

Memorandum

To: BWCD BOARD OF DIRECTORS
From: ERIC MANGEOT
CC: CHRIS GEIGER
Date: FEBRUARY 27, 2019
File: AMENDMENT – ROARING FORK WATER & SANITATION DISTRICT (RFWSD) CONTRACT 679

Applicant Name: Roaring Fork Water & Sanitation District (Service of Eastbank School and Eastbank, LLC Lot 2)

Type of Use: Domestic X Commercial X
Industrial Agricultural

Amount: 2.1 AF cfs gpm (no direct flow rights sought for this application)

Location: Area A A-4 Area B Inclusion
County: GARFIELD Contiguous:
BWCD Division: 1

Mid Valley Metro District Notice Required? Yes No X

Blue Creek Water Rights Applied? Yes No X

02CW77 Umbrella Plan Water Rights Applied? Yes X No **Cost:** \$3,000 (previously paid)

The purpose of this amendment is to allow the Roaring Fork Water & Sanitation District (RFWSD; Applicant) to service (water and sewer) properties located in the south half of Section 35, Township 6 South, Range 89 West, of the 6th. P.M. in Garfield County, Colorado. More specifically, this amendment is to cover deletions as follows:

RE-1 School District (Parcel No. 218535300060) – Domestic Use

- Depletions associated with the Riverview School, a/k/a Eastbank School, (with cafeteria and gym) located near the intersection of Highway 82 and County Road 154, in Garfield County between the City of Glenwood Springs and the Town of Carbondale as shown on **Figure 1**. The school is anticipated to serve up to 542 students and staff, and have a cafeteria, gym with showers, and irrigation of up to one-half acre. The school will receive its potable water supply and sanitary sewer service from the RFWSD per an agreement with the Roaring Fork RE-1 School District.
- Each student and staff is estimated to divert 30 gallons per person per day as estimated by the Applicant's engineer. Based on the RFWSD rules and regulations, this equates to approximately 32 EQRs. The Applicant's engineer also provided a consumptive use analysis for the proposed irrigation and a Glover analysis for the lagged irrigation return flows. Total depletions, including irrigation, are 1.916 acre-feet (AF) as shown on the attached tables.

Eastbank, LLC Lot 2 (Parcel No. 21853415002) – Commercial Use

- Depletions associated with a 4,000 square foot equine hospital facility with four indoor stalls, a laundry facility, full bathroom, break room with a sink, an Aquatred hydrotherapy unit, and 1,300 square feet of irrigation. These uses are currently associated with BWCD Contract No. 678. This contract will be terminated once a contract amendment is executed.
- Depletions associated with a 4,000 square foot office/repair shop building, occasional truck washing and floor washing, and up to 1,000 square feet of irrigation. These uses are currently associated with BWCD Contract No. 312. This contract will be terminated once a contract amendment is executed.
- Lot 2 will receive its potable water supply and sanitary sewer service from the RFWSD per an agreement with the Eastbank, LLC. Total depletions associated are 0.159 AF as shown on the attached tables.

Diversions are to be from the Aspen Glen Wells Nos. 2 – 4 as follows:

- Aspen Glen Well No. 2 (Permit Nos. 79538-F, 61406-F, and 46930-F) located in the NW1/4 NE1/4 of Section 29, Township 7 South, Range 88 West, of the 6th P.M. at a point 768 feet from the North section line and 2,200 feet from the East section line.
- Aspen Glen Well No. 3 (Permit Nos. 79537-F, 61405-F, and 59215-F) located in the NW1/4 NE1/4 of Section 29, Township 7 South, Range 88 West, of the 6th P.M. at a point 508 feet from the North section line and 1,784 feet from the East section line.
- Aspen Glen Well No. 4 (Permit Nos. 79539-F, 61407-F, and 59214-F) located in the NW1/4 NE1/4 of Section 29, Township 7 South, Range 88 West, of the 6th P.M. at a point 788 feet from the North section line and 2,462 feet from the East section line.

Thompson Glen Ditch water rights will be used to irrigate lawns and ball fields associated with Riverview School.

Eastbank Well No. 2 (Permit No. 50236-F) should be plugged and sealed as required by the Colorado Division of Water Resources; otherwise, the well should be repermited to remove Contract 312 and Contract 678.

