



**COLORADO**  
**Colorado Water Conservation Board**  
Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Linda Bassi, Section Chief  
Kaylea White, Senior Water Resource Specialist  
Stream and Lake Protection Section

DATE: November 18-19, 2020 Board Meeting

AGENDA ITEM: **23.b Proposed Acquisition of Contractual Interest in *City of Greeley* "Seed Water Rights" for Use in Plan for Augmentation to Augment Stream Flows on the Cache la Poudre River**

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The City of Greeley ("Greeley") has offered to the Colorado Water Conservation Board a donation of a contractual interest in water to be used in the plan for augmentation to augment stream flows on the Cache la Poudre River ("Poudre Flows Plan"). Because this is one of the first offers of water to be used in the Poudre Flows Plan, the water rights offered by Greeley are referred to as "Seed Water Rights." The water would be used to support the plan in the reach of river shown in **Exhibit G1** as the "Greeley Seed Water Reach." Both the Poudre Flows Plan and the use of the Greeley Seed Water Rights in the plan are subject to the requirements of the new stream flow augmentation statute, section 37-92-102(4.5) C.R.S.

### Staff Recommendation

The Board's consideration of this proposal at this meeting will initiate a 120-day period for Board review. **No formal action is required at this time.** Staff believes that the proposed acquisition will be a valuable component to support the Poudre Flows Plan. This initial presentation provides an opportunity for the Board and the public to identify questions or concerns for Staff, the Attorney General's Office, Colorado Water Trust ("CWT"), Greeley, and other Poudre Flows Partners to address at this or a subsequent meeting.

### Background

Greeley has been participating in the "Poudre Runs Through It" group and its FLOWS Committee, and has been an important partner in the Poudre Flows Plan effort for several years. Greeley is a key partner and signatory to the Phase II MOA (Exhibit PF5 to agenda item 23 memo). Greeley has offered to CWCB a contractual interest in certain water rights to be used in the Poudre Flows Plan within the Greeley Seed Water Reach that could extend from the GIC "F" Street Return to the Poudre River confluence with the South Platte River, a stream distance of approximately 13 miles. The offer letter, draft Water Delivery Agreement, and seed water letter report are attached as **Exhibits G2, G3, and G4.**



## The Board's Water Acquisition Procedures

Rule 6 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program ("ISF Rules") sets forth the Board's procedures for acquisition of water, water rights, or interests in water for instream flow purposes. Section 37-92-102(3), C.R.S. provides 120 days for the Board to determine any terms and conditions it will accept for the Water Delivery Agreement for water, water rights, or interests in water to preserve or improve the natural environment. ISF Rule 6 requires a minimum of two Board meetings to allow for public input prior to the Board taking final action on a proposed acquisition. Therefore, the Board's initial consideration of Greeley's offer at this Board meeting initiates the 120-day time period for the Board to consider the proposal. Final action on the proposal could occur at the January 2021 Board meeting. ISF Rule 6m(4) provides that any person may request the Board to hold a hearing on the proposed acquisition, and that such a request must be filed within twenty days of this Board meeting.

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

Pursuant to statute, Staff has requested recommendations from Colorado Parks and Wildlife ("CPW"), the U.S. Department of Agriculture, and the U.S. Department of Interior. Pursuant to ISF Rule 6m(1), Staff has provided notice of the proposed Poudre Flows Plan and the proposed acquisition of an interest in the Seed Water Rights to all persons included on the appropriate ISF Subscription Mailing Lists and provided notice to the State Engineer's Substitute Supply Plan Notification List. Staff has requested a biological analysis from CPW pursuant to Rule 6f(2). CPW will address the Board regarding this acquisition at the Board meeting. CPW's written recommendation for this proposed acquisition is attached as **Exhibit FC5**.

## Water Proposed for Acquisition

Greeley has offered to CWCB use of its previously changed and quantified water rights for use in the Poudre Flows Plan ("Subject Water Rights"). The Subject Water Rights consist of Greeley's shares in the Greeley Irrigation Company ("GIC") water rights originally appropriated in the 1870's and adjudicated in 1882, and ultimately changed in Case Nos. 1999CW232 and 2015CW3163. The historical consumptive use of shares in the GIC had been previously quantified on a ditch-wide basis in Case No. 1996CW658. In accordance with that ditch-wide quantification, Greeley changed the type, manner, and use of certain of its GIC shares in Case Nos. 1999CW232 and 2015CW3163. More specifically, Greeley changed these GIC shares to include alternate points of re-diversion and places of storage, and to include a number of additional uses beyond irrigation, including augmentation.

### **Existing Instream Flow Water Rights**

CWCB does not currently hold any instream flow water rights in the Greeley Seed Water Reach of the Cache la Poudre River, or downstream of the Greeley Seed Water Reach on the South Platte River. CWCB's appropriated instream flow water rights upstream of the Greeley Seed Water Reach on the Cache la Poudre River will be unaffected by this plan.

### **Existing Natural Environment**

The Poudre River has undergone significant changes with a number of major agricultural, municipal, and industrial diversions representing a major anthropogenic change to the watershed. The Cache la Poudre is still a snowmelt-driven system, but water developments have significantly altered the natural flow regime resulting in severely depleted flow regime with multiple points of dry up. River flows fluctuate naturally on a diurnal and seasonal pattern, and are influenced by transbasin inflows, upstream reservoir operations, river diversions, and return flows from various uses. CPW describes the natural environment with more detail in its CPW Flow Quantification Report, (Exhibit PF3 to agenda item 23 memo).

The upper reaches of the Cache la Poudre River as it emerges from Poudre Canyon are typical cold water trout habitat supporting both rainbow and brown trout populations. As the river flows eastward through the City of Fort Collins, the fishery transitions from one that is dominated by cold-water species to a more diverse cold water/cool water/warm water fishery. The transition zone provides important habitat for cold-water species seasonally coming down from the canyon, as well as plains species that move up from the low gradient plains zone. The Poudre River transition zone provides aquatic habitat conditions that support an array of species, including important native species with varying temperature and habitat preferences that can be unique to transition zones. This assemblage includes native minnow, sucker, and darter species, as well as the plains topminnow (Tier 1 Species of Greatest Conservation Need, CPW State Wildlife Action Plan (2015)). East of I-25, the fishery is mainly warm-water and is dominated by species in the darter, minnow, and sucker families, down and through the City of Greeley. The Greeley Seed Water Reach in Segment F is in this lower warm-water fishery.

### **Proposed Method of Acquisition**

Under this proposal, the CWCB would acquire a contractual interest in Greeley's direct flow water rights originating from Greeley's shares in the GIC. The water rights have been changed and quantified in water court, are decreed for augmentation use, and are subject to volumetric limits. Greeley's seed water letter report describes each water right and the relevant quantification decree terms and conditions. See **Exhibit G4**. A draft Water Delivery Agreement between Greeley and CWCB is attached as **Exhibit G3**. Once the Board approves the proposed acquisition, the CWCB Director would sign the agreement and this interest in the water rights would be included in the water court application to be filed for the Poudre Flows Plan. The draft water court application is attached to the agenda item 23 memo as Exhibit PF6.

Under the Water Delivery Agreement, Greeley would deliver water for exclusive use by the CWCB to be used in the Poudre Flows Plan. A process would be put in place by the Poudre Flows Management Committee to notify the Division of Water Resources, CWCB, and the other Poudre Flows Partners that such deliveries are being made. The CWCB shall request administration to protect the delivered acquired water through the Greeley Seed Water Reach from diversion or exchange by other water users, in accordance with the terms and condition of the Poudre Flows Plan decree.

**Proposed Use of the Acquired Water Rights**

The CWCB would use the acquired water to preserve and improve the natural environment in the Cache la Poudre River to a reasonable degree by the delivery of water by Greeley at the GIC F-Street return structure to augment stream flows pursuant to the Poudre Flows Plan decree. The GIC water rights that Greeley is offering to the Poudre Flows Plan have historically been diverted at the GIC headgate, however, for this project, the water rights will be delivered at the F-Street return structure. This water will remain in the river from the delivery point through the Greeley Seed Water Reach pursuant to the Poudre Flows Plan decree. When the water reaches locations where return flow obligations are owed, at that location, that amount of water will no longer be protected in the Poudre Flows Plan.

The CWCB would request administration of the delivered water when necessary to help maintain stream flows in the Cache la Poudre River Segment F, as this segment is described in the agenda item 23 memo. CWCB would protect water provided by Greeley at flow rates up to the CPW flow quantification recommendations in Segment F to preserve and improve the natural environment at rates up to 15 cfs and 30 cfs, as shown in the table below.

**CPW Flow Quantification Seasonal Recommendations**

Segment	Winter (Nov - March) Preserve (cfs)	Winter (Nov - March) Improve (cfs)	Summer (Apr - Oct) Preserve (cfs)	Summer (Apr - Oct) Improve (cfs)
A	Up to 80	80 - 150	Up to 114	114 - 260
B	Up to 80	80 - 150	Up to 114	114 - 260
C	Up to 30	30 - 54	Up to 40	40 - 54
D	Up to 10	10 - 35	Up to 10	10 - 40
E	Up to 15	15 - 30	Up to 15	15 - 30
F	Up to 15	15 - 30	Up to 15	15 - 30

**Historical Use and Historical Return Flows**

As required by section 37-92-102(4.5), the augmentation water rights offered by Greeley have already been changed and quantified in water court. The change decrees quantified historical uses and set return flow obligations. The terms and conditions of the change case decrees will continue to apply to the use of these water rights in the Poudre Flows Plan.

