BEFORE THE COLORADO WATER CONSERVATION BOARD
STATE OF COLORADO

IN THE MATTER OF THE PROPOSED ACQUISITION OF AN INTEREST IN THE SHOSHONE POWER PLANT WATER RIGHTS

JOINT REBUTTAL STATEMENT OF THE COLORADO RIVER WATER CONSERVATION DISTRICT, ET AL.

The Colorado River Water Conservation District (the "River District"), the Mesa County Board of County Commissioners, the Clinton Ditch & Reservoir Company,[1] and the Basalt Water Conservancy District (together, "River District et al.") hereby submit this joint rebuttal statement.

I. INTRODUCTION

In this matter, the primary issue for the Colorado Water Conservation Board (the "Board") to determine is whether the Board's acquisition of the Shoshone Water Rights for instream flow ("ISF") purposes is appropriate to preserve and improve the natural environment to a reasonable degree. On this issue, there is no dispute—all Parties agree that ISF use of the Shoshone Water Rights will preserve and improve the natural environment to a reasonable degree. Nevertheless, the Objectors misstate the law and attempt to distort the scope and intent of the proposed ISF Agreement to dissuade the Board from accepting the acquisition.

Unlike a new ISF appropriation, the proposed change of the Shoshone Water Rights for ISF purposes will not result in a new water right or increased demand on the river. Instead, like any other change of water right, the water court cannot approve a change in use of the Shoshone Water Rights unless: (1) the actual historical use is properly quantified; (2) the historical return

[1] The shareholders of the Clinton Ditch & Reservoir Company include the Towns of Breckenridge, Dillon, Frisco, and Silverthorne, Summit County, the Copper Mountain Consolidated Metropolitan District, and the Arapahoe Basin, Breckenridge, Copper Mountain, Keystone, and Winter Park ski areas.

flows are maintained to ensure downstream water rights are not injured; and (3) any additional terms and conditions are imposed as necessary to prevent injury to other water users.

The Objectors acknowledge that the water court has exclusive jurisdiction over historical use, injury, and related water matters. But the Objectors ignore the role of the water court by arguing that the Board should: (a) reject this once-in-a-generation acquisition; (b) delay the acquisition pending further attempts at negotiations (even though the River District and its West Slope partners have repeatedly tried to engage in meaningful negotiations for more than a year); or (3) impose unreasonable and unworkable conditions that would significantly diminish the ecological benefits of the proposal, improperly minimize the historical use, and cause injury to downstream water rights that are legally entitled to the maintenance of return flows from the historical exercise of the Shoshone Water Rights. The reasoning behind these tactics is simple. The Objectors stand to gain a significant windfall increase in the yield of their water systems if the proposed acquisition is defeated or if the changed amount of the Shoshone Water Rights is limited to an amount that is less than the actual historical use.

II. RESPONSE TO OBJECTORS' STATEMENTS

Although resolution of *all* matters surrounding historical use are appropriately reserved for the water court, the River District et al. provide the following rebuttal in response to the Objectors' prehearing statements.

A. The ISF Agreement Does Not Require a Year-Round Call of 1,408 c.f.s.

The Objectors argue that the proposed acquisition will result in year-round use of 1,408 c.f.s. of the Shoshone Water Rights. This argument is unsupported by the plain text of the proposed

ISF Agreement[2] and is inconsistent with BBA's preliminary historical use assessment (**CRD-12**). If, as the Objectors argue, the proposed acquisition will create a super water right that diverts and calls for 1,408 c.f.s. on a year-round basis, the calculated yield would be more than one million acre-feet of diversions, far more than BBA's preliminary quantification of an annual average of approximately 844,000 acre-feet. *Id.* As set forth in the proposed ISF Agreement, the proposed use of the Shoshone Water Rights for instream flow purposes will be limited by the water court's determination of historical use, by the potential imposition of volumetric limits, and by available stream conditions to an average amount much lower than one million acre-feet. Thus, the River District does not seek a year-round, continuous call of 1,408 c.f.s.

B. The Proposed ISF Agreement Does Not Improperly Cede the Board's Discretionary Authority.

The Objectors assert that the proposed ISF Agreement usurps the Board's authority by granting the River District a role in exercising the Shoshone Water Rights for ISF purposes. The Objectors ignore ISF Rule 6d and ISF Rule 10 which clearly authorize the Board to delegate limited authority to act on the Board's behalf in the exercise of an acquired ISF. The Objectors also fail to acknowledge existing ISF acquisition agreements where the Board has expressly limited or delegated its authority in a manner similar to the proposed ISF Agreement, including but not limited to agreements with Denver Water, the Colorado Water Trust, and the City of Boulder. For example, in a 2015 agreement with the Colorado Water Trust, the CWCB authorized the "Trust to be the CWCB's agent for administration and monitoring of the instream flow use of [the subject water rights]." *See* **CRD-24**, ¶ 7.

[2] The proposed ISF Agreement explicitly states that instream flow use of the Shoshone Water Rights, including the right to request administration, shall be subject to any terms, conditions, and limits imposed by the water judge and set forth in the change of water right decree. *See* **CRD-3**, ¶ 7.a.

In its August 28, 2025, public comment letter (attached hereto as **CRD-38**), the Colorado Water Trust correctly notes that "agreements incorporating limited discretion and delegation have long been part of the CWCB's practice and are consistent with its statutory authority under ISF Rule 10." The Trust's letter details many sound policy reasons that support the Board's authority to limit or delegate its discretionary authority, and notes that "without these abilities, many long-term and short-term acquisitions would not be possible." *Id.*

C. The Board Need Not Resolve Disputes Regarding Third-Party Agreements.

The Objectors ask the Board to interpret and enforce contractual terms and provisions in agreements to which the Board is not a signatory. This the Board cannot do.

First, the CRCA's ShOP provisions have not been adjudicated by any state water court and consequently cannot bind new appropriators that could deplete the ShOP flows without any legal recourse by the ShOP participants. Second, the ShOP concept is not a permanent solution to achieving the goal of Shoshone Permanency, nor was it intended to be, as clearly dictated by the relevant provisions of the CRCA and the ShOP Agreement. This is particularly evident based on the plain text of Article VIII of the ShOP Agreement, which provides that ShOP shall not "be interpreted to constitute compliance with, or satisfaction of" the Shoshone Permanency obligations described in Article VI.C. of the CRCA. *See* **CRD-16** and **CRD-17**. And third, any disputes regarding the CRCA, the ShOP Agreement, the 2007 Call Relaxation Agreement, or the respective settlement agreements between West Slope entities Aurora, and Colorado Springs-Utilities will be addressed during the water court process.

D. Quantification of the Historical Use of the Shoshone Water Rights will be Determined by the Water Court.

The Board must consider the historical consumptive use and the historical return flows which may be available to the Board if it acquires water rights for instream flow use to determine

whether an acquisition will benefit the natural environment to a reasonable degree. *See* ISF Rule 6e.(4). The Objectors incorrectly interpret ISF Rule 6e.(4) to mean that the Board must adopt a historical use analysis or specific quantification of yield before it can accept the proposed acquisition. In reality, applicable statutory law and the Board's ISF Rules clearly provide that the determination of **all** matters concerning a change of water (as described in section 37-92-305, C.R.S.), including the quantification of historical use, rest solely with the water court. *See* ISF Rule 6i.; *see also* § 37-92-102(4)(c), C.R.S. ("The board may file applications for changes of water rights [ ] **and the water court shall determine** matters that are within the scope of section 37-92-305." (emphasis added)). Once in water court, all parties will have the opportunity to present their claims and defenses regarding the change of the Shoshone Water Rights *See* § 37-92-305(3)(a), C.R.S.

To be clear, the River District is not asking the Board to adopt BBA's preliminary historical use assessment (**CRD-12**) as it would be inappropriate for the Board to adopt or quantify any specific volume of historical use for this acquisition. *See* § 24-4-106(7)(b), C.R.S. (providing that a court must set aside agency action that exceeds the agency's legal authority). Regardless, additional assurances that BBA's preliminary assessment is reasonable are described below.

1. BBA's selected study period is representative.

Whether a specific study period is less representative than another is a matter that is reserved for the water court to determine. Thus, the Objectors' arguments on this subject as part of this administrative proceeding are intended to distract from the important determinative issue before the Board.

The appropriate standard in a change case is not, as the Objector's suggest, to replicate only today's current conditions. The Objectors cite no legal authority in support of this position

because there is none. Changing the use of a water right requires proving historical use during a representative period, not a replication of the present-day conditions. The quantification of historical use "must be based on an analysis of the **actual historical use** of the water right for its decreed purposes **during a representative study period** that includes wet years, dry years, and average years." § 37-92-305(3)(d), C.R.S. (emphasis added). The Objectors' position that the study period includes the most recent twenty years is not representative of the "actual historical use" of the Shoshone Water Rights over the 100-plus-year history of the Shoshone Power Plant.[3]

The Objectors assert that BBA's selected study period is not appropriate due to changes in water rights administration that occurred during the long history of the Shoshone Water Rights. These assertions are short-sighted and contrary to law. For instance, if a selected study period excludes years in which administration was different than it is today, the result would be based solely on current conditions and would not be representative of the overall historical use. Similarly, it would not be appropriate to include more recent years in the study period because the more frequent outages at the plant are not representative of long-term *actual* historical use. BBA's selected period of record reflects an actual depiction of the representative and actual historical use of the Shoshone Water Rights over time. Moreover, as discussed in BBA's August 29, 2025, CWCB Hearing Rebuttal Summary ("BBA Rebuttal," attached hereto as **CRD-39**), it would be misguided from a technical standpoint to premise a historical use analysis on how administration is applied during a specific period of time, not only because administration does not equate to use, but also because it is impossible to predict how administrative practices may change into the future.

[3] In direct contradiction of its arguments to this Board, Denver Water filed an application in 2020 to change its City Ditch water right and relied on a study period of 1937-2001, which excluded the most recent 20-year period preceding the application. *See* Findings of Fact, Conclusions of Law and Judgment and Decree of the Water Court, Case No. 20CW3200, Water Division No. 1.

Finally, the narrative offered by Mr. Whitaker in his August 4, 2025, memorandum (**Northern et al.-5**) regarding Colorado River administration has no relevancy to the applicable legal standard that **must** be followed in a change of water rights. Mr. Whitaker incorrectly asserts that the most recent era of water rights administration by state water officials dictates the appropriate study period for a change of water right. The former, long-time Division Engineer for Water Division No. 5, Alan Martellaro, disagrees. Mr. Martellaro oversaw the administration of the Shoshone Water Rights for more than 30 years (i.e., 1985-2021). As described in Mr. Martellaro's August 26, 2025, memorandum, attached hereto as **CRD-40**, while periodic changes have made administrative practices more efficient, the goal has "always been to deliver water to the Shoshone Power Plant that its water rights were entitled to receive." **CRD-40**, p 1, ¶ 1.2; *see also* **CRD-39**, p 3 (explaining that no data or evidence has been provided to confirm Mr. Whitaker's theories about the impact of administrative changes on the Shoshone Water Rights).

2. CDSS records are not the exclusive point of reference for historical use.

The Objectors argue that BBA's assessment is unreliable because BBA did not exclusively use the "official diversion records" available on the Division of Water Resources' ("DWR's") CDSS webpage. The Objectors again fail to identify any legal authority to support this assertion.

In a change of use proceeding, the water court must examine the accuracy and availability of **any** available records and not limit itself to accepting CDSS records as *de facto* proof of historical use. *See Pueblo West Metro. Dist. v. Se. Colo. Water Conservancy Dist.*, 717 P.2d 955, 960 (Colo. 1986). BBA's assessment examines CDSS diversion records, but it also examines other available records (call records, maintenance records, etc.) in calculating the historical use of the Shoshone Water Rights. There is no law which specifies that only one set of records kept by DWR should receive any more or less weight than another set of records. In any event, the reliability and

relevance of available records regarding historical use is a factual matter for the water court to determine. *Id.* Moreover, based on his familiarity with the Shoshone Water Rights as Division Engineer, Mr. Martellaro agrees that CDSS diversion records do not reflect the totality of the actual historical use of the Shoshone Water Rights. *See* **CRD-40**, p 3, ¶ 4; *see also* **CRD-39**, p 3.