Water User :	Roaring Fork Water & San. District
Analysis Date :	February 27, 2019
District Area:	A
Source Series:	4
Maximum Demand:	---

**BASALT WATER CONSERVANCY DISTRICT
WATER REQUIREMENTS**

(acre feet)

**RE-1 Eastbank School + Eastbank, LLC Lot 2
Contract 679 Amendment - Overall Contract**

Month	Total Demand					Consumptive Use					(13) Source of Aug/Replace		
	(1) Domestic In-house	(2) Commercial or Other	(3) Irrigation	(4) Crop Irrigation	(5) Livestock	(6) TOTAL	(7) Domestic In-house	(8) Commercial or Other	(9) Delayed Irrigation	(10) Crop Irrigation		(11) Livestock	(12)* TOTAL
January	0.000	1.621	0.000	0.000	0.000	1.621	0.000	0.081	-0.004	0.000	0.000	0.085	GNM
February	0.000	1.467	0.000	0.000	0.000	1.467	0.000	0.073	-0.001	0.000	0.000	0.080	GNM
March	0.000	1.621	0.000	0.000	0.000	1.621	0.000	0.081	0.000	0.000	0.000	0.089	GNM
April	0.000	1.570	0.000	0.000	0.000	1.570	0.000	0.079	0.000	0.000	0.000	0.086	GNM
May	0.000	1.621	0.197	0.000	0.000	1.818	0.000	0.081	0.184	0.000	0.000	0.292	GNM
June	0.000	0.822	0.290	0.000	0.000	1.112	0.000	0.041	0.257	0.000	0.000	0.328	GNM
July	0.000	0.847	0.317	0.000	0.000	1.164	0.000	0.042	0.269	0.000	0.000	0.343	GNM
August	0.000	0.847	0.247	0.000	0.000	1.094	0.000	0.042	0.195	0.000	0.000	0.261	GNM
September	0.000	1.570	0.164	0.000	0.000	1.734	0.000	0.079	0.117	0.000	0.000	0.216	GNM
October	0.000	1.621	0.093	0.000	0.000	1.714	0.000	0.081	0.058	0.000	0.000	0.153	GNM
November	0.000	1.570	0.000	0.000	0.000	1.570	0.000	0.079	-0.020	0.000	0.000	0.064	GNM
December	0.000	1.621	0.000	0.000	0.000	1.621	0.000	0.081	-0.009	0.000	0.000	0.079	GNM
TOTALS -->	0.000	16.798	1.308	0.000	0.000	18.106	0.000	0.839	1.046	0.000	0.000	2.076	

Assumptions

(1)	NUMBER OF RESIDENCES		(5)	# of Livestock @ 11 gals/day		Area A-4 Multiple Type A Wells (irrigation lagged) Roaring Fork River
	# persons/residence	# gallons/person/day		(7)	(9)	
(2)	Commercial/Other Demand (af)	16.798			% Lawn Irrig. Efficiency Consumption of Irrig. (af/ac)	80 1.890
(3)	Sq. Ft. of Lawn Irrigated Lawn Application Rate (af/ac)	24,080 2.363			% Crop Irrig. Efficiency Consumption of Irrig. (af/ac)	80 0.000
(4)	Acres of Crop Irrigated Crop Application Rate (af/ac)	0.00 0.000			Elevation (feet)	5950
*(6) (12)						Total Includes 5% Transit Loss 10% from Green Mtn.

Water User :	Roaring Fork Water & San. District
Analysis Date :	February 27, 2019
District Area:	A
Source Series:	4
Maximum Demand:	---

**BASALT WATER CONSERVANCY DISTRICT
WATER REQUIREMENTS**

(acre feet)

RE-1 Eastbank School - Domestic Use

See Table 1 from SGM for Addl. Information

	Total Demand					Consumptive Use					(13) Source of Aug/Replace		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)*
	Domestic In-house	Commercial or Other	Irrigation	Crop Irrigation	Livestock	TOTAL	Domestic In-house	Commercial or Other	Delayed Irrigation	Crop Irrigation		Livestock	TOTAL
Month													
January	0.000	1.547	0.000	0.000	0.000	1.547	0.000	0.077	-0.004	0.000	0.000	0.081	GNM
February	0.000	1.397	0.000	0.000	0.000	1.397	0.000	0.070	-0.001	0.000	0.000	0.076	GNM
March	0.000	1.547	0.000	0.000	0.000	1.547	0.000	0.077	0.000	0.000	0.000	0.085	GNM
April	0.000	1.497	0.000	0.000	0.000	1.497	0.000	0.075	0.000	0.000	0.000	0.082	GNM
May	0.000	1.547	0.178	0.000	0.000	1.725	0.000	0.077	0.169	0.000	0.000	0.271	GNM
June	0.000	0.749	0.262	0.000	0.000	1.011	0.000	0.037	0.235	0.000	0.000	0.299	GNM
July	0.000	0.773	0.287	0.000	0.000	1.060	0.000	0.039	0.245	0.000	0.000	0.312	GNM
August	0.000	0.773	0.223	0.000	0.000	0.996	0.000	0.039	0.176	0.000	0.000	0.236	GNM
September	0.000	1.497	0.148	0.000	0.000	1.645	0.000	0.075	0.105	0.000	0.000	0.198	GNM
October	0.000	1.547	0.084	0.000	0.000	1.631	0.000	0.077	0.051	0.000	0.000	0.141	GNM
November	0.000	1.497	0.000	0.000	0.000	1.497	0.000	0.075	-0.020	0.000	0.000	0.060	GNM
December	0.000	1.547	0.000	0.000	0.000	1.547	0.000	0.077	-0.009	0.000	0.000	0.075	GNM
TOTALS -->	0.000	15.918	1.182	0.000	0.000	17.100	0.000	0.796	0.947	0.000	0.000	1.916	

