


Memorandum

To: BWCD BOARD OF DIRECTORS
From: ERIC MANGEOT
CC: CHRIS GEIGER 
Date: FEBRUARY 23, 2018
File: APPLICATION

Applicant Name: Pitkin County - Open Space and Trails Department

Type of Use: Domestic Commercial
Industrial Agricultural

Amount: 1.0 AF 0.033 cfs 15 gpm

Location: Area A Area B Inclusion
County: PITKIN Contiguous:
BWCD Division: 6

Mid Valley Metro District Notice Required? Yes No

Blue Creek Water Rights Applied? Yes No

02CW77 Umbrella Plan Water Rights Applied? Yes No **Cost:** \$2,000

This application is to cover depletions associated with a "hoop house" area and shoulder season irrigation of up to 4.0 acres of vegetables. The hoop house area is expected to be between 3,000 and 6,000 square feet. The hoop house is a metal frame with a plastic sheet to trap heat that sits on the bare ground. The plants located in the hoop house are planted in the ground and irrigation water will have some return flow. Pitkin County (Applicant) anticipates the overall use of the well for the hoop house to be around 150,000 gallons per year with higher uses occurring in the late irrigation season. Pitkin County may later add a toilet and wash station estimated at 0.1 acre-feet (AF) per year. The Home Supply Ditch provides irrigation water to a 4 acre field near the well; however, the Applicant desires to provide shoulder season irrigation to mid-May, October, and November for vegetable crops. Total contract depletions are estimated at 1.0 AF as shown on the attached tables.

The property is located within the Division 6 boundary and is located along Highway 82 near Emma (Parcel No. 246513100013) in Pitkin County as shown on **Figure 1**. The property is also known as Lot 2 of the Thomas Emma Exemption.

The source of supply is from the proposed Emma Open Space Well located in the NE1/4, NW1/4, Section 13, Township 8 South, Range 87 West of the 6th P.M. at a distance of 200 feet from the North section line and 2,300 feet from the West section line.

Water User :	Pitkin County
Analysis Date :	February 23, 2018
District Area:	A
Source Series:	4
Maximum Demand:	15 0.033 (GPM) (CFS)

**BASALT WATER CONSERVANCY DISTRICT
WATER REQUIREMENTS**
(acre feet)

Month	Total Demand				Consumptive Use							*(13) Delayed Depletions	(14) Source of Aug/Replace	
	(1) Domestic	(2) Other	(3) Lawn Irrigation	(4) Crop Irrigation	(5) Livestock	(6) TOTAL	(7) Domestic In-house	(8) Other	(9) Lawn Irrigation	(10) Crop Irrigation	(11) Livestock			(12) TOTAL
January	0.009	0.005	0.000	0.000	0.000	0.014	0.008	0.035	0.000	0.000	0.000	0.046	0.013	GNM
February	0.008	0.050	0.000	0.000	0.000	0.058	0.007	0.035	0.000	0.000	0.000	0.046	0.051	GNM
March	0.009	0.005	0.000	0.000	0.000	0.014	0.008	0.035	0.000	0.000	0.000	0.046	0.022	GNM
April	0.008	0.005	0.000	0.000	0.000	0.014	0.007	0.035	0.000	0.000	0.000	0.046	0.013	GNM
May	0.009	0.076	0.000	0.250	0.000	0.335	0.008	0.035	0.000	0.200	0.000	0.266	0.256	GNM
June	0.008	0.076	0.000	0.000	0.000	0.084	0.007	0.035	0.000	0.000	0.000	0.046	0.124	GNM
July	0.009	0.076	0.000	0.000	0.000	0.085	0.008	0.035	0.000	0.000	0.000	0.046	0.080	GNM
August	0.009	0.076	0.000	0.000	0.000	0.085	0.008	0.035	0.000	0.000	0.000	0.046	0.079	GNM
September	0.008	0.074	0.000	0.000	0.000	0.082	0.007	0.035	0.000	0.000	0.000	0.046	0.079	GNM
October	0.009	0.005	0.000	0.150	0.000	0.164	0.008	0.035	0.000	0.120	0.000	0.178	0.139	GNM
November	0.008	0.005	0.000	0.000	0.000	0.014	0.007	0.035	0.000	0.000	0.000	0.046	0.039	GNM
December	0.009	0.005	0.000	0.000	0.000	0.014	0.008	0.035	0.000	0.000	0.000	0.046	0.013	GNM
TOTALS -->	0.101	0.460	0.000	0.400	0.000	0.961	0.091	0.414	0.000	0.320	0.000	0.907	0.907	

