

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Jeff Baessler
Stream and Lake Protection Section

DATE: May 12, 2009

SUBJECT: **Agenda Item 6, May 19-20, 2009 Board Meeting**
Stream and Lake Protection – Uncontested 2009 Instream Flow Appropriations

Bill Ritter, Jr.
Governor

Harris D. Sherman
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Dan McAuliffe
CWCB Deputy Director

Summary

At its January 27, 2009 meeting, the CWCB formed its intent to appropriate instream flow (“ISF”) water rights on 19 new stream segments in Water Divisions 2, 4, and 5. Sixteen of the 19 segments were uncontested and are ready for final Board action pursuant to Rule 5h of the Instream Flow and Natural Lake Level Rules (“ISF Rules”).

Staff Recommendation

Staff recommends that the Board make the following determinations and take the following actions on each of the appropriations, based on the information contained in this memo as well as the information presented by staff both in writing and orally at the January 27, 2009 Board meeting.

- (1) Determine, pursuant to section 37-92-102(3), C.R.S., and based upon the recommendations of the BLM, DOW, and/or TU, a review of the data and other information presented by Staff, in this memo and orally, that:
 - (a) There is a natural environment that can be preserved to a reasonable degree with the recommended water rights, if granted;
 - (b) Water is available in each stream for appropriation;
 - (c) The natural environment will be preserved to a reasonable degree by the water available for the recommended appropriations; and
 - (d) Such natural environment can exist without material injury to water rights.
- (2) Pursuant to ISF Rule 5f., establish January 27, 2009 as the appropriation date for these instream flow water rights.
- (3) Direct staff to request the Attorney General's Office to file the necessary water rights applications.

Discussion

On January 27, 2009, the CWCB formed its intent to appropriate ISF water rights on 19 stream segments. Sixteen of the segments, shown in the table below, are being recommended by staff for final action. The Bureau of Land Management (BLM), Colorado Division of Wildlife (CDOW) and/or Trout Unlimited (TU) recommended these streams for inclusion into the CWCB's Instream Flow and Natural Lake Level Program. On March 31, 2009, Huerfano County and the Huerfano County Water Conservancy District filed a Notice to Contest the appropriations on two segments of the Huerfano River and on Cucharas Creek. As a result, these three streams will be addressed in the coming months pursuant to the procedural rules for contested ISF appropriations outlined in ISF Rules 5j.—5q.

Pursuant to ISF Rule 5h., the remaining 16 stream segments, which were not contested, are being recommended to the Board for Final Action. The segments have been noticed pursuant to the ISF Rules and the public was afforded an opportunity to comment pursuant to ISF Rule 5g. at the March 2009 CWCB meeting. These stream segments are listed in detail on the attached instream flow tabulations.

Division	Stream	County(ies)	Recommender(s)
2	Maxwell Creek	Chaffee	CDoW
2	Rock Creek	Lake	CDoW
2	Purgatoire River	Las Animas	CDoW
2	South Fork Purgatoire River	Las Animas	CDoW
4	Bent Creek - <i>increase</i>	Hinsdale	BLM
4	Clear Fork, East Muddy Creek	Gunnison	CDoW, TU
4	East Elk Creek – <i>increase</i>	Gunnison	BLM, CDOW
4	Grizzly Gulch	Hinsdale	BLM, TU
4	Henson Creek – <i>increase</i>	Hinsdale	BLM
4	Little Spring Creek (lower)	Gunnison	BLM
4	Little Spring Creek (upper)	Gunnison	BLM
4	Schafer Gulch – <i>increase</i>	Hinsdale	BLM
5	Buzzard Creek	Mesa	CDoW, TU
5	Corral Creek	Grand	BLM
5	Troublesome Creek (lower)	Grand	BLM
5	Troublesome Creek (upper)	Grand	BLM

Note: The attached tables provide further details on each of these recommendations

Technical Investigations

The Board was provided detailed information regarding all field data, studies and analyses for each stream segment at the January 27, 2009 Board meeting.

