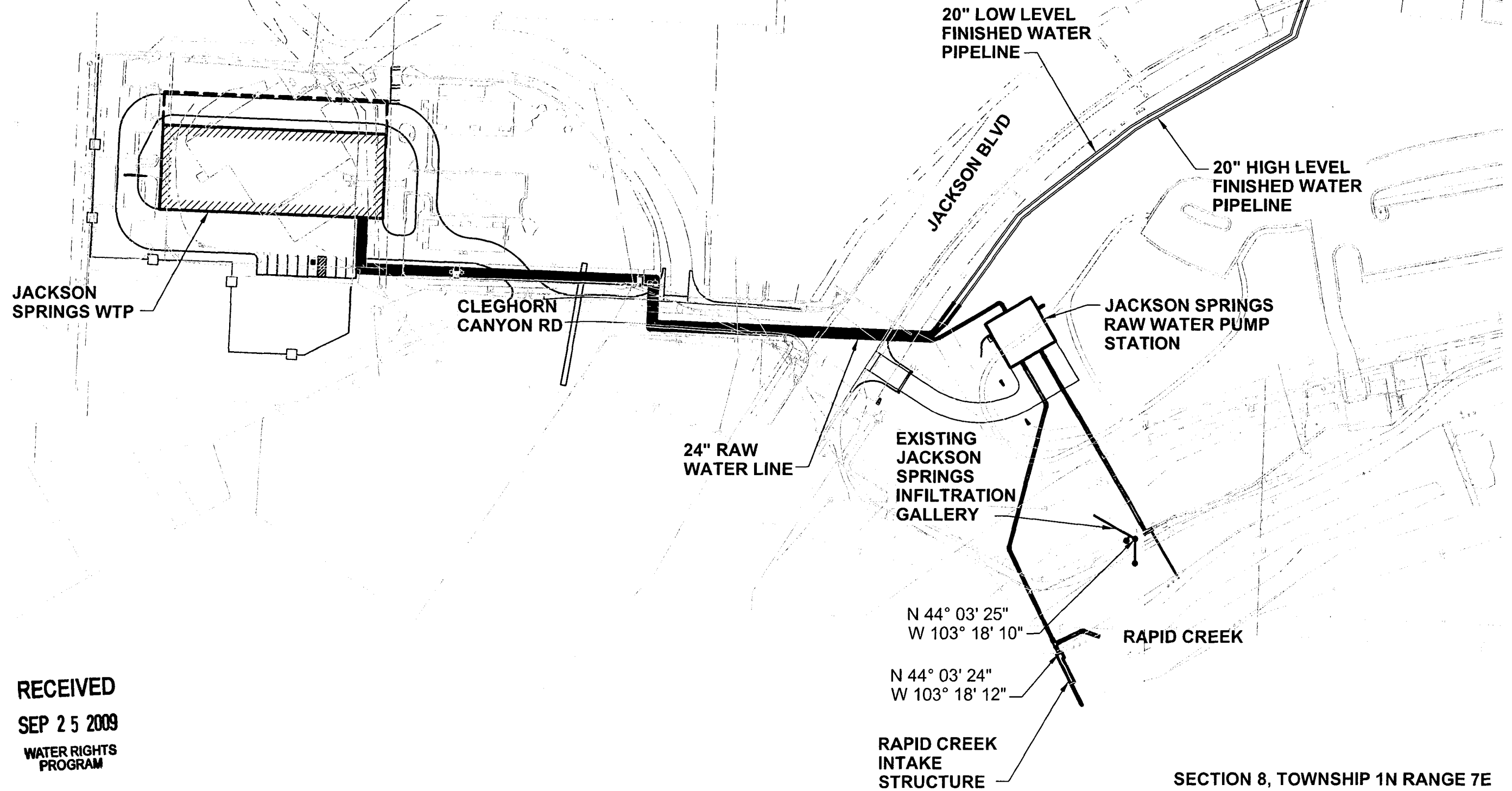


Figure
WATER RIGHTS
PERMIT APPLICATION
RAPID CITY, SD

**ADDITIONAL WATER RIGHTS ACTIONS
FOR
JACKSON SPRINGS WATER TREATMENT FACILITY**

The new Jackson Springs Water Treatment Facility requires additional water to meet its design capacity. Presently the existing Jackson Springs/Cleghorn Springs pump station has water rights for 11.35 cubic feet per second (7.33 million gallons per day (MGD)). The new Jackson Springs Water Treatment facility will have a firm production capacity of 12.38 cubic feet per second (8 MGD) and a maximum pumping capacity of 16.43 cubic feet per second (10.6 MGD). Review of the City's existing Future Use Permits for surface water from Rapid Creek showed that there are adequate quantities of water available from the existing water permits to meet the additional water needs of the Jackson Springs Water Treatment Facility.

Currently four Applications for Permit to Appropriate Water are needed to ensure an adequate volume of water is available for the operation of the Jackson Springs Water Treatment Facility:

Cleghorn Springs – Permit No. 504-2

This permit application requests a change in beneficial use of the water on the existing Cleghorn Springs water permit from Domestic Household Use to those beneficial uses the City currently provides to its water customers. The new beneficial use will include Municipal, Rural Water System, Domestic, Suburban Housing, Commercial and Industrial Uses.

The Cleghorn Springs water right was obtained through an exchange with the Cleghorn Springs Water Users Association when their water users connected to the Rapid City water system.

The Cleghorn Springs water right claims 0.89 cubic feet per second with a priority date of January 1, 1877.

Jackson Springs – Future Use Permit No.439-2

This permit application claims the remaining 2.29 cubic feet per second reserved in Future Use Permit No. 439-2. The original claim was for 5.0 cubic feet per second of Rapid Creek water with a priority date of September 22, 1956. The City had been using 2.71 cubic feet per second at the Jackson Springs Pump Facility until it was shut down. The City is required to release water from Pactola Reservoir during the irrigation season as replacement water for the volume of water used from this permit.

Rapid Creek – Future Use Permit No. 1088-2

This permit application claims 2.77 cubic feet per second reserved in Future Use Permit No. 1088-2. This permit is for surface water from Rapid Creek with a priority date of June 28, 1971. The water will be diverted at the new Intake Structure for the Jackson Springs Water Treatment Facility. The City is required to release water from Pactola Reservoir during the irrigation season as replacement water for the volume of water used from this permit.

Additional Diversion Point for Permit No. 2138-2

This permit application is for an additional diversion point at the new Intake Structure for the Jackson Springs Water Treatment Facility. The present diversion point for this permit is at the Mountain View Water Treatment Facility. The additional diversion point at the Jackson Springs Intake Structure will allow the operators of the City's water utility more flexibility in meeting and managing the daily water demands within the City water system.

Permit No 2138-2 claims 12.38 cubic feet per second (8.0 million gallons per day) and has a priority date of June 28, 1971. The City is required to release water from Pactola Reservoir during the irrigation season as replacement water for the volume of water used from this permit.

Requested Action

Authorize Mayor as signatory for Applications for Permit to Appropriate Water as required for the Jackson Springs Water Treatment Plant and Mt. View Water Treatment plant projects.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 17, 2010

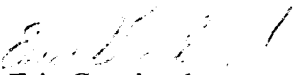
Jerry Hammerquist
Rapid Valley Conservancy District
PO Box 26
Caputa SD 57725

Dear Mr. Hammerquist:

Enclosed is a copy of the report, recommendations and public notice for Water Permit Application Nos. 504A-2, 2138A-2, 2642-2 and 2643-2 filed by Rapid City. The applications propose to amend existing water rights and construct and place to beneficial use water held in the City's future use permits to accommodate the proposed treatment plant near Jackson Springs. The public notice is scheduled to be published February 11 and 18, 2010 in the Rapid City Journal for a hearing to be held before the Water Management Board on March 10, 2010.

This information is being sent to you because of your continuing interest in Rapid Creek water right issues. If you have any questions regarding DENR's review of the applications, please contact Mark Rath at (605) 773-3352.

Sincerely,


Eric Gronlund
Water Rights Program, DENR
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 17, 2010

Keith Ham
15567 Hammerquist Road
Caputa SD 57725

Dear Mr. Ham:

Enclosed is a copy of the report, recommendations and public notice for Water Permit Application Nos. 504A-2, 2138A-2, 2642-2 and 2643-2 filed by Rapid City. The applications propose to amend existing water rights and construct and place to beneficial use water held in the City's future use permits to accommodate the proposed treatment plant near Jackson Springs. The public notice is scheduled to be published February 11 and 18, 2010 in the Rapid City Journal for a hearing to be held before the Water Management Board on March 10, 2010.

This information is being sent to you because of your continuing interest in Rapid Creek water right issues. If you have any questions regarding DENR's review of the applications, please contact Mark Rath at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 17, 2010

Kevin Ham
Rapid Valley Water Master
3724 Freedom Court
Rapid City SD 57701-7639

Dear Mr. Ham:

Enclosed is a copy of the report, recommendations and public notice for Water Permit Application Nos. 504A-2, 2138A-2, 2642-2 and 2643-2 filed by Rapid City. The applications propose to amend existing water rights and construct and place to beneficial use water held in the City's future use permits to accommodate the proposed treatment plant near Jackson Springs. The public notice is scheduled to be published February 11 and 18, 2010 in the Rapid City Journal for a hearing to be held before the Water Management Board on March 10, 2010.

This information is being sent to you because of your continuing interest in Rapid Creek water right issues. If you have any questions regarding DENR's review of the applications, please contact Mark Rath at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 12, 2010

Robert Ellis, PE
Public Works Director
City of Rapid City
300 6th Street
Rapid City SD 57701

Dear Mr. Ellis:

Enclosed is DENR's report on the four water right permit applications filed by Rapid City to accommodate diversions at the proposed Jackson Springs Water Treatment Plant. Also included are the recommendations issued by Garland Erbele for each application. The report and recommendations have been provided electronically to John Wagner and Dan Coon with the city.

The applications are currently being public noticed to schedule a March 10th hearing before the Water Management Board.

