

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

Bill Ritter, Jr.
Governor

FROM: Linda J. Bassi, Chief
Kaylea White
Stream and Lake Protection Section

Harris D. Sherman
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

DATE: January 20, 2009

Dan McAuliffe
CWCB Deputy Director

SUBJECT: **Agenda Item No. 15, January 27-28, 2009 Board Meeting**
Stream and Lake Protection Section – Roaring Fork River Basin Proposed
Water Acquisition

Introduction

The Pitkin County Board of County Commissioners (Pitkin County”) has offered the Colorado Water Conservation Board (“CWCB”) a long term loan of a water right for instream flow (“ISF”) use on Maroon Creek and the Roaring Fork River in Pitkin County. This is the first long term loan of water offered to the Board since the passage of House Bill 08-1280. The instrument of the loan is a revocable trust (“Trust Agreement”) wherein Pitkin County is the Settlor and CWCB is the Trustee. The first component of the proposed long term loan includes 4.3 cfs in the Stapleton Brothers Ditch for ISF use on Maroon Creek and the Roaring Fork River. The Trust Agreement contemplates an additional component including approximately 34 additional water rights in the Roaring Fork Basin that may be used for ISF purposes. Within 12 months of the effective date of the Trust Agreement, Staff will return to the Board to request the Board’s consideration of the additional water rights. A draft Trust Agreement is attached as Appendix A. The water rights to be loaned are shown in Exhibits A-1 and A-2 to the Trust Agreement. Maps are attached as Appendix C.

Staff Recommendation

Pursuant to ISF Rule 6b, the Board’s consideration of this proposal at this meeting will initiate the 120-day period for Board review. **No formal action is required at this time.** Staff believes that this proposed acquisition will benefit the ISF Program. The initial presentation of this proposal provides an opportunity to the Board and the public to identify questions or concerns that Staff or Pitkin County will address at this or a subsequent meeting.

1. The Stapleton Brothers Ditch Water Right

The Stapleton Brothers Ditch historically diverted water from Maroon Creek, approximately two miles upstream of the confluence of Maroon Creek and the Roaring Fork River. The Stapleton

Brothers Ditch water right was originally decreed for 8.0 cfs absolute for irrigation purposes by the Pitkin County District Court on October 16, 1933 in Civil Action No. 3000 with an appropriation date of June 30, 1904 (decree attached as Appendix D). The decree identifies approximately 400 acres of land in the vicinity of the Aspen-Pitkin County Airport. However because of actual historical irrigation acreage, the historical consumptive use was quantified for dry up of 136 acres for a total of 220 acre-feet per year of consumptive use credits from May 1 through October 31, and decreed in District Court, Water Division No. 5, Case No. 99CW306, (decree attached as Appendix E). The historical consumptive use analysis was performed using the period of 1904-2004. As part of changing this water right to add ISF use, the historical consumptive use analysis will need to be updated to include recent years up to the year the new water rights change application is filed.

2. The Board's Water Acquisition Procedures

Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program ("ISF Rules") sets forth the Board's procedures for acquiring water for ISF use. Modifications to Rule 6 are expected to be adopted by the Board at this January 2009 meeting and become effective March 2, 2009. Therefore, the new rules have been used to guide Staff's review of this proposal. Section 37-92-102(3), C.R.S. provides 120 days for the Board to determine what terms and conditions it will accept in an acquisition agreement for water, water rights, or interests in water to preserve or improve the natural environment. ISF Rule 6 requires a minimum of two Board meetings to allow for public input prior to taking final action on a proposed acquisition. The Board's initial consideration of this proposal at this Board meeting initiates the 120-day time period for the Board to consider the terms and conditions of the proposed acquisition. Final action on the proposal could occur at the March 2009 Board meeting. ISF Rule 6m.(4) provides that any person may request the Board to hold a hearing on the proposed acquisition, and that such a request must be filed within twenty days of this Board meeting.

ISF Rules 6e and 6f require the Board to evaluate the appropriateness of the acquisition and determine how best to utilize the acquired water rights to preserve or improve the natural environment. The Rules list several factors the Board may consider in its evaluation of the acquisition; those factors are addressed in this memo.

Pursuant to statute, Staff has requested recommendations from the Division of Wildlife, the Division of Parks and Outdoor Recreation, the U.S. Department of Agriculture and the U.S. Department of Interior. Pursuant to ISF Rule 6m(1), Staff has provided notice of the proposed acquisition to all persons included on the appropriate ISF Subscription Mailing Lists and provided notice to the State Engineer's Substitute Supply Plan Notification List. Staff has requested a biological analysis from the Colorado Division of Wildlife ("CDOW") pursuant to Rule 6f(2). CDOW's recommendation regarding this acquisition proposal is attached as Appendix G.

3. Summary of Proposed Acquisition

Pitkin County is proposing to convey an interest in the Stapleton Brothers Ditch water right and other water rights to the Board for ISF use via a revocable trust instrument. The trust arrangement is necessitated by Pitkin County's water acquisition mechanisms. Some of the water rights were acquired through the County's Open Space and Trails Department with restricted funds and cannot be sold or otherwise converted without voter approval and replacement of the water rights. Other water rights were acquired through the County's Airport Enterprise Fund, which is governed by the Taxpayers' Bill of Rights ("TABOR"), and cannot be sold or leased absent compliance with TABOR restrictions. Pitkin County is dedicated to

protecting the flows of the rivers and streams in Pitkin County. The County believes that the CWCB's Instream Flow Program presents a valuable opportunity to use the designated water rights towards that goal. The proposed Trust Agreement contains the following terms and conditions (paraphrased from the proposed Agreement):

- a. Within six (6) months of the execution of the Trust Agreement, the Board and Pitkin County shall file a joint application with the Water Court to change the Stapleton Brothers Right to add instream flow as a beneficial use.
- b. Within twelve (12) months of the effective date of the Trust Agreement, the Board and Pitkin County shall begin the process to obtain CWCB approval to add the water rights identified in Exhibit A-2 of the Trust Agreement to the Trust Estate, and subsequently to apply to Water Court to add instream flow as a beneficial use.
- c. The Board and Pitkin County will each bear its own costs and expenses in the Water Court cases and each shall bear one-half of the responsibility for services of consulting engineers.
- d. Under certain conditions, Pitkin County may from time to time add or withdraw all or part of the water rights in the Trust Estate by delivering an instrument in writing to the Board.
- e. The Board commits to use the Stapleton Brothers Right for ISF purposes to preserve or improve the natural environment to a reasonable degree and to take all reasonable steps to enforce said ISF rights and protect them from injury.
- f. The Board shall be responsible for all administration, monitoring and measuring required by the Division Engineer to use the Trust Estate for ISF purposes. The Board shall provide annual updates to Pitkin County of the use of the Trust Estate for ISF purposes.
- g. The term of the loan is perpetual unless terminated by Pitkin County. The loan may not be terminated during the initial five (5) year period after the Trust Agreement is signed.

4. Existing Instream Flow Water Rights

The Board currently holds ISF water rights on Maroon Creek and the Roaring Fork River that could benefit from this acquisition.

Case No.	Stream	Reach	Amount (cfs)	Approp. Date
5-76W2945	Maroon Creek	conf of East & West Maroon Ck to Roaring Fork River	14 (Jan1 – Dec 31)	1-14-1976
5-85CW646	Roaring Fork River	conf Maroon Ck to conf Frying Pan R.	55(Apr 1 – Sept 30) 30 (Oct 1 – Mar 31)	11-8-1985

5. Existing Natural Environment

Maroon Creek is classified as a medium stream (between 20 and 35 feet wide). Fishery surveys indicate the stream environment of Maroon Creek supports self-sustaining populations of brook trout, speckled dace and mottled sculpin.

The Roaring Fork River is classified as a river (between 60 and 99 feet wide). Fishery surveys indicate that the river environment of the Roaring Fork supports self-sustaining populations of brown trout, mountain whitefish, mottled sculpin, and white sucker.

6. Natural Flow Regime

Maroon Creek originates at the confluence of East Maroon Creek with West Maroon Creek at an elevation of approximately 9,000 feet in the White River National Forest. It flows in a

northeasterly direction for 9 miles until it joins the Roaring Fork River at an elevation of approximately 7,700 feet. Streamflow records from a USGS gage approximately 3-4 miles upstream of the Ditch for the years 1969-1994 indicate that average mean daily flows in the summer ranges from 38 – 247 cfs, with average lowest daily flows from 18 – 82 cfs.

The Roaring Fork River originates at the outlet of Independence Lake at an elevation of approximately 12,500 feet in the White River National Forest. It flows in a northwesterly direction for 60.5 miles until it joins the Colorado River at an elevation of approximately 5,760 feet. Streamflow records from a gage just upstream of the City of Aspen indicate that average monthly flows range from 50 – 400 cfs.

7. Proposed Use of the Stapleton Brothers Ditch Water Right:

The Board could use the acquired right to preserve and improve the natural environment to a reasonable degree in Maroon Creek and the Roaring Fork River in the following reaches:

Maroon Creek – A two mile reach of the natural environment on Maroon Creek could be preserved and improved from the headgate of the Stapleton Brothers Ditch to the confluence with the Roaring Fork River. The loaned 4.3 cfs could be used to bring flows up to 14 cfs at times when the ISF water right is not being met, or could be added to the existing 14 cfs ISF water right for a total of 18.3 cfs during the irrigation season.

Roaring Fork River – A reach of approximately one mile of the natural environment of the Roaring Fork River could be preserved and improved from its confluence with Maroon Creek to the accrual point of historical irrigation return flows near the airport. The loaned 4.3 cfs could be used to bring flows up to 55 cfs at times when the ISF water right is not being met, or could be added to the existing 55 cfs ISF water right for a total of 59.3 cfs during the irrigation season.

The remaining 15.1 miles of the ISF reach could be preserved by the historical consumptive use amount by bolstering the existing 1985 appropriation with a 1904 appropriation as part of the 55 cfs ISF flow amount.

8. Historical Use and Historical Return Flows of the Stapleton Ditch Water Right

Pitkin County has provided a report prepared by Martin and Wood Water Consultants, Inc. (“Martin and Wood”) (attached as Appendix F) that provides background and historical use information on the Stapleton Brothers Ditch water right. In Case No. 99CW306 (Appendix E), the Division 5 Water Court decreed slightly lower historical consumptive use amounts than those presented in the Martin and Wood report. The court stated that the decreed values are “*res judicata* as to the historic consumptive use of the Stapleton Brothers Ditch water right from 1904 through 2004 in any subsequent proceeding of this Court.” This Court’s decreed values will need to be modified to include the period of use between 2004 and the date the change case application is filed to add ISF use.

1. For the 8.0 cfs water right, HCU monthly volumes decreed in Case No. 99CW306 (1904-2004) are as follows:

	May	June	July	Aug	Sept	Oct	Total
Acre-ft	29.0	52.0	59.0	44.0	30.0	6.0	220.0
cfs	0.47	0.87	0.96	0.72	0.50	0.10	

2. For a 4.34 cfs (54.2% of the original 8.0 cfs) water right, HCU monthly volumes are estimated to be as follows:

	May	June	July	Aug	Sept	Oct	Total
Acre-ft	15.7	28.2	32.0	23.9	16.3	3.3	119.25
cfs	0.25	0.47	0.52	0.39	0.27	0.05	

The values in the tables above were calculated based on values in the change decree. These values may be adjusted in accordance with subsequent engineering.

Based on existing engineering, it appears that diversions were 100% depletive to Maroon Creek, because the return flows accrued to the Roaring Fork River. Therefore, the historical depletion to Maroon Creek is equal to the diversion rate.

The ISF on the Roaring Fork River relies on the historical return flows of this water right. However, the pattern of accrual to the stream should remain unaffected by changing the water right to instream flow use because it appears that the historical return flows accrued to the Roaring Fork River within the same month it was diverted. The timing of return flows will be checked with subsequent engineering to assure this is the case.

9. Potential Benefits of Donation

Maroon Creek – The Board currently holds an ISF water right on Maroon Creek for 14 cfs year round, adjudicated in 1976. This proposed acquisition could help preserve the natural environment to a reasonable decree by bringing flows up to 14 cfs at times when the ISF water right is not being met, and could increase the water right up to 18.3 cfs during the irrigation season since the acquired water would be left undiverted in Maroon Creek. The additional flows are expected to benefit the water dependent natural environment of Maroon Creek. In addition to providing benefits on Maroon Creek below the historical diversion point, the Board's ability to call this senior right resulting from the acquisition of this water right will protect flows above the diversion point from junior water rights and thereby will benefit the fish habitat existing in the entire Maroon Creek ISF reach

Roaring Fork River –The Board holds an ISF water right on the Roaring Fork River for 55 cfs during the summer and 30 cfs during the winter, adjudicated in 1985. Over a one-mile reach, this proposed acquisition could increase the water right to 59.3 cfs during the irrigation season since the acquired water would no longer be diverted. Over the entire reach, including the upper one-mile reach and the remaining 15.1 miles, historical consumptive use associated with the Stapleton Brothers Ditch water right could help preserve the natural environment to a reasonable decree by bringing flows up to 55 cfs at times when the ISF water right is not being met, benefiting the Roaring Fork River fish habitat.

Accepting this senior water right will potentially increase the frequency that the existing ISF water rights on Maroon Creek and the Roaring Fork River will be fully satisfied, which in turn should increase the quality of the water dependent natural environment within these two streams. Furthermore, the additional flows in Maroon Creek and part of the Roaring Fork River are expected to improve the natural environment to a reasonable degree within the ISF reaches.

10. Other Water Rights in Proposed Reach

Maroon Creek – There are several water rights that divert from Maroon Creek both upstream and downstream of the Stapleton Ditch headgate. Based on Staff’s preliminary investigation, all of the water rights that divert downstream of the Stapleton Brothers headgate have a junior priority to the water rights to be acquired. Some of the upstream water rights are senior and some are junior to the water rights to be acquired.

Roaring Fork River – There are several large water rights that divert from the affected reach of the Roaring Fork River. Some of these water rights are senior and some are junior to the water rights to be acquired.

11. Potential Injury to Existing Rights

Maroon Creek – The Stapleton Brothers Ditch water right, decreed for irrigation purposes in 1933, was appropriated in 1904. It appears that except for a small amount of ditch seepage losses that might have returned to Maroon Creek, the diverted water was fully consumptive to Maroon Creek, because irrigation return flows accrued to the Roaring Fork River.

Roaring Fork River – According to the Water Commissioner, several water rights are diverted along this reach of the Roaring Fork River. Because the water will be left in the stream, and because historical return flows were apparently instantaneous (i.e. returned to the river within 30 days of diversion), it is expected that the Board’s use of this water will not result in injury.

The water rights on both streams will be examined to ensure that none will be injured by this acquisition. Terms and conditions will be included in any decree allowing this water to be used for ISF purposes that will assure that no vested water rights on Maroon Creek or the Roaring Fork River will be injured as a result of changing the Stapleton Brothers Ditch right to add ISF use.

12. Green Mountain Historic User Pool

The Stapleton Brothers Ditch water right is junior to the 730 cfs Grand Valley Project right and has therefore likely benefited to some degree in some years from the Green Mountain Historic Users Pool (HUP) releases with respect to the Cameo call. The Division Engineer’s position is that the HUP benefit will not apply to the ISF use, which is considered a non-preferred use.

When the Board uses this water for ISF purposes, the Stapleton Brothers Ditch water right would lose the HUP protection and could be diverted by a downstream junior water right that is protected under the HUP.

13. Administerability

Staff has confirmed with the Division Engineer, Alan Martellaro, that this water right should be administrable when decreed for ISF use.

14. Effect of Proposed Acquisition on Maximum Utilization of the Waters of the State

The Stapleton Brothers Ditch water right historically was used to irrigate grass and alfalfa, and the consumptive use was historically lost from the stream. The proposal to change and use the water right for ISF use will keep the water in the stream, thus making the water available for other appropriators downstream of ISF reaches, which in turn, will contribute to the maximum utilization of the waters of the state.

15. Effect of Proposed Acquisition on Any Relevant Interstate Compact Issue

This water right is a pre-1922 water right and is senior to a compact call. It is anticipated that this water will be diverted and used by other water users downstream. Consequently, it does not appear that this acquisition will raise any compact issues.

16. Availability of the Acquired Water for Subsequent Use Downstream

Acquisition of the Stapleton Brothers Ditch water right will leave up to 131 acre-feet of water in stream that was previously lost to the system through consumptive uses. That water could be available for subsequent use downstream of the Maroon Creek and the Roaring Fork River ISF reaches.

17. Costs to complete the transaction, or other associated costs

There are various costs associated with completing this water right acquisition. Martin and Wood Water Consultants, Inc. (Martin and Wood) prepared an engineering report, dated June 7, 2000, evaluating the Stapleton Brothers Ditch water right's historical uses. Potential costs to the Board include costs associated with analysis of the water right acquisition proposal, including updating or expanding the Martin and Wood report, and any costs associated with preparing, filing and prosecuting a change of water right application to add ISF use. Since the Board already holds and protects existing ISF water rights on Maroon Creek and the Roaring Fork River, staff does not expect to incur significant additional costs to protect the acquired rights.

Staff Recommendation

Pursuant to ISF Rule 6b, the Board's consideration of this proposal at this meeting will initiate the 120-day period for Board review. **No formal action is required at this time.** Staff believes that this proposed acquisition will benefit the ISF Program. The initial presentation of this proposal provides an opportunity to the Board and the public to identify questions or concerns that Staff or Pitkin County will address at this or a subsequent meeting.

Attachments

APPENDIX A

Declaration of a Revocable Trust
(The Pitkin County Water Rights Revocable Trust)

RECITALS

WHEREAS, this Declaration of a Revocable Trust ("Trust Agreement") is made and executed this _____ day of _____, 20____, by and between the Board of County Commissioners for the County of Pitkin ("Settlor") and the Colorado Water Conservation Board ("Trustee" or "CWCB") (collectively, the "Parties").

WHEREAS, the Trustee is a Colorado administrative agency that was created by statute in 1937 for the purpose of aiding in the protection and development of the waters of the state. It is responsible for water project planning and finance, stream and lake protection, flood hazard identification and mitigation, weather modification, river restoration, water conservation and drought planning, water information, and water supply protection. Pursuant to Colorado law, it has the exclusive authority to hold instream flows in the state of Colorado.

WHEREAS, the Trustee is authorized by Section 37-92-102(3), C.R.S. (2008), to acquire from any person, including any governmental entity, such water, water rights or interests in water as it determines may be required for instream flows to preserve or improve the natural environment to a reasonable degree and to take whatever action may be needed to ensure such instream flows remain in the river.

WHEREAS, the Trustee holds numerous instream flow water rights in the Roaring Fork and Crystal Rivers, and their tributaries ("Roaring Fork River Basin"). In dry years, these instream flow water rights have been known to suffer shortages to varying degrees, with some shorted in the extreme.