Natural Environment Studies

The CDOW, BLM and/or TU have conducted field surveys on these streams and found a natural environment that can be preserved. To quantify the resources and to evaluate instream flow requirements, the BLM, DOW and/or TU staff collected biologic and hydraulic data, and the CWCB staff reviewed and analyzed this data. Based on the results of these reviews/analyses, the CWCB staff prepared recommendations for the amount of water necessary to preserve the natural environment to a reasonable degree for each of the streams on the attached tabulation of instream flow recommendations.

Water Availability Studies

The CWCB Staff has conducted an evaluation of water availability for these streams. To determine the amount of water physically available for the Board's appropriations, staff analyzed available USGS gage records, available streamflow models, and/or utilized appropriate standard methods to develop a hydrograph of mean daily flows for each recommendation. Staff also relied upon the flow measurements made as part of the field survey as an indicator of the amount of water physically available in this stream. In addition, staff analyzed the water rights tabulation and consulted with the Division Engineer's Office to identify any potential water availability problems. Based upon its analysis, staff has determined that water is available for appropriation on each stream to preserve the natural environment to a reasonable degree without limiting or foreclosing the exercise of valid water rights.

Issues

At the January 27, 2009 meeting, several Board members raised a number of issues regarding the recommended streams. Although staff and the recommending entities attempted to address these issues at the meeting, the Board requested that staff conduct additional research and/or explore options to alleviate individual Board member concerns. The following paragraphs outline these issues and staff's response.

1. ISF Reaches That Terminate at a Headgate

The issue was raised as to whether ISFs should be able to prevent the relocation of the headgate to an upstream point in the event that the headgate were damaged by a flood. On proposed ISF reaches that would terminate at a headgate, it was suggested that: (1) the CWCB establish the lower terminus of the ISF 200 feet above the headgate; or (2) the recommending entities should establish the downstream terminus of such ISF recommendations a distance of 200 feet above the headgate. Since the CWCB cannot dictate terms to a recommending entity, the latter suggestion is not feasible.

Staff researched its statement of opposition database and was unable to find any case in which it had opposed such a headgate relocation over the past 36 years of the program. Under section 37-86-111, C.R.S. (2008), the priority of any water right will remain unaffected even when the point of diversion has been changed due to any cause that prevents the ditch, canal, or feeder of any reservoir from receiving the proper inflow of water as long as such extension does not interfere with the complete use or enjoyment of any ditch, canal, or feeder. Pursuant to this statute, where a headgate is relocated 200 feet or less from its original point, the ditch owner is not required to file a water court case. After looking into the issue, Staff believes that this should not be a basis for the CWCB to decrease the length of the ISF reach to less than the length recommended or otherwise deemed appropriate, because the likelihood of this becoming an issue is extremely remote.

2. Little Spring Creek

On the Little Spring Creek ISF recommendations, the issue arose of whether the BLM has an approved plan for augmentation to replace evaporation losses from Ragged Lake #1, which is located between the two recommended ISF segments. Staff investigated this issue and found that the BLM had conducted an analysis of consumptive water requirements, pre and post impoundment construction, to determine the water augmentation needs for Ragged Lakes #1 & 2. The consumptive water analysis showed that evaporative water loss from the lake's water surface is more than compensated for when comparing it to (1) pre-impoundment evapotranspiration of phreatophytic vegetation; and (2) water savings achieved by virtue of

effective precipitation. The BLM sent these findings to the Division Engineer on June 6, 2001, and the Division 4 Water Court entered the final decree in Case No. 99CW105 on August 30, 2001 for storage rights in Ragged Lake #1 & 2 without requiring a plan for augmentation. There is no impact to the proposed ISF rights as a result of these senior decreed reservoirs.

3. Troublesome Creek

On the Troublesome Creek ISF recommendations, it was suggested that staff include language in the final decree stating that the ISF water right would not affect the existing operation of the Matheson Reservoir. The suggested language would provide that releases from Matheson Reservoir would be at the discretion of the reservoir operator. The concern is that a future change in the operations of the senior reservoir could affect Staff's water availability analysis resulting in less water available for the ISF water right. Staff's analysis of water availability is based on existing stream conditions occurring at the time of appropriation, as provided for by Colorado water law. Staff does not condition water availability for an ISF water right on hypothetical future conditions that could occur on a stream. In the event that conditions were to change and affect water availability, the Board's ISF rights would be subject to such changes that are operated in accordance with the senior decree.