3. Dual Use of the Shoshone Water Rights for Hydropower and ISF Purposes is not Enlarged Use.

The Objectors contend that the Shoshone Water Rights cannot be used for hydropower generation and ISF purposes at the same time when the plant is operating at a reduced level. The Objectors' theory seems to be that the concept of dual use always constitutes enlarged use. This theory has no basis in law or fact. The legal doctrine of enlarged use prohibits an appropriator from expanding its historical appropriation in a change of water right proceeding. *Williams v. Midway Ranches Prop. Owners Ass'n*, 938 P.2d 515, 521-22 (Colo. 1997). Over an extended period, a pattern of historical diversions and use matures and becomes the measure of the water right for change purposes, typically quantified in acre-feet of water consumed. *Id.* Thus, it is typical for a water right to be decreed for multiple beneficial uses because of a change, and for these uses to occur simultaneously post-change, provided such uses occur within decreed historical limits.

4. The Shoshone Power Plant's Diversions of Storage Releases was Lawful.

The Objectors contend that the quantification of the historical use of the Shoshone Water Rights must not credit any water released from upstream reservoirs. Over the long lifespan of the Shoshone Power Plant, the plant has consistently diverted up to 1,408 c.f.s. for hydropower generation and these diversions have often included water released from upstream reservoirs, including from Green Mountain Reservoir.

As conceded by Northern et al. (*see* **Northern et al.-5**), releases were historically made from Green Mountain Reservoir to "avoid[ ] a call by the Shoshone Senior water right[.]" It makes little sense that this water would not be legally available to the Shoshone Power Plant when those releases were made specifically to prevent a Shoshone call. There is no injury where a water right is operating in priority pursuant to the terms of its decree. *See In re Application for Water Rights of Hines Highlands Ltd. P'shp*, 929 P.2d 718, 725 (Colo. 1996). And where stream conditions change because a user maximizes the beneficial use of a water right in priority, there is no injury. *See, e.g., City of Thornton v. Bijou Irr. Co.*, 926 P.2d 1, 93 (Colo. 1996). Moreover, if such water was not legally and physically available for diversion and use at the Shoshone Power Plant, or such practice was deemed injurious, the State Engineer would have been obligated to curtail Shoshone's diversions pursuant to section 37-92-502, C.R.S. This never occurred.

E. <u>The Objectors Misunderstand Hydros' Analyses</u>.

The Objectors, through Ecological Resource Consultants ("ERC"), attempt to rebut Hydros' modeling analyses. The Objectors mistakenly indicate that Hydros' modeling analyses were prepared to "support the proposed change of the Shoshone Water Rights." The focus of the Hydros Yield Assessment (**CRD-13**) is, as the name implies, the yield to the 15-Mile Reach that is supported by Shoshone Water Rights. The Hydros Yield Addendum (**CRD-14**) builds on this earlier analysis by using the updated version of the Upper Colorado River Basin Model ("UCRM")[4] which can be run with monthly or daily timesteps. Both the Yield Assessment (**CRD-13**), and the Yield Addendum (**CRD-14**) include an explicit disclaimer that such reports are **<u>not</u>** intended to serve as an analysis of historical use.

[4] The development of this model was led by CWCB staff.

A thorough critique of ERC's analysis—including all instances where ERC is either contradictory or inconsistent—is set forth in Mr. Carron's August 29, 2025, Technical Memorandum ("Hydros Rebuttal"), attached hereto as **CRD-41**. The key points include:

- ERC conflates the impact of the Shoshone Call scenarios examined by Hydros on upstream reservoirs used by the Objectors and fails to mention that the primary function of those reservoirs is and has always been to replace upstream out-of-priority transmountain diversions. Providing replacement releases to satisfy the Shoshone Call is not an adverse impact, it is the function of priority administration and is the natural result of the Objectors' desire to make diversions from the Colorado River at times when their junior water rights are not in priority.
- A yield assessment to evaluate downstream benefits on flows to the 15-Mile Reach requires different scenarios and comparisons than a historical use analysis to quantify a water right. The work conducted by Hydros requires an analysis of **historical demands**, **not diversions**. Because ERC's rebuttal did not evaluate Hydros' analysis in a manner consistent with its stated purpose, ERC's rebuttal is unsound.

ERC's criticism of Hydros for neglecting to model the Shoshone Outage Protocol ("ShOP") contradicts ERC's later admission that the UCRM "cannot fully represent ShOP[.]" (**Denver Ex. 6**, p 7). Moreover, the ShOP Agreement is a temporary third-party agreement which does not control river administration, is subject to numerous escape clauses, and any flows generated by ShOP could be diminished or eliminated by new appropriations.

III. STATEMENT OF RELIEF REQUESTED

The River District et al. restate the request for relief made in the River District et al.'s Joint Prehearing Statement submitted on August 4, 2025.

IV. EXHIBIT LIST

The River District et al. identifies the following exhibits, including four new rebuttal exhibits, that the River District et al. may rely upon at the hearing.

Exhibit Number	**Exhibit Name**
CRD-1	Civil Action No. 466, Senior Shoshone Water Right Decree
CRD-2	Civil Action No. 1123, Junior Shoshone Water Right Decree
CRD-3	Proposed Shoshone Water Rights Dedication and ISF Agreement
CRD-4	January 1, 2024, Purchase and Sale Agreement
CRD-5	Draft Application for Change of Water Rights
CRD-6	May 6, 2025, CPW Recommendation on the Proposed Acquisition of an Interest in the Shoshone Hydroelectric Power Plant Water Rights
CRD-7	May 6, 2025, CPW Biological Evaluation of the Shoshone Water Rights Instream Flow Acquisition
CRD-8	River District and PSCo May 2025 Technical Memorandum
CRD-9	CWCB Staff's Board Memo for May 2025 Board Meeting
CRD-10	Section 37-92-102, C.R.S.
CRD-11	Section 37-92-305, C.R.S.
CRD-12	November 8, 2024, Preliminary Historical Use Assessment – DRAFT

CRD-13	September 11, 2024, Hydros Consulting, Inc., Shoshone Power Plant Water Rights Yield Assessment
CRD-14	November 7, 2024, Hydros Consulting, Inc., Addendum to September 11, 2024, Shoshone Power Plant Water Rights Yield Assessment
CRD-15	Joint Memorandum – The Shoshone Water Rights, the Orchard Mesa Check Case, and Green Mountain Reservoir's Historic Users Pool "Surplus" Releases to the 15-Mile Reach
CRD-16	Colorado River Cooperative Agreement [reduced]
CRD-17	Shoshone Outage Protocol Agreement
CRD-18	October 30, 2024, United States Department of Interior, Fish and Wildlife Service, Letter of Support Re: Shoshone Permanency Project
CRD-19	November 23, 2011, Water Delivery and Stream Flow Improvement Agreement between the CWCB, Denver Water, and Grand County
CRD-20	September 9, 2019, Water Delivery Agreement between the CWCB and the City of Boulder
CRD-21	December 23, 2019, Declaration of a Revocable Trust (The Pitkin County Water Rights Revocable Trust) between the Board of County Commissioners of Pitkin County and the CWCB
CRD-22	July 20, 1990, Agreement between the CWCB and the City of Boulder
CRD-23	February 15, 2013, Delivery Agreement between the CWCB and Denver Water

CRD-24	April 13, 2015, Grant of Flow Restoration Use between the Colorado Water Trust and the CWCB
CRD-25	Brendon Langenhuizen – Resume
CRD-26	John Carron – Resume
CRD-27	September 30, 2024, Final Report (CA23044) – Shoshone Reach Instream Habitat Data Analysis, Habitat Simulations and Habitat Evaluation of Colorado River from the Shoshone Diversion to the Shoshone Power Plant Outfall
CRD-28	April 22, 2025, Shoshone Reach Instream Flow Beneficial Use and Hydraulic Habitat Suitability Assessment
CRD-29	September 2024, USFS-BLM Biological and Recreational Resources Dependent on Colorado River Flows Through Glenwood Canyon
CRD-30	Colorado River District – Shoshone Maps
CRD-31	April 30, 2025, Colorado River District, Shoshone Water Rights Analysis on Decreed Instream Flow Reaches in the Colorado River Watershed
CRD-32	House Bill 24-1435 (Concerning the Funding of Colorado Water Conservation Board Projects, And in Connection Therewith, Making an Appropriation)
CRD-33	Summary of Shoshone Permanency Funding Commitments
CRD-34	Table – Total Annual Reservoir Releases for the 15-Mile Reach
CRD-35	Chart – Median % of Total Annual Releases for 15-Mile Reach

CRD-36	November 13, 2024, Shoshone Water Rights Preservation Project B2E Application
CRD-37	January 17, 2025, Press Release – Governor Polis Celebrates Historic Investments in Colorado's Water Future, Including $40M for Shoshone Water Rights
CRD-38	August 28, 2025, Colorado Water Trust Public Comment Letter
CRD-39	BBA - August 29, 2025, CWCB Hearing Rebuttal Summary
CRD-40	Martellaro Water LLC - August 29, 2025, Response Summary NCWCD Position regarding Shoshone Permanency
CRD-41	Hydros Consulting - August 29, 2025, Technical Memorandum – Rebuttal of ERC's Shoshone memos

Respectfully submitted this 29th day of August, 2025.

COLORADO RIVER WATER CONSERVATION DISTRICT

/s/ Peter C. Fleming
Peter C. Fleming, Reg. No. 20805
Jason V. Turner, Reg. No. 35665
Bruce C. Walters, Reg. No. 50235
Attorneys for the Colorado River Water Conservation District

BALCOMB & GREEN, P.C.

/s/ Christopher L. Geiger
Christopher L. Geiger, Reg. No. 32333
Attorney for Basalt Water Conservancy District

PORZAK LAW, LLC

/s/ Glenn Porzak
Glenn Porzak, Reg. No. 2793
Attorney for Clinton Ditch & Reservoir Company

MESA COUNTY BOARD OF COUNTY COMMISSIONERS

/s/ Todd M. Starr
Todd M. Starr, Reg. No. 27641
Mesa County Attorney

CERTIFICATE OF SERVICE

I certify that on August 29, 2025, a true and correct copy of the foregoing **JOINT REBUTTAL STATEMENT** was electronically filed to the Hearing Officer and the Parties via email (Jackie.Calicchio@coag.gov) in accordance with the Hearing Officer's July 18, 2025, Order Re: Procedures and Deadlines for Prehearing Submissions.

/s/ Peter C. Fleming
Peter C. Fleming, Reg. No. 20805
Jason V. Turner, Reg. No. 35665
Bruce C. Walters, Reg. No. 50235
Attorneys for the Colorado River Water Conservation District

COLORADO WATER TRUST

August 28, 2025

Ms. Lauren Ris
Director
Colorado Water Conservation Board
1313 Sherman St., Rm 718
Denver, CO 80203
lauren.ris@state.co.us

Mr. Rob Viehl
Chief, Stream and Lakes Protection Section
Colorado Water Conservation Board
1313 Sherman St., Rm 718
Denver, CO 80203
rob.viehl@state.co.us

Re: Proposed Acquisition of an Interest in the Shoshone Water Rights for Instream Flow Use on the Colorado River, Water Division 5

Dear Ms. Ris and Mr. Viehl:

Colorado Water Trust ("Water Trust") is writing to provide a public comment letter regarding the Colorado Water Conservation Board's ("CWCB") proposed acquisition of an interest in the Shoshone Water Rights for instream flow use on the mainstem of the Colorado River. These comments are offered neither in support of nor in opposition to the proposed acquisition. Rather, they are offered to provide clarification and insight on an issue that has been raised by several parties in their August 4, 2025, Prehearing Statements and are offered based on the Water Trust's professional experience working with the CWCB's acquisition program.