WHEREAS, Settlor owns various water rights in the Roaring Fork River Basin, which it holds to manage for the citizens of Pitkin County. Settlor may also acquire various water rights through lease or other contractual arrangements or acquisitions. Some of Settlor's water rights were acquired through Settlor's Open Space and Trails Department with restricted funds and may not be converted or sold without voter approval. Some of Settlor's water rights were acquired through Settlor's Airport Enterprise Fund pursuant to the Taxpayers' Bill of Rights ("TABOR"), under Article X, Section 20 of the Colorado Constitution, and must be managed in a manner consistent with the nature of such enterprise.

WHEREAS, Settlor desires to create a revocable trust of the water rights described in **Exhibits A-1 and A-2**, attached hereto and incorporated herein by reference (collectively, the "Trust Estate") for the purposes hereinafter set forth. Creation of the revocable trust is intended to assist in providing more water when needed for the Trustee's instream flow reaches in the Roaring Fork River Basin.

WHEREAS, Section 37-92-102(3), C.R.S., allows the Trustee to use water rights acquired through leases, loans and other arrangements for instream flow purposes pursuant to amendments to Sections 37-92-102(3), 37-92-103(2), and 37-92-305(3), C.R.S. House Bill 08-1280, signed by Governor Ritter on April 21, 2008, provides certain protections for water rights provided to the CWCB for use in the Instream Flow Program, pursuant to amendments to Sections 37-92-102(3), 37-92-103(2) and 37-92-305(3), C.R.S. It is specifically contemplated that each of those protections shall apply to the Trust Estate and a description of those protections shall be included in each of the water court decrees obtained pursuant to this Trust Agreement.

WHEREAS, the Settlor agrees to execute such further instruments as shall be necessary to vest the Trustee with full authority to manage the Trust Estate, and the Trustee agrees to hold the Trust Estate for the following uses and purposes set forth herein and subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, it is agreed as follows:

REVOCABLE TRUST

I. Purpose of the Trust. The purpose of the Trust is to preserve and improve the natural environment to a reasonable degree by providing water rights to supplement instream flows in the Roaring Fork River Basin. In accordance with the entrustment by Settlor and the provisions of this Trust Agreement, Trustee will hold, manage, and operate the Trust Estate in a manner that maximizes the purpose of the Trust.

II. Beneficiary of the Trust.

The Trust is a self-benefited trust, with the Board of County Commissioners of Pitkin County being the beneficiary of the Trust.

III. Delivery of the Trust Estate.

A. Ownership of the Trust Estate shall not be transferred from the Settlor to the Trustee as a result of the entrustment contemplated by this Trust Agreement.

B. The Settlor and Trustee shall, within six (6) months of the execution of this Trust Agreement, file an application, as co-applicants, with the District Court in and for Water Division 5 (the "Water Court") to change the use of the Stapleton Brothers Ditch water rights identified in **Exhibit A-1** to add instream flows as a beneficial use (the "Stapleton Water Court case"). The Stapleton Water Court case shall be prosecuted pursuant to Sections 37-92-102(3) and 37-92-305, C.R.S., as amended by House Bill 08-1280. The protections of House Bill 08-1280 shall be specifically incorporated in any decree obtained in the Stapleton Water Court case. The Settlor shall have the right to dismiss the Stapleton Brothers Water Court case if it appears likely to the Settlor that a decree will be entered with terms and conditions that would: (i) establish an unreasonable obligation on the Settlor or (ii) substantially decrease the value of the

Stapleton Brothers Ditch water rights. The Settlor shall consult with the Trustee prior to taking any action to dismiss the Stapleton Water Court case. The Stapleton Brothers Ditch water rights identified in **Exhibit A-1** shall be deemed delivered to and available for use by the Trustee upon receipt of a final decree in the Stapleton Water Court case.

C. The Settlor and Trustee's staff shall, within twelve (12) months of the Effective Date of this Agreement, begin the process to obtain approval of the CWCBC to add the water rights identified in **Exhibit A-2** to the Trust Estate in accordance with the procedures set forth in Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, or any other applicable Rule duly promulgated by the CWCBC and in effect at the time of such addition. Settlor shall not be obligated to proceed with such addition if CWCBC approval requires terms and conditions that would: (i) establish an unreasonable obligation on the Settlor or (ii) substantially decrease the value of the water rights. After obtaining such approval and within twelve (12) months of receipt of a final decree in the Stapleton Water Court case, the Settlor and Trustee shall file a Water Court application, as co-applicants, with the Water Court to change the use of the water rights identified in **Exhibit A-2** to add instream flows as a beneficial use (the "Remainder Water Court case"). The Remainder Water Court case shall be prosecuted pursuant to Sections 37-92-102(3) and 37-92-305, C.R.S., as amended by House Bill 08-1280. The protections of House Bill 08-1280 shall be specifically incorporated in any decree obtained in the Remainder Water Court case. The Settlor shall have the right to dismiss the Remainder Water Court case if it appears likely to the Settlor that a decree will be entered with terms and conditions that would: (i) establish an unreasonable obligation on the Settlor or (ii) substantially decrease the value of the remaining water rights. The Settlor shall consult with the Trustee prior to taking any action to dismiss the Remainder Water Court case. The water rights changed in the Remainder Water Court case shall be deemed delivered to and available for use by the Trustee upon receipt of a final decree in the Remainder Water Court case.

D. Each Party shall bear its own costs and expenses in the Water Court cases. The parties shall each bear one-half of the responsibility for any services of an engineer or other consultant necessary to file and prosecute the Water Court cases.

IV. Settlor's Warranties, Rights, and Obligations.

A. The Settlor warrants that it has the legal status and legal capacity to execute, deliver, and perform all requirements of this Trust Agreement and that it has full power and authority to execute and deliver this Trust Agreement and all other documents to be entered into in relation to this Trust Agreement, and it has full power and authority to operate under the entrustment provided for herein.

B. The Settlor reserves the exclusive right at any time and from time to time by instrument in writing signed by the Settlor and delivered to the Trustee to modify or alter this Trust Agreement, in whole or in part, without the consent of the Trustee provided that the duties, powers, and liabilities of the Trustee under this Trust Agreement shall not be changed without its consent; and the Settlor reserves and shall have the right, by instrument in writing, signed by the Settlor and delivered to the

Trustee, to cancel and annul this Trust Agreement, as provided in Section XIV of this Trust Agreement.

C. After the expiration of the Initial Period defined in Section XIV.B, the Settlor may from time to time withdraw all or part of the water rights in the Trust Estate free of trust by delivering an instrument in writing duly signed by the Settlor to the Trustee substantially similar to that attached hereto as **Exhibit B**. Such instrument shall describe the property or portion thereof desired to be withdrawn. Upon receipt of such instrument, the Trustee shall thereupon immediately cease the use of the water rights described therein. At least thirty (30) days prior to any such withdrawal, the Settlor shall consult with the Trustee regarding the circumstances and timing of the intended withdrawal.

D. The Settlor may at any time and from time to time add water rights to the Trust Estate by providing written notice to the Trustee of such intent, describing the property or portion thereof desired to be added to the Trust Estate, in a form substantially similar to that attached hereto as **Exhibit C**. The Settlor may add water rights to which it holds title or in which it has a contractual or other interest. The Settlor and the Trustee's staff shall obtain approval of the CWCB to add such water rights to the Trust Estate in accordance with the procedures set forth in Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, or any other applicable Rule duly promulgated by the CWCB and in effect at the time of such addition. Settlor shall not be obligated to proceed with such addition if CWCB approval requires terms and conditions that would: (i) establish an unreasonable obligation on the Settlor or (ii) substantially decrease the value of the water rights. After obtaining such approval, the Settlor and Trustee shall file a Water Court application to add instream flow uses as a beneficial use ("Supplemental Water Court case"). Any Supplemental Water Court case shall be prosecuted pursuant to Sections 37-92-102(3) and 37-92-305, C.R.S., as amended by House Bill 08-1280. The protections of House Bill 08-1280 shall be specifically incorporated in any decree obtained in the Supplemental Water Court case. The Settlor shall have the right to dismiss any Supplemental Water Court case if it appears likely to the Settlor that a decree will be entered with terms and conditions that would: (i) establish an unreasonable obligation on the Settlor or (ii) substantially decrease the value of the supplemental water rights. The Settlor shall consult with the Trustee prior to taking any action to dismiss any Supplemental Water Court case. The water rights changed in any Supplemental Water Court case shall be deemed delivered to and available for use by the Trustee upon receipt of a final decree in such Supplemental Water Court case.

E. The Settlor shall arbitrate, sue upon, defend against, or otherwise deal with and settle claims in favor of or against the Trust Estate as it deems best and the Settlor's decisions regarding and ultimate resolution of any such claims shall be binding and conclusive.

F. Nothing herein shall limit the Settlor's ability to protect the Trust Estate by filing statements of opposition in water court cases that may potentially injure the

Trust Estate; provided, however, that the Settlor shall consult with the Trustee regarding any such statements of opposition prior to filing.

G. The Settlor may bring about beneficial use of the historical consumptive use of the Trust Estate downstream of the instream flow reach benefited by the Trust Estate as fully consumable reusable water or in any other manner allowed by law.

V. Trustee's Warranties, Rights, and Obligations.

A. The Trustee warrants that it has the legal status and legal capacity to execute, deliver, and perform all requirements of this Trust Agreement and that it has full power and authority to execute and deliver this Trust Agreement and all the other documents to be entered into by it in relation to this Trust Agreement, and it has full power and authority to operate under the entrustment provided for herein.

B. The Trustee shall use the Trust Estate for the purposes of preserving or improving the natural environment to a reasonable degree by protecting streamflows in the state of Colorado under Section 37-92-102(3), C.R.S., as amended by House Bill 08-1280, at all times as allowed by all applicable water court decrees and Colorado law, so long as this Trust Agreement is in effect.

C. The Trustee shall be responsible for all administration, monitoring and measuring required by the Division Engineer to use the Trust Estate for instream flow purposes. To the extent that the Division Engineer requires installation of stream gages or other measuring devices in connection with such use, the Trustee shall be responsible for such installation. The Trustee shall be responsible for maintaining all records required by the Division Engineer for administration of the Trust Estate for instream flow purposes. The Trustee and Settlor shall coordinate on whether the Settlor may provide assistance with the operation and maintenance of any such required stream gages or other measuring devices.

D. On January 15 of each year that the Trust Agreement is in force, the Trustee shall provide an annual update to the Settlor regarding use of the Trust Estate for instream flow purposes, including but not limited to flow data from the preceding year, any enforcement activities from the previous year, and planned operations and other considerations for the forthcoming year.

E. The Trustee agrees to undertake such acts as are reasonably required to carry out the tenor, purpose, and intent of this Trust Agreement. To that end, the Trustee shall place a call or conduct whatever other activities are available to it under the law to enforce the seniority of the Trust Estate in the event the instream flow water right being benefited by all or a portion of the Trust Estate is injured or is presumed to be injured by other water users. If such activities include filing statements of opposition to water court cases, the Trustee shall identify this Trust Agreement in any such statement of opposition. Nothing herein shall diminish the CWCB's right to exercise its discretion regarding enforcement of instream flow water rights; however, the CWCB

acknowledges that the intended use of the Trust Estate is to preserve or improve the natural environment to a reasonable degree.

F. The Trustee shall not assign, pledge, sell, or transfer in any manner any part of the Trust Estate, nor shall it have the power to encumber any part of the Trust Estate.

G. The Trustee shall not engage in any activity that will harm the Settlor's interest the Trust Estate.

VI. Covenant. This Trust Agreement shall be a covenant which runs with the Trust Estate. This Trust Agreement shall be recorded by the Settlor with the Clerk and Recorder of Pitkin County, Colorado and of Garfield County, Colorado.

VII. Notice. Any notice, request, demand and other correspondence made as required by or in accordance with this Trust Agreement shall be made in writing and delivered to the relevant Party at the contact information set out below. Such notice or other correspondence shall be deemed to have been delivered when it is transmitted if transmitted by facsimile, when it is delivered if delivered in person, and three (3) days after posting the same if posted by mail.

To Settlor:

John M. Ely, Esq.
Pitkin County Attorney
530 East Main Street, Suite 302
Aspen, Colorado 81611-1948
Fax: (970) 920-5198

To Trustee:

Linda J. Bassi
Chief, Stream and Lake Protection Section
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203
Fax: (303) 866-4474

VIII. Interpretation. This Trust Agreement shall be construed, regulated, and governed by and in accordance with the laws of the State of Colorado and shall be interpreted broadly to effect its purpose.

IX. Integration Clause. This Trust Agreement shall supersede all previous agreements between the Parties, and shall be binding upon the Parties and their respective heirs, executors, administrators, successors, and assigns.

X. Dispute Resolution; Jurisdiction and Venue. Pursuant to Section 37-92-102(3) C.R.S., the terms of this Trust Agreement shall be enforceable by each party as a water matter in the District Court for Water Division 5; provided, however, that before

commencing any action for enforcement of this Agreement, the party alleging a breach shall notify the other party in writing of the alleged breach and the parties shall make a good faith effort to resolve their differences through informal consultation.

XI. No Waiver. Any failure or delay by a Party in exercising any of its rights, powers and remedies hereunder or in accordance with laws (the "Party's Rights") shall not lead to a waiver of such rights, and the waiver of any single or partial exercise of the Party's Rights shall not preclude such Party from exercising such rights in any other way and exercising the remaining part of the Party's Rights.

XII. Severability. Each provision contained herein shall be severable and independent from each of other provisions, and if at any time any one or more provisions herein are found to be invalid, illegal, or unenforceable, the validity, legality, or enforceability of the remaining provisions herein shall not be affected as a result thereof.

XIII. Amendments. Any amendments or supplements to this Trust Agreement shall be made in writing and shall take effect only when properly signed by the Parties to this Agreement.

XIV. Term and Termination of the Trust. This Trust Agreement shall become effective upon its execution.

A. The term of this Trust Agreement is perpetual unless terminated as allowed by this Section XIV.

B. This Trust Agreement may not be terminated during the initial five (5) years after this Trust Agreement is executed ("Initial Period").

B. After the expiration of the Initial Period, this Trust Agreement may be terminated upon at least two (2) months prior notice in writing by either Party to the other Party to terminate the Trust hereunder, after which the Trust hereunder shall terminate at the expiration of such two (2) month period or at a later date specified in the termination notice. At least fifteen (15) working days prior to providing such notice, the Party initiating the termination shall consult with the other Party regarding its intent to terminate the Trust Agreement.

D. The Trust Agreement shall also be terminated upon occurrence of any event that leads to such termination in accordance with the laws of the State of Colorado.

E. Upon termination of the Trust Agreement, the Trust Estate shall belong to the Settlor and the Trustee shall act at the instruction of Settlor to take all reasonable actions immediately necessary to return the Trust Estate and management thereof to the Settlor.

XV. Rule Against Perpetuities. If it shall be determined that any provisions of the Trust Agreement violates any rule against perpetuities or remoteness of vesting now or hereafter in effect in a governing jurisdiction, the affected portion of the Trust Estate shall be administered as provided in this Trust Agreement until the termination of the maximum period allowed by law at which time and forthwith such part of the Trust Estate shall be removed from the Trust and returned to the quiet possession of the Settlor.

I certify that I have read the foregoing Trust Agreement and it correctly states the terms and conditions under which the Trust Estate is to be held and managed by the Trustee.

Dated as of the date set forth above.

SETTLOR, BOARD OF COUNTY COMMISSIONERS
OF PITKIN COUNTY:

By: _____
Its: _____

ATTEST:

By: _____
Its: Secretary

[Trustee]

Exhibit A-1
Description of Trust Estate – Stapleton Brothers Ditch Water Rights

Name	Decree	Source	Amount
Stapleton Brothers Ditch	99CW306	Roaring Fork River	4.3 cfs (119.25 AF/yr)

Exhibit A-2
Description of Trust Estate – Remaining Water Rights

Name	Decree	Source	Amount
Cramer Ditch, Original Construction	C.A. No. 132	Sopris Creek	0.143 cfs
Cramer Ditch, First Enlargement	C.A. No. 132	Sopris Creek	0.143 cfs
Cramer Ditch, Second Enlargement	C.A. No. 132	Sopris Creek	0.143 cfs
Cramer Ditch, Third Enlargement	C.A. No. 3082	Sopris Creek	0.143 cfs
Cramer Ditch (aka Beard Ditch)	W-867	Sopris Creek	0.143 cfs
Cramer Ditch (aka Beard Ditch) (appropriation date 8/25/1961)	W-867	Sopris Creek	0.143 cfs
Cramer Ditch, Fourth Enlargement	W-3414	Sopris Creek	0.143 cfs
Home Supply Ditch, Original Construction	C.A. No. 132	Roaring Fork River	0.5 cfs
Home Supply Ditch, First Enlargement	C.A. No. 2811	Roaring Fork River	0.5 cfs
Home Supply Ditch, Second Enlargement	C.A. No. 3082	Roaring Fork River	0.5 cfs
Home Supply Ditch (alternate point of diversion)	W-1801	Roaring Fork River	0.5 cfs
U.S. Green Ditch No. 2	C.A. No. 4033	Unnamed tributary of the Roaring Fork River	1.0 cfs ¹
U.S. Green Ditch No. 1	C.A. No. 4033	Wheel Barrow Gulch	1.0 cfs ²
J.H. Smith, Warren Creek Ditch No. 1	C.A. No. 4033	Warren Creek	1.5 cfs ³
U.S. Green Ditch No. 1	C.A. No. 4033	Wheel Barrow Gulch	2.0 cfs ⁴
Wilke Ditch	C.A. No. 2136	Crystal River	1.2 cfs
Crystal River Hot Spring Cooling Water Diversion and Pipeline	87CW202	Crystal River	0.5 cfs

¹ May require cooperation with Aspen Center for Endowment Studies.

² 1.0 acre-foot per year of historic consumptive use leased to James Hunting until 2038.

³ Owned in joint tenancy with City of Aspen.

⁴ Owned in joint tenancy with City of Aspen.

