COLORADO
Division of Water Resources
Department of Natural Resources
Water Division 6 - Main Office

June 3, 2022

Ms. Kaylea White
Stream and Lake Protection Section
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

Re: Renewable Loan of Water for Colorado Water Conservation Board for Instream Flow-Stagecoach Reservoir
Pursuant to Section 37-83-105, C.R.S.
Section 33, T 5 N, R 84 W and Sections 9, 16, 21, and 28, T 4 N, R 84 W 6TH P.M.
Water Division 6, Water District 58, Routt County
DWR Plan ID: 5399, WDIDs: 5802164, 5804213

Approval Period: June 2, 2022 through June 1, 2032
Contact information for Ms. Kaylea White: 303-866-3441 x3240 and Kaylea.White@state.co.us

Dear Ms. White:

We have reviewed the letter dated March 21, 2022 submitted by Upper Yampa Water Conservancy District ("UYWCD") and the Colorado Water Trust ("CWT") for approval of a renewable loan of water pursuant to the renewable loan process under section 37-83-105(2)(a)(IV)(A), C.R.S., for the Colorado Water Conservation Board ("CWCB") for instream flow ("ISF") use. As required by section 37-83-105(2)(b)(II), C.R.S., written notice of the request for approval of a renewable ISF loan of water was provided on March 24, 2022 to all parties who have subscribed to the Division 6 Substitute Water Supply Plan ("SWSP") Notification List and the Division 6 ISF List. In addition, a public notice was placed in the local newspaper (Steamboat Pilot). The Division of Water Resources ("DWR") did not receive any comments during the statutory 60-day comment period. The statutory $300 filing fee (receipt no. 10020231) was submitted with this request.

Description and Statement of Duration

The UYWCD and CWT are proposing a renewable loan of a portion of UYWCD's water storage rights decreed to Stagecoach Reservoir to the CWCB to benefit the decreed ISF water right on the Yampa River.

Pursuant to section 37-83-105(2)(a)(IV)(A), C.R.S., a renewable loan will provide water to the CWCB for ISF use to preserve and improve the natural environment to a reasonable degree and would have a term of up to ten years. This renewable ISF loan will provide water for up to 120 days in each calendar year not to exceed five years and no more than three consecutive years during the 10-year period ending in 2032.

In 2012, the State Engineer approved a one-year temporary loan of UYWCD's storage rights decreed to Stagecoach Reservoir (WDID 5804213) to the CWCB for ISF use. In 2013, this approval was extended so that the loan could be operated for up to a total of three years in a ten-year period pursuant to section 37-83-105, C.R.S. (2012). That ten-year approval period expired on November 1, 2021. House Bill 20-1157 substantially modified the instream flow loan program. In particular, section 37-83-105(2)(a)(IV)(A), C.R.S. was modified to allow "renewable loans" to be approved for "up to two additional ten-year periods" after the first renewable loan approval. This renewable loan approval applies to releases beginning June 2, 2022 through June 1, 2032.

CWCB currently holds an ISF water right decreed in Case No. 2001CW106 on the Yampa River from the confluence with Morrison Creek (WDID 5802164), the upstream terminus, and extending to the inlet of Lake Catamount, the downstream terminus, for 72.5 cfs from April 1 through August 14 and for 47.5 cfs from August 15 through March 31. The Yampa River ISF water right was decreed to preserve the natural environment to a reasonable degree. At the time of appropriation, the Yampa River supported an outstanding rainbow and brown trout fishery. The renewable loan of water leased from UYWCD will be for ISF use within the same segment of the Yampa River as identified in Case No. 2001CW106 and shown on the attached map. The renewable loan is sought to preserve and improve the natural environment of the Yampa River within the CWCB's decreed ISF reach up to the preserve and improve flow rates. The renewable loan is anticipated to be operated during the summer and fall when river flows are below the preserve and improve flow rates described below.

Reservoir releases are expected to increase stream depth and wetted perimeter and to lower water temperature for the fish. In a letter dated January 13, 2022, the Colorado Division of Parks and Wildlife ("CPW") quantified flow rates to improve habitat conditions for sport fishes, brown and rainbow trout, as well as native mountain whitefish. On March 15, 2022, CWCB Board accepted the recommended rates for this project up to the following flow rates, as shown in the table below (taken from UYWCD's March 21, 2022 letter):

CPW Quantified Improvement Flows for Fish Habitat Maintenance

Flow Period	Timeframe	Flow Rate (cfs)
High Flow Period	April 1 - July 15	up to 250 cfs
Mid- to Late-Summer	July 16 - August 31	up to 150 cfs
Baseflow Period	September 1 - March 31	up to 100 cfs

At CWT's request, UYWCD will release water previously stored in Stagecoach Reservoir for use in the ISF downstream of the reservoir at a release rate not to exceed the improve rates quantified by CPW and shown in the table above, and the water released will be run through the hydropower turbine. The capacity of the hydropower turbine is 100 cfs.

Proponent's legal right to use the loaned water right

On December 1, 2021, CWT entered into a Water Supply Agreement ("Agreement") with the UYWCD for water stored in Stagecoach Reservoir to be released for decreed use(s) and use within

the ISF when the renewable loan is operated and river conditions permit. When the renewable loan is operated, CWT will sublease the water to the CWCB for ISF use. A copy of the Agreement between CWT and UYWCD was provided to this office with this request and is attached to this letter as Exhibit C. The term of the Agreement is for a 10-year period from the approval date of this renewable loan through December 1, 2031. UYWCD will first use the water stored in the Stagecoach Reservoir for the decreed use of hydropower generation and will deliver the Agreement water at the outlet of the reservoir where it will be administered to the upper terminus of the ISF reach. A transit loss must be assigned by the division engineer on the Agreement water released by UYWCD from the point of delivery to the place of ISF use.

The CWCB existing ISF water right decreed in Case No. 2001CW106 was identified as being more junior than some of the existing water rights on this segment of the Yampa River and may be out of priority during much of the irrigation season. Consistent with the terms and condition of the Agreement, UYWCD will make reservoir releases at the request of CWT for a specific volume amount to be allocated to one out of three volumes. According to Paragraph 6.1 of the Agreement, under Volume 1 each year during the period of the Agreement, UYWCD shall allocate 100 acre-feet of water to Volume 1 from its General Supply Pool. UYWCD will notify CWT if the full amount of Volume 1 is in storage no later than June 1 of each year during the period of this Agreement and CWT may request releases of the water allocated to Volume 1.

Paragraph 6.2 of the Agreement states that under Volume 2, no later than April 1 of each year during the period of the Agreement, UYWCD shall provide written notice to CWT whether it will allocate water to Volume 2. The notice to CWT will include the amount of water UYWCD will allocate to Volume 2, the Contract Pool from which the allocation is derived, the timing of the availability of such water, and the price per acre-foot of such water should it differ from the price for water stored in Volume 1. CWT may request releases of the water allocated to Volume 2.

Paragraph 6.3 of the Agreement states that at any time during the period of the Agreement UYWCD may elect to allocate water to Volume 3, subject to written notice to CWT whether it will allocate water to Volume 3. The notice to CWT will include the amount of water UYWCD will allocate to Volume 3, the Contract Pool from which the allocation is derived, the timing of the availability of such water, and the price per acre-foot of such water should it differ from the price for water stored in Volume 1. CWT may request releases of the water allocated to Volume 3.

CWT will be entitled to sub-contract with third-parties for use of the Agreement water released by UYWCD including to the CWCB, the City of Steamboat Springs, and/or Upper Colorado River Endangered Fish Recovery Program. No ISF use of the Agreement water can be made absent an agreement with the CWCB for such use. Therefore, a copy of the final signed sublease between CWT and CWCB must be provided to DWR prior to the leased water being used for ISF purposes. This letter only approves the loan of water for ISF purposes and does not address the use of the water by third parties other than CWCB.

Historical Use and Estimate of the Consumptive Use of the loaned water right

Stagecoach Reservoir is an on-stream reservoir on the Yampa River which is tributary to the Green River which is tributary to the Colorado River. Stagecoach Reservoir is owned and operated by the

UYWCD and it was originally decreed as Bear Reservoir by the Routt County District Court as part of Case No. CA3538, awarded priority 35A, with an appropriation date of September 30, 1961, for 11,614.2 acre-feet of storage. In Case No. 97CW84, the reservoir was awarded a decree for second filling for 6,670 acre-feet with an appropriation date of March 1, 1996. Stagecoach Reservoir has been recognized as an alternate point of diversion for several other water rights. Stagecoach Reservoir is primarily used for in-reservoir and hydropower uses and to a limited extent, downstream uses. Decreed in-reservoir uses include fish propagation, waterfowl habitat, and recreational uses. Decreed downstream reservoir uses include municipal, industrial, domestic, irrigation, stock watering, power production, and augmentation purposes directly and by exchange. Historic reservoir operations have included releases of water for decreed hydropower generation at the dam as well as contract releases of water, to a limited extent, for downstream industrial use, specifically power generation, at the Craig Generating Station.

The total capacity of the reservoir is 36,439 acre-feet to be filled by the water rights described in the table below:

Structure Name	Decreed Amount (Absolute)	Appropriation Date	Case Number
Bear Reservoir (renamed as the Stagecoach Reservoir)	11,614.2 AF	09/30/1961	CA3538 92CW26
Stagecoach Reservoir 2nd filing	6,670 AF	03/01/1996	97CW84
Pleasant Valley Reservoir*	20,854 AF	06/29/1959	CA3026 W946-76 92CW26
Four Counties Ditch No. 1 & 3**	233.93 CFS	06/02/1958	W1091-76 92CW26 95CW116 16CW3016
Yellow Jacket Ditch, Union Ditch, Little Chief Ditch***	514.8 AF	10/22/1888 (Yellow Jacket 2 cfs) 11/14/1889 (Union Ditch 7 cfs) 09/02/1904 (Little Chief Ditch 0.67 cfs) 06/01/1918 (Union Ditch 2 cfs) 06/01/1919(Yellow Jacket 4 cfs and Little Chief Ditch 1.33 cfs)	95CW0078

*The Stagecoach Reservoir (a/k/a Bear Reservoir) is an alternate point of diversion for Pleasant Valley Reservoir in the amount of 40,720 AF under the decree granted in Case No. W-946-76. In Case No. 92CW26, 20,854 AF of this amount was made absolute.

**In accordance with the decree in Case No. W1091-76 the water rights for the Four Counties Ditch No. 1 and 3 may be diverted for storage in the Stagecoach Reservoir in the amount of 1,779 cfs. In Case Nos. 92CW26 and 95CW116 a total of 151 cfs of this amount was made absolute. See also, Case No. 16CW3016 wherein the absolute right was enlarged to 233.93 cfs.

***Decreed for storage within Stagecoach Reservoir as a result of irrigated land inundated by the reservoir upon construction.

Under the Agreement, UYWCD will release water from Stagecoach Reservoir that was legally stored under the water rights described above. All of the water provided under the Agreement for ISF use will first be used for the decreed use of hydropower generation prior to being provided to CWCB for the un-decreed ISF use. A historical consumptive use analysis is not required in this case. DWR discussed the proposed operation of the renewable ISF loan with the Applicants in order to determine if there would be any potential diminution of flows that were historically available to water users in the instream flow reach subsequent to hydropower release from Stagecoach Reservoir. UYWCD confirmed that operation for the renewable ISF loan would result in releases of water from storage beyond the amounts historically released for Federal Energy Regulatory Commission (“FERC”) license bypass requirements and then available in the stream for

diversion below Stagecoach Reservoir. As noted above, any releases of water to fulfill the renewable ISF loan will be in addition to, or on top of, releases required to comply with the minimum release requirements of the FERC permit and the reservoir's operations when not fulfilling the renewable ISF loan. Therefore, the released water will not be water that was historically available to be diverted above and in the ISF reach, and thus there is no requirement to provide replacement of what could be historical return flows from hydropower.

The use of water from the reservoir for the new time, place, and type of use that are subject of this renewable ISF loan and the resulting decrease to the amount of water stored in the reservoir may increase the volume of future inflow to be stored necessary to fill the reservoir. However, this change in potential fill or refill diversions results from releases for hydropower use prior to ISF use, and therefore, fill and refill operations are in accordance with the decrees for Stagecoach Reservoir. DWR has reviewed the renewable ISF loan allowing the new time, place, and use of this water right and determined, as required by section 37-83-105(2)(a) and (2)(b), C.R.S., that it will not injure the existing water rights of others.

The timing of releases of water from the reservoir will depend upon the timing of stream flow shortages and operational constraints for the reservoir. Once the released water reaches the downstream terminus of the decreed ISF reach at Lake Catamount, the released water will no longer be used by the CWCB for ISF.

Conditions of Approval

This renewable ISF loan of water is hereby approved pursuant to section 37-83-105, C.R.S., subject to the conditions below:

1. This approval applies for releases beginning June 2, 2022 through June 1, 2032 and the renewable ISF loan may be exercised for up to 120 days in each calendar year not to exceed five years in the ten-year period and may not occur in more than three consecutive years during this approval period.
2. Approval of this renewable ISF loan of water is for the purposes stated herein, specifically for releases of Stagecoach Reservoir water for CWCB ISF use on the Yampa River reach identified in Case No. 2001CW106.
3. Operation of the leased water for ISF use cannot occur until a final signed sublease between the CWT and the CWCB is submitted to DWR.
4. The Applicants must provide the name, address, and phone number of the person who will be responsible for the operation of this renewable ISF loan of water to the SEO, the division engineer (Erin Light, at erin.light@state.co.us) within 20 days of the receipt of this approval.
5. The person responsible for the operation of this renewable ISF loan must notify the division engineer and the water commissioner 48 hours in advance of the first release in any year the renewable ISF loan is to be exercised with reference to the Plan ID 5399. Notice should be provided within 24 hours of any changes to the release including its cessation.

6. Reservoir releases and stream flows shall be measured as required by the Division Engineer. The Applicants shall install and maintain measuring devices as required by the Division Engineer for operation of this renewable ISF loan.

7. To provide water to be used for ISF, UYWCD will release water previously stored in Stagecoach Reservoir in addition to water that would normally be released to comply with the FERC license and the reservoir operations as described in the attached January 20, 2021 "Upper Yampa Water Conservancy District Stagecoach Reservoir Fill and Release Policy".

8. The volume of water released from the Stagecoach Reservoir pursuant to this renewable ISF loan approval will be refilled under the reservoir's decreed water right.

9. The Applicants must submit accounting reports to the division engineer (Erin Light, at erin.light@state.co.us) and the water commissioner on a daily basis or other interval acceptable to both of them. During the course of this approval, DWR may notify the Applicants to submit accounting information directly through DWR's website. The Applicants shall also provide a report to the division engineer and water commissioner by November 15th, which summarizes releases made pursuant to this renewable ISF loan of water. Accounting forms are subject to modification and approval by the division engineer. Accounting shall be in accordance with DWR's Reservoir Accounting Guideline.

10. The state engineer may revoke this renewable ISF loan of water or add additional restrictions to its operation, if at any time the state engineer determines that injury to other vested water rights has occurred or will occur as a result of the operation of this renewable ISF loan of water.

11. The decision of the state engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in a water court case or any other legal action that may be initiated concerning the renewable ISF loan. This decision shall not bind the state engineer to act in a similar manner in any other applications involving other renewable ISF loans and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicants. Any appeal of a decision made by the state engineer concerning a renewable ISF loan of water pursuant to section 37-83-105, C.R.S., shall be to the Division 6 water judge within fifteen days of the date of this decision.