Assumptions

(1)	NUMBER OF RESIDENCES	0	(5)	# of Livestock @ 11 gals/day	0	Area A-4 Multiple Type A Wells (irrigation lagged) Roaring Fork River
	# persons/residence	3.5	(7)	% CU for Domestic/Commercial	5	
(2)	Commercial/Other Demand (af) In-School Demand 542 students/staff @ 30 gppd.	15.918	(9)	% Lawn Irrig. Efficiency Consumption of Irrig. (af/ac)	80 1.890	
(3)	Sq. Ft. of Lawn Irrigated Lawn Application Rate (af/ac)	21,780 2.363	(10)	% Crop Irrig. Efficiency Consumption of Irrig. (af/ac)	80 0.000	
(4)	Acres of Crop Irrigated Crop Application Rate (af/ac)	0.00 0.000	(9-10)	Elevation (feet)	5950	
*(6) (12) Total Includes 5% Transit Loss 10% from Green Mtn.						



**APPLICATION FOR AMENDMENT OF WATER ALLOTMENT CONTRACT
BASALT WATER CONSERVANCY DISTRICT, CONTRACT NO. 679**

1. Applicant(s) Contact Information

- a. Name: Roaring Fork Water & Sanitation District
- b. Mailing Address: PO Box 1002, Glenwood Springs, CO 81601
- c. Street Address: 3790 County Road 109, Carbondale, CO 81623
- d. Telephone Numbers: (970) 945-2144
- e. Email Address: info@rfwsd.com
- f. If Applicant is represented by an Attorney, please provide the Attorney's contact information, including name, address, telephone, and email:

Scott Grosscup
Balcomb & Green, P.C.
818 Colorado Ave,
Glenwood Springs, CO 81601
Phone: (970) 945-6546
Email: SGrosscup@BalcombGreen.com

- g. Emergency Local Contact Information, including name, address, telephone, and email:

Environmental Process Control
185 N. 12th St, Carbondale, CO 81623
Phone: 970-963-8393
Email: epc@environmentalprocesscontrol.com

- h. Contact Information of property manager, caretaker, irrigator, system operator, or agent who should be provided a copy of this contract, including name, address, telephone, and email:

Same as 1.f. above.

2. Type of land use (development) proposed for water allotment contract (i.e. single family home, subdivision, gravel pit, etc.):

This water allotment contract currently serves the new RE-1 Riverview School and Applicant requests to amend the contract to serve the Eastbank Lot 2, which includes an equine hospital and an office/repair shop. The Eastbank development served by this contract as amended is located near the intersection of Highway 82 and County Road 154, in Garfield County between the City of Glenwood Springs and Town of Carbondale. More information about land use is provided below:

- a. The RE-1 Eastbank Schools will serve up to 550 students and staff, and have a cafeteria, gymnasium with showers, and irrigation of up to one-half acre. The property receives potable water supply and sanitary sewer service from the Roaring Fork Water & Sanitation District. Anticipated demands and consumptive use associated with the school are shown in **Table 1**, attached.

Applicant requests to amend the contract to include the following uses and properties currently covered under contracts 312b and 678, and to subsequently have those contracts terminated and the properties served by Applicant's municipal water supply system:

- b. The equine hospital is a 4,000 square foot commercial building with four indoor stalls, a laundry facility, full bathroom, break room with a sink. Uses include watering of domestic animals and livestock, stall washing/cleaning, laundry, hydrotherapy pool, and the irrigation of not more than 1,300 square feet of gardens, lawns, and landscaping. The property will receive potable water supply and sanitary sewer service from the Roaring Fork Water & Sanitation District. Anticipated demands and consumptive use associated with the equine hospital are shown in **Table 2**, attached.
 - c. The office / repair shop is a 4,000 square foot commercial building with occasional truck washing and floor washing and not more than 1,000 square feet of landscape irrigation. The property will receive potable water supply and sanitary sewer service from the Roaring Fork Water & Sanitation District. Anticipated demands and consumptive use associated with the office/repair shop are shown in **Table 2**, attached.
3. Legal description and address of property on which District's water rights and/or contract water will be used (attach map and vesting deed with proof of ownership)*:

Figure 1, attached, shows the location of the RE-1 School Parcel and the Eastbank Lot 2 Parcel and the calculations of return flows from irrigation of lawns and landscaping.