Several parties have argued in their prehearing statements that the proposed acquisition agreement between CWCB and the Colorado River Water Conservation District ("District") impermissibly limits the CWCB's statutory authority and discretion to manage instream flow rights.[1] Specifically, these parties argue that the language in Paragraph 7 of the Draft

[1] *See, e.g.,* Prehearing Statement of Aurora Water section II.E; Colorado Springs Utilities' Prehearing Statement section A.4; Denver Water's Prehearing Statement section II.4; Homestake Partners' Pre-

Shoshone Water Rights Dedication and ISF Agreement[2] requiring the CWCB to place a call for the Shoshone Water Rights for instream flow use—subject to some exceptions—any time the flow rate at a certain gauge drops below a specific rate represents a term that improperly limits the agency's ability to adjust or remove the call for other considerations.[3] These parties also argue that allowing an exception to the above requirement if CWCB and the District agree in writing to reduce the instream flow call improperly grants the district "veto authority" over the CWCB's decision making power.[4]

In contrast, our decades-long experience in water sharing agreements reflects a different understanding of this issue: that CWCB's abilities outlined in Instream Flow Rule 10, 2 CCR 408-2 ("ISF Rule 10") to enter into agreements to a) partially limit its own discretion to manage an instream flow water right, or to b) delegate limited authority to act on its behalf are neither contrary to law nor a novel approach taken in this particular proposed transaction. [5]

Because the Water Trust is not a party to this acquisition hearing, we do not offer a separate legal rebuttal in this comment letter to the Front Range Parties' position other than to say our experience is consistent with the positions on this limited issue described in the CWCB's and the District's prehearing statements.[6] Rather, this comment letter describes the Water Trust's experience in facilitating acquisitions on behalf of the CWCB and the role that these two CWCB authorities play in maintaining the flexibility and durability of the state's instream flow program.

The mission of the Water Trust is to restore water to Colorado's rivers and streams. During its 24-year history, the Water Trust has completed 27 flow restoration projects across the

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Hearing Statement section III.2; Prehearing Statement of Northern Colorado Water Conservancy District and its Municipal Subdistrict sections II.B.a and b. ("Front Range Parties").

[2] Included with the District's Exhibit 1 to their Prehearing Statement.

[3] *See, e.g.*, Colorado Springs Utilities' Prehearing Statement, 8.

[4] *See, e.g.,* Prehearing Statement of Aurora Water, 9.

[5] This rule, among other things, allows the Board to "enter into enforcement agreements that limit the Board's discretion in the protection, approval of inundation, modification or disposal of ISF right, and/or may delegate limited authority to act on the Board's behalf."

[6] *See* Prehearing Statement of Staff of Colorado Water Conservation Board, 11; Joint Prehearing Statement of the Colorado River Water Conservation District, *et al*., 16-17.

state, and many involve permanent or temporary acquisitions in support of the instream flow program. Several projects that we have completed in partnership with the CWCB are based on agreements that—in accordance with ISF Rule 10—either limit the CWCB's discretion or delegate limited authority to the Water Trust or other partners to act on its behalf.

Perhaps the best example of both of these ISF Rule 10 abilities is our McKinley Ditch Project in Division 4. In this project, we originally partnered with the non-profit entity Western Rivers Conservancy ("WRC") that purchased both irrigated ranch land out of foreclosure, as well as the associated water rights on the Little Cimarron River, tributary to both the Cimarron and Gunnison Rivers. While WRC worked to ultimately re-market the ranch, it sold the water rights to the Water Trust. The Water Trust partnered with the CWCB to seek water court approval to add instream flow use to the water rights. (Please see the decree for this project in Case No. 14CW3108, included herein as Attachment 1.)

Colorado Water Trust continues to hold title to these water rights, and we conveyed a permanent grant of flow restoration to the CWCB for instream flow use and a deeded a separate grant of use to the landowner for irrigation. (Please see the Grant of Flow Restoration Use between the Water Trust and the CWCB included herein as Attachment 2 ("Grant").) Both agreements lay out the process by which these entities will coordinate use of the water each year, whether it is a full season of continued irrigation, a full season of instream flow use, or a split-season of shared use. In an average hydrologic year, the landowner may use the water to grow crops during the first part of the irrigation season; and in the second half of the season, irrigation ceases and the CWCB uses the water for instream flow on the Little Cimmaron and Cimmaron Rivers. These arrangements also allow for full season irrigation or full-season instream flow use if there is an exceptionally wet or dry year.

The Grant also specify how the parties, specifically the CWCB and the Water Trust, will work together to identify which use scenario they will implement each year. Similar to the proposed acquisition agreement between CWCB and the District, the Grant for our McKinley project also expressly grants limited authority to the Water Trust in accordance with ISF Rule 10 to act as CWCB's agent in the administration and monitoring of the instream flow use of those water rights.

This arrangement, as outlined by Paragraphs 5 and 7 of the Grant, provides both some level of certainty but also some flexibility for other users of this water. Such a split-season arrangement would be nearly impossible without the CWCB's ability to limit its own discretion. For projects of this nature to operate successfully as intended, the CWCB must have the flexibility to enter into agreements to reasonably limit its own discretion in how and when it operates the instream flow water right. Likewise, the CWCB needs to be able to delegate some level of authority to other parties to act on its behalf, given the growing number of projects it is involved with and its limited resources and capacity.

In addition to the McKinley project, over the years the Water Trust has helped facilitate other projects around the state—both permanent and temporary—that rely on similar limitation-of-discretion or delegation-of-authority arrangements with the CWCB for success. In our years of supporting the CWCB, the Water Trust has found these ISF Rule 10 abilities to be vital for creating successful partnerships between environmental flow protection and other water uses, such as agricultural and municipal. This flexibility allows water rights owners to enter into long-term and short-term acquisition agreements with the CWCB while retaining some autonomy to continued use of their property rights as needed (and as agreed to). The Water Trust is concerned that, without these options, the demand from water users to participate in flexible water-sharing agreements with the CWCB would be greatly diminished statewide.

The importance of these flexible arrangements is also reflected in the Colorado Water Plan, which identifies water sharing as a key strategy for balancing multiple uses of water in the state. Water sharing is described in the plan as critical to closing the gap in meeting environmental and recreational flow needs, while at the same time supporting continued agricultural and municipal use. In our experience, CWCB's ability to occasionally limit its discretion and delegate limited authority to partners can be key practical mechanisms that enable these agreements to function effectively and succeed over the long term. These ISF Rule 10 abilties also help build trust and confidence with partners by ensuring their needs are considered in the operation of the agreement, which in turn makes potential partners more willing to participate in water-sharing agreements for the first time.

In summary, the Water Trust does not agree with the Front Range Parties' characterization that the CWCB may not limit its own discretion or grant authority to another entity, as is proposed in the acquisition agreement with the District. Based on our experience, agreements incorporating limited discretion and delegation have long been part of the

CWCB's practice and are consistent with its statutory authority under ISF Rule 10. Moreover, these ISF Rule 10 abilities are critical to the continued success of the instream flow acquisition program: They allow the CWCB to implement flexible, durable water-sharing arrangements that balance the needs of instream flow protection with the continuing needs of the water rights owners, whether they are agricultural, industrial, or municipal. Without these abilities, many long-term and short-term acquisitions would not be possible. The CWCB's use of these authorities has been a consistent and accepted practice, and they remain important to the continued flexibility and effectiveness of the instream flow acquisition program.

Thank you for your time and consideration.

Sincerely,

Kate Ryan
Executive Director

Josh Boissevain
Senior Staff Attorney

Attachment 1

DISTRICT COURT, WATER DIVISION NO. 4 STATE OF COLORADO 1200 N. Grand Ave. Bin A Montrose, CO 81401 CONCERNING THE APPLICATION FOR WATER RIGHTS OF: COLORADO WATER TRUST and COLORADO WATER CONSERVATION BOARD IN GUNNISON and MONTROSE COUNTIES	DATE FILED: October 1, 2018 CASE NUMBER: 2014CW3108 ▲ **COURT USE ONLY** ▲ Case No.: 14CW3108

FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, AND DECREE OF THE WATER COURT

This matter comes before the Water Referee upon the Application for Change of Water Rights (the "Application") filed by the above captioned applicants (the "Co-Applicants"). The Referee, having made such investigations as are necessary to determine whether the statements in the Application are true, and having become fully advised with respect to this matter, hereby makes the following findings of fact, conclusions of law, and ruling:

FINDINGS OF FACT

1. **Co-Applicants**. The Application in this matter was filed on December 31, 2014 by the Co-Applicants, the Colorado Water Trust ("Water Trust") and the Colorado Water Conservation Board (the "CWCB").

2. **Jurisdiction**. All notices required by law have been duly given, and the Water Court has jurisdiction over the Application and all parties affected thereby, whether or not they have chosen to appear.

3. **Statements of Opposition**. Statements of opposition to the Application were timely filed by David Taylor and Wayne Maurer. The Collier Ditch Company filed and was granted an Uncontested Motion to Intervene. All Opposers have stipulated to the entry of this Ruling and Decree.

4. **Consultation Report**. The Court has considered the Summary of Consultation dated May 14, 2015 filed in this matter by the Division Engineer and the Co-Applicants' Response thereto.

5. **Overview**. The Water Trust is a Colorado nonprofit corporation that seeks to restore and protect streamflows in Colorado using voluntary, market-based tools. The Water Trust owns 1.5 of the 8 shares (18.75%) in the water rights decreed to the McKinley Ditch (the "Shares"), a ditch with four priorities that diverts water from the Little Cimarron River, a tributary of the Cimarron River, a tributary of the Gunnison River. In furtherance of the Water Trust's mission, the Water Trust conveyed to the CWCB a Grant of Flow Restoration Use (the "Grant"), attached as Exhibit A. The Grant conveys to the CWCB the permanent right to use the Shares to preserve

and/or improve the natural environment to a reasonable decree pursuant to the terms of the Grant. At its September 12, 2014 meeting, the CWCB found that the Grant would preserve and/or improve the natural environment of the Little Cimarron River and the Cimarron River, to be used exclusively by the CWCB pursuant to Section 37-92-102(3), C.R.S. (2016). The Water Trust retains the underlying ownership of the Shares.

Under the proposed change of water rights, the preferred use of the Shares will be a split season use, with the historical irrigation use being made during the first part of the irrigation season and instream flow use being made in the later part of the irrigation season. However, in some years the Shares will only be used for irrigation, and in other years the Shares will only be used for instream flow use. Accordingly, a change of water rights is sought to add instream flow use by the CWCB to the existing decreed irrigation use of the Shares.

6. Decreed water rights for which change is sought:

6.1 Name of Structure: McKinley Ditch

6.2 Case Number, Court, and Date of Original and All Relevant Subsequent Decrees:

(a) Civil Action No. 1319, District Court, Montrose County, March 28, 1904

(b) Civil Action No. 1745, District Court, Montrose County, May 8, 1913

(c) Civil Action No. 4742, District Court, Montrose County, April 21, 1941

(d) Case No. 05CW132, District Court, Water Division 4, May 30, 2008

(e) Case No. 12CW52, District Court, Water Division 4, February 14, 2013

6.3 Legal description of structure as described in most recent decree (12CW52): A point in the NW1/4NW1/4NW1/4, Section 12, Township 47 North, Range 6 West, N.M.P.M., 58 feet from the north section line and 220 feet from the west section line (easting 282861, northing 4247959, Zone 13, NAD 83).

6.4 Decreed source of water: Little Cimarron River, tributary to the Cimarron River, tributary to the Gunnison River.

6.5 Priorities, appropriation dates, total amount decreed, and amounts to be changed:

Table 1: Water Rights Decreed to McKinley Ditch/Co-Applicants' Ownership

McKinley Ditch (all amounts are absolute and are in cfs)			
Priority	**Appropriation Date**	**Total Decreed Amount**	**Amount Co-Applicants Intend to Change** (18.75% of each priority)
56	September 1, 1886	12.17	2.2819
125	May 10, 1905	3.125	0.5859
128	May 10, 1906	3.125	0.5859
285	May 1, 1912	12.58	2.359
TOTAL		**31.0**	**5.8125**

6.6 Previous Changes:

6.6.1 Case No. 05CW132, decreed on May 2, 2008 by the District Court for Water Division 4, corrected the point of diversion for the McKinley Ditch to the point referenced in Section 6.3 above.

6.6.2 Case No. 12CW52, decreed on February 14, 2013 by the District Court for Water Division 4, confirmed the historical place of use irrigation under the McKinley Ditch. That case also confirmed that each priority under the McKinley Ditch may be used on all lands irrigated under the McKinley Ditch, subject to certain terms and conditions set forth in that decree.