Should you have any questions regarding this ISF loan of water, please contact Erin Light at (970) 291-0131 or erin.light@state.co.us

Sincerely,

For

Kevin G. Rein, P.E.
State Engineer, Director

Attachments: Map of the ISF reach
Exhibit C – Agreement between UYWCD and CWT
Exhibit D - Draft Agreement to Lease Water for ISF Use between CWT and CWCB
Reservoir Accounting Guideline
January 20, 2021 "Upper Yampa Water Conservancy District Stagecoach Reservoir Fill and Release Policy"

Ec: Andy Rossi, Upper Yampa Water Conservancy District, arossi@upperyeampawater.com
Pete Conowitz, Colorado Parks and Wildlife, pete.conowitz@state.co.us
Robert Viehl, Colorado Water Conservation Board, rob.viehl@state.co.us
Alyson Gould, Colorado Water Trust, agould@coloradowatertrust.org

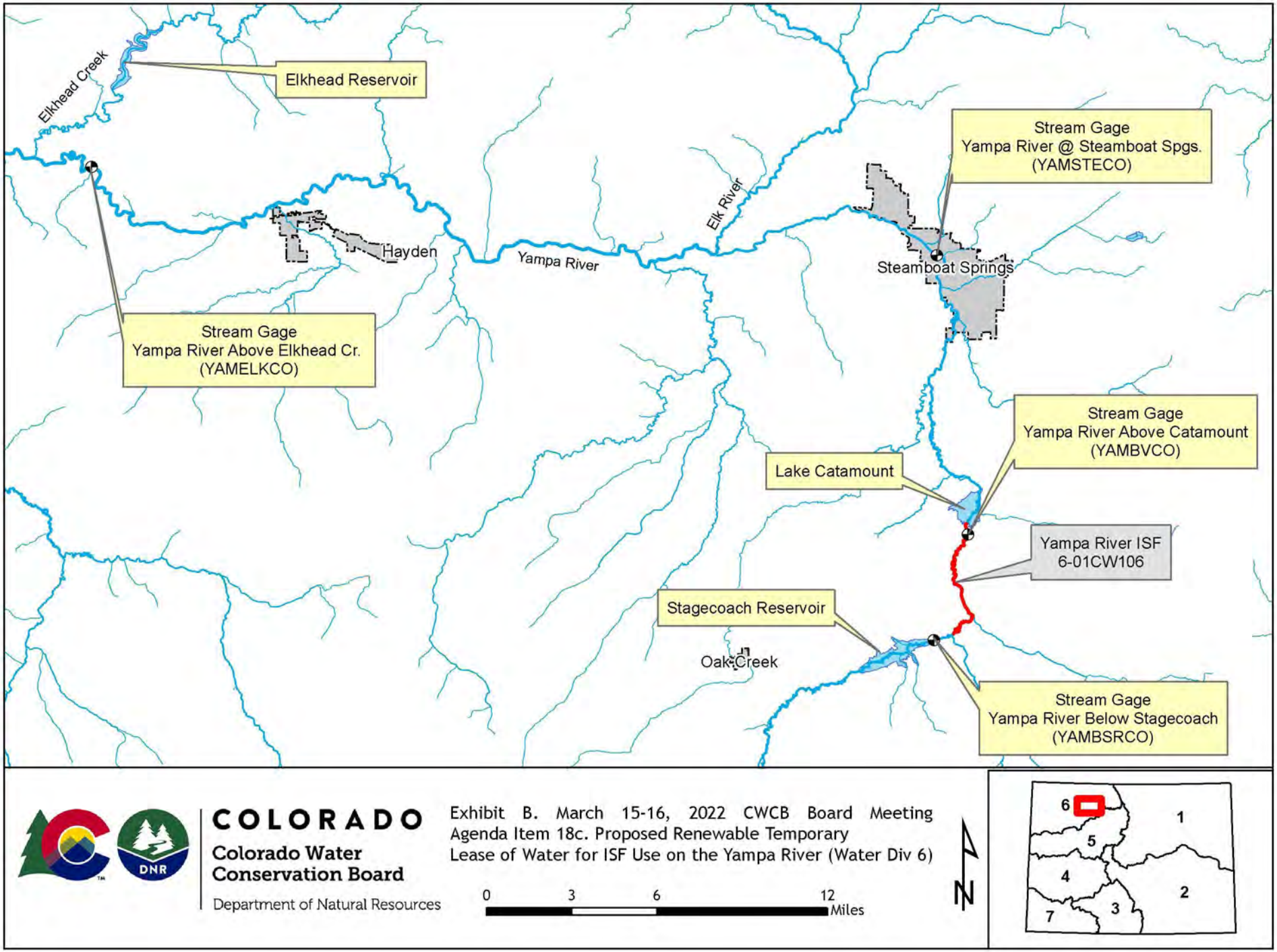
Elkhead Creek
Elkhead Reservoir
Stream Gage
Yampa River Above Elkhead Cr.
(YAMELKCO)
Hayden
Yampa River
Elk River
Stream Gage
Yampa River @ Steamboat Spgs.
(YAMSTECO)
Steamboat Springs
Stream Gage
Yampa River Above Catamount
(YAMBVCO)
Lake Catamount
Yampa River ISF
6-01CW106
Stagecoach Reservoir
Oak Creek
Stream Gage
Yampa River Below Stagecoach
(YAMBSRCO)
COLORADO
Colorado Water
Conservation Board
Department of Natural Resources
Exhibit B. March 15-16, 2022 CWCB Board Meeting
Agenda Item 18c. Proposed Renewable Temporary
Lease of Water for ISF Use on the Yampa River (Water Div 6)
0
3
6
12
Miles
N
6
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EXHIBIT C

WATER SUPPLY CONTRACT

Environmental, Instream & Recreational

This Water Supply Contract ("Contract") is entered into December 1, 2021 by and between **Upper Yampa Water Conservancy District**, a Colorado water conservancy district ("Upper Yampa"), and the **Colorado Water Trust** ("CWT"), a registered 501(c)(3) nonprofit organization ("CWT") (individually, "Party"; together, "Parties").

RECITALS

A. Upper Yampa is a Colorado water conservancy district formed under the Water Conservancy Act, C.R.S. §§37-45-101 through 153, and is the owner and operator of Stagecoach Reservoir (hereinafter referred to as the "Reservoir") located in Routt County, Colorado;

B. CWT is a Colorado nonprofit organization dedicated to restoring streamflow to Colorado's rivers in need through voluntary, market-based efforts;

C. Upper Yampa has stored and expects to annually store water in the Reservoir on the Yampa River under the absolute storage water rights it owns ("Water Rights"). Upper Yampa's Water Rights are set forth in EXHIBIT A, hereto;

D. Upper Yampa has designated certain pools of water within the Reservoir for the purpose of administration of the storage and release of water from the Reservoir (individually, "Contract Pool"; collectively, "Contract Pools"). Upper Yampa has adopted a filling priority for the various contract pools under the District Fill Policy, as set forth in EXHIBIT A, hereto; and

E. Upper Yampa desires to supply water to CWT from its Water Rights and subject to the terms of the District Fill Policy. CWT desires to purchase water from Upper Yampa to be released from the Reservoir to the Yampa River pursuant to the terms of this Contract.

NOW THEREFORE, in consideration of the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Upper Yampa and CWT agree as follows:

AGREEMENT

1. **Incorporation**. The Parties hereby incorporate by this reference the recitals set forth above.

2. **Term, Renewal & Project Contract Year.**

   2.1. Term. This Contract shall become effective upon approval of a temporary lease pursuant to C.R.S. § 37-83-105(b) by the Colorado Water Conservation Board ("Effective Date"). Unless otherwise terminated pursuant to the terms set forth herein, this Contract shall automatically expire ten (10) years ("Term") following the Effective Date, that date being December 1, 2031 ("Expiration Date").

2.2. Renewal. This Contract is not renewable; however, the Parties may at any time prior to the Expiration Date enter into a new water supply contract.

2.3. Project Contract Year. For the purposes of this Contract, "Project Contract Year" shall be the 12-month period from March 1 through the last day of February of the subsequent year, unless the beginning and end of such Project Contract Year is changed by the Division Engineer for Water Division 6.

3. **Source of Supply & Delivery.**

3.1. Storage & Delivery. Under the terms of this Contract and subject to physical water supply conditions, terms of the license issued to Upper Yampa by the Federal Energy Regulatory Commission, and the administration of the Water Rights by the State of Colorado, Upper Yampa agrees to store water in and release water from the Reservoir ("Contracted Water") at the request of CWT pursuant to the terms of this Contract.

3.2. Source. The source of the Contracted Water shall be water stored in the Reservoir pursuant to Upper Yampa's Water Rights. Unless specified otherwise herein, it shall be within Upper Yampa's sole discretion which or what combination of its Water Rights and/or Contract Pools will be used to fulfil its obligations under this Contract.

3.3. Point of Delivery. Upper Yampa will deliver the Contracted Water into the Yampa River at the discharge of the outlet of the Reservoir ("Point of Delivery"). Upper Yampa shall have no responsibility to transport or deliver Contracted Water at any other point aside from the Point of Delivery under this Contract.

3.4. Hydropower. At Upper Yampa's sole discretion, delivery of Contracted Water shall be made following generation of hydropower at the facility located at Stagecoach Dam.

3.5. Transit Losses. CWT shall bear carriage and transit losses for the Contracted Water released by Upper Yampa from the Point of Delivery to its place of use in such amounts as are determined by the Division Engineer for Water Division 6.

4. **Ownership & Operation**. It is expressly acknowledged that Upper Yampa shall be solely responsible for operating, repairing, maintaining, enlarging, permitting, changing, renovating, or modifying the Reservoir, and that Upper Yampa shall be the sole owner of the Water Rights and the dam and all facilities and all lands used in connection with the construction, operation, repair, maintenance, enlarging, permitting, changing, renovating, or modifying the Reservoir and all facilities in which Upper Yampa has ownership or rights that provide supplies of water for storage in the Reservoir. In no event shall CWT be liable for any direct, indirect, special, incidental, or consequential damages arising out of or attributable to Upper Yampa's activities, ownership, or interests as described in this Section 4. Nothing in the previous sentence bars claims against CWT by Upper Yampa under this Contract or arising out of or attributable to negligent or other tortious conduct of CWT.

5. **Records, Accounting & Inspection.**

5.1. Upper Yampa shall maintain records of all releases of water from storage in the Reservoir, and shall maintain records of water levels in the Reservoir measured not less frequently than once

per week. CWT shall be entitled to inspect such records and copies shall be furnished to CWT upon written request.

5.2. The Parties agree to communicate, coordinate, and cooperate, if needed, on any required or desired water use accounting.

5.3. Upper Yampa grants to CWT's staff and any of its professional consultants access to the Reservoir and Stagecoach Dam at reasonable times and under reasonably protective terms and conditions.

6. **Volumes.** For the purposes of this Contract, a "Volume" shall refer to a specific amount of Contracted Water stored by Upper Yampa that may be released at the request of CWT. Such water shall be allocated to one (1) of three (3) Volumes, each of which is subject to varying terms as set forth in ¶¶ 6.1 – 6.3, below.

6.1. **Volume 1**

6.1.1. Amount. Each Project Contract Year during the Term of this Contract, Upper Yampa shall allocate **100** acre-feet ("af") of water to Volume 1 from its General Supply Pool. Upper Yampa will notify CWT if the full amount of Volume 1 is in storage in the Reservoir no later than June 1 of each Project Contract Year during the Term of this Contract.

6.1.2. Releases. CWT may request releases of the water allocated to Volume 1 pursuant to the procedure set forth in ¶ 7, below. Contracted Water in Volume 1 shall be reserved exclusively for CWT and shall be released from storage only upon the specific request of CWT.

6.1.3. Payment. CWT shall make payment(s) to Upper Yampa as detailed in section 8 of this agreement no later than October 31 of each Project Contract Year during the Term. Such payments shall represent payment in full for the entire amount of water stored in Volume 1 regardless of whether CWT actually requests the release(s) of any or all such water.

6.1.4. Reversion of Interest. There shall be no book-over of any water in Volume 1 remaining in storage at the end of each Project Contract Year. Any and all interest CWT may have to water remaining in storage in Volume 1 at the end of the applicable Project Contract Year shall automatically expire and shall revert to Upper Yampa.

6.1.5. Seepage & Evaporation.

6.1.5.1. Upper Yampa shall allocate and charge any seepage and evaporation losses from water stored in the Reservoir against the Emergency Remainder Pool, and if there is insufficient water stored in the Emergency Remainder Pool, against the next most senior of the Contract Pools in ascending order of priority until all evaporation is accounted for and charged.

6.1.5.2. If evaporation is charged against the General Supply Pool, then Upper Yampa shall first charge the evaporation against the unallocated water in the General Supply Pool, and only if there is seepage and evaporation that still needs to be accounted for, then against water allocated to Volume 1 on a pro rata basis with other water that is stored and allocated to other water users in the General Supply Pool.

6.1.6. Insufficient Supply & Abatement.

6.1.6.1. If insufficient water is stored in the Reservoir to supply the full Contract Pools as measured at time of peak annual storage as reasonably determined by Upper Yampa, then the amount of water captured by Upper Yampa to fill the Reservoir shall be allocated for filling purposes to the Contract Pools in descending order of priority so that each Contract Pool is filled before allocation of any storage water to the next lower Contract Pool. Parties holding water from a Contract Pool that does not completely fill due to insufficient water available to that Contract Pool shall abate and share proportionately in any shortfall of stored water in that Contract Pool. If any part of the water allocated to CWT by this Contract is reduced by such abatement, Upper Yampa shall notify CWT in writing of such fact, and of the amount of the reduction in such water, by July 25th of each Project Contract Year and in the absence of such notice, the full amount of water for CWT shall be deemed to have been in storage on or prior to July 15th of each Project Contract Year. CWT will be credited against that Project Contract Year's contract purchase price for the amount of such abatement shortage in acre-feet allocated to CWT, multiplied by that Project Contract Year's purchase price per acre-foot.

6.2. **Volume 2**

6.2.1. Amount. No later than **April 1** of each Project Contract Year during the Term of this Contract, Upper Yampa shall provide written notice to CWT whether it will allocate water to Volume 2. Should Upper Yampa elect to allocate water to Volume 2, the notice sent to CWT shall include: (a) the amount of water Upper Yampa will allocate to Volume 2, (b) the Contract Pool from which the allocation is derived, (c) the timing of the availability of such water, and (d) the price per acre-foot of such water should it differ from the price for water stored in Volume 1.

6.2.2. Releases. If Upper Yampa elects to allocate water to Volume 2, CWT may request releases of the water stored in Volume 2 pursuant to the procedure set forth in ¶ 7, below. Water allocated to Volume 2 by Upper Yampa need not be reserved exclusively for CWT and may be released from storage for use by third-parties in the event Upper Yampa does not have other stored water then-available to meet that third-party's demand. In the event Upper Yampa elects to release water stored in Volume 2 to a third-party, Upper Yampa shall provide timely written notice to CWT of the amount then remaining in Volume 2, if any.

6.2.3. Payment. CWT shall make payment to Upper Yampa for all water actually released from the Volume 2 by Upper Yampa pursuant to the specific request of CWT. CWT shall make payment to Upper Yampa for the full amount actually released from Volume 2 prior to the beginning of the next Project Contract Year.

6.2.4. Reversion of Interest. There shall be no book-over of any water in Volume 2 remaining in storage at the end of the Project Contract Year. Any and all interest CWT may have to water remaining in storage in Volume 2 at the end of the applicable Project Contract Year shall automatically expire and shall revert to Upper Yampa.

6.2.5. Seepage & Evaporation. CWT shall bear no responsibility for seepage or evaporative losses from water allocated to Volume 2.

6.2.6. Insufficient Supply & Abatement. In the event of insufficient supply, as described in ¶ 6.1.6.1, above, Volume 2 shall be abated and share proportionately in any shortfall of stored water in the Contract Pool from which Volume 2 was allocated by Upper Yampa and such amount shall be automatically subtracted from the amount of water, if any, then allotted to Volume 2. In the event of such abatement, Upper Yampa shall provide timely written notice to CWT of the amount then remaining in Volume 2, if any.

6.3. **Volume 3**

6.3.1. Amount. At any time during the Project Contract Year during the Term of this Contract, Upper Yampa may elect to allocate water to Volume 3. Should Upper Yampa elect to allocate water to Volume 3, the notice sent to CWT shall include: (a) the amount of water Upper Yampa will allocate to Volume 3, (b) the Contract Pool from which the allocation is derived, (c) the timing of the availability of such water, and (d) the price per acre-foot of such water should it differ from the price for water stored in Volume 1. At any time during the Project Contract Year, CWT may inquire of Upper Yampa whether any water is then available to be allocated to Volume 3. Upper Yampa shall provide CWT a timely response to such inquiry.

6.3.2. Releases. If Upper Yampa elects allocate water to Volume 3, CWT may request releases of the water allocated to Volume 3 pursuant to the procedure set forth in ¶ 7, below. Water allocated to Volume 3 by Upper Yampa need not be reserved exclusively for CWT and may be released from storage for use by other third-parties at Upper Yampa's sole discretion. In the event Upper Yampa elects to release water stored in Volume 3 to a third-party, Upper Yampa shall provide timely written notice to CWT of the amount then remaining in Volume 3, if any.

6.3.3. Payment. CWT shall make payment to Upper Yampa for all water actually released from Volume 3 by Upper Yampa pursuant to the request(s) of CWT. CWT shall make payment to Upper Yampa for the full amount actually released from Volume 3 prior to the beginning of the next Project Contract Year.

6.3.4. Reversion of Interest. There shall be no book-over of any water in Volume 3 remaining in storage at the end of the Project Contract Year. Any and all interest CWT may have to water remaining in Volume 3 at the end of the applicable Project Contract Year shall automatically expire and shall revert to Upper Yampa.

6.3.5. Seepage & Evaporation. CWT shall bear no responsibility for seepage or evaporative losses from water stored in Volume 3.

6.3.6. Insufficient Supply & Abatement. In the event of insufficient supply, as described in ¶ 6.1.6.1, above, Upper Yampa may reduce the amount allocated to Volume 3 at its discretion. In the event of such abatement, Upper Yampa shall provide timely written notice to CWT of the amount then remaining in Volume 3, if any.

7. **Release Requests**. CWT may request releases of Contracted Water from any one or more of the Volumes then containing water pursuant to the terms of this Contract. Such release requests shall be subject to the procedure set forth in ¶¶ 7.1 – 7.3, below.

7.1. CWT shall send a written request to Upper Yampa containing the following information concerning the requested release: (a) Volume(s), (b) amount (af), (c) release rate (cfs), (c) start date, and (d) end date (together, "Release Schedule"). Except in times of emergency, CWT shall deliver the written request at least forty-eight (48) hours prior to the requested date of release.

7.2. Upper Yampa will make a reasonable effort to accommodate CWT's requested Release Schedule. However, CWT recognizes that Upper Yampa may use releases from the Reservoir to generate hydropower at the outlet of the Stagecoach Dam and other operational constraints may exist.

7.3. Following receipt of CWT's release request, Upper Yampa shall timely respond to CWT in writing: (a) confirming the Release Schedule will be followed, or (b) stating that the Release Schedule cannot be accommodated, the reason therefor, and a proposed alternate Release Schedule. In the latter event, Upper Yampa and CWT shall coordinate on mutually agreeable Release Schedule.

8. **Purchase Price & Payments.**

8.1. Volume 1. The annual price per acre-foot for the Contracted Water stored in the Volume 1 shall be an amount equal to the greater of: (a) $**45.56** per af (price set forth in the Water Marketing Policy dated March 17, 2021) or (b) $**45.56** per af (price set forth in the Water Marketing Policy dated March 17, 2021) multiplied by a fraction, the denominator of which is the Consumer Price Index for All Urban Consumers, Denver-Boulder-Greeley Metropolitan Area, "All Items" (1982 – 84 = 100), published by the Bureau of Labor Statistics of the United States Department of Labor (the "CPI") for the semi-annual period ending December 31 in the Project Contract Year prior to the First Project Contract Year and the numerator of which is the CPI for the semi-annual period ending December 31 of the prior Project Contract Year. In the event the Bureau of Labor Statistics discontinues publication of the CPI in the format existing as of the Effective Date, then Upper Yampa shall select a reasonably comparable price index, which index shall be substituted for the CPI in this paragraph. If the base year used in computing the CPI is changed, the adjustment to the purchase price shall be changed accordingly, so that all applicable increases in the CPI are considered, notwithstanding any such change in the base year.

