



NEW AND UNTESTED LEGAL MECHANISMS FOR TRANSFERRING AND PROTECTING FLOWS INSTREAM

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July 2020 | Authored by Kate Ryan, Alyson Gould, Mickey O'Hara, Andy Schultheiss, and Tony LaGreca

TABLE OF CONTENTS

- 1 Introduction: The Need for New Tools
- 4 The Temporary Loan Program: New and Improved
- 7 Substitute Water Supply Plans: Adopting an Existing Tool for Instream Flow
- 10 Interruptible Water Supply Agreements: Adopting an Existing Tool for Instream Flow
- 12 Plans for Augmentation: Establishing an Instream Flow Water Market
- 15 Agricultural Water Protection Water Rights: Providing Water for Instream Flow and Protecting Agricultural Water Use
- 17 Water Banking: an Untapped Tool with Future Promise
- 19 Efficiency Transfers
- 21 Junior Storage Appropriations and Paper Fill
- 22 Conclusion
- 23 Appendix A: Table of Available and Potential Tools to Protect and Restore Flows



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INTRODUCTION: THE NEED FOR NEW TOOLS

Colorado's constitutional system of prior appropriation, coupled with historical and continuing agricultural practices, municipal growth, and industrial development, resulted in full appropriation of many of the state's rivers and streams early in the twentieth century. Pressure on Colorado's rivers and streams continues to increase in response to climate change and population growth, which is particularly intense in the Front Range. Over-appropriation now extends even to those basins where appropriative demands seemed like they would remain more manageable as recently as the early 2000s.²

The Instream Flow Act of 1973 provided the Colorado Water Conservation Board ("CWCB") with the authority to appropriate and acquire water to preserve the environment to a reasonable degree on streams and lakes.³ The CWCB has appropriated 1,684 instream flow and minimum lake level water rights in Colorado, covering 9,720 miles of stream.⁴ However, the ability of the CWCB to appropriate water for instream flow outside mountain regions has faced challenges, as there are many streams on which flows are simply too low to support an appropriation, or local entities have opposed instream flow appropriations as a matter of local interest. Due to constraints on the CWCB's ability to appropriate new instream flow water rights across the state, legal mechanisms for transferring senior priority water rights and protecting that water as "instream flow"⁵ are now more important than ever.

This white paper examines new and untested legal mechanisms for transferring water rights

⁴The Colorado Information Marketplace includes a database of CWCB water rights. Colorado Water Conservation Board, *Minimum Stream Flows – Appropriations*, COLO. INFO. MARKETPLACE,

https://data.colorado.gov/Water/Minimum-Stream-Flows-Appropriations/w2ek-aszn (last visited June 25, 2020). ⁵Instream flow is the term that Colorado uses to describe water that flows between two points in order to preserve the environment, and that is protected from diversion, in priority, between those points. Statute prescribes that instream flow is a beneficial use of water, and therefore constitutional, but that beneficial use is exclusive to the CWCB. COLO. REV. STAT. § 37-92-103(4)(c) (2020).

¹Many thanks as well for Colorado Water Trust legal externs Josh Boissevain and Casey Weaver for their excellent research, proofreading, and cite checking.

² In 2018, the Division Engineer for Water Division 6 administered priority-based calls for water on the Yampa River for the first time ever, requiring water users to install measuring devices or face curtailment, and to dust off plans for augmentation they had probably hoped never to have to use.

³ S.B. 73-97: An Act Concerning the Appropriation of Water, and Providing for the Appropriation of Water by the State of Colorado to Protect the Natural Environment, ch. 442, sec. 2, 1973 Colo. Sess. Laws 1521, 1521-22 (codified at COLO. REV. STAT. § 37-92-102(3) (2020)). In 2002, the Colorado General Assembly provided that the CWCB could acquire senior water rights not only to preserve the environment, but also to improve the environment to a reasonable degree. S.B. 02-156: An Act Concerning the Authorization of Changes of Absolute Water Rights for Purposes of Instream Use, ch. 149, sec. 1, 2002 Colo. Sess. Laws 445, 445-46 (codified at § 37-92-102(3)).

Streams Included in Colorado's Instream Flow Program



Instream flow water rights are more prevalent on small mountain streams than on the rivers of Colorado's eastern plains.

Image from Colorado Water Conservation Board

and protecting them as instream flow in the state of Colorado. The legal mechanisms examined in this white paper are rooted principally in statutory law but include common law⁶ mechanisms as well. These tools may also be useful in other western states, at least to the extent that there are commonalities between the prior appropriation principles that guide the states' water law, and to the extent that other state legislatures could replicate Colorado statutes.

Several legal tools are already tested and available to Colorado water users for projects that transfer water rights and protect flows instream.⁷ Some tools provide for permanent instream flow transfers, while others are temporary. For permanent solutions, the CWCB can make fee simple acquisitions and long-term leases of water

⁶Common law means the precedent that courts establish through the decisions they make when deciding cases and controversies. There is not often a particular statute or a named water conservation tool to which to refer when invoking common law, but common law nonetheless provides a structure for changes of water rights and therefore tools for transferring and protecting water instream.

⁷ See Appendix A, Table of Available and Potential Tools to Protect and Restore Flows.

rights changed in water court from other uses to instream flow use.⁸ Temporary transfer tools include a statutory Water Conservation Program, pursuant to which a water user may reduce or stop diversions for up to 5 in 10 years.⁹ Another temporary tool that the Water Trust uses is the statutory Temporary Loan Program, under which the CWCB can gain administrative approval to change a water right to instream flow use on a stream reach with an instream flow water right that would otherwise be short on flow for up to 3 out of 10 years.¹⁰ Finally, the Water Trust uses common law to deliver water rights from storage reservoirs to downstream locations where the water rights will satisfy decreed uses. The Water Trust has also collaborated with the CWCB to acquire senior water rights and strategically relinquish those rights on streams where the water is unlikely to be diverted by junior water users, and will therefore remain in the stream to benefit the stream system. This also provides potential for the CWCB to protect that water from future diversion through an instream flow appropriation.

The tools that the Water Trust and the CWCB currently use for transferring and protecting flows instream have restored a significant amount of water to Colorado streams and rivers. Illustrating the point, since 2001, Water Trust projects have

restored over 37,000 acre-feet in 444 miles of streams and rivers.¹¹However, Colorado water users continue to explore statutory solutions to facilitate permanent or temporary, and administrative or judicial changes of water rights. The Water Trust aims to explore and test all established tools and new concepts as it strives to restore water to Colorado's rivers in need. Tools that we have yet to implement include certain types of Substitute Water Supply Plans, Interruptible Water Supply Agreements, Agricultural Protection Water Rights, plans for augmentation, and Colorado's struggling but promising water banking program. This paper describes how the Water Trust and the CWCB, like consumptive water users, can use these tools. Water users who desire specifically to protect water instream have also gone to the legislature seeking new legal mechanisms, and this paper describes the tools that those efforts have produced, including an expansion of the Temporary Loan Program and direction for instream flow augmentation plans. Finally, this paper takes an exploratory look at using common law principles to transfer and protect efficiency savings instream and using existing reservoir space.¹²

⁸COLO. REV. STAT. § 37-92-102(3) (2020).

⁹COLO. REV. STAT. § 37-92-305(3)(c)(A) (2020). Water Conservation Programs facilitate reduced diversions, but water left instream is not protected from diversion. Additionally, Water Conservation Programs are allowed only in Water Divisions 1-6; applicability of the tool would be improved by legislatively expanding the program to Water Division 7, but again, water left instream using the tool would not be protected from diversion so this white paper will not address that possibility in depth.

¹⁰ COLO. REV. STAT. § 37-83-105(2) (2019). The Colorado General Assembly revised the Temporary Loan Program in 2020. H.B. 20-1157 will become effective after a savings clause expires in September 2020, and then the CWCB will be able to use loaned water rights for instream flow for 5 out of 10 years. H.B. 20-1157: An Act Concerning the Colorado Water Conservation Board's Authority to Use Water that a Water Right Owner Voluntarily Loans to the Board for Instream Flow Purposes, ch. 52, sec. 1-2, 2020 Colo. Sess. Laws 179, 179–83 (to be codified at COLO. REV. STAT. § 37-83-105(2) (2020)). This white paper provides more detail on the Temporary Loan Program beginning on page 4.