6.7 Decreed use: Irrigation.

7. Description of Proposed Change:

7.1 Change of Water Right to Add Instream Flow Use: In addition to the existing decreed irrigation use, Co-Applicants seek approval to use the Shares for instream flow use exclusively by the CWCB pursuant to the terms of the Grant and Section 37-92-102(3), C.R.S. (2016) for preservation and/or improvement of the natural environment to a reasonable degree, within stream Segments One, Two and Three described in Section 7.2 below. Any water so used for instream flow will be in addition to any other water to which the CWCB would otherwise be entitled pursuant to its existing or future decreed instream flow water rights on the Cimarron River described in Section 7.1.1 below.

7.1.1 Existing Decreed Instream Flow Water Right: The CWCB currently holds a decreed instream flow right on the Cimarron River, described in the table below.

Table 2: Existing Cimarron River Instream Flow Right

Case No.	Stream	Reach	Amount	Appropriation Date
84CW398	Cimarron River	Confluence of Little Cimarron River to confluence of Gunnison River	16 cfs (year round)	May 4, 1984

The CWCB intends to use the Shares in priority for instream flow uses in Segment 3, described in Section 7.2 below, in combination with or in addition to the decreed instream flow appropriation described above. Use will be for preservation of the natural environment at times when the existing instream flow is not fully met, and for improvement of the natural environment at flow rates above the decreed rate of the existing instream flow right when the existing instream flow water right is fully met.

7.2 Instream Flow Segments: The instream flow use will occur in three stream segments of the Little Cimarron and Cimarron Rivers, described below and depicted on Figure 1 attached hereto.

Table 3 - Instream Flow Segment UTM Coordinates

Segment	X Coordinate*	Y Coordinate*
1 - Start	282,858.02	4,247,930.81
1 - End	280,924.83	4,252,774.82
2 - Start	280,924.83	4,252,774.82
2 - End	279,308.91	4,254,790.81
3 - Start	279,308.91	4,254,790.81
3 - End	278,031.53	4,259,180.93
*Projection: NAD 1983 UTM Zone 13N - Meters		

7.2.1 Segment One:

(a) Upper terminus: A point on the Little Cimarron River in the NW1/4 NW1/4 NW1/4, Section 12, Township 47 North, Range 6 West, N.M.P.M., as further described in the UTM Coordinates Table 3 above. This is the existing point of diversion of the McKinley Ditch.

(b) Lower terminus: A point on the Little Cimarron River where the return flows from the historical use of the Shares returned to the Little Cimarron River, estimated

to be upstream of the Perrin Ditch headgate in the NE1/4, Section 27, Township 48 North, Range 6 West, N.M.P.M., as further described in the UTM Coordinates Table 3 above.

7.2.2 Segment Two:

(a) Upper terminus: A point on the Little Cimarron River where the return flows from the historical place of use of the Shares return to the Little Cimarron River, estimated to be upstream of the Perrin Ditch headgate in the NE1/4, Section 27, Township 48 North, Range 6 West, N.M.P.M., as further described in the UTM Coordinates Table 3 above.

(b) Lower terminus: The confluence of the Little Cimarron River and the Cimarron River, as further described in the UTM Coordinates Table 3 above.

7.2.3 Segment Three:

(a) Upper terminus: The confluence of the Little Cimarron River and the Cimarron River, as further described in the UTM Coordinates Table 3 above.

(b) Lower terminus: The confluence of the Cimarron River and the Gunnison River, as further described in the UTM Coordinates Table 3 above.

8. Historical Use.

The additional uses described in Section 7 are based on a historical use analysis performed by Bishop-Brogden Associates ("BBA"). Historical irrigation use of the Shares resulted in a net depletion to the Little Cimarron River during the irrigation season and a net accretion to the river during the non-irrigation season. Historically, there have been no calls on the Little Cimarron River outside of the irrigation season. During operation of the instream flow use of the Shares, the non-irrigation return flows are included in the bypassed water and will naturally accrue to the stream and be available to other water users below Segment Three. The study period for the analysis was 1974 through 2013. This study period is sufficiently long, includes a representative variety of wet, average, and dry years, and is representative of the historical use of the McKinley Ditch, meeting the requirements of § 37-92-305(d), C.R.S. (2016).

8.1 Irrigation and Instream Flow Seasons of use. The historical irrigation season of the Shares was from April through November. For the change of the Shares approved in this decree, the season of use shall be from May 1 through October 31, for either irrigation or instream flow use, subject to the volumetric limits set forth in 9.3.2 below. Any diversions at the McKinley headgate made by the ditch during the months of April or November attributable to the Shares shall be measured and immediately returned to and relinquished to the stream.

8.2 Historical Diversions. To determine the amount of in-priority diversions to the historically irrigated property, the total diversions were limited to diversions taken in-priority, up to the decreed flow rate and then were pro-rated by the ratio of 1.5/8 shares (18.75%). The historical in-priority diversions of the Shares are as follows:

Table 4: Co-Applicants' Pro-Rata Share of In-Priority Historical Headgate Diversions in Each Month of the Future Instream Flow Season of Use – All Priorities

Month	**Average (af)**
May	106.8
June	237.6
July	206.7
August	142.6
September	102.9
October	58.0
Annual	854.6

In instances when only the most senior McKinley Ditch water right (Priority 56) was in priority and only the decreed limit of 87.5625 acres could be irrigated, the average irrigation season diversions attributable to the historically irrigated property are as follows:

Table 5: Co-Applicant's Pro-Rata Share of In-Priority Historical Headgate Diversions in Each Month of the Future Instream Flow Season of Use – Priority 56 only

Month	**Average (af)**
May	67.2
June	130.8
July	134.9
August	118.6
September	92.6
October	54.2
Annual	598.3

8.3 Ditch Losses. Ditch losses in the McKinley Ditch suffered by the Shares were historically 10% of the amount diverted.

8.4 Historical Net Depletions. The Shares were used to irrigate pasture grass on the 194.5 acres depicted on Figure 1 attached hereto. However, this analysis of the historical depletions limits the irrigated acreage to 177.5625 acres per the decreed acreage in Case No. 12CW52. Furthermore, 87.5625 acres was used in the historical use analysis when only the senior McKinley Ditch water right (Priority 56) was in priority. Net irrigation season depletions were determined using the Modified Blaney-Criddle method in the State CU model. A value of 10% was used to account for ditch loss. Climate data was obtained from the NOAA Cimarron

weather station. A maximum irrigation efficiency of 55% was used in the model, as all the lands under the McKinley Ditch are flood-irrigated. Soil moisture capacity was determined through an analysis of underlying soils. Forty percent of ground water returns flows were lagged using a Glover analysis.

The historical net depletions from the in-priority diversions in each month of the future instream flow season of use resulting from such irrigation of 177.6 acres were as follows:

Table 6: Historical Net Depletions of Shares - All Priorities

Month	**Average (af)**
May	41.7
June	105.4
July	99.4
August	68.5
September	36.9
October	6.5
Annual	358.3

The following table shows the historical net depletions in each month of the future instream flow season of use from the use of the Shares when only the decreed limit of 87.5625 acres could be irrigated and when only Priority 56 was in priority:

Table 7: Historical Net Depletions of Shares - Priority 56 only

Month	**Average (af)**
May	21.5
June	52.6
July	57.8
August	48
September	29.1
October	7.4
Annual	216.4

9. Future Operations.

9.1 Use of the Shares - Scenarios. The preferred future use of the Shares will be split season use, whereby the Shares will continue to be used to irrigate the historically irrigated land in the first part of the irrigation season and then used during the remainder of the irrigation season for instream flow use instead of irrigation. This will allow the historically irrigated land to remain irrigated for at least part of the year, but makes the Shares available to preserve and/or improve the natural environment in Segments One, Two and Three in the later part of the irrigation season when stream flows normally drop. Alternatively, the Shares may be also used

for irrigation throughout the entire irrigation season or for instream flow for the entire irrigation season.

9.2 Notification. To provide sufficient notice of which of the above operational scenarios will be used in any given year, the Co-Applicants will give the Division Engineer, the Collier Ditch Company [Jack Perrin, President of Collier Ditch Company, at his email address: Perrin, Karen (kperrin@coloradomesa.edu), or such other person as the Collier Ditch Company may designate], and Three P's LLC [Garry Forney, 1701 Bowker Rd., El Centro, CA 92243, garryf@bullentinc.net] or Three P's LLC's successor in interest 30-day notice before use of the Shares for instream flow.

9.3 Instream Flow Rates by Segment. Flow rates for instream use of the Shares will vary by Segment. When in priority, these flow rates will be available daily for instream flow use by the CWCB, subject to the limitations in Table 8. In the event that this amount is not physically available at the McKinley Ditch headgate, the CWCB will be entitled to place an administrative call on the Little Cimarron at the McKinley headgate.

9.3.1 Segment One. As noted above, the historical use of the Shares was fully depletive to the Little Cimarron River throughout Segment One, as return flows from irrigation use of the Shares did not accrue to the stream until the upstream terminus of Segment Two. Accordingly, in Segment One, the rate of flow that may be bypassed past the headgate of the McKinley Ditch for instream flow purposes will be equal to the Co-Applicant's pro rata portion of the decree priorities for the McKinley Ditch then in priority available at the McKinley Ditch headgate, as limited herein, less 10% of such amount to be diverted down the McKinley Ditch to replicate historical ditch losses.

9.3.2 Further, in order to avoid enlarged use of the Shares, Co-Applicants shall be limited to the following monthly, annual, and 20-year volumetric limits set forth in Table 8 for their pro rata share of water available for diversions at the McKinley Ditch, whether the water is used for irrigation or instream flows.

Table 8: Monthly, Annual, and 20-Year Volumetric Limits

Month	Maximum annual in ac-ft	20-year volumetric in ac-ft
May	252	2135
June	346	4751
July	321	4133
August	239	2851
September	208	2058
October	214	1160
Annual	1158	---

Co-Applicants' diversions in any month shall be limited to the lesser of either (1) the maximum allowable diversion for that month or (2) the maximum diversion that is allowable under the 20-year volumetric limitation for that month. The maximum diversion allowable under the 20-year volumetric limitation in any particular month shall be calculated by subtracting the total of the diversions during the previous 19 years in that particular month from the 20-year volumetric limitation for that particular month. In applying the 20-year volumetric limitations during the initial 20-year period following entry of this decree, the Co-Applicant's cumulative headgate diversion entitlements cannot exceed one-half of the 20-year monthly volumetric limitation in either the first or last 10-year period. In addition, the Co-Applicants' diversions shall be limited to 1,158 acre-feet in any May 1 through October 31 period.

9.3.3 Segments Two and Three. In segments Two and Three the rates of flow that can be used for instream flow purposes are the historical net depletions determined by multiplying the pro rata portion of the decree priorities for the McKinley Ditch then in priority available at the McKinley Ditch headgate determined in Section 9.3.1 for Segment One, by the monthly depletion factors shown in Table 9 (which factors take into account the ten percent ditch loss in the McKinley Ditch), and then reduced for transit losses pursuant to Paragraph 11.6 below.

Table 9: Net Depletion Factors

Net Depletion Factors	May	Jun	Jul	Aug	Sep	Oct
	39%	44%	48%	48%	36%	11%

10. Maintenance of Historical Return Flows.

10.1 Irrigation Season Return Flows. Under full season irrigation, irrigation season return flows will occur as they have historically. Under full season instream flow use, irrigation season return flows will be maintained through delivery of return flows as a portion of the bypassed instream flow water. Under a split-season scenario, historical irrigation season return flows will be maintained through a combination of historical irrigation use of the Shares and delivery of bypassed instream flow water.

10.2 Non-Irrigation Season Return Flows. There have been no historical calls on the Little Cimarron River outside of the irrigation season. As described in Section 7.1.1, the CWCB has an existing, year-round instream flow right downstream on the Cimarron River in Segment Three - the Cimarron River from its confluence with the Little Cimarron River to its confluence with the Gunnison River. Segment Three has benefitted from non-irrigation season return flows from the historical irrigation use of the Shares. However, pursuant to 2 CCR 408-2(6)(e) of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, the CWCB has determined that the benefit to the natural environment of the Little Cimarron and the Cimarron River from this project during the irrigation season outweighs the potential detriment to the natural environment that could result in some years from unmaintained lagged return flows to the Cimarron River. During operation of the instream flow use of the Shares, the non-irrigation season return flows are included as part of the bypassed water and will naturally accrue to the stream and be available to other water users below Segment Three. Consequently, no injury will occur to downstream water rights and this change will not require the replacement of any historical non-irrigation season return flows during the non-irrigation season.