### **Potential Benefits of this Proposed Acquisition**

In addition to the numerous benefits of the Poudre Flows Plan described in the agenda item 23 memo, the Board's acquisition and use of a contractual interest in the Subject Water Rights in the Poudre Flows Plan will contribute toward improving habitat connectivity in the over-appropriated Cache la Poudre River without injury to other water rights.

### **Location of Other Water Rights**

There are many other water rights located on the Cache la Poudre River; however, they should not be affected by the protection of this previously quantified augmentation water to be delivered to and through the Greeley Seed Water Reach.

### **Potential Injury to Existing Rights**

Any terms and conditions necessary to prevent injury to other water rights will be developed during the water court process for the Poudre Flows Plan, which will include consideration of these particular water rights to be used in the court-approved plan for augmentation. The CWCB, along with its co-applicants in the water court process will adhere to the specific statutory directions for the water rights to be used in the Poudre Flows Plan.

### **Stacking Evaluation**

When water is available under the Water Delivery Agreement for use in the Poudre Flows Plan, the CWCB will be able to use the Subject Water Rights in addition to any other acquired water rights or interests in water available to the CWCB for augmentation of stream flows or other instream flow use, including any protected mitigation releases made pursuant to section 37-92-102(8), in this reach of the Cache la Poudre River up to the flow rates to meet the CPW flow recommendations to preserve and improve the natural environment, as approved by the Board.

### **Administrability**

The Poudre Flows Partners have been, and will continue, coordinating with the State and Division Engineers regarding the administrability of the Poudre Flows Plan, for which this particular acquisition is an important component. Staff and the Poudre Flows Partners will continue conversation with the State and Division Engineers about using these specific water rights in the Poudre Flows Plan.

### **Maximum Utilization of the Waters of the State and Availability of the Delivered Water for Subsequent Use Downstream**

This proposal will promote maximum utilization of the waters of the state because the augmentation water will not only be used in the Poudre Flows Plan to augment stream flows in the Cache la Poudre River, but also may be used for downstream beneficial purposes. Greeley will re-divert some of this water and leave some portion of this water in the river for reuse to meet return flow obligations or other stream obligations.

### **Effect of Proposed Acquisition on Any Relevant Interstate Compact Issue**

The proposed acquisition should not negatively affect any interstate compact. The water rights will be used to augment stream flows and also be used for other beneficial uses downstream of the lower terminus of the Greeley Seed Water Reach. Historical return flows of the water rights will continue to be maintained. Additionally, the subject water rights and uses are located in Water District 3 and the South Platte River Compact primarily affects District 64 on the lower end of the South Platte River. Based upon the foregoing, it does not appear that this acquisition will raise any compact issues.

### **Costs to Complete the Transaction, and Other Associated Costs**

There are various costs associated with completing this proposed acquisition, but no direct expenditures to purchase or lease an interest in these Seed Water Rights because Greeley will donate the interest in water to the CWCB. Financial contributions by Greeley and the other municipal Poudre Flows Partners along with Northern Water, and fundraising efforts by the Colorado Water Trust ("CWT") are significant and are expected to be sufficient to pay for CWT project support through the water court application process, and to pay for SWE's engineering work. The CWCB's indirect costs include Staff and Attorney General's Office time dedicated to participation as a co-applicant in the water court proceeding, and participation in a management committee that will coordinate planning, recording, reporting, and guidance on day-to-day operations. The costs of physical modifications of any existing diversion structures on the stream, installation and maintenance of any additional stream gages, and any additional consultant work will be the responsibility of the Poudre Flows Partners, subject to agreement by the partners.

### **Exhibits**

- Exhibit G1: Seed Water Map
- Exhibit G2: Offer Letter
- Exhibit G3: Draft Water Delivery Agreement
- Exhibit G4: Seed Water Letter Report
- Exhibit G5: CPW Recommendation Letter

# EXHIBITS

R 70 W

R 69 W

R 68 W

### Augmented Segments and Preserve/Improve Flow Rates (cfs)

Segment	Description	Winter (Nov 1 - Mar 31)		Summer (Apr 1 - Oct 31)	
		Preserve	Improve	Preserve	Improve
<b>A</b>	Canyon Gage to Larimer and Weld Canal Diversion	Up to 80	80 - 150	Up to 114	114 - 260
<b>B</b>	Larimer and Weld Canal Diversion to Spring Creek Confluence	Up to 80	80 - 150	Up to 114	114 - 260
<b>C</b>	Spring Creek Confluence to New Cache la Poudre Ditch Diversion	Up to 30	30 - 54	Up to 40	40 - 54
<b>D</b>	New Cache la Poudre Ditch Diversion to County Road 17 Crossing	Up to 10	10 - 40	Up to 10	10 - 40
<b>E</b>	County Road 17 Crossing to 59th Avenue Bridge	Up to 15	15 - 30	Up to 15	15 - 30
<b>F</b>	59th Avenue Bridge to South Platte River Confluence	Up to 15	15 - 30	Up to 15	15 - 30

Source: Colorado Parks and Wildlife. 2020. Flow Quantification Report for the Cache la Poudre River in Larimer and Weld Counties.

Note: Seed water reaches represent the reach between the uppermost point of introduction and lowermost point of withdrawal/use (not including potential leases of water further downstream).

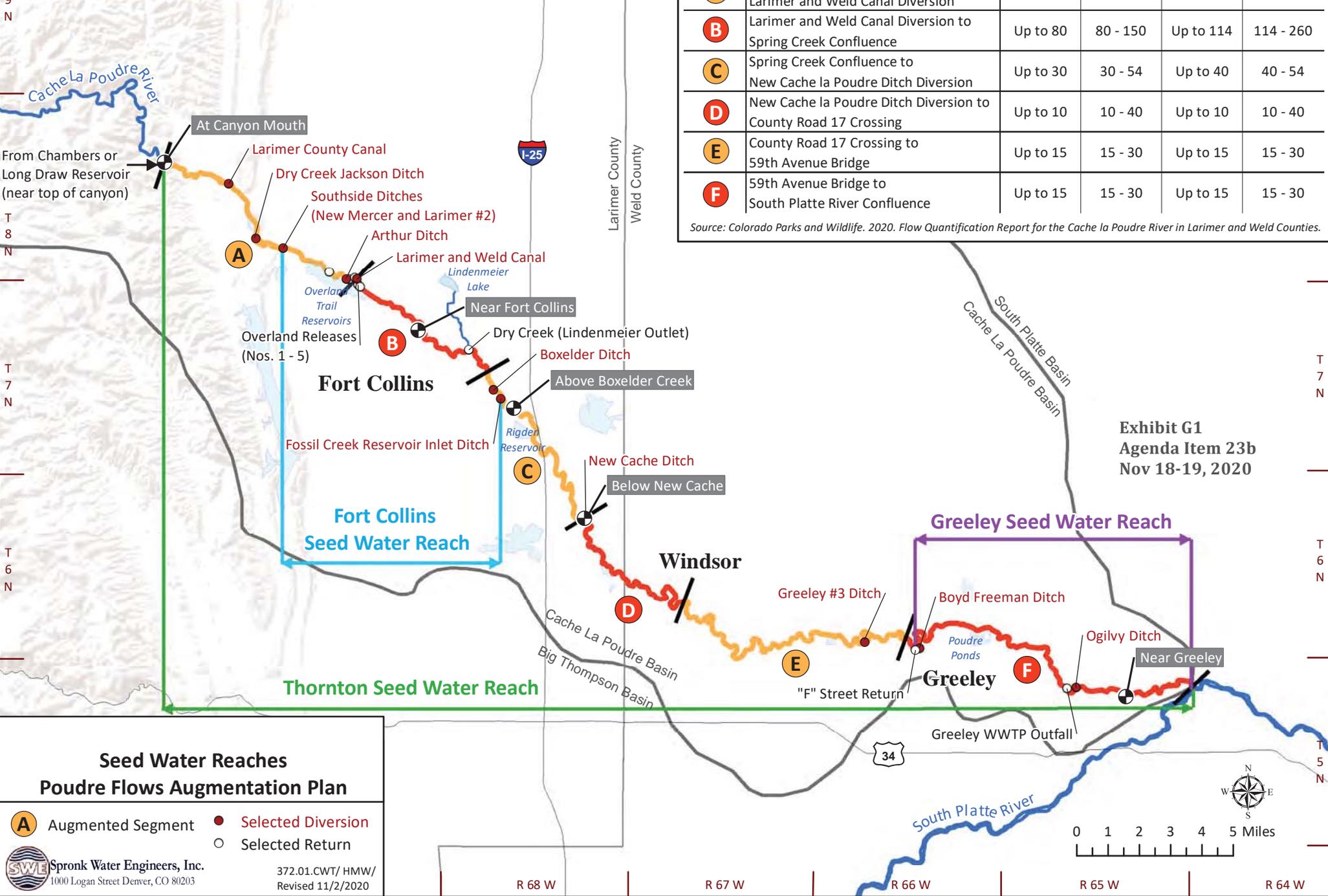


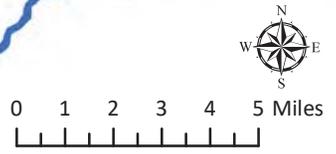
Exhibit G1  
Agenda Item 23b  
Nov 18-19, 2020