The RE-1 Eastbank School property is located in Section 35, Township 6 South, Range 89 West of the 6th P.M. and is described by the Garfield County Assessor as parcel number 21853530060. The Roaring Fork Water & Sanitation District and Roaring Fork RE-1 School District have entered into an agreement to provide potable water and sanitary sewer services to the Eastbank School.

The Eastbank Lot 2 property is set forth and described by that certain Eastbank LLC Minor Subdivision Plat as recorded in the offices of the Garfield County Clerk and Recorder on September 8, 2015 as Reception No. 867717 (Drawer 20A), situated in the south half of Section 35, Township 6 South, range 89 West of the 6th P.M. in Garfield County, Colorado. The property described by the Garfield County Assessor as parcel number 218535415002. A copy of the Plat is attached hereto. The Roaring Fork Water & Sanitation District and Eastbank, LLC have entered into an agreement to provide potable water and sanitary sewer services to the Eastbank Lot 2.

4. Elevation of property: X 6-7,000 ft., 7-8,000 ft., 8-9,000 ft.

5. Name and legal description of water supply diversion point(s):

Name of Diversion: Aspen Glen Well No. 2

Type of Diversion: Well (e.g., a well, spring, ditch, pipeline, etc.)

Legal Description: Legal Description: NW Quarter, NE Quarter, Section 29, Township 7 S, Range 88 W, of the 6th Principal Meridian, at a location 768 feet from the North Section line and 2200 feet from the East Section line.

UTM Coordinates (NAD 83):

Northings: _____
Easting: _____
_____ Zone 12 / _____ Zone 13.

If diversion point is a well, please provide the Well Permit No. 79538-F, 61406-F, and 46930-F.

Is the well operational/active? X Yes, No

Is there currently an operating well meter? X Yes, No

Name of Diversion: Aspen Glen Well No. 3

Type of Diversion: Well (e.g., a well, spring, ditch, pipeline, etc.)

Legal Description: NW Quarter, NE Quarter, Section 29, Township 7 S, Range 88 W, of the 6th Principal Meridian, at a location 508 feet from the North Section line and 1784 feet from the East Section line.

UTM Coordinates (NAD 83):

Northing: _____.

Easting: _____.

_____ Zone 12 / _____ Zone 13.

If diversion point is a well, please provide the Well Permit No. 79537-F, 61405-F, and 59215-F.

Is the well operational/active? ☒ Yes, _____ No

Is there currently an operating well meter? ☒ Yes, _____ No

Name of Diversion: Aspen Glen Well No. 4

Type of Diversion: Well (e.g., a well, spring, ditch, pipeline, etc.)

Legal Description: NW Quarter, NE Quarter, Section 29, Township 7 S, Range 88 W, of the 6th Principal Meridian, at a location 788 feet from the North Section line and 2462 feet from the East Section line.

UTM Coordinates (NAD 83):

Northing: _____.

Easting: _____.

_____ Zone 12 / _____ Zone 13.

If diversion point is a well, please provide the Well Permit No. 79539-F, 61407-F, and 59214-F

Is the well operational/active? ☒ Yes, _____ No

Is there currently an operating well meter? ☒ Yes, _____ No

Notice: A valid well permit with operating well meter will be required under the contract.

6. Legal Water Supply: (please check one)

X Applicant requests consideration by the District to be included in the District's Umbrella Plan for Augmentation decreed in Case No. 02CW77.*

*Note: Certain applicants may qualify to be included in the District's Umbrella Plan at the District's discretion. In order to be included in the District's Umbrella Plan, the Applicant's depletions must occur within the District's defined "Area A" and the Applicant must reimburse the District its *pro rata* share of the District's expenses in obtaining the Umbrella Plan decree. Costs of reimbursement are contingent upon location and intensity of the uses, and range from \$1,200 for contractees with less than 2 units (EQRs) in certain areas, to \$5,000 for more than 8 EQRs in Area A-3 (generally the Roaring Fork drainage above its confluence with the Fryingpan Rivers).

____ Applicant will obtain its own plan for augmentation by applying to the Water Court, Water Division 5 within 2 years of this application. If Applicant has already applied for its own change/approval of plan for augmentation, the Water Court Case Number is: _____.

7. Proposed waste water treatment system: (please check)

X Tap to central waste water treatment facility
____ Septic tank/leachfield system
____ Evapotranspiration system
____ Other:

8. Proposed use of water (please check)

X Domestic/Municipal (single family home(s), duplex(s), condominium(s), mobile home(s), apartment). Please complete page four of this application.
X Commercial (hotel, office, warehouse, restaurant, bar, retail). Please complete page five of this application.
____ Industrial (gravel pit, manufacturing). Please complete page six of this application.