The water rights for the Matheson Reservoir were decreed in Case No. CA0946 by the Division 5 Water Court on September 5, 1964. This existing senior decree governs the operation of the reservoir in combination with priority administration by the Division Engineer. Consequently, staff believes that it is not necessary to include language in the decree because the ISF water right will be administered in priority as junior to the Reservoir.

However, during staff's public outreach efforts, the District 50 water commissioner indicated that there may be undecreed historic uses or exchanges of water rights upstream through the proposed ISF reaches to Matheson Reservoir. To address this issue, staff has provided the water commissioner, the owner of the Matheson Reservoir, and other stakeholders with a written explanation of Section 37-92-102(3)(b), C.R.S. (2008), which provides that ISF water rights are subject to undecreed uses and practices existing on or before the date of the ISF appropriation. The written explanation includes instructions for the preparation of an affidavit that would specifically describe the existing use so the CWCBC can include it in any proposed ISF decree as a pre-existing use under section 37-92-102(3)(b). Staff has not yet received documentation of these uses, and will follow up with the owner of Matheson Reservoir and the water commissioner regarding any historic practices, and will include the information describing those practices in the water court applications and decrees for the relevant segments on Troublesome Creek.

4. Maxwell Creek

On Maxwell Creek, it was noted that the recommended flow for the July 27th through August 1st time period falls outside of the upper 95% confidence interval that staff calculated for the mean daily hydrograph in its water availability analysis. Staff recently added 95% confidence intervals around its calculated hydrographs in an effort to add additional rigor to its water availability analysis, without intending to apply such confidence intervals as a steadfast guideline. However, Staff determined that moving the recommended summer flow of 3.0 cfs back 4 days from August 1st to July 27th would place the recommendation within the 95% confidence interval calculated by staff. In addition, staff consulted with the Division of Wildlife and determined that this modified flow recommendation would still protect the natural environment to a reasonable degree (see attached hydrograph).

Relevant Instream Flow Rules

5f. Date of Appropriation. The Board may select an appropriation date that may be no earlier than the date the Board declares its intent to appropriate. The Board may declare its intent to appropriate when it concludes that it has received sufficient information that reasonably supports the findings required in Rule 5i.

5h. Final Board Action on an ISF Recommendation. The Board may take final action on any uncontested Staff Recommendation(s) at the May Board meeting or any Board meeting thereafter. If a Notice to Contest has been filed, the Board shall proceed under Rules 5j--5q.

5i. Required Findings. Before initiating a water right filing to confirm its appropriation, the Board must make the following determinations:

- (1) Natural Environment. That there is a natural environment that can be preserved to a reasonable degree with the Board's water right if granted.
- (2) Water Availability. That the natural environment will be preserved to a reasonable degree by the water available for the appropriation to be made.
- (3) Material Injury. That such environment can exist without material injury to water rights.

These determinations shall be subject to judicial review in the water court application and decree proceedings initiated by the Board, based on the Board's administrative record and utilizing the criteria of section 24-4-106(6) and (7), C.R.S. (2008).

Staff Recommendation

Staff recommends that the Board make the following determinations and take the following actions on each of the appropriations, based on the information contained in this memo as well as the information presented by staff both in writing and orally at the January 27, 2009 Board meeting.

- (1) Determine, pursuant to section 37-92-102(3), C.R.S., and based upon the recommendations of the BLM, DOW, and/or TU, a review of the data and other information presented by Staff, in this memo and orally, that:
 - (a) There is a natural environment that can be preserved to a reasonable degree with the recommended water rights, if granted;
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 - (c) The natural environment will be preserved to a reasonable degree by the water available for the recommended appropriations; and
 - (d) Such natural environment can exist without material injury to water rights.
- (2) Pursuant to ISF Rule 5f., establish January 27, 2009 as the appropriation date for these instream flow water rights.
- (3) Direct staff to request the Attorney General's Office to file the necessary water rights applications.