		Assumptions				Area A-4 Proposed Alluvial Well (Individual Glover) Permitt No. 308444 Roaring Fork River			
(1)	NUMBER OF RESIDENCES	(5)	# of Livestock @ 11 gals/day	(7)	% CU for Other	(9)	% Lawn Irrig. Efficiency Consumption of Irrig. (af/ac)	(10)	% Crop Irrig. Efficiency Consumption of Irrig. (af/ac)
	# persons/residence	N/A	0						
	# gallons/day	N/A	90						
(2)	Hoop House (AF)	0.460	80						
(3)	Sq. Ft. of Lawn Irrigated Lawn Application Rate (af/ac)	0	1.975						
(4)	Acres of Crop Irrigated (Shoulder Seaso Crop Application Rate (af/ac)	4.00	6600						

*(12), (13) Total Includes 5% Transit Loss
10% from Green Mtn.

TR-21 Calculation

Title: Pitkin County Open Space

Crop Consumptive Use Estimate, Modified Blaney-Criddle methodology (S.C.S. Technical Release 21)

enter data in shaded cells

Climate Data source: PRISM

Crop # and Name = 23 SMALL VEGETABLES

	Month #	Day #	Date
Start of Growing Season =	4	1	91
End of Growing Season =	11	30	334
Season Length (inclusive) =	244 days		