¹¹Visit http://coloradowatertrust.org/ for updated numbers, as the volume of water restored continues to increase while Water Trust projects run.

¹²This white paper focuses only on tools that transfer water from diversion to instream flow, and that also protect such water from diversion by upstream or downstream water users.

THE TEMPORARY LOAN PROGRAM: NEW AND IMPROVED

In 2003, Colorado's General Assembly established a Temporary Loan Program under which water right owners could gain temporary administrative approval for the CWCB to use their water rights to supplement instream flow water rights that would otherwise not be satisfied during drought conditions.¹³ To gain State Engineer approval for a change of use under the Temporary Loan Program, a water user works with CWCB staff to prepare an application that evaluates an allocation of historical consumptive use of a water right that can be transferred to instream flow use for up to three years out of ten. The application must be published on multiple notification lists¹⁴ in order to provide other water users with an opportunity to comment on the application and to prevent any injury that the temporary transfer might pose to their own water rights.

Administrative review of a temporary loan application is expedited, so that water right owners and the CWCB can move quickly to respond to drought situations. After a twenty-day comment period, the State Engineer can approve a Temporary Loan together with terms and conditions to prevent injury. CWCB Board approval is also required for a Temporary Loan, but in order to preserve a nimble and efficient turnaround on applications, that approval can come after the CWCB and water user apply to the State Engineer. State Engineer approval of a temporary loan lasts for a full ten years, although it remains subject to review if another water user is injured by the changed water right use.

The Temporary Loan Program was unused between 2003 and 2011, but when severe drought struck Colorado in 2012, the Water Trust and the CWCB put the program into action on the Yampa

¹³ H.B. 03-1320: An Act Concerning the State Engineer's Authority to Administer Temporary Instream Flows Held by the Colorado Water Conservation Board, and, in Connection Therewith, Requiring the State Engineer to Determine Whether Such Temporary Instream Flows Would Likely Injure Existing Rights, and Making an Appropriation, ch. 362, sec. 1, 2003 Colo. Sess. Laws 2396, 2396-98 (though subsequently amended, originally codified at COLO. REV. STAT. § 37-83-105(2) (2003)).

¹⁴ Each of Colorado's seven water divisions has a Substitute Water Supply Plan Notification List, and these lists also provide notice of proposed water right loans to the CWCB for use as instream flow. The Instream Flow Notification List includes notification of proposed loans as well as CWCB appropriations and acquisitions, and any water user or person can join the list by signing up at

https://dwr.state.co.us/Portal/Login/Login?ReturnUrl=%2fPortal%2fcwcb%2fNotificationLists.



APPROVED May Ch 24, 2020 at 4: Date and Time) Jared S. Voli GOVERNOR OF THE STATE OF COLORADO PAGE 6-HOUSE BILL 20-1037

House Bill 20-1037 Signed by Governor Jared Polis

River.¹⁵The Water Trust facilitated a Temporary Loan of water rights stored in Stagecoach Reservoir that made whole a CWCB instream flow water right upstream of the City of Steamboat Springs, benefitting not only the CWCB's instream flow water rights but also fishing and boating on the river. Since then, the Temporary Loan Program has benefitted Colorado streams and rivers over several years and in several locations.¹⁶

However, until 2020, the Temporary Loan Program was significantly constrained by temporal and geographic limitations. The CWCB could only use a temporary loan for 3 out of 10 years, and the 10-year loan period was nonrenewable unless the loan was never exercised.¹⁷ Geographically, statute limited the CWCB to use of loaned water to preserve the environment on stream reaches where there was a decreed instream flow water right, and to times when that instream flow water right would have otherwise been short on water. In practice, the Temporary Loan Program could only be used to bring streamflows up to a baseflow necessary to preserve the environment to a reasonable degree during drought situations, and only on the limited number of reaches where the CWCB already held instream flow water rights.

In 2019, The Nature Conservancy and Conservation Colorado worked as proponents of legislation to expand the Temporary Loan Program. Lawmakers blocked a 2019 bill, which led to an interim session of communication and collaboration by water users across the state. The Water Trust, the CWCB and multiple consumptive water users provided support for the legislative effort and water user outreach during the interim session.¹⁸ The proponents came back in 2020 and gained bipartisan support for a successful bill. Governor Jared Polis signed House Bill 20-1157 into law on March 20, 2020.

http://coloradowatertrust.org/project/stagecoach-reservoir-yampa-river (last visited June 27, 2020).

¹⁷ COLO. REV. STAT. § 37-83-105(2)(b) (2019).

¹⁸ Among others, Grand Valley Water Users Association, Ute Water Conservancy District, and the Colorado River District were particularly engaged and helpful in representing consumptive water users throughout the legislative process.

¹⁵ For additional information, visit: Yampa River – Stagecoach Reservoir, COLO. WATER TRUST,

¹⁶ For additional information, visit: *Tomichi Creek – Coats Bros Ditch*, COLO. WATER TRUST,

http://coloradowatertrust.org/project/coats-bros-ditch-tomichi-creek (last visited June 27, 2020); *Fraser River – Winter Park Ranch Water & Sanitation District*, COLO. WATER TRUST,

http://coloradowatertrust.org/project/winter-park-ranch-ws-fraser-river (last visited June 27, 2020); *Willow Creek – Bunte Highline Ditch*, COLO. WATER TRUST,

http://coloradowatertrust.org/project/bunte-highline-ditch-willow-creek (last visited June 27, 2020); *Deep Creek – Yost Ditch*, COLO. WATER TRUST, http://coloradowatertrust.org/project/yost-ditch-deep-creek (last visited June 27, 2020).

The new Temporary Loan Program has several improvements over the original program. It will allow a water user to loan their water right to the CWCB for up to five in ten years, though for no more than three consecutive years.¹⁹ A ten-year approval period will also be renewable for two additional ten-year periods upon reapplication by the CWCB and partner water users. Additionally, a water user will be able to loan water to the CWCB not only to preserve stream flows on an existing instream flow reach, but also to improve stream flows on an existing stream reach.20 CWCB will approve the flow rates necessary to improve the environment based on recommendations that Colorado Parks and Wildlife provides to the CWCB board.²¹ HB 20-1157 directs the CWCB to implement this final improvement through a rulemaking, and the Water Trust anticipates that the rulemaking will also address other outstanding questions about implementation of the expanded Temporary Loan Program.²²

The Water Trust expects to use this improved tool extensively. Existing project partners have already provided feedback indicating that they will be interested in loaning water rights to the CWCB for up to five in ten years, and project partners have also indicated that they will likely be able to loan water at rates that will improve the environment on stream reaches where the CWCB has an instream flow water right. The Water Trust will need to adjust its use of the Temporary Loan Program to meet some more stringent administrative processes required by House Bill 20-1157, such as providing notice to local water districts when applying for temporary loan approval.²³ Additionally, there is still an expedited approval process for one-year loans of water to respond to drought situations, but for loans that extend beyond a single year the review process is a lengthier 60 days.²⁴ These administrative steps will protect water users from injury, and will increase local awareness and buy-in for temporary loans that may be exercised for up to fifteen out of thirty years.

Ideally, the Water Trust would like to see the Temporary Loan Program expanded in an additional way. The tool would be particularly useful if loans could be made to preserve and improve the environment not only where there are decreed instream flow water rights, but also on stream reaches where there are no decreed instream flow water rights.²⁵ For now, Substitute Water Supply Plans (see the following section) fill that role, but a statutory change to include this application in the Temporary Loan Program would add significant additional streamflow restoration capacity to the tool. The ability to utilize this tool on streams that do not have an underlying instream flow water right may be particularly useful on stressed mainstem rivers for which new instream flow appropriations may not be feasible due to lack of water availability or lack of political support.

¹⁹ COLO. REV. STAT. § 37-83-105(2)(b)(IV)(A) (2020).

²⁰§ 37-83-105(2)(b)(II).

²¹§ 37-83-105(3)(a).