11. Additional Terms and Conditions. The following additional terms and conditions on the operation of the change approved herein are required, and are adequate, to protect other owners or users of water rights or decreed conditional water rights from material injury.

11.1. Diversion/Bypass Only In Priority. Diversions of the Shares for irrigation use and bypass of the Shares for instream flow use shall be limited to periods that the McKinley Ditch water rights are in priority, and only occur from May 1 through October 31 for irrigation and instream flow use.

11.2 Limitation of Irrigated Acreage. During periods of a valid downstream senior call, the use of the Shares for continued irrigation shall be limited to 87.5625 acres if only Priority 56 is in priority and limited to 177.5625 acres if all of the Shares' priorities are in priority. At times without a valid call, irrigation may occur on the entire 194.5 acres as provided in Case No. 12CW52.

11.3 No Split of Priorities. The Co-Applicants shall only use all the priorities of the Shares for continued irrigation or for instream flow uses, and will not split the uses by priority. The Co-Applicants shall apply the Shares to continued irrigation or to instream flow uses for

whole-month increments throughout the irrigation season. Once the Shares are used for instream flow purposes in any one year, the Shares shall continue to be bypassed for instream flow purposes for the remainder of that irrigation year.

11.4 Ditch Loss. During months that the Shares are being bypassed to the stream for instream flow use and other McKinley Ditch shares are being diverted for irrigation, 10% of the flow rate bypassed at the McKinley Ditch for instream flow as determined in Section 9.3.1 shall be left in the McKinley Ditch to protect the remaining shareholders for ditch loss.

11.5 Dry-up. During the months that the Shares are being bypassed to the stream for instream flow use, the historically irrigated land may not be irrigated by the Shares or other existing McKinley Ditch shares; however, the historically irrigated land may be irrigated by sources approved in a subsequent decree, through a substitute water supply plan, or by other statutory mechanism.

11.6 Transit Losses. The transit losses associated with delivery of the changed right through the instream flow segments will be determined and assessed by the Division Engineer, as provided in the Stipulation Between Co-Applicants and Opposer the Collier Ditch Company ("Collier Ditch Company Stipulation"), at the time deliveries are made.

12. **The Collier Ditch Company Stipulation and Wayne Maurer Stipulation Terms**. Co-Applicants have filed stipulations herein with The Collier Ditch Company and Wayne Maurer, which the Court has approved and hereby incorporates into this decree.

13. Administration Past Downstream Headgates. The Division Engineer shall administer the portion of the Shares in priority and changed to instream flow use past any headgates in Segment One as determined in Section 9.3.1 , including the Collier Ditch headgate, provided that adequate structures are in place to bypass and measure such bypassed water, as provided in the Collier Ditch Company Stipulation. Within Segments Two and Three, the Division Engineer shall administer the portion of the Shares in priority and changed to instream flow use as determined in Section 9.3.3 past any headgates, provided that adequate structures are in place to bypass and measure such bypassed water.

14. Conjunctive Administration. For the purposes of administration of the McKinley Ditch for instream flow purposes, the CWCB shall be entitled to call for and exercise the Shares, up to the amounts decreed herein, alone or in combination with the existing instream flow water right described in Section 7.1.1 or any future instream flow water right(s), under each water right's respective priority. The CWCB's exercise of the McKinley Ditch for instream flow purposes shall not decrease the amount of water that can be called for and used under its existing instream flow water right.

15. **Measurement and Accounting**. The Co-Applicants shall install such measuring devices and maintain and submit monthly accounting records as may be required by the Division Engineer. Co-Applicants shall also submit such required monthly accounting records to a designated representative of the Collier Ditch. Co-Applicants shall also submit such required monthly accounting records to Three P's LLC or its successor in interest at the address in Section 9.2 until notified otherwise.

16. **Downstream Use**. During years in which the Shares are used for instream flow use, either for a partial or full season, the Water Trust retains the right to bring about beneficial use of the historical consumptive use of the Shares downstream of Segment Three as fully consumable reusable water pursuant to section 37-92-102(3), C.R.S. (2016).

17. **No Material Injury.** The change of water rights described herein, subject to the terms and conditions set forth herein, will not injuriously affect any person entitled to use water under a vested water right or a decreed conditional water right.

18. **Can and Will**. The change of water rights described herein is not speculative, can and will be completed within a reasonable time, and otherwise meets all legal requirements.

CONCLUSIONS OF LAW

19. **Incorporation**. To the extent they constitute legal conclusions, the foregoing Findings of Fact are incorporated herein.

20. **Complete Application**. The Application is complete, covering all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969, C.R.S. §37-92-101-602.

21. **Fulfillment of Legal Requirements**. Applicants have fulfilled all legal requirements for a decree as requested.

RULING OF THE REFEREE

THEREFORE, the Water Referee rules as follows:

22. **Fully Incorporated Ruling of the Referee**. The foregoing Findings of Fact and Conclusion of Law are hereby fully incorporated into this Ruling of the Referee.

23. **Change of Water Rights**. The change of water rights described above is hereby granted, subject all of the terms and conditions set forth above.

24. **Retained Jurisdiction**. Pursuant to the provisions of C.R.S. §37-92-304(6), the Court shall retain jurisdiction over the change of water rights granted herein for reconsideration of the question of whether the provisions of this decree are necessary or sufficient to prevent injury to the vested water rights of others. The Court's retained jurisdiction period shall automatically terminate five years after the first day of instream flow use of all or part of the Shares hereunder by the CWCB below the Collier Ditch. During said period, the Court's retained jurisdiction may be invoked by any existing party to this case by petition, with appropriate notice to all other parties. The petition shall set forth with particularity the specific injury alleged, together with proposed decretal language that the petitioner contends would remedy the alleged injury that is the basis for the petition. The person filing the petition shall have the burden of proof to establish that the modification sought is required to avoid injury to the petitioner.

25. **No Precedent**. This Decree is entered into by way of compromise and settlement of this litigation. Any agreements or terms and conditions herein are due solely to the unique circumstances and facts of this case. This Decree shall not establish any precedent and shall not be construed as a commitment to include any specific findings of fact, conclusions of law, specific engineering methodologies, or administrative practices in future stipulations or decrees..

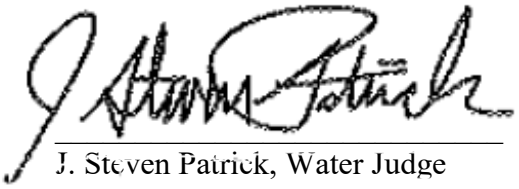
26. **Filing**. A copy of this Judgment and Decree shall be filed with the Water Clerk for Water Division 4, and this Decree shall become effective upon such filing. A copy of this Judgment and Decree shall also be filed with the Division Engineer for Water Division 4 and with the State Engineer.

Dated this 6th day of September, 2018.

S. Gregg Stanway, Water Referee

NO OBJECTION HAVING BEEN FILED TO THE FOREGOING RULING OF THE REFEREE WITHIN THE TIME PERMITTED BY STATUTE, THE FOREGOING RULING IS HEREBY MADE THE JUDGMENT AND DECREE OF THE WATER COURT.

DATED October 1, 2018



J. Steven Patrick, Water Judge

RECEPTION#: 868257, 08/31/2015 at 03:50:30 PM, 1 OF 6, AGR R $36.00
TRESSA W. GUYNES, MONTROSE COUNTY, CO CLERK AND RECORDER

Attachment 2

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Page 1 of 6
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GRANT OF FLOW RESTORATION USE

This GRANT OF FLOW RESTORATION USE (this "Grant") dated this 23rd day of April, 2015, is between the COLORADO WATER TRUST (the "Trust"), a Colorado nonprofit corporation, and the COLORADO WATER CONSERVATION BOARD (the "Board"), an agency of the State of Colorado (sometimes collectively referred to herein as the "Parties").

1. The Water Rights. The following water rights were decreed to the McKinley Ditch that is located or irrigates land in the Counties of Montrose and Gunnison, and were conveyed to the Trust by Special Warranty Deed dated January 6, 2014, which was recorded in the real property records of Gunnison County, Colorado on January 15, 2014, at Reception No. 625180 and in the real property records of Montrose County, Colorado on January 29, 2014, at Reception No. 853303. The Trust owns an undivided 18.75% in each of the following priorities ("Water Rights"):

- Priority 56, decreed in Civil Action No. 1319, District Court, Montrose County, March 28, 1904 for 12.17 cfs
- Priority 125, decreed in Civil Action No. 1745, District Court, Montrose County, May 8, 1913 for 3.125 cfs
- Priority 128, decreed in Civil Action No. 1745, District Court, Montrose County, May 8, 1913 for 3.125 cfs
- Priority 285, decreed in Civil Action No. 4742, District Court, Montrose County, April 21, 1941 for 12.58 cfs

The Water Rights were subsequently changed by decree in Case No. 05CW132 dated May 30, 2008 and by decree in Case No. 12CW52 dated February 15, 2013, District Court, Water Division 4.

2. Grant. Subject to the covenants and reservations hereinafter contained, the Trust, for due and sufficient consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Board the permanent right to use the Water Rights to preserve and/or improve the natural environmental to a reasonable decree (the "Grant") in the following stream reaches for the following purposes:

a. Instream flow use ("Full Season Instream Flow Use") exclusively by the Board for the entire irrigation season to preserve and/or improve the natural environment to a reasonable degree in the following stream reaches (the "Instream Flow Reaches):

i. Little Cimarron River from the McKinley headgate downstream to its confluence with the Cimarron River.

ii. Cimarron River from its confluence with the Little Cimarron River downstream to its confluence with the Gunnison River.

b. A split-season arrangement ("Split-Season Use"), where during a single irrigation season, the Water Rights are used for irrigation in the first part of the irrigation season and then instream flow use exclusively by the Board for the remain of the irrigation season to preserve and/or improve the natural environment to a reasonable degree in the Instream Flow Reaches.

3. The Parties intend that the Grant shall run with the Water Rights and shall burden the Trust's successors and assigns.

4. Change Case. The Parties recognize the need to obtain a change of the Water Rights to allow the desired use of the Water Rights for instream flow purposes as contemplated herein. Pursuant to the Water Rights Acquisition Agreement dated April 9, 2015 between the Parties regarding the Water Rights, the Parties will file as co-applicants an application for such a change with the District Court in and for Water Division No., 4 (the "Change Case"). This Grant shall be subject to any terms and conditions in the Change Case decree. If the Change Case is denied, in whole or in part, for any reason, or is conditioned in such a manner as to prevent the purposes of this Grant from being fulfilled, the Parties shall consult with each regarding future use of the Water Rights.

5. Annual Operation. The Parties agree that Split-Season Use is the preferred use of the Water Rights in any given year. Recognizing that Split-Season Use may not be feasible or desirable by the Parties in every year, the Trust and the Board agree that under the following circumstances, full season irrigation or Full Season Instream Flow Use may occur under the following circumstances (the "Special Circumstances"):

a. Full season irrigation may occur if the Parties agree that:

i. projected climatological conditions are such that there is no need to use the Water Rights to preserve and/or improve the natural environment in the Instream Flow Reaches; or

ii. there is a land management issue that requires full season irrigation, such as re-vegetation of the historically irrigated land; or

iii. there is an unanticipated or pressing situation that renders full season irrigation necessary.

b. Full Season Instream Flow Use may occur if the Parties agree that:

i. projected climatological conditions are such that there is a need for the use of the Water Rights for Full Season Instream Flow Use to preserve and/or improve the natural environment in the Instream Flow Reaches; or

ii. circumstances make irrigation impractical, including unavailability of a lessee for irrigation; or

iii. there is an unanticipated or pressing situation that renders Full Season Instream Flow Use necessary.

The Parties agree to consult before April 1 of each year to determine whether any Special Circumstances exist and to discuss the use of the Water Rights during the upcoming irrigation season. If no Special Circumstances exist, but the Parties do not agree on whether to begin instream flow use on July 1 or August 1, the Parties shall hire a mediator to assist them in reaching agreement on the start date. Subject to the availability of funds, the Parties shall split the costs of the mediator.