_____ Agricultural (crop irrigation, stock watering). Please complete page seven of this application.

Date on which the county or other applicable governmental entities approved the land use for which you seek legal water service: _____. (Note: Copy of the Resolution of other documentation evidencing such approval should be submitted with application.)

9. What other water rights are associated with or used on the property?
27 shares of stock in and to the Thompson Glen Ditch Company are associated with the RE-1 Eastbank School property.
10. What other uses of water occur on the property?
It is anticipated that the Thomson Glen Ditch water rights will be used to irrigate lawns and ball fields associated with the new school.

Please complete the section below if you selected domestic/municipal use on Page 3, No. 8

DOMESTIC/MUNICIPAL WATER USES

In-House

Single family residential home(s) Number of Units: _____

Duplex(s) Number of Units: _____

Condominium(s) Number of Units: _____

Apartment(s) Number of Units/Rooms: _____

Mobile Home(s) Number of Units: _____

Irrigation (lawns, parks, open space)

Total area to be irrigated 21,780 Sq. Ft. or 0.5 Acres

Type of irrigation system (please check)

 X Sprinkler

 Flood (irrigation ditch)

Domestic stock watering (cattle, horses)

Number of animals:

Period of use (months):

Other domestic/municipal uses not listed:

Water will be used within a school with cafeteria and gym serving approximately 542 students and staff, each using 30 gallons per person per day. Based on the RFWSD rules and regulations, this equals approximately 32 EQRs (3 EQRs per 50 students and staff for schools with gym and cafeteria). Wastewater treatment will be provided through the RFWSD's water treatment facility. Attached as **Table 1** is the proposed calculations of water demand requiring augmentation. **Exhibit A** is the irrigation water demands.

Please complete this page if you selected commercial use on Page 3, No. 8

COMMERCIAL WATER USES

In-House

Hotel: _____

Office(s), square footage: _____

Warehouse/distributor, square footage: _____

Retail, square footage: _____

Restaurant, number of seats: _____

Bar, number of seats: _____

Irrigation (lawns, parks, open space)

Total area to be irrigated 2,300 Sq. Ft. or _____ Acres

Type of irrigation system (please check)

 X Sprinkler

 Flood (irrigation ditch)

Other Commercial Uses Not Listed:

Attached as **Table 2** is the proposed calculations of water demand for the Eastbank Lot 2 demands requiring augmentation. **Exhibit A** is the irrigation water demands.

- **Office/repair shop:** Drinking and sanitary purposes for a 4,000 square foot office / repair shop building occasional truck washing and floor washing and not more than 1,000 square feet of landscape irrigation.
- **Equine Hospital:** Drinking and sanitary purposes for a 4,000 square foot commercial business (equine hospital facility with four indoor stalls, a laundry facility, full bathroom, break room with a sink), the watering of domestic animals and livestock, stall washing/cleaning, laundry, hydrotherapy pool, and the irrigation of not more than 1,300 square feet of gardens, lawns, and landscaping. The facility is

expected to have an average occupancy of 10 animal nights per week and will be staffed initially with three full time employees and at full capacity the facility will have up to five full time employees. To be conservative, the water use estimates assume 100% occupancy rates and full staffing 365 days per year and assumes all indoor water use is 100% consumptive. Indoor uses in gallons per day (gpd) are estimated as follows:

- Horses - Full Occupancy at 4 per day using 12 gpd each 48 gpd
- Stalls - Washing/Cleaning at 4 per day using 20 gpd each 80 gpd
- Laundry Facility at an average of two loads per day 50 gpd each 100 gpd
- Workers - 5 full time employees at 35 gpd each 175 gpd
- Aquatread Hydrotherapy Pool at 100 gpd 100 gpd
- Total: 503 gpd at 365 days per year, total estimated water use: 0.563 AF per year.

Please complete this page if you selected industrial use on Page 3, No. 8

INDUSTRIAL WATER USES

Please describe your industrial development in some detail:

Irrigation (lawns, parks, open space)

Total area to be irrigated _____ Sq. Ft. or _____ Acres

Type of irrigation system (please check)

_____ Sprinkler
_____ Flood (irrigation ditch)

Please complete this page if you selected agricultural use on Page 3, No. 8.