²²The rulemaking will also address how to implement a preference for using stored water in temporary loans to improve the environment to a reasonable degree. *Id.*

²³§ 37-83-105(2)(b)(11)

²⁴§ 37-83-105(2)(b)(V)(A)-(B).

²⁵The 2019 draft legislation proposed allowing the CWCB to use loaned water to preserve or improve the environment on reaches without an existing instream flow water right. However, the General Assembly dropped the proposal from the final legislation in response to strong opposition.

SUBSTITUTE WATER SUPPLY PLANS: ADOPTING AN EXISTING TOOL FOR INSTREAM FLOW

Substitute Water Supply Plans (SWSPs) are tools that water users utilize to obtain administrative²⁶ approval for temporary changes in use of existing water rights. SWSPs are not specific to changes of use to instream flow-the General Assembly legislated the SWSP process in 2002 in order to afford any water user a streamlined approach to changing water uses during emergency situations and as a temporary augmentation solution.²⁷ SWSPs are now used for four temporary change of use purposes: (1) to allow the exercise of claims pending water court proceedings²⁸; (2) to allow water right changes during emergency situations; (3) to renew a SWSP approved prior to January 1, 2002; and (4) to allow a water right change without water court proceedings if the SWSP will result in no more than five years of depletions.²⁹ The last purpose—a section 308(5) SWSP—is the tool that this paper describes, as it could be used to facilitate the temporary use of water rights for instream flow by the CWCB.

Permanent changes of a water right are time consuming and expensive due to the water court process, whereas SWSPs and other administratively approved temporary water right changes are more streamlined since they do not involve water court.³⁰ Water users must go to water court to gain decreed approval for a permanent change of a water right, including a change of use to instream flow. The water court process typically takes at least a year and thousands of dollars in engineering and legal fees to complete. A permanent change of water right also results in a permanent limit on the rate and volume of a water right to its historical consumptive use allocation and establishes permanent return flow obligations.³¹

When a water user applies for a SWSP, on the other hand, water users do not have to go to water court. The State Engineer can approve a temporary change of use. During that temporary change, it is still the case that only the portion of a water right that was historically consumed and permanently removed from a stream can be protected as instream flow. Unlike a permanent

²⁶The State and Division Engineers can grant administrative approval for temporary changes of water rights pursuant to specific statutory tool, whereas the water court must approve longer-term and permanent changes of water rights.

²⁷ H.B. 02-1414 provided for the approval of both *Emergency and Temporary Substitute Supply Plans*. Also in 2002, the State Engineer released Policy 2002-02 for implementing H.B. 1414. Under that policy, the State Engineer limited Emergency Substitute Supply Plans to situations affecting public health and safety, and not instream flow uses. Only Temporary Substitute Supply Plans, therefore, are available to the CWCB. One year later, the State Engineer revoked 2002-02 and replaced it with 2003-02, which states: "9) Only one emergency request pursuant to section 37-92-308(7), C.R.S. (2003) will be allowed per applicant in any twelve-month period, unless the State Engineer specifically allows a subsequent request. Emergency requests are limited to situations affecting the public health and safety and are not intended to be used for situations including, but not limited to, crop relief, piscatorial or recreational purposes." OFFICE OF THE STATE ENG'R, POLICY 2003-2: IMPLEMENTATION OF SECTION 37-92-308, C.R.S. (2003) REGARDING SUBSTITUTE WATER SUPPLY PLANS 2-3 (2003),

https://dnrweblink.state.co.us/dwr/0/edoc/3565793/DWR_3565793.pdf?searchid=e594b142-74cf-4045-94c5-b752a9 05e2f5.

 ²⁸ The CWCB used section 37-92-308(4) SWSPs for temporary changes of use to instream flow while it had separate water court applications pending for the Breem Ditch, Gabino Gallegos Ditch, and Valdez Ditch water rights.
²⁹ Each SWSP type is authorized and described in COLO. REV. STAT. § 37-92-308 (2020).

³⁰ While the analysis behind a change of water rights for a water court change and an SWSP is similar, meeting judicial standards of proof and opposers' requirements is significantly more expensive in the water court arena. ³¹ COLO. REV. STAT. § 37-92-305(3)(d) (2020).

change of water right, however, once the term of the SWSP is over, the owner or user of the water right can return to their pre-SWSP, decreed water use. That water right owner or user will not be constrained to the historical consumptive use allocation applicable during the term of the SWSP and may return to their full decreed pre-SWSP use.³²

The Water Trust has yet to use a section 308(5) SWSP to gain administrative approval for a temporary transfer of the use of a water right to instream flow use by the CWCB. A section 308(5) SWSP is available for "new water use plans involving out-of-priority diversions or a change of water right, if no application for approval of a plan for augmentation or a change of water right has been filed with the water court and the water use plan or change proposed and the depletions associated with such water use plan or change will be for a limited duration not to exceed five years . . . "³³ In other words, the Water Trust and the CWCB could use a section 308(5) SWSP to change a water right and protect it as instream flow, or augment out-of-priority instream flows, for up to five years. The text in this section focuses on temporary changes of water to direct instream flow use using a section 308(5) SWSP—for more on plans for augmentation, please see pages 12-14.

To gain approval for an SWSP, a water user files a request for approval with the office of the State Engineer. The request for approval must describe the change of use requested—in the case of a section 308(5) SWSP for instream flow, that would be the change from existing decreed uses to instream flow use by the CWCB.³⁴ The SWSP request for approval is published on a regional notification list so that other water users have an opportunity to review and comment on any

³²This is true of any administrative, temporary change of use tool, including the Temporary Loan Program and Interruptible Water Supply Agreements. Further, if the owner of the water right does change the water right use in the future, a period of nondecreed use, such as that taking place during the SWSP, must not be included in the study period for evaluating historical consumptive use. § 37-92-305(3)(c) (2020). ³³ § 37-92-308(5)(a).



The CWCB used an SWSP to restore flows to the Alamosa River downstream of Terrace Reservoir while a changecase progressed through water court.

³⁴ §§ 37-92-308(5)(a)(I), (IV)(a). An SWSP can permit multiple uses, including the originally decreed use, so long as total use is limited to historical consumptive use and return flow obligations are maintained. An SWSP could be used, therefore, to apply a water right originally decreed for irrigation to split-season irrigation and instream flow use.

deficiencies or potential injury to their water rights.³⁵ After thirty-five days, if the State Engineer's office determines that the request can be operated without injury to other water rights, it can approve the section 308(5) SWSP together with terms and conditions to prevent injury.³⁶ These terms and conditions are similar to those of a water court change of use decree, including a change of water limited in volume and rate to an historical consumptive use allocation, and maintenance of return flow conditions.

The State Engineer can approve a section 308(5) SWSP for a single year, and a water user can reapply for up to five years total for the same temporary change of use under a section 308(5) SWSP.³⁷ The total number of years allowed for a particular section 308(5) SWSP, however, is further limited by the delayed depletions caused by the temporary change such that no more than five years of delayed depletions are allowed.³⁸ In practice, this means that if a water right owner uses a water right that causes multiple years of delayed depletions for a temporary change of water use, the five year total will be reduced by the number of years of delayed depletions. For instance, if the Water Trust and the CWCB were to change the use of an irrigation water right that has two years' worth of delayed depletions when diverted for irrigation use, then the Water Trust and the CWCB will have a two-year replacement

will only be able to use the section authorize a change to instream to three years.

st could partner with the CWCB to 08(5) SWSP to temporarily change ter right to instream flow use. This ticularly valuable tool for the Water Trust and the CWCB because, unlike the Temporary Loan Program tool (see pages 4-6), the CWCB could use a section 305(8) SWSP to preserve and improve flows on a reach of stream where there is no decreed instream flow water right. A section 305(8) SWSP provides water users and the CWCB with a tool to temporarily transfer, and protect, the historical consumptive use allocation of a water right to instream flow, and as such may provide a valuable opportunity for water users considering a permanent transfer who are not yet ready for a full commitment.³⁹

SWSPs are available for use in all of Colorado's water divisions,⁴⁰ and they can involve a change of water decreed from any type of use to instream flow. Until recently, SWSPs seemed to be a particularly desirable tool since they can be used for up to five years in appropriate circumstances, and because, unlike the 3-in-10 Temporary Loan Program, they could be used to preserve and improve the environment. With House Bill 20-1157's expansion of the Temporary Loan Program, however, temporary loans can be used for up to five in ten years without limitation based on the duration of depletions. Consequently, SWSPs may be more desirable for circumstances where a water user wants to lease or loan water to the CWCB for four or five consecutive years, since the Temporary Loan Program limits changes to three consecutive years. Additionally, SWSPs are particularly desirable because they can be used to restore stream flows where there is no decreed instream flow water right.