### Seed Water Reaches Poudre Flows Augmentation Plan

**A** Augmented Segment    ● Selected Diversion  
○ Selected Return

**Spromk Water Engineers, Inc.**  
1000 Logan Street Denver, CO 80203

372.01.CWT/ HMW/  
Revised 11/2/2020



R 68 W

R 67 W

R 66 W

R 65 W

R 64 W



Kaylea M. White  
Stream and Lake Protection Section  
Colorado Water Conservation Board  
1313 Sherman St. Rm. 721  
Denver, CO 80203

**Re: City of Greeley Water in Poudre River ISF Augmentation Plan**

Dear Kaylea,

By this letter the City of Greeley (“Greeley”), Acting through its’ Water and Sewer Board, is offering to the Colorado Water Conservation Board (“CWCB”) the use of water rights in the Poudre River ISF Augmentation Plan.

**General Description of Water Rights**

The water rights originally decreed to Canal No. 3 in Civil Action No. 320 on April 11, 1882, of which 5/8ths belongs to the Greeley Irrigation Company (GIC) are as follows:

<b>Priority</b>	<b>Appropriation Date</b>	<b>Amount (cfs)</b>
Original (#35)	April 1, 1870	52.00
First Enlargement (#46)	October 1, 1871	41.00
Second Enlargement (#50)	July 15, 1872	53.13
Third Enlargement	May 15, 1873	16.67

Greeley changed 125.12 shares in the GIC in Case Nos. 99CW232 and 15CW3163. These rights divert off the lower Poudre and are fairly senior direct flow rights which entitle Greeley to deliveries of up to 25.27 acre-feet per share or 3,162 acre-feet annually.

**Exhibit G2  
Agenda Item 23b  
Nov 18-19, 2020**

## Water Right Amounts Available for Poudre River ISF Augmentation Plan

The GIC water rights that Greeley is offering to the Poudre ISF Augmentation Plan have historically been diverted at the GIC headgate, therefore, the use of these shares will result in “new” water in the river beginning at the F-Street return structure. There are alternate points of diversion (“APODs”) decreed for the shares changed in 99CW232, however, none of the APODs have been utilized yet.

Below is a table of the maximum amount of water available pursuant to Greeley’s GIC shares on a monthly and daily basis, based on average headgate deliveries (1950-2013) minus 15% ditch loss (per the decrees). Per the decrees, this water will only be available April 15th through October 31st. Due to the seniority of the ditch, diversions typically do not fluctuate greatly year to year. Greeley may not take diversions in excess of 3,162 acre-feet in any single year or 23,328 acre-feet in any consecutive 10 year period. There are no decreed flow rate limits or monthly volumetric limits. The headgate is limited to a diversion capacity of 125 cfs, which equates to a maximum of 18.75 cfs daily that Greeley could divert pursuant to their GIC shares.

While this table shows the maximum amount of water that could potentially be available in any given year, as part of the agreement with CWCB, Greeley would like to decide prior to each water year the amount that the City will be dedicating to the plan. Regardless of year-to-year fluctuations in availability, Greeley can commit to dedicating a minimum of 20 shares or 1 cfs each year. The terms governing Greeley’s determination of such water availability are described more particularly in its Water Delivery Agreement. Factors that may change the amount of water available to the CWCB could include drought (current or predicted), other augmentation lease agreements that the City decides to enter in the future, and changes in operations or other augmentation requirements that may require the allocation of this water elsewhere. Greeley shall provide notice to CWCB no later than April 15 of each year, detailing the amount of water that CWCB will be entitled to use in the Poudre River Augmentation Plan for that irrigation year (i.e., April 15 through October 31).

	<b>Average Monthly Total (AF)</b>	<b>Average Daily Rate (cfs)</b>	<b>Max Daily Rate (cfs)</b>
Nov	0	0	0
Dec	0	0	0
Jan	0	0	0
Feb	0	0	0
Mar	0	0	0
Apr	74.31	1.25	4.40
May	358.50	5.83	11.94
Jun	444.50	7.47	13.41
Jul	545.23	8.87	16.17
Aug	455.34	7.41	12.44
Sep	334.71	5.62	11.69
Oct	155.21	2.52	7.21
Total	2,367.81		

The City of Greeley has worked closely with other Poudre ISF Augmentation Plan Partners and CWCB staff to provide water to benefit the Poudre River Flows. Please let us know if we can provide any additional information to assist in CWCB's consideration of this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Jen Petrzelka". The signature is stylized and cursive.

Jen Petrzelka  
Water Resource Operations Manager  
City of Greeley

Cc. Dan Biwer, Environmental and Water Resources Attorney, City of Greeley  
Leah Hubbard, Water Resource Administrator, City of Greeley

**WATER DELIVERY AGREEMENT**  
**AGREEMENT REGARDING THE USE OF**  
**CERTAIN CITY OF GREELEY WATER RIGHTS**  
**IN THE POUFRE RIVER AUGMENTATION PLAN**  
(Changed Greeley Irrigation Company Water Rights)

This Agreement Regarding the Use of Certain City of Greeley Water Rights in the Poudre River Augmentation Plan (“Agreement”) is entered into this \_\_\_\_ of \_\_\_\_\_ 2020, by and between the CITY OF GREELEY, COLORADO, a Colorado home rule municipal corporation acting by and through its Water and Sewer Board (“Greeley”) and the COLORADO WATER CONSERVATION BOARD, an agency of the State of Colorado (“CWCB”). Greeley and the CWCB are also collectively referred to herein as the “Parties.”

RECITALS

A. Greeley and the CWCB, along with the Colorado Water Trust and several water users on the Cache la Poudre River, are seeking judicial approval, pursuant to House Bill 20-1037, of a plan for augmentation in order to, among other things, increase the supply of water in the channel of the Cache la Poudre River between the canyon mouth and its confluence with the South Platte River to preserve and/or improve the natural environment to a reasonable degree (“Poudre River Augmentation Plan”). The Poudre River Augmentation Plan will be administered pursuant to the decree approving the Poudre River Augmentation Plan and will be implemented and managed pursuant to various contractual arrangements among the CWCB and others. Collectively, the relevant agreements outline a program for the CWCB to protect water, water rights, and interests of water under a decreed plan for augmentation through stream reaches of the Cache la Poudre River from the canyon mouth to its confluence with the South Platte River.

B. CWCB is authorized by sections 37-92-102(3) C.R.S. and 37-92-102(4.5) C.R.S., to acquire from any person, such water, water rights, or interests in water as CWCB determines may be required for minimum stream flows to preserve and/or improve the natural environmental to a reasonable degree, to take actions to ensure such stream flows remain in the river, and to obtain decreed plans for augmentation to augment stream flows and protect augmentation deliveries at rates the CWCB determines appropriate for such purposes.

C. Greeley owns certain water rights represented by shares in the Greeley Irrigation Company (“GIC”) for which the historical consumptive use has been quantified and a change to include augmentation use has been judicially approved, as is described more particularly in the decrees entered by the District Court for Water Division 1 in Case No. 1999CW232 on June 29, 2004 (“99CW232 Decree”) and in Case No. 2015CW3163 on June 25, 2018 (“15CW3163 Decree”). These water rights are collectively referred to in this Agreement as the “Greeley GIC Water Rights.”

D. CWCB desires to use, and Greeley desires to allow the CWCB to use, water attributable to the Greeley GIC Water Rights for augmentation use in the Poudre River

Augmentation Plan, to augment stream flows in the channel of the Cache la Poudre River, pursuant to House Bill 20-1037 and section 37-92-102(4.5) C.R.S. and the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the mutual and dependent covenants contained herein, the Parties agree as follows.

## AGREEMENT

1. Term. This Agreement begins upon the date of mutual execution by the Parties set forth above and will last for a term of fifteen (15) years, unless terminated prior to the expiration of this term by Greeley or the CWCB in accordance with the terms and conditions herein.

2. Available Shares. Greeley agrees during the term of this Agreement to make water attributable to the Greeley GIC Water Rights available for use by the CWCB in the Poudre River Augmentation Plan. Greeley shall provide notice to CWCB no later than April 15 of each year, detailing the amount of water that CWCB will be entitled to use in the Poudre River Augmentation Plan for that year (i.e., April 15 through April 14 of the following calendar year). CWCB is not entitled by this Agreement to use any water attributable to the Greeley GIC Water Rights but not identified by Greeley as available to the Poudre River Augmentation Plan for that year. Greeley shall include the following information in its annual notice to CWCB:

a. The total number of GIC shares under the 99CW232 Decree and the 15CW3163 Decree that CWCB may use in the Poudre River Augmentation Plan that year (“Available Shares”).

b. An estimation of the total volume of water that the Available Shares will generate for use in the Poudre River Augmentation Plan, and the anticipated timing of the Available Shares.