AGRICULTURAL WATER USE

Irrigation

Type of crop(s) (pasture, alfalfa, beans, etc.) and irrigation system:

Crop: _____ Acres: _____ Sprinkler: _____ Flood:

Crop: _____ Acres: _____ Sprinkler: _____ Flood:

Crop: _____ Acres: _____ Sprinkler: _____ Flood:

Crop: _____ Acres: _____ Sprinkler: _____ Flood:

Stock Watering (cattle, horses)

Number of animals:

Months of use:

Other agricultural uses not listed:

VERIFICATION

STATE OF COLORADO)
) ss.
COUNTY OF GARFIELD)

I, Scott Grosscup, Attorney for the Roaring Fork Water & Sanitation District, being first duly sworn, upon oath, depose and state as follows:

- 1) I am the Applicant or a duly authorized officer, manager, agent or attorney-in-fact for the Applicant for this Application for Water Allotment Contract;
- 2) I have read and know the contents of this Application;
- 3) The information contained herein is an accurate and complete description of the Applicant's intended use of the Basalt Water Conservancy District's water rights;
- 4) The Applicant acknowledges that the accuracy and truth of all statements in this Application are conditions of approval of this Application by the Basalt Water Conservancy District and of the Contract to be made pursuant to such approval; and
- 5) I acknowledge that this application shall be subject to the District's Water Allotment Contract as approved and issued by the District.

Date: 2/27/19

By: 

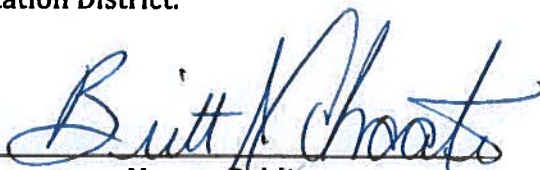
Print Name: Scott Grosscup

Title: attorney

Subscribed and sworn before me this 27th day of February, 2019 by Scott Grosscup as attorney for the Roaring Fork Water & Sanitation District.

Witness my hand and seal.

My commission expires:


Notary Public

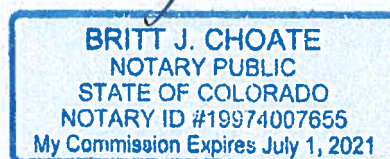


TABLE 1
RE-1 Eastbank School Proposed Water Demand Requiring Augmentation

All Values are in Acre-Feet

Month	Total Demand			Consumptive Use			Delayed Depletions		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	In-School	Irrigation	Total	In-School	Irrigation	Total	In-School	Irrigation Depletions with Delayed Return Flows	Total
January	1.547		1.547	0.077		0.077	0.077	-0.004	0.081
February	1.397		1.397	0.070		0.070	0.070	-0.001	0.076
March	1.547		1.547	0.077		0.077	0.077	0.000	0.085
April	1.497		1.497	0.075		0.075	0.075	0.000	0.082
May	1.547	0.178	1.725	0.077	0.142	0.220	0.077	0.169	0.271
June	0.749	0.262	1.010	0.037	0.210	0.247	0.037	0.235	0.299
July	0.773	0.287	1.060	0.039	0.229	0.268	0.039	0.245	0.312
August	0.773	0.223	0.996	0.039	0.178	0.217	0.039	0.176	0.236
September	1.497	0.148	1.645	0.075	0.119	0.194	0.075	0.105	0.198
October	1.547	0.084	1.631	0.077	0.067	0.145	0.077	0.051	0.141
November	1.497		1.497	0.075		0.075	0.075	-0.020	0.060
December	1.547		1.547	0.077		0.077	0.077	-0.009	0.075
Totals	15.918	1.182	17.100	0.796	0.946	1.741	0.796	0.946	1.916

Assumptions

(1)	# students & staff	542
	# gallons/person/day	30
	* Assumed half occupancy June-August	
(2)	Sq. Ft of Lawn Irrigated	21780
	Lawn Application Rate (af/ac)	2.36
(3)	Sum of Columns (1) & (2)	
(4)	% CU for Domestic/Commercial	5%
(5)	% Lawn Irrig. Efficiency	80%
	Consumption of Irrig (af/ac)	1.89
(6)	Sum of Columns (4) & (5)	
(7)	* No delayed depletions from Aspen Glen Wells	
	Equals column (4)	
(8)	First Month = $(2)_1 - [(2)_1 - (5)_1] * \text{Delayed Return Flow}_1 + (2)_2 - [(2)_2 - (5)_2] * \text{Delayed Return Flow}_2 + \dots$	
	* Negative values represent contributing return flows	
(9)	Sum of Columns (7) & (8) includes 10% Transit Loss	

Delayed Return Flows

Month	Percent returned
1	26%
2	38%
3	19%
4	11%
5	6%
Total	100%

* Glover Analysis of return flow lagging was determined using the following parameters:
T = 100,000gpd/ft, SY = 0.20, X = 1,600 feet,
W = 2,900 feet