Latitude (deg.min) = 39.48 39.80 Decimal Degrees

Depth of Application (in) = 3

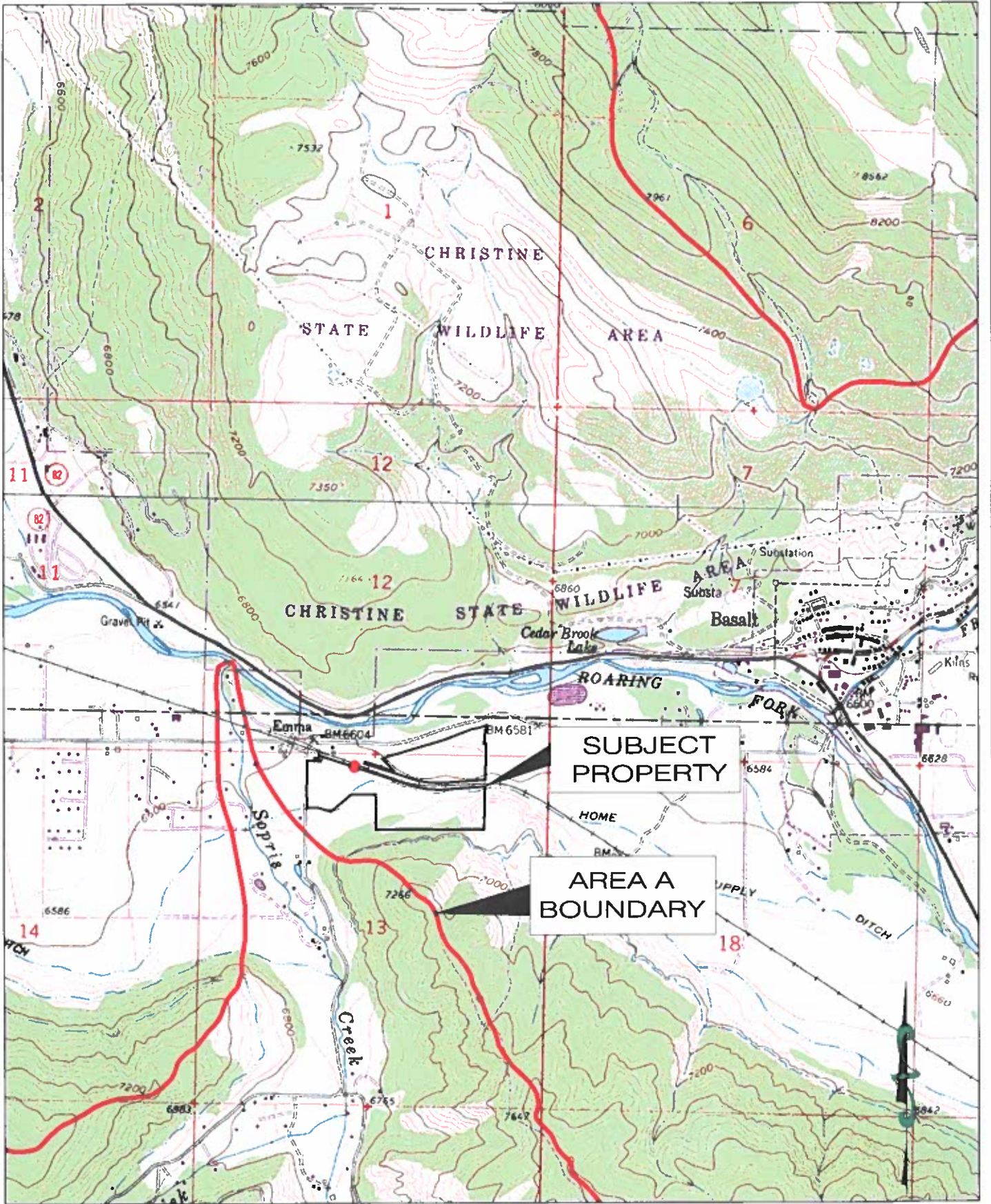
Elevation (ft) = 6600

NRCS Elevation factor = 1.201 (+10% per 1,000 meters above sea level)

Elevation Factor to Use = 1.201

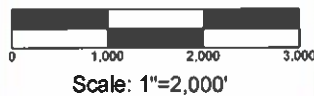
Month	Temp (°F)	Precip. (in)
Jan	22.4	0.84
Feb	27.8	0.79
Mar	35.1	0.58
Apr	42.5	1.35
May	52.1	1.02
Jun	59.3	1.73
Jul	66.7	1.14
Aug	64.6	1.99
Sep	55.8	1.96
Oct	44.4	1.57
Nov	34.0	0.80
Dec	23.4	1.32
Annual		15.09

Growing Period	Avg. Period Temp (°F)	% Daylight	(t*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	42.5	8.97	3.81	0.42	0.34	0.66	1.35	0.82	0.00	0.00
May	52.1	10.02	5.22	0.59	0.51	1.89	1.02	0.67	1.22	0.10
Jun	59.3	10.03	5.95	0.71	0.65	3.31	1.73	1.20	2.11	0.18
Jul	66.7	10.20	6.80	0.84	0.79	5.45	1.14	0.92	4.54	0.38
Aug	64.6	9.56	6.18	0.80	0.82	4.89	1.99	1.49	3.40	0.28
Sep	55.8	8.37	4.67	0.65	0.82	2.99	1.96	1.32	1.67	0.14
Oct	44.4	7.69	3.41	0.45	0.70	1.31	1.57	0.98	0.33	0.03
Nov	34.0	6.72	2.28	0.27	0.58	0.44	0.80	0.49	0.00	0.00
Dec										
Annual						20.95	11.56	7.90	13.26	1.11



**Figure 1: Pitkin County
Open Space and Trail Department**
Basalt Water Conservancy District

File: 033-72
Date: 02/23/18



**RESOURCE
ENGINEERING, INC.**
909 Colorado Avenue
Glenwood Springs, CO 81601
(970) 945-6777 Voice 945-1137 Facsimile

**APPLICATION FOR WATER ALLOTMENT CONTRACT
BASALT WATER CONSERVANCY DISTRICT**

1. Applicant(s) Contact Information

- a. Name: Pitkin County
Open Space and Trails Department
Paul Holsinger, Agriculture and Conservation Easement Administrator
- b. Mailing Address:
806 West Hallam Street
Aspen, CO 81611
- c. Street Address:
Same as above
- d. Telephone Numbers:
970-920-5237 (Office)
970-581-3776 (Cell)
- e. Email Address:
Paul.Holsinger@Pitkincounty.com
- f. If Applicant is represented by an Attorney, please provide the Attorney's contact information, including name, address, telephone, and email:
Pitkin County Attorney
Attn: Laura Makar
123 Emma Road, #204
Basalt, CO 81621
Fax: (970) 920-5198
E-Mail: Attorney@pitkincounty.com
- g. Emergency Local Contact Information, including name, address, telephone, and email:
Gary Tennenbaum
806 West Hallam Street
Aspen, CO 81611
970-920-5355
- 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:
Paul Holsinger