Greeley retains the sole discretion to determine the number of Available Shares that CWCB may use in the Poudre River Augmentation Plan each year. CWCB acknowledges that the amount of water available for use in the Poudre River Augmentation Plan pursuant to this Agreement may vary and is dependent on a variety of factors, including without limitation the hydrological conditions and calls on the river that affect the Greeley GIC Water Rights. CWCB acknowledges further that the amount of water available for use in the Poudre River Augmentation Plan each year may not be known by Greeley with certainty prior to the requisite notice and anticipated date of Available Shares use. If Available Shares identified by Greeley are not needed for use in the Poudre River Augmentation Plan on a particular day, Greeley reserves the right to use the Available Shares for other permissible uses under the 99CW232 Decree or 15CW3163 Decree. Greeley may, in its sole discretion, determine that it cannot make any water attributable to the Greeley GIC Water Rights available for use in the Poudre River Augmentation Plan in a given year. Greeley shall give notice of such a determination to CWCB no later than April 15, as described above.

3. No Payment for Use of Available Shares. CWCB is not required to remit payment to Greeley for its use of Available Shares in the Poudre River Augmentation Plan under this Agreement. However, nothing herein shall preclude Greeley and CWCB from amending this Agreement or subsequent agreements concerning the use of the Greeley GIC Water Rights to include monetary compensation for Greeley or other additional consideration.

4. Use of Available Shares by CWCB. To facilitate use of the Available Shares by CWCB under this Agreement, Greeley will legally divert water attributable to the Greeley GIC Water Rights at the decreed point of diversion for the Greeley Canal No. 3.<sup>1</sup> Greeley will then measure and return the volume of water attributable to the Available Shares to the Cache la Poudre River at the F Street Release Structure, located just east of 59<sup>th</sup> Avenue in Segment E.<sup>2</sup> From that point of introduction downstream to the confluence of the Cache la Poudre and South Platte Rivers at the end of Segment F, CWCB shall use the Available Shares for augmentation use in the Poudre River Augmentation Plan to increase the supply of water to the Cache la Poudre River stream flow to preserve and/or improve the natural environmental to a reasonable degree. At the confluence of the Cache la Poudre and South Platte Rivers (i.e., the end of Segment F), CWCB shall cease its use of the Available Shares and all dominion and control over the Available Shares will return to Greeley.

5. Emergency Use of Available Shares by Greeley. In the unanticipated event of a water supply emergency or other situation necessitating use of the Available Shares by Greeley for its customers, or for other purposes as may be determined by Greeley in its sole discretion, Greeley may withdraw the Available Shares from use by CWCB in the Poudre River Augmentation Plan. In such an event, Greeley shall provide notice to CWCB of this reduction or elimination of the Available Shares as soon as is practicable under the circumstances. For the purposes of this provision, a water supply emergency means an extraordinary drought condition or other emergency condition involving the loss or shortage of water in the Greeley municipal system due to catastrophic events (including, but not limited to, failure of conveyance or treatment facilities), provided however, that extraordinary drought conditions or emergency conditions shall be deemed to exist only if Greeley has implemented or is in anticipation of implementing a water supply shortage response and only if Greeley has maximized its diversions of water under all direct flow water rights other than the Available Shares that are available for municipal use during such conditions.

6. Return Flow Obligations. Greeley shall remain responsible for the maintenance of return flow obligations associated with the Greeley GIC Water Rights, as described in the 99CW232 and 15CW3163 Decrees.

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<sup>1</sup> The decreed location of the Canal No. 3 headgate is on the south side of the Cache la Poudre River in the Southeast quarter of Section 32, Township 6 North, Range 66 West, at a point 35 degrees 30 minutes West from the Southeast corner of said Section 32.

<sup>2</sup> The F Street Release Structure is located in the SE ¼ of the SW ¼ of Section 34, Township 6 North, Range 66 West, of the 6th P.M. in Weld County.

7. Transit Losses on Use of Available Shares. Greeley shall bear any transit losses assessed by the Colorado Division of Water Resources on the use of Available Shares by CWCB in the Poudre River Augmentation Plan.

8. Administration of Available Shares. Greeley and CWCB shall coordinate with the Colorado Division of Water Resources on the administration of Available Shares in the Poudre River Augmentation Plan. Greeley and CWCB shall coordinate on the installation of any measuring devices deemed necessary by the Division Engineer to administer the operations contemplated by this Agreement.

9. Accounting and Reporting. Greeley and CWCB shall coordinate on all accounting and reporting requirements associated with use of the Available Shares in the Poudre River Augmentation Plan. Greeley shall remain responsible for all accounting and reporting requirements set forth in the 99CW232 and 15CW3163 Decrees. The responsibility for any accounting and reporting requirements imposed by the decree approving the Poudre River Augmentation Plan shall be determined by a separate agreement.

10. Share Assessments. Greeley shall remain responsible for the payment of assessments to the Greeley Irrigation Company on all Available Shares used by CWCB in the Poudre River Augmentation Plan, and on any other shares representing the Greeley GIC Water Rights.

11. No Vested Interest in Greeley GIC Water Rights. This Agreement is made expressly subject to Section 17-4 of the Charter of the City of Greeley. Greeley grants no interest in the Greeley GIC Water Rights to CWCB other than as explicitly set forth in this Agreement. CWCB shall make no claim to any right, title, or interest in the Greeley GIC Water Rights other than as explicitly set forth in this Agreement.

12. Termination. This Agreement expires at the end of its 15-year term, as described above. However, Greeley may terminate this Agreement at any time it reasonably believes in its sole discretion that the Greeley GIC Water Rights are at risk, or if the District Court for Water Division 1 or the Colorado Supreme Court denies the issuance of a decree for the Poudre River Augmentation Plan. Greeley shall provide written notice of such termination to CWCB as described below. Greeley or CWCB may terminate this Agreement if the Poudre River Augmentation Plan application is dismissed or withdrawn from Water Court, or if the Poudre River Augmentation Plan is not otherwise implemented, by providing written notice as described below.

13. Notice. All written notices or other communications pursuant to this Agreement shall be deemed sufficiently given when delivered in person, via email, or by certified mail of the U.S. Postal Service, postage pre-paid and return receipt requested, and addressed as follows:

To Greeley:

City of Greeley  
Attn: Roy Otto, City Manager

1000 10<sup>th</sup> Street  
Greeley, Colorado 80631

With copy to: Greeley Water and Sewer Department  
Attn: Water Resources Operations Manager  
1001 11<sup>th</sup> Avenue, Second Floor  
Greeley, Colorado 80631  
jennifer.petrzelka@greeleygov.com

And to: Greeley City Attorney's Office  
Attn: Environmental and Water Resources  
1100 10<sup>th</sup> Street, Suite 401  
Greeley, Colorado 80631  
daniel.biwer@greeleygov.com

To CWCB: Chief, Stream and Lake Protection Section  
Colorado Water Conservation Board  
1313 Sherman Street, Room 718  
Denver, Colorado 80203  
DNR\_CWCBISF@state.co.us

With copy to: Office of the Attorney General  
Water Conservation Unit  
1300 Broadway, 7<sup>th</sup> Floor  
Denver, Colorado 80220

14. Amendments. This Agreement may be amended only by written agreement duly authorized and executed by both Parties.

15. Attorney's Fees. If any suit, action, or alternative dispute resolution is instituted in connection with a controversy arising out of this Agreement or to enforce any rights hereunder, the Parties shall bear their own costs and fees associated with such proceeding.

16. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Colorado.

17. No Waiver of Governmental Immunity. Nothing in this Agreement shall be construed as a waiver, express or implied, by either Greeley or CWCB of any of the immunities, rights, benefits, protections, or other provisions, of the Colorado Governmental Immunity Act, C.R.S. §24-10-101 et seq., as applicable now or hereafter amended.

18. No Third Party Beneficiaries. This Agreement does not and is not intended by Greeley or CWCB to confer any rights or remedies upon any person or entity other than the Parties.

19. Fiscal Contingency. Notwithstanding any other provisions of this Agreement to the contrary, the obligations of the Parties in fiscal years after the fiscal year of this Agreement shall be subject to appropriation of funds sufficient and intended therefor, with the Party having the sole discretion to determine whether the subject funds are sufficient and intended for use under this Agreement, and the failure of the Party to appropriate such funds shall be grounds for the Party to terminate this Agreement with written notice pursuant to Paragraph 13.

20. No Waiver of Breach. The failure of either Greeley or CWCB to declare a breach of this Agreement does not establish a precedent nor constitute an implied waiver of subsequent breach of any of the terms and conditions in this Agreement. The failure of either Greeley or CWCB to require performance of a provision of this Agreement does not limit the right of that Party to enforce that provision in the future.

21. Complete Agreement. This Agreement contains the entire agreement and understanding of the Parties. All prior negotiations, discussions, or agreements related thereto, whether oral or written, express or implied, are integrated herein.