8.2. Volumes 2 & 3. The annual purchase price for water in Volumes 2 and 3 shall be specified in the notice(s) identified in ¶¶ 6.2.1 and 6.3.1, respectively, above.

8.3. Payments. The annual payments for the Contracted Water released pursuant to the request of CWT shall be made by CWT to Upper Yampa on the dates specified in ¶¶ 6.1.3, 6.2.3, or 6.3.3, as applicable, above. Any annual payment not made within thirty (30) days after the due date shall bear interest at the rate of twelve percent (12%) per annum until paid. CWT shall not be permitted to withhold any payment required for any reason whatsoever, except only in the event the full amount for Volume 1 has not been stored in the Reservoir by April 1 as described in ¶ 6.1.1, above.

9. **Use, Reuse, & Sub-Contracting.**

9.1 Use & Reuse. CWT shall be entitled to use, successively reuse, and use to extinction any and all Contracted Water released by Upper Yampa pursuant to this Contract. For the purposes of

this Contract, "use" shall be understood to include use, successive use, and reuse to extinction.

9.2 Subcontracting. CWT shall be entitled to sub-contract with third-parties for use of Contracted Water released by Upper Yampa pursuant to this Contract, including without limitation, the Colorado Water Conservation Board, the City of Steamboat Springs, and/or Upper Colorado River Endangered Fish Recovery Program. No instream flow use of the Contracted Water shall be made absent an agreement with the Colorado Water Conservation Board for such use. Payments made to CWT by a third-party pursuant to a sub-contract shall be at the discretion of CWT and shall belong exclusively to CWT. Notwithstanding anything elsewhere contained in this Contract, any use of the Contracted Water outside the boundaries of the District must be in compliance with C.R.S § 37-45-118.

9.3. Type and Location of Use. The Contracted Water may be used in the Yampa River channel or outside of the Yampa River channel for beneficial uses, including without limitation, instream flow, water quality, municipal, industrial, agricultural, augmentation, exchange, piscatorial, and domestic purposes. Initial use of the Contracted Water must occur within Upper Yampa's boundaries as they currently exist or may exist in the future. Subsequent use or reuse of the Contracted water may either occur within or outside of Upper Yampa's boundaries as they currently exist or may exist in the future.

9.4. Limitations. Notwithstanding the above, the Contracted Water shall not be used to provide water supply to any parcel of land that was previously served with water rights that were either: (a) conveyed out of the Upper Yampa District Boundary or (b) changed from irrigation to another use resulting in fallowing of the previously irrigated land. Likewise, CWT shall not supply any Contracted Water to a third-party that prematurely terminates an existing water supply contract with Upper Yampa or other parties for the purposes of entering a sub-contract with CWT at a price lower than the price that the third-party agreed to pay under its prematurely-terminated contract with Upper Yampa or other parties.

10. **Legal Approvals**. In the event CWT requires legal or administrative approval(s) to use the Contracted Water for its anticipated beneficial use or to permit or authorize subsequent re-use of the Contracted Water pursuant to Sections 9.2, 9.3, and 9.4 above, CWT shall be solely responsible for applying for and obtaining such approval(s). As reasonably requested by the CWT, Upper Yampa will cooperate with CWT in fulfilling CWT's responsibilities as described in this ¶ 10.

11. **Termination**.

11.1. This Contract may be terminated only as described herein, or upon mutual agreement of the Parties.

11.2. Either Party may terminate this Contract for a material breach of the terms of this Contract by the other Party; provided that the terminating Party has first given at least sixty (60) days prior written notice specifying in detail such material breach and giving the other Party the right within such sixty (60) day period to cure and remedy such material breach.

11.3. Either Party may terminate this Contract if its legal ability to deliver Contracted Water is materially impaired or is eliminated because of the termination or adverse modification of

permits, decrees, or other authorizations or legal or administrative findings that are necessary to deliver the Contracted Water pursuant to this Contract; provided that the terminating Party has first given at least sixty (60) days prior written notice to the other Party specifying the issue and steps taken to resolve the issue.

11.4. Upper Yampa may also terminate this Contract if it reasonably believes that any legal or administrative proceedings initiated by CWT as contemplated in ¶ 10, above, materially threatens or interferes with Upper Yampa's authority to contract for delivery of Contracted Water or in any other way may injure Upper Yampa's Water Rights, permits, or other interests associated with Upper Yampa's Water Rights or the Reservoir or Reservoir operations.

11.5. Notice of Termination. Either Party may notify the Division Engineer and any other appropriate governmental officials of any termination of this Contract. Such notice will be provided in writing and will include a contemporaneous copy to the other Party.

12. **Force Majeure**. In the event either Party is unable to perform its obligations under the terms of this Contract because of acts of God; natural disasters; actions or omissions by governmental authorities; unavailability of supplies or equipment critical to perform; major equipment or facility breakdown; and changes in Colorado or federal law, including, without limitation, changes in any permit or other causes reasonably beyond that Party's control, such Party shall not be liable to the other Party for any damages resulting from such failure to perform or otherwise from such causes.

13. **Remedies**.

13.1. Notice of Breach. Prior to commencing any action for enforcement of this Contract, the Party alleging a material breach of this Contract shall give the other Party no less than sixty (60) days prior written notice specifying in detail such material breach and giving the other Party the right within such sixty (60) day period the opportunity to cure and remedy such material breach.

13.2. Available Relief. Specific performance, restraining order(s) and/or injunctive relief shall be the exclusive remedy or remedies for the violation or default by a Party in any provision of this Contract, provided nothing herein shall limit Upper Yampa's ability to collect damages for sums of money required to be paid by CWT hereunder, including interest on such payment obligation under ¶ 8.3 above.

13.3. Award of Attorney's Fees & Costs. In the event of litigation between the Parties with respect to this Contract, the Party substantially prevailing in such litigation shall recover from the other Party all reasonable attorneys' fees and the reasonable costs of discovery incurred by the substantially prevailing Party.

14. **Notice**. Any notice required or permitted to be given by a Party under or in connection with this Contract shall be in writing and shall be deemed duly given when personally delivered or sent by: (a) registered or certified mail, return receipt requested, postage prepaid, (b) expedited courier service, or (c) email with confirmation of receipt, to the following addresses:

If to Upper Yampa: Upper Yampa Water Conservancy District
Attention: General Manager
P.O. Box 775529
Steamboat Springs, Colorado 80477
Email: arossi@upperyampawater.com

If to Colorado Water Trust: Colorado Water Trust
Attention: Director of Programs
3264 Larimer St., Suite D
Denver, CO 80205
Email: mohara@coloradowatertrust.org

With a copy to: Colorado Water Trust
Attention: Staff Attorney
3264 Larimer St., Suite D
Denver, CO 80205
Email: agould@coloradowatertrust.org

Each party may change its address or contact information for notices under this Contract upon written notice to the other Party in accordance with this paragraph.

15. **Miscellaneous.**
    15.1. Choice of Law. This Contract shall be construed in accordance with the laws of the State of Colorado, without reference to conflicts of laws.
    15.2. No Joint Venture. Notwithstanding any language in this Contract or any representation or warranty to the contrary, none of the Parties shall be deemed or constitute a partner, joint venturer, or agent of the other Parties. Any actions taken by the Parties pursuant to this Contract shall be deemed actions as an independent contractor of the other.
    15.3. Assignment.
        15.3.1. This Contract may be assigned by Upper Yampa without the prior written consent of CWT to any entity that succeeds Upper Yampa in the ownership of the Reservoir, and Upper Yampa or such successor may collaterally assign the proceeds of this Contract to any entity providing financing to Upper Yampa or its successor.
        15.3.2. This Contract shall not be assigned by CWT without the prior written consent of Upper Yampa. Such consent may be conditioned or withheld by Upper Yampa in its discretion.
    15.4. Heirs & Assigns. This Contract shall inure to and be binding on the heirs, executors, administrators, successors, and permitted assigns of the Parties.
    15.5. Amendment. No amendment, modification, or novation of this contract or its provisions and implementation shall be effective unless subsequently documented in writing that is approved and executed by both Parties with the same formality as they have approved and executed the original Contract.
    15.6. Waiver. No waiver of any of the provisions of this Contract shall be deemed to constitute a waiver of any other of the provisions of this Contract, nor shall such waiver constitute a

continuing waiver unless otherwise expressly provided herein, nor shall the waiver of any default hereunder be deemed a waiver of any subsequent default hereunder.

15.7. Severability. If any provision of this Contract is held illegal or unenforceable in a judicial proceeding, such provision shall be severed and shall be inoperative, and the remainder of this Contract shall remain operative and binding on the Parties.

15.8. Merger. This Contract constitutes the entire Contract between the Parties and sets forth the rights, duties, and obligations of each to the other as of the Effective Date. Any prior Contracts, promises, negotiations, or representations not expressly set forth in this Contract are of no force and effect.

15.9. No Third-Party Beneficiaries. This Contract does not and is not intended to confer any rights or remedies upon any person or entity other than the Parties. It is expressly understood and agreed that enforcement of the terms and conditions of this Contract and all rights of action relating to such enforcement shall be strictly reserved to the Parties.

15.10. Headings. The headings contained in this Contract are for reference purposes only and shall not affect in any way the meaning or interpretation of this Contract.

15.11. Non-Discrimination. The Parties will fulfill their obligations under this Contract without discriminating, harassing or retaliating on the basis of race, color, national origin, ancestry, sex, age, pregnancy status, religion, creed, disability sexual orientation, genetic information, spousal or civil union status, veteran status, or any other status projected by applicable law.

15.12. Authority. Each Party represents that it has obtained all necessary approvals, consents, and authorizations to enter into this Contract and to perform its duties under this Contract; the person executing this Contract on its behalf has the authority to do so; upon execution and delivery of this Contract by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Contract does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

[Remainder of page intentionally blank. Signatures to follow.]

IN WITNESS WHEREOF, CWT and Upper Yampa have executed this Contract on the dates set forth below.

UPPER YAMPA WATER CONSERVANCY DISTRICT
(Upper Yampa)

DATE: Dec 1, 2021

BY: Ken Brenner
Ken Brenner (Dec 1, 2021 09:12 MST)

President, Upper Yampa Board of Directors

ATTEST:

Andy Rossi, General Manager
Upper Yampa Water Conservancy District

COLORADO WATER TRUST (CWT)

DATE: November 30, 2021

BY: Andy Schultheiss

Executive Director

EXHIBIT D

Draft dated: 3/16/22

TEMPORARY LEASE FOR INSTREAM FLOW USE
WATER DELIVERY AGREEMENT

This Water Supply Subcontract ("Subcontract") is entered into on **[_____ ___, 202__]** by and between the **Colorado Water Conservation Board**, an agency of the State of Colorado ("CWCB"), and the **Colorado Water Trust**, a Colorado nonprofit corporation ("CWT"), (individually, "Party"; together, "Parties").

RECITALS

A. The CWCB is an agency of the State of Colorado whose mission is to conserve, develop, protect, and manage Colorado's water for present and future generations;

B. Pursuant to C.R.S. § 37-92-102(3) the CWCB may acquire water by contractual agreement for the purpose of preserving or improving the natural environment to a reasonable degree. Further, pursuant to C.R.S. § 37-83-105, the CWCB may accept a temporary loan or lease of water for same said purposes ("ISF Lease Program") subject to certain statutory and regulatory conditions and procedures;

C. CWT is a Colorado nonprofit organization dedicated to restoring streamflow to Colorado's rivers when and where in need through voluntary, market-based efforts;

D. CWT is party to a water supply contract with the Upper Yampa Water Conservancy District ("UYWCD") dated December 1, 2021 ("Upper Yampa Contract"; attached hereto as **EXHIBIT A**), providing for storage and release of water from Stagecoach Reservoir ("Stagecoach Water");

E. The Upper Yampa Contract allows CWT to request releases of Stagecoach Water from Stagecoach Reservoir that may first be used to generate hydropower at the Stagecoach Reservoir Dam and may then be put to subsequent downstream use and reuse to extinction;

F. CWCB holds an appropriated instream flow right in the Yampa River decreed in Case No. 01CW106 ("Yampa ISF Decree"; attached hereto as **EXHIBIT B**) with annual flow rates of 72.5 cfs from April 1 to August 14 and 47.5 cfs from August 15 to March 31 through the Yampa River stream segment from the confluence with Morrison Creek to the inlet of Lake Catamount, being a distance of approximately 5.4 miles ("Yampa ISF Reach").

G. CWT desires to temporarily lease Stagecoach Water to the CWCB's ISF Lease Program for use in the Yampa ISF Reach and CWCB desires to accept a temporary lease of the Stagecoach Water for use in the Yampa ISF Reach subject to the terms of this Subcontract ("Temporary ISF Lease");

H. Pursuant to C.R.S. §§ 37-92-102(3) and 37-83-105 and 2 C.C.R. 408-2 Rule 6b, the CWCB is required to consider and decide whether to accept a proposed lease of water rights for instream flow use. In so doing, the CWCB is required to undertake certain procedures, consider particular matters, and make specific findings. The CWCB completed these requirements and on **March 15, 2022** directed CWCB staff to move forward with the Temporary ISF Lease.

I. As a part of its process to evaluate the Temporary ISF Lease, the CWCB requested a biological analysis from Colorado Division of Parks and Wildlife ("CPW"). The CPW's analysis, dated **January 13, 2022,** considered the flow rates necessary to preserve and improve the natural environment to a reasonable degree, and the extent to which the proposed Temporary ISF Lease will help to provide such flow rates ("CPW's Biological Analysis"; attached hereto as **EXHIBIT C**). Pursuant to CPW's Flow Analysis, the flow rates set forth in the table below will preserve and improve the natural environment to a reasonable degree in the Yampa ISF Reach:

Improve Flow Rates (Recommended by CPW)		
High Flow Period	April 1 – July 15	up to 250 cfs
Mid- to Late-Summer	July 16 – August 31	up to 150 cfs
Baseflow Period	September 1 – March 31	up to 100 cfs
Preserve Flow Rates (Decreed in Case No. 01CW106)		
Summer Season	April 1 - August 14	72.5 cfs
Winter Season	August 15 – March 31	47.5 cfs

("Yampa ISF Preserve and Improve Flow Rates");

J. Pursuant to C.R.S. § 37-83-105(2), the State Engineer is required to consider whether a proposed lease of water rights to instream flow use would cause injury to other water rights, decreed exchanges, and undecreed exchanges administratively approved before the date the request was filed. In so doing, the State Engineer is required to undertake certain procedures and make certain findings after a 60-day comment period. This Temporary ISF Lease is contingent on the State Engineer's approval;

NOW THEREFORE, in consideration of the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, CWCB and CWT agree as follows:

AGREEMENT

1. **Incorporation**. The Parties hereby incorporate by this reference the recitals set forth above.

2. **Term.**

2.1. Effective Date. This Subcontract shall become effective upon the of the State Engineer's approval of the Temporary ISF Lease, as required by C.R.S. § 37-83-105(2)(a)(IV)(A) ("Effective Date").

2.2. Expiration Date. Unless otherwise terminated pursuant to the terms set forth herein, this Subcontract shall automatically expire ten (10) years ("Term") following the Effective Date, that date being **[_____ __, 20__]** ("Expiration Date"), which date shall coincide with expiration of the allowed Temporary ISF Lease approval period set forth in C.R.S. § 37-83-105(2)(a)(IV)(A).

3. **Source of Water & Use of Water.**

3.1. Source. The source of the water to be used in the Temporary ISF Lease shall be Stagecoach Water stored and released from storage from the Stagecoach Reservoir pursuant to the Upper Yampa Contract.

3.2. Use. Stagecoach Water shall be used for instream flow purposes exclusively within the Yampa ISF Reach. Use of Stagecoach Water in the ISF Lease Program in the Yampa ISF Reach may be made following generation of hydropower at the facility located at the Stagecoach Dam.

3.3. Downstream Reuse. The CWCB recognizes and agrees that Stagecoach Water may be used for other downstream beneficial uses following use in the Yampa ISF Reach consistent with the Upper Yampa Contract and C.R.S. § 37-92-102(3). CWT shall have sole authority and responsibility for any downstream beneficial uses, consistent with the Upper Yampa Contract, administration by the Division Engineer for Water Division 6 ("Division 6 Engineer"), and other subcontracts and legal requirements, if any.

3.4. Rates of Flow for ISF Use. Released Stagecoach Water shall be protected for instream flow use in combination with any natural or other existing flow in the Yampa ISF Reach up to the Yampa Improve Flow Rates as measured at the existing stream gage located upstream of Lake Catamount or as determined by an alternative measurement method acceptable to the Division 6 Engineer.

3.5. Stacking. Stagecoach Water may be protected in combination with any other water appropriated or acquired by the CWCB for use in the Yampa ISF Reach, alone or in combination, up to the Yampa Improve Flow Rates.

4. **Operation of ISF Lease within Term.**

4.1. Frequency of Lease to ISF Use within Term. Use of Stagecoach Water in the ISF Lease Program is limited to five (5) calendar years within the ten (10) year Term. Calendar years in which Stagecoach water is used in the ISF Lease Program must be dispersed within the ten (10) year Term such that no more than three (3) of such years are consecutive with one another.

4.2. Decision to Operate ISF Lease. No later than **May 1** of each year within the Term, CWCB and CWT shall meet and determine whether to use Stagecoach Water in the ISF Lease Program. At such time, CWT and CWCB will coordinate the appropriate public notice requirements.

4.3. Operation Contingent on Upper Yampa Contract. The CWCB recognizes and agrees that any Stagecoach Water that may be used in the ISF Lease Program pursuant to this Subcontract shall be subject to and conditioned upon the terms and conditions of the Upper Yampa Contract.