(a)(IV)(A), (C).

a).

nunication with Tracy Kosloff, Deputy State Engineer. st has been working on such a pilot project involving a temporary change of water rights using a NSP.

vation Programs are one example of a tool for transferring water instream that is not available e programs are not legislated for use in Water Division 7 in southwest Colorado. The Water Trust helped the CWCB to change water rights on the Alamosa River. Water released from Terrace Reservoir at the end of the irrigation season helps to keep the river flowing later and farther each year

INTERRUPTIBLE WATER SUPPLY AGREEMENTS: ADOPTING AN EXISTING TOOL FOR INSTREAM FLOW

Interruptible Water Supply Agreements (IWSAs) are, like SWSPs, administrative tools for facilitating temporary changes of use for a water right.⁴¹They "enable water users to transfer the historical consumptive use of an absolute water right for application to another type or place of use on a temporary basis without permanently changing the water right."⁴² Under the structure of an IWSA, two or more water right owners enter an option agreement under which one water right owner may loan a water right to a borrowing water right owner for the borrowing water right owner's purposes.⁴³ Like SWSPs, they could be used to transfer a water right to instream flow use by the CWCB to preserve or improve the environment in stream reaches with or without a decreed instream flow water right. Unlike SWSPs, which

⁴³§ 37-92-309(2).

 ⁴¹ IWSAs are described in COLO. REV. STAT. § 37-92-309(3) (2020), and in rules of the State Engineer,
Rules and Regulations for Submittal and Evaluation of Interruptible Water Supply Agreements, 2 COLO.
CODE REGS. § 402-15 (2020).
⁴² § 37-92-309(3).

are a commonly used tool throughout Colorado, the implementation of IWSAs is rare, for a variety of reasons discussed below.

There are certain benefits to an IWSA over an SWSP. The notification and application process is similar, but once the State Engineer approves a ten-year IWSA, the IWSA participants do not need to reapply every year—approval extends for the entire ten-year period. The price tag of a ten-year approval period, however, is high—as of July 2020 the cost rose to \$3,397 and that figure increases annually by an amount equal to the Denver Boulder Consumer Price Index.⁴⁴ IWSAs do not face the same approval period restrictions as section 308(5) SWSPs with regards to delayed depletions. However, an IWSA may be exercised for only three in ten years, and a ten-year approval is not renewable unless the IWSA was not exercised during the ten-year period.45

Overall, however, the structure of an IWSA is not as conducive to instream flow use as an SWSP. For instream flow purposes, the CWCB would enter

an option agreement with another water user to use the loaned water right to satisfy an instream flow water right if there were not otherwise enough water in the stream, or to be triggered under other water short circumstances. However, the CWCB generally crafts loan or lease agreements that are contingent on both the CWCB and the water user desiring to exchange rights to use water in any given year, whereas option agreements are typically enforceable by the borrowing party. While there is the potential to build contingencies into an option agreement, they are not designed to be structured in that manner. The Water Trust has not yet encountered a situation in which an IWSA appears to be a superior fit for structuring a project than an SWSP or a Temporary Loan, but the IWSA still holds a place in the toolbox of instream flow acquisition tools should that situation arise.

⁴⁴2 COLO. CODE REGS. § 402-15. ⁴⁵§ 37-92-309(3)(c).

PLANS FOR AUGMENTATION: ESTABLISHING AN INSTREAM FLOW WATER MARKET

A plan for augmentation is a tool approved in water court to increase the supply of water available for beneficial use.⁴⁶ Water users that utilize a plan for augmentation are able to make beneficial uses that would otherwise be out-of-priority on Colorado's fully appropriated streams. Traditional plans for augmentation enable water users to pump from wells, maintain the evaporative losses from ponds that intercept groundwater in over-appropriated systems, or make surface diversions at times when such diversions would otherwise be called-out.⁴⁷ A plan for augmentation of instream flow, rather than allowing a water user to deplete stream systems out-of-priority, would allow the CWCB to protect water from diversions-also a use that would otherwise be out-of-priority. A CWCB instream flow plan for augmentation would enable the CWCB to acquire water rights decreed for augmentation use to preserve or improve the environment to a reasonable degree on stream reaches where there is insufficient streamflow to appropriate water in-priority for instream flow use.

Since 1986, Colorado statute has provided that the CWCB may "initiate such applications as it determines are necessary or desirable for using water, water rights, or interests in water . . . including augmentation plans."⁴⁸ However, this statute does not address whether the CWCB is entitled to file only water court applications for an augmentation plan that increase the available supply of water to replace depletions from out-of-priority diversions, or if the CWCB could increase the available supply of water and protect it instream. Relying on the second, broader interpretation of the instream flow enabling statute, several years ago the Water Trust began a collaboration with Colorado State University's Poudre Runs Through It Study/Action Work Group to investigate using an instream flow plan for augmentation on the Cache la Poudre River.⁴⁹

The Cache la Poudre River is an excellent candidate for an instream flow plan for augmentation. Its headwaters are at the Continental Divide in Rocky Mountain National Park, and from there it flows east through Poudre Canyon to the eastern plains.⁵⁰ The 52 miles of river from the mouth of Poudre Canyon through the City of Fort Collins to the City of Greeley and the river's confluence with the South Platte River is a hard-working stretch. Diversions for municipal, irrigation, and industrial uses regularly dry up the river at multiple points, return flows build the river back up below the dry up points, decreed and administrative rights of exchange crisscross numerous locations, and stored, recharged, and changed direct diversion water rights augment out-of-priority depletions of consumptive water users. This hard-working river has not been a candidate for instream flow appropriations by the CWCB due to a lack of water availability and community support. However, water users between Fort Collins and Greeley want to collaborate towards improving the health of the river, and they can do that using augmentation water that they are willing to

⁴⁶COLO. REV. STAT. § 37-92-103(9) (2020).

⁴⁷ While statute does not require it, plans for augmentation typically replace depletions attributable to out-of-priority diversions.

⁴⁸S.B. 86-91: An Act Concerning the Acquisition of Water by the Colorado Water Conservation Board for the Purpose of Preserving the Natural Environment to a Reasonable Degree, ch. 235, sec. 1, 1986 Colo. Sess. Laws 1095, 1095 (codified at COLO. REV. STAT. § 37-92-102(3) (2020)).

⁴⁹ For more information, see *Improving Flows While Respecting Water Rights*, POUDRE RUNS THROUGH IT STUDY/ACTION WORK GROUP,

https://watercenter.colostate.edu/prti-action-initiatives/#1553620695847-1d0f7ddd-ba0c (last visited June 27, 2020). ⁵⁰ Upstream of the canyon mouth, the Cache la Poudre River is the only site of a federally designated and protected wild and scenic river in the State of Colorado.

contribute to the CWCB for an instream flow plan for augmentation.

The Water Trust is working with Cache la Poudre River water users, including the Cities of Fort Collins, Greeley and Thornton, water supplier Northern Colorado Water Conservancy District, and irrigation water user consortium Cache la Poudre Water Users Association, as well as the CWCB and CPW, to prepare a water court application for approval of a plan for augmentation of instream flow. In preparing the application it became clear to the State Engineer and project partners that guidance beyond that already provided in statute was necessary, and so the Water Trust and project partners initiated a legislative effort in 2019 that legislators stymied. The Water Trust and project partners came back in 2020 with a bill co-sponsored by Representative Jeni Arndt (D) of Fort Collins and Senator Don Coram (R) of Montrose. With widespread bipartisan support, HB 20-1037 passed and Governor Jared Polis signed the bill into law on March 24, 2020.