22. Severability. If any term or provision of this Agreement is found to be invalid, illegal, or unenforceable by a court of competent jurisdiction, such invalidity, illegality or unenforceability does not invalidate or render unenforceable any other term or provision of this Agreement. The remainder of the Agreement shall be interpreted in accordance with the intent of the Parties.

IN WITNESS WHEREOF, Greeley and CWCB have executed this Agreement Regarding the Use of Certain City of Greeley Water Rights in the Poudre River Augmentation Plan as of the date first set forth above.

**CITY OF GREELEY, COLORADO,  
a Colorado municipal corporation**

By: \_\_\_\_\_  
Mayor

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_  
City Clerk

**COLORADO WATER CONSERVATION BOARD,  
an agency of the STATE OF COLORADO**

By: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_



## MEMORANDUM

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To: Kaylea White, CWCB  
Linda Bassi, CWCB  
Jen Mele, CWCB  
Greg Sullivan, Spronk Engineering, LLC  
Heidi Welsh, Spronk Engineering, LLC

From: Jennifer Petzelka, Water Resources Operations Manager

Date: September 21, 2020

Re: City of Greeley Water to be Included in Poudre ISF Augmentation Plan

---

The Instream Flow Rules require the CWCB Board to consider certain information (factors) in determining whether to acquire any offered water for Instream Flow use. This memo is intended to provide information for the water right the City of Greeley is offering to the CWCB for use in the Poudre ISF Augmentation Plan.

### **GENERAL DESCRIPTION OF WATER RIGHTS**

The water rights originally decreed to Canal No. 3 in Civil Action No. 320 on April 11, 1882, of which 5/8ths belongs to the Greeley Irrigation Company (GIC), are as follows:

Priority	Appropriation Date	Amount (cfs)
Original (#35)	April 1, 1870	52.00
First Enlargement (#46)	October 1, 1871	41.00
Second Enlargement (#50)	July 15, 1872	53.13
Third Enlargement	May 15, 1873	16.67

Greeley changed 125.12 shares in the GIC in Case Nos. 99CW232 and 15CW3163. These rights divert off the lower Poudre and are fairly senior direct flow rights which entitle Greeley to deliveries of up to 25.27 acre-feet per share or 3,162 acre-feet annually. These limits are based on the ditch-wide analysis conducted prior to entry of what is commonly referred to as the Poudre Prairie decree (Case No. 96CW658). However, the average annual deliveries are 2,194 acre-feet for Greeley's 125.12 shares based on diversion data from 1950-2013 and an applied ditch loss of 15 percent.

Exhibit G4 (updated)  
Agenda Item 23b  
Nov 18-19, 2020

Of the 125.12 shares that Greeley has changed to the uses described in below, only 80.62 shares have been converted to municipal uses and have incurred return flow obligations. Most of these shares were converted because the historically irrigated lands have been developed and no longer need irrigation. The remaining shares not converted continue to be used for irrigation of agriculture or parks. Greeley intends to convert the remaining 44.5 shares once appropriate bypass structures are built that will allow Greeley to meet the return flow obligations for those shares and/or once the historically irrigated lands are developed or otherwise removed from irrigation as contemplated by Greeley's change decrees.

### **CHANGE OF USE OF OFFERED WATER RIGHTS**

Greeley changed these GIC shares, in part, to allow the uses described in paragraph 4.1.1 of the 99CW232 decree and paragraph 9.1 of the 15CW3163 decree:

4.1.1 Alternate Types of Use: All municipal purposes, including, but not limited to, domestic, irrigation, watering of lawns, parks and grounds, commercial, industrial, mechanical, manufacturing, fire protection, sewage treatment, power generation, street sprinkling, recreational fish and wildlife propagation, lake and reservoir evaporation, exchange (including further exchange within Greeley's system and with other water users), maintenance of adequate storage reserves, maintenance of operating detention, maintenance of historical return flows as required by judicial or administrative order, and replacement, augmentation or substitution. Greeley seeks the right to fully consume, whether by direct use, storage and subsequent release, reuse, successive use, further exchange or disposition, all water associated with the subject water rights that remains after the required return flow obligations have been met.

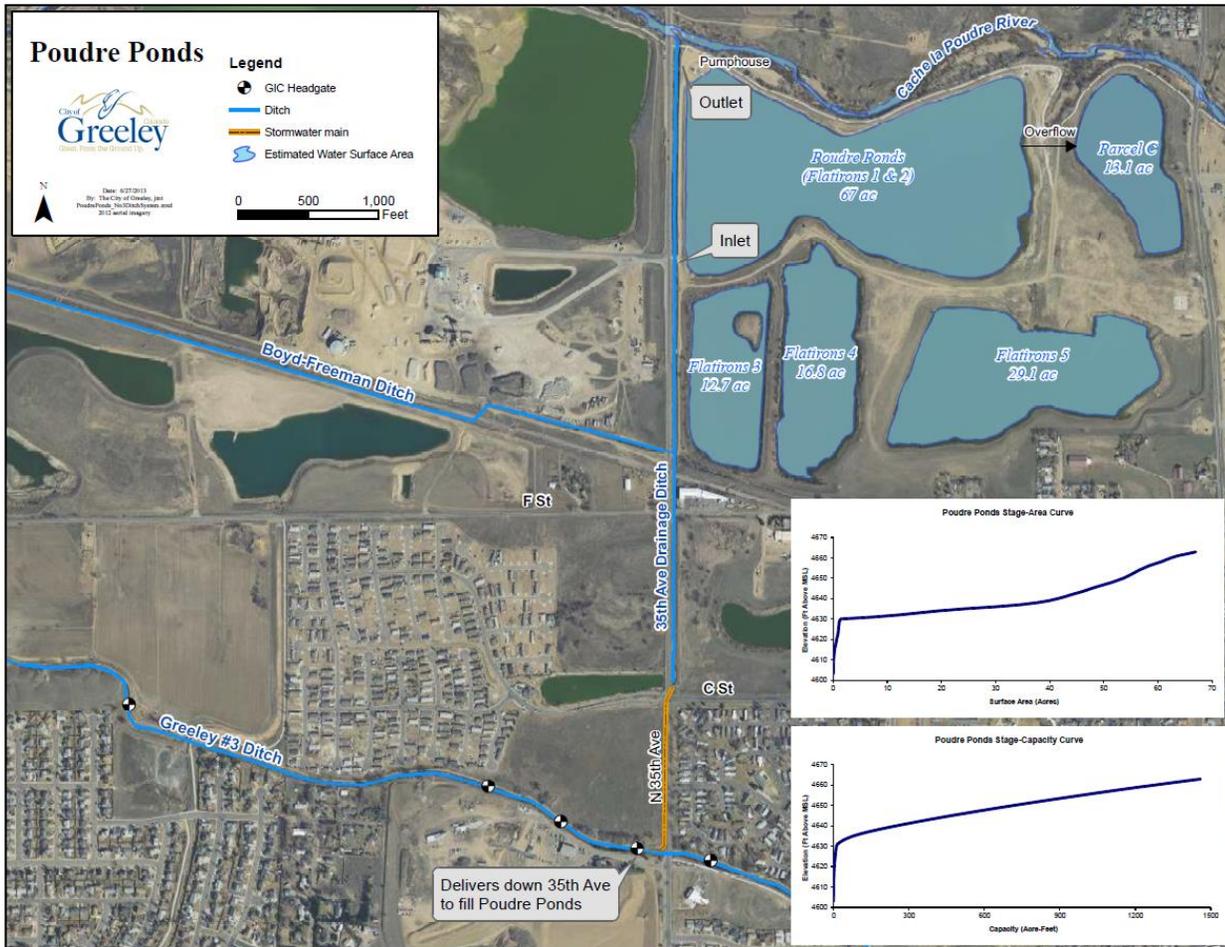
9.1 Alternate Types of Use: In addition to the originally decreed uses, Greeley will use the 77.8 Shares for the following uses, referred to hereinafter as the "Changed Uses": All municipal purposes, including but not limited to domestic, irrigation, watering of lawns, parks, and grounds, commercial, industrial, mechanical, manufacturing, fire protection, sewage treatment, power generation, street sprinkling, recreational, fish and wildlife propagation, replacement of lake and reservoir evaporation, exchange (including further exchange within Greeley's system and with other water users), maintenance of adequate storage reserves, maintenance of historical return flows as required by judicial or administrative order, wetlands creation, maintenance, and enhancement, environmental mitigation and restoration, and replacement, augmentation, or substitution, by direct use or exchange or by storage and subsequent release. Greeley seeks the right to fully consume, whether by direct use, storage and subsequent release, reuse, successive use, further exchange, or disposition, all water associated with the 77.8 Shares that remains after the required return flow obligations have been met. Greeley may use, reuse, and successively use water from the 77.8 Shares by exchange pursuant and subject to terms and conditions of the rights of substitution and exchange, including storage, decreed in Case Nos. 99CW231, 99CW234, and 05CW326 and any other subsequently-decreed rights of substitution and exchange or administrative approval that allow the 77.8 Shares to be used as a source of substitute supply. No appropriative rights of substitution or exchange are claimed or decreed herein.