Please contact Mark Rath or me if you have any questions.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

enclosure



DEPARTMENT OF GAME, FISH AND PARKS

Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

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MAR - 1 2010

**WATER RIGHTS
PROGRAM**

February 25, 2010

Mr. Eric Gronlund
Water Rights Program
Foss Building
523 East Capitol Ave
Pierre, SD 57501

**Re: Water Right Application Nos. 504A-2, 2138A-2, 2642-2, and 2643-2
City of Rapid City**

Dear Mr. Gronlund:

This letter is to inform you of the South Dakota Department of Game, Fish, and Parks intent to request party status in the above referenced water right applications. At this time, we are neither in support nor opposition to these applications, but are requesting party status due to the Department's ongoing interests concerning water rights in the area.

If you have any questions, please contact me at (605) 773-6208.

Sincerely,

Leslie Petersen
Aquatic Resource Coordinator



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2642-2, City of Rapid City**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2642-2, City of Rapid City, c/o Mayor Alan Hanks, 300 Sixth Street, Rapid City SD 57701.

The Chief Engineer is recommending APPROVAL of Application No. 2642-2 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) it is in the public interest with the following qualifications:

1. There are prior water rights downstream on Rapid Creek (irrigation and domestic use, including livestock watering). Natural flows of Rapid Creek as needed for these prior water rights shall be by-passed under this permit. Water Rights covering storage of water in Deerfield and Pactola Reservoirs were acquired by the United States (U.S. No. 509-2 and U.S. No. 518-2, respectively). Use of such water by Rapid City is provided by the Deerfield and Pactola contracts with the United States (Bureau of Reclamation). To the extent that water is available under these contracts, it may be used under Permit No. 2642-2 to serve, replace or supplement withdrawals from the natural flows of Rapid Creek, or those flows remaining (which may be zero flows) after water is by-passed as needed for the downstream prior water rights.
2. Diversions under this permit are limited to natural flows that exceed 10 cubic feet per second as measured at USGS gaging station Rapid City above Canyon Lake near Rapid City No. 06412500. During the period April 1 through September 30 when flows are between 10 cfs and 20 cfs, diversions are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversion being released supplemental water.
3. The city of Rapid City shall report to the Chief Engineer annually the amount of water withdrawn from the Rapid Creek.
4. Permit No. 2642-2 is subject to compliance with South Dakota Drinking Water Standards.

continued

5. This permit is subject to any written orders by the Chief Engineer.

See report on application for additional information.

A handwritten signature in black ink, appearing to read "Garland Erbele". The signature is fluid and cursive, with the first name "Garland" being more prominent than the last name "Erbele".

Garland Erbele, Chief Engineer
February 5, 2010

REPORT ON WATER PERMIT APPLICATION NOS.
2642-2, 2643-2, 504A-2 and 2138A-2
CITY OF RAPID CITY
FEBRUARY 4, 2010

The City of Rapid City, has filed application Nos. 2642-2, 2643-2, 504A-2 and 2138A-2. The intent of these applications is to accommodate two new intake structures for the new Jackson Springs Water Treatment Plant. The applications propose to construct and place to beneficial use water reserved by future use permits held by the city and amend two existing water rights by changing the diversion point location. The applications seek to secure authorization to supply the city water for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes.

Application No. 2642-2 proposes to construct and place to beneficial use 1,203 acre feet of water annually from Rapid Creek at a maximum diversion rate of 2.77 cubic feet of water per second (cfs). The point of diversion from Rapid Creek is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N-R7E. This water is appropriated and reserved by Future Use Permit No. 1088-2 with a priority date of June 28, 1971.

Application No. 2138A-2 proposes to add a diversion point to Water Right No. 2138-2. Water Right No. 2138-2 appropriates 12.38 cfs from Rapid Creek located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T1N, R7E (existing Rapid City Mountain View water treatment plant). This application seeks to add a diversion point location to include the new Rapid Creek intake located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N, R7E. If approved, the application will retain the June 28, 1971 priority date established by Water Right No. 2138-2.

Application No. 2643-2 proposes to construct and place to beneficial use 995 acre feet of water annually from the Jackson Springs collection box at a maximum diversion rate of 2.29 cfs. The water source for this collection box is the Jackson Springs complex and Rapid Creek. The location of the collection box is the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N-R7E. This water is appropriated and reserved by Future Use Permit No. 439-2 with a priority date of September 22, 1956.

Application No. 504A-2 originally held by Cleghorn Springs Water Users Association proposes to change the use and location of the diversion point of Water Right No. 504-2. Water Right No. 504-2 appropriates 0.89 cfs from Cleghorn Springs in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 8, T1N, R7E. The water right has been transferred to Rapid City. This application seeks to change the use from suburban domestic use to municipal, rural water system, domestic, suburban housing, commercial and industrial purposes. In addition, the diversion point location is to be changed to the Jackson Springs collection box located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N R7E. If approved, the application will retain the 1877 priority date established by Water Right No. 504-2.

The water will be used for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes. The proposed project is located in western Rapid City in Pennington County.

Review of the Water Sources and Existing Water Rights.

There are two water sources the applicant intends to utilize as proposed in these applications. Nos. 504A-2 and 2643-2 seek authority to divert water from Jackson Springs and Nos. 2138A-2 and 2642-3 will divert water from Rapid Creek.

The Black Hills Hydrology Study conducted by the USGS in a cooperative 10 year effort initiated in 1990 with SD DENR and West Dakota Water Development District assessed water quality, quantity and distribution of surface and ground water in the Black Hills area of South Dakota. During this study the USGS analyzed Jackson and Cleghorn Springs and collectively referred to the site as Jackson-Cleghorn Springs Complex. Based upon the study, the USGS determined the springs are not resurgent springs in which Rapid Creek streamflow lost in Dark Canyon would reappear. Instead they concluded the springs represent a regional discharge point from the Madison aquifer. The USGS estimated the spring flow from Jackson-Cleghorn Springs Complex to average approximately 21.6 cfs.

Currently there are 5 existing water permits/rights appropriating water from the Jackson-Cleghorn Spring Complex. SD Department of Game Fish & Parks (SDGFP) holds Vested Water Right No. 388-2 for 6.18 cfs of non-consumptive use bearing the priority dates of 1877 during the irrigation season and January 1, 1928, during the non-irrigation season. They also hold No. 2454-2 for 3.82 cfs of non-consumptive use water bearing a priority date of February 13, 2001. Both of these water permits/rights appropriate water from the Cleghorn Spring portion of the Jackson-Cleghorn Springs Complex. The City of Rapid City currently holds two water permit/rights Nos. 432-2 and 2270-2 from Jackson Springs and No. 540-2 from Cleghorn Springs for a total appropriation of 12.24 cfs from the Jackson-Cleghorn Springs Complex.

The second proposed source of water for this proposed project is Rapid Creek which drains a large portion of the north central Black Hills east to the Cheyenne River. The Rapid Creek Watershed above the Pactola Dam encompasses approximately 320 sq miles consisting of four primary streams, North Fork and South Fork of Rapid Creek, Castle Creek, and Slate Creek. These streams flow into Rapid Creek above Silver City. From Silver City, Rapid Creek flows easterly to Pactola Reservoir. Within this watershed there are two large US Bureau of Reclamation (Reclamation) water supply reservoirs. Deerfield Reservoir impounding 15, 655 acre-feet located on Castle Creek and Pactola Reservoir impounding 55, 972 acre-feet located on the mainstem of Rapid Creek. Reclamation impounds natural flows from Castle Creek in Deerfield Reservoir and from Rapid Creek in Pactola Reservoir during the year when there is not demand for the water downstream. Reclamation has in place long term contracts for stored water in Deerfield Reservoir with the Rapid Valley Conservancy District and the City of Rapid City. Reclamation also has a contract with the City for storage in Pactola Reservoir. These contracts allow the City, the District and a few sub-contractors the ability to purchase stored releases water to supplement Rapid Creek's natural flow during times of higher demand which are released to Rapid Creek at the Pactola outlet.

Approximately 19 miles downstream from the outlet works of Pactola Dam, the creek passes through Dark Canyon and flows over the Madison Limestone outcrop. Rapid Creek loses a portion of its flow to this outcrop with a loss threshold of approximately 10 cfs.

On Rapid Creek between Pactola Reservoir and the confluence with the Cheyenne River there are 92 existing water rights/permits appropriating 256.5 cfs. Starting in 1991, the City of Rapid City began purchasing and transferring senior priority Rapid Creek irrigation water rights to be used as a water supply source in their municipal water supply system which includes the Jackson Springs site. In addition the City has a contract with the US Bureau of Reclamation for water use of up to 7000 acre-feet annually from Deerfield Reservoir. The City also has a water storage contract of up to 49,000 acre-feet in Pactola Reservoir.

Review of the Proposed Project

The City of Rapid City has utilized Jackson Springs as one of its primary water sources for several decades. In August 2004, SD DENR Drinking Water Program notified the City of Rapid City that based upon water sampling results, the water being pumped at the springs was under the direct influence of surface water and failed to meet drinking water requirements. The City was given 18 months to install treatment. Unable to meet this time frame, the City discontinued utilizing Jackson Springs as a municipal water source in February 2006 but continued to maintain it as an emergency standby source. In order to address the treatment requirements, the City intends to construct a new water treatment plant near the Jackson/Cleghorn Springs Complex. The new water treatment facility is designed for a normal operating production capacity of 8 MGD, million gallons of water per day, (12.38 cfs), with a peak design capacity of 10.6 MGD (16.43 cfs). The City's intent with these applications is to have enough water right diversion authority from Jackson Springs and/or Rapid Creek allowing the City's water utility operators flexibility in meeting and managing the daily water demands within the City's water system by using of Jackson-Cleghorn Springs Complex water or Rapid Creek water or a combination of both depending upon water availability and need.

The first part of this effort is to increase the diversion authority at the Jackson Springs by changing a diversion point and adding uses on an existing right and applying for a new water right from water reserved under a future use permit. The City currently holds water rights with a combined diversion authority of 11.35 cfs from the Jackson Springs. Application No 504A-2 proposes to increase the diversion authority by 0.89 cfs directly from Jackson Springs by changing the location of the diversion point of Water Right No. 504-2 which appropriates Jackson/Cleghorn Springs water from the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 8, T1N, R7E to the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N R7E. This application seeks to change the use from suburban domestic use to municipal, rural water system, domestic, suburban housing, commercial and industrial purposes. The City also proposes, with Application No. 2643-2, to construct and place to beneficial use 995 acre feet of water annually at a maximum diversion rate of 2.29 cfs from the springs appropriated and reserve by Future Use Permit No. 439-2. If these two applications are approved, combined with their other two existing Jackson Springs water rights, the City will have a total authorized diversion authority from the Jackson Springs portion of the Jackson-Cleghorn Springs Complex of 14.53 cfs.