House Bill 20-1037 enables the CWCB to file plans for augmentation with the consent of participating augmentation water right owners.⁵¹ The plans for augmentation allowed pursuant to House Bill 20-1037 will use water rights previously changed and quantified in water court to any augmentation use, to preserve and improve the environment to a reasonable degree. Several terms and conditions to prevent injury to other water rights and existing water use operations are mandated by HB 20-1037.52 There is an obligation by applicants to gain consent from the owners of structures in the river to make modifications required for the plan for augmentation to protect instream flows past these structures and to bear the cost of such modifications and resultant operational changes.⁵³ An applicant must also prove in water court that the plan for augmentation will not injure other water users' undecreed existing exchanges that were administratively approved before a water court application filing.⁵⁴

⁵¹ § 37-92-102(4.5)(b). ⁵² § 37-92-102(4.5). ⁵³ § 37-92-102(4.5)(b)(VI). ⁵⁴ § 37-92-102(4.5)(b)(V).



Once the instream flow augmentation plan for the Cache la Poudre is approved, the CWCB will protect augmentation water acquired from Fort Collins, Greeley and Thornton under long-term loan agreements to preserve and improve natural environment to a reasonable degree.⁵⁵ CPW will recommend preserve and improve flow rates according to season, and for specific reaches of the Cache la Poudre River, since the river's depth, gradient, and aquatic species' needs vary along the 52 miles of stream subject to instream flow augmentation. Finally, the CWCB will be able to incorporate one of the most significant attributes of a plan for augmentation into this tool: it will be able to add additional, appropriately decreed augmentation water rights to this plan. The plan for augmentation will be able to use not only the seed water provided by project partners to preserve and improve the natural environment of the Cache la Poudre River to a reasonable degree, but also other water users' changed and quantified augmentation water. In this sense, the plan for augmentation will operate somewhat like a bank, or a water market. Water users will be able to loan appropriately decreed water to the CWCB to augment instream flow, but they can withdraw their deposited water for their other needs when they want or need to. By setting up a tool that can incorporate and use many different water rights over time on this hard-working river, the Water Trust aims to create a flexible, effective, and enduring source for protecting water instream on the Cache la Poudre River.

Use of the augmentation plan tool described in House Bill 20-1037 should be a powerful way to improve and protect flows in other areas and on hard-working rivers like the Cache la Poudre

River.⁵⁶ Setting up an instream flow plan for augmentation will be most productive in basins where there are multiple water users with changed and quantified augmentation water rights who are willing to partner together with one another and with the CWCB. This is also a tool that can be used on rivers where the CWCB has been unable to appropriate an instream flow water right due to a lack of water availability or for other reasons. Under the plan for augmentation structure, the CWCB will acquire water for use through a temporary agreement or in fee simple, and so there does not need to be an underlying instream flow water right. There are other legal structures available for acquiring water for the augmentation of instream flow, such as the appropriation of junior storage water rights decreed for any augmentation use, or specifically decreed for the augmentation of instream flows. It remains to be seen, however, whether claiming a structure for augmentation other than that established in HB 20-1037 would require further legislation.⁵⁷ Legislation is a long and resource-intensive effort, but, at least in the case of the project that the Water Trust is leading on the Cache la Poudre River, it looks to have proven worthwhile.

⁵⁵ For more information, see Cache la Poudre River – ISF Augmentation Plan, COLO. WATER TRUST,

http://coloradowatertrust.org/project/isf-augmentation-plan-poudre (last visited June 27, 2020).

⁵⁶ Also, unlike Water Conservation Programs, plans to augment instream flow pursuant to section 37-92-102(4.5) will be available statewide.

⁵⁷ A savings clause at section 37-92-102(4.5)(c)(II) provides that subsection (4.5) is "not intended to be the exclusive means of authorizing water decreed for augmentation purposes to be used for environmental [purposes]."



AGRICULTURAL WATER PROTECTION WATER RIGHTS: PROVIDING WATER FOR INSTREAM FLOW AND PROTECTING AGRICULTURAL WATER USE

Agricultural Water Protection Water Rights (AWPWRs) are a subset of water rights originally decreed for agriculture or irrigation uses for which historical consumptive use has been quantified in water court, and following which the water rights become available for temporary administrative change via SWSP to other uses. The Colorado General Assembly created statutory guidance⁵⁸ to establish AWPWRs in response to the intense pressure mounting on agricultural water users to sell their water to municipalities for permanent changes of use, resulting in widespread "buy and dry." AWPWRs will provide different operational and financial opportunities for the owners of agricultural water rights, and because statute requires that AWPWRs are only available to water right owners who participate in a land or agricultural water conservation program, AWPWRs provide incentive to keep these water rights in agricultural production on a long-term basis.⁵⁹

Following water court quantification proceedings, up to fifty percent of the historical consumptive use of an AWPWR can be used in any given year for other purposes.⁶⁰ The water court process to decree AWPWRs includes a calculation of the volume of historical consumptive use available for loan, lease, or trade to other uses in time and amount, and includes return flow obligations and other terms and conditions necessary to facilitate loan, lease, or trades to other water users without

⁵⁹ COLO. REV. STAT. §§ 37-92-305(19)(b)(IV)(A)-(B) (2020).

⁵⁸ H.B. 16-1228: An Act Concerning an Alternative Transfer Mechanism for Water Rights that Protects the Agricultural Use for Which a Water Right Was Originally Decreed While Permitting Renewable One-Year Transfers of a Portion of the Water Subject to the Water Right, ch. 175, sec. 3-4, 2016 Colo. Sess. Laws 598, 600-04 (codified at COLO. REV. STAT. §§ 37-92-305(19), -308(12) (2020)).

⁶⁰ COLO. REV. STAT. § 37-92-305(19)(b)(II) (2020).

injury to other water rights.⁶¹ The application of an AWPWR to other uses requires administrative approval by the State Engineer using an SWSP.⁶² The State Engineer has promulgated rules to guide that SWSP approval process that it will apply. Pursuant to these water court-approved rules, AWPWRs can be used on a temporary administrative basis for different uses—including direct or augmentation use for instream flow by the CWCB to preserve or improve the environment.⁶³

The Water Trust is optimistic that AWPWRs will be a source of augmentation water for the instream flow augmentation plan on the Cache la Poudre River, and perhaps for other instream flow uses along the eastern plains. The application of AWPWRs to changed uses, including instream flow, is geographically limited. Water Courts can only adjudicate AWPWRs in Water Divisions 1 and 2. There are few CWCB instream flow water rights or Water Trust projects in these areas due to a lack of water availability, and it is possible to envision a scenario where there are sufficient AWPWRs aggregated on a stream that project potential develops. No water users have gone through the AWPWR water court change process to date, and a significant limitation on the program is that the properties served by AWPWRs must be subject to a conservation easement.⁶⁴ However, the Colorado Water Trust

remains hopeful that agricultural water users will embrace the concept, creating opportunities that generate alternate sources of income and keep water tied to the land, while simultaneously providing a source of protectable instream flows. If AWPWRs prove successful in Divisions 1 and 2, extending this statutory tool statewide could be a promising way to maintain productive agriculture as well as to share water to meet environmental flow needs.

⁶¹ See OFFICE OF THE STATE ENG'R, RULES GOVERNING THE REVIEW OF A SUBSTITUTE WATER SUPPLY PLAN FOR THE LEASE, LOAN, OR TRADE OF A DECREED AGRICULTURAL WATER PROTECTION WATER RIGHT (2017), https://www.courts.state.co.us/userfiles/file/Court_Probation/Water_Courts/Water%20Division%202/Rules.pdf. ⁶² COLO. REV. STAT. § 37-92-308(12) (2020).

⁶³ The water courts for Water Divisions 1 and 2 approved the State Engineer's Rules Governing the Review of a Substitute Water Supply Plan for the Lease, Loan, or Trade of a Decreed Agricultural Water Protection Water Right in consolidated Case No. 17CW3152. The Water Trust participated in Case No. 17CW3152 to ensure that AWPWRs and the SWSPs that approve their changed uses may be applied to instream flow use. See *Stipulation Between State Engineer and Colorado Water Trust*, Case No. 92CW3152 at 2-3 (Colo. Water Ct. Div. No. 1, Feb. 13, 2019). ⁶⁴ § 37-92-305(19)(b)(IV)(A).