5. **Operation of ISF Lease in Operative Years.**
   5.1. Duration of ISF Use in Operative Years. In years during which Stagecoach Water is being leased to the ISF Lease Program, such water may be used for ISF purposes for a total duration of no more than one-hundred and twenty (120) days in a calendar year.
   5.2. Coordination of Operation. When Stagecoach Water is being used in the ISF Lease Program in a given year within the Term, the CWCB and CWT shall confer and coordinate on timely basis in regard to: (a) timing of releases of Stagecoach Water, (b) flow rate of releases of Stagecoach Water, (c) cumulative volume of Stagecoach Water used in the ISF Lease Program that year, and (d) any other matters relevant to performance under this Subcontract.

6. **Measuring Devices, Records & Accounting.**
   6.1. Measuring Devices. Pursuant to C.R.S. § 37-92-102(3), the CWCB shall install or use existing measuring devices, or utilize an alternative measurement method as required by the Division 6 Engineer. CWT and CWCB will coordinate on this requirement.
   6.2. Records. The CWCB shall maintain records of: (a) the amount of Stagecoach Water legally available and capable of being used each year for instream flow purposes in the Yampa ISF Reach, and (b) the amount of Stagecoach Water actually used each year for instream flow purposes in the Yampa ISF Reach. Such records shall be provided to the Colorado Division of Water Resources on an annual basis. CWT and CWCB will coordinate to gather the needed data for this record keeping requirement.
   6.3. Accounting. The Parties agree to communicate, coordinate, and cooperate, if needed, on any other required or desired water use record keeping or accounting.

7. **State Agency Approvals & Requirements.**
   7.1. Division Engineer Confirmation. As condition of this Subcontract pursuant to C.R.S. § 37-92-102(3), the CWCB must obtain confirmation from the Division 6 Engineer that the proposal set forth in this Subcontract is administrable and capable of meeting statutory requirements. Such confirmation will be secured from the Division 6 Engineer upon issuance of the State Engineer's Determination approving the Temporary ISF Lease.
   7.2. State Engineer's Determination. The State Engineer's Determination imposes the following terms and conditions on the Temporary ISF Lease: **[insert if/as necessary or incorporate State Engineer's Determination by reference, as appropriate].**
   [**NOTE**: Should limitations imposed by CWCB or terms and conditions imposed by State Engineer conflict with any of the other provisions of this Subcontract, revise the terms of the Subcontract accordingly and add Conflict of Provisions clause.]

8. **Payments.**
   8.1. Payment Amount.
      8.1.1. CWCB shall make payment to CWT for each acre-foot of Stagecoach Water used in the Temporary ISF Lease at the same rate at which CWT pays UYWCD. For example, currently,

this rate is forty-seven dollars and ninety-three cents ($47.93) for Volume 1 and is subject to an escalator, as provided in paragraph 8.1 of the Upper Yampa Contract, or it is set by Upper Yampa on an annual basis for Volumes 2 and 3, as provided in paragraphs 6.2.1, 6.3.1, and 8.2 of the Upper Yampa Contract.

8.1.2. For the purposes of determining payment, the amount of water used for instream flow use shall be determined as the amount of Stagecoach Water released from Stagecoach Reservoir for use in the Yampa ISF Reach.

8.2. Payment Procedure.

8.2.1. In years when CWT and CWCB staff determine that Stagecoach Water will be used in the ISF Lease Program, as provided in paragraph 4.2 above, CWCB Staff will request approval for funding ("Initial Funding Request").

8.2.1.1. The Initial Funding Request will include funding sufficient to lease up to the amount of water allocated to both Volumes 1 and 2, as provided in paragraphs 6.1.1 and 6.2.1 of the Upper Yampa Contract.

8.2.1.2. At CWCB Staff's discretion, the Initial Funding Request may also include funding up to an amount allocated to Volume 3, as provided in paragraph 6.3.1 of the Upper Yampa Contract, should such allocation be made prior to May 1.

8.2.1.3. At CWCB Staff's discretion, one or more additional funding request(s) ("Additional Funding Request(s)") may be made after the Initial Funding Request up to an amount allocated to Volume 3, as provided in paragraph 6.3.1 of the Upper Yampa Contract, should such allocation be made after May 1.

8.2.2. Once the Initial Funding Request or Additional Funding Requests(s) have been approved, as the case may be, CWCB and CWT shall execute one or more sub-lease(s) for the amount of Stagecoach Water that may be released for use in the Yampa ISF during that Project Contract Year.

8.2.3. No later than **October 31**, CWT shall invoice CWCB for the amount of Stagecoach Water actually released during the Prior Contract Year and CWCB shall remit payment to CWT for the full amount invoiced no later than **December 15**.

8.3. No payment of money is approved herein. Any state contract involving the payment of money by the state shall (a) be contingent on the availability of funds, and (b) contain a clause providing that the contract shall not be deemed valid until it has been approved by the Colorado State Controller or such an assistant that he or she may designate.

9. **Termination**.

9.1. This Subcontract may be terminated upon mutual agreement of the Parties or as described herein.

9.2. Material Breach. Either Party may terminate this Subcontract for a material breach of the terms of this Subcontract by the other Party; provided that the terminating Party has first given at least sixty (60) days prior written notice specifying in detail such alleged material breach and giving the other Party the right within such sixty (60) day period to cure and

remedy such alleged material breach. Breach of any annual lease under this Subcontract is not a breach of this Subcontract.

9.3. Ability to Perform Impaired. Either Party may terminate this Subcontract if its legal ability to deliver Stagecoach Water is materially impaired or is eliminated because of the termination or adverse modification of the Upper Yampa Contract, permits, decrees, or other authorizations or legal or administrative findings that are necessary to deliver Stagecoach Water; provided that the terminating Party has first given at least sixty (60) days prior written notice to the other Party specifying the issue and steps taken to resolve the issue.

9.4. Notice of Breach. Prior to commencing any action for enforcement of this Subcontract, the Party seeking enforcement shall give the other Party no less than sixty (60) days prior written notice specifying in detail the basis for the enforcement action and the desired outcome that would resolve the perceived need for enforcement.

10. **Remedies**.

10.1. Available Remedies. Remedies under this Subcontract are limited to remedies available under Colorado law.

10.2. Costs and Fees. In the event of a dispute under this Subcontract, each Party shall bear its own costs and fees, including attorney's fees.

11. **Force Majeure**. In the event either Party is unable to perform its obligations under the terms of this Subcontract because of acts of God; natural disasters; epidemics; actions or omissions by governmental authorities; unavailability of supplies or equipment critical to perform; major equipment or facility breakdown; changes in Colorado or federal law, including, without limitation, changes in any permit; or other causes reasonably beyond that Party's control, such Party shall not be liable to the other Party for any damages resulting from such failure to perform or otherwise from such causes.

12. **Notices.** Any notice required or permitted to be given by a Party under or in connection with this Subcontract shall be in writing and shall be deemed duly given when personally delivered or sent by: (a) registered or certified mail, return receipt requested, postage prepaid, (b) expedited courier service, or (c) email with confirmation of receipt, to the following:

If to CWCB:
Colorado Water Conservation Board
Attention: Chief, Stream and Lake Protection Section
1313 Sherman Street, Room 718
Denver, CO 80203
Email: dnr_cwcbisf@state.co.us

With a copy to:
CWCB ISF Program
Attention: Pete Conovitz
1313 Sherman St., Rm.718

Denver, CO 80203
Email: pete.conovitz@state.co.us

If to CWT: Colorado Water Trust
Attention: Director of Programs
3264 Larimer St., Suite D
Denver, CO 80205
Email: kryan@coloradowatertrust.org

With a copy to: Colorado Water Trust
Attention: Staff Attorney
3264 Larimer St., Suite D
Denver, CO 80205
Email: agould@coloradowatertrust.org

Each Party may change its address or contact information for notices under this Subcontract upon written notice to the other Party in accordance with this paragraph.

13. **Miscellaneous.**

13.1. No Agency. Nothing in this Subcontract will be construed as creating any agency, partnership, joint venture or other form of joint enterprise between the Parties. Notwithstanding the foregoing, the CWCB or CWT may elect to designate an agent to undertake specific responsibilities under this Subcontract. Should the CWCB or CWT elect to do so, it shall provide written notice to the other party of such designation including the identity of such agent; contact information for such agent, including a principle point of contact; and clearly defined description(s) of the responsibilities such agent shall undertake on behalf of the CWCB or CWT.

13.2. Heirs and Assigns. This Subcontract shall inure to and be binding on the heirs, executors, administrators, successors, and permitted assigns of the Parties.

13.3. Choice of Law. This Subcontract shall be construed in accordance with the laws of the State of Colorado, as amended, without reference to conflicts of laws.

13.4. No Waiver of Immunities. No term or condition of this Subcontract shall be construed or interpreted as a waiver, express or implied, 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.

13.5. No Waiver. No waiver of any of the provisions of this Subcontract shall be deemed to constitute a waiver of any other of the provisions of this Subcontract, nor shall such waiver constitute a continuing waiver unless otherwise expressly provided herein, nor shall the waiver of any default or breach hereunder be deemed a waiver of any subsequent default or breach hereunder.

13.6. Assignment. This Subcontract may be assigned by either Party upon the prior written consent of the other Party.

13.7. Amendment. No amendment, modification, or novation of this Subcontract or its provisions and implementation shall be effective unless subsequently documented in writing that is approved and executed by both Parties with the same formality as they have approved and executed the original Subcontract.

13.8. Severability. If any provision of this Subcontract is held illegal or unenforceable in a judicial proceeding, such provision shall be severed and shall be inoperative, and the remainder of this Subcontract shall remain operative and binding on the Parties.

13.9. Merger. This Subcontract constitutes the entire Subcontract between the Parties and sets forth the rights, duties, and obligations of each to the other as of the Effective Date. Any prior Subcontracts, promises, negotiations, or representations not expressly set forth in this Subcontract are of no force and effect.

13.10. No Third-Party Beneficiaries. This Subcontract does not and is not intended to confer any rights or remedies upon any person or entity other than the Parties. It is expressly understood and agreed that enforcement of the terms and conditions of this Subcontract and all rights of action relating to such enforcement shall be strictly reserved to the Parties.

13.11. Headings. The headings contained in this Subcontract are for reference purposes only and shall not affect the meaning or interpretation of this Subcontract.

13.12. Non-Discrimination. The Parties will fulfill their obligations under this Subcontract without discriminating, harassing, or retaliating on the basis of race, color, national origin, ancestry, sex, age, pregnancy status, religion, creed, disability sexual orientation, genetic information, spousal or civil union status, veteran status, or any other status projected by applicable law.

13.13. Authority. Each Party represents that it has obtained all necessary approvals, consents, and authorizations to enter into this Subcontract and to perform its duties under this Subcontract; the person executing this Subcontract on its behalf has the authority to do so; upon execution and delivery of this Subcontract by the Parties, it is a valid and binding Subcontract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Subcontract does not violate any bylaw, charter, regulation, law, or any other governing authority of that Party.

[SIGNATURES TO FOLLOW.]

IN WITNESS WHEREOF, CWCB and CWT execute this Subcontract on the dates set forth below.

Colorado Water Conservation Board, an agency of the State of Colorado:

Date: _____

Name: Rebecca Mitchell
Title: Director

Colorado Water Trust, a Colorado non-profit corporation:

Date: _____

Name: Andy Schultheiss
Title: Executive Director

DRAFT

COLORADO
Division of Water Resources
Department of Natural Resources

RESERVOIR ACCOUNTING GUIDELINE
Division of Water Resources
Division One – South Platte River

This Guideline addresses issues of accounting for stored water. The guideline describes how the Division Engineer for Water Division One (the "Division") intends to administer reservoir operations so as to confirm that vested water rights are not impacted by the reservoir. It serves as a guide to reservoir administration when decrees do not specifically address the issue of accounting. It is based upon the system of prior appropriation and the doctrines of vested rights and maximum beneficial use. While this guideline is subordinate to any decree language addressing specific accounting requirements, it generally addresses the minimum standards the Division Engineer requires for such accounting.

Annual Operations

1. The Division uses a single, twelve-month period to administer the storage of water. Unless otherwise specified by decree or approved by the Division Engineer, the twelve-month period begins on November 1 and ends the following October 31. The start of the twelve-month period, once set, will not be changed from year to year.

Exempt Reservoirs

2. The Division Engineer or Water Commissioner may issue a written determination that certain reservoirs or reservoir operations, such as irrigation only reservoirs where water is stored and then released solely for the purpose of irrigation, regulating reservoirs, or other reservoir operations specifically identified by the Water Commissioner, should not be subject to these Guidelines.

General Data Requirements

3. The purpose of a reservoir is to store water for later use, generally in accordance with a decree of the court. In order to properly account for the volume of water allowed into storage and the amount of water that must pass through the reservoir, the Division requires the information listed below to be recorded on a daily basis and submitted to the Division at least monthly:

    a. The volume of releases under the dominion and control of the reservoir owner/operator. For the sake of brevity, this data will be referred to as the "controlled release".

    b. The volume of water in storage. This is accomplished by a single stage (gauge rod) reading and referring to a stage-area-capacity table that is specific to the reservoir for determining capacity. The daily stage can be read manually or by a recorder, although it should occur at the same time every day to reflect a true daily (24 hour) value.

c. On stream reservoirs are required to show the evaporative loss from the reservoir in order to administer the release of an equivalent volume of water to the river as required by C.R.S. 37-84-117(5). All reservoirs should account for evaporative loss.

d. The sum of ALL accounts in storage must equal the volume associated with the daily gauge rod reading. No account, including the "owe the river" account is allowed to carry a negative balance.

e. At a minimum, the accounting must include the following calculations:

I. Daily change in storage. Yesterday's storage amount subtracted from today's storage amount will yield yesterday's change in storage.

II. Computed Inflow. Computed Inflow is the volume of inflow to the reservoir for the purposes of administration (computed inflow = change in storage + evaporation + controlled release). Computed Inflow minus the volume that can be stored in priority by the reservoir equals the daily exchange potential to the reservoir (computed inflow – in-priority storage = exchange potential).

III. Unauthorized Inflow. Unauthorized Inflow is the portion of the Computed Inflow that exceeds the in-priority storage and authorized exchange diversions (unauthorized inflow = computed inflow – in-priority storage - authorized exchanges). The Unauthorized Inflow is the amount of water that was required to have passed through the reservoir.

IV. Owe the River (OTR) storage. OTR storage is the aggregated volume of Unauthorized Inflow that is not released by the reservoir. It must be calculated daily and tracked in a separate storage account. OTR must be released as soon as practical, but within 72 hours, unless a different timeframe is approved in writing by the Water Commissioner or Division Engineer.

Multiple Accounts

4. Prior to storing more than one type of water in a reservoir, accounting forms for such storage must be approved, in writing, by the Division Engineer. Examples of storing more than one type of water include:

a. Free river water stored for a new use within a reservoir.

b. Using accounts to track priority filling in order to allow a reservoir to avoid having all the water count as senior storage at the start of a new twelve- month storage period.

The "Owe The River" or "Admin Account" is used in most on channel reservoirs to track any out of priority inflows. This accounting can fluctuate daily but the balance will remain positive or zero. The balance of the OTR should not exceed 1% of the volume stored in the reservoir, unless a different volume is approved in writing by the Water Commissioner or Division Engineer. If there is a day when the reservoir experiences a loss and the OTR account is zero, then the reservoir loss must be

taken out of another storage account.

5. All native water in storage, regardless of priority, counts as storage of the water right(s) beginning with the most senior priority and progressing to the next senior right until all water rights have been filled. The practice of physically storing water under junior rights or bypassing water in priority and accounting for the senior rights as being filled is termed "paper filling" a water right. This practice prevents the senior water right(s) from impacting the system at a later date by placing a call on the river that historically would not have occurred when flows in the river may be reduced. The accounting must be able to track actual and paper fill of all priorities, beginning with the most senior right.

6. Water may be transferred from a senior storage account to a more junior account at the discretion of the owner/operator with the following conditions:

    a. An owner/operator may transfer or "book over" water at the rate that water is legally available to the junior water right or physically available to the reservoir, whichever is less. The rate at which a book over is allowed will be based on the capacity of the reservoir's inlet/outlet structures or other limitation placed by the Water Commissioner. The reservoir need not physically release and store water unless required to do so to demonstrate the physical limitations of the inlet/outlet structures.

    b. Any transfer of water from a senior priority to a more junior priority must be approved by the Water Commissioner or the Division Office in writing, so that the Water Commissioner knows which priority may place a call.

    c. The transfer of water between accounts must be clearly shown in the accounting.

Evaporation

7. A reservoir owner/operator may designate the account from which evaporative losses are deducted.

Seepage and Toe Drain Water

8. Unless specifically addressed by the terms of a decree, the Division shall consider all seepage a loss of dominion and control of the water.

9. Toe Drain flow from on-stream reservoir dams may be counted as an "accretion to the stream" that is used to offset evaporative losses in accordance with C.R.S. 37-84-117 (5), provided the toe drains are measured and recorded separately from the measured release from the reservoir.

10. Prior to accounting for and making subsequent use or reuse of seepage of transbasin or nontributary water a reservoir owner/operator must demonstrate and obtain Division approval verifying the owner/operator has maintained dominion and control of such water.

11. Prior to accounting for and making subsequent use or reuse of seepage of tributary fully consumable water a reservoir owner/operator must demonstrate and obtain water court approval verifying the owner/operator has maintained dominion and control of such water.

GENERAL ADMINISTRATION GUIDELINES FOR RESERVOIRS[1]

Colorado Division of Water Resources

October 2011
Amended February 2016

[1] This document was originally prepared under the direction of Hal Simpson, former State Engineer, and further revised under the direction of Dick Wolfe, State Engineer. Several staff members of the Colorado Division of Water Resources, from both the Denver office and the division offices, were instrumental in its development, which also included legal oversight from the Attorney General's Office.