Combined with 10 cfs of non-consumptive use diversion authority SD GFP holds, the total diversion authority at the Jackson-Cleghorn Springs Complex for the two entities would be 24.53 cfs. This amount is near the upper limits of the available spring water discharging from the complex as measured by the USGS obtained over a three year period (1987 – 1989) ranging from a low of 13.0 cfs to a high of 25.4 cfs. The discharge from these springs is directly to Rapid Creek providing additional flow downstream. In fact, based upon those USGS measurements this total amount of water authorized to be used by the City and SDGFP would not be available a substantial share of the time.

The City and SDGFP both recognize they have a mutual interest in cooperatively utilizing water from the Jackson/Cleghorn Springs Complex to the maximum extent possible. Realizing this, the two parties entered into a joint powers agreement in the spring of 2009 agreeing to effectively co-manage the use of the regional discharge of the Madison aquifer located at Jackson-Cleghorn Springs Complex as specified in the terms laid out in the joint powers agreement, Attachment 1. The joint powers agreement between the City and SDGFP addresses steps that will be taken by both of these entities when demand from the Jackson-Cleghorn Springs Complex exceeds water availability.

The use of water from the Jackson-Cleghorn Springs Complex area is somewhat unique in that the two entities, the City and SDGFP, are the only direct users of the water and each hold multiple water permit/rights with several overlapping priority dates. Adding to the complexity, there are multiple downstream water rights on Rapid Creek having senior priority dates to some of the Jackson-Cleghorn Springs Complex water rights and have senior claim to the water. SDGFP water permit/rights from Cleghorn Springs are for non-consumptive use allowing the water to be available to down stream users. The City's water rights from the springs are for consumptive use and would affect the water availability to downstream senior rights. The Water Resources Commission (predecessor to the Water Management Board) in 1956 addressed the senior water right interference issue when they approved Future Use Permit No. 439-2 with the following qualification:

Under provisions of existing contracts (i.e. Deerfield and Pactola contracts), Rapid City may use the diversion points described in Application No. 439-2 during the irrigation season, ... but only so long as the City's shares of Deerfield and Pactola Reservoirs storage water rights are valid and water is released from such storage in the amount of City's current diversion rate in satisfaction of the vested priority irrigation water rights downstream of the City's diversion points.

The Water Resources Commission in a November 1963 hearing further clarified how the City is to replace the Jackson Springs water they divert prior to it's contributing to the flow of Rapid Creek. The amount of replacement water required at the Pactola Reservoir outlet equals the City's diversion rate from Jackson Springs plus their share of estimated losses in Rapid Creek between Rapid City and Pactola Dam. This replacement water is to make up for the diverted Jackson Springs water which contributes to the flow in Rapid Creek and is available for

downstream senior water rights. When there is no senior water right call, the city is not required to replace the water.

The Jackson-Cleghorn Springs Complex has been and will continue to be an important source of water for both City and SDGFP as indicated by their signing of the 2009 Joint Powers Agreement concerning their mutual use of the water resource from the springs. If application Nos. 504A-2 and 2643-2 are approved they should contain the following qualification:

If the flow of water drops below 10 cfs as measured at the USGS gaging station Cleghorn Springs at Rapid City No. 06412810, the Chief Engineer shall be notified, and consultation concerning the reduced flow by appropriate staff for Rapid City and SD Game Fish and Parks shall occur.

If application No. 2643-2 is approved it should also contain the following qualification to address replacement water:

The City of Rapid City shall replace Jackson Springs water pumped into their municipal system with an equal amount of Rapid Creek water plus Rapid City's proportionate share of the amount of water lost in Rapid Creek between Pactola Dam and Jackson Springs when there is a senior priority water right call for water downstream of the Jackson Springs outfall on Rapid Creek.

The second part of the City's effort to provide water to the new treatment plant is to obtain water right diversion authority from Rapid Creek.

There will be times when the Jackson-Cleghorn Complex does not provide sufficient flow to meet the City's water use demand. The City addressed this issue by filing Application Nos. 2642-2 and 2138A-2 for a direct diversion from Rapid Creek water to the new treatment plant. No. 2642-2 proposes to construct and place to beneficial use water 1,203 acre feet of water annually from Rapid Creek at a maximum diversion rate of 2.77 cfs. This water is appropriated and reserved by Future Use Permit No. 1088-2 bearing a priority date of June 28, 1971. Application No. 2138A-2 proposes to add a diversion point to Water Right No. 2138-2. Water Right No. 2138-2 appropriates 12.38 cfs from Rapid Creek at the existing Rapid City Mountain View water treatment plant located approximately 3 miles downstream. If approved, the application will retain the June 28, 1971 priority date established by Water Right No. 2138-2.

One of the issues that should be considered with Rapid Creek diversions within the city is the recognized trout fishery in the reach from the mouth of Dark Canyon above Jackson Springs downstream to the eastern edge of the city limits. Operationally, water is released to the creek at the outlet works of Pactola Reservoir. Water flows in the Rapid Creek approximately 19 miles before crossing the Madison loss zone in Dark Canyon where there is an approximate 10 cfs loss threshold cutting into the available flow in the creek above the proposed intake site. Winter time releases were addressed when the City and the US Bureau of Reclamation entered into a new 25 year storage contract for Pactola Reservoir. Reclamation revised their Standard Operating Procedure (SOP) for the targeted minimum winter releases. The new SOP raised the prescribed

releases from 15 cfs to 20 cfs if Pactola Reservoir storage levels are above 29000 ac-ft. If storage levels were less than 29000 ac-ft minimum winter releases were changed in the new SOP from 7 cfs to 15 cfs. The net effect is an increased stream flow throughout the winter months. The new SOP also specified an increase in minimum releases during the rest of the year too, but normal operations with water orders from the City, the irrigation within the Rapid Valley Water Conservancy District and other users like the Rapid Valley Sanitary District would likely increase the flow above the minimum release level.

Related to the fisheries issue Rapid City retained the services of Burns and McDonnell, an engineering consulting firm, to study the City's available water resources and projected needs and develop a source water management plan. Burns and McDonnell identified the need to maintain a coldwater fishery that Rapid Creek supports through Rapid City. The consultants developed a water use modeling tool that used a 20 cfs minimum flow threshold measured at USGS gage # 06414000 (Rapid Cr at Rapid City, SD) as a guideline for use of ground water and surface water for their municipal use.

Between 2003 and 2009 numerous fishery studies were performed by SDGFP staff and South Dakota School of Mines graduate students as well as assessment of peer reviewed literature to gain a better understanding of the relationships between flow, habitat, and the success of trout fisheries in Rapid Creek through the city. Based upon these studies SDGFP staff recommends a target flow in the creek measured at the USGS gage, Rapid Creek at Rapid City, of 30 cfs during the period October-March and 40 cfs for the period April-September to provide for flows for trout fisheries in this reach.

Approval of application Nos. 2642-2 and 2138A-2 requires balancing Rapid City's need to allow for diversion of Rapid Creek water as a component of this project while recognizing the importance of maintaining a viable trout fishery through town.

A review of gaging station statistical flow data provides an indication of the water that has historically been available in Rapid Creek. Table 1 shows statistical flow data from the USGS gaging station Rapid Creek at Rapid City which is located downstream from any of the City's existing Rapid Creek municipal water system diversion points. This gaging station is the site at which the SD GFP target flows are aimed. This table is broken into the winter time, October – March, and non-winter time, April – September, periods.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	37	37	46	71	123	147	101	77	55	43	40	38
Median	30	30	32	46	81	81	83	65	47	33	32	30
25%	24	26	27	28	54	53	64	51	35	25	26	25

Table 1 – Flow hydrograph data for the USGS gaging station Rapid Creek at Rapid City, 46 years of record, 1963 - 2009

In Table 1, the statistical flow data indicates under average and median conditions, the SDGFP target flows of 30 cfs and 40 cfs had been met for both winter time and non-winter time release conditions. However, as indicated in the 25 percentile flow values, there are periods of time when the target flows were not met in either release periods.

Table 2 shows statistical flow data from the USGS gaging station Rapid Creek above Canyon Lake near Rapid City which is located immediately upstream from the City's proposed new Rapid Creek municipal water system intake. This gaging station is also just below the Rapid Creek Madison loss Zone in Dark Canyon that has a loss threshold of about 10 cfs.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	17	18	27	31	101	100	100	65	40	24	19	18
Median	11	12	14	26	64	64	64	54	33	14	13	10
25%	7	8	10	11	37	37	37	40	22	9	7	7

Table 2 – Flow hydrograph data for the USGS gaging station Rapid Creek above Canyon Lake near Rapid City, 46 years of record, 1963 - 2009

Table 3 shows statistical flow data from the USGS gaging station Cleghorn Springs at Rapid City. This data shows that discharge to the creek is fairly consistent.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	11	11	11	12	12	12	12	11	11	11	11	11
Median	11	11	11	12	12	12	12	11	11	11	11	11
25%	10	10	10	10	10	10	10	10	8	10	10	10

Table 3 – Flow hydrograph data for the USGS gaging station Cleghorn Springs at Rapid City, 17 years of record, 1992 - 2009

The statistical data winter time data shown in Tables 1 and 2 reflect the water historically released from Pactola based upon the schedule laid out in the US Bureau of Reclamation SOP plus any gains and losses from the creek in the reach from the reservoir to the gaging station. The ability to change releases from Pactola during the winter months, once they are set, is restricted due to the formation of ice in the creek which limits the ability of the creek to transport the water downstream. Non-winter time releases reflect the base flow plus any supplemental releases for the Pactola and Deerfield storage accounts minus any losses carrying the water in the stream up to the gaging station.