WATER BANKING: AN UNTAPPED TOOL WITH FUTURE PROMISE

In the preceding section describing plans for augmentation of instream flow, this paper compared augmentation plans to water banks or water markets, since water users can temporarily "deposit" appropriately decreed augmentation water rights to bolster instream flows, and because a plan for augmentation aggregates these water rights for instream flow use. However, Colorado already has a statutory water banking tool. Statutory water banks are more like a savings and loan institution in the sense that they are intended to be a depository for water rights available for lease or loan for a variety of uses when demand arises. Water banks provide a clearinghouse in which willing water users may market their water rights to multiple buyers. Despite their potential, and an enabling statute dating to 2003, water banks have yet to be successfully implemented in Colorado.65

Colorado statute authorizes the creation of water banks within each of the state's seven water

divisions.⁶⁶ A water bank program may include practices to simplify and improve⁶⁷ administrative approval of water leases, loans, and exchanges of water, which would make water banks significantly more effective. Practices that would simplify administrative approval might include streamlined reviews of historical consumptive use allocation and return flow obligations using equations and factors pre-approved by the State Engineer in order to avoid time consuming and expensive parcel-specific investigations. While such practices would have to conservatively guard against injury to other water rights, they would result in a streamlined evaluation of bank depositors' water rights and facilitate many more deposits than the individual analyses performed for present-day administrative changes, including SWSPs, IWSAs, and the Temporary Loan Program.68

Another approach that would benefit water banks would be the inclusion of AWPWRs as water deposited and available for lease, and the extension of the AWPWR tool beyond Water Divisions 1 and 2. At this time, the Colorado water

⁶⁵ In Idaho, the Idaho Water Resource Board manages a water bank and local rental pool, the establishment of which dates back to the 1930s. See *Water Supply Bank*, IDAHO DEP'T OF WATER RESOURCES, https://idwr.idaho.gov/water-supply-bank/overview.html (last visited June 28, 2020). In Washington, the state

facilitates water banking through a Trust Water Rights Program that operates in several basins. See Water Banks, DEP'T OF ECOLOGY, ST. OF WASH.,

⁶⁶ COLO. REV. STAT. § 37-80.5-102 (2020).

⁶⁷ Id.; A. Castle & L. MacDonnell, *An Enhanced Water Bank for Colorado*, COLO. L. SCHOLARLY COMMONS, GETCHES-WILKINSON CTR. FOR NAT. RESOURCES, ENERGY & THE ENV'T (Mar. 2016).

⁶⁸ Furthermore, developing a set of administrative assumptions, equations and factors that could be used for all temporary, administrative changes of water rights would also go far in streamlining those tools.

Reservoir storage provide opportunity to retime streamflow when the aquatic environment needs it most, through water banking or junior storage rights.

https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Trust-water-rights/Water-banks (last visited June 28, 2020).

bank statute allows only for the banking of stored water.⁶⁹ A water bank's potential for success may lie in its ability to aggregate the deposit of numerous water rights with different attributes, so that when end users seek a loan they can find a right that is available to them in the appropriate time, place, and amount. While AWPWRs could be stored or exchanged to storage, many would be more readily available via direct flow. This is true not only of AWPWRs but of other water rights made available for temporary use through a water bank. The present constraint limiting water banking to stored water poses a significant hindrance to the future success of water banks in Colorado.⁷⁰

On Colorado's western slope, water right stakeholders including the Colorado River Water Conservation District, the Southwestern Water Conservation District, the State of Colorado, the Front Range Water Council, and The Nature Conservancy have formed a Water Bank Work Group.⁷¹ The Water Bank Work Group has envisioned a Colorado River basin water bank that would enable agricultural water users to receive compensation for leasing their water rights for municipal, agricultural, and environmental uses, without having to permanently sell water and separate it from the land. If successful, their water bank would strike a balance between agricultural, municipal, and environmental uses without permanent buy-and-dry.⁷² The Water Bank Work Group's work is particularly pertinent in response

to Colorado's ongoing "demand management" investigations, which seek voluntary, temporary and compensated ways to reduce water use help maintain critical elevations of stored water in Lake Powell and ensure compliance with the Colorado River Compact.

Water banks could be a useful source of instream flow water. If a water bank were large enough, the Water Trust could coordinate to provide water to the CWCB for instream flow use on stream reaches during the times it is needed most. Water banks are not, however, a tool oriented solely or primarily towards streamflow restoration. They are tools that aim to provide water to the entire suite of uses with water supply shortfalls identified in Colorado's Water Plan, including municipal, industrial, and agricultural use. It will be important for the Water Trust or other environmental NGOs to participate in structuring future water banks in Colorado to ensure that environmental uses receive a fair opportunity to participate in a water banking system. Colorado statute provides that water available for acquisition through a water bank may not be prevented from being used for instream flow purposes,⁷³ but it is possible to foresee a scenario in which consumptive end uses of banked water would be given priority.

⁶⁹ COLO. REV. STAT. § 37-80.5-102 (2020).

⁷⁰ Experts have cited this as one reason the Arkansas Basin pilot project water bank failed. Other reasons included unrealistically high asking prices and only two water rights offered for lease in the bank. HAL D. SIMPSON, REPORT TO THE GOVERNOR AND LEGISLATURE ON THE ARKANSAS RIVER WATER BANK PILOT PROGRAM 3 (2005), http://hermes.cde.state.co.us/drupal/islandora/object/co%3A11475.

⁷¹ See Water Banking Option, COLO. RIVER DISTRICT, https://www.coloradoriverdistrict.org/water-banking/ (last visited June 28, 2020).

⁷² In support of feasibility studies for a Colorado River Basin water bank, the Grand Valley Water Users Association conducted a 1,000-acre lease-fallow project in 2017. The Conserved Consumptive Use Pilot Project (CCUPP) was "a pilot demand management project intended to test the mechanisms necessary for a Western Slope irrigation water provider to intentionally reduce consumptive use in a voluntary and compensated manner." GRAND VALLEY WATER USERS ASSOCIATION, CONSERVED CONSUMPTIVE USE PILOT PROJECT (CCUPP) DEVELOPMENT: PROCESS, PROCEDURE AND LESSONS LEARNED (2017),

http://www.grandvalleywaterusers.com/uploads/8/2/6/0/82606774/03-01-17_ccupp_projectdevelopment_final.pdf. ⁷³COLO. REV. STAT. § 37-80.5-102 (2020).

EFFICIENCY TRANSFERS

Colorado is ripe with opportunities for improving the efficiency of application and use of water rights. For instance, ditches can be lined or piped to cut down on seepage and evaporation, irrigation practices can be switched from flood to sprinkler or drip, and farmers can switch to less water intensive crops.74 Efficiency and conservation is admirable from a production perspective, but the Water Trust has avoided participating in efficiency projects that may result in a net increase of water consumed on a per acre basis, therefore resulting in less water in local streams. For instance, switching from flood to sprinkler or drip irrigation can result in the ability to grow more biomass per acre, increasing the use of diversions and decreasing return flows that recharge local aquifers and support streamflow.75

There are efficiency projects, however, that can result in a net decrease in diversions, leaving more water in the stream. Ditch lining is a good example. It reduces delayed return flows, but on the whole and in many circumstances makes it

possible to irrigate the same crop while diverting less water. In several western states, including Utah and Idaho, the amount of water saved is transferable to other uses, including instream flow.⁷⁶ That is not the case, however, in Colorado. In Colorado, legal rules broadly prohibit waste, and water users are obligated to divert no more than they need for decreed beneficial purposes.⁷⁷ In practice, this does not obligate a water user to line their ditch, but it does prevent a water user from transferring water saved by efficiency to other uses without losing the priority associated with the water right. Water saved by efficiency is either consumed by the next water users in line in the priority system, or if there are no water users waiting in the priority line, it becomes part of the natural stream, available for appropriation.

The Water Trust could, in an ideal situation,⁷⁸ engage in an efficiency project that leaves non-diverted water in the stream in locations where there are no water users waiting in the priority line to consume that water. Without further action, that water would not be protected in the stream. If the efficiency project were to take

⁷⁴ These crops may be less water intensive, but they may also have lower commodity prices. Further, the agricultural producer may not have the experience or desire to grow that type of crop.