Attachments



Colorado Water Conservation Board

Instream Flow Tabulation - Streams



Water Division 2

Case Number	Stream	Watershed	County	Upper Terminus	Lower Terminus	Length (miles)	USGS QUADS	Amount(dates) (CFS)	Approp Date
09/2/A-001	Maxwell Creek	Arkansas headwaters	Chaffee	headwaters in the vicinity of lat 38 45 11N long 106 14 55W	hdgt O W Firskey Ditch at lat 38 46 26N long 106 11 2W	4.00	Buena Vista West	1 (10/1 - 10/31) 0.4 (11/1 - 5/31) 3.3 (6/1 - 7/27) 1.5 (7/28 - 9/30)	1/27/2009
08/2/A-001	Purgatoire River	Purgatoire	Las Animas	confl M/N Fork Purgatoire River at lat 37 9 26N long 104 56 27W	confl Lopez Canyon at lat 37 8 25N long 104 52 45W	4.80	Vigil	7 (12/1 - 4/14) 8.4 (4/15 - 5/14) 21 (5/15 - 8/15) 15 (8/16 - 9/15) 8.4 (9/16 - 11/30)	1/27/2009
09/2/A-005	Rock Creek	Arkansas headwaters	Lake	outlet of Native Lake at lat 39 13 27N long 106 27 31W	confl. w/ Willow Creek at lat 39 12 40N long 106 22 49W	5.00	Mount Massive	1.7 (11/1 - 5/14) 11 (5/15 - 8/31) 5 (9/1 - 10/31)	1/27/2009
08/2/A-002	South Fork Purgatoire River	Purgatoire	Las Animas	confl with Unnamed Tributary at lat 37 03 49N long 104 58 60W	confl with Torres Canyon at lat 37 5 40N long 104 52 47W	8.20	Tercio	3 (10/16 - 4/30) 9.6 (5/1 - 5/31) 18 (6/1 - 6/30) 13 (7/1 - 8/15) 5 (8/16 - 10/15)	1/27/2009

Totals for Water Division 2

Total # of Stream Miles = 22

Total # of Appropriations = 4

(Totals do not include donated/acquired water rights)

Instream Flow Tabulation - Water Division 2

Case Number	Stream	Watershed	County	Upper Terminus	Lower Terminus	Length (miles)	USGS QUADS	Amount(dates) (CFS)	Approp Date
Report Totals						Total # of Stream Miles =	22		
						Total # of Appropriations =	4		
						(Totals do not include donated/acquired water rights)			



Colorado Water Conservation Board

Instream Flow Tabulation - Streams



Water Division 4

Case Number	Stream	Watershed	County	Upper Terminus	Lower Terminus	Length (miles)	USGS QUADS	Amount(dates) (CFS)	Approp Date
09/4/A-005 (increase)	Bent Creek	Upper Gunnison	Hinsdale	headwaters in the vicinity of lat 37 56 23N long 107 24 31W	confl. Lake Fork Gunnison River at lat 37 54 22N long 107 22 46W	3.00	Redcloud Peak	1.55 (4/1 - 10/31)	1/27/2009
09/4/A-001	Clear Fork East Muddy Creek	North Fork Gunnison	Gunnison	headwaters in the vicinity of lat 39 15 12N long 107 25 37W	.4 miles U/S Little Muddy Creek at lat 39 8 45N long 107 26 10W	9.10	Elk Knob Quaker Mesa	13 (4/1 - 8/15) 5 (8/16 - 3/31)	1/27/2009
09/4/A-002 (increase)	East Elk Creek	Upper Gunnison	Gunnison	confl. w/ Bear Wallow Gulch at lat 38 32 42N long 107 10 13W	confl. w/ Blue Mesa Reservoir at lat 38 28 58N long 107 10 20W	4.50	Carpenter Ridge West Elk Peak SW	0.7 (4/1 - 10/31)	1/27/2009
09/4/A-006	Grizzly Gulch	Upper Gunnison	Hinsdale	outlet of Grizzly Lake at lat 37 55 7N long 107 28 58W	confl. Lake Fork Gunnison River at lat 37 56 6N long 107 27 35W	2.10	Redcloud Peak	2.9 (4/15 - 9/15) 0.6 (9/16 - 4/14)	1/27/2009
09/4/A-007 (increase)	Henson Creek	Upper Gunnison	Hinsdale	conf. North Fork of Henson Creek at lat 38 0 25N long 107 27 33W	confl. Nellie Creek at lat 38 1 13N long 107 24 4W	3.40	Uncompahgre Peak	11 (4/1 - 10/31)	1/27/2009
09/4/A-004	Little Spring Creek	North Fork Gunnison	Gunnison	Cyrstal Springs at lat 39 1 1N long 107 19 47W	Inlet of Ragged Res. #1 at lat 39 1 55N long 107 20 4W	0.40	Chair Mountain	1.25 (1/1 - 12/31)	1/27/2009
09/4/A-012	Little Spring Creek	North Fork Gunnison	Gunnison	outlet of Ragged Res #1 at lat 39 1 53N long 10 20 11W	Crystal Ditch hdgt at lat 39 1 34N long 107 20 40W	0.70	Chair Mountain	1.25 (1/1 - 12/31)	1/27/2009
09/4/A-008 (increase)	Schafer Gulch	Upper Gunnison	Hinsdale	headwaters in the vicinity of lat 37 57 16N long 107 32 52W	confl. Henson Creek at lat 37 58 34N long 107 32 28W	1.70	Handies Peak	1.3 (4/1 - 10/31)	1/27/2009