The flow measured at the Rapid Creek at Rapid City gage (reflected in Table 1) is from a combination of contributing sources along Rapid Creek. These include water upstream from the Jackson-Cleghorn Springs Complex (reflected in Table 2) as well as contributions from the spring complex itself (reflected in Table 3), tributaries, municipal runoff, and alluvial gains to the creek for the reach between the springs complex to the Rapid Creek at Rapid City gage.

Looking at the winter time period at the Rapid Creek at Rapid City gage, the 30 cfs from a statistical stand point, the target fisheries flow 30 cfs is met for each of those months for the average and median state of conditions. Specifically looking at the corresponding data for the median conditions on Tables 2 and 3, a correlation can be drawn with the flows downstream. Roughly a third of the stream flow would be provided from releases from Pactola Reservoir, a third of the flow would come from the Cleghorn Springs Fish Hatchery discharge and the remaining third would come from the gains to the creek from the Jackson – Cleghorn Spring Complex to the Rapid Creek at Rapid City gage. Qualifying these proposed Rapid Creek

applications to limit diversions when flows greater than a minimum of 10 cfs measured at the Rapid Creek above Canyon Lake near Rapid City gage would protect the base flow attributed to the Pactola releases. The joint powers agreement between Rapid City and SDGFP discussed previously addresses actions to taken to limit the reduction of the discharge from the Cleghorn Springs Fish Hatchery.

During the non-winter months the adjustment of releases from Pactola to meet downstream needs is part of the normal operations. During this period, Tables 1 and 2 generally show increased flow whether from larger runoff and higher releases from Pactola Reservoir, or because of water orders by the City, Rapid Valley Irrigation District and others. The data indicates a significant portion of the time the 40 cfs target fishery flow is being met. However, there may be times due to climactic conditions or lack of water orders for supplemental releases from Pactola Reservoir when target flows are not being met. In order to minimize the time when the target flows are not being met, the proposed Permit Nos. 2642-2 and 2138A-2 could be qualified to require the applicant to provide supplemental water releases to the creek from their storage accounts to offset their diversion needs from the creek.

In order to meet these lower flow conditions if approved Water Permit Nos. 2642-2 and 2138A-2, should contain the following qualification addressing both winter time and non-winter time periods.

Diversions under this permit are limited to natural flows that exceed 10 cubic feet per second as measured at USGS gaging station Rapid City above Canyon Lake near Rapid City No. 06412500. During the period April 1 through September 30 when flows are between 10 cfs and 20 cfs, diversions are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversion being released supplemental water.

Conclusions

1. The City of Rapid City with these four applications proposes to increase the diversion authority at a new Jackson Springs water treatment plant.
2. The new water treatment facility is designed for a normal operating production capacity of 12.38 cfs with a maximum pumping capacity of 16.43 cfs.
3. Sources of water to be utilized are spring water from the Jackson-Cleghorn Spring Complex and Rapid Creek water.
4. The water will be used for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes.

5. If approved, Permit Nos. 504A-2 and 2643-2 should contain the following qualification to address decreased flows from the Cleghorn Fish Hatchery:

If the flow of water drops below 10 cfs as measured at the USGS gaging station Cleghorn Springs at Rapid City No. 06412810, the Chief Engineer shall be notified, and consultation concerning the reduced flow by appropriate staff for Rapid City and SD Game Fish and Parks shall occur.

6. If approved, Permit No. 2643-2 should also contain the following qualification to address replacement water:

The City of Rapid City shall replace Jackson Springs water pumped into their municipal system with an equal amount of Rapid Creek water plus Rapid City's proportionate share of the amount of water lost in Rapid Creek between Pactola Dam and Jackson Springs when there is a senior priority water right call for water downstream of the Jackson Springs outfall on Rapid Creek.

7. If approved, Water Permit Nos. 2642-2 and 2138A-2, should contain the following qualification addressing both winter time and non-winter time periods:

Diversions under this permit are limited to natural flows that exceed 10 cubic feet per second as measured at USGS gaging station Rapid City above Canyon Lake near Rapid City No. 06412500. During the period April 1 through September 30 when flows are between 10 cfs and 20 cfs, diversions are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversion being released supplemental water.



Mark D. Rath

Natural Resources Engineering Specialist

References

1. Stueven, Gene. 2003. Upper Rapid Creek Watershed Assessment, SD DENR
2. Anderson, Mark T, , D.G. Driscoll, J.E. Williamson. 1998. Ground Water and Surface-Water Interactions along Rapid Creek near Rapid City South Dakota. US Geological Survey, Water Resources Investigations Report 98-4214
3. Hortness, Jon E. and D.G. Driscoll. 1998. Streamflow Losses in the Black Hills of Western South Dakota. US Geological Survey, Water Resources Investigations Report 98-4116
4. SD DENR Water Rights Program files.

JOINT POWERS AGREEMENT

This JOINT POWERS AGREEMENT (AGREEMENT) is entered into by and between the State of South Dakota, acting through its Department of Game, Fish and Parks (STATE); and the City of Rapid City, South Dakota, a municipal corporation (CITY), acting by and through its duly elected Mayor and Acting Public Works Director.

RECITALS:

WHEREAS, STATE and CITY acknowledge that each has the separate statutory authority to enter into and undertake certain activities described herein and the provisions of SDCL 1-24 permit such activities to be jointly undertaken; and

WHEREAS, the South Dakota Department of Game, Fish and Parks (GFP) and the City of Rapid City, South Dakota, (City) share a joint interest in the long-term permitted use of the regional discharge of the Madison aquifer located at Jackson/Cleghorn Springs, and further, both parties have historically permitted uses of this water beginning as early as 1877 which are more fully described as follows: the City has water rights #504-2 (Jan. 1, 1877) for .89 cfs and #432-2 (Jan. 1, 1944) for 7.75 cfs and #2270-2 (August 22, 1956) for 2.71 cfs and future use permit #439-2 for 995 AF annually (September 22, 1956) lawfully issued by the State of South Dakota; and GFP has water right #388-2 (1877 during irrigation season and January 1, 1928 non-irrigation season) for 6.18 cfs of non-consumptive use lawfully issued by the State of South Dakota; and

WHEREAS, GFP has a documented non-consumptive use of 10.0 cfs from Cleghorn Springs for operation of its Cleghorn Springs State Fish Hatchery (Hatchery); and

WHEREAS, GFP must properly license water use at the Hatchery for the actual rate and volume of water used in fish culture; and

WHEREAS, quantification of the regional discharge at Jackson/Cleghorn show water flows between 21.6 and 23.3 cfs during measurements in 1988-89 and again in 2002 and 15.0-19.2 cfs during 2004-05; and

WHEREAS, the mean discharge from Cleghorn Springs measured at USGS weir(s), i.e., USGS gage #06412810, has been 11.2 cfs (WY88-92) and 12.1 cfs (WY93-2000) and 10.1 cfs (WY2000-2006); two dry periods and a wet period; and

WHEREAS, the City and GFP seek to effectively co-manage the regional discharge of Jackson/Cleghorn Springs to the maximum extent possible by cooperatively monitoring water availability as determined by water flow over the USGS weirs, flow of water through each facility, and elevation of water in monitoring wells on site and Rapid Creek stage elevation; and

WHEREAS, STATE and CITY believe that it is a more efficient use of public resources to enter into this joint undertaking;

NOW, THEREFORE, in consideration of the covenants and AGREEMENTs contained herein, and the joint and mutual benefits and responsibilities flowing to each party as outlined in this AGREEMENT, the parties agree as follows:

AGREEMENT

1. The AGREEMENT shall commence upon its execution by the parties, shall continue in effect indefinitely, and may be terminated only by mutual agreement of the parties.
2. That if water volumes measured at USGS gage #06412810 (Cleghorn Springs at Rapid City) drop below 10.0 cfs, the following measures will be implemented:
 - a.) Cleghorn Hatchery staff, and City Water Division staff, respectively appointed by the Secretary of GFP and the Public Works Director of the City, will immediately confer to determine potential causes of the drop in flow volume and, if necessary; staff from the USGS, Rapid City and the Department of Environment and Natural Resources (DENR) will be contacted.
 - b.) Pending the conclusions reached at the joint meeting identified in 2(a) as to the potential reasons for the USGS gage #06412810 being at or below 10cfs, the City and Hatchery will act to reduce water demands at the Jackson/Cleghorn site or other sites (City) as deemed most appropriate. The goal of such actions will be to 1) reduce hatchery needs for water, 2) reduce City use of groundwater demands in an effort to preclude the flow at USGS gage #06412810 from further decline.
 - c.) If flows cooperatively monitored, continue to be at or below 10 cfs for a period longer than one month, staff from the City and Hatchery (GFP) will seek to meet with the USGS and DENR to examine potential trends/causes/ timelines for the observed reduction in water yield and to plan for future water management/hatchery production contingencies in an effort to maintain the Jackson/Cleghorn discharge at a minimum of 10 cfs as measured at USGS gage #06412810.
 - d.) Regular communications between the City, Hatchery (GFP), DENR, and USGS will continue as long as water yields are inadequate and water use reductions by the City and Hatchery (GFP) at the regional discharge are ongoing. These communications will be directed at maintaining adaptive management strategies at the two sites.