⁷⁵ In the Arkansas River Basin, for example, water users who implement irrigation system improvements are required to gain approval from the Division of Water Resources and must take steps to offset increased water consumption. For more information on the Arkansas River Irrigation Improvement Rules, see

http://water.state.co.us/SurfaceWater/RulemakingAndAdvising/ArkRiverAC/Pages/ArkSWIrrigImpRules.aspx. ⁷⁶ "Developed water" is water that is not naturally part of the river system but is introduced to the system by a developer. "Salvaged water," on the other hand, describes development schemes that attempt to create an independent priority free of the river call for water that is naturally part of the stream system. Courts in most western states treat salvaged water and developed water the same way, entitling users who develop or salvage that water to a superior right to it. *See*, e.g., Estate of Steed Through Kazan v. New Escalante Irrigation Co., 846 P.2d 1223 (Utah 1992); Basinger v. Taylor, 211 P. 1085 (Idaho. 1922). In Colorado, a number of cases disallow users a superior right to salvaged water. *See*, e.g., Ready Mixed Concrete Co. v. Farmers Reservoir & Irrigation Co., 115 P.3d 638 (Colo. 2005); Giffen v. Colo., 690 P.2d 1244 (Colo. 1984); R.J.A., Inc. v. Water Users Ass'n of Dist. No. 6, 690 P.2d 823 (Colo. 1984); Se. Colo. Water Conservancy Dist. v. Shelton Farms, Inc., 529 P.2d 1321 (Colo. 1974).

⁷⁷ City of Boulder v. Boulder & Left Hand Ditch Co., 557 P.2d 1182, 1185 (Colo. 1976) ("[T]he original appropriators have the right, and in fact it is their duty to prevent, as far as possible, all waste of the water which they have appropriated, in order that the others who are entitled thereto may receive the benefit thereof.").

⁷⁸ An "ideal situation" would also take into account the ancillary, non-decreed benefits of irrigation practices that may be less than perfectly efficient. For instance, irrigation may support wetlands, and late season return flows may keep rivers running later in the summer and fall when they might otherwise become dry.



place on a stream that is not over-appropriated,⁷⁹ however, the CWCB could use the water availability created by the efficiency project as the basis for a new appropriation. There could also be situations in which, if there are multiple water rights ripe for efficiency projects on a single stream, an entity like the Water Trust could facilitate the improvement of a series of stream reaches by making water saved by efficiency from each water right available for appropriation by the CWCB. (See diagram depicting a "falling-leaf" pattern of water efficiency savings and appropriation above).

⁷⁹ Since the water would be made available for appropriation, not acquisition, the CWCB could file a section 37-92-102(3) application for an amount of water to preserve the environment to a reasonable degree. The CWCB does not have the authority to appropriate water to improve the environment to a reasonable degree.

JUNIOR STORAGE APPROPRIATIONS AND PAPER FILL

Water storage rights can be useful for capitalizing on spring runoff to store water when rivers run high, and then to release it during drier summer and fall months. One way in which existing storage space could be used to benefit instream flows is to use water that would be used for other purposes or for multi-year carryover for instream flow instead. Using the tools currently available to and used by the Water Trust and the CWCB, stored water can be changed for instream flow use permanently in water court, or temporarily using an SWSP, IWSA, or the expanded Temporary Loan Program. There is also potential for partnering with agricultural water users (or other water users with high summer demand) by storing more water during the runoff season, and then delivering that water to agricultural diversions during the summer. That would allow more native water to be left in the stream during summer months to benefit the environment and the released water to be protected as instream flow above diversion points, while still maintaining crop productivity.

Another way to use stored water for instream flow use, either separately from or coupled with agricultural water deliveries, would be by adjudicating a junior storage water right. Reservoirs may hold multiple water rights, and if there is sufficient streamflow available for appropriation, the CWCB, alone or in cooperation with a reservoir owner or operator, could appropriate a new storage right decreed for instream flow (and other water uses, if so desired) adding that instream flow water right to the portfolio of water rights in any given reservoir. A junior water right may displace water stored under senior rights, and if so the State and Division Engineer would "paper fill" the senior water rights that went unfilled.⁸⁰ In other words, unfilled senior water rights would be accounted for as if they did fill since they could have taken water in priority but reservoir operators decided to fill junior rights instead. Paper fill and other administrative accounting procedures are usually decreed together with junior storage water rights, setting expectations ahead of time for multiple parties sharing storage space in a single reservoir. Water stored this way could be released at any time needed to optimize instream flow use by the CWCB to preserve and improve the environment.

⁸⁰ See COLO. DIV. OF WATER RES., GENERAL ADMINISTRATION GUIDELINES FOR RESERVOIRS (2016), https://dnrweblink.state.co.us/dwr/DocView.aspx?dbid=0&id=3579805&page=1&searchid=447392fb-632b-4784-b9a b-d1317ce2e3ed&cr=1.

There are many existing reservoirs where a junior water right could be used to retime flows to benefit the downstream environment.



CONCLUSION

The legal mechanisms described in this paper provide new and untested opportunities for transferring and protecting water in the stream. Since statute only recognized instream flow as a beneficial use in 1973, environmental flows maintain a very junior position in Colorado's priority system. Legal tools are desirable to protect environmental flows under more senior priorities. Several of the tools described in this paper, in particular SWSPs and plans for augmentation, are tried and true methods for facilitating junior consumptive uses that have succeeded in that purpose for decades. Other tools, such as the 3-in-10 Temporary Loan Program that the General Assembly just expanded to be a 5-in-10 Temporary Loan Program, focus exclusively on instream flow transactions.

The tried and true methods that consumptive water users employ have not proven to be a good

enough fit to facilitate a significant number of instream flow transactions. The entire suite of legal tools available in Colorado, however, provides opportunity for finding ways to transfer water rights to instream flow using either temporary, administrative or permanent, water court approvals that will suit both environmental needs and the needs of water users who wish to engage in instream flow transactions. All of the tools described in this paper can be utilized under current Colorado law. Future legislative action could be desirable or necessary to facilitate a volume of instream flow transactions that ensures Colorado's streams and rivers flow healthily and support new and existing uses. For now, however, the Water Trust aims to implement projects across our state, and to restore flows to rivers in need, using the tools on which it has relied in the past, and on the legal mechanisms described in this paper.

Tools described in this paper

Tool	Statute, C.R.S.	Use	Approval Process	Term	Comment	Water Protected as Instream Use?	Protections for HCU?	Protections from Abandonment?	Used Before?
New ISF Appropriation*	37-92-102(3)	Protect flows as they exist at time of appropriation; purpose is to preserve the existing natural environment	CWCB ¹ & Water Court	Permanent	New junior water right	Yes	N/A	N/A	YES; Many statewide
ISF Water Acquisition – Permanent	37-92-102(3)	Restore flows with senior water rights; Preserve <u>or</u> <u>improve</u> the natural environment	CWCB² & Water Court	Permanent	Direct flow or storage rights; donations, purchases, permanent split-season uses, contractual interests	Yes	N/A; Permanent ISF use	N/A as long as permanent ISF use	YES; Moser, McKinley, Vasquez, Gabino Gallegos, Breem
ISF Water Acquisition – Long Term Leases	37-92-102(3)	Restore flows with senior water rights; Preserve <u>or</u> <u>improve</u> the natural environment	CWCB² & Water Court	Contractual (but prefer term longer than 10 years)	Leases, Trust Agreements, use of available augmentation water	Yes	Yes, 37-92- 102(3)	Yes, 37-92-103(2) (b)(VI)	YES; Pitkin Co.
ISF Water Acquisition – Temporary Instream Flow Lease (5-in-10 Lease)	37-83-105(2)	Restore flows with senior water rights; Preserve and improve the natural environment on reach with ISF right	CWCB ³ , DWR	Up to 5 uses in 10 years, 120 days/year, renewable for two additional ten-year periods	Must use with existing but water-short ISF; amended in 2020 from 3-in-10 to 5-in-10 with two more ten year periods and to preserve and improve	Yes	Yes, 37-83- 105(2)(c)	Yes, 37-92-103(2) (b)(V)	YES (under 3 in 10 tool); Winter Park Ranch W&S District, Stagecoach, Coats Bros.
Ag to Ag Lease to Downstream User	37-83-105(1)	Potential incidental flow benefits to the intervening stream reach	DWR	180 days/ calendar year	Must involve water rights decreed "solely for agricultural irrigation purposes"	No	N/A	N/A	Not by Water Trust
ISF Water Acquisition — ISF Aug Plan	37-92-102(3) + 37-92- 102(4.5)	Restore flows with changed and quantified senior aug water rights; preserve <u>or improve</u> the natural environment	CWCB ² & Water Court	Permanent and/or contractual term	Not fully tested; legislatively authorized; concept will have process for adding future water to the aug plan built into the water court decree to ensure expedited approvals	Yes	37-92-102(3)	Yes, 37-92-103(2) (b)(VI)	NO; Poudre Flows plan under development