TABLE 2
Eastbank LLC Lot 2 Proposed Water Demand Requiring Augmentation

All Values are in Acre-Feet

Month	Total Demand			Consumptive Use			Delayed Depletions		
	(1) Commercial (indoor)	(2) Irrigation	(3) Total	(4) Commercial (indoor)	(5) Irrigation	(6) Total	(7) Commercial (indoor)	(8) Irrigation Depletions with Delayed Return Flows	(9) Total
January	0.074		0.074	0.004		0.004	0.004	0.000	0.004
February	0.070		0.070	0.003		0.003	0.003	0.000	0.004
March	0.074		0.074	0.004		0.004	0.004	0.000	0.004
April	0.073		0.073	0.004		0.004	0.004	0.000	0.004
May	0.074	0.019	0.093	0.004	0.015	0.019	0.004	0.015	0.021
June	0.073	0.028	0.101	0.004	0.022	0.026	0.004	0.022	0.029
July	0.074	0.030	0.105	0.004	0.024	0.028	0.004	0.024	0.031
August	0.074	0.024	0.098	0.004	0.019	0.023	0.004	0.019	0.025
September	0.073	0.016	0.089	0.004	0.013	0.016	0.004	0.012	0.018
October	0.074	0.009	0.083	0.004	0.007	0.011	0.004	0.007	0.012
November	0.073		0.073	0.004		0.004	0.004	0.000	0.004
December	0.074		0.074	0.004		0.004	0.004	0.000	0.004
Totals	0.883	0.125	1.008	0.044	0.100	0.144	0.044	0.100	0.159

Assumptions

(1)	Commercial demands were assumed to be the combined total of the identified demands in BWCD Contract #312 for 0.320 AF/year & Contract #678 for 0.563 AF/year.
(2)	Sq. Ft of Lawn Irrigated 2,300
(3)	Lawn Application Rate (af/ac) 2.36
(4)	Sum of Columns (1) & (2)
(5)	% CU for Domestic/Commercial (Assumes all indoor uses return to centralized wastewater treatment facility) 5%
(6)	% Lawn Irrig. Efficiency 80%
(7)	Consumption of Irrig (af/ac) 1.89
(8)	Sum of Columns (4) & (5)
(9)	* No delayed depletions from Aspen Glen Wells Equals column (4)
(10)	* First Month = $(2)_1 - ((2)_1 - (5)_1) * \text{Delayed Return Flow}_1 + ((2)_2 - (5)_2) * \text{Delayed Return Flow}_2$
(11)	* Negative values represent contributing return flows
(12)	Sum of Columns (7) & (8) includes 10% Transit Loss

Delayed Return Flows*

Month	Percent returned
1	93%
2	7%
Total	100%

* Glover Analysis of return flow lagging was determined using the following paramters:
T = 100,000gpd/ft, SY = 0.20, X = 160 feet,
W = 1,040 feet