Name	Decree	Source	Amount
Crystal River Hot Spring and Pool (aka Granite Hot Springs Nos. 1-4)	87CW202	Geothermal groundwater and surface water tributary to the Crystal River	0.01 AF
Low Line Ditch, Original Construction	C.A. No. 1007	Crystal River	1.538088 cfs
Mautz Spring and Mautz Ditch Nos. 1 and 2	C.A. No. 4033	Mautz Spring is the source for the Mautz Ditch Nos. 1 and 2, along with snow, rain and waste water that run into said spring and ditches	2.0 cfs
John Stern Ditch No. 1	C.A. No. 5884 W-3103	Waste and seepage water	0.5 cfs
Jote Smith Ditch, Original Construction	C.A. No. 132	Brush Creek	0.72 cfs
Jote Smith Ditch, First Enlargement	C.A. No. 132	Brush Creek	0.25 cfs
Cozy Point Ditch, Original Construction	C.A. No. 132 92CW007	Brush Creek	0.19 cfs
Cozy Point Ditch, First Enlargement	C.A. No. 3723 92CW007	Brush Creek	0.24 cfs
Upper Wiese Ditch	C.A. No. 2689 92CW007	Brush Creek	0.20 cfs
Upper Wiese Ditch (appropriation date 9/1/1936)	C.A. No. 3723 92CW007	Brush Creek	0.62 cfs
Cozy Point Pond	88CW479 93CW003	Brush Creek	2.0 AF
Stapleton Ditch	C.A. No. 132	Owl Creek	2.0 cfs
Stapleton Ditch, First Enlargement	C.A. No. 132	Owl Creek	0.8 cfs
Bivert Ditch	C.A. No. 132	Owl Creek	0.5 cfs
Bivert Ditch, First Enlargement	C.A. No. 132	Owl Creek	1.0 cfs
Walthen Ditch	C.A. No. 132	Woody Creek	3.0 cfs
Walthen Ditch, First Enlargement	C.A. No. 132	Woody Creek	3.2 cfs

Exhibit B
Notice of Withdrawal

Linda J. Bassi
Chief, Stream and Lake Protection Section
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203
Fax: (303) 866-4474

Re: Pitkin County Revocable Water Rights Trust – Notice of Withdrawal

Dear Linda:

Pursuant to Section IV.C. of the Pitkin County Revocable Water Rights Trust Agreement, Pitkin County is hereby providing notice of its intent to withdraw water rights from the Trust Estate. The following water rights will be withdrawn from the Trust Estate:

<u>Name</u>	<u>Decree</u>	<u>Source</u>	<u>Amount</u>
-------------	---------------	---------------	---------------

As required by Section IV.C. of the Trust Agreement, Pitkin County contacted the CWCB at least 30 days prior to this notice to discuss the withdrawal of the water rights specified above. Upon receipt of this letter, the CWCB shall immediately cease the use of the water rights specified above for instream flow purposes.

Sincerely,

John M. Ely
Pitkin County Attorney

Exhibit C
Notice of Addition

Linda J. Bassi
Chief, Stream and Lake Protection Section
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203
Fax: (303) 866-4474

Re: Pitkin County Revocable Water Rights Trust – Notice of Addition

Dear Linda:

Pursuant to Section IV.D. of the Pitkin County Revocable Water Rights Trust Agreement, Pitkin County is hereby providing notice of its intent to add water rights from the Trust Estate. The County wishes to add the following water rights to the Trust Estate:

<u>Name</u>	<u>Decree</u>	<u>Source</u>	<u>Amount</u>
-------------	---------------	---------------	---------------

As required by Section IV.D. of the Trust Agreement, we must obtain CWCB approval to acquire the water rights specified above as required by Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program. Please contact me at your convenience to begin the approval process.

Sincerely,

John M. Ely
Pitkin County Attorney

APPENDIX B

January 8, 2009

Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Dear Members of the Board:

The Board of County Commissioners of Pitkin County ("Pitkin County") is pleased to present to the Colorado Water Conservation Board ("CWCB") a proposal for a long-term dedication of water rights to the CWCB under the recently-enacted House Bill 08-1280 through a trust arrangement with Pitkin County. The proposal, which is subject to approval by the Board of County Commissioners after a public hearing, includes the dedication of several water rights for instream flow purposes and would allow water rights acquired by Pitkin County in the future to also be dedicated to the trust.

Background

Over the course of several years, Pitkin County has acquired water rights in the Roaring Fork River Basin. Some of these water rights were acquired through the County's Open Space and Trails Department with restricted funds and cannot be sold or otherwise converted without voter approval and replacement of the water rights. Other water rights were acquired through the County's Airport Enterprise Fund, which is governed by the Taxpayers' Bill of Rights ("TABOR"), and cannot be sold or leased absent compliance with TABOR restrictions.

Pitkin County is dedicated to protecting the flows of the rivers and streams in Pitkin County. The County believes that the CWCB's Instream Flow Program presents a valuable opportunity to use the designated water rights towards that goal. The proposed trust agreement will include a list of Pitkin County's water rights that it proposes to dedicate to use in the CWCB's Instream Flow Program.

Trust Agreement Proposal

Pitkin County proposes a trust arrangement whereby the County will designate water rights to be used in the CWCB's Instream Flow Program and the CWCB, as Trustee, will manage those water rights for instream flow purposes. During the past year, Pitkin County has worked closely with Linda Bassi, Susan Schneider and the Colorado Water Trust to develop the proposed trust agreement to address restrictions on



the County's water rights and to benefit stream flows in Pitkin County through the CWCB's Instream Flow Program.

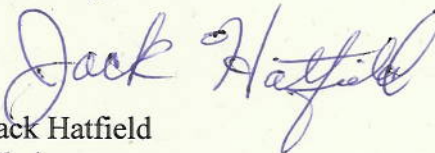
A trust arrangement is proposed as Pitkin County faces numerous restrictions on its ability to transfer water rights, as described above. Through the trust arrangement, Pitkin County will retain ownership and control of the water rights, as required by such restrictions, yet the CWCB may use the water rights for instream flow purposes. Pitkin County also requires the ability to withdraw water rights from the trust, with adequate notice to the CWCB, for future needs that cannot be foreseen at this time. Furthermore, the trust arrangement will allow the County to add water rights to the trust as the County's portfolio expands. In sum, the trust arrangement provides the flexibility necessary to address the restrictions the County faces and to allow the CWCB to use those water rights in the Instream Flow Program.

The proposed trust agreement will designate Pitkin County as the only beneficiary of the trust, even though the water rights may be used to benefit the CWCB's Instream Flow Program. This has been done in order to properly establish a trust under Colorado law. A trust is valid only if it has an ascertainable class of beneficiaries; in other words, the beneficiaries cannot be an indefinite group of individuals. *Clayton v. Hallett*, 70 P. 429, 434 (Colo. 1902); *Frazier v. Frazier*, 263 P. 413, 415 (Colo. 1928). Designation of the Instream Flow Program or the people of Colorado as a beneficiary raises a question as to whether the specific individuals with interests in the trust could be identified, which is a practical as well as a legal problem. For example, the trustee is required to keep all beneficiaries of the trust reasonably informed of the trust and its administration. C.R.S. § 15-16-303(1). With a large and indefinite class of beneficiaries, such as the people of Colorado, the notice requirement would be excessively burdensome for the trustee. In light of these considerations, Pitkin County was selected as the only trust beneficiary in order to ensure that the beneficiary is sufficiently definite and the trust is valid.

Pitkin County asks that the CWCB consider this proposal at its January 27, 2009 meeting. Representatives of the County plan to attend the January 27 meeting to answer questions that the Board may have. Pitkin County looks forward to working with the CWCB on this proposal.

PITKIN COUNTY BOARD OF COUNTY COMMISSIONERS

Sincerely,



Jack Hatfield
Chairman

Colorado Water Conservation Board

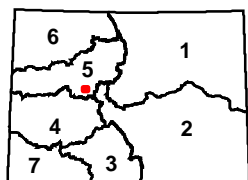
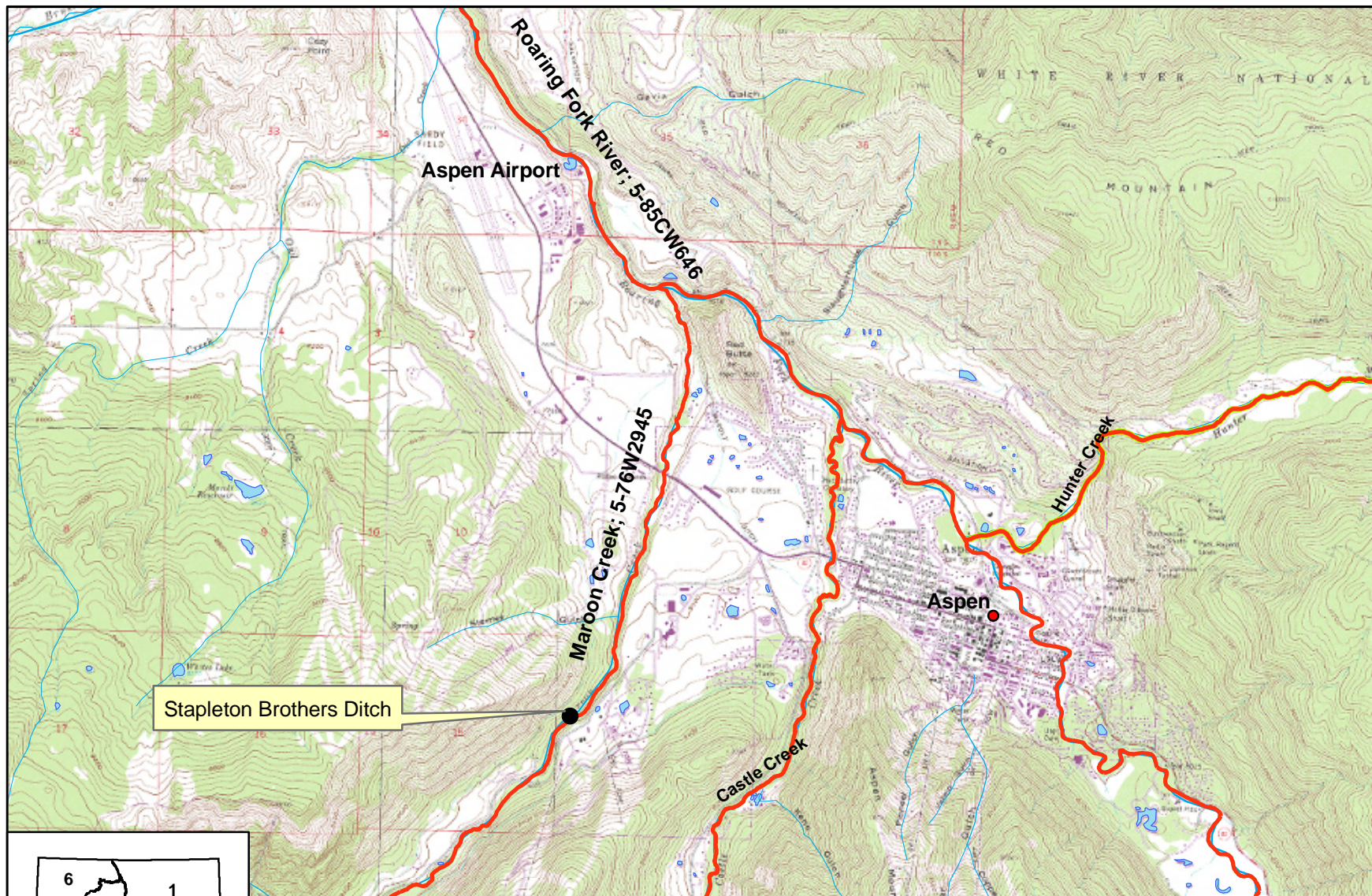
January 8, 2009

Page 3

Enclosures

cc: Timothy J. Beaton, Esq.
Amy Beatie, Esq.

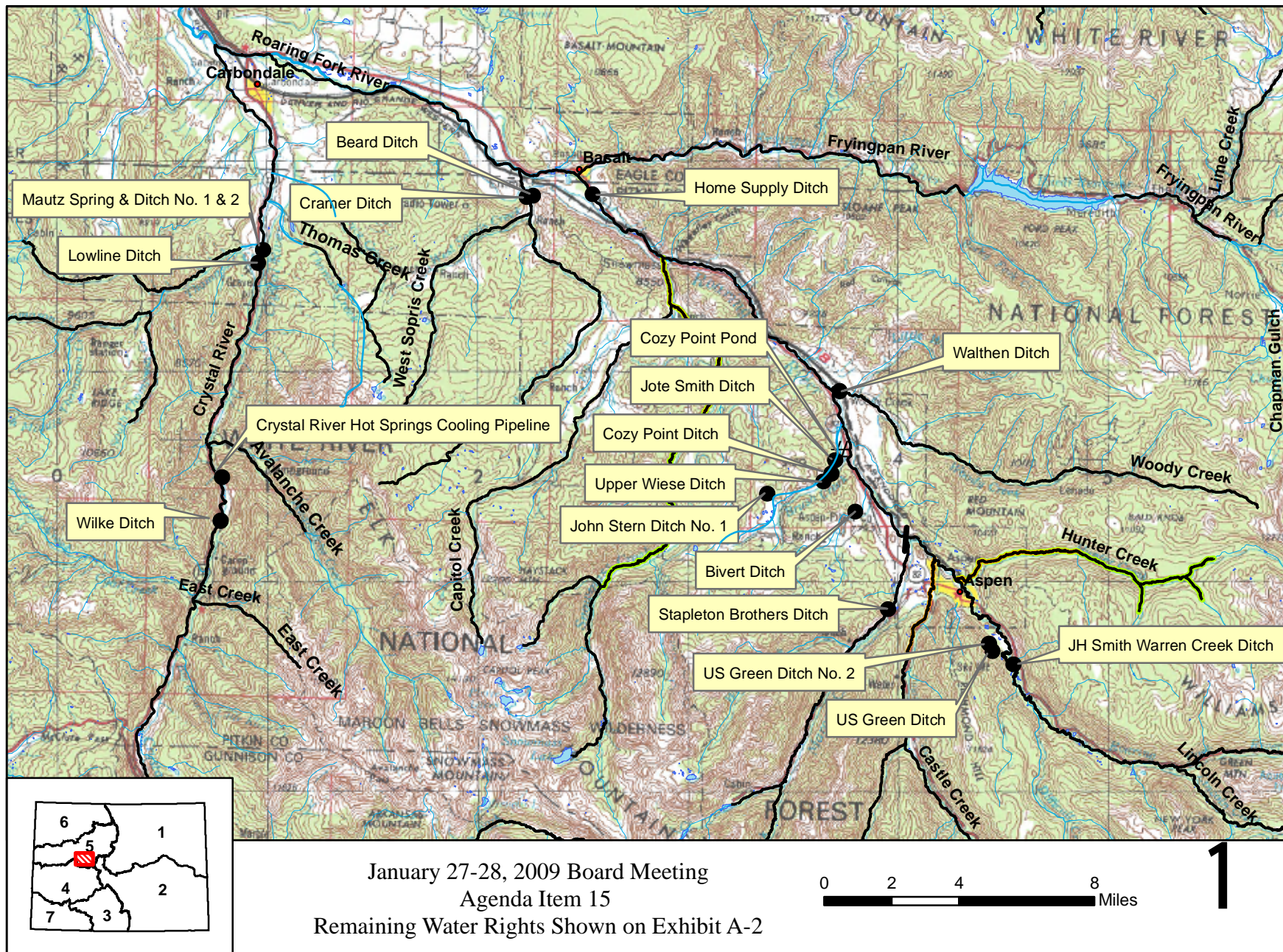
APPENDIX C



January 27-28, 2009 Board Meeting
Agenda Item 15
Roaring Fork River Basin Proposed Water Acquisition

0 0.25 0.5 1 Miles

1



January 27-28, 2009 Board Meeting
Agenda Item 15
Remaining Water Rights Shown on Exhibit A-2

APPENDIX D

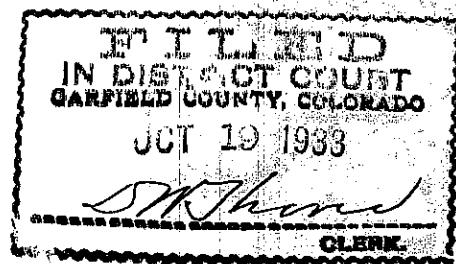
State of Colorado)
County of Pitkin) SS.

In the District Court

No. 3000

In the matter of the application of)
James Stapleton and Timothy Stapleton)
for an adjudication of their priority)
of right of the use of water from)
Maroon Creek for irrigation and other)
beneficial purposes, through the)
Stapleton Brothers' Ditch in Water)
District No. 38.)

DECREE



Now on this 16th day of October, A.D. 1933, the same being one of the regular juridicial days of the October term, A.D. 1933, of our District Court, the above entitled matter comes on regularly to be heard on the Petition of James Stapleton and Timothy Stapleton and of the objections and protests made and entered herein on the 18th. day of August, A.D. 1933, fixing a time of this hearing and prescribing the notice thereof, to be given to all persons interested adversely therein. The Petitioners appearing by their attorney Wm. R. Shaw, Esq., and no other person or corporation appearing in opposition or otherwise and the time allowed having now expired, thereupon the Petitioners, James Stapleton and Timothy Stapleton, offered evidence in support of ~~their~~ ^{their} rights and claims made by ~~them~~ herein and the Court having heard and considered the same and being well and fully advised in the premises does now find with reference to the rights and claims of the said James Stapleton and Timothy Stapleton, Petitioners herein,

First: That the Petitioner, James Stapleton and Timothy Stapleton, are the owners of and entitled to the immediate possession of the following described lands situate in Pitkin County, State of Colorado, to-wit: The west half of the northwest quarter, Sec. 9, T. 10, R. 85, Lots 12, 26, 27, Sec. 27 T. 9 R. 85, East quarter of the southeast quarter Sec. 28, T. 9 R. 85, Lot 1, Sec. 33, T. 9 R. 85, lot 17, Sec. 34, T. 9, R. 85, Lot 19, Sec. 27, T. 9 R. 85, Lots 2, 5, 13, 14, Sec. 34, T. 9, R. 85, West half of the southeast quarter, east half of the southwest half, Sec. 34, T. 9. R. 85, West half of the northwest quarter, northwest quarter of the southwest quarter Sec. 34, T. 9, R. 85, Lots 7, 10, 15, 16, Sec. 34, T. 9 R. 85.

All of the above described lands being in Township nine south, Range eighty-five, West, sixth principal meridian, containing

of which 400 acres are under cultivation, ^{or irrigation} all being situate in Water District number 38, Pitkin County, State of Colorado, and are further susceptible of irrigation from the water of the Maroon Creek through the Stapleton Brothers' Ditch.

Second: That the Petitioners are the sole claimants of the said Stapleton Brothers' Ditch; that said ditch takes its supply of water from the Maroon Creek in Water District Number 38; that work of construction was commenced June 1904, and completed to a carrying capacity of 19.15 cubic feet of water per second of time, of which 8 cubic feet of water per second of time has been used by the Petitioners ever since that date upon the lands above described.

Third: That the amount of land lying under the ~~said ditch~~ enlargement of the said Stapleton Brothers' Ditch, which has been cultivated and irrigated by water from said ditch and the size and carrying capacity thereof is sufficient to entitle the said ditch to an appropriation on the original construction thereof of 8 cubic feet of water per second of time for irrigation purposes for the use and benefit of the Petitioners and their assigns; ~~that the enlargement of the said ditch by reason of its original construction shall be numbered~~ and is entitled to priority number 189 in the decrees of this Court for Water District Number 38, dating from June, 1904.

IT IS THEREFORE CONSIDERED, ORDERED, ADJUDGED AND DECREED that the said Stapleton Brothers' Ditch be numbered 189 and is entitled to priority number 269 in the decrees of this Court ^{for} Water District Number 38, dating from June, 1904; that said ditch be awarded an appropriation upon the original construction thereof of 8 feet (cubic) of water per second of time dating from June, 1904, and that there be allowed to flow into the said Stapleton Brothers' Ditch from the Maroon Creek for the use and benefit of the Petitioners for irrigation purposes by virtue of said appropriation 8 cubic feet of water per second of time of the waters of the Maroon Creek; and that this Decree shall bind with equal force the heirs and assigns of the

said James Stapleton and Timothy Stapleton.