6. Irrigation Use. Under either the full season irrigation or Split-Season Use scenario, the Trust shall have the right to allow the use (by lease or otherwise) the Water Rights for the period in question to irrigators under the McKinley Ditch or other ditches below the McKinley Ditch for irrigation use, for such consideration and on such terms as the Trust desires, provided there is no diminishment of yield to the Water Rights for instream flow use or injury to existing instream flow water rights, to the satisfaction of CWCB. The Board shall have no responsibilities and bear no costs for such irrigation use of the Water Rights. Under the Split-Season Use scenario, the Trust shall coordinate all aspects of the irrigation use, including the switch from irrigation to instream flow use.

7. Administration. Pursuant to 2 CCR 408(2)(10), the Board hereby authorizes the Trust to be the CWCB's agent for administration and monitoring of the instream flow use of the Water Rights. If the stream flow at any monitored point falls below the decreed instream flow amount provided by the Water Rights, the Trust shall notify the staff of the Board. Upon consultation with the Trust and the Division of Water Resources, the staff of the Board shall place a call for administration of the Water Rights if appropriate. The Trust shall provide an annual report to the Board regarding the use of the Water Rights each year and the actions taken by the Trust as the Board's agent. Such report shall be due on or before December 31st of each year.

8. Injury with Mitigation. If the Board and Trust successfully obtain a decree in the Change Case, the Board commits to use the Water Rights, as changed, for instream flow purposes to preserve and/or improve the natural environment to a reasonable degree, consistent with the terms of the decree and this Grant, and to take all reasonable steps to enforce those rights for instream flow purposes and protect them from injury. If the Board receives a request to consider injury with

mitigation for the portion of the Little Cimarron River and/or Cimarron River benefited by the change of the Water Rights, the Board shall promptly inform the Trust of such request, consult with the Trust regarding such request, and not take any action that, in the Trust's reasonable judgment, would impair the benefits to the Little Cimarron River and/or Cimarron River resulting from the Trust's Grant to the Board of the Water Rights and their change to add instream flow uses.

9. Stream Gages. Subject to the availability of funds, the Board shall be solely responsible for the installation and maintenance of any stream gages within the Instream Flow Reaches that are required by law or needed to exercise the instream flow uses added to the Water Rights. The Board shall consult with the Trust regarding the type, location, and other aspects of the gaging.

10. Reserved Rights. The Grant is subject to the following rights that are expressly reserved to the Trust:

a. the right to use the Water Rights for irrigation purposes pursuant to Section 4 above; and

b. the right to bring about, by sale, lease or otherwise, the beneficial use of the historical consumptive use of the Water Rights as fully consumable water downstream of the Instream Flow Reaches, pursuant to 37-92-102(3), C.R.S, subject to such terms and conditions as the Water Court deems necessary to prevent injury to vested water rights or decreed conditional water rights.

11. Enforcement. The Parties agree that the exclusive venue and jurisdiction of any action pertaining to the interpretation or enforcement of this Grant shall be in the District Court, Water Division No. 4, to the extent permitted by law. If jurisdiction or venue is not proper in the water court, it is agreed that the exclusive venue and jurisdiction of any action pertaining to the interpretation or enforcement of this Grant shall be in the District Court of Gunnison County, Colorado. Before commencing any action for enforcement of this Grant, 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. Specific performance shall be the exclusive remedy for failure of either party to comply with any provision of this Grant.

12. Right of First Refusal. In the event the Trust begins actively marketing the Water Rights, the Trust will give the CWCB notice within two (2) weeks of the commencement of such activity. The Trust hereby grants to the Board a right of first refusal to purchase all or a portion of the Water Rights in the event the Trust seeks to convey these interests to a third party. Upon receipt of an offer to purchase that the Trust may accept, the Trust shall give the Board at least one hundred twenty (120) days' notice of the Trust's intention to transfer or convey the Water Rights by delivering to the Board a bona fide written offer to purchase made by a third party.

During the one hundred twenty (120) day notice period, the Board shall enjoy its right of first refusal, entitling it to purchase the Water Rights proposed for sale. If within one hundred twenty (120) days following notice by the Trust of the Trust's intention to sell the Water Rights, the Board chooses to exercise its right to purchase, the purchase price of the Water Rights shall be the fair market price of the Water Rights prevailing at the time of the offer. Provided that the Board notifies the Trust within one hundred twenty (120) day notice period of its intent to exercise its right to purchase, the Trust shall cooperate with the Board to allow sufficient time to complete the purchase of the Water Rights. In the event that the Board decides not to exercise its right to purchase the Water Rights offered for sale, the Trust shall be free to sell the Water Rights to the third party. In any sale to a third party, the Trust shall, as a part of that conveyance, require the third party purchaser to abide by the terms of this Grant.

IN WITNESS WHEREOF, the Trust and the Board have executed this Grant on the date set forth above.

COLORADO WATER TRUST

By: _____

Amy Beatie

Executive Director

COLORADO WATER CONSERVATION BOARD

By: _____

Name: James Eklund

Title: Director

STATE OF COLORADO)
) ss.
COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 23 day of April, 2015, by Amy Beatie, as Executive Director of the Colorado Water Trust, a Colorado nonprofit corporation.

Witness my hand and official seal.

Notary Public

My commission expires: January 23, 2019

MARA CAITLIN MACKILLOP
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 20154003120
MY COMMISSION EXPIRES JANUARY 23, 2019

STATE OF COLORADO)
) ss.
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 23 day of April, 2015, by James Eklund, as Director of the Colorado Water Conservation Board, an agency of the State of Colorado.

Witness my hand and official seal.

Notary Public

My commission expires: January 23, 2019

MARA CAITLIN MACKILLOP
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 20154003120
MY COMMISSION EXPIRES JANUARY 23, 2019

MEMORANDUM

BBA Water Consultants, Inc.

To: Brendon Langenhuizen, Bruce Walters, Peter Fleming, Jason Turner
From: Kristina Wynne, P.H. and John Shuler, P.H.
Subject: CWCB Hearing Rebuttal Summary
Job: 0808.06
Date: August 29, 2025

The purpose of this memorandum is to provide a brief response to two memoranda provided as part of Northern Water's and Denver Water's pre-hearing statements in advance of the Colorado Water Conservation Board's ("CWCB's") hearing regarding the acquisition of the Shoshone Power Plant water rights ("Shoshone Water Right(s)") in September 2025. The technical memoranda discussed here include a memorandum from Heather Thompson of Ecological Resource Consultants, LLC to the Front Range Water Council and a memorandum from Kyle Whitaker of Northern Water to Trout Raley, PC, both dated August 4, 2025.

Both memoranda provide comments on BBA Water Consultants' ("BBA") preliminary historical use assessment which was summarized in a draft memorandum dated November 8, 2024 ("November 2024 BBA Draft Memo"). The November 2024 BBA Draft Memo was created to provide a summary of our preliminary and draft assessment of the historical use of the Shoshone Water Rights based upon information available at the time. Since the November 2024 BBA Draft Memo was provided, we have obtained and reviewed additional data and other information regarding the historical use of the Shoshone Water Rights and operation of the Shoshone Power Plant. Our analysis of this data is ongoing, but we do not anticipate significant changes to the general methodology previously presented. The technical analysis of the historical use of the Shoshone Water Rights will be considered during the Water Court process and we understand that the historical use will not be determined by the CWCB in their decision regarding the acquisition of the water rights. Nevertheless, we have provided a summary of our key disputed issues with the ERC and Northern Water memoranda here.

<u>Memo by Heather Thompson, Ecological Resource Consultants, LLC ("ERC") to Front Range Water Council, August 4, 2025</u>

- Study Period
    - Colorado statute (C.R.S 37-92-305(3)(d)) requires that a study period selected in a change of use "be based on an analysis of the actual historical use of the water right for its decreed purposes during a representative study period that includes wet years, dry years, and average years." The statute goes on to say that this representative study period "need not include every year of the entire history of the subject water right."
    - As stated in the November 2024 BBA Draft Memo, the selected study period of 1975-2003 is representative of the historical use of the Shoshone Water Rights over the history of the plant and includes various hydrologic year types. It is unclear exactly what period is referred to in ERC's reference to the "Millennium Drought"

and whether it is specific to the Upper Colorado River in Colorado. However, 2002 is widely regarded as one of the worst droughts on record in the Colorado River Basin and is included in our proposed 1975-2003 study period, as is the historic drought of 1977.

- ERC argues that the Colorado River was administered differently prior to 1998 than it is currently or how it will be administered in the foreseeable future.
    - Pursuant to Colorado water rights and application of the prior appropriation system, a water right is entitled to divert water available to it for its decreed beneficial use. The administrative practices of Colorado's water officials change over time. Therefore, the change of use of a water right must be based on the historical diversion and use of the water right for its decreed purpose(s) over a representative study period, not on how administration is applied over a specific period of time.
    - We are unaware of any requirement that limits a representative study period to the most recent period of use of the water rights as suggested by ERC. In the case of the Shoshone Water Rights, a study period restricted to the post-1997 period is not representative of the operation over the lifetime of the water rights due to significant periods of full outage that occurred after 2003 and which were outside of Public Service Company of Colorado's ("PSCo's") control, as shown in Table 2 of the November 2024 BBA Draft Memo, which has been included as an exhibit in these proceedings.
    - Per statute, a change of use is to be based on a *historical* use assessment, and an applicant is required to ensure, in the context of Water Court, that a change of use does not expand the use of a water right and maintains the historical return flows. ERC asserts that a study period including years prior to 1998 should not be used to determine the historical use because it differs from how the river will be administered in the future. This is not only inappropriate and inconsistent with statute, but also impossible as future administrative practices and hydrologic conditions may continue to change into the future.

- Historical Yield of Shoshone Water Rights
    - ERC states that certain water should be excluded from the historical use analysis because it is, as they describe, "water released from reservoirs that cannot be called for by the Shoshone Water Rights." This is incorrect. Historical use is based on a quantification of water diverted under the water right for decreed beneficial use.
        - As a simple example, there are hundreds of water rights across the state which divert water and put it to beneficial use during free river periods. Just because these water rights are satisfied and do not place a call does not mean that they do not have a demand for the water right. We are not aware of any

change of use in which a water right's changed rate or volume was limited to when it historically placed a call.

- The Shoshone Power Plant has had continuous demand for power and has diverted water physically available to it for the life of the plant. Prior to 2003, water was diverted to produce power, in accordance with the decrees, nearly continuously apart from brief planned maintenance outages.

- While a change of use in Water Court must ensure that the subject water rights are not being expanded and that historical return flows are being maintained, we are not aware of any case in which an applicant is required to maintain a specific number of days of call or call schedule. A water rights owner is not required to maintain a historical pattern of calls into the future.

- The inclusion of Green Mountain Reservoir releases in the historical use of the Shoshone Water Rights must be considered during the Water Court process with appropriate technical documentation as the records are voluminous, nuanced and complicated. The Colorado River Accounting records produced by the Bureau of Reclamation are still being evaluated. However, no evidence has been provided to demonstrate that Green Mountain Reservoir releases were not available for diversion and beneficial use by the Shoshone Water Rights. To the contrary, records reflect that the Green Mountain Reservoir releases were made to satisfy the senior Shoshone Water Right. The technical elements of a historical use analysis will be discussed in Water Court.

- ERC states that the CDSS records should be used as the basis for the historical use of the Shoshone Water Rights. This is not necessary or appropriate for many reasons stated in the November 2024 BBA Draft Memo. It is important to emphasize several points:

  - The Shoshone Water Rights are and have historically been administered at the Dotsero gage.

  - The CDSS records are estimated values based on power production at the turbines and would require significant modification to reflect actual diversions at the Shoshone Diversion Dam. Separate operational records are currently being analyzed to determine periods of full or partial outage of the turbines.

  - The CDSS records do not include the full amount of return flows historically available to downstream users. Specifically, the CDSS records do not include all water that was diverted at the Shoshone Diversion Dam that was necessary for operation. Water that was run through the adits or otherwise was lost as part of operating a reasonably efficient system was returned to the river and relied on by downstream appropriators.

- Volumetric Limits

    - We agree with ERC that monthly volumetric limits "are common in change cases." As is also typical, such limits will be considered if necessary to prevent expansion of use and maintain historical return flows in the context of Water Court, not before an application has been filed.