Purpose

These Reservoir Operating Guidelines are a basic practical guide for the staff of the Division of Water Resources ("DWR"), including division engineers, water commissioners and others charged with administering the state's many reservoirs. They reflect the "institutional knowledge" of DWR personnel and the general practice across the state, summarizing DWR's understanding of the statutes, court cases, and administrative rules, policies, and practices related to the storage of water. These Guidelines are intended to provide present and future staff with an understanding of the basic concepts, giving them a common starting point for the many difficult decisions that they must make on a daily basis. We also hope that these Guidelines will be useful to reservoir operators, engineers, attorneys, policy makers and anyone else who seeks a better understanding of general reservoir operations in the State of Colorado.

These Guidelines should not be relied upon for administrative or legal authority, and they are not intended to be or to function as rules or regulations governing the storage of water. Although these guidelines present fundamental examples of reservoir operations, they do not, and could not, cover all of the historic exceptions that exist for specific reservoirs. Given the significant variation in the decrees granting storage rights, in the physical setting and hydrology of the various reservoirs, and in historical administrative practices, nothing in this document should be construed as definitive with regard to any particular reservoir or storage right. Moreover, DWR does not intend for these Guidelines to change the vested rights of any water user. As changes in the law, altered circumstances, and unforeseen situations arise, DWR will periodically update these Guidelines so that they remain as accurate as possible.

Introduction

Storage of water continues to be a critical component of water supply in Colorado. While State Records show needs of agriculture — the largest use of water in the state — remain fairly constant, water needs for municipal, industrial, environmental and recreational purposes continue to increase. Moreover the administration of interstate compacts, agreements, and treaties, along with the federal government's claims for reserved water rights, are all becoming increasingly important in allocating the remaining waters of Colorado.

The most senior water rights on Colorado streams are direct flow rights, first developed by the earliest settlers in the mid-19th century. Water for direct flow usage was usually plentiful during spring and early summer runoff, but began to diminish in late summer and early fall until it could no longer be diverted. In the most developed areas, such as the South Platte River basin, competition for water led to curtailment of junior rights during the summer and even during the spring in drier years after only several decades of settlement. The seasonal as well as annual fluctuations in water availability, combined with the increasing demand by junior appropriators, led irrigators to capture and store for later use some of the vast quantity of the annual spring runoff from the Rocky Mountain snowmelt. The right to store water was affirmed by the Colorado legislature in 1879 and has become an integral part of the state's water supply.[2]

The task of administering the state's water has been given to the State Engineer, who is appointed by the governor as the Director of DWR, also known as the State

[2] Corbridge, James N. Jr. and Teresa A. Rice. 1999. *Vranesh's Colorado Water Law. Revised Edition.* University Press of Colorado, Niwot, CO. p 53.

Engineer's Office (SEO). The State Engineer appoints division engineers who, in turn, manage local water commissioners, all of whom are charged with administering and distributing the waters of the state, including the determination of the way a water user exercises a storage priority.

General Administration Principles

One Fill Rule

Water may either be stored under a water right under the priority system or in some situations contractually – for instance a user may be able to store reusable water in a reservoir. The one fill rule concerns the storage of water under the priority system. Under Colorado law, a water user may store water whenever the water is physically available, its water right is in-priority, and the decree for the water right has not been filled. Under Colorado Supreme Court decisions, a user is entitled to only one filling of a reservoir water right in any one year unless a user has a water right that provides for a refill and/or additional storage or free river conditions exist (i.e. no downstream shortage of water to meet the demands of all users for their decreed water rights).

In creating this rule, courts did not define a storage year. Given that irrigation reservoirs typically begin filling in the fall, after irrigation has been completed, the SEO, starting with State Engineer M.C. Hinderlider[3] in 1936, adopted a "seasonal year" of November 1 to October 31. The Colorado Supreme Court has recognized this seasonal year for irrigation reservoirs. This is the presumed seasonal year for a majority of reservoirs unless the decree specifies a different date. Subsequently, different

[3] Letter from M.C. Hinderlider, State Engineer, to all Division Engineers and Water Commissioners dated May 11, 1936. Please see Appendix for document.

seasonal years have been adopted by some municipal water suppliers at a set date in the spring, usually April 1 prior to spring runoff when their reservoirs are generally near their lowest point. While this date can vary between municipal suppliers, it cannot be changed once established.

Under the one-fill rule, a reservoir user may only use a storage right to "call" for water during the seasonal year if the decree for the storage right has not yet been filled during that year. (When a user with a decree is short water to meet their decreed demand, the water commissioner will place a "call" or "curtail" users such that no user junior to the "call" in a reach of river may divert in that reach of river.) If the storage right has been filled, the reservoir owner must wait until the beginning of the next seasonal year to place a call for additional water. For example, if a reservoir with a seasonal year beginning November 1 has received the full amount of water it is entitled to under its storage right by June 1, then the user must wait until the next November 1 to begin filling again under that right. In addition, any diversions prior to November 1 will be curtailed if there is a call on the river, whether junior or senior to the storage right.

The reservoir owner could, however, divert water under free river conditions. Alternatively, the reservoir owner could store under a junior priority (either a refill right or separate storage right) or store foreign water. For purposes of this document, the term "foreign water" refers to all water located in a given reservoir except priority storage water associated with the particular reservoir and water stored under free river. Examples of foreign water include: historical consumptive use credits from changed water rights, transbasin water, nontributary water, priority (or free river) water stored by

another structure and relocated to the subject reservoir, recaptured return flows from fully consumable water such as lawn irrigation return flows, etc.

Carryover

Generally, any water remaining in a reservoir at the end of the seasonal year is called "carryover water," and is credited to the next year's fill. This will limit the amount of new water to be put into storage during next year's seasonal year. For example, if a reservoir's decreed and physical capacity is 100,000 acre-feet and at the end of seasonal year 1 it contains 60,000 acre-feet, then the carryover would be 60,000 acre-feet for the next year, seasonal year 2. In this situation, the Division Engineer or Water Commissioner would limit the amount the owner could divert and store in seasonal year 2 to 40,000 acre-feet because the 100,000 acre-foot water right is filled once the 40,000 acre-feet is stored. The 40,000 acre-foot limit would exist even if the owner released water from storage during seasonal year 2 and created additional capacity. In this situation, this additional capacity can only be refilled under free river conditions since no other storage rights exist.

Moving from a reservoir with a single storage right to the next simplest case where a single owner has a senior storage right and a junior enlargement for the same uses, the Division Engineer may account for reservoir storage using the principle of "first in, first out" so long as the decrees do not have contrary provisions. [4] For instance, suppose an irrigation reservoir owner has a senior right for 5,000 acre-feet and a more junior right for 9,000 acre-feet to fill a 14,000 acre-foot reservoir. In year 1, the reservoir

[4] State Engineer's "Written Instruction and Order 2007-02: Instruction and Order Concerning the Administration of Storage Rights by Seniors First" signed May 31, 2007 by Hal D. Simpson (http://water.state.co.us/DWRIPub/Documents/wio2007-02.pdf).

starts empty, is completely filled under the two rights, and releases 7,500 acre-feet during the irrigation season leaving 6,500 acre-feet in the reservoir. Under the "first in, first out" methodology, the reservoir owner may fill 5,000 acre-feet under the senior fill right and the remaining 2,500 acre-feet under the junior right in year 2.

In more complex situations, where multiple owners, types of uses or places of use are involved, the user(s) must keep separate accounts of the various water rights. A basis for keeping separate accounts must first be established by the owner(s) and approved by the Division Engineer. If separate accounts for each water right are tracked then water stored under a junior right would only be carried over into the junior right's account. In complex situations, all carryover is credited to the most senior storage right in the reservoir at the start of the subsequent year if separate accounts for each priority are not tracked.

Similarly, any foreign water that is stored in a reservoir that is remaining in the reservoir at the end of the season is assumed to be priority water and credited to the most senior storage right unless this water is tracked separately by the reservoir owner. Therefore, detailed accounting of all the different types of priority and foreign water stored in a reservoir is important to avoid limiting the amount of water that can be stored under the most senior storage right.

If the water right for a reservoir allows water stored in priority to be relocated in another structure, the amount of priority water that was relocated to another structure still remaining in that structure at the end of the season counts against the storage right it was originally stored under. This is done to assure that a user does not use a senior right to fill more than one reservoir. For example, assume that municipal reservoir A

has a right for 1,000 acre-feet which is stored in priority during year 1. Also assume during year 1 that 400 acre-feet of the water stored in reservoir A is released and relocated in reservoir B and the remaining 600 acre-feet is released to municipal use. In this case, reservoir A would be entitled to store 600 acre-feet in year 2 not 1,000 acre-feet. The user would only be able to fill the remaining 400 acre-feet in reservoir A in the seasonal fill year subsequent to its release from reservoir B for use. Further, there may also be limits placed on how much the user may store in reservoir B depending on the situation.

Decreed versus Physical Capacity

Given the large investment required for reservoir construction, a potential reservoir owner generally receives a decree for a conditional water right to store an amount of water prior to construction. Upon completion of the reservoir, the actual physical capacity of the reservoir may be different from the decreed capacity. This raises the question of whether the physical capacity or the decreed capacity controls the administration of the amount of water that can be stored. If the physical capacity is less than the decreed capacity, then the allowed amount of fill will be based upon the physical capacity rather than the decreed capacity. For example, when a reservoir is physically full at 50,000 acre-feet and has a decreed capacity of 60,000 acre-feet then the reservoir has reached its one fill and cannot come back in later in the season when space becomes available to fill the additional 10,000 acre-feet. The difference between the decreed capacity and the lower physical capacity is subject to abandonment (or if conditional, to cancellation for failure to prove diligence) unless the reservoir owner

shows intent to make subsequent modifications to enlarge the reservoir to the originally decreed capacity.

When physical capacity is greater than decreed capacity, a fill is based upon the decreed capacity. To use the additional capacity, the reservoir owner must adjudicate a new water right for the difference, use other foreign water legally available for storage in the reservoir, or hope to fill the difference under free river conditions.

Storage Under a Conditional Water Storage Right

Pursuant to 37-92-103(4)(a), beneficial use includes the impoundment of water for storage for any purpose for which an appropriation is lawfully made. As such, a decreed conditional water storage right can be made absolute for all decreed purposes to the extent of the volume of the appropriation that has been captured, possessed, and controlled at the decreed storage structure. CRS 37-92-301(4)(e).

For a newly constructed reservoir, to which a conditional water storage right has previously been decreed, the owner of said reservoir and water storage right simply has to show how much water can be and has been stored in the reservoir. However, in order to store water under a conditional water right in a reservoir with absolute water right(s) already decreed to it for the same purpose(s), separate accounting of each of the water rights must be maintained so that the water right owner(s) can show if and when the conditional water right was stored in what amount. Absent such evidence, the conditional water right cannot be made absolute. As with a storage structure decreed with only absolute water rights, senior water rights shall be considered as having been stored first. For example, consider a reservoir that has a decreed right for 1,000 acre-feet of storage for municipal uses that has been made absolute and the reservoir has

recently received a decree for a junior refill right of 1,000 acre-feet for municipal uses. The reservoir may store under the junior conditional right, and make that right absolute, but only to the extent that the reservoir owner can show that the junior water was stored after the entire 1,000 acre-feet was stored under the senior right, and limited to the amount that the senior right was released for its decreed beneficial use. Any amount of the senior right that was released for a use other than its beneficial use would remain in the reservoir as a paper fill, as further described in the Paper Fill, Including Bookover section below. In this example, if the reservoir releases 100 acre-feet of water stored under the senior right for municipal uses and another 100 acre-feet for the non-decreed use of enhancing stream flows, the reservoir would be considered to be filled with 800 acre-feet of physical water and paper filled with another 100 acre-feet under the senior right. The reservoir could store and make absolute only 100 acre-feet under its conditional junior storage right.

Storable Inflow

Storable inflow is the amount of water that is physically and legally available for storage in a reservoir under a particular water right. After the beginning of the seasonal year, all storable inflow must be accounted against the storage right in order to protect other water users, whether or not the reservoir owner actually stores the water. This assures junior water right users that they will be able to divert water in the amount and time that they could have if the senior storage right had filled with all water available to it under its storage priority. For example, if a reservoir operator with a decree to store 20,000 acre-feet of water chooses to bypass 5,000 acre-feet of water that they would otherwise have been able to store in-priority, the Division Engineer considers the

bypassed water "storable inflow." Accordingly, the Division Engineer would credit the bypassed water toward the fill of the reservoir and would consider the storage right to be filled when the reservoir physically contains 15,000 acre-feet of water stored under the storage right.

Storable inflow also includes any out of priority storage by upstream junior storage rights (further discussed in the Out of priority Upstream Storage Statute section below). To track the amount of storable water that has not actually been stored, for whatever reason, the Division Engineer uses what is known as a "paper fill." A paper fill is an accounting mechanism whereby storable inflow is charged against a storage water right either because the reservoir owner elected not to physically divert or store water under that right or a junior upstream reservoir diverted the storable inflow out of priority. A detailed discussion of paper fill, along with some of the exceptions to the general principle of storable inflow, can be found in the Paper Fill Including Bookover section below.

Generally, a storage right is filled when carryover storage under that water right plus storable inflow, whether actually diverted or only a paper fill, equals the decreed amount of the storage water right or the total physical capacity of the reservoir (which may be restricted due to dam safety or flood control concerns), whichever is less. A reservoir user may continue to physically store water under a fill right even if it has gone out of priority and is called out if it comes back into priority and has not already been filled. In this case, storage is limited to the volume unfilled by the storage right when the reservoir went out of priority. Even if there is capacity to store, the Division Engineer will not allow the reservoir operator to continue to store water beyond that point, unless

free river conditions occur, the reservoir has supplemental storage rights that come into priority (such as a refill right or junior storage rights), or the reservoir owner is storing foreign water. Water users may divert beyond the measure of their decrees during free river conditions because this does not infringe upon the rights of other water users.

The water level in a reservoir does not have to be rising or increasing in order for storage to occur and new water can be placed into storage in a reservoir at the same time as previously stored water is being released.

Refill Rights

Some reservoirs operate under decrees that provide for refill rights. A refill right typically has a later priority than the original storage right. However, if the reservoir owner applied for a refill right in the original application, the owner may have been given a right to store under the same priority of the original appropriation after the reservoir achieves its first fill and capacity becomes available. Available capacity for a refill right in a reservoir is created by evaporative and seepage losses in addition to actual storage releases. Storage that is held as the subject reservoir's water right at another location is not included in the available refill capacity of the subject reservoir. While this space cannot be filled under a refill right until the storage held at the other location has been released and put to use, the subject reservoir could be filled under a separate junior storage right for the subject reservoir, under free river conditions or with foreign water.

In the case of a conditional refill right, the owner of the reservoir and water storage right must show how much water has been stored as a refill in order to make all or a portion of the right absolute.

Paper Fill, Including Bookover

As discussed above, a paper fill is an accounting mechanism whereby storable inflow is charged against a storage water right either because the reservoir owner elected not to physically divert or store water under that right or a junior upstream reservoir diverted the storable inflow out of priority. A paper fill may also be used in the accounting for a reservoir if it releases water stored in priority without using the water for its decreed beneficial use. Some examples of paper fill are described below, followed by a discussion of some of the exceptions to the general rule. These are not meant to be exhaustive on this issue, but should provide an understanding of the most typical situations.

Examples of where a paper fill would be used:

1. A reservoir may have multiple rights. For example, it may have a senior storage right and a junior storage right for additional decreed uses. If water is stored under the junior right before the senior right is filled, then a paper fill for the amount stored and credited under the junior right will also be charged against the senior storage water right, to the extent that it remains unfilled. Once the senior right is filled (either physically or on paper), the junior right may continue to store under its own priority unless it is (or until it becomes) filled.
2. A paper fill is charged against a water storage right when a reservoir cannot be filled to its decreed capacity because of a flood control limitation on storage (unless flood control is a decreed beneficial use) or because of a State Engineer storage restriction on the dam.

3. A paper fill is charged if sedimentation has occurred limiting the reservoir's physical capacity.
4. A paper fill is charged when actual storage in the reservoir includes foreign water that limits the capacity of the reservoir to fill under a senior priority unless the owner of the senior priority books over the foreign water in the reservoir to the senior right at the rate that the senior right would have filled the space taken up by the foreign water.
5. A paper fill is charged for any exchange on natural flow into the reservoir for foreign water. For example, assume an on-stream reservoir user exchanges 20 cfs of foreign water into the reservoir by making release of a substitute supply downstream at the same time the user is entitled to fill the reservoir in priority. In this example, the reservoir would be paper filled for the 20 cfs or approximately 40 acre-feet each day the exchange occurred.

   In examples 1 – 5 above, the paper fill remains throughout the entire fill season. At the end of the fill season, the physical amount of water is booked over to the senior right and the paper fill is removed.

6. A reservoir will be considered to be paper filled beyond the fill season in the amount of water that is released for a use that is not a decreed beneficial use. For example, consider a reservoir decreed for only municipal uses that has filled to its capacity of 1,000 acre-feet. The reservoir releases 100 acre-feet to enhance instream flows or to the incidental benefit of any other water user on the

river, which release becomes waters of the state and is allocated according to priority of water rights on the river. The reservoir would remain physically full in the amount of 900 acre-feet and paper full in an additional amount of 100 acre-feet.

Additionally, this requirement that a reservoir remains paper full also applies to releases of storage rights that have been made absolute only by virtue of their storage, as allowed by 37-92-301(4)(e). For example, consider a reservoir decreed for 1,000 acre-feet of storage for municipal uses under a senior storage right and for an additional 1,000 acre-feet of storage for municipal uses under a junior refill right. The senior right has 500 acre-feet of storage that has been made absolute and 500 acre-feet of storage remains conditional. The entire junior refill right is condtional. In one year, the reservoir fills to 1,000 acre-feet and makes the conditional 500 acre-feet of the senior right absolute, as allowed by 37-92-301(4)(e). With no immediate use for that 500 acre-feet of stored water that was made absolute, the reservoir releases it and then fills again under the junior right. The reservoir will be considered physically full in the amount of 500 acre-feet and paper full under the senior right in an additional amount of the released 500 acre-feet until such time as an amount of storage water greater than the 500 acre-feet previously made absolute is put to a decreed beneficial use. This applies to refill rights as well. That is, when rather than a conditional junior right, the right is a conditional *refill* right.