Tools described in this paper

ΤοοΙ	Statute, C.R.S.	Use	Approval Process	Term	Comment	Water Protected as Instream Use?	Protections for HCU?	Protections from Abandonment?	Used Before?
Water Conservation Programs	37-92-305(3) (c)	Restore flows through voluntary reduced diversions	Enrollment in Water Conservation Program approved by authorized entity	5 years in any consecutive 10 year period; unlimited use if under a specified federal program	Applicable in all water divisions EXCEPT Division 7	No	Yes, 37-92- 305(3)(c)	Yes, 37-92-103(2) (b)(I)	YES; Rio Colorado, SCPP projects
Forbearance Agreements	N/A	Restore flows through voluntary reduced diversions	Private agreement	Contractual	Impacts historical use of water right (no HCU protection); <i>Might consider Water</i> <i>Conservation Program</i> <i>instead</i>	No	No	No	YES; Wheeler Ditch 2013
Undecreed Reservoir Release	N/A	Restore flows with storage water release	Private agreement	Contractual	The storage equivalent of a forbearance agreement. Reservoir risks refill next year (can only refill under free river conditions).	No	No	No	YES; Big Beaver Res. 2002
Substitute Water Supply Plan (For pending Water Court Cases)	37-92-308(4)	Pair with a pending water acquisition to preserve or improve the natural environment	DWR	1 year approval	Expedite ISF use of water rights while water court case for that use is pending	Yes	Same protections as for Permanent or Long Term Water Acquisitions	Yes, 37-92-103(2) (b)(VI)	YES; Gabino Gallegos, Valdez, Breem
Substitute Water Supply Plan (For stream depletions of less than 5 years)	37-92-308(5)	Restore flows with senior water rights; preserve or improve the natural environment	DWR, CWCB ² if ISF use	l year approvals, up to 5 years max renewable	For temporary use of a water right for ISF for 5 years or less; similarities with Temporary Loan but can use on reaches without decreed ISF	Yes	See Note ⁴	Yes, 37-92-103(2) (b)(VI)	Not for ISF use
Interruptible Water Supply Agreement	37-92-309	Restore flows with senior water rights; preserve or improve the natural environment	CWCB ² , DWR	3 years in 10, renewable twice	Allows for the temporary loan of one water right for the use under another water right	Yes	See Note⁴	Yes, 37-92-103(2) (b)(VI)	NO

Tools described in this paper

ΤοοΙ	Statute, C.R.S.	Use	Approval Process	Term	Comment	Water Protected as Instream Use?	Protections for HCU?	Protections from Abandonment?	Used Before?
Simple Change of Point of Diversion to Downstream Location	37-92- 305(3.5)	Restore flows between old and new downstream diversion point	Water court	N/A	Moving the diversion point downstream may increase flows for a section of river; does not require quantification; cannot use with intervening ISF right	No	N/A; Decreed Use	N/A; Decreed Use	Unknown for flow restoration use
Change of Point of Diversion to Downstream Location	37-92-305(3)	Restore flows between old and new downstream point of diversion	Water Court	N/A	If circumstances are not met for a simple change, must then quantify water right	No	N/A; Decreed Use	N/A; Decreed Use	YES; Breem Ditch
Strategic Retirement of Water Right	N/A – common law and potential 37-92-102(3)	Restore flows, or protect against future depletions	Private agreement	Permanent	Retire conditional or absolute water right, particularly useful in reaches with existing but junior ISFs.	No	N/A	N/A	YES; Three Sisters Ditch
ISF Water Acquisition – Lease Fallowing Pilot Projects	37-60-115(8)	Restore flows with senior water right; preserve or improve the natural environment	CWCB and DWR approval required for both pilot project and also for temporary change	3 years in 10 years	More complicated than equivalent tools	Yes	Yes	Yes	Not for ISF Use
ISF Water Acquisition – Water Bank	37-80.5-101	Restore flows using stored water and temporary approvals; preserve <u>or improve</u> the natural environment	Partner with CWCB & WCD; DWR promulgates rules for each water bank	Not limited by bank, but could be by water rights in bank	Rules would dictate	Yes	See Note ⁴	Yes, 37-92-103(2) (b)(VI)	Not by Water Trust
Agricultural Water Protection Water Right	37-92- 305(19) & 37- 92-308(12)	Restore flows with senior water rights	CWCB², Water Court, DWR for SWSP approval	SWSP approval for 3 years, renewable without limitation	Complicated and may be expensive to establish, but water sharing option and good for long term operational planning	Yes	Yes, quantified	Yes, 37-92-103(2) (b)(VI)	NO

Tools described in this paper

Tool	Statute, C.R.S.	Use	Approval Process	Term	Comment	Water Protected as Instream Use?	Protections for HCU?	Protections from Abandonment?	Used Before?
Storage Water Delivery for Decreed Uses	N/A – common law	Storage releases add water to rivers when delivered for downstream decreed uses such as augmentation, municipal, or other uses	Private agreement	Contractual	Contractual delivery of storage water for decreed use	Depends on decree; possible incidental flow benefits between points	N/A; Decreed Use	N/A; Decreed Use	YES; Florida River ISF augmentation; Muni-rec contracts; Stagecoach Reservoir
Storage Release for In-channel Piscatorial Use	Upper Gunnison, 838 P.2d 840 – common Iaw	Restore flows with reservoir release	Water Court	At discretion of owner, pursuant to decree	Exception to CWCB exclusive authority for ISF	Yes, decreed use	N/A; Decreed Use	N/A; Decreed Use	YES, Taylor Reservoir
Rotational Crop Management Contracts	37-92-305(4) (a)(IV)	Restore flows with senior water rights	CWCB ²	Contractual	Useful with a group of irrigators	Yes	Yes, 37-92- 102(3)	Yes, 37-92-103(2) (b)(VI)	NO
Storage New Junior Appropriation	N/A – common law	Restore flows to preserve and improve with acquisition and with reservoir release	Water Court	At discretion of owner, pursuant to decree	CWCB exclusive authority for ISF; paper fill senior rights	Yes, decreed use	N/A; Decreed Use	N/A; Decreed Use	NO

CWCB new appropriation process usually requires 1-2 years to complete.

^{*} New ISF appropriations are flow maintenance tools, rather than flow restoration tools, but are listed here for comparison purposes.

² CWCB water acquisition approval process requires 2 Board meetings; may require a hearing if requested.

³ CWCB Director can approve temporary ISF leases once SEO determines non-injury; Board will confirm Director's decision at subsequent meeting.

⁴ No specific statute, but Case Law may provide protections: "By enacting these statutes, the General Assembly has authorized short-term changes that do not penalize the appropriator in any subsequent change of water right proceeding. The methodology for calculating historic consumptive use of the water rights over a representative period of time for a permanent change will not count or discount the years of authorized temporary use. The legislature clearly intended to promote flexibility in the administration of water rights, especially in the circumstances of temporarily transferring water from agricultural use to municipal use on a contract basis. It did not intend to penalize owners of decreed appropriations for properly taking advantage of these statutes according to their terms." ISG, LLC v. Arkansas Valley Ditch Ass'n 120 P.3d 724, 734 (Colo. 2005).