Memo by Kyle Whitaker, Northern Water to Trout Raley, PC, August 4, 2025

Northern Water's memo focuses primarily on his definition of three "water administration periods" from 1937 to present (89 years) that are distinct based upon the exercise of specific, but not necessarily inclusive, agreements, operating policies, or differences in hydrology. He argues that the period from 1937-1997 should not be considered in the determination of historical use of the Shoshone Water Rights because the impact of the agreements and practices on the hydrological and administrative system during that time was too great. We disagree.

The various agreements and modalities of administration over time do not change the fact that the Shoshone Water Rights, particularly the 1,250 cfs senior water right, are senior to nearly all other mainstream Colorado River water rights, there has been a consistent demand for the power produced at the Shoshone Power Plant, and the Shoshone Water Rights have been diverted and put to beneficial use continuously since the construction of the Power Plant through at least 2003. Since 2003, PSCo has continued to divert water through the plant to the greatest extent possible but has been impacted by several events beyond its control that limited its ability to divert in a manner consistent with the vast majority of the 116-year lifetime of the plant.

- Northern Water makes several assertions throughout the memorandum about how the "*changes in water management, water rights administration, collaborative agreements and the operation of facilities both upstream and downstream of the Shoshone Power Plant have altered the flow regime significantly at the Shoshone Power Plant over the life of the plant"* and that these "*are not representative of the available flows currently or into the future".*

    - No concrete, data-backed evidence has been provided to confirm these assertions.

    - The Shoshone Power Plant has had a full demand for 1,408 cfs and has diverted water from the Colorado River pursuant to its water rights for beneficial use consistently within the selected study period of 1975-2003. This period is representative and includes periods of wet, dry and average years, including the significant drought years of 1977 and 2002.

    - Changes in water rights management, hydrology, or application of policy or agreement terms and conditions do not, in and of themselves, result in a study period not being representative of the historical diversions of a water right. Imperfect or varied administration, so long as water rights are diverted legally and used for decreed purposes, is not a reason to disregard entire periods of representative historical use. The development of water rights and land use throughout Colorado is constantly changing the hydrology of river systems and is

not a reason to exclude significant periods of time that are otherwise reflective of the historical *operation* and *diversion* of specific water rights.

- Northern Water indicates that upstream releases shepherded to a downstream use should not be included as water that is available to the Shoshone Water Rights. However, no information has been provided to demonstrate that all reservoir releases prior to 1998 were in fact shepherded or intended for other users. If releases were not formally shepherded, they would have become part of the water in the river system and available to downstream users, including by the Shoshone Water Rights. As stated above, the technical issues of shepherding and historical accounting of Green Mountain Reservoir releases should be the subject of discussion in the Water Court process with appropriate supporting documentation.

Alan Martellaro
alan.martellaro@gmail.com
143 Goose Lane
Carbondale, CO. 81623

Memorandum

August 29, 2025

To: Peter Fleming, Jason Turner, and Bruce Walters
Cc: Andy Mueller, Brendon Langenhuizen, Rebecca Briesmoore, Amy Moyer
From: Alan Martellaro
Re: Shoshone Permanency - Response Summary NCWCD Positions regarding Historic Water Rights Administration and use of Shoshone Power Plant

This memorandum is in response to issues raised by Northern Colorado Water Conservancy District (Northern) relating to the historic water rights administration and a potential change of water rights for the Shoshone Power Plant. I have personal knowledge of the historical exercise and administration of the Shoshone Water Rights and all other related matters set forth in this memorandum.

I was employed by the Colorado Division of Water Resources (DWR) as Division Engineer for Water Division No 5 (Division Engineer) from 2000 to 2021. Prior to serving as Division Engineer, I was the Assistant Division Engineer for Water Division No 5 from 1984 to 2000, and the Hydrographer from 1981 to 1984.

As part of my duties as the Division Engineer and Assistant Division Engineer, I oversaw the administration, regulation, and distribution of the waters of the state within Water Division No 5, the main stem of the Colorado River, pursuant to sections CRS 37-92-501 and -502. I also participated in water court proceedings and cases as a designated witness and/or as part of my consultation duties for the water court under section CRS 37-92-302, and Rule 6 of the Uniform Local Rules for all Colorado Water Courts.

As part of my duties as the Division Engineer, I managed the administration of and distribution of water attributable to the junior and senior Shoshone Water Rights.

1. It is Northern's position that administration of the Shoshone Water Rights has changed over time, and that these changes invalidate consideration of diversions and use of the rights prior to 1998 in a historical use analysis.

    1.1. I am unaware of any change of water right case that limited the period of record used in a historical use analysis because water right administration had changed during the relevant period of record.

    1.2. The aim of water administration of the Shoshone Water Rights has always been to deliver water to the Shoshone Power Plant that its water rights were entitled to receive. The means of doing so may have changed over the years and such changes have made delivery more efficient. These changes include:

        1.2.1. Transportation needs and real-time communications have improved.

1.2.2. New gaging equipment installed at gaging sites from chart recorders that previously took days to acquire data to satellite monitoring transmissions with immediate response.

1.2.3. New streamflow gage locations were established on the Colorado River and significant tributaries.

1.2.4. River forecasting using weather forecasting and the latest modeling have continued to improve in recent decades, and added to the administration tools, improving efficiency and making better use of water supply.

1.3. The development of new upstream junior rights does not change the fact that the Shoshone Power Plant is entitled to the conditions of the river as it found them when its water rights were appropriated. More rigorous administration required of upstream juniors does not mean administration of the Shoshone Water Rights has changed, nor does it mean that water historically diverted and used by the power plant was not legally and physically available to the plant at the time such water was diverted and used, irrespective of any changes in administrative practice that might have occurred.

2. The water rights for the Shoshone Power Plant include1250 cfs adjudicated on 12/9/1907 with a 1/7/1902 date of appropriation (1905 priority), and 158 cfs adjudicated on 2/7/1956 with a 5/15/1929 date of appropriation (1940 priority) for a total 1408 cfs. Historically water has been delivered to these rights to the extent the plant operator demanded delivery, the water rights were in priority, and the water rights were beneficially used for their decreed purpose.

2.1. The demand at the Shoshone Power Plant was generally year-round except for periods of scheduled maintenance, and outages that were beyond control of plant operator. In addition, it is my understanding that in a few very dry years the plant operator voluntarily reduced demand to allow upstream storage in Williams Fork Reservoir and Green Mountain Reservoir that could later be released when the water could be used downstream for both power and irrigation purposes.

2.2. The senior priorities of the Shoshone Water Rights have been recognized and administered within the priority system of the Colorado River Basin as evidenced by the Bureau of Reclamation's Colorado River Accounting distribution of available surplus (surplus to the Shoshone Water Rights); DWR's diversion and call records, and USGS gaging records for the Colorado River near Dotsero, Colorado.

2.3. The Division Engineer for Water Division No. 5 has historically recognized the beneficial use by the Shoshone Power Plant as required by CRS 37-92-502(2). As Division Engineer, I would not have recognized and administered a call for the Shoshone Water Rights under either the senior or junior priorities (or both) unless the amount of water subject to the administrative call was placed to beneficial use at the power plant. Without beneficial use by the power plant, upstream junior water use cannot and would not be curtailed to satisfy the power plant's water rights. Beneficial use at the Shoshone Power Plant consistently occurred except for a few brief periods where the diversions ceased temporarily as a result of maintenance and repair needs, natural disaster events, or voluntary call reductions. For example, in 2012 excessive leakage at the Shoshone Diversion Dam resulted in DWR not administering a call for water from plant.

3. DWR's CDSS records, which comprise deliveries of water to the plant's turbines for power use, do not fully encompass the current or historical exercise of the Shoshone Water Rights.

   3.1. Much akin to on-farm and off-farm losses associated with a change in use of an irrigation water right, all diversions necessary for the operation of the Shoshone Power Plant are not represented in the records derived from power production, because such records only comprise water that was delivered to the plant's turbines and do not capture the full amounts diverted at the Shoshone Diversion Dam.

      3.1.1. Carriage losses and intentional operational spills occur within the Shoshone tunnel and via the tunnel's adits.

      3.1.2. DWR accepted records from the plant's operator and entered those records into CDSS. It is my understanding the plant operator applied consistent turbine efficiencies to power production, when generating that record. Assuming this is the case, use records would underestimate diversions over time.

   3.2. Downstream users are entitled to the maintenance of historical return flows from a changed water right, including any operational losses that are part of the beneficial use of the water rights to be changed. Thus, all water delivered for the beneficial use at Shoshone Diversion Dam must be considered in a change of water right.

4. The use of the gaged data for the Colorado River near Dotsero, Colorado is appropriate for use in a historical use analysis. These water rights have always been administered at this location and this practice continues to this day. In my opinion, BBA's approach of using gaged data at Dotsero, and truthing that data against CDSS records, is a reasonable approach to calculate that actual historical use of the Shoshone Water Rights.

   4.1. The Dotsero Gage has historically been used as the location for delivery to the water rights.

   4.2. The concern of intervening inflows is unnecessary for total inflow between the Dotsero Gage and the diversion dam is negligible when the Shoshone Water Rights are being administered, certainly much less than the error in even the most accurate gage.

Sincerely yours,

Alan C Martellaro

Alan Martellaro

Technical Memorandum

TO: Peter Fleming and Brendon Langenhuizen, Colorado River Water Conservation District (CRWCD)
FROM: John Carron and Taylor Adams, Hydros Consulting
SUBJECT: Rebuttal of ERC's Shoshone memos
DATE: 8/29/2025

Introduction

This technical memorandum contains a summary of the Hydros engineering opinions in response to a pair of technical memos recently prepared by Ecological Resource Consultants[1] (ERC) for the Front Range Water Council which evaluated Hydros' September 11, 2024 memo *"Shoshone Power Plant Water Rights Yield Assessment"* and November 7, 2024 addendum, as well as the BBA Draft Preliminary Shoshone Historical Use Assessment. The ERC memos were included in pre-hearing disclosures for the upcoming Colorado Water Conservation Board (CWCB) hearing related to CRWCD's proposal to change the Shoshone Power Plant hydropower water rights to add instream flow as an additional use.

Executive Summary

ERC's critiques of Hydros' Shoshone Water Rights Yield Assessment and Addendum and BBA Water Consultants' (BBA) draft Preliminary Shoshone Historical Use Assessment contain numerous inconsistencies, methodological flaws, and mischaracterizations. The pair of technical memos containing critiques of the Hydros analysis and BBA's analysis often contradict each other on fundamental issues and yet confirm the Hydros core findings about the benefits of Shoshone Water Rights to the 15-Mile Reach. Key rebuttal points to the ERC memos include:

1. ERC repeatedly asserts that the Hydros analysis is unreliable because it does not represent or include what ERC considers to be the "true" historical use. As was stated clearly in the original Hydros memo, the analysis was not intended to be, nor should it be taken as, an analysis of historical use. That is a matter for water court. Even if there was an

[1] Evaluation of BBA Water Consultants' Preliminary Shoshone Historical Use Assessment, and Evaluation of Hydros Consulting's Shoshone Power Plant Water Rights Yield Assessment – Memos from ERC to Front Range Water Council – August 4, 2025.

agreed to quantification of historical use, it is historical **demand** that is necessary and appropriate for use in this modeling exercise. The use of the Baseline Upper Colorado River StateMod Model (UCRM), and its representation of Shoshone demands, is appropriate and correct for this analysis.

2. ERC attempts to show that Shoshone Permanency will result in harm to various reservoirs which are used largely by Trans-Mountain Diversions (TMDs) as replacement water. ERC fails to mention that the very reason those reservoirs exist is to offset their out-of-priority diversions. Of course those reservoirs are drawn down when Shoshone is actively calling for water, and of course they will remain fuller if Shoshone were to be abandoned. Arguing that Shoshone Permanency will adversely impact those reservoirs when compared to a period during which Shoshone water use is demonstrably lower than the normal historical pattern of use is biased.
3. ERC implies that the analysis of Shoshone demands and diversions should only include the current administrative protocols. Administration of the Colorado River has changed over time and will likely continue to evolve. Focusing on a specific administrative regime is a distraction from the ongoing demonstrable pattern of historical demands and usage of the Shoshone Water Rights.
4. ERC advocates for analysis that includes the current administrative protocols, but then argues that the Baseline UCRM, which represents current conditions in the basin, is not appropriate for modeling the impact of the Shoshone Water Rights.
5. ERC conflates demand and diversion in numerous places, including the use of historical diversion data from Colorado's Decision Support System (CDSS) in place of actual demands when performing their modeling analysis. The use of historical diversion data in the UCRM limits the ability of the model to allocate water to Shoshone's rights in priority and produces erroneous results.
6. ERC criticizes Hydros for not modeling the Shoshone Outage Protocol Agreement (ShOP) and yet admits that ShOP is too complex to model in the UCRM. ERC focuses on Denver Water's commitments under the CRCA and ShOP, while ignoring the provisions of numerous other signatories which demonstrate that ShOP is neither permanent nor guaranteed with respect to maintaining flows in the river.