Paragraph 3.2 of the 99CW232 decree and paragraph 8.5 of the 15WC3163 decree discuss the ditch-wide historical consumptive use quantification made in Case No. 96CW658.

### **CURRENT USE OF OFFERED WATER RIGHTS**

Currently, water attributable to Greeley's GIC shares is used in three different ways. Approximately 10 shares are delivered to the City's parks for non-potable irrigation. Greeley also uses shares to meet augmentation demands by returning water to the river at one of GIC's four existing return structures.

Greeley may store any remaining shares in its Poudre Ponds reservoirs for future use by releasing GIC shares at the 35th Ave ditch headgate. From the 35th Ave headgate, the water travels a short distance down 35th Avenue ditch to the Poudre Ponds intake (see map below). These operations could be adjusted once GIC water is dedicated to the ISF plan.



## WATER RIGHT AMOUNTS AVAILABLE FOR POUDBE RIVER ISF AUGMENTATION PLAN

The GIC water rights that Greeley is offering to the Poudre ISF Augmentation Plan have historically been diverted at the GIC headgate, therefore, the use of these shares will result in “new” water in the river beginning at the F-Street return structure. There are alternate points of diversion decreed for the shares changed in 99CW232, however, none of the APODs have been utilized yet.

Below is a table of the maximum amount of water available pursuant to Greeley’s GIC shares on a monthly and daily basis, based on average headgate deliveries (1950-2013) minus 15% ditch loss (per the decrees). Per the decrees, this water will only be available April 15th through October 31st. Due to the seniority of the ditch, diversions typically do not fluctuate greatly year to year. Greeley may not take diversions in excess of 3,162 acre-feet in any single year or 23,328 acre-feet in any consecutive 10 year period. There are no decreed flow rate limits or monthly volumetric limits. The headgate is limited to a diversion capacity of 125 cfs, which equates to a maximum of 18.75 cfs daily that Greeley could divert pursuant to their GIC shares.

While this table shows the maximum amount of water that could potentially be available in any given year, as part of the agreement with CWCB Greeley would like to decide prior to each water year the amount that the City will be dedicating to the plan. Regardless of year-to-year fluctuations in availability, Greeley can commit to dedicating a minimum of 20 shares or 1 cfs each year. The terms governing Greeley’s determination of such water availability are described more particularly in its Water Delivery Agreement. Factors that may change the amount of water available to the CWCB could include drought (current or predicted), other augmentation lease agreements that the City decides to enter in the future, and changes in operations or other augmentation requirements that may require the allocation of this water elsewhere. Greeley shall provide notice to CWCB no later than April 15 of each year, detailing the amount of water that CWCB will be entitled to use in the Poudre River Augmentation Plan for that irrigation year (i.e., April 15 through October 31).

	<b>Average monthly total (acre-ft)</b>	<b>Average daily rate (cfs)</b>	<b>Max daily rate (cfs)</b>
Nov	0	0	
Dec	0	0	
Jan	0	0	
Feb	0	0	
Mar	0	0	
Apr	74.31	1.25	4.40
May	358.50	5.83	11.94
Jun	444.50	7.47	13.41
Jul	545.23	8.87	16.17
Aug	455.34	7.41	12.44
Sep	334.71	5.62	11.69
Oct	155.21	2.52	7.21
Total	2,367.81		

**ADDITIONAL TERMS AND CONDITIONS**

There are no changes to the time, place, or amount of water available for diversion or exchange by others that should result from use of this water in the Poudre ISF Augmentation Plan. The 99CW232 and 15CW3163 change decrees require Greeley to divert its GIC shares at the original point of diversion (i.e., the headgate of Canal No. 3) to utilize the water in the plan.

The relevant terms and conditions to which the use of these water rights is subject are described in paragraph 14 *et seq.* of the 99CW232 decree and paragraph 20 *et seq.* of the 15CW3163 decree. Greeley must continue to divert the water attributable to its GIC shares initially at the Canal No. 3 headgate before releasing it back to the stream for augmentation use, and diversions are limited to the period of April 15 – October 31. Deliveries are subject to both an annual and a 10-year volumetric limit, as well as ditch loss. Greeley must also maintain the historical return flows associated with these water rights.

There is a bypass structure near the Ogilvy Ditch headgate owned by Colorado Energy Resources, LLC (CER) and Varra Companies, Inc. Per an agreement with CER, Greeley has the right to excess capacity of up to 15 cfs in the structure. The use of this structure will be necessary to bypass augmentation water when the Ogilvy Ditch is entitled to sweep the river. There is no fee for Greeley's use of the structure. Additional terms and conditions may be required in the augmentation plan decree to govern any necessary bypass of protected water at the Ogilvy Ditch headgate when the ditch is entitled to sweep the river.

### **GREELEY WATER RIGHTS OPERATIONS**

During the lease term, these water rights will continue to be diverted at the GIC headgate, which is located at the end of Segment E, as defined in the Preliminary Water Needs Assessment prepared by Spronk Water Engineers, LLC. The water rights will travel through the ditch approximately 1.84 miles, where the water will be released to the Poudre River via the GIC F-Street return structure located in the SW ¼ of Section 34, Township 6 North, Range 66 West of the 6th P.M. Greeley is entitled to utilize 22.5 cfs of the return structure capacity. After being put to use in the Poudre ISF Augmentation Plan, the water will be used to meet return flow obligations and other augmentation requirements due to the downstream calling water right on the South Platte. Water that is subject to the Water Delivery Agreement but not made available to the Poudre ISF Augmentation Plan in a particular year will continue to be used as described in the 'Current Use of Water Rights' section of this memo. Greeley's changed GIC water is being made available for use in this augmentation plan by the re-allocation of other sources to obligations currently being met by the GIC water.

In the future, if a return/bypass structure is built somewhere between the GIC headgate and F-Street return structure, Greeley would like to reserve the right to release at that location as an introduction point of water for protection in the Poudre ISF Augmentation Plan. The water rights will then flow through Segment F, after which they would be used to meet return flow obligations and/or augmentation obligations at the downstream calling right. The calling right in Segment F is the Ogilvy Ditch, which historically can sweep the river and has typically called during the month of August.

The table below illustrates the return flow obligations owed by Greeley in Segments E and F in an average year and attributable to Greeley-Loveland Irrigation Company System shares (GLIC), Water Supply and Storage Company shares (WSSC), and GIC shares. These obligations can be met with GIC shares dedicated to the Poudre ISF Augmentation Plan. The 'Total RFO's due in Average Year' represents the total obligations Greeley will incur once it has converted all previously changed GIC, WSSC and GLIC shares. Currently, some of these changed shares are still being used for irrigation and do not have a return flow obligation. Once Greeley converts these shares (i.e., puts them to municipal uses), Greeley will be required to pay the associated return flow obligations. Full conversion of shares still in irrigation is expected within the next 2 years for GIC shares, 10-15 years for GLIC shares and 15-20 for WSSC shares. The 'Current RFOs due in Average Year' are the RFOs Greeley is currently required to pay for the water rights it has converted to municipal uses.

If the Jones Ditch or GIC Ditch are calling in Segment E, Greeley will have to meet obligations to their headgates and therefore, the amount of return flow obligations that can be met with the GIC seed water will decrease. If the Ogilvy Ditch is calling, all the obligations in Segment F are due to that headgate. If the Jones, GIC, and Ogilvy are not calling, all obligations in Segment E and F are due to the downstream South Platte call and can be met with the GIC seed water. There are some RFOs due to the Patterson and Highland ditch but if these ditches are calling, Greeley will meet the obligation with direct releases from its water rights in the Greeley-Loveland Irrigation Company system. Refer to the map on page 10 for location of these ditches.

These return flow obligations will increase in the future as more supplies are changed and brought into municipal use. Greeley currently has unchanged shares in Greeley-Loveland Irrigation Company system, Water Supply and Storage Company, and Greeley Irrigation Company. Once these shares are changed for municipal use and removed from irrigation, return flow obligations in these segments will increase, creating an increased need for the GIC water rights beyond the end of the protected reach defined in the Poudre ISF Augmentation Plan. Greeley’s need for these shares in its municipal system is likely 20 to 40 years in the future.

	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Total</u>
<b><u>Total RFO' due in Average Year</u></b>								
Segment E	107	138	208	311	451	258	125	1,598
Segment F	173	277	397	583	759	471	241	2,900
<b><u>Current RFO's due in Average Year</u></b>								
Segment E	146	142	137	136	203	297	432	1,492
Segment F	167	163	156	149	261	407	482	1,785

The map on the following page is from the Preliminary Water Needs Assessment Report prepared by Spronk Water Engineers, LLC. The red arrows indicate where Greeley’s GIC seed water will enter the river for protection and as well as the points of “terminus” or where water rights will be placed to beneficial use and no longer available under the Poudre River Augmentation Plan.