3. This AGREEMENT provides for use of water between the parties without regard to the specific priority dates for the water rights involved. The agreement to forego priority dates for purposes of this AGREEMENT is limited to the terms of this AGREEMENT and is not intended to transfer, convey, assign, or waive any legal rights to water or priority dates except as specifically contained herein. Further, to the extent that Rapid City foregoes any water use authorized by its water rights and allows for use of said water by the GFP, Rapid City does not intend to abandon such water permit or right and instead, intends to preserve the water right by allowing for continuous beneficial use by GFP. To the extent that GFP foregoes any water use authorized by its water rights and allows for use of said water by Rapid City, GFP does not intend to abandon such water permit or right and instead, intends to preserve the water right by allowing for continuous beneficial use by Rapid City.
4. Upon the written request of either party, and for reasonable cause, this AGREEMENT may be amended at any time; provided, however, that this AGREEMENT may not be amended except in writing which shall be signed by an authorized representative of each of the parties hereto.
5. The parties shall negotiate in good faith the terms of any other AGREEMENT that is determined to be necessary or desirable to carry out the terms of this AGREEMENT.
6. Time is of the essence of this AGREEMENT and all of its covenants, terms, conditions, and provisions.
7. The "Recitals" to this AGREEMENT are considered to be an integral part of this AGREEMENT and enforceable as such.
8. This AGREEMENT and the covenants herein contained shall inure to the benefit of and be obligatory upon the legal representatives, successors in interest, and assigns of the respective parties hereto.
9. The Parties declare that no specific entity as contemplated in SDCL 1-24-4(2) is being created to implement this AGREEMENT, and that the cooperative undertaking herein described shall be administered by the Director of the Division of Wildlife for STATE and the Public Works Director for CITY or their authorized designees.
10. All notices or other communications hereunder shall be in writing and shall be deemed given when delivered, and if delivered by mail, shall be sent by first class, postage prepaid, to the parties at the following addresses:

CITY:

City of Rapid City
300 Sixth Street
Rapid City, South Dakota 57701
Attention: Public Works Director

STATE:

S.D. Department of Game, Fish and Parks
523 E. Capitol
Pierre, SD 57501
Attention: Director, Division of Wildlife

The parties, by notice given hereunder, may designate any further or different methods of notification and addresses to which notices and communications shall be provided.

12. In the event that any court of competent jurisdiction in the state of South Dakota shall hold any provision of this AGREEMENT unenforceable or invalid, such holding shall not invalidate or render unenforceable any other provision hereof.
 13. This AGREEMENT is intended to only to govern the rights and interest of the parties named herein. It is not intended to, does not and may not be relied upon to create any rights, substantial or procedural, enforceable at law by any third party in any matters, civil or criminal.
 14. The parties acknowledge that a true copy of this AGREEMENT will be filed with the Office of Attorney General and the Legislative Research Council within fourteen (14) days of the execution hereof, as required by law.
 15. By the signature of their representative below, STATE and CITY certify that approval of this AGREEMENT by ordinance, resolution or other appropriate means has been obtained by that governmental body's governing body or officer pursuant to SDCL 1-24-3 and 1-24-6 and that the representatives are authorized to sign on the party's behalf. A copy of any authorizing resolution or ordinance is attached to this AGREEMENT and incorporated herein by reference
- IN WITNESS WHEREOF, the parties have executed the same effective on the date of their respective signatures.

South Dakota Department of Game, Fish and Parks

By Jeffrey R. Vonk Date 4/21/09
Jeffrey R. Vonk, Secretary

By Anthony P. Leif Date 4/21/09
Anthony P. Leif, Director of the Wildlife Division

City of Rapid City, South Dakota

By Alan Hanks Date 4/6/09
Alan Hanks, Mayor

Attest:

By: Jim Preston Date 4/6/09
Jim Preston, Finance Officer

APPROVED AS TO FORM
CITY ATTORNEY'S OFFICE

JPC 3-18-09
Attorney Date

RECEIVED

FEB 22 2010

WATER RIGHTS
PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Pennington)I, Patricia K. Van Fattencertify that the attached printed Notice was
takenfrom the Rapid City Journalprinted and published in Rapid CityCounty of Pennington andstate of South Dakota. The notice was
published

in the newspaper on the following two dates:

February 11, 2010February 18, 2010Cost of Printing Two hundred fifty-four
dollars and four cents (\$254.04)Patricia K. Van Fatten
(Signature)Legal Advertising Rep.
(Title)CS/19/10
(Date Signed)

Feb. 11, 18 L20437162

NOTICE OF HEARING
ON APPLICATION NOS.
2642-2 AND 2643-2 TO CONSTRUCT
AND PLACE TO BENEFICIAL USE
RESERVED WATER
AND APPLICATION NOS.
504A-2 AND 2138A-2TO CHANGE USE AND/OR ADD
A DIVERSION POINT LOCATION

Notice is given that the City of Rapid City, c/o Mayor Alan Hanks, 300 6th Street, Rapid City SD 57701, has filed the following applications for water permits. The intent of the applications is to accommodate a new Rapid Creek intake structure and Jackson Springs collection box for the city's new water treatment plant. The applications propose to construct and place to beneficial use water reserved by future use permits held by the city and amend two existing water rights by changing the use and/or changing or adding a diversion point location. The applications seek to secure authorization to supply the city for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes.

Application No. 2642-2 proposes to construct and place to beneficial use 1,203 acre feet of water annually from Rapid Creek at a maximum diversion rate of 2.77 cubic feet of water per second (cfs). The point of diversion from Rapid Creek is located in the SE1/4 SW1/4 Section 8, T1N, R7E. This water is appropriated and reserved by Future Use Permit No. 1088-2 with a priority date of June 28, 1971.

Application No. 2643-2 proposes to construct and place to beneficial use 995 acre feet of water annually from the Jackson Springs collection box at a maximum diversion rate of 2.29 cfs. The water source for this collection box is the Jackson Springs complex and Rapid Creek. The location of the collection box is the NE1/4 SW1/4 Section 8, T1N, R7E. This water is appropriated and reserved by Future Use Permit No. 439-2 with a priority date of September 22, 1956.

Application No. 504A-2 proposes to change the use and location of the diversion point of Water Right No. 504-2. Water Right No. 504-2 originally held by the Cleghorn Springs Water Users Association appropriates 0.89 cfs from Cleghorn Springs in the NW1/4 SE1/4 Section 8, T1N, R7E. The water right has been transferred to Rapid City. This application seeks to change the use from suburban domestic use to the city's uses set forth in the first paragraph of this notice. In addition, the diversion point location is to be changed to the Jackson Springs collection box located in the NE1/4 SW1/4 Section 8, T1N, R7E. If approved, the application will retain the 1877 priority date established by Water Right No. 504-2.

Application No. 2138A-2 proposes to add a diversion point to Water Right No. 2138-2. Water Right No. 2138-2 appropriates 12.38 cfs from Rapid Creek located in the SE1/4 NE1/4 Section 3, T1N, R7E (existing Rapid City water treatment plant). This application seeks to add a diversion point location to include the new Rapid Creek intake diversion point located in the SE1/4 SW1/4 Section 8, T1N, R7E. If approved, the application will retain the June 28, 1971, priority date established by Water Right No. 2138-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL with qualifications of Application Nos. 2642-2, 2643-2, 504A-2 and 2138A-2 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Any person interested in opposing or supporting the applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E. Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 1, 2010. The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the

petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider these applications at 9:00 a.m., March 10, 2010, in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave., Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny any of these applications based on the facts presented at the public hearing. The hearing will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by March 1, 2010.

Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Granlund by March 1, 2010, at the above Water Rights Program address to request copies of information pertaining to any application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

Since these applications do not involve a monetary controversy in excess of \$2,500.00 or termination of a property right in accordance with SDCL 1-26-18.3, the Chief Engineer has determined this contested case may not be referred to the Office of Hearing Examiners. If any party disagrees with this determination, the Chief Engineer shall be notified by March 1, 2010.

These applications are made pursuant to SDCL 46-1-1 thru 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01 thru 74:02:01:15.

Steven M. Pirner, Secretary
Department of Environment
and Natural Resources.

(Published twice at the total approximate cost of \$254.04.)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 5, 2010

Rapid City Journal
Legal Advertising
PO Box 450
Rapid City SD 57709

ATTENTION: Legal Public Notice

Enclosed is a Notice to be published twice regarding Application Nos. 2642-2, 2643-2, 2138A-2 and 504A-2 to develop reserved water or change diversion points. Please publish the first notice on February 11, 2010 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is City of Rapid City, Mayor Alan Hanks, 300 6th Street, Rapid City SD 57701).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

Nos. 2642-2, 2643-2, 2138A-2 and 504A-2

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

Date _____

We are in receipt of your letter of February 5, 2010 enclosing Notice Hearing which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

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

February 5, 2010

Alan Hanks, Mayor
City of Rapid City
300 Sixth Street
Rapid City SD 57701

Dear Mayor Hanks:

Rapid City's Water Permit Application Nos. 2642-2, 2643-2, 504A-2 and 2138A-2 for municipal, domestic, commercial, industrial, suburban housing development and rural water system use have been examined and found to comply with the South Dakota Water Laws and applicable rules. The enclosed notice has been sent to the Publisher of the Rapid City Journal printed at Rapid City SD (Ph # 605-394-8300). Rapid City will need to contact the newspaper and authorize publication of this notice. The recommendations of the Chief Engineer and reports on the applications will be sent to the city in the future. Please review the notice prior to publication and notify this office, if the city has any corrections or questions.

Be sure to contact the above newspaper to authorize publication of the city's Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish the city's notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish first Notice on February 11, 2010 with the second publication 7 days later. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF HEARING on Application Nos. 2642-2 and 2643-2 to Construct and Place to Beneficial Use Reserved Water and Application Nos. 504A-2 and 2138A-2 to Change Use and/or Add a Diversion Point Location

Notice is given that the City of Rapid City, c/o Mayor Alan Hanks, 300 6th Street, Rapid City SD 57701 has filed the following applications for water permits. The intent of the applications is to accommodate a new Rapid Creek intake structure and Jackson Springs collection box for the city's new water treatment plant. The applications propose to construct and place to beneficial use water reserved by future use permits held by the city and amend two existing water rights by changing the use and/or changing or adding a diversion point location. The applications seek to secure authorization to supply the city for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes.

Application No. 2642-2 proposes to construct and place to beneficial use 1,203 acre feet of water annually from Rapid Creek at a maximum diversion rate of 2.77 cubic feet of water per second (cfs). The point of diversion from Rapid Creek is located in the SE ¼ SW ¼ Section 8, T1N, R7E. This water is appropriated and reserved by Future Use Permit No. 1088-2 with a priority date of June 28, 1971.

Application No. 2643-2 proposes to construct and place to beneficial use 995 acre feet of water annually from the Jackson Springs collection box at a maximum diversion rate of 2.29 cfs. The water source for this collection box is the Jackson Springs complex and Rapid Creek. The location of the collection box is the NE ¼ SW ¼ Section 8, T1N, R7E. This water is appropriated and reserved by Future Use Permit No. 439-2 with a priority date of September 22, 1956.