In this example 6, the paper fill remains not only throughout the entire fill season but through subsequent seasons until such time as the reservoir can physically fill the paper fill amount under free river or futile call conditions.

For on-stream reservoirs, if there is no diversion and storage, a paper fill is charged at the rate of storable inflow to the reservoir. For off-stream reservoirs, the paper fill of the senior right is charged at the rate at which the user could have legally and physically filled under the senior right. For example assume the following:

a. there is 400 cfs stream flow at the headgate of the feeder ditch for off-stream reservoir A
b. reservoir A is empty
c. reservoir A has a fill right for 300 cfs that is in priority
d. the capacity of the ditch to fill reservoir A is 250 cfs
e. the reservoir operator is diverting 200 cfs

Under these conditions, the reservoir would be paper filled at the rate of 50 cfs or approximately 100 acre-feet per day. If an off-stream reservoir is physically full due to storage of foreign water, for example, the rate of paper fill does not occur instantaneously but at a rate that is available at the reservoir from the decreed source of supply. However, if the user does not track the necessary information, then the reservoir is paper filled immediately.

Examples of where the Division Engineer has the discretion to not impose a paper fill:

There are times when water will not be counted as storable inflow and used to paper fill a reservoir. Examples of when water will not be counted as storable inflow and used to paper fill a reservoir are when the owner of the water right releases water or bypasses storable inflow for any of the following reasons:

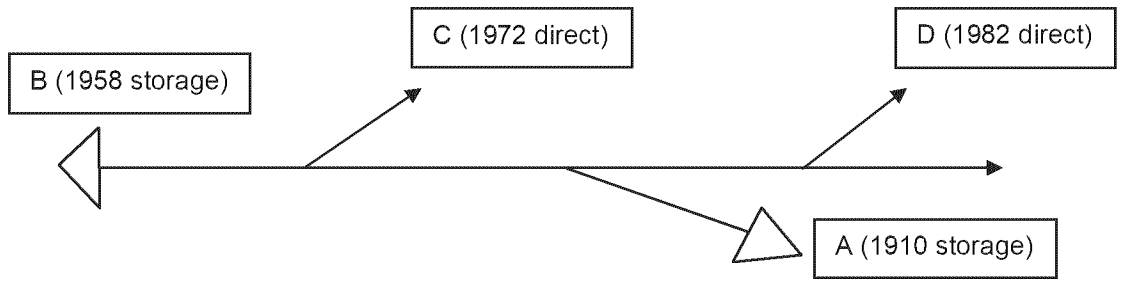
1. the reservoir is under an order from the State Engineer due to a storage restriction,
2. there is a legitimate need to dredge the reservoir,
3. there is a legitimate need to repair and maintain feeder ditches,
4. there is a legitimate need to perform maintenance on outlet works,
5. when winter icing prevents the reservoir operator from impounding and controlling the inflow,
6. there is a legitimate need to bypass water of poor quality,
7. to accommodate other necessary activities at the discretion of the Division Engineer, with consideration of the severity of the need.

In each of these situations, upon approval of the Division Engineer the reservoir will not be subject to a paper fill. In addition to the examples above, "paper fill" is also used in applying the out-of-priority storage statute, as discussed in the following section.

Out of priority Upstream Storage Statute

As early as 1924, State Engineer Hinderlider allowed upstream reservoirs to fill "as early as possible and depend, to some extent, on the return flow to complete the filling of the reservoirs farther down the river." [5] In 1969, the General Assembly codified this longstanding practice in what is now C.R.S. § 37-80-120. Presently, on the South Platte, out of priority upstream storage may occur against a storage water right only in accordance with a plan approved by the Division Engineer. [6] To date, no one has been given approval of such a plan. While other Divisions have not adopted a formal process, some of the considerations that would be taken into account prior to allowing out of priority storage are spelled out in the example below.

Assume structures A and B are reservoirs (owned and operated by different entities) with storage rights and structures C and D are ditches with direct flow rights. All structures are situated on the river as shown below:



In our example, Reservoir A has a decreed and physical capacity of 1,000 acre-feet and has the senior right (1910) on the river, and Reservoir B has a decreed and physical capacity of 200 acre-feet and a 1958 right. Assume that as of March 1, Reservoir A has

[5] Letter from M.C. Hinderlider, State Engineer, to W.B. Gaumer, President, Farmers Reservoir & Irrigation Co. dated November 17, 1924. Please see Appendix for document.

[6] Letters from James R. Hall, Division Engineer, to Division 1 Water Users dated October 6, 2005 and July 27, 2006 regarding South Platte Non-Irrigation Season Administration. Please see Appendix for documents.

diverted 820 acre-feet into storage, and that Reservoir B has been allowed (by approval of the Division Engineer) to divert 200 acre-feet into storage even though its right is junior to Reservoir A's right and Reservoir A has not yet filled (i.e. Reservoir B has stored 200 acre-feet out of priority). If the transit losses to Reservoir A from Reservoir B are 20 acre-feet, then Reservoir A is paper filled to 1,000 acre-feet and no longer able to place a call. At this point, Ditch C would be in priority and thus could divert water and make a call if necessary. Likewise, Ditch D would be entitled to make a call curtailing the diversion of Reservoir A.

Reservoir A would only be allowed to divert additional water to storage under free river conditions. As for Reservoir B, it could continue to divert water under its 1958 water right while at the same time releasing the out of priority water stored and delivering it past Ditch C to Reservoir A even if ditches C or D placed a call. This water then replaces Reservoir A's paper fill with actual water and decreases the risk to Reservoir B that it will be required to release its water to Reservoir A later in the season when it is no longer able to store water under its 1958 priority. In a situation where more than one reservoir is storing out of priority upstream of Reservoir A, all upstream out of priority storage must be aggregated to determine when Reservoir A is paper full.

Administration of the upstream storage statute is further complicated by the requirement to account for any seasonal transit loss changes within the reach from the junior to the senior reservoir and within the feeder ditches of the senior reservoir between the time of out of priority storage and the time the water is released to the senior reservoir. The junior reservoir storing out of priority is responsible for payment of

any increase in transit losses should the senior reservoir not fill assuring the senior reservoir receives the full amount to which they were paper filled.

Due to these complexities required to assure non-injury when storing out of priority, upstream out of priority storage is typically not allowed. In some cases, however, out of priority upstream storage is unavoidable. For example, winter conditions may prevent access to some small high mountain reservoirs for real time operation and may prevent real time measurement of winter inflows due to inaccurate measurements caused by ice cover.

Evaporation

Reservoirs are categorized based on their location from a natural stream as either on-channel or off-channel. When a reservoir is constructed on a natural stream bed (on-channel) it causes an increase in losses to the stream system due to the increase in free water surface area of the stream. When an on-channel reservoir is in-priority and filling, the operator does not have to pay back the stream for this increased loss. However when the reservoir is not filling in priority, the operator is required to release stored water to offset the amount of this increased loss to assure that the total natural flow is passed through the reservoir as if the reservoir did not exist. Usually, the release for this loss is accomplished by lowering the reservoir stage to correspond to the calculated net depletion amount. If daily administration is not practical because of the limited size of a reservoir surface, releases for this loss are often aggregated and made on a monthly rather than daily basis. If more than one water right is in a reservoir or the reservoir contains foreign water, the reservoir owner may specify which type(s) of water to release to account for evaporation.

When predicting the amount of future evaporation to be covered by an on-channel reservoir, the average gross evaporation (free water surface) must be calculated based upon average evaporation atlases in NOAA Technical Report NWS 33[7] and the maximum surface area of the reservoir (unless otherwise decreed). The total gross evaporation estimate from NOAA shall be distributed to all months. The monthly distribution for elevations below 6500 feet msl is: Jan-3.0%, Feb-3.5%, Mar-5.5%, Apr-9.0%, May-12.0%, Jun-14.5%, Jul-15.0%, Aug-13.5%, Sep-10.0%, Oct-7.0%, Nov-4.0%, and Dec-3.0%. The monthly distribution for elevations above 6500 feet msl is: Jan-1.0%, Feb-3.0%, Mar-6.0%, Apr-9.0%, May-12.5%, Jun-15.5%, Jul-16.0%, Aug-13.0%, Sep-11.0%, Oct-7.5%, Nov-4.0%, and Dec-1.5%.[8]

When determining the actual evaporation based on the actual surface area of the reservoir, more site-specific information, if available, may be used or may be required depending upon decree conditions, size of reservoir, impact of reservoir evaporation on other users, and/or availability of data. Any site-specific estimate is subject to evaluation and must be approved by the Division Engineer before use. During times when site-specific instrumentation goes down, NOAA values must be used until the instrumentation is operating again. NOAA values must also be used if site-specific instrumentation is inaccurate, has not been approved by the Division Engineer, or does not exist.

For months during which the surface is completely covered with ice during the entire month, the gross evaporation may be calculated as zero for that month, without

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[7] Farnsworth, Richard K., Edwin S. Thompson, and Eugene L. Peck. 1982. *Evaporation Atlas for the Contiguous 48 United States.* NOAA Technical Release NWS 33. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service.

[8] State Engineer's "Policy 2003-2: Implementation of Section 37-92-308, C.R.S. (2003) Regarding Substitute Water Supply Plans" signed August 12, 2003 by Hal D. Simpson http://water.state.co.us/DWRIPub/Documents/policy2003-2.pdf

redistributing that month's percentage into the remaining months of the year. The applicant may prorate the estimated evaporation for months during which the surface is covered with ice over a portion of the surface and/or during a portion of the month. The user must provide evidence of ice cover for that month. For projection purposes only, the ice cover period may be estimated as that period during which the mean air temperature is below 32 degrees Fahrenheit. The Division Engineer, however, will assess actual losses based on actual conditions.

The gross amount of evaporation can be offset for on-stream reservoirs by any evaporation from previously existing free water surfaces, effective precipitation that would have been consumed by any native vegetation, and/or groundwater consumption due to any native phreatophytes. Essentially, statute allows on-stream reservoir owners the right to reduce their required evaporation releases for any natural depletion to the stream that would have occurred if the reservoir were not in existence (37-84-117 (5) C.R.S.). An analysis of the pre-existing conditions must be performed to determine what reduction to the gross amount of evaporation will be allowed. In addition, a user may be required to keep track of actual site-specific precipitation in determining the reduction to the gross amount of evaporation for large reservoirs. Typically, the SEO has assumed for a native site (without phreatophytes) with a deep ground water table that 70% of the total precipitation is either consumed or goes to soil moisture storage.[9]

Seepage

As soon as water stored in a reservoir or in the process of being delivered by a ditch seeps through the bottom or sides of the structure, it is considered waters of the

[9] Wolfe, Dick and Richard L. Stenzel. 1995. "Evaporation." *Evapotranspiration and Irrigation Efficiency.* Proceedings of the 1995 Seminar held in Arvada, CO on October 10-11, 1995. Please see Appendix for document.

state subject to the prior appropriation doctrine. This applies to water that cannot be "re-used" as well as fully-consumable water that is no longer under the dominion and control of the user. A reservoir owner may not recapture seepage water from a reservoir as part of the original storage right unless specifically allowed by decree and may not recapture fully consumable water without dominion and control accounting approved by the division engineer. An appropriator of seepage water cannot require or demand that the seepage continue as the reservoir or ditch owner is generally allowed to make improvements that may eliminate or reduce the seepage.

Absent a specific decreed appropriation to the contrary, water flowing from the toe drain of a dam associated with a reservoir is considered "seepage". Toe drain outlets must drain freely without restriction to protect the dam and must be discharged without use and separate from the measured release from the reservoir. Structures oriented such that the toe drain flow cannot be separated from the measured reservoir release must quantify the toe drain flow in a manner approved by the division engineer and must subtract the toe drain flow from the measured, comingled release. Toe drain flow from on-stream reservoir dams may be counted as an "accretion to the stream flow resulting from the existence of a reservoir" that is used to offset evaporative losses in accordance with §37-84-117 (5), C.R.S. provided the user relinquishes all dominion and control over the released toe drain flow.

Volumetric versus Gage Height Decrees

The amount of storage water could be defined in a decree as a specific volume or up to a specific gage height in the reservoir. A "volumetric" decree is filled once the total volume of water as measured into the reservoir (plus any carryover and paper fill

volume) reaches the decreed amount or physical amount, whichever is less. A "gage height" decree is filled once the level in the reservoir (plus any paper fill amount) reaches the decreed gage height. The difference between gage height and volumetric decrees is that while filling under these two types of rights, evaporation and seepage does not count against the gage height decree but does count against the volumetric decree. (Seepage may or may not count against an on-stream volumetric decree depending on how the inflow is determined.) Once a gage height decree is filled, however, it is then treated just like storage under a volumetric decree for an off-channel reservoir where the storage in the reservoir suffers evaporative and seepage losses. Absent a refill right, foreign water or free river conditions the additional space created by these losses cannot be replaced.

It is important to have a good stage-capacity curve even for reservoirs with gage height decrees. If the reservoir is curtailed due to a call prior to being filled, the stage-capacity curve can be used to determine how much water the reservoir still has under its water right should it come back into priority. If the gage-height decree comes back into priority, it can continue to fill up to the volume associated with the difference between the gage height when it was curtailed and the completely full gage height.

The following is an example of a gage-height decree for Julesburg Reservoir decreed in civil action no. 944:

> It is therefore Adjudged and Decreed, that the said Julesburg reservoir be allowed to have stored in it from the South Platte river by means of the Harmony ditch No. 1, as enlarged and extended as a feeder to said reservoir, and for the benefit of the party or parties aforesaid under and by virtue of said appropriation by construction No. 1, so much water as is necessary to fill said reservoir to a depth of forty-seven (47) feet above the bottom of the lower discharge conduit from said reservoir, being an estimated capacity of one billion two hundred and twenty-seven million

> four hundred and forty-five thousand cubic feet, which appropriation of water for said storage purposes and other beneficial uses took effect on and dates from the 12th day of February, 1904.

The gage height of 47 feet above the bottom of the lower discharge conduit dictates when this reservoir has reached its one fill under this right despite the decree giving an estimated volume associated with this gage height.

Transit (Conveyance) Losses

Transit losses are losses to the stream due to seepage, stream evaporation, or plant consumption. The General Assembly requires the State Engineer to determine and charge transit losses (also referred to as "conveyance losses") for the delivery of water released from storage. Transit losses vary depending upon channel size, elevation, stream gradient, vegetation, bank storage, time of year, location, distance, and other factors.

Exchanges

In an exchange, water is generally provided at one point on a stream so that it may be diverted out of priority at another point upstream. Reservoirs may be part of exchanges. Some examples of possible exchanges that involve reservoirs include:

- release from a downstream reservoir in exchange for diversion into an upstream reservoir
- release of reusable effluent from a downstream treatment plant in exchange for diversion into an upstream reservoir
- release from a downstream reservoir in exchange for diversions into an upstream ditch

- consumptive use credits from a downstream changed direct right are left in the stream to replace water diverted in an upstream reservoir

As with all exchanges, the exchange must be approved by the Water Commissioner or Division Engineer and the release downstream timed so that the flow will be the same as if the upstream diversion had not taken place. Further, when a water right holder releases water allowing an upstream diversion by exchange, the diverted water takes on the "character" of the released water. For example, the water stored in a reservoir in exchange for the release of reusable water from a treatment plant would "take on the character" of the reusable effluent and the water released from the treatment plant becomes the same character as the water that was physically stored in the reservoir (either natural stream or delivery water).

Temporary Detention (72-Hour Rule)

Direct water rights may be temporarily detained for up to 72 hours in order to allow more efficient or effective beneficial use of the water. Examples of such detention would be ponds used to receive delivery of a direct flow irrigation water right that is then applied by a sprinkler or temporarily detained and slugged out through a ditch (operational, head stabilization, equalization or flow regulating ponds), or the use of forebays or regulating structures associated with municipal operations. A specific storage right generally will not be required as long as the water is held for less than 72 hours and the detention is for purposes of allowing for more efficient or effective beneficial use of the direct water right. Absent a storage right, free river conditions, or the use of a *Post Wildland Fire Facilitiy*, as addressed by SB15-212 (section 37-92-602(8), C.R.S.), all water, including storm water, must be released within 72 hours.

Ponds that intercept ground water are subject to additional limitations and all dams associated with the construction of ponds must comply with all requirements of the State of Colorado's Dam Safety Rules and Regulations.

If storm water is not diverted or captured in priority, by exchange or under a substitute water supply plan or decreed plan for augmentation, Colorado Water Law requires it to be released. The State Engineer's current policy requires that all detained water be released to the stream system within a maximum of 72 hours after detainment.

Surcharge Storage

Surcharge storage means the volume of water that may be impounded but not retained within a reservoir between the normal spillway and the crest of the dam. This surcharge is not considered part of the reservoir fill under the water right. The reason for this is that the reservoir operator does not control water in surcharge and by definition in CRS 37-92-103(10.8) storage is the impoundment, possession, and control of water by means of a dam. Unless free river conditions exist or an exchange is made to "recolor" (or change the character of) this water, surcharge storage must be released within 72 hours. Operation of the reservoir outlet works may be required in order to release the surcharge within 72 hours.

Adequate Measurements

In cases where the reservoir right is limited to gage height, it is important that a staff gage that is easily readable be installed in the reservoir. A stage-capacity table (a table that reflects the capacity or volume of storage in the reservoir based on the stage or elevation of the water in the reservoir) has also usually been developed in conjunction with obtaining an absolute right for the reservoir. As long as the decree for

the reservoir covers complete filling of the reservoir and no other water is stored in the reservoir when the reservoir reaches the full level as measured on the elevation/staff gage, then the reservoir is considered full under that right. See additional information above in the Volumetric versus Gage Height Decrees section.