IT IS FURTHER ORDERED AND DECREED BY THE COURT that these findings and this decree shall be subject to the same general conditions and provisions as are contained in the general decree of this Court made and entered on the ~~18th~~ ^{man} day of August, A. D. 1887, for Water District Number 58.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED BY THE COURT that this cause be hereafter omitted from the docket of the court subject to restoration thereon upon the application of the said Petitioners, their heirs and assigns, upon due and proper notice, for the purpose of such further adjudication, if any, he may seek to obtain by reason of the bringing of additional of their said lands under irrigation as aforesaid.

DONE IN OPEN COURT.

John J. Thumate
JUDGE

APPENDIX E

RECEIVED

FEB 04 2005

WATER RESOURCES
STATE ENGINEER
COLORADO

DISTRICT COURT, WATER DIVISION NO. 5,
COLORADO

109 - 8th Street, Suite 104

Glenwood Springs, CO 81601-3361

(970) 947-3861

CONCERNING THE APPLICATION FOR WATER
RIGHTS OF BOARD OF COUNTY
COMMISSIONERS, PITKIN COUNTY, STATE OF
COLORADO

IN PITKIN COUNTY

▲ COURT USE ONLY ▲

Case Number: 99CW306

**FINDINGS OF FACT, CONCLUSIONS OF LAW,
JUDGMENT AND DECREE OF THE WATER COURT**

This matter has come before the Water Judge upon the application of the Board of County Commissioners of Pitkin County for a change of the Stapleton Brothers' Ditch water right to augmentation use and for approval of a plan for augmentation including appropriative right of exchange. Having made such investigations as are necessary to determine whether or not the statements in the application are true, and being fully advised with respect to the subject matter of the application, the Court hereby enters the following Findings of Fact, Conclusions of Law and Judgement and Decree:

FINDINGS OF FACT

1. Name, address and telephone number of applicant:

Board of County Commissioners, Pitkin County ("Pitkin County")
c/o John M. Ely, County Attorney
530 East Main Street
Aspen, Colorado 81611
(970) 920-5190

2. The application in this case was filed with the Water Clerk, Water Division No. 5, on December 29, 1999.

3. Timely and adequate notice of the application was given in the manner required by law. None of the land or water rights involved in this application is located in a designated groundwater basin. The Court has jurisdiction over the subject matter of this proceeding and over all persons or entities who have standing to appear as parties, whether they have appeared or not.
4. Timely statements of opposition to the application were filed by Owl Creek Ranch Homeowners' Association; Twin Lakes Reservoir and Canal Company; Colorado Water Conservation Board; Town of Basalt; Jack Guenther, Trustee Under the Will of Charles F. Urschel, Jr.; and Tiehack Land Partners ("Opposers"). No person or entity has sought to intervene. The time for filing statements of opposition and motions to intervene has expired. Statements of opposition have been withdrawn by Owl Creek Homeowners' Association; Jack Guenther, Trustee under the Will of Charles F. Urschel, Jr.; and Tiehack Land Partners. Pitkin County has entered into stipulations consenting to entry of this decree with Twin Lakes Reservoir and Canal Company; Colorado Water Conservation Board; and Town of Basalt. Those stipulations are hereby incorporated herein by this reference.
5. The Court has consulted with the Division Engineer for Water Division No. 5 as required by law. Pursuant to C.R.S. § 37-92-302(4), the Division Engineer submitted a Summary of Consultation, dated June 12, 2000. A copy of the Summary of Consultation was properly served by Pitkin County on all parties to the case. The Court has duly considered the Summary of Consultation as required by law.
6. This case was initially referred by the Court to the Water Referee for Water Division No. 5, State of Colorado. With all opposing parties having either withdrawn their statements of opposition or entered into stipulations with Pitkin County consenting to entry of decree, the Referee approved Pitkin County's proposed ruling on September 10, 2003. Thereafter, on September 30, 2003, the State Engineer and the Division Engineer for Water Division No. 5 ("State") filed a protest to the Referee's Ruling. The State's protest was directed at certain findings of fact and conclusions of law contained in the Referee's Ruling with respect to the *res judicata* effect of the historic consumptive use determinations regarding the Stapleton Brothers' Ditch. Ultimately, Pitkin County and the State, on June 18, 2004, filed cross-motions for determination of question of law pursuant to C.R.C.P. 56(h) to resolve the propriety of the *res judicata* findings and conclusions in the Referee's Ruling. Following briefing on the cross-motions, the Court issued an order on August 28, 2004, determining as a matter of law that certain language in the *res judicata* findings and conclusions contained in the Referee's Ruling were contrary to Colorado law and, therefore, that the Court would not approve the Referee's Ruling. Pitkin County and the State have now entered into a stipulation consenting to entry of this revised Decree which is in accordance with Colorado law.

Change of Stapleton Brothers' Ditch Water Right

7. With respect to the claim for change of water rights contained in the application, the Court hereby makes the following findings of fact based on the evidence and documents that have been presented by Pitkin County:
- A. Decreed name of structure for which change is sought: Stapleton Brothers' Ditch.
 - B. From previous decree:
 - Date entered: October 16, 1933.
 - Case No.: Civil Action No. 3000.
 - Court: Pitkin County District Court, State of Colorado.
 - C. Decreed point of diversion: The point of diversion is located on the West Bank of Maroon Creek at a point whence the North 1/4 corner of Section 11, Township 10 South, Range 85 West of the 6th P.M., bears North 11° 40' East a distance of 8,049.6 feet.
 - D. Source: Maroon Creek, tributary of the Roaring Fork River, tributary of the Colorado River.
 - E. Appropriation date and amount: June 30, 1904 for 8 cfs, ABSOLUTE.
 - F. Historic use: The Stapleton Brothers' Ditch water right was decreed for irrigation of approximately 400 acres of land owned by the Stapleton brothers in Sections 27, 28, 33 and 34, Township 9 South, Range 85 West of the 6th P.M., Pitkin County, Colorado. See Civil Action No. 3000, Pitkin County District Court, Decree dated October 16, 1933. As part of its Airport project, Pitkin County acquired 136 acres of land historically irrigated by the Stapleton Brothers' Ditch, and has used such lands for the expansion of the Aspen-Pitkin County Airport ("Airport"). A map of the Airport area depicting lands historically irrigated by the Stapleton Brothers' Ditch is attached hereto as Exhibit A. The Airport was constructed in the early 1970s and, since that time, increased use of the lands for Airport purposes has resulted in a reduction of the number of acres being irrigated by the Stapleton Brothers' Ditch. Therefore, the pre-Airport period was used to quantify the historic consumptive use of the Stapleton Brothers' Ditch water right on the 136 acres owned by Pitkin County. Pitkin County relied on diversion records, aerial photographs, and interviews of the person responsible for irrigating the land to calculate the amount

of historic consumptive use. This evidence indicates that grass and alfalfa were grown in approximately equal portions on the 136 acres. Pitkin County's water engineer has concluded that in the pre-Airport period, historic consumption of water for irrigation of grass and alfalfa on the 136 acres averaged approximately 249 acre-feet per year (136 acres x 1.83 acre-feet per acre consumptive use rate) during the historical irrigation season of May 1 through October 31 of each year.

However, in response to concerns of the Division Engineer that use of the pre-Airport period failed to account for reduced historic use of the Stapleton Brothers' Ditch water right as the Airport was expanded over time, Pitkin County agreed to reduce its per unit consumptive use rate to 1.62 acre-feet per acre. Using that reduced consumptive use rate, which reasonably approximates the removal of lands from irrigation upon Airport construction and development, the historic consumption of water for irrigation of grass and hay on the 136 acres averaged approximately 220 acre-feet per year (136 acres x 1.62 acre-feet per acre consumptive use rate) between May 1 through October 31 of each year. Pitkin County has agreed to adopt the reduced average historic consumptive use amount of 220 acre-feet per year, as illustrated by the following Table 1 which has been rounded to whole numbers for convenience:

TABLE 1

SUMMARY OF HISTORIC IRRIGATION CONSUMPTIVE USE FOR STAPLETON BROTHERS' DITCH

MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
29.0	52.0	59.0	44.0	30.0	6.0	220.0

The Court hereby adopts Pitkin County's methodology of accounting for the dry-up of historically irrigated acreage in calculating the average historic consumptive use of the Stapleton Brothers' Ditch at 220 acre-feet per year. The Court finds that 220 acre-feet per year of historic consumptive use credits is supported by the evidence, and constitutes a reasonable and appropriate means of accounting for historical use of the Stapleton Brothers' Ditch water right as the Airport was constructed and then expanded to its present size.

- G. Proposed change: Pitkin County shall maintain its right to divert any portion or all of the Stapleton Brothers' Ditch water right at the originally decreed location (Maroon Creek headgate) for the decreed purpose of irrigation of the historically

irrigated area of the Airport property (136 acres) during the historic irrigation season (May 1-October 31), provided that total maximum instantaneous diversions from that headgate and the dedication of historic consumptive use water to augmentation herein, if occurring simultaneously, may not exceed the amount of water legally and physically available at the original point of diversion. Pitkin County has other decreed water rights from Owl Creek which also have historically irrigated, and currently irrigate, portions of the Airport property other than the subject 136 acres. Nothing in this Decree modifies or changes Pitkin County's use of its Owl Creek rights.

Pitkin County is granted a change of the Stapleton Brothers' Ditch water right to add augmentation as a decreed use and to allow the Stapleton Brothers' Ditch water right to be used as a source, in part, to augment and replace out-of-priority depletions from the following structures: (1) the Paepcke Well (Permit No. 4573); and (2) the Aspen-Pitkin County Airport Well Field No. 1 ("Airport Well Field No. 1"), consisting of up to 15 proposed wells to be constructed, as needed, on the Airport property in Section 34, Township 9 South, Range 85 West, and Section 3, Township 10 South, Range 85 West of the 6th P.M., Pitkin County, Colorado. Pitkin County has applied for junior water rights for the Paepcke Well and the Airport Well Field No. 1 in Case No. 01CW334, as more fully described in paragraph 8.C. below. A legal description of the property on which Pitkin County's proposed Airport Well Field No. 1 is to be located is attached hereto as Exhibit B and incorporated herein by this reference. Augmentation of any out-of-priority depletions resulting from diversions through the Paepcke Well and the Airport Well Field No. 1 will be accomplished by Pitkin County in accordance with the augmentation plan discussed in paragraph 8 below. Water diverted at the Paepcke Well and the Airport Well Field No. 1 will be used for landscape irrigation of approximately 19.8 acres total of the Airport property, including 10 acres of landscaped area at the Airport terminal and 9.8 acres of landscaped area west of the 7,400 foot runway. The 9.8 acres west of the runway include some lands historically irrigated by the Stapleton Brothers' Ditch water right. The consumptive use rate applicable to water used for irrigation of landscaped areas of the Airport property is 1.87 acre-feet per acre. The Court finds that this higher consumptive use rate is appropriate because the grass used for landscaping generally consumes more water than the grass and alfalfa historically irrigated on the Airport property.

Initially, Pitkin County planned to use its Stapleton Brothers' Ditch water right to continue irrigating 10 acres of grass and alfalfa historically irrigated by those rights. However, Pitkin County now plans to irrigate 9.8 acres west of the runway instead. Because the 9.8 acres are located on the Airport property, and because no change in

the amount of water required for irrigation is involved, republication of the application in this case is not necessary. The Court finds that the original application filed December 29, 1999 put interested parties, to the extent reasonably possible, on inquiry notice of the nature, scope and impact of the claims by Pitkin County in this case.

The dry-up of 136 historically irrigated acres makes available 220 acre-feet per year of consumptive use credits. Irrigation of 19.8 landscaped acres on the Airport property will require augmentation of approximately 37 acre-feet per year of depletions (19.8 acres x 1.87 acre-feet per acre consumptive use rate). To augment those 37 acre-feet of annual depletions, it is estimated that up to approximately 18 acre-feet per year of historic consumptive use credits from the Stapleton Brothers' Ditch water right will be used in the irrigation season to augment this landscape irrigation use; and water released from Ruedi Reservoir under Pitkin County's water allotment contract with the Basalt Water Conservancy District will be used for augmentation of out-of-priority irrigation depletions occurring primarily outside of the irrigation season. The amount, in acre-feet per year, of Stapleton Brothers' Ditch historic consumptive use credits and Ruedi Reservoir contract water needed to provide augmentation water for the irrigation of the 19.8 landscaped acres on the Airport property may be adjusted under the Court's retained jurisdiction, in accordance with paragraph 8.E. below, if the estimated amount (37 acre-feet per year) differs from the actual amount needed for augmentation of this landscape irrigation use. The approximately 202 acre-feet per year of remaining historic consumptive use credits (total consumptive use credits of 220 acre-feet per year – an estimated 18 acre-feet per year of consumptive use credits for irrigation season augmentation of landscape irrigation of 19.8 acres) may be retained by Pitkin County or sold or leased to other water users. Remaining historic consumptive use credits may be used by Pitkin County at the decreed location for the Stapleton Brothers' Ditch headgate for additional landscape irrigation of a portion of the 136 acres historically irrigated on the Airport property during the historic irrigation season, provided that such additional landscape irrigation use is approved by the Court under its retained jurisdiction. Any other uses of such remaining historic consumptive use credits by any person or entity must be approved by subsequent application to the Water Court, requesting a change of water right and approval of either an amended augmentation plan or an additional augmentation plan adequate to replace all out-of-priority depletions associated with such new uses. The quantification of the historic consumptive use of the Stapleton Brothers' Ditch water right in this Decree shall be *res judicata* as to conditions existing prior to the entry of this Decree. The Court found above that the average historic consumptive use of the Stapleton Brothers' Ditch water right has been 220 acre-feet per year for the representative period of

record from the 1904 date of appropriation of that water right up to and including the date of entry of this Decree, and this finding shall be *res judicata* as to the historic consumptive use of the Stapleton Brothers' Ditch water right from 1904 through 2004 in any subsequent proceeding of this Court involving a change of all or a portion of the Stapleton Brothers' Ditch water right. However, the Court may consider, subsequent to entry of this Decree, changed circumstances regarding consumptive use, including non-use of the Stapleton Brothers' Ditch water right and/or the 220 acre-feet of consumptive use credits quantified herein, and bearing upon the question of injury to other vested or decreed conditional water rights in any future changes of the Stapleton Brothers' Ditch water right or any portion thereof. Any such consideration of the historic use of the Stapleton Brothers' Ditch water right shall include only the time period subsequent to entry of this Decree. Pitkin County shall not irrigate any portion of the 136 acres historically irrigated by the Stapleton Brothers' Ditch with any other water rights (except the Paepcke Well and the Airport Well Field No. 1 as described herein) without first applying to the Water Court and obtaining a Decree providing for such use.

Plan for Augmentation

8. With respect to the claim for approval of a plan for augmentation contained in the application, the Court hereby makes the following findings of fact based on the evidence and documents that have been presented by Pitkin County:

A. Descriptions of structures to be augmented:

(1) Legal descriptions:

- (a) Paepcke Well: The Paepcke Well (Permit No. 4573) is located on Airport property in the NE1/4 of the SE1/4 of Section 3, Township 10 South, Range 85 West of the 6th P.M., at a point 900 feet from the east section line and 2800 feet from the north section line of said Section 3. The source of this well is groundwater tributary to the Roaring Fork River.
- (b) Airport Well Field No. 1: Up to 15 additional wells are proposed to be constructed, as needed, on the Airport property which is located in Section 34, Township 9 South, Range 85 West, and Section 3, Township 10 South, Range 85 West of the 6th P.M., Pitkin County, Colorado. The Airport Well Field No. 1 may be located anywhere within the boundaries of the Airport property as described in the

attached Exhibit B. The source of these wells is groundwater tributary to the Roaring Fork River. Pitkin County will meet the requirements of the State Engineer's Policy 99-1 regarding well fields. The wells in the Airport Well Field No. 1 will be constructed not less than 600 feet from any well not owned by Pitkin County. However, Pitkin County has entered into a Water Sharing Agreement with the Buttermilk Metropolitan District governing joint development and use of wells to be constructed by the parties on the Airport property. Under said agreement, Pitkin County and the Buttermilk Metropolitan District have mutually agreed to waive the 600-foot well spacing requirement of C.R.S. § 37-90-137(2).

- (2) Use: Pitkin County seeks approval to use historic consumptive use credits from the Stapleton Brothers' Ditch water right, as changed herein, for augmentation of out-of-priority depletions associated with pumping of the Paepcke Well and the Airport Well Field No. 1. As to any remaining historic consumptive use credits of the Stapleton Brothers' Ditch water right, other than the estimated 18 acre-feet per year of consumptive use credits devoted to irrigation season augmentation herein, Pitkin County or its successors and assigns may seek approval under the Court's retained jurisdiction to use such credits for landscape irrigation on the Airport property, in accordance with paragraph 7.G. above. Pitkin County shall maintain its right to divert any portion or all of the Stapleton Brothers' Ditch water right at the originally decreed location (Maroon Creek headgate) for the decreed purpose of irrigation of the historically irrigated area of the Airport property (136 acres) during the historic irrigation season (May 1-October 31).
- (3) Amount: Total consumptive use of water diverted at the Paepcke Well and the Airport Well Field No. 1 for landscape irrigation at the Airport is estimated to be up to 18 acre-feet per year for irrigation season depletions associated with 10 landscaped acres at the Airport terminal and 9.8 landscaped acres west of the Airport runway.

- B. Description of augmentation water: In addition to using consumptive use credits from the Stapleton Brothers' Ditch for irrigation season augmentation use, as described in paragraph 7 above, Pitkin County has obtained a water allotment contract from the Basalt Water Conservancy District which will permit Pitkin County to augment any out-of-priority depletions occurring primarily during the non-irrigation season with water stored in Ruedi Reservoir for the benefit of the Basalt Water Conservancy District. Ruedi Reservoir is located in parts of Sections 7, 8, 9,

11, 14, 15, 16, 17 and 18, Township 8 South, Range 84 West of the 6th P.M., in Pitkin and Eagle Counties, Colorado. The dam is located in the NW1/4 of Section 18, Township 8 South, Range 84 West of the 6th P.M. The initial point of survey of the dam is on the right abutment thereof at a point whence the southwest corner of Section 7, Township 8 South, Range 84 West of the 6th P.M., bears North 68°58' West a distance of 1126 feet.

Ruedi Reservoir is a component of the Fryingpan-Arkansas Project and was originally adjudicated in Civil Action No. 4613, Garfield County District Court, on June 20, 1958, with an appropriation date of July 29, 1957; subsequently, in Case No. W-789-76, the decreed storage capacity for the reservoir was reduced to 102,369 acre-feet. Ruedi Reservoir was originally authorized for construction by the Act of August 16, 1962 (76 Stat. 389), as amended by the Act of October 27, 1974 (88 Stat. 1486) and the Act of November 3, 1978 (92 Stat. 2492), in substantial accordance with House Doc. No. 187, 83rd Cong., 1st Sess., as modified by House Doc. 353, 86th Cong., 2nd Sess., and is subject to the operating principles for the Fryingpan-Arkansas Project as set forth in House Doc. 130, 87th Cong., 1st Sess. The federal reservoir is operated by the U.S. Bureau of Reclamation, which has contracted with the Basalt Water Conservancy District for an allotment of water.