Instream Flow Tabulation - Water Division 4

Case Number	Stream	Watershed	County	Upper Terminus	Lower Terminus	Length (miles)	USGS QUADS	Amount(dates) (CFS)	Approp Date
				Totals for Water Division 4		Total # of Stream Miles =		24.9	
						Total # of Appropriations =		8	
						(Totals do not include donated/acquired water rights)			
				Report Totals		Total # of Stream Miles =		24.9	
						Total # of Appropriations =		8	
						(Totals do not include donated/acquired water rights)			



Colorado Water Conservation Board

Instream Flow Tabulation - Streams



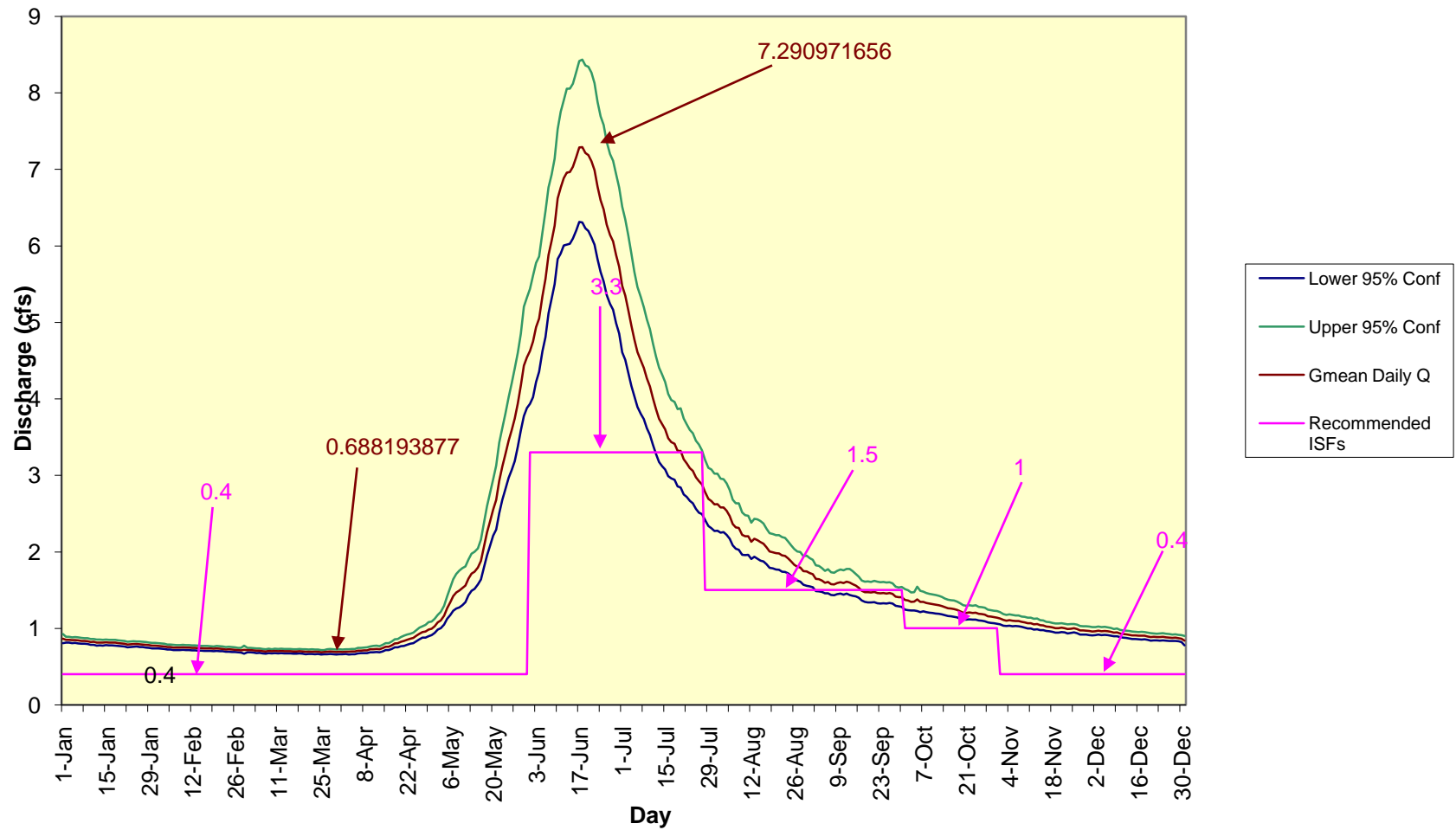
Water Division 5

Case Number	Stream	Watershed	County	Upper Terminus	Lower Terminus	Length (miles)	USGS QUADS	Amount(dates) (CFS)	Approp Date
09/5/A-002	Buzzard Creek	Colorado Headwaters-Plateau	Mesa	confl. Willow Creek at lat 39 11 41N long 107 37 24W	confl. Owens Creek at lat 39 14 7N long 107 37 58W	3.40	Porter Mountain Spruce Mountain	4.25 (4/1 - 8/31) 1.5 (9/1 - 3/31)	1/27/2009