Application No. 504A-2 proposes to change the use and location of the diversion point of Water Right No. 504-2. Water Right No. 504-2 originally held by the Cleghorn Springs Water Users Association appropriates 0.89 cfs from Cleghorn Springs in the NW ¼ SE ¼ Section 8, T1N, R7E. The water right has been transferred to Rapid City. This application seeks to change the use from suburban domestic use to the city's uses set forth in the first paragraph of this notice. In addition, the diversion point location is to be changed to the Jackson Springs collection box located in the NE ¼ SW ¼ Section 8, T1N, R7E. If approved, the application will retain the 1877 priority date established by Water Right No. 504-2.

Application No. 2138A-2 proposes to add a diversion point to Water Right No. 2138-2. Water Right No. 2138-2 appropriates 12.38 cfs from Rapid Creek located in the SE ¼ NE ¼ Section 3, T1N, R7E (existing Rapid City water treatment plant). This application seeks to add a diversion point location to include the new Rapid Creek intake diversion point located in the SE ¼ SW ¼ Section 8, T1N, R7E. If approved, the application will retain the June 28, 1971 priority date established by Water Right No. 2138-2.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL with qualifications of Application Nos. 2642-2, 2643-2, 504A-2 and 2138A-2 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest.

Any person interested in opposing or supporting the applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 1, 2010. The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider these applications at 9:00 AM, March 10, 2010 in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave., Pierre SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny any of these applications based on the facts presented at the public hearing. The hearing will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by March 1, 2010.

Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by March 1, 2010 at the above Water Rights Program address to request copies of information pertaining to any application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

Since these applications do not involve a monetary controversy in excess of \$2,500.00 or termination of a property right in accordance with SDCL 1-26-18.3, the Chief Engineer has determined this contested case may not be referred to the Office of Hearing Examiners. If any party disagrees with this determination, the Chief Engineer shall be notified by March 1, 2010.

These applications are made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

July 15, 2010

504A-2
2138A-2
2642-2
2643-2

City of Rapid City
Alan Hanks, Mayor
300 Sixth St
Rapid City SD 57701

Dear Mayor Hanks:

Enclosed are Water Permit Nos. 504A-2, 2138A-2, 2642-3 and 2643-2 authorizing construction of the city's water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed for each permit. Please return the completed forms after the systems are finished and water has been put to beneficial use. An investigation can then be scheduled so the water licenses may be issued, thus completing the acquisition of a water right.

Sincerely,

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

enclosures



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

RECEIVED

AUG 12 2010

WATER RIGHTS
PROGRAM

August 11, 2010

PMB 2020
DENR - Water Rights Program
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3182

Ref: Applications for Permit to Appropriate Water
Jackson Springs Water Treatment Plant

Gentlemen:

Pursuant to previous discussions the City of Rapid City (City) is submitting two amendment/corrections for permits to appropriate water for the City's Jackson Springs Water Treatment Plant project. These applications relocate the Rapid Creek diversion point for this facility. Enclosed please find:

- Two original applications for an amendment/correction to Permit No. 2138A-2
- Two original applications for an amendment/correction to permit No. 2642-2

If you have questions or need additional information concerning this submittal or the proposed treatment plant please contact me at (605) 394-4154.

Sincerely,

Dan Coon
Project Manager

Cc: Anthony Beeson – Burns and McDonnell w/
Dan Bjerke – KAD Engineering w/
Robert Ellis – City of Rapid City w/o
John Wagner – City of Rapid City w/

Enclosure



EQUAL OPPORTUNITY EMPLOYER

SD EForm - 1585LD V3
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	No. _____ (office use only) Hydrologic Unit _____
	Basin _____
	Newspaper _____

RECEIVED
AUG 12 2010
WATER RIGHTS
PROGRAM

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

Check use(s) of water:

- | | | | |
|--|--|--|--|
| ☒ Municipal | ☒ Suburban Housing | ☐ Recreational | ☐ Institutional |
| ☒ Rural Water System | ☒ Commercial | ☐ Fish & Wildlife | ☐ Geothermal Heat |
| ☒ Domestic (over 18 gpm) | ☒ Industrial | ☐ 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. 2138A-2

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

Change in location of new Jackson Springs Intake Structure on Rapid Creek under Water Permit 2138A-2 issued July 15, 2010.

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 12.38 *CFS or **GPM ***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
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Pennington
New intake structure on Rapid Creek located adjacent to the existing Jackson Springs infiltration gallery located in the NW 1/4, SE 1/4 of Section 8, T1N, R7E of the Black Hills Meridian, Pennington Co, SD.
5. County or counties where water will be used Pennington
6. Annual period during which water is to be used January 1st through December 31st
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)

Location of New Intake Structure was changed after issuance of Permit No. 2138A-2 dated July 15, 2010. The new location is shown on the attached exhibit and is located adjacent to the Jackson Springs spring box on Rapid Creek in the NW1/4, SE1/4 of Section 8, T1N, R7E, BHM. The water will be transported to a new raw water pumping station. Water will be pumped to the new Jackson Springs Water Treatment Plant.

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)

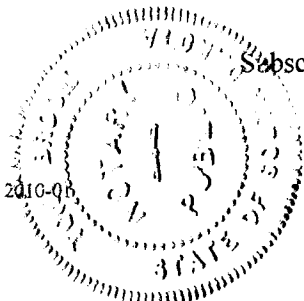
I, Alan Hanks, Mayor, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

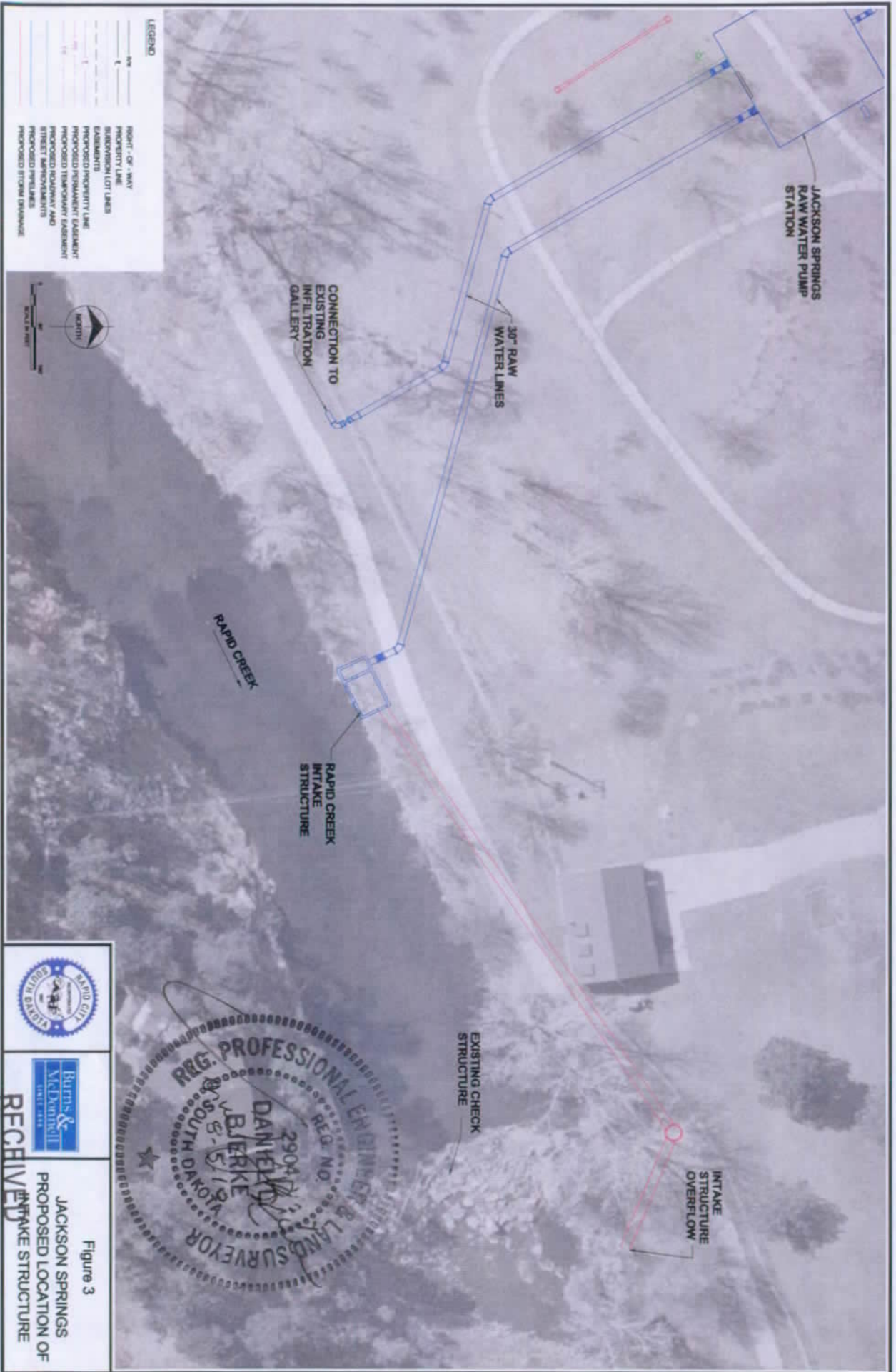
Applicant's signature _____

Subscribed and sworn to before me this 10th day of August 20 10

My Commission Expires
June 8, 2014

Notary Public signature _____





LEGEND

—	RIGHT-OF-WAY
—	PROPERTY LINE
—	BOUNDARY LOT LINES
—	EASEMENTS
—	PROPOSED PROPERTY LINE
—	PROPOSED PERMANENT EASEMENT
—	PROPOSED TEMPORARY EASEMENT
—	PROPOSED ROADWAY AND STREET IMPROVEMENTS
—	PROPOSED PIPELINES
—	PROPOSED STORM DRAINAGE



RECEIVED

**JACKSON SPRINGS
PROPOSED LOCATION OF
INTAKE STRUCTURE**



AUG 12 2010

**WATER RIGHTS
PROGRAM**

Figure 3



DEPARTMENT OF GAME, FISH, AND PARKS

Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

RECEIVED

JUL 22 2010

RAPID CITY
PUBLIC WORKS

July 20, 2010

Dan Coon, P.E.
Rapid City Public Works Dept.
Engineering Services Division
300 Sixth Street
Rapid City, SD 57701

Dear Mr. Coon:

Thank you for taking the time to consult with the South Dakota Department of Game, Fish and Parks (SDGFP) about proposed designs for the surface water intake structure of the Jackson Springs Water Treatment Plant. Ron Koth, our Senior Fisheries Biologist in Rapid City, reviewed materials provided by you in early June and submitted comments on the in-bank intake structure for your consideration. Ron has a lot of experience in the area of stream hydrology and we were glad to be able to use his experience to contribute to the design review process.