Measuring inflow with a decree specifying a staff gage height is more difficult when releases are being made at the same time that water is being stored. In this situation, a reservoir operator may be required to measure via gages all inflow to and outflow from the reservoir to determine the storage under the right. Alternatively, the Division Engineer or Water Commissioner may allow the use of a "computed inflow." In computing inflow, reservoir operators measure the outflow and the change in storage (as measured by the staff gage) over the same period of time and account for net surface water evaporative losses. This method accounts for all inflow, including underflow, unmeasured tributaries, and precipitation on the reservoir's surface.

In cases where the amount of storage allowed is limited to a volume and not a specific gage height (volumetric decrees), an accurate measure of all inflow is generally necessary. This is done by use of a flume or a weir with a continuous recorder. For volumetric decrees, losses due to evaporation or seepage from the reservoir cannot be made up under the storage right.

Recording is often midnight to midnight, but historical and pragmatic practice may allow recording to be 8am to 8am or another 24-hour period. Reservoir operators must report this recorded information as required by the Division Engineer. Reporting requirements may vary depending on the time of year.

Accounting Principles

Accounting requirements differ depending on the administrative requirements of a reservoir. In simple situations, no independent accounting from the user would be required when the reservoir can be administered without such accounting. The reservoir is simply considered full when it reaches its decreed limit after accounting for carryover. For more detail see section Decree versus Physical Capacity above (as described separately in this document). In these cases, the only record is often the Water Commissioner's record of diversions and storage contents.

Accounting does become necessary when a reservoir goes into and out of priority prior to being filled or the user is releasing water prior to being filled. As described earlier, accounting is also required if there is more than one storage decree associated with a reservoir (especially if the decrees are for different purposes) or foreign water is stored in a reservoir. In the case of more than one storage decree for different uses or places of use, the user may keep track of each type of water in the reservoir independently. If the user does not provide accounting, all carryover is charged to the senior most right as discussed earlier (except when the first-in first-out principal is applied) and takes on the character of the senior right.

In some cases, a reservoir has been designated as an alternate place of storage for another storage right. In this case, the user must keep track of the different types of water in the reservoir. If a particular right is stored in more than one reservoir (either as an alternate place of storage or relocated to other reservoirs), then the user must account for storage under this right in all reservoirs so as to document compliance with the decree(s).

Administrative Accounts (Owe-The-River Account)

It is sometimes necessary to use water balance type accounting when it is difficult to directly measure all of the inflow into an on-stream reservoir. With water balance accounting, the inflow is determined by measuring outflow (including releases and evaporation) and change in storage during the day. The determination of inflow is a day in arrears because of the dependence on change in storage information. An administrative account is used to keep track of "errors" in release amounts because of not knowing the inflow until a day late. For example, assume the following:

a. Reservoir A is on stream and cannot store because it is out of priority.
b. The users are releasing 10 cfs (approximately 20 acre-feet/day) from storage in the reservoir for use.
c. The Division Engineer or Water Commissioner is releasing an additional 5 cfs (approximately10 acre-feet/day) as that is the assumed natural inflow to the reservoir.
d. The net evaporation from reservoir A is 1 cfs (approximately 2 acre-feet/day).
e. The reservoir declines approximately 20 acre-feet between day 1 and day

On day 2, the Division Engineer/Water Commissioner and/or user will use water balance accounting to determine that the actual inflow between day 1 and day 2 was approximately 12 acre-feet (Inflow = Releases (30) + Evaporation (2) + Change In Storage (-20)) or 6 cfs rather than the estimated 5 cfs. In this case, an administrative account or "owe the river account" would be approximately 2 acre-feet. The Division Engineer/Water Commissioner would adjust the release on day 2 to attempt to continue

to release natural inflow plus release the 2 acre-feet in the "owe-the-river" account. The same steps would be taken each day to adjust for either too high or too low an estimate of the actual inflow each day and to keep the administrative account as near to zero over time as possible.

Enforcement Principles

Installation of Measurement Device or Reporting Orders

Generally, the Division Engineer or Water Commissioner verbally directs reservoir users concerning the measurement devices and reporting necessary to administer reservoir rights. In accordance with 37-92-502 (5) (a), C.R.S., the State Engineer and the Division Engineers also have formal authority to order any owner or user of a water right to install and maintain at such owner's or user's expense necessary meters, gauges, or other measuring devices and to report at reasonable times to the appropriate Division Engineer the readings of such meters, gauges, or other measuring devices. Users are subject to liability for impacts to other users from improper storage and subject to paying legal fees and costs of the State in enforcement efforts associated with measuring devices and reporting.

Storage Release Orders

In most situations, the Water Commissioner or Division Engineer informally directs a user to release water stored improperly or directs the user to provide information on why they should be able to retain water when it appears they have stored out of priority. However, if necessary, the Division Engineer can formally order the release of any water that the Division Engineer finds to have been illegally or improperly

stored in accordance with 37-92-502 (3), C.R.S. The Division Engineer is directed to deliver this water to users who are entitled to the same and to insure that the release will not cause damage. Users are subject to liability for impacts to other users from improper storage and subject to paying legal fees and costs of the State in such circumstances. In addition to other orders discussed in these guidelines, the Division Engineer may order removal of any obstruction in a river if it impacts water rights.

ADDITIONAL INFORMATION

Dam Safety Restriction and Breach Orders

The State Engineer's staff inspects reservoirs within the state to determine their safe storage level. When necessary, the State Engineer will issue a restriction order to limit the user from storing above this safe storage level (see Rule 4.2.29 of the Dam Safety Rules). The Division Engineer will order the release of water in the reservoir if it exceeds the restricted level.

A breach order is an order issued by the State Engineer, or his designee, to remove all or part of a dam to the level of the natural ground, so it is incapable of impounding water and creating a hazard (see Rule 4.2.3 of the Dam Safety Rules).

Dead/Active Storage

Active storage is that volume of water capable of being released from the reservoir by means of gravity through an outlet of the reservoir. Dead storage is that amount of water that cannot be released without pumping because of the location and elevation of the lowest outlet from the reservoir. A user may be required to pump dead storage water out of a reservoir into the stream to replace evaporation losses or out of priority inflows into the reservoir. The SEO may oppose the use of small ponds with dead storage as an augmentation source in an augmentation plan due to the unreliability and inadequacy of these structures.

Underground Storage

Placing water into underground storage has a number of advantages that achieve the legislature's objective to maximize the beneficial use of all of the State's waters. For example, water stored underground is not lost to evaporation; the water can be used as an emergency supply in the event of disruption to surface water systems; storing water in an aquifer raises the water table and can reduce energy demand and energy costs otherwise needed for well pumping; and storing water underground helps to reduce committing additional surface land to additional large reservoirs, conveyance systems, and stream modifications.

Underground reservoirs are not reservoirs within the meaning of C.R.S. 37-87-101(2) except to the extent such reservoirs are filled by other than natural means with water to which the person filling such aquifer has a conditional or decreed right. Recharge water rights are not considered storage. Underground reservoirs also include porosity storage reservoirs which are defined as underground storage vessels in an alluvial deposit over an aquiclude that is formed by separating a volume of that alluvial deposit by surrounding it by a man-made substantially impermeable barrier so that the volume is hydrologically separate from the original surrounding deposit.

Subgrade Storage

Subgrade storage includes any water stored below the natural land surface elevation such that it must be accessed by means other than gravity drainage. This includes rock quarries in low permeability material, but generally is associated with placing a very low permeability lining around a mined-out gravel pit or other excavation

into high permeability material. The purpose of the very low permeability liner is to isolate the water placed into the excavation from the surrounding ground water, thus impounding, possessing, and controlling the water, rather than letting it flow away with the surrounding ground water and become unavailable for future use.

The very low permeability liner must be approved in accordance with the August 1999 State Engineer Guidelines for Lining Criteria for Gravel Pits (please see Appendix for document). The Liner Guidelines contain a procedure for testing the constructed liner, two allowable liner leakage standards, a mass balance accounting procedure for lined excavations, and provisions to address a liner failure that may occur during operation of the reservoir.

The testing procedure set forth in the Liner Guidelines requires that the liner be demonstrated to meet leakage standards. Typically this is done by holding the lined excavation essentially dry; measuring the volume of water removed from the lined excavation; and calculating the volume of any precipitation entering the lined excavation based on the surface area and a simple on-site rain gage correlated to official weather stations in the area. If the lined excavation is not held essentially dry during the test, the volume of evaporation from the free water surface must also be calculated based on the surface area over the course of the test and data from official weather stations in the area. The differences between the known inflows and the known outflows plus any changes in storage are assumed to be ground water leakage by the liner. If this volume does not meet the leakage standards in the Liner Guidelines then the excavation is determined to be a well and water storage is not allowed.

It should be noted that the Liner Guidelines contain a similar testing procedure as discussed above for locations of high permeability material where a slurry wall has been installed to isolate an area from the local ground water but where no excavation has yet occurred. The procedure here requires piezometers located inside and outside of the slurry wall to monitor water levels on both sides of the wall. Water is then pumped from inside the wall to establish a steady-state head gradient across the wall for the 90 day test. The minimum acceptable head gradient prior to starting the test is ten (10) vertical feet or to bedrock if bedrock is located less than ten feet below the local water table. The same leakage standards used for an excavated area are also used in this instance.

The mass balance accounting procedure set forth in the Liner Guidelines is straightforward and requires any out of priority inflow from any source, including ground water, to be returned to the stream or fully augmented. The Liner Guidelines provision to address a liner failure that may occur during operation of the reservoir requires that if, in two consecutive months, the accounting shows the unregulated ground water inflows exceed the Guideline Standards, the reservoir operator and the State Engineer's Office will consult on the probable cause(s) and possible solution(s) to the excessive inflows. Specific operational requirements and time lines for agreement and repair are also set forth in the Liner Guidelines. The ultimate result of a previously approved liner failing to meet the Guideline Standards during actual operation is a prohibition of storage in the reservoir with a requirement that all out of priority inflows be pumped to the stream or fully augmented pursuant to an augmentation plan or a substitute water supply plan.

Rock quarries in low permeability material that seek to store water are tested in accordance with the Liner Guidelines discussed above as applied to lined excavations

into high permeability material where the excavation intercepts ground water. They are also subject to the same two tiered accounting approach discussed above.

Types of Dams

Colorado laws governing dams and reservoirs were enacted for the protection of lives and property due to potential hazards associated with the storage of water in the reservoir behind a dam. The owner of the dam is responsible for the safe storage of water impounded in the reservoir. There are specific construction and administration requirements depending on the category of a dam. The categories are as follows: jurisdictional size dams, non-jurisdictional size dams, livestock water tanks (LSWT), erosion control dams (ECD) and exempt structures such as mill tailing impoundments (see complete list of these structures in Section 37-87-114(5) C.R.S.). Laws that are contained in the Colorado Revised Statutes establish specific requirements for each type of dam. Jurisdictional and non-jurisdictional size dams, exempt structures, and ECDs are governed by Sections 37-87-101 thru 125, C.R.S. and the Rules and Regulations for Dam Safety and Dam Construction. LSWTs are regulated by Sections 35-49-101 thru 116, C.R.S. The owner of a dam and/or irrigation ditch has responsibilities, and the Division Engineer in charge of each Water Division has additional related authorities, under the following statutes: C.R.S 37-84 inclusive and 37-92 inclusive.

Constructing a dam to create a reservoir does not assure the owner the right to store water. Likewise, having a water right does not constitute an approval to construct the dam. A water right must be obtained through the Water Court. Approval for construction of a dam must be obtained from the State Engineer.

Jurisdictional versus Non-jurisdictional

A jurisdictional dam is one that has a statutory height of greater than 10 feet in height to the spillway crest from the lowest point in the natural stream channel or natural ground surface, or creates a reservoir with more than 100 acre-feet of water, or covers a surface area of more than 20 acres at the high waterline. Plans and specifications for jurisdictional dams must be approved by the State Engineer before construction. The "Rules and Regulations for Dam Safety and Dam Construction" can be accessed from the following website link: http://water.state.co.us/DWRIPub/Documents/ds_rules07.pdf. Additionally, you can obtain a publication from this office free of charge titled, "Guide to Construction and Administration of Dams in Colorado" (or you can download it at the following link: http://water.state.co.us/DWRIPub/Documents/damguide.pdf), which is helpful in providing general information regarding dams, livestock water tanks, and erosion control dams.

A flood control dam is a special purpose dam which is normally dry and has an un-gated outlet structure which will drain the water impounded during the flood. The jurisdictional size and classification of the dam are determined assuming the reservoir is full to the emergency spillway (see Rule 4.2.5.7 of the Dam Safety Rules).

Non-Jurisdictional size dams are smaller in size than jurisdictional size dams. Plans and specifications are not required for construction, however, filing of a Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure is required. The form may be obtained from the Office of the State Engineer in Denver, from any Water Division office, or from the DWR website http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx, and must be

filed 45 days prior to construction. No fee is required to file the Notice of Intent form. The Division Engineer may require an outlet pipe with a regulating gate to be installed in the bottom of the dam to allow releases to prevent injury to existing water rights. Because any dam, regardless of size, has the potential to cause damage downstream if it should fail, the owner is advised to consult a person familiar with dam construction to ensure the dam is constructed properly. The Notice of Intent form shall be submitted to the Division Engineer of the Water Division in which the dam is to be located. Addresses of the seven division offices are available online at http://www.water.state.co.us/org/contacts.asp.

Livestock Water Tanks

Livestock water tanks are covered under the "Livestock Water Tank Act of Colorado" Sections 35-49-101 to 35-49-116, C.R.S. (Also see Rule 17.4 of the Dam Safety Rules.) A LSWT requires a permit from the State Engineer. A LSWT is a dam constructed to capture run-off water on rangeland to provide water for livestock. They may only be constructed on normally dry water courses, and may also be used for recreation, but not for irrigation. A normally dry water course or stream is considered dry 80% of the time during a calendar year. The structure must not have a ditch or other structure delivering water to or from it.

Height of the dam cannot be greater than 15 feet from the bottom of the stream channel to the spillway crest. Impoundment volume of the reservoir cannot exceed 10 acre-feet. If the LSWT is five feet or less in height to the spillway, and two acre-feet capacity or less, no application is necessary, but an application may be filed to obtain a priority between LSWT's. It is important to note that this is not a water right, but only

provides a priority between LSWT's. The LSWT does not require a water right for its use but may be subject to curtailment from downstream senior users depending on the specific circumstances.

An outlet pipe with a regulation gate is required unless specifically waived by the Division Engineer during review of the application. Standard specifications and application forms are available from any Water Division office or the DWR website http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx. The application and fee should be submitted to the division office that the LSWT is to be located in. Construction of the LSWT may begin upon approval of the application by the Division Engineer. The State Engineer may then inspect the LSWT and within 10 days after receiving notice of completion or within 10 days after inspection he must then approve or disapprove of the structure. The U.S. Natural Resources Conservation Service may assist owners in preparing an application, or owners may wish to hire a licensed professional engineer experienced in dam design for assistance.

Erosion Control Dams

In Colorado, many farms and ranches need ways to control erosion. In recognition of this need, the Colorado legislature instituted statutes governing the development and use of these types of structures. Erosion control dams are governed under Section 37-87-122, C.R.S. (Also see Rule 17.5 of the Dam Safety Rules.)

An ECD requires a permit from the Office of the State Engineer. These dams may only be constructed on normally dry watercourses and are only for the purpose of controlling soil erosion caused by floods. The vertical height of the dam cannot exceed 15 feet from the bottom of the channel to the bottom of the spillway. The height is

measured at the toe of the upstream slope where the dam contacts the ground surface. The spillway must have a minimum freeboard of four feet to the dam crest. Impoundment volume of the reservoir cannot exceed 10 acre-feet at the emergency spillway level. An ECD with more than two acre-feet capacity must have an un-gated outlet conduit large enough to pass stored water in excess of two acre-feet within a 36-hour period, but no less than a 12-inch diameter. The vertical location of the outlet must be at or below the two acre-feet storage volume level. In certain circumstances, an outlet structure may be required for an ECD with less than two acre-feet capacity to address water administration issues.

A water right is not required for an ECD but a number is assigned, similar to a LSWT. An ECD is also subject to curtailment from downstream water rights depending upon the circumstances. Since an ECD is not intended to store water, a priority is not assigned. Standard specifications and application forms are available from any Water Division office or the DWR website http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx. The application, along with a fee, must be submitted to the Water Division office. Construction may begin upon approval of the application by the Division Engineer. The U.S. Natural Resources Conservation Service may assist owners in preparing an application, or owners may wish to hire a licensed professional engineer for assistance.

Other Regulatory Requirements

Other state and federal agencies regulate runoff from storm water in construction activities, industrial activities and concentrated animal feeding operations. These facilities may involve temporary or permanent detention, retention, or sediment ponds or

basins. These structures are designed to capture, settle, store and/or release water. These structures can be constructed by excavation and/or by placing an earthen embankment across a low area or drainage swale. They can be designed to maintain a permanent pool or to drain completely dry.

The two agencies that regulate these activities are the Colorado Department of Public Health and Environment, Water Quality Control Division http://www.cdphe.state.co.us/wq/PermitsUnit/ and the Environmental Protection Agency http://www.epa.gov/region8/water/stormwater/. Even though these structures are permitted and regulated by these other agencies they must still comply with all State water rights laws regarding diversion and depletion of surface water.