Figure 1

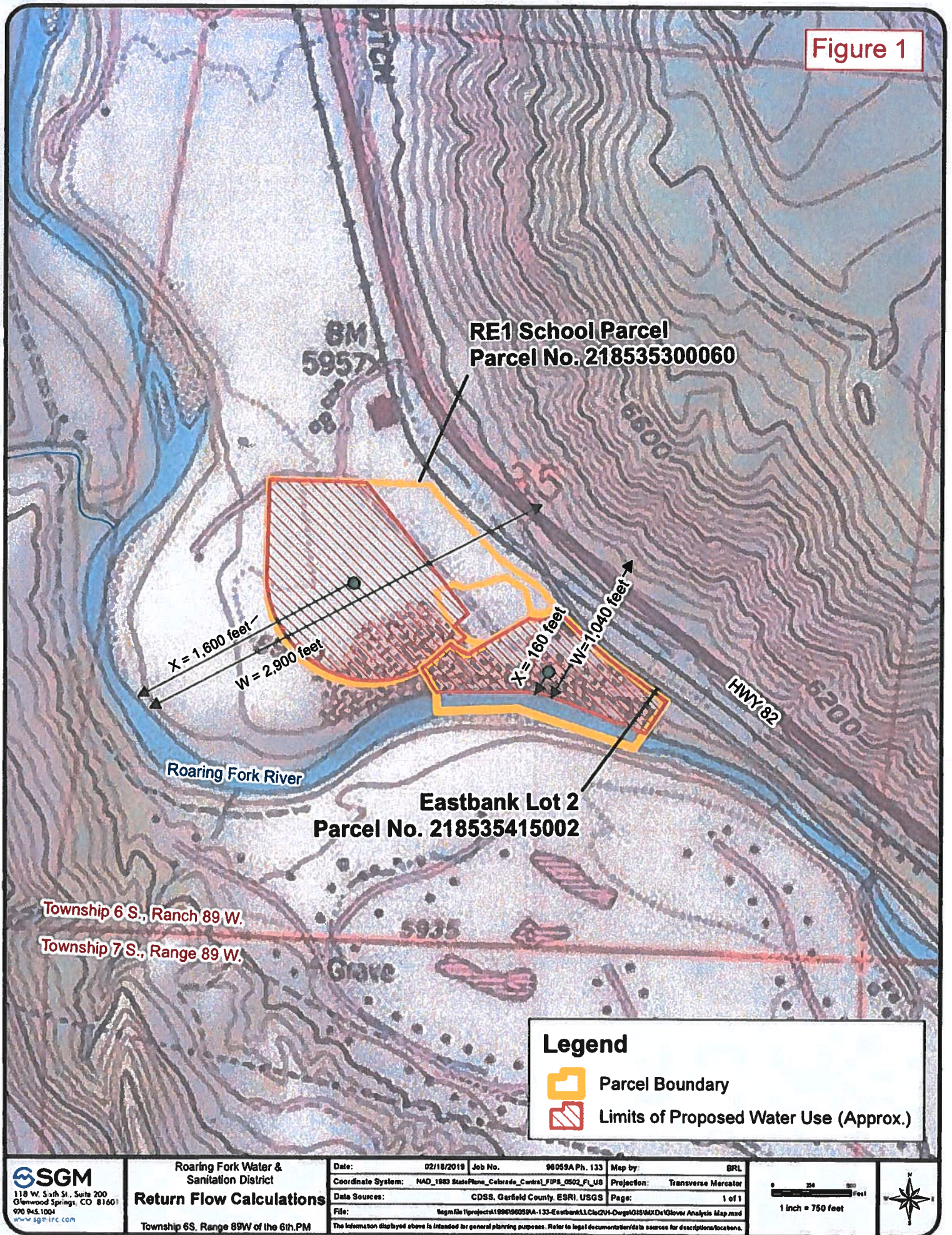


EXHIBIT A **RFWSD - RE-1 Eastbank School & Eastbank Lot 2** **Irrigation Consumptive Use Analysis**

Crop Consumptive Use Estimate, Modified Blaney-Criddle methodology (S.C.S. Technical Release 21)
 Crop = BLUEGRASS (utilizes Pochop Borelli & Burman's temperature and growth stage coefficients and elevation factors)

Climate Data source: Glenwood Springs #2

	Month #	Day #	Date	Month	Temp (°F)	Precip. (in.)	Temp (°F)	Precip. (in.)
Start of Growing Season =	5	1	121	Jan	24.4	1.5	23.6	1.77
End of Growing Season =	10	31	304	Feb	29.7	1.3	28.9	1.52
Season Length (inclusive) =	184	days		Mar	37.9	1.4	37.1	1.72
				Apr	46.4	1.6	45.6	1.97
Latitude (deg.min) =	39.29		39.48 Decimal Degrees	May	55.2	1.4	54.5	1.72
				Jun	63.2	1.1	62.5	1.34
Depth of Application (in) =	3			Jul	69.6	1.3	68.9	1.52
				Aug	67.8	1.5	67.1	1.79
Elevation (ft) =	5950			Sep	60.1	1.6	59.4	1.93
Elevation Factor =	1.04		(+2.865% per 1,000 ft above 4,429 ft)	Oct	49.2	1.5	48.4	1.76
Station Elevation =	5750			Nov	36.1	1.2	35.4	1.40
Temperature Adjustment =	0.72 °F			Dec	25.9	1.3	25.1	1.57
			Temp Adj. @ 3.6 °F/1000ft	Annual	47.1	16.6	46.4	20.00

Growing Period	Avg. Period Temp (°F)	% Daylight	(°p)/100	Kt	Growth Stage Coefficient Kc	Consumptive Crop Demand (in.)	Period Precip. (in.)	Period Effective Precip. (in.)	Consumptive Irrigation Requirement (in.)	Consumptive Irrigation Requirement (ft.)
Jan										
Feb										
Mar										
Apr					0.97					
May	54.5	10.00	5.45	0.83	1.00	4.71	1.72	1.29	3.42	0.28
Jun	62.5	10.01	6.25	0.86	1.10	6.14	1.34	1.11	5.03	0.42
Jul	68.9	10.18	7.01	0.88	1.06	6.79	1.52	1.29	5.50	0.46
Aug	67.1	9.55	6.41	0.87	0.98	5.70	1.79	1.42	4.28	0.36
Sep	59.4	8.37	4.97	0.84	0.97	4.25	1.93	1.40	2.85	0.24
Oct	48.4	7.69	3.73	0.81	0.89	2.80	1.76	1.19	1.61	0.13
Nov										
Dec										
Annual						30.39	10.05	7.70	22.69	1.89