After reviewing the reply to Mr. Koth's comments supplied by your contract Engineers at Burns and McDonnell, SDGFP is satisfied that no negative impacts to the fisheries resources of Rapid Creek will occur and that the type of intake and location within the stream/riparian corridor are justified.

Thanks again for including SDGFP in the review process and for keeping us informed of progress on the Jackson Springs Water Treatment Plant project.

Sincerely,

John Lott
Aquatic Resources Chief
(605) 773-4508



2138A-2 + 2642-2

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

August 19, 2010

Mayor Alan Hanks
City of Rapid City
300 Sixth Street
Rapid City SD 57701

Dear Mayor Hanks:

I am writing in regard to Rapid City's request to make a minor change in the location of the new Jackson Springs intake structure on Rapid Creek authorized by Water Permit No. 2138A-2 and 2642-2.

Water Permit Nos. 2138A-2 added a Rapid Creek intake at the Jackson Springs site to Water Right No. 2138-2. This right appropriates 12.38 cubic feet of water per second (cfs) from Rapid Creek at the existing city water treatment plant. Water Permit No. 2642-2 authorized construction of and placing to beneficial use 1,203 acre feet of water at a maximum diversion rate of 2.77 cfs from water reserved by the city's future use permit from the creek. Originally the new intake was intended to be located in the SE ¼ SW ¼ Section 8, T1N, R7E but design factors resulted the location being moved to the NW ¼ SE ¼ of Section 8.

Upon review of the request and pursuant to SDCL 46-5-13.1, the change in the location of the new Jackson Springs intake structure from Rapid Creek is authorized without application or publication of a notice of hearing pursuant to SDCL 46-2A-4. The existing diversion authority from Rapid Creek authorized by Water Right No. 2138-2 and Water Permit No. 2642-2 remains the same

If you have any questions, please contact Eric Gronlund at (605) 773-3352.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program

Approval of a Change of Diversion Points

NAME: City of Rapid City

ADDRESS: 300 Sixth Street, Rapid City SD 57701

DATE: August 13, 2010 **COUNTY:** Pennington **TELEPHONE:**

BACKGROUND:

Rapid City filed a request to change the location of the new Jackson Springs intake structure from Rapid Creek authorized by Water Permit Nos. 2138A-2 and 2642-2. The request is a result of design considerations encountered after the permits were approved. The new intake structure will be downstream approximately 245 feet (northeast) from the initially proposed location.

Water Permit Nos. 2138A-2 added a Rapid Creek intake at the Jackson Springs site to Water Right No. 2138-2, which appropriates 12.38 cubic feet of water per second (cfs) from Rapid Creek at the existing city water treatment plant in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 3, T1N, R7E. Water Permit No. 2642-2 authorized construction of and placing to beneficial use 1,203 acre feet of water at a maximum diversion rate of 2.77 cfs from water reserved by the city's Future Use Permit No. 1088-2. Originally the new intake was intended to be located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T1N, R7E but design factors resulted the location being moved to the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 8.

The city consulted with the SD Department of Game, Fish and Parks regarding the new intake location. In a letter dated July 20, 2010, John Lott, Aquatic Resources Chief, states that SDFGFP is satisfied that no negative impacts to the fisheries resources of Rapid Creek will occur and that the type of intake and location within the stream is justified.

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The water source authorized by Water Right No. 2138-2 and Permit Nos. 2138A-2 and 2642-2 is Rapid Creek.

No additional appropriation of water is requested. This request is solely to move the intake from Rapid Creek for this new water treatment plant approximately 245 feet downstream of its previous advertised location. This locates the intake in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 8, T1N, R7E. which is a different quarter quarter section than originally advertised for these applications.

- **Review of Existing Diversions**

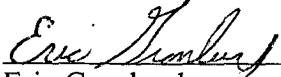
There are no other water permit diversions from Rapid Creek between the originally proposed location and the new site.

CONCLUSION

- The change of the intake does not appropriate additional water.
- The water source continues to be Rapid Creek.
- Interference is not a concern.
- The SD Department of Game, Fish and Parks has been consulted and is satisfied that no negative impact to the fishery resources of Rapid Creek will occur.

RECOMMENDED ACTION

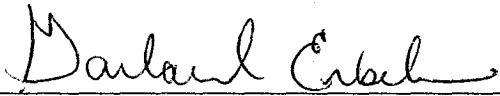
Based on the above criteria, it is recommended that the change of diversion point for this Rapid Creek intake be authorized for Water Permit Nos.2138A-2 and 2642-2.



Eric Gronlund
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change of diversion point does not increase the potential for adverse effects to existing diversions.



Garland Erbele, Chief Engineer
Water Rights Program



**REISSUED
SOUTH DAKOTA
WATER PERMIT NO. 2643-2**

Date of first receipt of application September 25, 2009.

The Water Management Board approved Water Permit No. 2643-2 on March 10, 2010 for the City of Rapid City, 300 6th St, Rapid City SD 57701 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2643-2 authorizes to construct and place to beneficial use 995 acre feet of water annually from the Jackson Springs collection box at a maximum diversion rate of 2.29 cubic feet of water per second (cfs). The water source for this collection box is the Jackson Springs complex and Rapid Creek. The location of the collection box is the NW ¼ SE ¼ Section 8, T1N, R7E (see Approval of a Change of Diversion Point dated August 13, 2010). This water is appropriated and reserved by Future Use Permit No. 439-2.
2. The water appropriated shall be used for the purpose of municipal, rural water system, domestic, suburban housing, commercial and industrial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date from which applicant may claim right is September 22, 1956 (established by Water Right No.439-2).
5. One-fifth of the construction is to be completed on or before September 10, 2012.
6. All construction is to be completed on or before March 10, 2015.
7. Water is to be put to beneficial use on or before March 10, 2019.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. If the flow of water drops below 10 cfs as measured at the USGS gaging station Cleghorn Springs at Rapid City No. 06412810, the Chief Engineer shall be notified, and consultation concerning the reduced flow by appropriate staff for Rapid City and SD Game Fish and Parks shall occur.
2. The City of Rapid City shall replace Jackson Springs water pumped into their municipal system with an equal amount of Rapid Creek water plus Rapid City's proportionate share of the amount of water lost in Rapid Creek between Pactola Dam and Jackson Springs when there is a senior priority water right call for water downstream of the Jackson Springs outfall on Rapid Creek.
3. The city of Rapid City shall report to the Chief Engineer annually the amount of water withdrawn from the Jackson Springs collection box.
4. Permit No. 2643-2 is subject to compliance with South Dakota Drinking Water Standards.
5. This permit is subject to any written orders by the Chief Engineer.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

AUG 25 2010

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

AUG 25 2010

Robert Ellis, Public Works Director
City of Rapid City
300 6th St
Rapid City SD 57701

Dear Mr. Ellis:

Enclosed is Reissued Water Permit No. 2642-2 authorizing the change in the location of the new Jackson Springs intake structure on Rapid Creek. The permit is being reissued to correct a typographical error and includes the changed legal description of the intake structure.

If you have any questions, please contact this office.

Sincerely,

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

enclosure

Permit Nos. 2642-2
Upper Cheyenne River - Water District

Report of Examination of Works

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

I have on this day, 10/29/2015, made a thorough examination of the water use system constructed by **City of Rapid City, 300 6th Street, Rapid City SD 57701** holder of Permit No. 2642-2, bearing the priority date of June 28, 1971 (**established by Future Use Permit No. 1088-2**), authorizing the diversion of 2.77 cubic feet of water per second (cfs) with an annual volume limitation of 1,203 acre feet of the natural flow water from **Rapid Creek** for **municipal, industrial, commercial, common distribution system, rural water system, suburban housing and domestic purposes**, in **Pennington County**.

Inspection contact and relationship to
permit holder, if applicable:

Tim Weber,
City of Rapid City Interim Water Superintendent

A. Works used to divert the water:

Pumps connected to the Rapid Creek Intake Structure. (Pump and motor information listed on next page.)

B. Works used to transport water to place of use:

City of Rapid City municipal distribution system.

The system is in the following condition good. The point of diversion is located as follows: **(Rapid Creek Intake Structure) 1475 feet north and 2620 feet east of the SW corner of Section 8, T1N-R7E (NE¼SW¼), Lat/Lon N44.057074/W-103.302468.** The water system is capable of diverting and conveying to the place of use 2.77 cfs 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 2.77 cfs.

All structures, wells and lands on map: Y

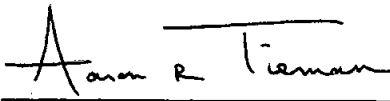
Exceptions to compliance: none

Comments: The City of Rapid City filed a request to change the location of the diversion point authorized by Water Permit Nos. 2138A-2 and 2642-2. After reviewing the request, it was found that the change of diversion point location would not increase the potential for adverse effects to existing diversions. The Chief Engineer approved the request on August 13, 2010 and authorized the change in location of the Rapid Creek Intake Structure diversion point to the NE¼ SW¼ Section 8, T1N-R7E (approximately 245 feet downstream from the the initially proposed location).

There are prior water rights downstream on Rapid Creek (irrigation and domestic use, including livestock watering). Natural flows of Rapid Creek as needed for these prior water rights shall be by-passed under this permit. Water Rights covering storage of water in Deerfield and Pactola Reservoirs were acquired by the United States (U.S. No. 509-2 and U.S. No. 518-2, respectively). Use of such water by Rapid City is provided by the Deerfield and Pactola contracts with the United States (Bureau of Reclamation). To the extent that water is available under these contracts, it may be used under Permit No. 2642-2 to serve, replace or

supplement withdrawals from the natural flows of Rapid Creek, or those flows remaining (which may be zero flows) after water is by-passed as needed for the downstream prior water rights.