R 70 W

R 69 W

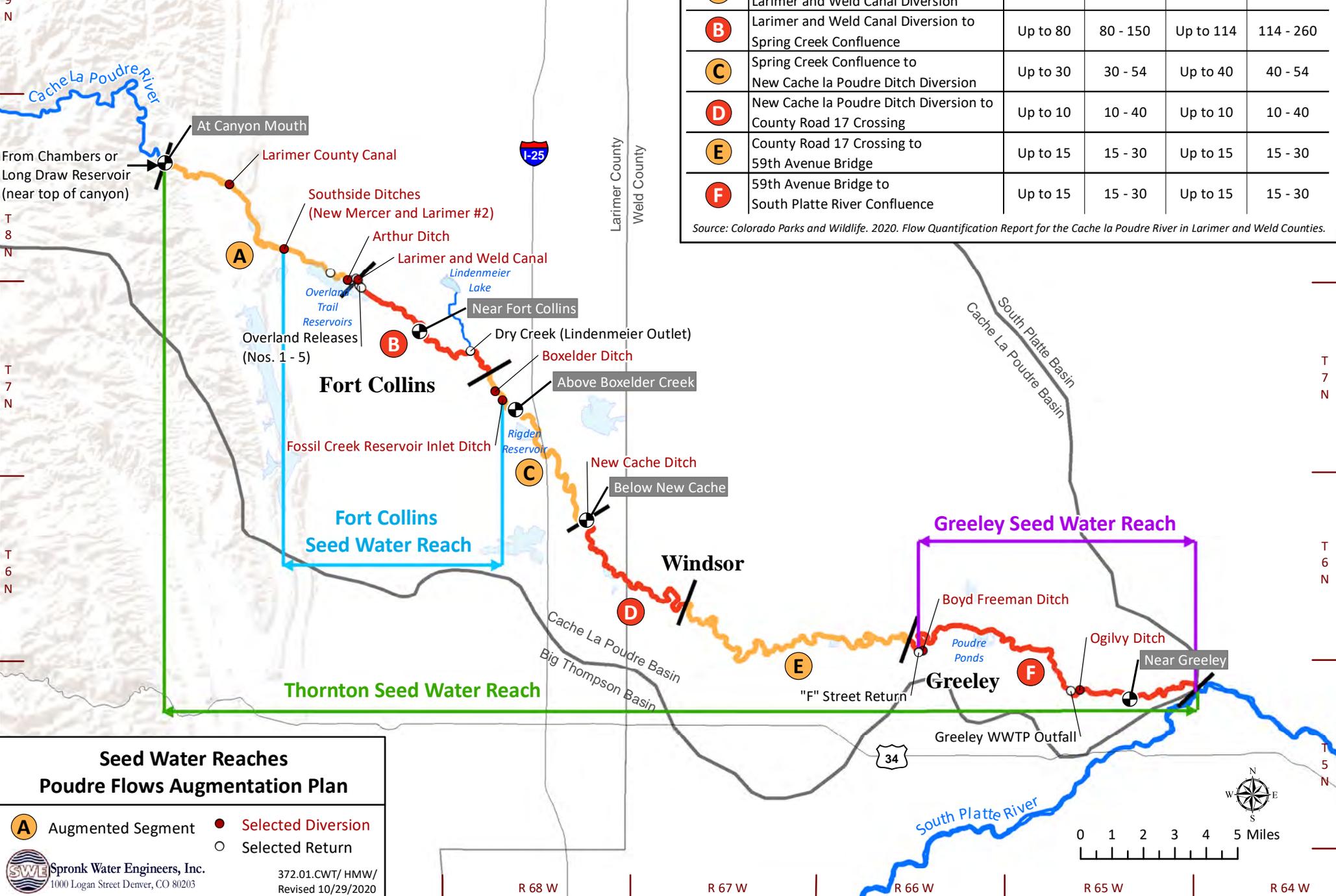
R 68 W

### Augmented Segments and Preserve/Improve Flow Rates (cfs)

Segment	Description	Winter (Nov 1 - Mar 31)		Summer (Apr 1 - Oct 31)	
		Preserve	Improve	Preserve	Improve
<b>A</b>	Canyon Gage to Larimer and Weld Canal Diversion	Up to 80	80 - 150	Up to 114	114 - 260
<b>B</b>	Larimer and Weld Canal Diversion to Spring Creek Confluence	Up to 80	80 - 150	Up to 114	114 - 260
<b>C</b>	Spring Creek Confluence to New Cache la Poudre Ditch Diversion	Up to 30	30 - 54	Up to 40	40 - 54
<b>D</b>	New Cache la Poudre Ditch Diversion to County Road 17 Crossing	Up to 10	10 - 40	Up to 10	10 - 40
<b>E</b>	County Road 17 Crossing to 59th Avenue Bridge	Up to 15	15 - 30	Up to 15	15 - 30
<b>F</b>	59th Avenue Bridge to South Platte River Confluence	Up to 15	15 - 30	Up to 15	15 - 30

Source: Colorado Parks and Wildlife. 2020. Flow Quantification Report for the Cache la Poudre River in Larimer and Weld Counties.

Note: Seed water reaches represent the reach between the uppermost point of introduction and lowermost point of withdrawal/use (not including potential leases of water further downstream).



### Seed Water Reaches Poudre Flows Augmentation Plan

- A** Augmented Segment
- Selected Diversion
- Selected Return

Spromk Water Engineers, Inc.  
1000 Logan Street Denver, CO 80203

372.01.CWT/ HMW/  
Revised 10/29/2020

R 68 W

R 67 W

R 66 W

R 65 W

R 64 W





# COLORADO

## Parks and Wildlife

Department of Natural Resources

Water Resources Section - Aquatic,  
Terrestrial, and Natural Resources Branch

November 5, 2020

Ms. Linda Bassi  
Ms. Kaylea White  
Colorado Water Conservation Board  
Stream and Lake Protection Section  
1313 Sherman Street, 7th Floor  
Denver, CO 80203

SUBJECT: Plan for Augmentation to Augment Stream Flows in the Cache la Poudre River

Linda and Kaylea:

The purpose of this letter is to provide the Colorado Water Conservation Board (CWCB) staff with Colorado Parks and Wildlife's (CPW) opinions regarding the potential acquisition of water rights to maintain, enhance, and improve river conditions on the Cache la Poudre River (Poudre River) in Division 1 as part of a plan for augmentation to augment stream flows in the Poudre River. The proposed acquisition arrangement involves the CWCB acquiring an interest in water rights through contractual agreements with the Cities of Thornton, Greeley, and Fort Collins. The Cities have provided the first set of water rights ("Seed Water") to be included in the augmentation plan to augment stream flows for the purpose of preserving and improving the natural environment to a reasonable degree in six segments of the Poudre River from the canyon mouth to the confluence with the South Platte River. The following represents CPW's opinions and recommendations on the acquisition of the Seed Water and on the concept of a plan for augmentation of stream flows on the Poudre River ("Poudre Flows Plan"). November will be the first of a two CWCB meeting process, in which the CWCB can take action on the proposed acquisition at the second January meeting. CPW's opinions and recommendations on the Seed Water from Fort Collins, Greeley, and Thornton are included in this letter.

### Background

Stream flows in the Poudre River above and through the City of Fort Collins have been a concern for many decades. There have been many attempts to address this issue with little success; in the late 1980s, the City of Fort Collins approached the state to investigate the possibility of an appropriated CWCB instream flow water right. The state quickly concluded that significant and complex water availability issues precluded such an approach because there simply was not enough water through the reach to support a new appropriation.

More recently, a group of local stakeholders, water users, and state agencies gathered with the common goal of developing a new approach to improve connectivity in the Poudre River. With several dry-up locations on the river for much of the year, water was not available for a traditional appropriation of water for instream flow use. The group has endeavored to pilot a

**Exhibit G5**  
**Agenda Item 23b**  
**Nov 18-19, 2020**



concept leveraging quantified augmentation supplies to meet instream flow needs. This novel concept adds replacement water to the Poudre River to satisfy non-consumptive, instream flow needs. The group, which stemmed from the FLOWS committee of the Poudre Runs Through It Group, is referred to as the Poudre Flows Group, and includes major water users in the Poudre Basin, including the Cache la Poudre Water Users Association, the City of Fort Collins, Northern Colorado Water Conservancy District, the City of Greeley, and the City of Thornton. The Colorado Water Trust has led this group of broad interests to solidify the concept of a plan for augmentation of stream flows and completed a legislative effort in early 2020 to clarify CWCB's statutory authority to file an application for such a plan for augmentation.

### **Natural Environment in the Poudre River**

The Poudre River has been extensively studied by CPW and other entities. The natural environment includes a somewhat diverse fishery consisting of both native and non-native species. The upper reaches of the Poudre River as it emerges from Poudre Canyon are typical cold-water trout habitat supporting rainbow and brown trout. As the river flows eastward through Fort Collins, the fishery transitions to a mixed cold water/cool water/warm water fishery. Trout occur regularly downstream to approximately Prospect Avenue, but persist in the system down to approximately the highway crossing at I-25; however, they are challenged and limited by low flows, reduced habitat, and higher water temperatures.