08/5/A-013 (increase)	Corral Creek	Colorado headwaters	Grand	confl Smith Creek at lat 40 5 57N long 106 11 8W	hdgt of Home # 1 Ditch lat 40 3 55N long 106 11 8W	2.75	Parshall	0.9 (11/1 - 3/31) 2.75 (4/1 - 10/31)	1/27/2009
08/5/A-009	Troublesome Creek	Colorado headwaters	Grand	confl with Glomerate Creek at lat 40 17 9N long 106 17 51W	confl with Rabbit Ears Creek at lat 40 15 46N long 106 19 6W	3.00	Hyannis Peak	2.8 (11/1 - 3/31) 5.1 (4/1 - 10/31)	1/27/2009
08/5/A-010	Troublesome Creek	Colorado headwaters	Grand	confl with Rabbit Ears Creek at lat 40 15 46N long 106 19 7W	hdgt Pickering Ditch at lat 40 13 37N long 106 18 50W	3.00	Hyannis Peak	5.9 (11/1 - 3/31) 9.3 (4/1 - 10/31)	1/27/2009

Totals for Water Division 5	Total # of Stream Miles =	12.15
	Total # of Appropriations =	4
<i>(Totals do not include donated/acquired water rights)</i>		

Report Totals	Total # of Stream Miles =	12.15
	Total # of Appropriations =	4
<i>(Totals do not include donated/acquired water rights)</i>		

Fig. 1. Geometric Mean Daily Q Maxwell Cr abv LT (prop on Cottonwood Cr nr Buena Vista - adjusted for irr) & ISFs





TU Celebrates 50 Years of Protecting Cold, Clean, Fishable Water.