- C. Description of plan for augmentation: Pitkin County has filed an application to adjudicate junior water rights for the Paepcke Well and the Airport Well Field No. 1 in Case No. 01CW334. When the wells are unable to divert under their junior priorities to be adjudicated in Case No. 01CW334, during times in which the Stapleton Brothers' Ditch water right is in priority, Pitkin County will use some or all of the Stapleton Brothers' Ditch historic consumptive use credits to augment out-of-priority depletions associated with pumping of the wells during the irrigation season.

When the Stapleton Brothers' Ditch water right is not in priority, and the Paepcke Well and the Airport Well Field No. 1 are unable to divert in priority under their junior priorities, out-of-priority depletions caused by the pumping of the subject wells will be replaced by water released from Ruedi Reservoir pursuant to Pitkin County's water allotment contract with the Basalt Water Conservancy District for 25 acre-feet per year, and in accordance with the appropriative right of exchange decreed herein. The junior priorities for the subject wells as applied for in Case No. 01CW334 shall be operated under the terms and conditions of this Decree for replacement of any out-of-priority depletions caused by pumping the wells under such junior priorities for landscape irrigation purposes at the Airport. However, Pitkin County shall apply for an amendment to this augmentation plan, or for a new

augmentation plan, before undertaking any other uses of the junior priorities for the wells, besides landscape irrigation at the Airport as approved herein, in order to address any out-of-priority depletions caused by pumping the junior well priorities for such new uses.

Net depletions resulting to the Roaring Fork River from withdrawals of water through the subject wells during times when the Stapleton Brothers' Ditch water right is in priority are estimated to total between 12 and 18 acre-feet per year; net depletions during periods in which the Stapleton Brothers' Ditch water right is not in priority are estimated to total between 20 and 25 acre-feet per year. However, because of the variability of existing well test data for the aquifer underlying the Airport property, the timing and amount of depletions resulting from the requested change cannot be predicted with certainty until representative wells are actually drilled and tested. Pitkin County shall measure the amount of water applied to the landscaped areas on the Airport property and apply an 85% consumptive use factor to such water applications. Once the wells have been drilled and tested, the timing and amount of depletions to the Roaring Fork River will be calculated on a monthly basis, using the Glover Method. If the estimated 18 acre-feet of depletions during the irrigation season is not accurate, the Stapleton Brothers' Ditch consumptive use amount will be subject to adjustment either upward or downward pursuant to the Court's retained jurisdiction, as described in paragraphs 7.G. above and 8.E. below. If adjusted downward, Pitkin County shall be allowed to utilize any resulting surplus consumptive use credits for other uses or for additional landscape irrigation of the Airport property, provided that such new uses are approved by subsequent Water Court application or that such landscape irrigation use is approved by the Court under its retained jurisdiction, all as described in paragraph 7.G. above.

- D. Accounting: Pitkin County shall provide monthly accounting to the Division Engineer of diversions, resulting consumptive use, out-of-priority delayed depletions and the provision of augmentation water, on accounting forms acceptable to the Division Engineer and similar to the forms attached hereto for illustrative purposes as Exhibit C.
- E. Retained jurisdiction: The Court shall retain general jurisdiction over this case for a period of five years following entry of this Decree, as described in paragraph 27 below. In addition, this Court shall retain limited jurisdiction for a period of 10 years following receipt by the Court of Pitkin County's notice of completion of the construction of the last additional well, for the purposes of considering the timing and amount of depletions from Pitkin County's well field, and adjustment, if necessary, of the amount of Stapleton Brothers' Ditch historic consumptive use

credits and Ruedi Reservoir contract water needed to augment depletions from the wells associated with the irrigation of the 19.8 acres of landscaped Airport property during the irrigation season.

At such time as the Court's retained jurisdiction is invoked, Pitkin County may request the Court to enter an order modifying the amount of Stapleton Brothers' Ditch historic consumptive use credits required to provide augmentation water for irrigation of the 19.8 acres of landscaped area on the Airport property during the irrigation season, if the estimated amount (18 acre-feet per year) is not accurate once the wells have been drilled and tested, as described in paragraph 8.C. above. The Court's order shall become final if it is not challenged by any party to this case within 60 days from the date of the order. A finding by the Court that less than 18 acre-feet are needed for irrigation season augmentation purposes to irrigate the Airport property shall not affect Pitkin County's ability to use all remaining excess historic consumptive use credits, up to the total amount of 220 acre-feet per year, pursuant to subsequent approval by the Water Court, as described in paragraph 7.G. above.

Upon completion of each additional well, Pitkin County shall provide each of the Opposers (listed in paragraph 4 above) and the Division of Water Resources with documentation for the well completed, including a well completion report containing the precise location of the well, a statement of beneficial use, and the results of Pitkin County's delayed depletion analysis for the well. Within 60 days following completion of construction of an additional well, Pitkin County shall file a petition with the Court notifying it that construction of the well is complete, and invoking its retained jurisdiction. Pitkin County shall provide each of the Opposers and the Division of Water Resources with a copy of the petition. Each of the Opposers shall be deemed to remain parties to this matter for this retained jurisdiction period, for the limited purpose of determining the depletion characteristics of each of Pitkin County's wells and modification of any terms and conditions related thereto necessary to prevent injury to other vested water rights. Pitkin County shall bear the initial burden of proof as to the determination of the depletion characteristics. Such retained jurisdiction will allow this Court to determine if all out-of-priority depletions caused by the requested change will be fully augmented as necessary to prevent injury.

F. Name and address of owner of land on which structures are or will be located:

Board of County Commissioners, Pitkin County
c/o John M. Ely, County Attorney
530 East Main Street
Aspen, Colorado 81611

Appropriative Right of Exchange

9. Pitkin County's plan for augmentation incorporates an exchange of water currently stored in Ruedi Reservoir, as obtained by Pitkin County through a water allotment contract with the Basalt Water Conservancy District, for use in the Roaring Fork River to augment out-of-priority depletions to the Roaring Fork River caused by pumping of the Paepcke Well and the Airport Well Field No. 1 for landscape irrigation use on the Airport. With respect to the claim for an appropriative right of exchange, the Court hereby makes the following findings of fact based on the evidence and documents that have been presented by Pitkin County:
- A. Location: The appropriative right of exchange will operate on the Roaring Fork River between the Airport property, the location of which is described in Exhibit B hereto, and the downstream confluence of the Roaring Fork River with the Fryingpan River by releases from Ruedi Reservoir, the location of which is described in paragraph 8.B. above.
- B. Source: Ruedi Reservoir, pursuant to a water allotment contract with the Basalt Water Conservancy District.
- C. Appropriation date: December 29, 1999. The appropriation of this conditional exchange right was initiated by field work on and around the Airport property by Pitkin County's water engineer; through manifestation of Pitkin County's intent to appropriate water in the amounts and for the purposes described herein, including the Board of County Commissioners' approval of a resolution in 1999 authorizing the filing of the application in this case requesting a change of the Stapleton Brothers' Ditch water right and approval of a plan for augmentation utilizing water stored in Ruedi Reservoir for the benefit of the Basalt Water Conservancy District; and by providing notice to interested parties of the nature and extent of the demand proposed in that application through the posting of signs in conspicuous places indicating the same. Water has not yet been placed to beneficial use by Pitkin County under the claimed conditional exchange right.

- D. Amount: 25 acre-feet per year, CONDITIONAL; 0.14 cfs, CONDITIONAL, maximum exchange rate.
 - E. Use: Augmentation and replacement by exchange of depletions to the Roaring Fork River in accordance with the augmentation plan decreed herein.
 - F. Terms and Conditions: If the appropriative right of exchange described above is not in priority, the junior priorities for the wells are not in priority and the Stapleton Brothers' Ditch is not in priority and available for augmentation of the wells, then Pitkin County shall be required to cease pumping the wells augmented hereunder until an alternate source of augmentation supply is secured.
- 10. The Court finds that, provided the change of water rights and plan for augmentation including exchange described above in these Findings of Fact are operated in compliance with the terms and conditions of this Decree, there will be no injury to the owners of or persons entitled to use water under vested water rights or decreed conditional water rights.
 - 11. The Court further finds that Pitkin County has established that it can and will complete the appropriation of the conditional right of exchange adjudicated herein, and that the waters controlled thereby can and will be beneficially used by Pitkin County with diligence and within a reasonable time. The December 29, 1999 appropriation date for this conditional appropriative exchange right shall establish the relative priority of said right among all other vested water rights or conditional water rights decreed pursuant to applications filed in Water Division No. 5 in calendar year 1999, but shall be junior to all vested and decreed conditional water rights awarded on applications filed in previous years.
 - 12. Pitkin County has entered into a Stipulation and Agreement with the Colorado Water Conservation Board ("CWCB"), dated September 28, 2001, by which the CWCB has consented to entry of this Decree. Under said Stipulation and Agreement, Pitkin County has agreed that at any time stream flows in the Roaring Fork River fall below the amounts decreed to the CWCB in Case No. 85CW646, Pitkin County will replace its out-of-priority depletions under this augmentation plan, in time, place and amount, with releases of water as set forth in said Stipulation and Agreement which is on file with the Court.

CONCLUSIONS OF LAW

- 13. The Court has exclusive jurisdiction over the subject matter of this proceeding pursuant to C.R.S. § 37-92-203, and over all persons or entities affected hereby, whether they have appeared or not. C.R.S. § 37-92-302.

14. The application for change of water rights and approval of plan for augmentation including appropriative right of exchange requested in this proceeding is in accordance with law and should be granted subject to the terms and conditions of this Decree. No injury to other water rights will occur as a result of the exercise of the change of water rights and plan for augmentation including exchange granted herein, provided that these water rights are operated in accordance with the terms and conditions of this Decree.
15. The Court concludes that the consumptive use determinations for the Stapleton Brothers' Ditch water right, as set forth in this Decree, shall become final upon entry of this Decree and shall be reviewable in future change cases involving the Stapleton Brothers' Ditch, but only to the extent that circumstances have changed subsequent to the entry of this Decree regarding the historic consumptive use of the Stapleton Brothers' Ditch water right, including non-use of the right and/or the consumptive use credits quantified herein, which bear upon injury to other vested or decreed conditional water rights. Any such consideration of the historic use of the Stapleton Brothers' Ditch water right shall include only the time period subsequent to entry of this Decree, and shall be in accordance with the changed circumstances standard in Colorado water law, as it currently exists or may be modified in the future. *See, e.g., Farmers Reservoir and Irrigation Co. v. Consolidated Mut. Water Co.*, 33 P.3d 799 (Colo. 2001); *Santa Fe Trail Ranches Property Owners Ass'n v. Simpson*, 990 P.2d 46 (Colo. 1999); *Farmers Reservoir & Irrigation Co. v. City of Golden*, 975 P.2d 189 (Colo. 1999); and *Williams v. Midway Ranches Property Owners Ass'n*, 938 P.2d 515 (Colo. 1997).
16. The water claimed in the application for the conditional appropriative right of exchange approved herein can and will be exchanged, diverted and beneficially used by Pitkin County with diligence and within a reasonable time. C.R.S. § 37-92-305(9)(b).

RULING OF THE REFEREE AND DECREE OF THE COURT

17. The foregoing Findings of Fact and Conclusions of Law are incorporated herein by this reference and hereby modified as necessary to constitute the Judgment and Decree of the Court.
18. The application for change of water rights is hereby granted, subject to the terms and conditions of this Decree.
19. The Court hereby confirms that the historic consumption of water by the Stapleton Brothers' Ditch water right owned by Pitkin County, taking into reasonable account periods of reduced use of that right upon Airport construction, has averaged 220 acre-feet per year.

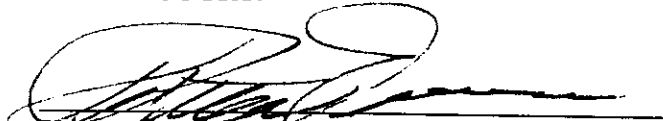
20. The application for approval of the augmentation plan described herein is hereby approved, subject to the terms and conditions of this Decree.
21. The application for approval of the conditional appropriative right of exchange with an appropriation date of December 29, 1999 is hereby approved, subject to the terms and conditions of this Decree.
22. The terms and conditions of this Decree are adequate to assure that no material injury to any water rights will result from exercise of the change of water rights and the plan for augmentation including exchange approved herein.
23. Pitkin County shall install measuring devices and provide monthly accounting to the Division Engineer of diversions, resulting consumptive use, out-of-priority delayed depletions and the provision of augmentation water to the Roaring Fork River, on accounting forms acceptable to the Division Engineer and similar to the forms attached hereto for illustrative purposes as Exhibit C. Pitkin County shall also file an annual report with the Division Engineer by November 15th of each year, summarizing diversions and replacements made under this plan for the previous water year of November 1 through October 31.
24. Subject to the provisions of this Decree, the timing and amount of augmentation releases shall be determined in the discretion of the Division Engineer in accordance with statutory authority, and shall be capable of review by this Court during the time of retained jurisdiction as described in paragraph 8.E. above.
25. Pursuant to C.R.S. § 37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.
26. Well permits for any well in the well field contemplated herein shall be issued by the State Engineer in accordance with the provisions of C.R.S. §§ 37-90-137(2) and 37-92-305(6)(a).
27. Pursuant to C.R.S. § 37-92-304(6), the Court shall retain general jurisdiction over the change of water rights and plan for augmentation including exchange approved herein for a period of five years from the date of this Decree, for purposes of reconsideration of the question of injury to the vested water rights of others. A more limited scope of jurisdiction shall also be retained by this Court for a period of 10 years following receipt by the Court of Pitkin County's notice of completion of the construction of the last additional well, for the limited purposes of considering the timing and amount of associated augmentation depletions from Pitkin County's well field, the terms and conditions related thereto necessary to prevent injury, and adjustment, if necessary, of the amount of Stapleton Brothers' Ditch historic

consumptive use credits and Ruedi Reservoir contract water needed to augment the irrigation of the 19.8 acres of landscaped Airport property. Upon the filing of said notice, Pitkin County shall bear the initial burden of establishing the depletion characteristics of the wells. Within the time limitations established herein, the Court's retained jurisdiction may be invoked by any party to this case by filing a verified petition with appropriate notice to all other parties. The party filing the petition shall bear the burden of establishing the *prima facie* facts alleged in the petition. If the Court finds those facts to be established, then Pitkin County shall thereupon bear the burden of showing (a) that any modification sought by Pitkin County will avoid injury to other vested water rights, or (b) that any modification sought by the petitioner is not required to avoid injury to other vested water rights, or (c) that any term or condition proposed by Pitkin County in response to the petition will avoid injury to other vested water rights.

28. The priority confirmed herein for Pitkin County's conditional appropriative right of exchange is based on the appropriation date confirmed herein and on the filing of the application in this case in the calendar year of 1999. Said priority shall be administered as having been filed in calendar year 1999, and shall be junior to all water rights granted pursuant to applications filed in previous years. As between all water rights applied for in the same calendar year, priorities shall be determined by historical dates of appropriation and shall not be affected by the date of application or the date of entry of ruling or decree.
29. The conditional appropriative right of exchange herein awarded to Pitkin County is hereby continued in full force and effect through the last day of January, 2011. If Pitkin County desires to maintain such conditional exchange right, then an application for finding of reasonable diligence shall be filed on or before the last day of January, 2011, or a showing made on or before such date that the conditional exchange right has become an absolute water right by reason of the completion of the appropriation.

Dated this 31st day of January, 2005.

BY THE COURT:


Peter T. Craven, Water Judge
Water Division No. 5
State of Colorado

Copy of the foregoing mailed to an Counsel
of Record, Water Referee, Div. Engineer
and State Engineer Date 2-1-05

To

Deputy Clerk Water Div. 5

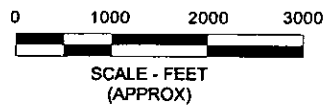
BEATON
HAMMOND
KINNEY
KATEICK
CYRAN
DAVIS



LEGEND



AREA HISTORICALLY
IRRIGATED BY STAPLETON
BROTHERS' DITCH



PITKIN COUNTY

**AREAS HISTORICALLY IRRIGATED
BY THE
STAPLETON BROTHERS' DITCH**

**MARTIN
AND
WOOD**
WATER CONSULTANTS, INC.

EXHIBIT A

JOB NO. 425.1 APRIL 18 2000

EXHIBIT B
ASPEN-PITKIN COUNTY AIRPORT LEGAL DESCRIPTION

PITKIN COUNTY AIRPORT PROPERTY LYING WESTERLY OF HIGHWAY 82

A PARCEL OF LAND SITUATED IN THE E1/2E1/2 OF SECTION 28, THE SW1/4 OF SECTION 27, THE NE1/4NE1/4 OF SECTION 33 AND SECTION 34, TOWNSHIP 8 SOUTH, RANGE 85 WEST AND IN SECTION 3, TOWNSHIP 10 SOUTH, RANGE 85 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF PITKIN, STATE OF COLORADO; SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 33, A STONE FOUND IN PLACE, THE POINT OF BEGINNING; THENCE N01°23'10"W ALONG THE EASTERLY BOUNDARY OF SAID SECTION 33 A DISTANCE OF 1343.36 FEET TO THE NORTH SIXTEENTH CORNER OF SAID SECTION 33 AND SECTION 34, A 2" ALUMINUM CAP L.S. # 15710 IN PLACE; THENCE LEAVING SAID EASTERLY BOUNDARY S87°47'43"W A DISTANCE OF 1334.66 FEET TO THE NORTHEAST SIXTEENTH CORNER OF SAID SECTION 33, A 3-1/4" ALUMINUM CAP L.S. #19598 SET IN PLACE; THENCE N01°04'05"W A DISTANCE OF 1337.21 FEET TO THE EAST SIXTEENTH CORNER OF SAID SECTION 33 AND SECTION 28, A 2" ALUMINUM CAP L.S. #15710 IN PLACE; THENCE N00°57'41"W A DISTANCE OF 1346.09 FEET TO THE SOUTHEAST SIXTEENTH CORNER OF SAID SECTION 28, A 2" ALUMINUM CAP L.S. #15710 IN PLACE; THENCE N00°57'41"W A DISTANCE OF 1346.09 FEET TO THE EAST-CENTER SIXTEENTH CORNER OF SAID SECTION 28, A 3-1/4" ALUMINUM CAP L.S. #19598 SET IN PLACE; THENCE N00°54'29"W A DISTANCE OF 1345.58 FEET TO THE NORTHEAST SIXTEENTH CORNER OF SAID SECTION 28, A 3-1/4" ALUMINUM CAP L.S. #19598 SET IN PLACE; THENCE N00°54'29"W ALONG THE WESTERLY BOUNDARY OF THE NE1/4NE1/4 OF SAID SECTION 28 A DISTANCE OF 580.36 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY OF STATE HIGHWAY NO. 82; THENCE LEAVING SAID WESTERLY BOUNDARY THE FOLLOWING THIRTY-SEVEN (37) COURSES ALONG SAID WESTERLY RIGHT-OF-WAY:

1. S42°44'02"E A DISTANCE OF 51.34 FEET
2. ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 523.00 FEET AND A CENTRAL ANGLE OF 23°18'00" A DISTANCE OF 212.68 FEET (CHORD BEARS S31°05'02"E 211.22 FEET)
3. S19°26'02"E A DISTANCE OF 484.56 FEET
4. ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 1482.50 FEET AND A CENTRAL ANGLE OF 26°48'25" A DISTANCE OF 693.62 FEET (CHORD BEARS S32°50'14"E 687.31 FEET)
5. S32°32'37"E A DISTANCE OF 124.19 FEET
6. S21°16'39"E A DISTANCE OF 216.82 FEET
7. S43°55'47"E A DISTANCE OF 284.03 FEET
8. S59°42'14"E A DISTANCE OF 144.19 FEET
9. S30°26'03"E A DISTANCE OF 206.34 FEET
10. S37°19'48"E A DISTANCE OF 162.90 FEET

11. S22°38'38"E A DISTANCE OF 654.44 FEET
12. S27°02'07"E A DISTANCE OF 311.26 FEET
13. S39°44'48"E A DISTANCE OF 380.71 FEET
14. S29°08'10"E A DISTANCE OF 140.10 FEET
15. S52°52'16"E A DISTANCE OF 244.32 FEET
16. S52°52'13"E A DISTANCE OF 429.03 FEET
17. ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 1822.36 FEET AND A CENTRAL ANGLE OF 25°19'07" A DISTANCE OF 805.29 FEET (CHORD BEARS S40°12'42"E 798.75 FEET)
18. S27°33'09"E A DISTANCE OF 1780.08 FEET
19. ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 3732.22 FEET AND A CENTRAL ANGLE OF 08°50'27" A DISTANCE OF 575.89 FEET (CHORD BEARS S23°07'55"E 575.32 FEET)
20. S18°42'42"E A DISTANCE OF 1196.55 FEET
21. S31°07'57"E A DISTANCE OF 155.94 FEET
22. ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 42.00 FEET AND A CENTRAL ANGLE OF 26°13'47" A DISTANCE OF 19.23 FEET (CHORD BEARS S87°59'31"W 19.06 FEET)
23. S69°05'35"W A DISTANCE OF 9.45 FEET
24. S29°48'01"E A DISTANCE OF 250.55 FEET
25. S49°11'29"E A DISTANCE OF 103.24 FEET
26. S31°10'17"E A DISTANCE OF 1689.08 FEET
27. ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 32898.75 FEET AND A CENTRAL ANGLE OF 00°01'21" A DISTANCE OF 12.89 FEET (CHORD BEARS S30°58'02"E 12.89 FEET)
28. S15°15'18"E A DISTANCE OF 315.91 FEET
29. S19°49'51"E A DISTANCE OF 292.63 FEET
30. S07°35'33"E A DISTANCE OF 212.79 FEET
31. S04°35'09"E A DISTANCE OF 97.46 FEET
32. S01°14'03"W A DISTANCE OF 394.41 FEET
33. S08°41'56"W A DISTANCE OF 264.78 FEET
34. S02°21'08"E A DISTANCE OF 431.37 FEET
35. S03°18'45"W A DISTANCE OF 481.87 FEET
36. S01°16'41"W A DISTANCE OF 687.67 FEET
37. S03°50'58"W A DISTANCE OF 106.80 FEET TO A POINT ON THE SOUTHERLY BOUNDARY OF THAT PROPERTY DESCRIBED IN RECEPTION NO. 211897 OF THE PITKIN COUNTY CLERK AND RECORDER'S OFFICE; THENCE LEAVING SAID WESTERLY RIGHT-OF-WAY ALONG SAID SOUTHERLY BOUNDARY N54°19'57"W A DISTANCE OF 568.54 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY N67°55'57"W A DISTANCE OF 50.95 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY N75°33'57"W A DISTANCE OF 74.83 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY N42°28'57"W A DISTANCE OF 68.05 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY AND THE SOUTHWESTERLY BOUNDARY OF THAT PROPERTY DESCRIBED IN RECEPTION NO. 197660 OF THE PITKIN COUNTY CLERK AND RECORDER'S OFFICE N29°42'06"W A DISTANCE OF 160.23 FEET; THENCE CONTINUING ALONG THE SOUTHWESTERLY BOUNDARY OF SAID RECEPTION NO. 197660 N21°27'57"W A DISTANCE OF 114.67 FEET; THENCE CONTINUING ALONG SAID SOUTHWESTERLY BOUNDARY N31°42'57"W A DISTANCE OF 235.58 FEET; THENCE CONTINUING ALONG SAID SOUTHWESTERLY BOUNDARY N44°01'57"W A DISTANCE OF 238.86 FEET; THENCE CONTINUING ALONG SAID SOUTHWESTERLY BOUNDARY N41°38'57"W A DISTANCE OF 153.11 FEET TO THE SOUTHEAST CORNER OF THAT PROPERTY DESCRIBED IN

RECEPTION NO. 197598 OF THE PITKIN COUNTY CLERK AND RECORDER'S OFFICE; THENCE S69°09'44"W A DISTANCE OF 32.34 FEET TO THE SOUTHWEST CORNER OF SAID RECEPTION NO. 197598; THENCE N29°10'20"W ALONG THE WESTERLY BOUNDARY OF SAID RECEPTION NO. 197598 A DISTANCE OF 154.34 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N25°55'53"W A DISTANCE OF 254.98 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N23°32'45"W A DISTANCE OF 123.79 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N20°36'27"W A DISTANCE OF 125.21 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N19°40'24"W A DISTANCE OF 169.52 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N19°21'23"W A DISTANCE OF 127.95 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N19°20'38"W A DISTANCE OF 102.13 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N21°35'01"W A DISTANCE OF 53.59 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N24°24'47"W A DISTANCE OF 51.90 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N27°13'24"W A DISTANCE OF 186.22 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N27°42'54"W A DISTANCE OF 276.68 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N27°42'09"W A DISTANCE OF 282.96 FEET; THENCE CONTINUING ALONG SAID WESTERLY BOUNDARY N30°26'22"W A DISTANCE OF 17.20 FEET TO A POINT ON THE SOUTHERLY BOUNDARY OF SECTION 34; THENCE S89°57'58"W ALONG THE SOUTHERLY BOUNDARY OF SAID SECTION 34 A DISTANCE OF 996.37 FEET TO THE SOUTHWEST CORNER OF PARCEL 1 OF THAT PROPERTY DESCRIBED IN RECEPTION NO. 306956; THENCE N00°07'52"W ALONG THE WESTERLY BOUNDARY OF SAID PARCEL 1 A DISTANCE OF 1311.71 FEET TO THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE S86°04'10"E ALONG THE NORTHERLY BOUNDARY OF SAID PARCEL 1 A DISTANCE OF 137.57 FEET; THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY S58°04'36"E A DISTANCE OF 172.68 FEET; THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY S57°44'41"E A DISTANCE OF 140.77 FEET; THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY S48°12'58"E A DISTANCE OF 44.49 FEET; THENCE CONTINUING ALONG SAID NORTHERLY BOUNDARY S42°31'20"E A DISTANCE OF 58.86 FEET TO THE NORTHWEST CORNER OF PARCEL H-1 OF THAT PROPERTY DESCRIBED IN RECEPTION NO. 197537 OF THE PITKIN COUNTY CLERK AND RECORDER'S OFFICE; THENCE N50°14'30"E ALONG THE NORTHERLY BOUNDARY OF SAID PARCEL H-1 A DISTANCE OF 63.88 FEET TO A POINT ON THE SOUTHERLY BOUNDARY OF PARCEL 2 OF THAT PROPERTY DESCRIBED IN SAID RECEPTION NO. 306956; THENCE N55°13'01"W ALONG THE SOUTHERLY BOUNDARY OF SAID PARCEL 2 A DISTANCE OF 205.30 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY N55°51'28"W A DISTANCE OF 312.89 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY S72°10'55"W A DISTANCE OF 175.75 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY S61°51'43"W A DISTANCE OF 70.22 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY S89°19'15"W A DISTANCE OF 1105.31 FEET; THENCE CONTINUING ALONG SAID SOUTHERLY BOUNDARY N84°26'04"W A DISTANCE OF 124.55 FEET TO A POINT ON THE WESTERLY BOUNDARY OF SAID SECTION 34; THENCE N00°13'55"W ALONG THE WESTERLY BOUNDARY OF SAID SECTION 34 A DISTANCE OF 1388.00 FEET TO THE POINT OF BEGINNING; SAID PARCEL CONTAINING 597.303 ACRES, MORE OR LESS.

SHEET 1.1 - DEPLETIONS FROM PITKIN COUNTY WELL NO. 1

YEAR _____

MONTH	WELL PUMPAGE		85% OF WELL PUMPAGE	CALCULATED DEPLETION TO ROARING FORK	% OF MONTH WELL IS IN PRIORITY	OUT-OF-PRIORITY DEPLETION TO ROARING FORK
	GALLONS	AF	AF	AF	%	AF
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			85% x (3)	(4) LAGGED & CUMULATED		(100-(6)) X (5)
JAN						
FEB						
MAR						
APR						
MAY						
JUN						
JUL						
AUG						
SEP						
OCT						
NOV						
DEC						
TOTALS						

MONTHLY DEPLETION FACTORS FOR PITKIN COUNTY WELL NO. 1

MONTH AFTER PUMPING	MONTHLY DEPLETION FACTOR
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
TOTAL	1.000

SHEET 2 - TOTAL DEPLETIONS FROM PITKIN COUNTY WELLS AND AUGMENTATION

YEAR _____

MONTH	OUT-OF-PRIORITY DEPLETIONS FROM PITKIN COUNTY WELLS					AUGMENTATION PROVIDED			AUGMENTATION BALANCE	
	P CO WELL NO. 1	P CO WELL NO. 2	P CO WELL NO. 15	PAEPCKE WELL	TOTAL FOR ALL WELLS	FROM SBD HIST CU	FROM RUEDI RES *	TOTAL	MONTH	CUMULATIVE
	AF (2)	AF (3)	AF (16)	AF (17)	AF (18)	AF (19)	AF (20)	AF (21)	AF (22)	AF (23)
(1)	= (7)	= (7)	= (7)	= (7)	SUM OF			= (19)	= (21)	= (23)
	FOR	FOR	FOR	FOR	(2)			+ (20)	- (18)	+ (22)
	P CO	P CO	P CO	PAEP-	THRU					
	WELL	WELL	WELL	CKE	(17)					
	NO. 1	NO. 2	NO. 15	WELL						
JAN										
FEB										
MAR										
APR										
MAY										
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										

TOTALS

* AFTER TRANSPORTATION CHARGES HAVE BEEN ASSESSED BY THE DIVISION ENGINEER

SHEET 3 - TOTAL PUMPAGE FROM WELLS AS ALTERNATE POINTS OF DIVERSION
AND DIVERSIONS FROM STAPLETON BROTHERS DITCH

03/12/2001

YEAR		TOTAL PUMPAGE FROM WELLS AS ALTERNATE POINTS			DIVERSIONS FROM STAPLETON BROTHERS DITCH	
MONTH	GALLONS	ACRE-FEET	CUMULATIVE - AF	ACRE-FEET	CUMULATIVE - AF	
(1)	(2)	(3)	(4)	(5)	(6)	
JAN						
FEB						
MAR						
APR						
MAY						
JUN						
JUL						
AUG						
SEP						
OCT						
NOV						
DEC						
TOTALS						

APPENDIX F



**REPORT ON CHANGE OF
STAPLETON BROTHERS' DITCH
WATER RIGHT AND
PLAN FOR AUGMENTATION**

Prepared for

Pitkin County

by

Martin and Wood Water Consultants, Inc.
602 Park Point Drive, Suite 275
Golden, Colorado 80401
Phone: (303) 526-2600 Fax: (303) 526-2624

June 7, 2000

Job No. 425.1

CERTIFICATION

I, Joe Tom Wood, Professional Engineer, certify that I directed the preparation of the following engineering report entitled, "Report on Change of Stapleton Brothers' Ditch Water Right and Plan For Augmentation."

Joe Tom Wood
Joe Tom Wood, P.E.
#17829

June 7, 2000
Date



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Irrigation of 19.8 Acres of Lawn Grass in Acre-Feet

REPORT ON CHANGE OF STAPLETON BROTHERS' DITCH WATER RIGHT AND PLAN FOR AUGMENTATION

I. INTRODUCTION

A. Purpose of Report

This report quantifies the historic irrigation consumption use of the 8 cfs Stapleton Brothers' Ditch water right owned by Pitkin County. The report also describes a change of water right for the Stapleton Brothers' Ditch and an augmentation plan which will allow the County to divert water from as many as sixteen wells for irrigation of a total of 19.8 acres of landscaping at the Aspen-Pitkin County Airport.

B. Scope of Report

The scope of investigations and analyses described in this report include: review and quantification of the State Engineer's diversion records; review of the decree entered on October 16, 1933, by the Pitkin County District Court in Civil Action No. 3000 along with the ditch claim statement for the Stapleton Brothers' Ditch and the petition for a priority for said ditch; site visits to the area historically irrigated by the Stapleton Brothers' Ditch; interviews of Mr. Lada Vransky who irrigated with the Stapleton Brothers' Ditch; review of aerial photography; review of hydrogeology for the general area of the Aspen-Pitkin County Airport; climatological data for the Aspen and Aspen 1 SW weather stations; and SCS Technical Release No. 21, revised 1970.

II. DESCRIPTION OF THE STAPLETON BROTHERS' DITCH WATER RIGHT

On October 16, 1933, the Pitkin County District Court entered a decree in Civil Action No. 3000 confirming the diversion of 8 cfs from Maroon Creek for irrigation through the Stapleton Brothers' Ditch with a date of appropriation of June 30, 1904. The decree found that the petitioners, James Stapleton and Timothy Stapleton, owned 400 acres which were under cultivation or susceptible to irrigation by water diverted from Maroon Creek through the Stapleton Brothers' Ditch.

III. HISTORIC USE OF THE STAPLETON BROTHERS' DITCH

A. Selection of Study Period

In the early 1970's Aspen and Pitkin County constructed the Aspen-Pitkin County Airport upon lands which included a large portion of the area historically irrigated by the Stapleton Brothers' Ditch. Therefore, this report adopts the pre-airport period for the quantification of the full measure of historic use of the Stapleton Brothers' Ditch water right.

B. Irrigated Area and Crops

Based upon site visits, aerial photography, and interviews with Mr. Lada Vransy, the pre-airport area irrigated by the Stapleton Brothers' Ditch consisted of at least 136 acres. Mr. Vransy is the person who has operated the ditch since 1958 for the County and the County's predecessor. Figure 1 depicts the pre-airport areas historically irrigated by the Stapleton Brothers' Ditch. The four sub-areas of irrigated land shown on Figure 1 (i.e., SBD1, SBD2, SBD3, and SBD4) were identified for computational purposes.

All 136 acres of land historically irrigated by the Stapleton Brothers' Ditch lie within lands owned by Pitkin County or under easement to Pitkin County.

The Stapleton Brothers' Ditch provided water to irrigate grass and alfalfa in roughly equal proportions.

C. Historic Diversions

Tables 1 and 2 summarize the State Engineer's existing records of diversions by the Stapleton Brothers' Ditch for the 1969-1994 period. Unfortunately, diversion records do not exist of the pre-airport period, other than the first few years included in Table 1. The Stapleton Brothers' Ditch diverted an average of approximately 2,100 acre-feet per year in the 1969-1994 period.

Table 2 summarizes data obtained from water commissioners' reports and provides more detailed information on historic diversions by the Stapleton Brothers' Ditch for the 1969-1994 period. Table 2 indicates that, on the average, the Stapleton Brothers' Ditch has diverted in excess of four months each year, with diversions beginning in late May (May 23) and ending in late September (September 27).

D. Historic Irrigation Consumptive Use

The modified Blaney-Criddle method was used to calculate unit irrigation consumptive use requirements for the grass and alfalfa irrigated by the Stapleton Brothers' Ditch. Combined crop growth stage/temperature coefficient for high meadow grasses in South Park were used for grass. The crop growth stage coefficient for alfalfa from SCS Technical Release No. 21 was increased by 23% to account for aridity and elevation. Temperature and precipitation data from the nearby Aspen weather station (1951-1979) and the nearby Aspen 1 SW weather station (1980-1995) were used.

Tables 3 and 4 summarize the calculations of the unit irrigation consumptive use requirement for the grass and alfalfa, respectively, irrigated by the Stapleton Brothers' Ditch. Table 5 summarizes the unit requirements for a 50%/50% mixture of irrigated grass and alfalfa, averaging 1.83 acre-feet per acre per year. The historic irrigation consumptive use requirement for the 136 acres historically irrigated by the Stapleton Brothers' Ditch was 249 acre-feet per year (136 acres x 1.83 acre-feet per acre per year).

Despite the fact that diversion records are unavailable for much of the pre-airport period, information obtained from Mr. Vransy confirms that diversions by the Stapleton Brothers' Ditch did provide a sufficient amount of water to result in an average historic consumptive use of water of 249 acre-feet per year in the pre-airport period. This conclusion is further supported by the fact that the post-airport diversions were far in excess of the amount of water required for the irrigation of the 136 acres historically irrigated by the Stapleton Brothers' Ditch.

Table 6 summarizes the monthly historic irrigation consumptive use from the Stapleton Brothers' Ditch, totaling 249 acre-feet per year.

IV. CHANGE OF STAPLETON BROTHERS' DITCH WATER RIGHT AND PLAN FOR AUGMENTATION

A. Change of Stapleton Brothers' Ditch Water Right

1. Changes in Points of Diversion

Pitkin County seeks to divert a portion or all of its Stapleton Brothers' Ditch water right through one existing well and a total of up to 15 additional wells to be constructed upon Aspen-Pitkin County Airport lands. The one existing well is the Airport Well (Permit No. 4573) and is located on Figure 2. The additional wells will be constructed upon Aspen-Pitkin County Airport lands in Section 34, Township 9 South, and in Section 3, Township 10 South, both sections in Range 85 West.

2. Change in Place of Use

Pitkin County will divert a portion of its Stapleton Brothers' Ditch water rights through the above-described wells to irrigate up to 19.8 acres at and in the vicinity of the Airport. The County will use the wells to divert its Stapleton Brothers' Ditch rights to irrigate up to 10 acres at the Airport Terminal. These 10 acres will include three acres at the Terminal that are currently irrigated with treated water provided by the City of Aspen.

Pitkin County also plans to use the wells to irrigate up to 9.8 acres of turf grass or a lower water using vegetation to be located immediately west of the 7,400 foot runway. The County intends to irrigate this area to control rutting and to improve aesthetics at the Airport. A portion of the 9.8-acre area is coincident with the area historically irrigated by the Stapleton Brothers' Ditch.