High public use exists throughout the urban stretch of the Poudre River. Considerable public access draws visitors to swim, tube, picnic, walk, bird watch, and fish. Recent fish population surveys indicate there are 1,000 to 2,000 trout per river mile within the Fort Collins area. Impacts associated with this high recreational use include accelerated bank erosion and degradation of natural values. Regardless, the Poudre River is an important resource for the community. Fishing and the overall health of the Poudre River is an important recreational driver for the local economy.

The transition zone of the Poudre River provides important habitat for cold-water species seasonally coming down from the canyon, as well as plains species that move up from the low gradient plains zone of the Poudre River. Fish species diversity increases as the river flows through Fort Collins, where native minnow, sucker, and darter species, as well as the Plains Topminnow (Tier 1 Species of Greatest Conservation Need, CPW State Wildlife Action Plan) start to show up in fish sampling efforts. East of I-25, the fishery is dominated by species in the darter, minnow, and sucker families.

The Poudre River is important from a native species conservation standpoint although sampling efforts show a declining trend in native species diversity and abundance. This is coincident with increased demands and water diversions, causing habitat fragmentation during periodic low flow conditions and fewer high flow events connecting the river with its floodplain. The Poudre Flows Plan will introduce sufficient water to improve upon low flow conditions and take necessary steps towards habitat connectivity for fish species in decline.

### **Evaluation of Flows Necessary to Preserve and Improve the Natural Environment**

Early in their process, the Poudre Flows Group asked CPW to assemble and analyze all existing biological and hydraulic data in order to develop instream flow recommendations to be used as flow targets for water acquisitions in this reach of the river. The quantification of flows required to both preserve and improve the natural environment to a reasonable degree is

summarized by CPW in the report titled “Flow Quantification Report for the Cache la Poudre River in Larimer and Weld Counties” dated October 2020.

In general, CPW used a combination of R2CROSS and PHABSIM data collected and published by a variety of parties over a period of ten years. The R2CROSS data was collected by CPW, Fort Collins, and CWCB staff; other data was collected and analyzed by several consulting firms working on various aspects of the Northern Integrated Supply Project (NISP) and Halligan and Seaman Reservoir expansion projects. Flow recommendations and segment delineations from the Flow Quantification Report are provided below:

Segment	Winter (November 1 - March 31)		Summer (April 1 - October 31)	
	Preserve Flow	Improve Flow	Preserve Flow	Improve Flow
A and B	Up to 80 cfs	80 - 150 cfs	Up to 114 cfs	114 - 260 cfs
C	Up to 30 cfs	30 - 54 cfs	Up to 40 cfs	40 - 54 cfs
D	Up to 10 cfs	10 - 40 cfs	Up to 10 cfs	10 - 40 cfs
E and F	Up to 15 cfs	15 -30 cfs	Up to 15 cfs	15 -30 cfs

Segment	Upper Terminus	Lower Terminus
A	Canyon Gage	Larimer/Weld Canal Diversion
B	Larimer/Weld Canal Diversion	Spring Creek Confluence
C	Spring Creek Confluence	New Cache la Poudre Diversion
D	New Cache la Poudre Diversion	County Road 17 Crossing
E	County Road 17 Crossing	59 <sup>th</sup> Avenue Bridge (Greeley)
F	59 <sup>th</sup> Avenue Bridge (Greeley)	South Platte Confluence

The Poudre River from the canyon mouth to the confluence of the South Platte River is considered an important transition zone fishery. Transition zones provide aquatic habitat conditions that support an array of species, including important native species with varying temperature and habitat preferences that can be unique to transition zones. Conditions within transition zones are not static and may shift seasonally or from year-to-year. The flow recommendations summarized in this report are based on physical habitat, but do not include habitat assessments for all native species and no direct temperature considerations were made. Future investigations to the relationship between habitat, flow, and thermal regime may be incorporated into CPW’s preferred flow targets to ensure favorable habitat and thermal conditions for native warm-water species using the transition zone.

### Seed Water Rights

The envisioned Poudre Flows Plan starts with the initial Seed Water donations from the Cities; augmentation water can be subsequently added to the Plan after appropriate review and approval processes by both the CWCB and Division of Water Resources (DWR). Water rights which may be added to the plan are limited to water rights for which historical consumptive use has been quantified and changed to augmentation. The initial Seed Water from Thornton, Greeley, and Fort Collins is described in more detail below. CPW is supportive of the benefits that will be provided individually and collectively from the Cities’ contributions of water.

### *Fort Collins*

Fort Collins has offered to the CWCB Seed Water which includes their shares in the Arthur Irrigation Company, the Larimer County Canal No. 2 Irrigating Company, and the New Mercer Ditch Company (which together with the Warren Lake Reservoir Company are collectively known as the Southside Ditches, however Warren Lake Reservoir Company shares are not included in the offered water rights). Shares were quantified and changed to include augmentation and other uses. Currently, water is being diverted and used for irrigation in their original ditch systems.

As part of the Poudre Flows Plan, each year Fort Collins will make a determination how much water will continue to be used for irrigation or municipal use, or be made available for use in the Poudre Flows Plan. Under typical operations, water will be used for instream flow augmentation in Segments A, B, and upper portions of C where the consumptive use portion of their shares will be diverted at Fossil Creek Reservoir Inlet Ditch (FCRID) for storage in Rigden Reservoir. Return flow obligations will be left in the river. Fort Collins may also deliver the consumptive use credits farther downstream to lease to other users.

Fort Collins' Seed Water Contribution may provide additional water between the Southside Ditches and FCRID in average daily rates *up to* 0.1 to 19 cfs between April and October, depending on Fort Collins' contribution in a given year. Added water will increase flows at two dry-up locations - increasing flows for both cold-water trout and native species and providing notable benefits to the heavily used urban stretch of the Poudre River surrounding Fort Collins.

### *Greeley*

Greeley has offered to the CWCB Seed Water which includes their water right shares in Greeley Irrigation Company (GIC) that were changed from irrigation to municipal use. Greeley's shares are currently being diverted at the GIC (Greeley #3) headgate. Seed Water part of the Poudre Flows Plan will travel approximately 2 miles down the canal where it will be released back to the Poudre River through the F-street return structure. As such, the reach benefitting from Greeley's Seed Water is between the F-Street Return and the confluence with the South Platte, although Greeley may choose to bypass water at the GIC headgate in the future.

Greeley will decide on a year-to-year basis how much water to dedicate to the Poudre Flows Plan, making no less than 1 cfs available each year. Greeley's Seed Water contribution may increase river flows by an average of *up to* 1.3 to 8.9 cfs between April through October. Maximum rates of up to 16 cfs in July may be provided. Additional water will benefit native species in Segment F representing the first step to restore connectivity at a known dry-up location during irrigation season.

### *Thornton*

Thornton has offered to the CWCB Seed Water which includes Water Supply and Storage Company Shares and Jackson Ditch Company Shares changed from irrigation use to municipal use. Thornton has proposed making all of this water available to the Poudre Flows Plan to meet downstream return flow obligations and stipulation requirements of changed water at various points within the six segments.

Benefits resulting from Thornton's Seed Water commitment will accrue over the entire Poudre Flows Plan reach extending from the canyon mouth to the South Platte River confluence.

Thornton's additions may increase river flows by an average of *up to* 1.5 cfs to 7.0 cfs year-round. Flow rates vary downstream as return flow obligations are satisfied, but this added water will provide year-round increased river flows to improve connectivity for cold-water trout and native warm-water fish species in Segments A through F.

### Conclusions and Recommendations

CPW applauds the efforts of the Poudre Flows Group to innovate a creative, market-driven approach to solving the complex water shortages facing the Poudre River. In addition to having broad support from water users in the Poudre River Basin, this plan for augmentation offers a unique solution to improve connectivity in an over-appropriated river without injuring vested water rights holders.

CPW strategic goals in the Poudre River include "supporting fish passage projects for warm-water and transitional zones and continuing focused fish community monitoring as it relates to water development and habitat restoration projects" (CPW South Platte Basin Plan, 2018). Both of these strategic goals align with flow restoration benefits that will be realized through the Poudre Flows Plan. The availability of sufficient water and flow regimes are a critical factor impacting fish communities, and CPW is hopeful the added water will help improve conditions for species in decline.

CPW is of the opinion that the proposed acquisition of the Seed Water will result in benefits, namely supporting improvements to habitat fragmentation throughout the Poudre River. We appreciate the collaboration amongst water users and the state to restore the Poudre River to a healthy, working river. CPW therefore believes that CWCB should proceed with this acquisition concept while continuing to coordinate with the water users, DWR, and CPW. As the Poudre Flows Plan is implemented, logistical hurdles related to administration and physical bypass of water at diversion structures are expected. CPW looks forward to being involved in these conversations as they unfold; incorporating fish passage for both trout and native species at physical barriers would provide notable connectivity benefits. As always, CPW staff will be available at the November 2020 CWCB meeting to answer any questions that the CWCB might have relating to this agenda item. Thank you for the opportunity to assist in this matter.

Sincerely,



Katie Birch  
Instream Flow Program Specialist

CC: Battige, Spohn, Wright, Conovitz, Armstrong, Harris, DeWalt, Leslie, Cannon, Surface