Rebuttal Opinions

1. Misrepresentation of The Hydros Analysis

Purpose and Scope

ERC repeatedly conflates the Hydros yield assessment with a historical use analysis for water court proceedings, despite Hydros' explicit statements to the contrary. The Hydros memo of September 11, 2024, clearly states that "this analysis is not intended to serve as an analysis of the historical use of the Shoshone Water Rights with respect to any proceeding in water court for a change in type of use for the Shoshone Water Rights. Instead, this analysis is provided to demonstrate the benefits of the Shoshone Water Rights on flows through the 15-Mile Reach."

This distinction is crucial because the methodologies, assumptions, and analytical framework for the Hydros analysis is different from a historical use evaluation. A yield assessment designed to evaluate downstream effects requires different scenarios and comparisons than a historical use analysis for water right quantification. ERC's persistent mischaracterization of the Hydros work's purpose appears designed to hold the Hydros analysis to inappropriate standards and allow for criticisms that would not apply if the Hydros work were evaluated for its stated purpose.

This misrepresentation permeates ERC's critiques and invalidates many of ERC's technical objections. This misunderstanding of the purpose of the Hydros analysis is most clear when ERC suggests what should have been done to evaluate "full use of the Shoshone Water Rights relative to historical use" and to assess impacts "if the call under the Shoshone Water Rights increases". Neither of these critiques is relevant for the stated purpose of evaluating Shoshone Permanency.

Impact Evaluation

ERC's evaluation of impacts through a comparison of their "BBA Volumetric" and "Historical Shoshone" scenarios begins with the false premise that "an increased call by the Shoshone Water Rights" is relevant to plans related to Shoshone Permanency and ends with an evaluation of impacts that is both irrelevant and self-contradictory. The "Historical Shoshone" scenario that ERC developed is not a reasonable basis for comparison to other scenarios, because it includes contradictory and unsupportable assumptions.

In the description of these scenarios, ERC refers to the version of the UCRM used in their analysis by the date of the UCRM release, December 9, 2024. This release of the UCRM included a daily and a monthly version of the baseline model, and it is not clear which of these was the basis for ERC's development of the new "BBA Volumetric" and "Historical Shoshone" scenarios. Regardless,

there are fundamental flaws in these scenarios that preclude the results from providing meaningful insights into questions related to Shoshone Permanency.

There is a notable lack of description by ERC as to why the Baseline UCRM results were not relevant to their analysis. Instead of analyzing the Baseline UCRM in comparison to a scenario that depicts the conditions that would be expected without Shoshone, which would be comparable to the Hydros analysis, ERC chose to generate and compare two new scenarios to each other and evaluate the "impacts" that result from differences between these scenarios.

The "Historical Shoshone" scenario sets demand at Shoshone equal to the historical diversion records for Shoshone that ERC obtained from CDSS. ERC then chooses to use the Baseline UCRM demands for all other water users, instead of historical demands (or historical diversions, which would be more consistent but still incorrect use of the model) with the use of historical Shoshone diversions. Artificially limiting Shoshone diversions within the model framework is contradictory to the very purpose of the model; it eliminates the possibility that changes in water supply conditions, other water user demands, or any changes in system operations could result in changes (increases) to Shoshone's diversions and embeds within the analysis the faulty assumption that Shoshone's demands were always fully met during this period.

ERC fails to note that for a significant portion of the period being modeled the Shoshone Water Rights were unable to be exercised in part or in whole due to plant outages and natural events beyond Xcel's control. Generating a set of model results using diversion data from a period that has seen the lowest diversion rates of any historical period is clearly incorrect.

ERC defines the "BBA Volumetric" scenario by a set of Shoshone demands that volumetrically "coincides" with the BBA estimate of average annual yield. Again, the conflation of demand and diversion is problematic, and artificially limiting diversions during approximately half of the year unnecessarily limits the ability of the model to dynamically allocate water.

ERC uses these two scenarios to claim that the average historical yield numbers claimed by BBA are far greater than the "historical" modeled use of Shoshone. Aside from the fact that ERC seems to be presenting its arguments in opposition to the water rights change case in its analysis of the Hydros modeling exercise, the incorrect use and conflation of demand and diversion in ERC's analysis makes their results unreliable.

Finally, ERC cites the difference between a scenario with BBA's average historical demand and one using CDSS diversion records for Shoshone Water Rights during a period of sustained outages as evidence of impact to reservoir storage (ERC Figure 4). This is quite simply an apples to oranges comparison and is incorrect.

Why was it assumed that only Shoshone's demands were equal to CDSS diversion records? Why weren't other water rights modeled using CDSS data? What were Shoshone's actual demands in ERC's opinion? Without answers to such fundamental questions, and without documentation of basic model assumptions such as the timestep used in simulation, ERC's results cannot be meaningfully evaluated.

Net vs. Gross Effects

When discussing potential benefits to the 15-Mile Reach, ERC focuses on net effects, noting that the annual change is only 1,573 ac-ft and suggesting this is negligible. However, when discussing potential injuries to water rights holders, they emphasize gross effects, highlighting the most extreme instances of reduced storage.

This framing neglects to consider that the types of impacts that are most important vary depending on the metric being considered. Benefits can exist in flow regime changes that have increased minimum flows and corresponding decreases at higher flows, due to the proportional increase at low flows exceeding the proportional decrease at higher flows.[2] Focusing on the net or average effects of such flow changes minimizes and obscures apparent benefits. This is why Hydros' analysis focused on identifying the timing and magnitude of the benefits to flow that currently result from operation of Shoshone's water rights, rather than focusing on net changes in flow that result from other components of the system reacting to Shoshone.

2. Representation of Shoshone Outages

ERC critiques the Hydros analysis for not including certain aspects of the 2013 Colorado River Cooperative Agreement (CRCA), the 2016 Shoshone Outage Protocol Agreement (ShOP), and the stipulation in the Orchard Mesa Check Case (91CW247). In particular, ERC criticizes Hydros for not representing Denver Water's obligations under the CRCA as they relate to the ShOP protocols and notes the existence of "drought exceptions" to the ShOP protocols under certain conditions (page 5). ERC however acknowledges on page 7 that *"the UCRM cannot fully represent ShOP because the drought exceptions include conditions that are outside of the model domain"*. ERC fails to acknowledge at this point that there are numerous additional caveats and exceptions that allow other ShOP signatories to "opt out" of participating in ShOP if they so desire. For example, Green Mountain Reservoir (Reclamation) did not participate in ShOP for approximately seven weeks during June and July 2021 and again in 2024. ShOP is not a permanent nor fully enforceable agreement to protect the historical pattern of use of the Shoshone Water Rights.

[2] An additional 100 cfs when the river is at 500 cfs has a greater impact than a reduction of 100 cfs when the river is at 5,000 cfs.

CRCA/ShOP Model Implementation

ERC's critique regarding the CRCA and 2016 ShOP reflects a fundamental misunderstanding of both modeling limitations and agreement implementation. The drought exceptions and operational complexities in CRCA and ShOP include conditions that cannot be fully captured in StateMod, including the model version ERC used. These exceptions depend on forecast conditions, real-time storage levels, and water supply conditions for various individual water users that extend beyond the model domain (e.g., storage conditions in east-slope reservoirs).

The Hydros scenarios were designed to bracket the range of potential outcomes and illustrate the negative impact to river flows absent the Shoshone Water Rights, not to precisely replicate every operational nuance in the basin. ERC's criticism that we didn't model Denver Water's permanent ShOP obligations ignores that these obligations include exceptions and conditions that make them non-permanent in practical application. The Hydros scenarios capture the range of potential future conditions, and even under conservative assumptions show significant benefits to the 15-Mile Reach during critical low-flow periods.

In spite of ERC's criticism of Hydros' lack of representation of CRCA and ShOP, ERC also did not attempt to model the CRCA or the 2016 ShOP agreement when performing their own analysis.

Cameo Call Interactions

The Hydros original analysis included a detailed Appendix C that thoroughly addressed the complex interactions between the Shoshone and Cameo calls, yet ERC's critiques fail to adequately account for the operational flexibility and timing differences we documented. We demonstrated through both modeling and historical examples how a Shoshone call delay the onset of a Cameo call, reduces the need for Recovery Program releases, and interacts with OMID Check Dam operations to benefit the 15-Mile Reach.

ERC's critique focuses on administrative details while ignoring the physical reality of how water moves through the system. ERC fails to address the historical example from 2019 showing how a Shoshone calls delayed a Cameo call by 3-4 weeks, providing direct benefits to the 15-Mile Reach during critical periods. ERC's technical objections about administrative provisions do not refute the fundamental mechanism we identified: when the Shoshone Water Rights are being actively exercised, more water reaches the 15-Mile Reach through a combination of upstream curtailment, replacement releases, and delayed downstream calls. The operational complexity of the system provides multiple pathways for benefits, not fewer as ERC suggests.

Although neither Hydros nor ERC made changes to the UCRM to represent the OMID Check Case stipulation, the related concerns that ERC outlines are based

on an incorrect assumption of how StateMod represents the Orchard Mesa Check structure and incorrectly assume that cessation of exercise of the Shoshone Water Rights would necessarily result in cancellation of the agreement and a change in the Cameo call.

The overall goal of Hydros' analysis was to assess the impact of the Shoshone Water Rights on flows in the 15-Mile Reach and to quantify the potential impact to flows if those rights were abandoned or otherwise not utilized. That Hydros chose not to represent a particular clause of the OMID Check Case agreement that may or may not actually result in a change to the Cameo call in no way diminishes or invalidates the core findings of the analysis. ERC chose to criticize the methods and assumptions used by Hydros but failed to develop an actual alternative model representation of these agreements and conditions.

3. Confirmation of Hydros' Core Findings

Despite ERC's arguments that the Hydros analysis is unreliable, ERC's own analysis confirms the core findings of the Hydros report: that the Shoshone Water Rights provide significant benefits to 15-Mile Reach flows, with benefits most pronounced during critical low-flow periods. ERC's analysis confirms that flows increase when the Shoshone calls are active, which is a timing of benefits that aligns with endangered fish habitat needs. ERC's Table 8 confirms that the largest benefits occur during the critical August-October period.

The fact that ERC's analysis confirms the Hydros results while attempting to refute them actually strengthens the Hydros conclusions by demonstrating they hold up even under hostile scrutiny.

Conclusion

ERC's memos contain a systematic pattern of analytical inconsistencies and methodological flaws that undermine their critique of the Hydros analyses. The internal contradictions between ERC's two memos are not minor technical disagreements but fundamental inconsistencies in approach, methodology, and standards. Significantly, ERC's own modeling confirms the Hydros core findings regarding the benefits of Shoshone Water Rights to the 15-Mile Reach during critical low-flow periods.

The selective use of data and methodologies to minimize historical benefits while maximizing potential impacts reveals an analysis designed to achieve predetermined outcomes rather than provide objective technical evaluation. ERC's mischaracterization of the purpose and scope of the Hydros analysis, combined with ERC's failure to maintain consistent analytical standards, significantly weakens their rebuttal.

The Hydros original analysis remains sound and robust. It was designed for its stated purpose of calculating benefits from maintaining the historical call regime,

uses appropriate methodologies for that purpose, and reaches conclusions that the analysis by ERC actually confirms. The Shoshone Water Rights provide significant benefits to the 15-Mile Reach, particularly during critical low-flow periods when endangered fish are most vulnerable. These benefits will become increasingly important as climate change and continued development pressure water supplies in the Colorado River Basin.