806 West Hallam Street
Aspen, CO 81611
970-920-5237
Paul.Holsinger@Pitkincounty.com

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

Agriculture

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)*:

100 Sopris Creek Road
Basalt, CO 81

4. Elevation of property: 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 - Emma Open Space Well.

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

Legal Description: NE Quarter, NW Quarter, Section 13, Township 8 S, Range 87 W, of the 6th Principal Meridian, at a location 200 feet from the N Section line and 2,300 feet from the W Section line.

UTM Coordinates (NAD 83):

Northing: _____.

Easting: _____.

Zone 12 / Zone 13.

If diversion point is a well, please provide the Well Permit No. 308444.

Is the well operational/active? Yes, No

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

The designed irrigation system that will be hooked up will have a flow meter.

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

6. Legal Water Supply: (please check one)

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 Fryngpan 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)

Tap to central waste water treatment facility
 Septic tank/leachfield system
 Evapotranspiration system
 Other: The intended use of the water will be irrigation of crops grown in the ground so no waste treatment is necessary. In the future Pitkin County may pursue a toilet and wash station for a structure but that has not been decided and will depend on future use and output of the well.

8. Proposed use of water (please check)

Domestic/Municipal (single family home(s), duplex(s), condominium(s), mobile home(s), apartment). Please complete page four of this application.
 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.

X 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: NA. (Note: Copy of the Resolution of other documentation evidencing such approval should be submitted with application.)

Pitkin County is the applicant and the improvements were included in guiding program documents for the property.

9. What other water rights are associated with or used on the property?
2 cfs - Home Supply Ditch

10. What other uses of water occur on the property?
None, irrigation is the only use of the water rights.

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 _____ Sq. Ft. or _____ Acres

Type of irrigation system (please check)

_____ Sprinkler

_____ Flood (irrigation ditch)

Domestic stock watering (cattle, horses)

Number of animals:

Period of use (months):

Other domestic/municipal uses not listed:

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 _____ Sq. Ft. or _____ Acres

Type of irrigation system (please check)

_____ Sprinkler

_____ Flood (irrigation ditch)

Other Commercial Uses Not Listed:

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: Vegetable Acres: 4 Sprinkler: Yes Flood:
For shoulder season only (mid-march to mid may; October and November

Stock Watering (cattle, horses) NA

Other agricultural uses not listed:

The main use for the well water will be for irrigation of plants grown in 3,000 – 6,000 square feet of “hoop house” area. The hoop house is simply a metal frame with a plastic sheet to trap heat that sits on bare ground. The plants located in the hoop house are planted in the ground and irrigation water will have some return flow.

The County anticipates the overall use the well to be around 150,000 gallons per year for irrigation at approximately 300 – 400 gallons a week in March, April, October, November and a high use time of 2,000 – 4,000 gallons a week from August to October depending on condition.

Pitkin county would also like to plan for the possibility of a toilet and wash station and are using the EQR rate of 0.1 acre/ft per year. If the toilet and wash station is approved for the property a septic/leachfield will be developed.

The total use comes out to .46 acre ft for irrigation and .1 for the EQR for a total of .56 acre feet per year.

VERIFICATION

STATE OF COLORADO)
) ss.
COUNTY OF GARFIELD)

I, Paul Holsinger (name of Applicant or Applicant's duly authorized representative),
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: 2/23/18

By: Paul Holsinger

Print Name: Paul Holsinger

Title: Agriculture & CE Administrator

Subscribed and sworn before me this 23 day of February, 2018 by
Paul Holsinger

Witness my hand and seal.

Melody Morris
Notary Public

My commission expires:

06/28/2020