3. Use of Historic Irrigation Consumptive Use Credit from Change of Stapleton Brothers' Ditch Water Right

The County's use of up to 16 wells to irrigate up to 19.8 acres at the Airport is expected to result in time-delayed depletions to the Roaring Fork River. Based on a review of available hydrogeologic information, the timing of such depletions resulting from the usage of the wells cannot be determined at this time. The County will need to pump-test representative well(s) at the time of construction and quantify the timing of depletion to the river. Once this analysis is performed for representative well(s), a set of sequential monthly depletion factors will be developed utilizing the Glover methodology and will be used to calculate, on a monthly basis, the total depletion to the Roaring Fork River from the wells used by the County for irrigation.

4. Amount of Irrigation Consumptive Use Required for the Irrigation of 19.8 Acres

The irrigation consumptive use requirements for the Airport's irrigation of up to 19.8 acres of landscaping at the terminal and along the west side of the runway have been calculated to be 37 acre-feet per year. Table 7 summarizes the average monthly and annual calculations of irrigation consumptive use required by lawn grass at an elevation of 7,740 feet utilizing the Pochop adjustment to the crop growth stage coefficient for lawn grass. This estimate of consumptive use is based on a full supply of water for lawn grass. However, it is likely that a lower water using vegetation will be planted along the runway. Thus, the amount of water actually needed to irrigate the 19.8 acres may vary from the estimated amount of 37 acre-feet per year. To account for such variation, Pitkin County shall measure the amount of water actually applied to the landscaped areas on the airport property and will apply an 85% consumptive use factor to the total amount of water used. The calculated consumptive use will be deemed to be equivalent to the net depletions resulting from the use of the wells. If the entirety of the 37 af/yr of water consumption is not realized, Pitkin County shall be entitled to use any surplus for other purposes.

B. Plan for Augmentation

To the extent that the monthly historic irrigation consumptive use credits from the Stapleton Brothers' Ditch, summarized in Table 6, are sufficient to cover the County's delayed out-of-priority depletions from the wells, the wells will be used as alternate points of diversion for the Stapleton Brothers' Ditch's water right. To the extent that the historic credits from the Stapleton Brothers' Ditch are inadequate to cover the delayed out-of-priority depletions from the wells, the County will augment the depletions from the wells by providing replacement water from Ruedi Reservoir. Pitkin County has applied to the Basalt Water Conservancy District for a water allotment contract in the amount of 25 acre-feet per year from Ruedi Reservoir.

V. CONCLUSION

If the County's change of its Stapleton Brothers' Ditch water right and its plan for augmentation are operated and administered in accordance with this report, no injury to vested water rights will result.



N

LEGEND



AREA HISTORICALLY
IRRIGATED BY STAPLETON
BROTHERS' DITCH

0 1000 2000 3000



SCALE - FEET
(APPROX)

PITKIN COUNTY

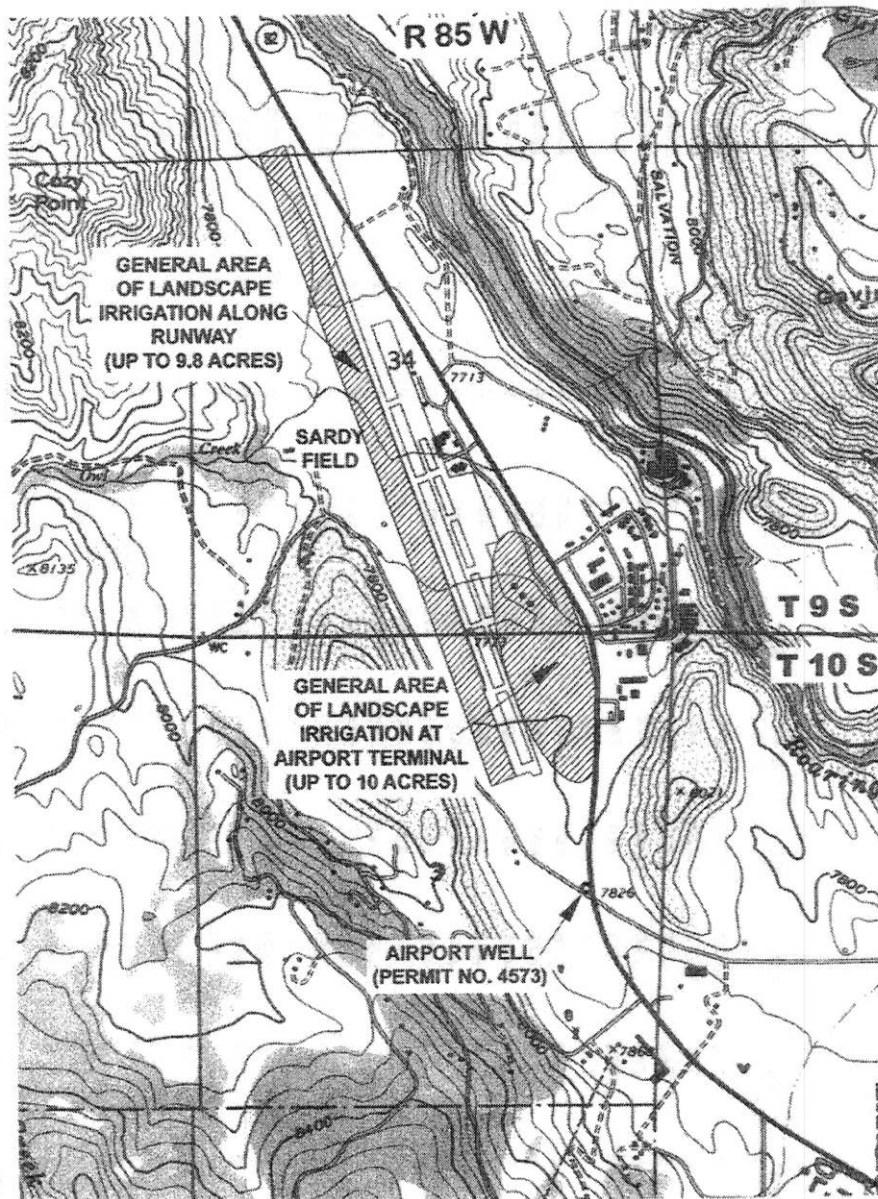
**AREAS HISTORICALLY IRRIGATED
BY THE
STAPLETON BROTHERS' DITCH**

**MARTIN
AND
WOOD**

WATER CONSULTANTS, INC.

FIGURE 1

JOB NO. 425.1 APRIL 18 2000



0 1000 2000 3000
 SCALE - FEET
 (APPROX)

LOCATION MAP OF THE PITKIN COUNTY AIRPORT WELL

**MARTIN
AND
WOOD**
 WATER CONSULTANTS, INC.

FIGURE 2

JOB NO. 425.1 JUNE 5, 2000

TABLE 1

SUMMARY OF HISTORIC DIVERSIONS BY STAPLETON BROTHERS' DITCH

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WATER	
													CALCULATED ANNUAL	COMMISSIONER'S ANNUAL
1969	0	0	0	0	0	1,000	1,240	1,240	600	0	0	0	4,080	4,040
1970	0	0	0	0	240	1,200	1,220	1,220	0	0	0	0	3,880	3,880
1971	0	0	0	0	240	600	620	620	600	0	0	0	2,680	2,680
1972	0	0	0	0	744	720	744	744	720	0	0	0	3,672	3,672
1973	0	0	0	0	744	720	744	744	720	0	0	0	3,672	3,672
1974	0	0	0	0	0	0	0	0	0	0	0	0	0	3,432
1975	0	0	0	0	190	475	491	491	475	222	0	0	2,344	2,344
1976	0	0	0	0	190	475	491	491	475	475	0	0	2,597	2,597
1977	0	0	0	0	349	475	491	491	475	491	0	0	2,772	2,772
1978	0	0	0	0	0	475	491	491	475	491	0	0	2,423	2,423
1979	0	0	0	0	0	475	491	491	475	491	0	0	2,423	2,423
1980	0	0	0	0	0	475	491	491	475	491	0	0	2,423	2,423
1981	0	0	0	0	0	356	368	368	345	0	0	0	1,437	1,437
1982	0	0	0	0	0	356	368	368	333	0	0	0	1,425	1,425
1983	0	0	0	0	0	356	368	368	356	368	0	0	1,816	1,817
1984	0	0	0	0	202	356	368	368	356	368	0	0	2,018	2,019
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	298	240	162	0	0	0	0	700	699
1987	0	0	0	0	337	595	615	615	595	595	0	0	3,352	3,352
1988	0	0	0	0	36	179	184	184	173	0	0	0	756	756
1989	0	0	0	0	135	238	246	214	0	0	0	0	833	833
1990	0	0	0	0	492	476	480	0	0	0	0	0	1,428	1,428
1991	0	0	0	0	0	714	643	369	286	0	0	0	2,012	2,011
1992	0	0	0	0	68	56	0	0	0	0	0	0	124	124
1993	0	0	0	0	0	139	290	195	150	155	0	0	929	929
1994	0	0	0	0	0	176	224	28	0	0	0	0	428	427
24-YR AVG	0	0	0	0	165	474	495	448	337	173	0	0	2,093	2,145 (25-YR AVG)

TABLE 2

SUMMARY OF WATER COMMISSIONERS' DIVERSION RECORDS FOR STAPLETON BROTHERS' DITCH

YEAR	FIRST DAY	LAST DAY	# OF DAYS OF DIVERSIONS	MAXIMUM RATE OF DIVERSION CFS	STRUCTURE CAPACITY CFS	ANNUAL DIVERSIONS ACRE-FOOT	IRRIGATED AREA ACRES	WATER COMMISSIONERS' REMARKS
1969	06/06	09/15	101	20.0	-	4,040	200	NO MEASURING DEVICE
1970	05/20	08/31	104	10.0	10.0	3,880	400	NO RECORDER
1971	05/20	09/30	134	10.0	10.0	2,680	400	NO RECORDER
1972	05/01	09/30	153	12.0	12.0	3,672	200	"ABOUT HALF OF THE AMOUNT DIVERTED RAN DIRECTLY BACK TO OWL CREEK. OF THE ORIGINAL 400 ACRES IRRIGATED BY THIS DITCH, THE ASPEN AIRPORT AND OTHER DEVELOPMENT ACCOUNT FOR AN ESTIMATED 200 ACRES OR MORE."
1973	05/01	09/30	153	12.0	12.0	3,672	150	"ESTIMATE 1500.00 AF USE FOR IRRIGATION. ASPEN AIRPORT IS ON LAND PREVIOUSLY IRRIGATED BY THIS DITCH. ESTIMATE 10.0 AF USED AS DOMESTIC. ESTIMATE 2162 (OR 21.62 ?) SPILLS BACK INTO OWL CREEK MINUS LOSS IN TRANSPORTATION. SOME USE IN (STAPLETON DITCH 'OWL CREEK'.)"
1974	-	-	143	12.0	12.0	3,432	50	"ESTIMATE 500 AF USED AND 2932 RELEASED INTO OWL CREEK."
1975	05/20	10/14	148	8.0	-	2,344	150	NO RECORDER OR MEASURING DEVICE
1976	05/20	10/30	164	8.0	15.0	2,597	126	NO RECORDER OR MEASURING DEVICE
1977	05/10	10/31	175	8.0	15.0	2,772	150	NO RECORDER OR MEASURING DEVICE
1978	06/01	10/31	153	8.0	15.0	2,424	150	NO RECORDER OR MEASURING DEVICE
1979	06/01	10/31	153	8.0	15.0	2,424	150	NO RECORDER OR MEASURING DEVICE
1980	06/01	10/31	153	8.0	15.0	2,424	150	NO RECORDER OR MEASURING DEVICE
1981	06/01	09/29	121	6.0	15.0	1,438	150	NO RECORDER OR MEASURING DEVICE
1982	06/01	09/28	120	6.0	15.0	1,426	150	NO RECORDER OR MEASURING DEVICE
1983	06/01	10/31	153	6.0	15.0	1,818	150	NO RECORDER OR MEASURING DEVICE
1984	05/15	10/31	170	6.0	15.0	2,020	150	NO RECORDER OR MEASURING DEVICE
1985	-	-	-	-	-	-	150	
1986	06/01	08/30	91	5.0	-	699	150	"USED FOR SNOWMAKING IN WINTER BUT NO RECORD AVAILABLE"
1987	05/15	10/30	169	10.0	-	3,352	150	"SNOWMAKING NOV. AND DEC."
1988	05/26	09/29	178	3.0	-	756	150	
1989	05/15	08/27	177	4.0	-	833	150	
1990	05/01	07/29	90	8.0	-	1,428	100	"ALSO SUPPLIES WATER TO BUTTERMILK FOR SNOWMAKING"
1991	06/01	09/24	116	12.0	-	2,011	100	"ALSO SUPPLIES WATER TO BUTTERMILK FOR SNOWMAKING" (38 AF)
1992	05/21	06/09	20	3.1	-	124	100	"ALSO SUPPLIES WATER TO BUTTERMILK FOR SNOWMAKING" (100 AF); "DITCH OFF" EARLY FOR PIPE REPAIRS"
1993	06/12	10/31	142	4.9	-	929	100	"ALSO SUPPLIES WATER TO BUTTERMILK FOR SNOWMAKING" (11 AF)
1994	06/07	08/04	59	3.7	-	427	100	"ALSO SUPPLIES WATER TO BUTTERMILK FOR SNOWMAKING" (119 AF)
AVERAGE	05/23	09/27	134	-	-	2,145	159	

NOTES: (1) THE WATER COMMISSIONERS' DIVERSION RECORDS INDICATE THAT THE STAPLETON BROTHERS' DITCH BEGAN TO DIVERT WATER FOR SNOWMAKING IN WATER YEAR 1986.

(2) ALL OF THE DATA PRESENTED IN THE MAIN BODY OF THIS TABLE RELATE TO THE IRRIGATION SEASON. ADDITIONAL WINTER DIVERSIONS FOR SNOWMAKING ARE SHOWN UNDER REMARKS WHERE RECORDS ARE AVAILABLE.

(3) WHILE THE DIVERSION RECORDS INDICATE AN AVERAGE OF 159 ACRES BEING IRRIGATED, THAT NUMBER HAS BEEN REDUCED TO 136 ACRES BASED ON REVIEW OF AERIAL PHOTOGRAPHS AND DISCUSSIONS WITH LADA VRANY.

TABLE 3

IRRIGATION CONSUMPTIVE USE REQUIREMENTS FOR ALFALFA FOR STAPLETON BROTHERS' DITCH
IN FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1951	0.00	0.00	0.00	0.00	0.19	0.28	0.48	0.29	0.20	0.00	0.00	0.00	1.44
1952	0.00	0.00	0.00	0.00	0.20	0.43	0.41	0.27	0.24	0.00	0.00	0.00	1.55
1953	0.00	0.00	0.00	0.00	0.12	0.43	0.45	0.36	0.30	0.00	0.00	0.00	1.66
1954	0.00	0.00	0.00	0.00	0.23	0.43	0.52	0.35	0.15	0.00	0.00	0.00	1.68
1955	0.00	0.00	0.00	0.00	0.18	0.31	0.43	0.34	0.29	0.00	0.00	0.00	1.55
1956	0.00	0.00	0.00	0.00	0.28	0.45	0.41	0.34	0.31	0.00	0.00	0.00	1.79
1957	0.00	0.00	0.00	0.00	0.05	0.27	0.41	0.33	0.23	0.00	0.00	0.00	1.29
1958	0.00	0.00	0.00	0.00	0.28	0.40	0.52	0.45	0.24	0.00	0.00	0.00	1.89
1959	0.00	0.00	0.00	0.00	0.14	0.39	0.40	0.28	0.08	0.00	0.00	0.00	1.29
1960	0.00	0.00	0.00	0.00	0.19	0.42	0.47	0.39	0.25	0.00	0.00	0.00	1.72
1961	0.00	0.00	0.00	0.00	0.17	0.49	0.48	0.39	0.00	0.00	0.00	0.00	1.53
1962	0.00	0.00	0.00	0.00	0.15	0.41	0.47	0.38	0.23	0.00	0.00	0.00	1.64
1963	0.00	0.00	0.00	0.00	0.28	0.28	0.53	0.26	0.28	0.00	0.00	0.00	1.63
1964	0.00	0.00	0.00	0.00	0.21	0.28	0.52	0.18	0.22	0.00	0.00	0.00	1.41
1965	0.00	0.00	0.00	0.00	0.21	0.32	0.43	0.33	0.04	0.00	0.00	0.00	1.33
1966	0.00	0.00	0.00	0.00	0.26	0.37	0.44	0.34	0.25	0.00	0.00	0.00	1.66
1967	0.00	0.00	0.00	0.00	0.16	0.30	0.43	0.36	0.21	0.00	0.00	0.00	1.46
1968	0.00	0.00	0.00	0.00	0.17	0.44	0.43	0.21	0.19	0.00	0.00	0.00	1.44
1969	0.00	0.00	0.00	0.00	0.26	0.16	0.49	0.44	0.19	0.00	0.00	0.00	1.54
1970	0.00	0.00	0.00	0.00	0.27	0.35	0.46	0.35	0.08	0.00	0.00	0.00	1.51
1971	0.00	0.00	0.00	0.00	0.19	0.46	0.52	0.37	0.14	0.00	0.00	0.00	1.68
1972	0.00	0.00	0.00	0.00	0.23	0.40	0.56	0.37	0.13	0.00	0.00	0.00	1.69
1973	0.00	0.00	0.00	0.00	0.12	0.28	0.39	0.40	0.18	0.00	0.00	0.00	1.37
1974	0.00	0.00	0.00	0.00	0.31	0.38	0.40	0.36	0.22	0.00	0.00	0.00	1.67
1975	0.00	0.00	0.00	0.00	0.16	0.29	0.42	0.42	0.22	0.00	0.00	0.00	1.51
1976	0.00	0.00	0.00	0.00	0.25	0.39	0.48	0.34	0.18	0.00	0.00	0.00	1.64
1977	0.00	0.00	0.00	0.00	0.29	0.53	0.44	0.38	0.23	0.00	0.00	0.00	1.87
1978	0.00	0.00	0.00	0.00	0.11	0.55	0.53	0.41	0.21	0.00	0.00	0.00	1.81
1979	0.00	0.00	0.00	0.00	0.09	0.22	0.54	0.35	0.32	0.00	0.00	0.00	1.52
1980	0.00	0.00	0.00	0.00	0.11	0.41	0.57	0.39	0.26	0.00	0.00	0.00	1.74
1981	0.00	0.00	0.00	0.00	0.06	0.44	0.41	0.38	0.22	0.00	0.00	0.00	1.51
1982	0.00	0.00	0.00	0.00	0.14	0.33	0.42	0.42	0.10	0.00	0.00	0.00	1.41
1983	0.00	0.00	0.00	0.00	0.00	0.28	0.52	0.40	0.29	0.00	0.00	0.00	1.49
1984	0.00	0.00	0.00	0.00	0.23	0.15	0.37	0.27	0.22	0.00	0.00	0.00	1.24
1985	0.00	0.00	0.00	0.00	0.17	0.41	0.40	0.46	0.00	0.00	0.00	0.00	1.44
1986	0.00	0.00	0.00	0.00	0.20	0.39	0.40	0.33	0.10	0.00	0.00	0.00	1.42
1987	0.00	0.00	0.00	0.00	0.21	0.33	0.48	0.34	0.26	0.00	0.00	0.00	1.62
1988	0.00	0.00	0.00	0.00	0.18	0.43	0.56	0.47	0.16	0.00	0.00	0.00	1.80
1989	0.00	0.00	0.00	0.00	0.25	0.43	0.49	0.37	0.25	0.00	0.00	0.00	1.79
1990	0.00	0.00	0.00	0.00	0.22	0.49	0.39	0.41	0.24	0.00	0.00	0.00	1.75
1991	0.00	0.00	0.00	0.00	0.24	0.33	0.46	0.38	0.20	0.00	0.00	0.00	1.61
1992	0.00	0.00	0.00	0.00	0.14	0.34	0.34	0.31	0.18	0.00	0.00	0.00	1.31
1993	0.00	0.00	0.00	0.00	0.13	0.32	0.36	0.33	0.15	0.00	0.00	0.00	1.29
1994	0.00	0.00	0.00	0.00	0.26	0.47	0.54	0.40	0.24	0.00	0.00	0.00	1.91
1995	0.00	0.00	0.00	0.00	0.00	0.27	0.33	0.41	0.19	0.00	0.00	0.00	1.20
AVERAGES	0.00	0.00	0.00	0.00	0.18	0.37	0.46	0.36	0.20	0.00	0.00	0.00	1.56