Compensatory Storage Doctrine (Transbasin Storage Agreements)

The cost of constructing and operating large projects precluded all but the largest municipalities. To provide a means to finance, acquire water rights and land surface rights, and for operations, the Colorado legislature created special statutory entities called water conservancy districts. The first of these districts was the Northern Colorado Water Conservancy District, created in 1937 to develop the Colorado-Big Thompson Project. Recognition of compensatory storage as an integral part of transmountain diversions by way of water conservancy districts came in 1943 when the Colorado legislature amended the original Water Conservancy Districts Act to require facilities to be constructed so as not to impair nor increase costs to existing or prospective water users within the natural basin of the Colorado River. Three reservoirs

have been built in the Colorado River drainage as a result of this act. The Colorado-Big Thompson Project built Green Mountain Reservoir with a capacity of 152,000 acre feet in return for the right to divert an expected 320,000 acre feet to the South Platte drainage. Of the 152,000 acre feet, 100,000 acre feet is in the compensatory pool for the benefit of in-basin users. These beneficiaries receive replacement releases either by the language of the authorizing legislation of the project or by contract. This authorizing legislation for the CBT, Senate Document 80, became the model for compensatory storage. The Fry-Ark Project built Ruedi Reservoir with a capacity of 102,000 acre feet in return for the right to divert an expected 69,200 acre feet to the Arkansas River drainage. An individual beneficiary of this compensatory pool obtains release of stored water by contract. The Windy Gap project provided $10M for the construction of compensatory storage, which ultimately helped build Wolford Mountain Reservoir, and the first 3,000 acre feet of Windy Gap water pumped to Granby Reservoir. Municipalities, irrigation companies, and other corporations that construct transmountain diversion projects are not required to provide compensatory storage because they are not incorporated or created under the statute requiring such storage.

Dick Wolfe, P.E.
State Engineer, Director
Colorado Division of Water Resources
October 31, 2011
Revised: February 1, 2016

Revision Log

- Original Document – October 2011
- Amended – February 2016
    - Additional direction to address activities allowed under SB13-41
    - Additional direction regarding paper fill
    - Miscellaneous, non-substantive, clarifying cleanup

January 20, 2021

RESOLUTION NO. 2021-2

A RESOLUTION

ADOPTING STAGECOACH RESERVOIR FILL AND RELEASE POLICIES.

WHEREAS, the Upper Yampa Water Conservancy District ("District") constructed, owns, and operates Stagecoach Reservoir located in Routt County, Colorado on the Yampa River; and

WHEREAS, the District is empowered pursuant to C.R.S. § 37-45-134 to make and enforce all reasonable rules and regulations for the management, control delivery, use and distribution of water; and

WHEREAS, the Board of Directors of the District ("Board") desires to adopt the attached fill and release policies for Stagecoach Reservoir, which the Board finds to be reasonable rules and regulations for the management, control, delivery, use and distribution of water, which maximize the beneficial use of water available for storage and release from Stagecoach Reservoir and which are consistent with all permits, approvals and contractual commitments of the District and the requirements of law for the operation of Stagecoach Reservoir.

NOW THEREFORE, be it resolved that the Upper Yampa Water Conservancy District Stagecoach Reservoir Fill and Release Policy attached hereto is approved and adopted effective January 20, 2021.

UPPER YAMPA WATER CONSERVANCY DISTRICT

Ken Brenner

By: Ken Brenner (Jan 25, 2021 15:21 MST)

ATTEST

Andy Rossi, Secretary

Upper Yampa Water Conservancy District

Stagecoach Reservoir Fill and Release Policy

I. General Policy

The Upper Yampa Water Conservancy District (" District") has constructed and owns and operates a dam and reservoir known as Stagecoach Reservoir in Routt County, Colorado for the purpose of supplying water within its boundaries. The dam and reservoir are located on the Yampa (Bear) River upstream from the City of Steamboat Springs. The total storage capacity of the Reservoir is approximately 36,439 acre-feet. Water is stored in Stagecoach Reservoir pursuant to various water rights owned by the District. The storage and release of water to meet the needs of water customers holding water contracts with the District is the primary function of the reservoir. Use of the Reservoir as a recreational amenity and for generation of green hydroelectric energy are important ancillary benefits to the storage and releases of water but remain secondary to providing water to the District's allotment and augmentation contract customers. The District recognizes the need to adapt to the variability of precipitation throughout the year and over successive years in adopting these policies on reservoir filling and release. The District will continue to work towards making its system a reliable source of water for the District' s constituents by improvements in its operation of existing projects and contemplation of new projects that may change these policies in the future. To that end the District Board adopts these policies for the operation of Stagecoach Reservoir.

II. Filling Policies

Stagecoach Reservoir typically fills during spring runoff and releases water under allotment contracts in the late summer and fall of the year. Water is stored under decreed water rights owned by the District in order to best meet the needs of its constituents. Water accounting will be done in accordance with the laws of the State of Colorado. Water accounting procedures subject to these policies will be developed by UYWCD staff in consultation with the Division Engineer and approved by the Board.

A. Water Rights

1. Water Rights Decreed for Storage

Water rights decreed for storage in Stagecoach Reservoir. The following absolute and conditional water rights are decreed for storage in Stagecoach Reservoir:

WATER RIGHT				AMOUNT					ADMIN NO.	APPROP. DATE
Agricultural HCU Credits/Ditch Rights (below per 95CW078)[1]				**518.4 AF absolute**						
Ditch	April	May	June	July	Aug	Sept	Oct	Total (AF)		
Yellow Jacket	0.5	16.5	52.1	48.9	23.8	5.5	0.7	148.0	14175.00000 33782.25353	10/22/1888 06/01/1919
Union	1.5	20.7	165.3	154.7	36.4	2.9	0	381.5	14563.00000 33782.24988	11/14/1889 06/01/1918
Union reduction[2]	1.3	18.7	149.1	139.5	32.8	2.6	0	344.0	n/a	n/a
Little Chief	0.8	4.8	12.3	6.8	1.6	0.1	0	26.4	20450.19968 33782.25353	09/02/1904 03/01/1919
Total	2.6	40.0	213.5	195.2	58.2	8.2	0.7	518.4		
Four Counties Ditch No. 1 and No. 3 (Priority 40)				**184.8 cfs (366.55 AF/day) absolute 571.2 cfs (1,133 AF/day) conditional**					**39599.00000**	**06/02/1958**
Bear Reservoir				**11,614.2 AF absolute**					**40815.00000**	**09/30/1961**
Pleasant Valley Reservoir				**20,854 AF absolute/9,246 AF conditional[3]**					**41727.39991**	**06/29/1959**
Pleasant Valley Feeder Canal				**300 cfs (600 AF/day) conditional**					**41727.39991**	**06/29/1959**
Four Counties Ditch No. 3 Enlargement and Extension (Priority 45)				**394 cfs (781.5 AF/day) conditional**					**41727.41412**	**05/20/1963**
Bear Reservoir Enlargement				**3,928 AF conditional**					**44559.44488**	**10/21/1971**
Bear/Stagecoach Reservoir 2nd Filling				**6,670 AF absolute**					**53691.53386**	**03/01/1996**

1. *Case No. 95CW078 changed these water rights for storage in Stagecoach Reservoir and allows for evaporation and augmentation and other uses under respective priori ties.*

2. *Union Ditch consumptive use reduced for wetland development and maintenance, water suppl y for waterfowl ponds and recreation uses in Case No.9 5CW78.*

3. *40,720 AF total per Case No. W-946-76, minus 20,854 AF absolute, minus I0,620 AF transferred to Morris on Creek Reservoir in Case No. 07CW061*

Decreed Uses:

	Bear Reservoir (1st & Enlg.)	Bear Reservoir Refill	Pleasant Valley Reservoir	Four Counties P-40	Four Counties P-45	Agricultural HCU Credits
Irrigation	x	x	x	x	x	x
Stock	x	x	x	x		x
Domestic	x	x	x	x	x	x
Municipal	x	x	x	x	x	x
Industrial	x	x	x	x	x	x
Fish	x	x	x	x		x
Recreation	x	x	x	x	x	x
Aesthetics		x				
Evaporation			x			x
Power	x	x	x	x	x	x
Energy				x	x	
Mining	x		x	x	x	
Augmentation	x	x	x	x	x	x
Exchange	x	x	x	x	x	x

2. Start of Fill

The start of fill date for Stagecoach Reservoir is March 1 of each year.

3. Carry Over Storage

On the start of fill date, the total water supply stored under the Bear Reservoir 1st Fill storage right, Pleasant Valley Reservoir 1st Fill storage right, Bear Reservoir Enlargement storage right, and Bear Refill storage right for multiple uses is first allocated to the Bear Reservoir storage right up to a maximum of 11,614.2 AF, then it is allocated to the Pleasant Valley Reservoir storage right first in an amount up to the maximum decreed absolute volume and then in an amount up to the maximum decreed conditional volume, finally, any remaining storage is allocated to the Bear Reservoir Enlargement storage right first in an amount up to the maximum decreed absolute volume and then in an amount up to the maximum decreed conditional volume. In addition, the total water supply stored under the Bear Reservoir 1st Fill storage right, Pleasant Valley Reservoir 1st Fill storage right, Bear Reservoir Enlargement storage right, and Bear Refill storage right for non-augmentation uses is allocated in a similar manner, taking into account storage supplies already allocated to these rights for multiple uses. Storage

allocations to the Four Counties Ditch No. 1 and No.3, the Four Counties Ditch No. 3 Enlargement and Extension, the Yellow Jacket Ditch, the Union Ditch, and the Little Chief Ditch will be accounted for from the start of fill date in a manner presented to the Colorado Division of Water Resources by the District in the annual Stagecoach Reservoir accounting data.

4. **First Fill**
   After the start of fill date, the remaining capacity in Stagecoach Reservoir shall be filled under the water rights set forth above in order of seniority, storing first up to the maximum decreed absolute volumes.

5. **Second Fill**
   After the start of fill date, any remaining capacity not carried over in Stagecoach Reservoir shall be filled under the water rights set forth above in order of seniority, to the extent each priority is available for storing. After the commencement of the first fill, evaporation and seepage during the water year shall be replaced by utilization of the water stored under the Yellow Jacket, Union and Little Chief Ditches, the Four Counties No. 1 and No. 3 rights, and the Pleasant Valley Reservoir 1st Fill water rights, in order of seniority. After a completed first fill of the Reservoir, and release of water from pools as described in Section III below, additional storable inflow may be stored during the remainder of the water year and allocated to the Stagecoach 2nd Filling water right."

6. **Augmentation Use**
   The water rights listed in paragraph II(A)(1) above were changed to add and include as beneficial uses, appropriative rights of exchange and substitution, augmentation and exchange for replacement purposes and all other augmentation uses. The priority date for such additional uses for each of the water rights is the original decreed priority date with the exception of the Bear Reservoir and Pleasant Valley Reservoir water rights, which have a priority date for such additional uses of June 29, 2001. If water is stored under the Bear Reservoir and Pleasant Valley Reservoir water rights and/or any other water rights decreed for augmentation use at such time that such water rights are not in priority for augmentation uses but are in priority for other uses, the District shall account separately for such water stored for purposes other than augmentation and such water shall not be released for augmentation purposes in the year of storage or afterwards but may be released for all other purposes.

7. Other Conditional Rights

In any year which the Bear Reservoir Enlargement, Pleasant Valley Reservoir conditional water rights, Pleasant Valley Feeder Canal conditional rights and remaining conditional water rights in Four Counties Ditch Nos. 1 and 3 and Four Counties Ditch No. 3 Enlargement and Extension are in priority when filling under the first fill, the District will fill under such rights and seek to make more of such rights absolute.

8. Filling Priority

The District has designated certain pools of water within the Reservoir for the purpose of contracting water. Contracts will be written and assigned to specific pools within the reservoir and contracts within each pool shall have equal priority (abated proportionally) when the pool contains water. Filling priority of Pools in the Reservoir shall be as follows:

1) 9,000 AF "Municipal/Industrial Pool"
2) 2,000 AF "Augmentation Pool"
3) 4,000 AF "General Supply Pool"
4) 3,164 AF "Raise Pool"
5) 3,275 AF "Preferred Remainder Pool"
6) 15,000 AF "Emergency Remainder Pool"

9. Description of Pools

a. Municipal/Industrial

The Municipal/Industrial Pool currently consists of:

9,000 acre-feet allocated for municipal and industrial uses pursuant to existing and future contracts between the District and such contracting entities, or the approved municipal or industrial allottees of water from Stagecoach Reservoir who contract for all or part of the 9,000 acre-feet allotted to such pool ('Municipal/Industrial Pool").

Water stored in the Municipal/Industrial Pool is available for release to municipal and industrial users including community water systems

serving residential subdivisions and recreational in-channel diversions decreed to municipalities.

b. The Augmentation Pool

The Augmentation Pool currently consists of:

2,000 acre-feet of water allocated for augmentation use pursuant to the decree entered in Case No. 06CW49, Water Division 6 ("Master Augmentation Pool").

c. The General Supply Pool

The General Supply Pool currently consists of:

4,000 acre-feet of water allocated for agricultural, environmental, and recreational uses, and for municipal and industrial uses if the Municipal/Industrial Pool described above becomes fully subscribed. 192-acre feet is currently allotted to Brian Stahl et al.

d. The Raise Pool

The Raise Pool Currently consists of:

3,164 acre-feet of water not currently under contract which represents the increase in capacity of Stagecoach Reservoir resulting from the raise in the level of the spillway completed in 2011, and which may be contracted for any beneficial uses approved by the Board.

e. The Preferred Remainder Pool

The Preferred Remainder Pool currently consists of:

3,275 acre-feet of water not currently under contract which represents the remaining capacity of Stagecoach Reservoir not allocated to the pools described in paragraphs II(A)(10)(a) through (d) above or II(A)(10)(f) below. It is anticipated that water stored in this Preferred Remainder Pool will not be contracted long term by the District so long as stored water is available to be allocated from the pools described in paragraphs II(A)(10)(a) through (d) above.

f. The Emergency Remainder Pool

The Emergency Remainder Pool currently consists of:

14,000 acre-feet of water not currently under contract which represents the remaining capacity of Stagecoach Reservoir not allocated to the pools above 1,000 AF of Sediment Storage, physically dead storage, and water that has limited hydraulic capacity for release.

III. Management of the Pools

A. Start of Year Allocation

The water available in Stagecoach Reservoir on March first and any subsequent fill shall be allocated to the pools listed in paragraph II(A)(9) in order until each pool is completely filled before allocating any water to the next Pool. If insufficient water is available in any Pool to supply water to all parties holding contracts for delivery of water from that Pool, the water available for delivery to each contract holder shall be reduced proportionally, based upon the respective amounts of maximum contract allotments under the existing contracts from such Pool.

B. Commitment of Reservoir Pools

When Stagecoach Reservoir is completely filled, all contracts and commitments made in previous documents are fully served, including all contractual obligations and non-contract obligations of in-reservoir recreation storage. Thus, when the reservoir is full, with the exception of evaporation and releases from storage for minimum stream flow, 18,275 AF will be left after contract releases for the year, until and unless the Preferred Remainder Pool is contracted to allottees in the future.

C. Post Billing Fill

When water is not available to fill the Reservoir by July 15 in any year, the Emergency Remainder Pool, first, and then thereafter the Preferred Remainder Pool will be shorted and reduced by the amount of the fill shortage. Thus, contractual obligations will be available within Stagecoach Reservoir at a volume of 18,164 AF (elev. 7178.7 or 25.3 ft. below spillway elevation = 7204 ft.). In any year where Stagecoach Reservoir is not full by July 15 and storable inflow is available between July 15 and March 1 of the following year such storage will be made available to the unfilled pools in the order of the priority of pools set forth in Section 9 above, to be available during the water year of

such filling . Such additional water made available to a previously unfilled pool will be made available proportionally among all allottees holding contracts from such pool, up to the amount in each instance such allottee was shorted or curtailed before such additional water storage became available. If only the Emergency Remainder Pool and/or the Preferred Remainder Pool were not filled in such water year, then the additional post-July 15 storable inflow will be allocated to supply these pools, applied first to the Preferred Remainder Pool up to the amount it was shorted.

IV. Release Policies

A. Release Operations

Except as otherwise required under the District' s existing contracts for the delivery of water, releases of water pursuant to contract shall be made from the pool specified in the contract. Where feasible, Stagecoach Reservoir releases pursuant to contract will be made through the Districts hydro-power generation facilities. Use of the Jet Flow valve may be made in times of emergency if necessary, for structural concerns, control of dissolved oxygen levels downstream of the dam, or to minimize spilling over the dam crest for environmental concerns. These operational constraints made due to permitting requirements of the power plant through the Federal Energy Regulatory Commission (FERC) will be considered "Hydro" releases.

B. Outlet Capacity and ramping

Because of limited outlet capacity, the total instantaneous rate for contract releases at which water may be released from Stagecoach Reservoir will not exceed turbine capacity or the maximum instantaneous rate of release specified in an allotment contract, whichever is less. The District will make requested releases as soon as operationally possible (typically within 24 hours during the work week). Requested releases will be made in accordance with the District' s ramping rate practices and current water order and release schedules.

C. Evaporation

Evaporation for the entire Stagecoach Reservoir will be applied and debited solely against the Emergency Remainder Pool.

D. Minimum Streamflow releases

Required minimum stream flow releases which exceed inflow, and which are not released pursuant to contract shall be applied and debited first against the Emergency Remainder Pool and then against the Preferred Remainder Pool.

E. Prevention of Ice Damage

After August 1 of each year the District may make 1,500 AF space available as necessary from the Emergency Remainder Pool to avoid ice on the spillway crest, provided that such releases of stored water to make such space available are made through the hydro-electric power plant in the dam and not through the jet valve, in order to confirm accepted beneficial use of such releases. The District may release such additional water up to such 1,500 AF limit first from the Emergency Remainder Pool and then from the Preferred Remainder Pool in order to make space available in the Reservoir to store an amount not exceeding the 95% confidence of Reservoir filling based on the forecasts of Colorado River Basin Forecast Center as modified by adopted District forecast criteria and snowpack data. Consistent with sound operational practices for Reservoir operations, and use of the hydro-electric power plant in the dam, the District may schedule and time such releases up to 1,500 AF to co-ordinate with other requested storage releases from Stagecoach Reservoir for existing contract allottees, and to generate income to the District from short-term environmental/recreational allotment contracts, and otherwise, in the discretion of the General Manager of the District, to co-ordinate with planned releases of stored water from other reservoirs in the Yampa River Basin owned or controlled by other entities where beneficial to improve the instantaneous in-stream flows below Stagecoach Dam and to ameliorate against periods of main-stem Yampa River administration by the Division Engineer.