May 14, 2009

Ms. Linda Bassi
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Re: CWCB 2009 In-Stream Flow Appropriations

Dear Ms. Bassi:

I am writing to offer the support of Trout Unlimited's Gunnison Angling Society chapter for the Colorado Water Conservation Board's 2009 in-stream flow appropriations in Gunnison and Hinsdale Counties. The continuing effort of the CWCB's Stream and Lake Protection Section to protect stream flows on Colorado's rivers and creeks is extremely important to the state's environment, economy and quality of life.

The Gunnison Angling Society chapter works to advance Trout Unlimited's mission of protecting and restoring cold water fisheries and their habitats in the Upper Gunnison and North Fork Gunnison watersheds. Our chapter contains 135 members, all of whom value and many of whom recreate on Bent Creek, Clear Fork East Muddy Creek, East Elk Creek, Grizzly Gulch, Henson Creek, Little Spring Creek, and Schafer Gulch proposed for instream flow appropriations in Gunnison and Hinsdale Counties.

Trout Unlimited, its 10,000 Colorado members and its Gunnison Angling Society chapter greatly appreciate the efforts of the CWCB's Stream and Lake Protection Section to preserve and improve Colorado's fisheries and natural environment, and we look forward to continuing to work with you to protect the rivers and creeks that are so valuable to our state.

Sincerely,

John Bocchino
President, Colorado Trout Unlimited's Gunnison Angling Society Chapter



TU Celebrates 50 Years of Protecting Cold, Clean, Fishable Water.

May 14, 2009

Ms. Linda Bassi
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Re: CWCB 2009 In-Stream Flow Appropriations

Dear Ms. Bassi:

I am writing to offer the support of Trout Unlimited's Gunnison Angling Society chapter for the Colorado Water Conservation Board's 2009 in-stream flow appropriations in Gunnison and Hinsdale Counties. The continuing effort of the CWCB's Stream and Lake Protection Section to protect stream flows on Colorado's rivers and creeks is extremely important to the state's environment, economy and quality of life.

The Gunnison Angling Society chapter works to advance Trout Unlimited's mission of protecting and restoring cold water fisheries and their habitats in the Upper Gunnison and North Fork Gunnison watersheds. Our chapter contains 135 members, all of whom value and many of whom recreate on Bent Creek, Clear Fork East Muddy Creek, East Elk Creek, Grizzly Gulch, Henson Creek, Little Spring Creek, and Schafer Gulch proposed for instream flow appropriations in Gunnison and Hinsdale Counties.

Trout Unlimited, its 10,000 Colorado members and its Gunnison Angling Society chapter greatly appreciate the efforts of the CWCB's Stream and Lake Protection Section to preserve and improve Colorado's fisheries and natural environment, and we look forward to continuing to work with you to protect the rivers and creeks that are so valuable to our state.

Sincerely,

John Bocchino
President, Colorado Trout Unlimited's Gunnison Angling Society Chapter



Agenda Item 1
6

TU Celebrates 50 Years of Protecting Cold, Clean, Fishable Water.

May 14, 2009

Ms. Linda Bassi
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Re: CWCB 2009 In-Stream Flow Appropriations

Dear Ms. Bassi:

I am writing to offer the support of Trout Unlimited's Grand Valley Anglers chapter for the Colorado Water Conservation Board's 2009 in-stream flow appropriations in Mesa County. The continuing effort of the CWCB's Stream and Lake Protection Section to protect stream flows on Colorado's rivers and creeks is extremely important to the state's environment, economy and quality of life.

The Grand Valley Anglers chapter works to advance Trout Unlimited's mission of protecting and restoring cold water fisheries and their habitats in the Colorado Headwaters-Plateau watershed. Our chapter contains 400 members, all of whom value and many of whom recreate on Buzzard Creek proposed for instream flow appropriations in Mesa County.

Trout Unlimited, its 10,000 Colorado members and its Grand Valley Anglers chapter greatly appreciate the efforts of the CWCB's Stream and Lake Protection Section to preserve and improve Colorado's fisheries and natural environment, and we look forward to continuing to work with you to protect the rivers and creeks that are so valuable to our state.

Sincerely,

Dave Trimm
President, Colorado Trout Unlimited's Grand Valley Anglers Chapter