TABLE 4

IRRIGATION CONSUMPTIVE USE REQUIREMENTS FOR GRASS FOR STAPLETON BROTHERS' DITCH
IN FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1951	0.00	0.00	0.00	0.00	0.31	0.46	0.57	0.32	0.32	0.05	0.00	0.00	2.03
1952	0.00	0.00	0.00	0.00	0.34	0.57	0.51	0.27	0.36	0.23	0.00	0.00	2.28
1953	0.00	0.00	0.00	0.00	0.26	0.57	0.53	0.39	0.43	0.13	0.00	0.00	2.31
1954	0.00	0.00	0.00	0.00	0.36	0.59	0.59	0.37	0.23	0.06	0.00	0.00	2.20
1955	0.00	0.00	0.00	0.00	0.32	0.49	0.53	0.35	0.42	0.13	0.00	0.00	2.24
1956	0.00	0.00	0.00	0.00	0.41	0.59	0.52	0.41	0.43	0.17	0.00	0.00	2.53
1957	0.00	0.00	0.00	0.00	0.14	0.42	0.52	0.36	0.37	0.14	0.00	0.00	1.95
1958	0.00	0.00	0.00	0.00	0.43	0.54	0.64	0.47	0.35	0.16	0.00	0.00	2.59
1959	0.00	0.00	0.00	0.00	0.23	0.50	0.50	0.28	0.15	0.06	0.00	0.00	1.72
1960	0.00	0.00	0.00	0.00	0.32	0.57	0.55	0.40	0.35	0.10	0.00	0.00	2.29
1961	0.00	0.00	0.00	0.00	0.27	0.63	0.57	0.40	0.00	0.00	0.00	0.00	1.87
1962	0.00	0.00	0.00	0.00	0.27	0.57	0.59	0.42	0.35	0.14	0.00	0.00	2.34
1963	0.00	0.00	0.00	0.00	0.42	0.40	0.62	0.25	0.38	0.09	0.00	0.00	2.16
1964	0.00	0.00	0.00	0.00	0.34	0.41	0.58	0.14	0.34	0.20	0.00	0.00	2.01
1965	0.00	0.00	0.00	0.00	0.35	0.47	0.51	0.36	0.09	0.22	0.00	0.00	2.00
1966	0.00	0.00	0.00	0.00	0.38	0.52	0.50	0.37	0.37	0.04	0.00	0.00	2.18
1967	0.00	0.00	0.00	0.00	0.30	0.45	0.50	0.39	0.32	0.12	0.00	0.00	2.08
1968	0.00	0.00	0.00	0.00	0.31	0.59	0.52	0.21	0.32	0.13	0.00	0.00	2.08
1969	0.00	0.00	0.00	0.00	0.37	0.26	0.56	0.42	0.29	0.00	0.00	0.00	1.90
1970	0.00	0.00	0.00	0.00	0.42	0.49	0.54	0.33	0.13	0.00	0.00	0.00	1.91
1971	0.00	0.00	0.00	0.00	0.34	0.61	0.61	0.37	0.25	0.04	0.00	0.00	2.22
1972	0.00	0.00	0.00	0.00	0.37	0.53	0.65	0.39	0.20	0.00	0.00	0.00	2.14
1973	0.00	0.00	0.00	0.00	0.20	0.41	0.48	0.43	0.29	0.16	0.00	0.00	1.97
1974	0.00	0.00	0.00	0.00	0.44	0.50	0.47	0.40	0.34	0.11	0.00	0.00	2.26
1975	0.00	0.00	0.00	0.00	0.30	0.44	0.49	0.45	0.34	0.06	0.00	0.00	2.08
1976	0.00	0.00	0.00	0.00	0.38	0.54	0.55	0.38	0.27	0.20	0.00	0.00	2.32
1977	0.00	0.00	0.00	0.00	0.44	0.64	0.49	0.38	0.31	0.12	0.00	0.00	2.38
1978	0.00	0.00	0.00	0.00	0.22	0.66	0.60	0.44	0.30	0.10	0.00	0.00	2.32
1979	0.00	0.00	0.00	0.00	0.15	0.30	0.62	0.36	0.44	0.13	0.00	0.00	2.00
1980	0.00	0.00	0.00	0.00	0.22	0.58	0.65	0.42	0.37	0.03	0.00	0.00	2.27
1981	0.00	0.00	0.00	0.00	0.12	0.57	0.48	0.41	0.32	0.00	0.00	0.00	1.90
1982	0.00	0.00	0.00	0.00	0.26	0.49	0.52	0.44	0.15	0.07	0.00	0.00	1.93
1983	0.00	0.00	0.00	0.00	0.01	0.43	0.61	0.39	0.40	0.09	0.00	0.00	1.93
1984	0.00	0.00	0.00	0.00	0.35	0.22	0.41	0.24	0.33	0.00	0.00	0.00	1.55
1985	0.00	0.00	0.00	0.00	0.27	0.55	0.47	0.48	0.00	0.00	0.00	0.00	1.77
1986	0.00	0.00	0.00	0.00	0.32	0.51	0.49	0.32	0.17	0.15	0.00	0.00	1.96
1987	0.00	0.00	0.00	0.00	0.34	0.43	0.57	0.35	0.38	0.13	0.00	0.00	2.20
1988	0.00	0.00	0.00	0.00	0.29	0.51	0.63	0.48	0.27	0.23	0.00	0.00	2.41
1989	0.00	0.00	0.00	0.00	0.38	0.58	0.55	0.41	0.36	0.19	0.00	0.00	2.47
1990	0.00	0.00	0.00	0.00	0.37	0.61	0.47	0.44	0.32	0.00	0.00	0.00	2.21
1991	0.00	0.00	0.00	0.00	0.36	0.44	0.55	0.40	0.29	0.05	0.00	0.00	2.09
1992	0.00	0.00	0.00	0.00	0.21	0.51	0.46	0.35	0.27	0.16	0.00	0.00	1.96
1993	0.00	0.00	0.00	0.00	0.24	0.48	0.49	0.37	0.25	0.00	0.00	0.00	1.83
1994	0.00	0.00	0.00	0.00	0.39	0.59	0.64	0.40	0.35	0.05	0.00	0.00	2.42
1995	0.00	0.00	0.00	0.00	0.00	0.39	0.41	0.42	0.27	0.09	0.00	0.00	1.58
AVERAGES	0.00	0.00	0.00	0.00	0.30	0.50	0.54	0.37	0.29	0.10	0.00	0.00	2.11

TABLE 5

IRRIGATION CONSUMPTIVE USE REQUIREMENTS FOR 50%/50% MIXTURE OF ALFALFA AND GRASS
FOR STAPLETON BROTHERS' DITCH
IN FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1951	0.00	0.00	0.00	0.00	0.25	0.37	0.52	0.31	0.26	0.03	0.00	0.00	1.74
1952	0.00	0.00	0.00	0.00	0.27	0.49	0.45	0.27	0.30	0.12	0.00	0.00	1.90
1953	0.00	0.00	0.00	0.00	0.19	0.49	0.48	0.38	0.37	0.07	0.00	0.00	1.98
1954	0.00	0.00	0.00	0.00	0.30	0.50	0.55	0.36	0.19	0.03	0.00	0.00	1.93
1955	0.00	0.00	0.00	0.00	0.25	0.40	0.47	0.35	0.36	0.07	0.00	0.00	1.90
1956	0.00	0.00	0.00	0.00	0.35	0.51	0.46	0.38	0.37	0.09	0.00	0.00	2.16
1957	0.00	0.00	0.00	0.00	0.10	0.35	0.46	0.35	0.30	0.07	0.00	0.00	1.63
1958	0.00	0.00	0.00	0.00	0.36	0.46	0.57	0.45	0.30	0.08	0.00	0.00	2.22
1959	0.00	0.00	0.00	0.00	0.19	0.44	0.44	0.28	0.12	0.03	0.00	0.00	1.50
1960	0.00	0.00	0.00	0.00	0.26	0.49	0.50	0.40	0.30	0.05	0.00	0.00	2.00
1961	0.00	0.00	0.00	0.00	0.22	0.55	0.52	0.40	0.00	0.00	0.00	0.00	1.69
1962	0.00	0.00	0.00	0.00	0.21	0.48	0.52	0.40	0.29	0.07	0.00	0.00	1.97
1963	0.00	0.00	0.00	0.00	0.35	0.34	0.57	0.26	0.33	0.05	0.00	0.00	1.90
1964	0.00	0.00	0.00	0.00	0.28	0.35	0.54	0.16	0.28	0.10	0.00	0.00	1.71
1965	0.00	0.00	0.00	0.00	0.28	0.40	0.46	0.35	0.07	0.11	0.00	0.00	1.67
1966	0.00	0.00	0.00	0.00	0.32	0.44	0.46	0.36	0.31	0.02	0.00	0.00	1.91
1967	0.00	0.00	0.00	0.00	0.23	0.38	0.46	0.38	0.27	0.06	0.00	0.00	1.78
1968	0.00	0.00	0.00	0.00	0.24	0.51	0.47	0.21	0.26	0.07	0.00	0.00	1.76
1969	0.00	0.00	0.00	0.00	0.32	0.21	0.52	0.43	0.24	0.00	0.00	0.00	1.72
1970	0.00	0.00	0.00	0.00	0.35	0.42	0.49	0.34	0.11	0.00	0.00	0.00	1.71
1971	0.00	0.00	0.00	0.00	0.27	0.53	0.56	0.37	0.20	0.02	0.00	0.00	1.95
1972	0.00	0.00	0.00	0.00	0.30	0.46	0.60	0.38	0.17	0.00	0.00	0.00	1.91
1973	0.00	0.00	0.00	0.00	0.16	0.35	0.43	0.42	0.24	0.08	0.00	0.00	1.68
1974	0.00	0.00	0.00	0.00	0.38	0.43	0.43	0.38	0.28	0.06	0.00	0.00	1.96
1975	0.00	0.00	0.00	0.00	0.23	0.37	0.45	0.43	0.28	0.03	0.00	0.00	1.79
1976	0.00	0.00	0.00	0.00	0.32	0.46	0.51	0.36	0.23	0.10	0.00	0.00	1.98
1977	0.00	0.00	0.00	0.00	0.37	0.58	0.46	0.38	0.27	0.06	0.00	0.00	2.12
1978	0.00	0.00	0.00	0.00	0.17	0.60	0.56	0.43	0.26	0.05	0.00	0.00	2.07
1979	0.00	0.00	0.00	0.00	0.12	0.26	0.57	0.36	0.38	0.07	0.00	0.00	1.76
1980	0.00	0.00	0.00	0.00	0.17	0.49	0.60	0.41	0.32	0.02	0.00	0.00	2.01
1981	0.00	0.00	0.00	0.00	0.09	0.50	0.44	0.40	0.27	0.00	0.00	0.00	1.70
1982	0.00	0.00	0.00	0.00	0.20	0.41	0.46	0.43	0.13	0.04	0.00	0.00	1.67
1983	0.00	0.00	0.00	0.00	0.01	0.36	0.56	0.40	0.35	0.05	0.00	0.00	1.73
1984	0.00	0.00	0.00	0.00	0.29	0.19	0.39	0.26	0.28	0.00	0.00	0.00	1.41
1985	0.00	0.00	0.00	0.00	0.22	0.47	0.43	0.46	0.00	0.00	0.00	0.00	1.58
1986	0.00	0.00	0.00	0.00	0.26	0.44	0.44	0.33	0.14	0.08	0.00	0.00	1.69
1987	0.00	0.00	0.00	0.00	0.28	0.38	0.52	0.35	0.32	0.07	0.00	0.00	1.92
1988	0.00	0.00	0.00	0.00	0.24	0.46	0.59	0.47	0.22	0.12	0.00	0.00	2.10
1989	0.00	0.00	0.00	0.00	0.32	0.50	0.51	0.39	0.31	0.10	0.00	0.00	2.13
1990	0.00	0.00	0.00	0.00	0.30	0.54	0.43	0.43	0.28	0.00	0.00	0.00	1.98
1991	0.00	0.00	0.00	0.00	0.30	0.39	0.50	0.39	0.25	0.03	0.00	0.00	1.86
1992	0.00	0.00	0.00	0.00	0.18	0.43	0.40	0.33	0.23	0.08	0.00	0.00	1.65
1993	0.00	0.00	0.00	0.00	0.19	0.40	0.43	0.35	0.20	0.00	0.00	0.00	1.57
1994	0.00	0.00	0.00	0.00	0.33	0.52	0.58	0.40	0.30	0.03	0.00	0.00	2.16
1995	0.00	0.00	0.00	0.00	0.00	0.33	0.37	0.42	0.23	0.05	0.00	0.00	1.40
AVERAGES	0.00	0.00	0.00	0.00	0.24	0.43	0.49	0.37	0.25	0.05	0.00	0.00	1.83

TABLE 6

SUMMARY OF HISTORIC IRRIGATION CONSUMPTIVE USE FOR STAPLETON BROTHERS' DITCH
IN ACRE-FEET

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
				32.7	58.5	66.7	50.3	34.0	6.8			249.0

TABLE 7

SUMMARY OF IRRIGATION CONSUMPTIVE USE REQUIREMENTS FOR IRRIGATION OF 19.8 ACRES
OF LAWN GRASS IN ACRE-FEET

MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
5.6	7.7	8.7	6.7	5.1	3.2	37.0

APPENDIX G

STATE OF COLORADO

Bill Ritter, Jr., Governor

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WILDLIFE

AN EQUAL OPPORTUNITY EMPLOYER

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6060 Broadway

Denver, Colorado 80216

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*For Wildlife-
For People*

January 15, 2009

Ms. Linda Bassi

Colorado Water Conservation Board

1313 Sherman Street, Room 723

Denver, CO 80203

Dear Linda,

The following is the Colorado Division of Wildlife's (DOW) analysis and recommendation regarding the possible donation of the Stapleton Brothers' Ditch Water Right for instream flow purposes on Maroon Creek, a tributary of the Roaring Fork River near Aspen.

General Information

The Colorado Water Conservation Board (CWCB) requested the DOW to evaluate the benefits and possible impacts associated with accepting the proposed donation of the Stapleton Brothers' Ditch Water Right to the fisheries in Maroon Creek and the Roaring Fork River. The CWCB currently holds the following instream flow water rights to preserve the natural environment to a reasonable degree that might benefit from this acquisition:

Case No.	Stream	Reach	Amount (cfs)	Approp. Date
5-76W2945	Maroon Creek (CDOW # 21078)	East & West Maroon Creek to Roaring Fork River	14 (Jan1 – Dec 31)	1-14-1976
5-85CW646	Roaring Fork River (CDOW #21713)	Maroon Creek to Frying Pan River	55(Apr 1 – Sept 30) 30 (Oct 1 – Mar 31)	11-8-1985
5-85CW639	Roaring Fork River	Frying Pan River to Crystal River	145(Apr 1 – Sept 30) 75 (Oct 1 – Mar 31)	11-8-1985

Maroon Creek is a tributary of the Roaring Fork River and both are located in Pitkin County approximately 1.5 miles west of the Town of Aspen (see Figure 1).

Existing Field and Biological Survey Data

The CDOW has conducted field surveys of the fishery resources on these streams and have found natural environments that can be preserved. Maroon Creek is classified as a medium stream (between 20 to 35 feet wide) and fishery surveys indicate the stream environment of Maroon Creek supports self-sustaining populations of brook trout, speckled dace and mottled sculpin. The Roaring Fork River is classified as a river (between 60 to 99 feet wide) and fishery surveys indicate the river environment of the Roaring Fork supports self-sustaining populations of brown trout, mountain whitefish, mottled sculpin and white sucker. In addition to the self-sustaining populations mentioned above, the DOW stocks rainbow and cutthroat trout in the Roaring Fork River and Maroon Creek, respectively. Also flannelmouth and bluehead sucker have historically used these reaches for seasonal refuge habitat.

Water Right Donation Analysis

The Stapleton Brothers Ditch headgate is located approximately two miles upstream of the confluence of Maroon Creek and the Roaring Fork River. The Stapleton Brothers Ditch historically diverted up to 4.3 cfs from Maroon Creek, during the irrigation season (May – October). Maroon Creek, downstream of the Stapleton Brothers Ditch, and the Roaring Fork River, from the confluence of Maroon Creek downstream to the point of return flow near the Aspen Airport (approximately at or above Galvin Gulch) were depleted by the total diversion amount of the Stapleton Brothers Ditch.

Based on the above information, not diverting Maroon Creek at the Stapleton Brothers Ditch headgate during the summer irrigation season (May through October) would provide additional flow to both Maroon Creek and the Roaring Fork River in the above mentioned reaches.

CDOW Recommendation

The DOW recommends the CWCB accept the donation of the water rights associated with the Stapleton Brothers Ditch. Accepting this senior water right will preserve the natural environment by increasing the amount of time the existing instream flow water rights on Maroon Creek and the Roaring Fork River will be fully satisfied. The ability to use this water to enhance the environment on both Maroon Creek (14 cfs + 4.3 cfs), downstream of the Stapleton Brothers Ditch, and the Roaring Fork River (55 cfs + 4.3 cfs), from the confluence of Maroon Creek downstream to the point of return flow near the Aspen Airport (approximately at or above Galvin Gulch), will provide additional fish habitat during the warmer irrigation season (deeper runs and pools), additional protection from harmful water quality parameters (high temperatures and low oxygen levels) and better connectivity for fish passage to different habitats (deeper riffles).

If you have any questions regarding the above recommendation, please contact me at (303)-291-7267.

Sincerely,

Mark Uppendahl

Mark Uppendahl
Colorado Division of Wildlife
Instream Flow Program Coordinator

Cc: Jay Skinner, CDOW Water Unit Program Manager
Sherman Hebein, CDOW Senior Fish Biologist – Northwest Region
Kendall Ross, CDOW Aquatic Biologist