Diversions under this permit are limited to natural flows that exceed 10 cfs as measured at the USGS gaging station No. 06412500 'Rapid Creek above Canyon Lake near Rapid City'. During the period April 1 through September 30 when flows are between 10cfs and 20 cfs, diversion are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversions being released as supplemental water.

A handwritten signature in black ink, reading "Aaron R. Tieman". The signature is written in a cursive style with a horizontal line above the name.

Aaron R Tieman
Natural Resources Engineer II
DENR, Water Rights Program

Date report completed: August 17, 2016

FIELD INVESTIGATION REPORT FOR PERMIT NO. 2642-2

DATE OF INVESTIGATION	October 29, 2015
PERMIT HOLDER NAME & ADDRESS	City of Rapid City 300 6 th Street Rapid City, SD 57701
NAME OF INSPECTION CONTACT AND RELATIONSHIP TO PERMIT HOLDER	Tim Weber, (Water Production Supervisor / Interim Water Superintendent)
DIVERSION POINT LEGAL LOCATION	NE¼ SW¼ Section 8, T1N-R7E
WATER SUPPLY SOURCE	Rapid Creek

RAPID CREEK INTAKE STRUCTURE

Pump:

- 1) Make: Goulds
- 2) Model: 14RJHC
- 3) Capacity: 3000⁺/- GPM

Motor:

- 1) Make: US Electrical
- 2) Model No.: BF56A(1)
- 3) Horsepower rating: 60 hp

Pump:

- 1) Make: Goulds
- 2) Model: 14RJHC
- 3) Capacity: 2900 GPM

Motor:

- 1) Make: US Electrical
- 2) Model No.: BF56A(2)
- 3) Horsepower rating: 60 hp

Pump:

- 1) Make: Goulds
- 2) Model: 14RJHC
- 3) Capacity: 2925 GPM

Motor:

- 1) Make: US Electrical
- 2) Model No.: BF56A(3)
- 3) Horsepower rating: 60 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type: Municipal distribution system

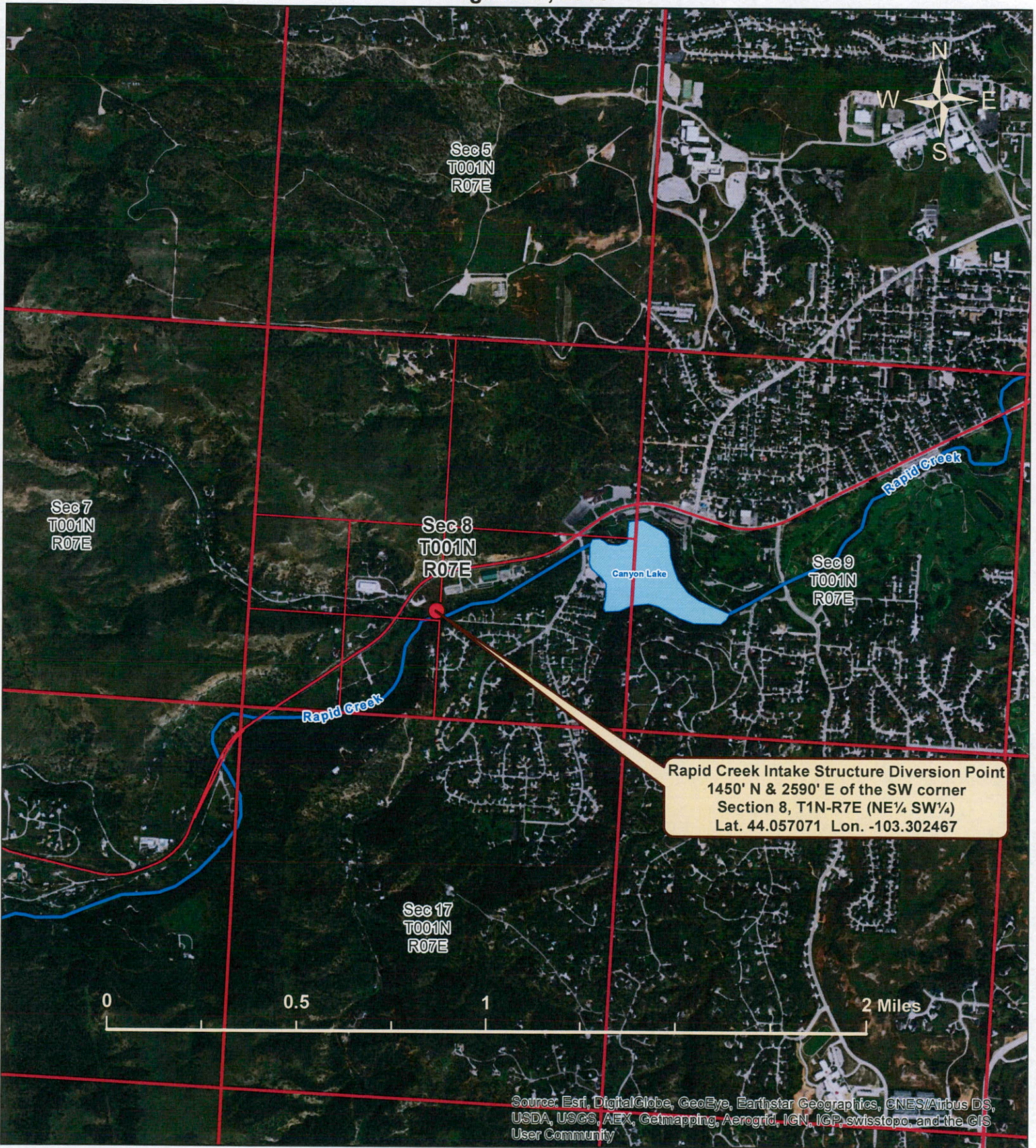
PERMIT QUALIFICATIONS:

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

COMMENTS: The new Rapid Creek Intake Structure will divert water directly from the creek. The water will be transported to the new raw water pumping station and then pumped to the new Jackson Springs Water Treatment Plant.

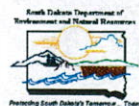
This water is appropriated and reserved for this permit by Future Use Permit No. 1088-2.

Water Right 2642-2
City of Rapid City
August 17, 2016



Aaron R Tieman

Aaron R Tieman
Natural Resources Engineer II
DENR, Water Rights Program



STATE OF SOUTH DAKOTA
WATER LICENSE NO. 2642-2

(1) The City of Rapid City, 300 6th St, Rapid City SD 57701 made Application No. 2642-2, September 25, 2009 for a water permit to appropriate water reserved by Future Use Permit No. 1088-2. No. 2642-2 authorized construction and placement to beneficial use 1,203 acre feet of water annually at a maximum diversion rate of 2.77 cubic feet of water per second. Water is diverted for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes from Rapid Creek, located in Pennington County, South Dakota. Permit No. 2642-2, with a priority date of June 28, 1971 (established by Future Use Permit No. 1088-2) was approved March 10, 2010 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 10, 2015 and for the application to beneficial use of said water on or before March 10, 2019.

In August 2010, the city filed a request to change the location of the new Jackson Springs intake structure from Rapid Creek authorized by Nos. 2138-2 and 2642-2. No additional water was requested. The request was solely to move the intake from Rapid Creek for the new water treatment plant approximately 245 feet downstream of the previous location. On August 13, 2010, the Chief Engineer made a finding pursuant to SDCL 46-5-13.1 and ARSD 74:02:01:14.1 that the change in diversion point location did not increase the potential for adverse effects to existing diversions.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 2.77 cubic feet of water per second for beneficial use with annual volume limitation of 1,203 acre feet.

The point of diversion (**Rapid Creek Intake Structure**) is located as follows:

- 1475 feet north and 2620 feet east of the SW corner of Section 8, T1N, R7E (NE $\frac{1}{4}$ SW $\frac{1}{4}$),
Lat/Lon N44.057074/W-103.302468.

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

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Rapid City, 300 6th St, Rapid City SD 57701 the holder and/or owner of Water Right No. 2642-2 is issued a license to appropriate water, the right to use 2.77 cubic feet of water per second with an annual volume of 1,203 acre-feet from Rapid Creek with a priority date of June 28, 1971 from the location specified in (2) of this license for municipal, rural water system, domestic, suburban housing, commercial and industrial purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2642-2 and subject to the following qualifications:

- There are prior water rights downstream on Rapid Creek (irrigation and domestic use, including livestock watering). Natural flows of Rapid Creek as needed for these prior water rights shall be by-passed under this permit. Water Rights covering storage of water in Deerfield and Pactola Reservoirs were acquired by the United States (U.S. No. 509-2 and U.S. No. 518-2, respectively). Use of such water by Rapid City is provided by the Deerfield and Pactola contracts with the United States (Bureau of Reclamation). To the extent that water is available under these contracts, it may be used under Permit No. 2642-2 to serve, replace or supplement withdrawals from the natural flows of Rapid Creek, or those flows remaining (which may be zero flows) after water is by-passed as needed for the downstream prior water rights.

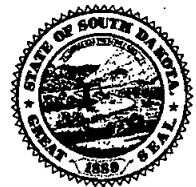
- Diversions under this permit are limited to natural flows that exceed 10 cubic feet per second as measured at USGS gaging station Rapid City above Canyon Lake near Rapid City No. 06412500. During the period April 1 through September 30 when flows are between 10 cfs and 20 cfs, diversions are limited to supplemental water equal to an amount released from storage through Rapid City's Deerfield and Pactola contracts with the United States Bureau of Reclamation. When flows are greater than 20 cfs, natural flow diversions are limited to the amount exceeding 20 cfs with the remainder of the diversion being released supplemental water.
- The city of Rapid City shall report to the Chief Engineer annually the amount of water withdrawn from the Rapid Creek.
- Permit No. 2642-2 is subject to compliance with South Dakota Drinking Water Standards.
- This permit is subject to any written orders by the Chief Engineer.



Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 24 2016

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

OCT 24 2016

2642-2

Tim Weber, Interim Water Supt
City of Rapid City
300 6th Street
Rapid City SD 57701

Dear Mr. Weber:

Enclosed is Water License No. 2642-2. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures