



**COLORADO RIVER DISTRICT**  
PROTECTING WESTERN COLORADO WATER SINCE 1937

## **NOTICE**

**First Regular Joint Quarterly Meeting of  
the Board of Directors of the Colorado River  
Water Conservation District and  
of the Colorado River Water Conservation  
District Acting by and Through Its Colorado  
River Water Projects Enterprise**

**January 17-18, 2023**

**9:00 a.m.\*\***

**This Meeting Will be Held at 201 Centennial Street, Suite 100,  
Glenwood Springs, Colorado 81601  
and via Zoom**

**Please See Registration/Attendance Information Below**

***\*\*PLEASE NOTE: The River District meeting will be held in-person at 201 Centennial Street, Suite 100, Glenwood Springs, CO. Board members may participate remotely upon extenuating circumstances. Members of the public may attend in person or virtually via Zoom. To attend or observe the meeting via Zoom, please register on our website at [www.coloradoriverdistrict.org](http://www.coloradoriverdistrict.org).***

The first regular joint quarterly meeting of 2023 of the Board of Directors of the Colorado River Water Conservation District and of the Colorado River Water Conservation District acting by and through its Colorado River Water Projects Enterprise will be held on Tuesday, January 17, 2022, commencing at 9:00 a.m. and continuing to Wednesday, January 18, 2023, commencing at 8:30 a.m.



**COLORADO RIVER DISTRICT**  
PROTECTING WESTERN COLORADO WATER SINCE 1937

## **Agenda**

# **First Regular Joint Quarterly Meeting of the Board of Directors of the Colorado River Water Conservation District and of the Colorado River Water Conservation District Acting by and Through Its Colorado River Water Projects Enterprise**

**January 17-18, 2023**

**9:00 a.m.\*\***

**This Meeting Will be Held at 201 Centennial Street, Suite 100,  
Glenwood Springs, Colorado 81601  
and via Zoom**

**Please See Registration/Attendance Information Below**

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<b>9:00 am</b>	<b>1. Review Meeting Agenda and Objectives.</b>
<b>9:05 am</b>	<b>2. Presentation and Report of Directors' Credentials for Mesa, Moffat, Pitkin, Routt, and Saguache Counties; and Introductions of Board Members.</b>
<b>9:10 am</b>	<b>3. Election of Board Officers for 2023:</b>





	<ul style="list-style-type: none"> <li>a. Election of President.</li> <li>b. Election of Vice President.</li> </ul>
<b>9:20 am</b>	<p><b>4. Appointment of Committees for 2023.</b></p> <ul style="list-style-type: none"> <li>i. Investment Committee.</li> <li>ii. Executive Committee.</li> <li>iii. Information and Outreach Committee.</li> <li>iv. Litigation Committee.</li> <li>v. Water Supply Projects Committee.</li> <li>vi. Retirement Advisory Committee.</li> </ul>
<b>9:25 am</b>	<p><b>5. Adoption of Resolutions for Outgoing Directors.</b></p> <ul style="list-style-type: none"> <li>a. TBD.</li> </ul>
<b>9:30 am</b>	<p><b>6. Consent Agenda:</b></p> <ul style="list-style-type: none"> <li>a. Designation for Posting Notices.</li> <li>b. Reappointment of General Manager, General Counsel, and Treasurer.</li> <li>c. Confirmation of Assistant Secretary.</li> <li>d. Approval of Minutes and Actions Taken: <ul style="list-style-type: none"> <li>i. Minutes of Fourth Regular Joint Quarterly Meeting, October 18-19, 2022.</li> </ul> </li> <li>e. Notice of Delayed Treasurer’s Reports, Check Registers, and Draft Financials.</li> </ul>
<b>9:35 am</b>	<p><b>7. General Counsel’s Report, Executive Session:</b></p> <ul style="list-style-type: none"> <li>a. Matters Proposed for Executive Session: <ul style="list-style-type: none"> <li>i. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).</li> <li>ii. CRCA Implementation.</li> <li>iii. Wolford Mountain Reservoir Power Plant Conditional Water Right (An Enterprise Matter).</li> <li>iv. Colorado Springs Utilities Diligence, Case No. 15CW3019, Water Division 5, and Proposed Enlargement of Montgomery Reservoir.</li> <li>v. Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.</li> <li>vi. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.</li> <li>vii. Potential Strategic Water Rights Partnership and Acquisition.</li> <li>viii. CWCB Proposed Deep Creek Wild and Scenic Instream Flow and Proposed Development Allowance.</li> <li>ix. CWCB Proposed Instream Flows on Cottonwood, Monitor and Potter Creeks and Development Allowance.</li> <li>x. Colorado River Compact and Interstate Negotiations, and Colorado River District System Conservation Pilot Program Participation.</li> </ul> </li> </ul>
<b>12:30 pm</b>	<b>Lunch.</b>
<b>1:30 pm</b>	<b>8. Public Comment.</b>
<b>1:35 pm</b>	<p><b>9. General Counsel’s Report, Public Session:</b></p> <ul style="list-style-type: none"> <li>a. Summary and Action Items from Executive Session.</li> </ul>



	<ul style="list-style-type: none"> <li>b. Approval of 2023 Special Counsel Rates.</li> <li>c. Proposed Amendment to Colorado River District’s Financial Governance Policy Regarding Emergency Expenditures.</li> <li>d. Application of City of Aurora, Case No. 19CW3159, Water Division 5.</li> <li>e. General Counsel’s Goals and Objectives for 2023.</li> <li>f. Other Items from General Counsel Report.</li> </ul>
<b>2:15 pm</b>	<p><b>10. General Manager’s Report:</b></p> <ul style="list-style-type: none"> <li>a. Colorado River Basin Hydrology Report – Update.</li> <li>b. Colorado River Discussions, System Conservation Program, Demand Management and DROA.</li> <li>c. District Office Remodel Update. <ul style="list-style-type: none"> <li>i. Contract Amendment with F&amp;M Architects.</li> </ul> </li> <li>d. Staffing Discussion.</li> <li>e. Proposed Change to Paid Parental Leave Benefit.</li> <li>f. Upper Colorado Wild and Scenic Stakeholder Group Update.</li> <li>g. USGS Joint Funding Agreement (JFA) Approval.</li> <li>h. General Manager’s Goals and Objectives for 2023.</li> <li>i. Service Anniversary.</li> </ul>
<p><i>Dinner will be provided to the Board of Directors of the Colorado River Water Conservation District, River District Staff and Invited Guests at 6:00 p.m. at Moonlight Restaurant, 115 6th Street, Glenwood Springs, CO 81601.</i></p>	
<p><b>CONTINUE THE MEETING TO WEDNESDAY, JANUARY 18, 2023</b>  <b>COMMENCING AT 8:30 A.M.</b>  <i>A meeting of the Information and Outreach Committee of the Board will meet at 7:30 a.m. prior to the resumption of the full Board of Directors Meeting.</i></p>	
<b>8:30 am</b>	<b>11. Presentation by Erin Light, Division 6 Engineer, Regarding Division 6 Water Administration and Conditions.</b>
<b>9:15 am</b>	<b>12. Presentation by Lori Weigel Regarding Triennial Survey of CRWCD Constituents – 2022 Polling Results.</b>
<b>10:00 am</b>	<b>13. Directors’ Updates and Concerns.</b>
<b>10:45 am</b>	<p><b>14. Community Funding Partnership (CFP) Administrative Changes:</b></p> <ul style="list-style-type: none"> <li>a. Approve revised Community Funding Partnership Framework.</li> </ul>
<b>11:00 am</b>	<p><b>15. Community Funding Partnership (CFP) Applications:</b></p> <ul style="list-style-type: none"> <li>a. Applicant: Eagle County Conservation District; Project: Water Efficient Landscape Conversion Program Project.</li> <li>b. Applicant: White River Conservation District; Project: White River Water Supply Study.</li> <li>c. Applicant: RiversEdge West; Project: Uncompahgre and White River Riparian Restoration Project.</li> <li>d. Applicant: Upper Yampa Coalition; Project: Enhancing Soil Moisture Observations to Support Water Resource Management in the Upper Yampa River Basin.</li> </ul>



<b>11:45 am</b>	<b>16. External Affairs:</b> <ul style="list-style-type: none"> <li>a. Information and Outreach Update.</li> <li>b. State Affairs.</li> <li>c. Federal Affairs.</li> </ul>
<b>12:30 pm</b>	<b>Lunch.</b>
<b>1:00 pm</b>	<b>17. Annual Policy Review Discussion:</b> <ul style="list-style-type: none"> <li>a. Interstate Water Marketing.</li> <li>b. Funding: Water Infrastructure and Programs.</li> <li>c. Colorado River Compacts and Entitlements.</li> <li>d. Transmountain Water Diversions.</li> </ul>
<b>1:45 pm</b>	<b>18. Project Operations and Updates (Enterprise Matters):</b> <ul style="list-style-type: none"> <li>a. Water Marketing Policy. <ul style="list-style-type: none"> <li>i. Proposed Approval Water Marketing Rates for 2023.</li> <li>ii. In-Channel Use Water Marketing Policy Revision.</li> </ul> </li> <li>b. Wolford Mountain Reservoir. <ul style="list-style-type: none"> <li>i. Approval of Contract with Pass Creek Investments.</li> <li>ii. Schwab Ditch Diversion Improvement Project.</li> </ul> </li> </ul>
<b>2:15 pm</b>	<b>19. Future Meetings:</b> <ul style="list-style-type: none"> <li>a. Second Regular Joint Quarterly Meeting, April 18-19, 2023, Glenwood Springs, CO.</li> <li>b. Third Regular Joint Quarterly Meeting, July 18-19, 2023, Glenwood Springs, CO.</li> <li>c. Budget Workshop, September 21, 2023, Colorado Mesa University, Grand Junction, CO.</li> <li>d. Annual Water Seminar, September 22, 2023, Colorado Mesa University, Grand Junction, CO.</li> <li>e. Fourth Regular Joint Quarterly Meeting, October 17-18, 2023, Glenwood Springs, CO.</li> <li>f. Other Meetings: <ul style="list-style-type: none"> <li>i. Colorado Water Congress Annual Convention, January 25-27, 2023, Aurora.</li> <li>ii. Colorado River District State of the River Meeting, March 3, 2023, Montrose.</li> <li>iii. Colorado River District State of the River Meeting, April 5, 2023, Rangely.</li> <li>iv. Colorado River District State of the River Meeting, April 13, 2023, Grand Junction.</li> <li>v. Colorado River District State of the River Meeting, May 2, 2023, Glenwood Springs.</li> <li>vi. Colorado River District State of the River Meeting, May 22, 2023, Granby.</li> <li>vii. Colorado River District State of the River Meeting, May 23, 2023, Silverthorne.</li> </ul> </li> </ul>

The Board may address the agenda in any order to accommodate the needs of the Board and the Audience.

Persons who need special accommodations due to a disability are requested to call the River District at 970-945-8522 at least three days prior to the meeting. This agenda may be viewed and printed from our website at [www.crwcd.org](http://www.crwcd.org)

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- 2. Presentation and Report of Directors' Credentials for Mesa, Moffat, Pitkin, Routt, and Saguache Counties; and Introductions of Board Members.**

**Note: Credential documents will be incorporated into the packet upon receipt.**

**NOTICE OF APPOINTMENT TO  
COLORADO RIVER WATER CONSERVATION DISTRICT  
BOARD OF DIRECTORS**

This is to certify that the Board of County Commissioners of Moffat County has appointed  
Tom Gray as Director of the Colorado River Water Conservation  
District for a term ending in January 2026, beginning with the January 17, 2023 first regular  
quarterly meeting of the Board of Directors of said Colorado River Water Conservation District.

Tom Gray has been a resident of Moffat County for at least two  
years preceding the date of his/her appointment and is a freeholder who has paid taxes on real  
property in Moffat County during the preceding year.

  
Chairman, Board of County Commissioners



20230101 1/10/2023 2:48 PM  
1 of 1 OOO RS\$0.00 DS\$0.00

STACY MORGAN  
Moffat County Clerk

### OATH OF OFFICE FOR COLORADO RIVER WATER CONSERVATION DISTRICT

STATE OF COLORADO )  
  ) ss.  
COUNTY OF MOFFAT )

I, Tom Gray, being first duly sworn, do solemnly swear upon my oath that I will support and defend the Constitution of the United States of America and the Constitution of the State of Colorado, and that I will impartially, without fear or favor, discharge the duties of a Director of the Colorado River Water Conservation District.

STATE OF COLORADO )  
  ) ss.  
COUNTY OF MOFFAT )

Tom Gray, has appeared before me and subscribed and sworn to the foregoing Oath of Office on this 10 day of January, 2023

County Clerk and Recorder

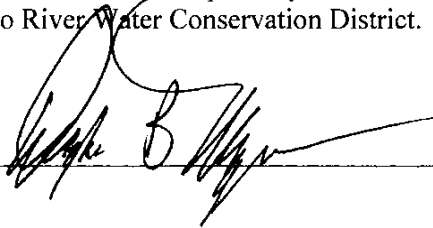
STACY MORGAN

DISTRICT COURT JUDGE - 14<sup>th</sup> J.D.

**OATH OF OFFICE FOR  
COLORADO RIVER WATER CONSERVATION DISTRICT**

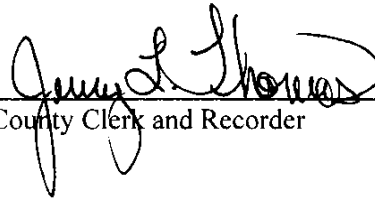
STATE OF COLORADO    )  
  ) ss.  
COUNTY OF ROUTT     )

I, Doug Monger, being first duly sworn, do solemnly swear upon my oath that I will support and defend the Constitution of the United States of America and the Constitution of the State of Colorado, and that I will impartially, without fear or favor, discharge the duties of a Director of the Colorado River Water Conservation District.

  
\_\_\_\_\_

STATE OF COLORADO    )  
  ) ss.  
COUNTY OF ROUTT     )

Doug Monger, has appeared before me and subscribed and sworn to the foregoing Oath of Office on this 6 day of January, 2023

  
\_\_\_\_\_

County Clerk and Recorder



File # 14613

**NOTICE OF APPOINTMENT TO  
COLORADO RIVER WATER CONSERVATION DISTRICT  
BOARD OF DIRECTORS**

This is to certify that the Board of County Commissioners of Routt County has appointed Doug Monger as Director of the Colorado River Water Conservation District for a term ending in January 2026, beginning with the January 17, 2023 first regular quarterly meeting of the Board of Directors of said Colorado River Water Conservation District.

Doug Monger has been a resident of Routt County for at least two years preceding the date of his/her appointment and is a freeholder who has paid taxes on real property in Routt County during the preceding year.

B. Melton  
Chairman, Board of County Commissioners

File # 14612



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- 3. Election of Board Officers for 2023:**
  - a. President.**
  - b. Vice President.**

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**PRESIDENT**

**2023**

**Board of Directors**

**Colorado River Water Conservation District**

<b><u>DIRECTOR</u></b>	<b><u>COUNTY</u></b>	
Alden Vanden Brink	Rio Blanco	_____
Kathleen Curry	Gunnison	_____
Kathy Chandler-Henry	Eagle	_____
Marc Catlin	Montrose	_____
Mark Roeber	Delta	_____
Martha Whitmore	Ouray	_____
Mesa	Mesa	_____
Mike Ritschard	Grand	_____
Moffat	Moffat	_____
Pitkin	Pitkin	_____
Routt	Routt	_____
Saguache	Saguache	_____
Stan Whinnery	Hinsdale	_____
Steve Beckley	Garfield	_____
Taylor Hawes	Summit	_____

\*\*Note: vote for one President only.

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**VICE PRESIDENT**

**2023**

**Board of Directors**

**Colorado River Water Conservation District**

<b><u>DIRECTOR</u></b>	<b><u>COUNTY</u></b>	
Alden Vanden Brink	Rio Blanco	_____
Kathleen Curry	Gunnison	_____
Kathy Chandler-Henry	Eagle	_____
Marc Catlin	Montrose	_____
Mark Roeber	Delta	_____
Martha Whitmore	Ouray	_____
Mesa	Mesa	_____
Mike Ritschard	Grand	_____
Moffat	Moffat	_____
Pitkin	Pitkin	_____
Routt	Routt	_____
Saguache	Saguache	_____
Stan Whinnery	Hinsdale	_____
Steve Beckley	Garfield	_____
Taylor Hawes	Summit	_____

\*\*Note: vote for one Vice President only.

- 4. Appointment of Committees for 2023.**
  - i. Executive Committee (Rotation).**
  - ii. Investment Committee.**
  - iii. Information and Outreach Committee.**
  - iv. Litigation Committee.**
  - v. Water Supply Projects Committee.**

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**COLORADO RIVER WATER CONSERVATION DISTRICT  
BOARD OF DIRECTORS**

**OFFICERS AND EXECUTIVE COMMITTEE HISTORY FROM 2011-2023**

<b>President &amp; V.P. History</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023<sup>1</sup></b>
<b>PRESIDENT</b>	Routt	Routt	Grand	Grand	Eagle	Eagle	Delta	Delta	Garfield	Garfield	Ouray	Ouray	
<b>VICE PRESIDENT</b>	Grand	Grand	Eagle	Eagle	Delta	Delta	Garfield	Garfield	Ouray	Ouray	Eagle	Eagle	
<b>ROTATION HISTORY</b>													
<b>Montrose Ouray Delta</b>	Ouray	Delta	Montrose	Ouray	Delta	Montrose	Ouray	Montrose	Ouray	Delta	Montrose	Delta	
<b>Garfield Mesa Pitkin</b>	Garfield	Mesa	Pitkin	Garfield	Mesa	Pitkin	Garfield	Mesa	Pitkin	Mesa	Pitkin	Garfield	
<b>Gunnison Saguache Hinsdale</b>	Gunnison	Saguache	Hinsdale	Gunnison	Saguache	Hinsdale	Gunnison	Saguache	Hinsdale	Gunnison	Saguache	Hinsdale	
<b>Grand Eagle Summit</b>	Summit	Eagle	Summit	Eagle	Grand	Summit	Eagle	Grand	Summit	Eagle	Grand	Summit	
<b>Routt Rio Blanco Moffat</b>	Moffat	Rio Blanco	Routt	Moffat	Rio Blanco	Routt	Moffat	Rio Blanco	Routt	Moffat	Rio Blanco	Moffat	

- CRD has five (5) Committees (Executive, Litigation, Information & Outreach, Investment, and Water Supply Projects).
- The President resides on all committees as ex-officio but is still responsible for chairing the Executive Committee.
- Appointment to the Executive Committee is by rotation of this chart.
- When a Director becomes President, then the rotation between the remaining two counties for next year’s Executive Committee is followed. (e.g., in 2021 both Montrose & Ouray County sat on the Executive Committee, so in 2022 Delta County will be appointed to the Executive Committee, along with Ouray County).
- The CRD President and VP appoint the remaining committees based on the interest of each director to reside on a committee. No description currently exists for the duties of each committee.

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<sup>1</sup> The 2023 Executive Committee will be assigned and identified after the President and Vice President are named.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## COMMITTEES 2022

### THE COMMITTEES WILL BE UPDATED FOR 2023<sup>1</sup>

#### EXECUTIVE COMMITTEE

Marti Whitmore, President  
Mark Roeber (Delta)  
Steve Beckley (Garfield)  
Stan Whinnery (Hinsdale)  
Taylor Hawes (Summit)  
Tom Gray (Moffat)

#### LITIGATION COMMITTEE (5)

John Ely, Chair  
Scott McInnis  
Kathy Chandler-Henry  
Mike Ritschard  
Kathleen Curry  
Marti Whitmore – ex-officio

#### INFORMATION AND OUTREACH COMMITTEE (5)

Al Vanden Brink, Chair  
Marc Catlin  
Rebe Hazard  
Taylor Hawes  
Kathy Chandler-Henry  
Marti Whitmore, ex-officio

#### INVESTMENT COMMITTEE (5)

Doug Monger, Chair  
Scott McInnis  
John Ely  
Steve Beckley  
Al Vanden Brink  
Marti Whitmore, ex-officio

#### WATER SUPPLY PROJECTS COMMITTEE (ENTERPRISE) (7)

Mike Ritschard, Chair  
Tom Gray  
Stan Whinnery  
Doug Monger  
Mark Roeber  
Kathleen Curry  
Marc Catlin  
Marti Whitmore, ex-officio

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<sup>1</sup> The 2023 Committees will be assigned and identified after the President and Vice President are named.

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- 5. Adoption of Resolutions for Outgoing Directors.**
  - a. TBD.**

**6. Consent Agenda:**

- a. Designation for Posting Notices.**
- b. Reappointment of General Manager, General Counsel, and Treasurer.**
- c. Confirmation of Assistant Secretary.**
- d. Approval of Minutes and Actions Taken:**
  - i. Minutes of Fourth Regular Joint Quarterly Meeting, October 18-19, 2022.**
- e. Notice of Delayed Treasurer's Reports, Check Registers, and Draft Financials.**



**6.a. Designation for Posting Notices.**

**Proposed Consent Agenda:**

Approval of Designation for Posting Notices and Agendas

The location for posting meeting notices and agendas shall be the Colorado River District's website [www.coloradoriverdistrict.org](http://www.coloradoriverdistrict.org), notices will continue to be provided by electronic mail to the Colorado River District's 15 County Commissioner Boards, County Clerks and, as required by the bylaws, to any person who requests such notices/agendas.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** ANDY MUELLER, GENERAL MANAGER

**SUBJECT:** REAPPOINTMENT OF GENERAL COUNSEL, GENERAL MANAGER, TREASURER AND ASSISTANT SECRETARY

**DATE:** JANUARY 3, 2023

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### ***LIST OF ACTIONS REQUESTED:***

- a. *Staff requests that Board reappoint Andrew Mueller as the General Manager/Secretary, Peter Fleming as the General Counsel, and Roger Maggard as the Treasurer for the 2023 calendar year.*
  - b. *Staff requests that the Board confirm the re-appointment of Audrey Turner as Assistant Secretary for 2023.*
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a. **Reappointment of General Manager, General Counsel, and Treasurer.**

***ACTION REQUESTED:*** *Staff requests that the Board reappoint Andrew Mueller as the General Manager/Secretary, Peter Fleming as the General Counsel, and Roger Maggard as the Treasurer for the 2023 calendar year.*

### ***APPLICABLE STRATEGIC INITIATIVE(S):***

***11. River District Staff Resources:*** *For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.*

***11. A.*** *The River District will seek to be an attractive and competitive employer in the region, state, and water community. This includes maintaining, to the best of its ability, a highly competitive compensation package and supporting the work-life balance that is valued by the District and its employees.*

***11. B.*** *The River District will have an excellent workforce that is talented and adaptable. The District will focus on effective hiring for new employees, professional development for existing employees and management to ensure that the proper expertise and leadership attributes are maintained and developed in all staff positions.*



***11. D. The District will strive for efficient and effective communication that facilitates collaboration and teamwork. The District will continue to involve, empower, and support all staff in the fulfillment of the District's mission.***

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Article IV, Section 2 of the River District Bylaws states in pertinent part:

*The Secretary and Treasurer shall be appointed by the Board of Directors from time to time as the need for such appointments arises.*

Article IV, Section 3 of the River District Bylaws states in pertinent part:

*The Secretary and Treasurer shall serve at the pleasure of the Board.*

Article IX of the River District Bylaws states in pertinent part:

*The Board may retain an attorney licensed to practice law in the State of Colorado to act as General Legal Counsel for the District, including its Enterprise.*

While the Bylaws do not require the annual reappointment of the Secretary/General Manager, the Treasurer or the General Counsel, it has been the practice of this Board to re-appoint these positions on an annual basis at the Board's first quarterly meeting in January of each year.

**b. Confirmation of Assistant Secretary.**

***ACTION REQUESTED: Audrey Turner is currently the Assistant Secretary. Staff requests that the Board confirm the re-appointment of Ms. Turner as the 2023 Assistant Secretary.***

***APPLICABLE STRATEGIC INITIATIVE(S):***

***11. River District Staff Resources: For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.***

***11. A. The River District will seek to be an attractive and competitive employer in the region, state, and water community. This includes maintaining, to the best of its ability, a highly competitive compensation package and supporting the work-life balance that is valued by the District and its employees.***

***11. B. The River District will have an excellent workforce that is talented and adaptable. The District will focus on effective hiring for new employees, professional development for existing employees and management to ensure that the proper expertise and leadership attributes are maintained and developed in all staff positions.***

***11. D. The District will strive for efficient and effective communication that facilitates collaboration and teamwork. The District will continue to involve, empower, and support all staff in the fulfillment of the District's mission.***

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REAPPOINTMENT OF GENERAL COUNSEL, GENERAL MANAGER, TREASURER  
AND ASSISTANT SECRETARY

January 3, 2023

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Article IV, Section 4 of the River District Bylaws state:

*The Secretary may designate an Assistant Secretary, subject to confirmation by the Board of Directors who shall discharge the duties of the Secretary in his/her absence or inability to act.*

Similar to the reaffirmation of the appointment of the Secretary, Treasurer and General Counsel, the Bylaws do not expressly require the Board to reconfirm the appointment of the person designated as Assistant Secretary on an annual basis, however, it has been the long-standing practice of this Board to do so at the first quarterly meeting in January.

**FOURTH REGULAR JOINT QUARTERLY MEETING OF THE  
BOARD OF DIRECTORS OF THE  
COLORADO RIVER WATER CONSERVATION DISTRICT  
AND OF THE  
COLORADO RIVER WATER CONSERVATION DISTRICT  
ACTING BY AND THROUGH ITS COLORADO RIVER WATER PROJECTS ENTERPRISE**

**October 18-19, 2022**

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Pursuant to notice duly and properly given, the Fourth Regular Joint Quarterly Meeting of the Board of Directors of the Colorado River Water Conservation District (CRWCD) and of the Colorado River Water Conservation District acting by and through its Colorado River Water Projects Enterprise was held on Tuesday and Wednesday, October 18-19, 2022.

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**Directors present during all or part of the meeting:**

Martha Whitmore, President, Ouray County	Kathy Chandler-Henry, Vice President, Eagle County
Mark Roeber, Delta County	Scott McInnis, Mesa County
Rebie Hazard, Saguache County	Steve Beckley, Garfield County
John Ely, Pitkin County	Doug Monger, Routt County
Alden Vanden Brink, Rio Blanco County	Taylor Hawes, Summit County
Kathleen Curry, Gunnison County	Tom Gray, Moffat County
Mike Ritschard, Grand County	Stan Whinnery, Hinsdale County
Marc Catlin, Montrose County	

**Directors not present:**

None

**Others present during all or part of the meeting:**

Andrew A. Mueller, General Manager, CRWCD  
Peter C. Fleming, General Counsel, CRWCD  
Audrey Turner, Chief of Operations, CRWCD  
Jason V. Turner, Senior Counsel, CRWCD  
Dave Kanzer, Director of Science and Interstate Matters, CRWCD  
Ian Philips, Director of Financial and Administrative Services, CRWCD  
Hunter Causey, Director of Asset Management/Chief Engineer, CRWCD  
Zane Kessler, Director of Government Relations, CRWCD  
Brendon Langenhuizen, Director of Technical Advocacy, CRWCD  
Marielle Cowdin, Director of Public Relations, CRWCD  
Amy Moyer, Director of Strategic Partnerships, CRWCD  
Don Meyer, Sr. Water Resources Engineer, CRWCD  
Raquel Flinker, Sr. Water Resources Engineer, CRWCD  
Lindsay DeFrates, PR & Media Specialist, CRWCD  
Stephanie Moore, Executive Assistant, CRWCD  
Lyzzi Borkenhagen, Administrative Assistant, CRWCD  
Melissa Wills, Program Associate, CRWCD  
Alyson Gould, Colorado Water Trust  
Bob Hurford, Division Engineer for the Division of Water Resources, Water Division 4  
Bob Marshall,  
Brent Gardner-Smith, Aspen Journalism  
Candace Jones, Individually

<sup>1</sup>An audio recording has been made of the meeting. The motions described herein may not necessarily represent a verbatim transcription. The audio recordings are available for listening at the CRWCD offices during regular office hours. These minutes are the official record of the Colorado River Water Conservation District's meeting.

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Christopher Votoupal, Votoupal Government Affairs LLC  
Dennis Webb, The Daily Sentinel  
Heather Sackett, Aspen Journalism  
Jackie Brown, Colorado Water Conservation Board  
Jeff Deems, Airborne Snow Observatories  
Julie Baxter, City of Steamboat Springs  
Kate Burchenal, Airborne Snow Observatories  
Kate Ryan, Colorado Water Trust  
Laura Spann, Southwestern Water Conservation District  
Madison Muxworthy, Yampa Valley Sustainability Council  
Marshall Brown, City of Aurora  
Orla Bannon, Western Resource Advocates  
Sonja Chavez, Upper Gunnison River Water Conservancy District  
Steve Wolff, Southwestern Water Conservation District

**Quorum.**

President Whitmore found a quorum and called the meeting to order at 9:01 a.m.

**Review Meeting Agenda and Objectives.**

No changes were made to the meeting agenda.

**Consent Agenda.**

Director Whinnery moved, seconded by Director Vanden Brink, to approve the consent agenda as presented. Motion carried unanimously.

- a. Approval of Minutes and Actions Taken:
  - i. Minutes of Third Regular Joint Quarterly Meeting, July 19-20, 2022.
  - ii. Minutes of Special Joint Meeting/Budget Workshop, September 15, 2022.
- b. Acceptance of Treasurer's Reports, Check Registers, and Draft Financials for May through August 2022.

**General Counsel's Report – Executive Session.**

Peter Fleming reported that the following matters qualify for discussion in Executive Session pursuant to C.R.S. §§ 24-6-402(4)(b)(legal advice) and (e)(negotiations):

- a. Matters Proposed for Executive Session:
  - i. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).
  - ii. CRCA Implementation.
  - iii. Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.
  - iv. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.
  - v. Eagle River Memorandum of Understanding.
  - vi. Application of Colorado River District, Ouray County, Ouray County Water Users Association, and Tri-County Water Conservancy District for Ram's Horn Reservoir Project, Case No. 19CW3098, Water Division 4.
  - vii. White River Storage Project.
  - viii. In-Channel Uses of Elkhead Reservoir Storage.
  - ix. Colorado River Compact and Interstate Negotiations.

Director Chandler-Henry moved, seconded by Director Hazard, to proceed into Executive Session pursuant to C.R.S. §§ 24-6-402(4)(b)(legal advice) and (e)(negotiations). Motion carried unanimously.

Mr. Fleming stated that no further record of the Executive Session need be kept based on his opinion that the discussion will constitute privileged attorney-client communications.

*President Whitmore recessed the meeting at 9:05 a.m.*

*President Whitmore reconvened into Public Session at 12:26 p.m.*

**General Counsel’s Report – Public Session.**

Peter Fleming reported that during Executive Session, the Board provided guidance to staff and General Counsel on the following matters:

- a. Matters Proposed for Executive Session:
  - i. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).
  - ii. CRCA Implementation.
  - iii. Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.
  - iv. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.
  - v. Eagle River Memorandum of Understanding.
  - vi. Application of Colorado River District, Ouray County, Ouray County Water Users Association, and Tri-County Water Conservancy District for Ram’s Horn Reservoir Project, Case No. 19CW3098, Water Division 4.
  - vii. White River Storage Project.
  - viii. In-Channel Uses of Elkhead Reservoir Storage.
  - ix. Colorado River Compact and Interstate Negotiations.
  - x. Ratification of Statement of Opposition in Application for Change of Water Right of Michael Orpi, Case No. 22CW14, Water Division 4.
  - xi. Approval of Special Counsel For Employment Matters.

Mr. Fleming reported that there were no action items resulting from Executive Session, however, the Board planned to reconvene into Executive Session on October 19th.

*President Whitmore recessed the meeting at 12:27 p.m.*

*President Whitmore found a quorum and reconvened the meeting at 1:03 p.m.*

**Public Comment.**

No public comment was received.

**Budget Hearing.**

President Whitmore opened the budget hearing at 1:05 p.m. and requested public comment. No public comments were received.

**Resolution to Amend 2022 General Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to amend the 2022 General Fund Budget. Motion carried unanimously.

**Resolution to Adopt 2023 General Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to adopt the 2023 General Fund Budget. Motion carried unanimously.

**Resolution to Amend 2022 Capital Projects Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to amend the 2022 Capital Projects Fund Budget. Motion carried unanimously.

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**Resolution to Adopt 2023 Capital Projects Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to adopt the 2023 Capital Projects Fund Budget. Motion carried unanimously.

**Resolution to Amend 2022 Community Funding Partnership Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to amend the 2022 Community Funding Partnership Fund Budget. Motion carried unanimously.

**Resolution to Adopt 2023 Community Funding Partnership Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to adopt the 2023 Community Funding Partnership Fund Budget. Motion carried unanimously.

**Resolution to Amend 2022 Enterprise Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to amend the 2022 Enterprise Fund Budget. Motion carried unanimously.

**Resolution to Adopt 2023 Enterprise Fund Budget.**

Director McInnis moved, seconded by Director Beckley, to adopt a resolution to adopt the 2023 Enterprise Fund Budget. Motion carried unanimously.

**Resolution to Appropriate Sums of Money (General Fund, Capital Projects Fund and Community Funding Partnership Fund).**

Director Whinnery moved, seconded by Director Chandler-Henry, to adopt a resolution to Appropriate Sums of Money for the General Fund (\$14,423,074), Capital Projects Fund (\$3,656,740) and Community Funding Partnership Fund (\$4,756,819). Motion carried unanimously.

**Resolution to Appropriate Sums of Money (Enterprise Fund).**

Director Whinnery moved, seconded by Director Chandler-Henry, to adopt a resolution to Appropriate Sums of Money for the Enterprise Fund (\$7,597,375). Motion carried unanimously.

**Resolution to Transfer Unspent 2022 Balances.**

Director Hawes moved, seconded by Director McInnis, to adopt a resolution to Transfer Unspent 2022 Balances to the Community Funding Partnership (CFP) Fund and the Capitol Projects Fund from the General Fund. Motion carried unanimously.

*President Whitmore closed the budget hearing at 1:12 p.m.*

**General Manager's Report.**

**Colorado River Basin Hydrology Update:**

Dave Kanzer and Don Meyer did an overview of Colorado basin hydrology and continued low levels of Lakes Powell and Mead They further reported that it was the second year in a row that Wolford Mountain Reservoir was utilized by Denver Water for substitution purposes.

**Interstate Colorado River Activities:**

Andy Mueller reported that in response to Commissioner Tuton's call to conserve 2-to-4-million-acre feet (maf), the Upper Basin proposed a five-point plan. Mr. Mueller reported that the Upper Basin and the District have called upon the USBR to remedy the fact that evaporation from federal Lower Basin system reservoirs and transit losses related to Lower Basin deliveries are not charged to the Lower Basin contractors and, therefore, there is approximately 1.2-1.5 maf of depletions that are not charged to the Lower Basin.



**Retention of Auditor for 2022 Audit:**

Director Monger moved, seconded by Director Hazard, to accept staff's recommendation to retain McMahan and Associates, LLC to perform audit and consulting services for the fiscal year ending December 31, 2022. Motion carried unanimously.

**West Fork Battle Creek Watershed Plan NEPA Participation:**

The River District received a request to be a cooperating agency for the West Fork Battle Creek Watershed Plan NEPA process. Although the project is in Wyoming a portion of the Project would serve lands within Colorado. Staff made a recommendation due to staffing concerns, to seek "interested party" status (a lesser commitment than cooperating agency status). A discussion ensued among the Board.

Director Gray moved, seconded by Director Monger, to accept staff's recommendation to authorize the General Manager to seek participation as a Cooperating Agency status in the West Fork Battle Creek Watershed Plan NEPA process. President Whitmore polled the Board and the vote was 8 in favor The Motion carried 8 in favor (Gray, Monger, Whinnery, Curry, Vanden Brink, Chandler-Henry, Ely, Roeber) and 7 opposed (Hawes, Ritschard, Whitmore, Beckley, McInnis, Hazard, Catlin).

**Public Hearing and Opportunity for Staff Comments Regarding Consideration of the Colorado River Water Conservation District Opting Out of the Family and Medical Leave Insurance (FAMLI) Program pursuant to C.R.S. § 8-13.3-522:**

Audrey Turner explained the Family Medical Leave Insurance Program and the River District's options to participate or to opt out. Amy Moyer and Raquel Flinker commented as staff of the River District. No public comments were received.

Director Monger moved, seconded by Director Whinnery, to accept staff's recommendation to decline employer participation in the Colorado Family Medical Leave Insurance (FAMLI) Program while allowing flexibility for employees to participate individually.)Motion carried unanimously.

*President Whitmore opened the public hearing at 3:07 p.m.*

*President Whitmore closed the public hearing at 3:21 p.m.*

*President Whitmore found a quorum and reconvened the Board of Directors meeting at 3:21 p.m.*

**Discussion with Marshall Brown, General Manager of Water at City of Aurora, Regarding New Water Conservation Regulations.**

Mr. Brown presented information regarding the City of Aurora's Water Sustainability Initiatives, including a commitment 100% re-use of indoor water use), the city's change in its "Tap Fee" structure based on demand, turf replacement, community engagement, reduction of nonfunctional turf, and turf replacement incentives.

**White River Storage Project NEPA Participation:**

The River District received a request to be a cooperating agency for the White River Storage Project NEPA process. Staff recommended that the River District become a cooperating agency based on the fact that this project and its beneficiaries are all within the District.

Director Chandler-Henry moved, seconded by Director Curry, to accept staff's recommendation to authorize the General Manager to seek Cooperating Agency status for the White River Storage Project NEPA process. Motion carried unanimously. Director Vanden Brink abstained from the vote.

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**Community Funding Partnership (CFP) Applications.**

Amy Moyer proposed the following projects for approval pursuant to the River District's Community Funding Partnership:

- a. Applicant: Aspen Global Change Institute; Project: Roaring Fork Basin Evaluation of Soil Moisture for Water Planning in the amount of \$60,293 and that the awarded funds be attributed 30% to productive agriculture, 30% healthy rivers, and 40% for watershed health and Water Quality.

Director Monger moved, seconded by Director Hawes, to approve staff's recommendation to approve the Aspen Global Change Institute Project in the amount of \$60,293. Motion carried unanimously.

- b. Applicant: Grand Valley Irrigation Company; Project: GVIC ML 260 Lateral Piping Project in the amount of \$40,000 and that the awarded funds be attributed to Productive Agriculture (5%), Infrastructure (60%), Watershed Health and Water Quality (15%), and Conservation and Efficiency (20%).

Director Curry moved, seconded by Director Chandler-Henry, to approve staff's recommendation to approve the Grand Valley Irrigation Company Project in the amount of \$40,000, contingent on the applicant securing a Water Supply Reserve Fund Grant.. Motion carried unanimously. Director McInnis abstained from the vote.

- c. Applicant: Roaring Fork Conservancy; Project: Ruedi Winter Releases in the amount of \$20,000 and that the awarded funds be attributed to Healthy Rivers (50%), and Watershed Health & Water Quality (50%).

Director Monger, moved, seconded by Director Beckley, to approve staff's recommendation to approve the Roaring Fork Conservancy Project in the amount of \$20,000. Motion carried unanimously.

- d. Airborne Snow Observatory, Inc. Project: Snow Mapping in the Roaring Fork and Fryingpan Watersheds – Water Year 2023 in the amount of \$75,000 and that the awarded funds be attributed to Productive Agriculture (20%), Infrastructure (20%), Healthy Rivers (20%), Watershed Health and Water Quality (20%), and Conservation & Efficiency (20%).

Director Vanden Brink, moved, seconded by Director Gray, to approve staff's recommendation to approve the Roaring Fork Conservancy Project in the amount of \$75,000. Motion carried unanimously.

**Service Anniversary:**

Andy Mueller congratulated Zane Kessler, Director of Government Relations, for his dedicated and exceptional service for the last 5 years.

*President Whitmore recessed the meeting at 5:16 p.m.*

*Wednesday, October 19, 2022*

*President Whitmore found a quorum and reconvened the meeting at 8:33 a.m.*

**Discussion with Water Division 4 Engineer, Bob Hurford, Regarding Division 4 Updates.**

Mr. Hurford discussed runoff from April-July 2022 for the Gunnison River basin, historical storage levels in Blue Mesa from 2002-2022, the South Canal shut down incident on April 24-27, 2022, the newly installed Glory Hold Fish Screen in the Ridgway Reservoir, and the Paonia Project.

**Continuation of General Counsel’s Report, Executive Session.**

Peter Fleming reported that the following matters qualify for discussion in Executive Session pursuant to C.R.S. §§ 24-6-402(4)(b)(legal advice) and (e)(negotiations):

- a. Matters Proposed for Executive Session:
  - i. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).
  - ii. CRCA Implementation.
  - iii. Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.
  - iv. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.
  - v. Eagle River Memorandum of Understanding.
  - vi. Application of Colorado River District, Ouray County, Ouray County Water Users Association, and Tri-County Water Conservancy District for Ram’s Horn Reservoir Project, Case No. 19CW3098, Water Division 4.
  - vii. White River Storage Project.
  - viii. In-Channel Uses of Elkhead Reservoir Storage.
  - ix. Colorado River Compact and Interstate Negotiations.

Director Hazard moved, seconded by Director Beckley, to proceed into Executive Session pursuant to C.R.S. §§ 24-6-402(4)(b)(legal advice) and (e)(negotiations). Motion carried unanimously.

*President Whitmore recessed the meeting at 9:15 a.m.*  
*President Whitmore reconvened into Public Session at 10:52 a.m.*

Director Gray moved, seconded by Director Catlin, to (1) authorize staff and counsel to amend the (1) 2021 Temporary Budget Agreement to extend its term by two years, (2) to amend the 2022 WMR Budget Agreement in order to reflect the increased 2022 OM&R budget, and (3) to enter a 2023 WMR Budget Agreement – all three agreements with Denver Water. Motion carried unanimously.

Director Hazard moved, seconded by Director Whinnery, to authorize staff and counsel to file a Statement of Opposition in Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5. Motion carried unanimously.

Director Catlin moved, seconded by Director Hawes, to authorize the extension of the contract with Hydros Consulting (CA22000) through 2023 and to increase the total expenditures by \$150,000 to be split evenly between the Colorado River District and the Southwestern Water Conservation District. Motion carried unanimously.

*President Whitmore recessed the meeting at 10:54 a.m.*  
*President Whitmore reconvened into Public Session at 11:03 a.m.*

**Continuation of General Counsel’s Report – Public Session.**

Peter Fleming reported that during Executive Session, the Board provided guidance to staff and General Counsel on the following matters:

- a. Matters Proposed for Executive Session:
  - i. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).
  - ii. CRCA Implementation.
  - iii. Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.
  - iv. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.
  - v. Eagle River Memorandum of Understanding.

- vi. Application of Colorado River District, Ouray County, Ouray County Water Users Association, and Tri-County Water Conservancy District for Ram's Horn Reservoir Project, Case No. 19CW3098, Water Division 4.
- vii. White River Storage Project.
- viii. In-Channel Uses of Elkhead Reservoir Storage.
- ix. Colorado River Compact and Interstate Negotiations.
- x. Ratification of Statement of Opposition in Application for Change of Water Right of Michael Orpi, Case No. 22CW14, Water Division 4.
- xi. Approval of Special Counsel For Employment Matters.

**Ratification of Statement of Opposition in Application for Change of Water Right of Michael Orpi, Case No. 22CW14, Water Division 4.**

Director Roeber moved, seconded by Director Beckley, to approve staff's recommendation ratify the Statement of Opposition the Application for Change of Water Right of Michael Orpi, Case No. 22CW14, Water Division 4. Motion carried unanimously.

**Approval of Special Counsel for Employment Matters.**

Director Hawes moved, seconded by Director Catlin, to authorize General Counsel to retain Michael Santo of the firm of Bechtel & Santo as special counsel for employment matters. Motion carried unanimously.

**External Affairs.**

**Information and Outreach Committee Update:**

Marielle Cowdin, Lindsay DeFrates, and Zane Kessler reported an increase in attendance at the River District's Annual Seminar which resulted in over 300 people in person, 130 online, and 7 members of the press. The External Affairs Team and Community Funding Partnership (CFP) Team continue to work on outreach efforts to assist the CFP Program to connect with the River District's constituents. As a result, the CFP Program was highlighted in news outlets in the last quarter. Additionally, the District's "Water with Your Lunch" program is scheduled and will focus on "Towns and Turf." Additionally, the upcoming State of the Rivers meetings are being planned and scheduled.

**State Affairs:**

Zane Kessler reported that the Interim Water Resources and Agriculture Committee meeting schedule has concluded for the year. The Committee referred two bills for consideration in the legislative session:

**Bill 8: Task Force on High-Altitude Water Storage.**

**Recommended Position: Monitor**

The Board directed staff to monitor.

**Bill 10: Water Resources and Agriculture Review Committee.**

**Recommended Position: Amend**

Director Chandler-Henry moved, seconded by Director Gray, to adopt staff's recommendations to amend the bill Motion carried unanimously.

**Federal Affairs:**

Zane Kessler provided an update on the Inflation reduction Act and current legislative matters of interest to the District.

### **H.R. 7793, Rio Grande Water Security Act**

#### **Recommended Position: Oppose**

Director McInnis moved, seconded by Director Chandler-Henry, to approve staff's recommendation to oppose H.R. 7793 the Rio Grande Water Security Act (as drafted). Motion carried unanimously.

#### **Annual Policy Discussion.**

Director Chandler-Henry moved, seconded by Director Roeber, to readopt the Colorado Water Plan Policy. Motion carried unanimously.

#### **Project Operations and Updates (Enterprise Matters).**

##### **Approval of Continuing Services Agreement with Grand Power:**

Director Hawes moved, seconded by Director Beckley, to approve a three-year continuing services agreement (CSA) with Grand Power and Plumbing, LLC for miscellaneous electrical work at the Wolford Mountain Reservoir Project in an amount not to exceed \$45,000 over three years (not to subject to annual appropriations and review and approval by counsel). Motion carried unanimously.

##### **Approval of Continuing Services Agreement with Grover Pryor, LLC.:**

Director Hawes moved, seconded by Director Beckley, to authorize a three-year continuing services agreement (CSA) in an amount not to exceed \$115,000 over three years with Grover Pryor LLC for earthwork and related construction services at the Wolford Mountain Reservoir Project, subject to annual appropriations and review and approval by counsel. Motion carried unanimously.

##### **Approval of Contract Agreement with W.W. Wheeler and Associates, Inc.:**

Director Hawes moved, seconded by Director Beckley, to authorize a contract with W.W. Wheeler and Associates, Inc. in an amount not to exceed \$100,000 for engineering services at Wolford Mountain Reservoir. Motion carried unanimously.

##### **Approval of Contract Agreement with CWCB for Anchor Ice Mitigation:**

Director Gray moved, seconded by Director Chandler-Henry, to authorize the River District General Manager to enter a contract with the CWCB for up to 3,041 acre-feet from Ruedi Reservoir for anchor ice mitigation, with any remaining contracted water available for delivery to enhance flows in the 15-Mile Reach; and to waive \$400 contracting fee waiver. Motion carried unanimously.

#### **Directors' Updates and Concerns.**

Directors reported updates and concerns throughout the District regarding investors purchasing agriculture land and ranches for water rights, increased short term rental impacts on ground water supplies, increases in conservation easements, the Drought Response Operations Agreement (DROA), salinity projects, monsoon season, fire mitigation, and increased residential developments.

*President Whitmore recessed the meeting at 12:09 p.m.*

*President Whitmore reconvened into Public Session at 12:19 p.m.*

#### **Personnel Review Matters (Executive Session).**

Peter Fleming recommended that the following matters qualify for discussion in Executive Session pursuant to C.R.S. §§ 24-6-402(4)(f)(personnel):

- a. General Manager's Review.
- b. General Counsel's Review.

Director Whinnery moved, seconded by Director Catlin, to move into Executive Session pursuant to C.R.S. §§ 24-6-402(4)(f)(personnel matters). Audrey Turner was present during the executive session.

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**Personnel Review Matters (Public Session).**

President Whitmore reported that during Executive Session, the board discussed personnel matters related to the General Counsel and General Manager's salaries.

**Future Meetings:**

- a. Lower Basin Fact Finding Tour: November 2-4, 2022, Locations (Nevada, Arizona, California).
- b. First Regular Joint Quarterly Meeting, January 17-18, 2023, Glenwood Springs, CO.
- c. Other Meetings:
  - i. 2022 CRWUA Conference: December 14-16, 2022, Caesar's Palace, Las Vegas, Nevada.
  - ii. Colorado Water Congress Annual Convention, January 24-27 (tentatively scheduled)/Denver, Colorado.

**Adjourn.**

There being no other business before the Board, President Whitmore adjourned the meeting at 1:53 p.m.

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Martha Whitmore, President

ATTEST:

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Andrew A. Mueller, Secretary/General Manager

*Executive Session Attestations.*

*I hereby attest that the portions of the Executive Session that were not recorded constituted privileged attorney-client communications.*

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*Peter Fleming, General Counsel*



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER

**FROM:** IAN PHILIPS, DIRECTOR OF FINANCIAL AND ADMINISTRATIVE SERVICES

**SUBJECT:** DELAYED TREASURER REPORTS, CHECK REGISTERS, AND DRAFT FINANCIALS

**DATE:** JANUARY 4, 2023

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*No Board Action is requested. This memorandum is for informational purposes only.*

**STRATEGIC INITIATIVE(S):**

*12. Financial Sustainability*

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We have had software compatibility issues between our accounting software and Microsoft. The compatibility issues have resulted in us not having Treasurer reports, check registers and draft financials for the Board to review and approve at this meeting. We are working with our IT contractor and the two software companies involved to resolve the issue. As soon as it is resolved, we will finalize the Treasurer reports, check registers, and draft financials and present them at the next Quarterly meeting. Please feel free to reach out to me, Audrey, or Andy if you have any questions.

**GO BACK TO AGENDA**

- 7. General Counsel's Report - Executive Session - January 2023**  
**NO MATERIAL AVAILABLE**



**8. Public Comment.**



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

**ATTORNEY REPORT**  
**JOINT QUARTERLY MEETING**  
**GENERAL and ENTERPRISE**  
**January 2023**

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**TO:** CRWCD BOARD OF DIRECTORS

**FROM:** PETER C. FLEMING, GENERAL COUNSEL  
JASON V. TURNER, SENIOR COUNSEL

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Dear Directors:

This report identifies matters for discussion at the January 17-18, 2023, joint quarterly meeting of the River District and its Enterprise. A separate Confidential Report addresses confidential matters. The information in this report is current as of January 6, 2023, and will be supplemented as necessary before or at the Board meeting.

## **I. EXECUTIVE SESSION.**

The following is a list of matters that qualify for discussion in executive session pursuant to C.R.S. §§ 24-6-402(4)(b) and (e).

- A. Wolford Mountain Reservoir and Ritschard Dam Operations (An Enterprise Matter).
- B. CRCA Implementation.
- C. Wolford Mountain Reservoir Power Plant Conditional Water Right (An Enterprise Matter).
- D. Colorado Springs Utilities Diligence, Case No. 15CW3019, Water Division 5, and Proposed Enlargement of Montgomery Reservoir.
- E. City of Golden's Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.
- F. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.
- G. Potential Strategic Water Rights Partnership and Acquisition.
- H. CWCBC Proposed Deep Creek Wild and Scenic Instream Flow and Proposed Development Allowance.
- I. CWCBC Proposed Instream Flows on Cottonwood, Monitor and Potter Creeks and Development Allowance.
- J. Colorado River Compact and Interstate Negotiations, and Colorado River District System Conservation Pilot Program Participation.

## **II. RIVER DISTRICT WATER MATTERS AND GENERAL MATTERS.**



**A. Wolford Mountain Reservoir and Ritschard Dam Operations. (An Enterprise Matter).**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 13.A. (Operation and maintenance of District assets).*

The WMR lease has ended, and Denver Water is now a 40% owner of the WMR storage space and water rights. We continue to work with River District staff on matters related to the Ritschard Dam.

*This matter is discussed in the Confidential Report and the Board may wish to discuss it in executive session.*

**B. Colorado River Cooperative Agreement – Implementation Issues.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 5A (Shoshone permanency), 5C (transmountain diversions), and 9A (wise and efficient water use).*

We reported last fall that, on September 30, 2022, the 10th Circuit Court of Appeals ruled against the United States and Denver (*i.e.*, in favor of the environmental plaintiffs) in the litigation concerning the environmental permitting for Denver’s Gross Reservoir Enlargement. The litigation concerns whether the federal agencies properly issued Clean Water Act Section 404 “dredge and fill” and Endangered Species Act Section 7 permits for the project. The case has been remanded back to the federal district court for Colorado. We assume that it will be decided largely based on the administrative record. Briefing by the parties is expected to begin in the spring and be complete by mid-summer.

In the meantime, Denver Water is proceeding with construction of the Gross Reservoir Enlargement. We will continue to monitor this case because many of the West Slope’s CRCA benefits are triggered based on substantial completion of the Gross Reservoir Enlargement.

In addition, we continue to spend significant effort on securing permanency of the Shoshone Call flows.

*The Board may wish to discuss these matters in executive session.*

**C. Wolford Mountain Reservoir Power Plant Right (a/k/a Gunsight Pass Reservoir Power Plant) (An Enterprise Matter).**

*ACTION: Potential action after discussion in executive session.*

*STRATEGIC INITIATIVE(S): 4.A. (Colorado River supplies) and 7.B. (River District conditional water rights).*



The River District owns a conditional hydro-power right at Wolford Mountain Reservoir in the amount of 600 c.f.s. An application for finding of reasonable diligence is due before the end of April 2023 in order to maintain the conditional right. Failure to file a timely diligence application will result in the cancellation/abandonment of the conditional direct flow power right.

*This matter is discussed in the Confidential Report. We request that the Board discuss this matter in executive session.*

**D. Application of Colorado Springs Utilities, Case No. 15CW3019, Water Division 5, and Proposed Enlargement of Montgomery Reservoir.**

*ACTION: Potential action after discussion in executive session.*

*STRATEGIC INITIATIVE(S): 5A (Shoshone permanency), 5C (transmountain diversions), and 9A (wise and efficient water use).*

We continue to meet with representatives of Colorado Springs Utilities to resolve West Slope concerns with Colorado Springs' diligence application for the conditional components of its Upper Blue River Continental/Hoosier Pass transmountain diversion project. As previously reported, those discussions have expanded to include Colorado Springs' proposed enlargement of Montgomery Reservoir, which is located on the east side of Hoosier Pass and stores water diverted by Colorado Springs through the Continental-Hoosier Pass Tunnel.

We believe the parties are getting closer to a possible settlement, but several important substantive issues still need to be resolved. Our next settlement meeting is scheduled for January 11, 2023, so we should have an update at the Board meeting.

*This matter is discussed in the Confidential Report, we recommend that the Board discuss this matter in executive session.*

**E. City of Golden's Appeal of Green Mountain Reservoir Administrative Protocol Adjudication, 22SA317, Colorado Supreme Court.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 4.A. (full use without risk of overdevelopment), 5 (Transmountain Diversions).*

As previously reported regarding the Green Mountain Reservoir Administrative Protocol case, the Division 5 Water Court entered summary judgment last May in favor of the River District and its co-Applicants, and against the City of Golden and the Snake River Water District. Golden has appealed that ruling, and its opening brief before the Colorado Supreme Court will be due on or around January 23, 2023. The Snake River Water District did not join in Golden's appeal but did file a new lawsuit against the Colorado State and Division Engineers. That case is discussed separately, below.

*Golden's opening brief is not due until the week after the River District's Board meeting. However, the Board may wish to discuss any possible developments in executive session.*



**F. Snake River Water District v. Rein, Case No. 22CW3074, Water Division 5.**

*ACTION: Potential action following discussion in executive session.*

*STRATEGIC INITIATIVE(S): 4.A. (full use of Colorado River basin water supplies).*

We are very disappointed that this case appears to have resulted in a very significant dispute between the River District and the State and Division 5 Engineers regarding the proper interpretation of the decree that adjudicated exchange priorities for the benefit of West Slope water users entitled to rely on water released from Green Mountain Reservoir. We are actively working to address this dispute with the Engineers, hopefully by mutual agreement.

As discussed above, the Snake River Water District was an objector in the Green Mountain Reservoir Administrative Protocol case (discussed above). The Snake River District argued in that case that the GMR Protocol had the result of interfering with the district's status as a beneficiary of the HUP pool. We argued that the Snake River District's alleged injury was related to the Division 5 Engineer's interpretation of the district's augmentation plan decree and was totally unrelated to the GMR Administrative Protocol. The Division 5 Water Court agreed that the district's issue was not caused by the GMR Administrative Protocol and granted summary judgment in favor of the River District and its co-applicants.

The Snake River District then filed a lawsuit against the State and Division Engineer's office ("Engineers") in the Division 5 Water Court. The district alleges that the Engineers wrongfully determined that its water rights are not entitled to benefit from the Green Mountain Reservoir Historic Users Pool ("HUP"). The Engineers maintain that the district's out of priority water rights are replaced fully by other sources specified in the district's decreed augmentation plan (Case No. 82CW430) and therefore the district's rights are not entitled to benefit from HUP releases. The Engineers filed a motion to dismiss two of the Snake River District's claims. We filed a Response brief generally supportive of the Snake River District, because we were concerned that the Engineers' position might diminish the rights of West Slope water users to benefit from the 100,000 acre-foot/compensatory pool in Green Mountain Reservoir.

The importance of the GMR 100,000 acre foot compensatory pool to West Slope water users cannot be overstated because it operates (without charge to HUP beneficiaries) to protect all West Slope domestic and irrigation water uses in the mainstem of the Colorado and its tributaries perfected by use on or prior to October 15, 1977, from calls by senior water rights. The GMR compensatory pool also provides an important source of contract water for rights junior to 1977, as well as for industrial and snowmaking uses. Thus, it is important for the River District to protect against actions or legal interpretations that would divest West Slope water users of the benefits intended to be ensured by Senate Document 80, federal law (*i.e.*, the Blue River Decree), and the Green Mountain Reservoir Exchange Decree entered in Case No. 88CW382.<sup>1</sup>

The Green Mountain Reservoir Exchange decree provides in part that:

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<sup>1</sup> The Green Mountain Reservoir Exchange Decree (Case No. 88CW382) was entered by the federal district of Colorado in 1992 under that court's retained jurisdiction of the Blue River Decree Consolidated Cases, acting as though it was the Colorado Division 5 Water Court.



...the State Engineer shall recognize that...water released from storage in the 100,000 acre-foot pool in Green Mountain Reservoir...may be diverted by West Slope beneficiaries of Senate Document No. 80, including contractors, either: (1) [directly] or (2) by exchange [in accordance with defined priorities based on the relative seniority of a water user’s water right].

The decree further states that:

The administration of [exchanges of water from the GMR 100,000 acre foot/compensatory pool] is consistent with Colorado practice, and when followed by the Colorado State Engineer will distribute to the West Slope beneficiaries of Senate Document No. 80 the waters released by the Secretary of the Interior from the 100,000 acre-foot pool in Green Mountain Reservoir, in conformity with Senate Document No. 80, the 1955 Judgment and Decree in these Consolidated Cases and other applicable federal and Colorado law.

Thus, the 88CW382 Decree provides that benefits intended to be provided to West Slope water users by Senate Document 80 will be secured by ensuring that exchanges of GMR releases are made and administered in accordance with the provisions and priorities confirmed in the 88CW382 Decree. We were concerned primarily that the Engineers were ignoring this clear directive from the 88CW382 decree in their interpretation of the Snake River District’s HUP status. Unfortunately, the Engineers then filed a reply brief containing language that significantly increased the level of our concerns about the Engineers’ position regarding the Green Mountain Reservoir Exchange decree (Case No. 88CW382).

The Engineers’ reply brief in the Snake River case contains troubling language that suggests the Engineers (1) question whether the federal court had jurisdiction to adjudicate the Green Mountain Reservoir Exchange decree, (2) deny that the decree adjudicated priorities of exchange for water from GMR, and (3) maintain that the Green Mountain Reservoir Exchange decree is “vague and uncertain.” The fact that the Engineers stipulated to the consent decree entered in 88CW382 makes the language in their brief even more frustrating.

We have made good faith efforts to resolve our concerns about the State’s reply brief but have not yet reached an acceptable solution. We anticipate hearing from the State again the week of January 9, 2023. We will provide any update at the Board meeting.

*This matter is discussed in the confidential report. We recommend that the Board discuss it in executive session.*

#### **G. Potential Strategic Water Rights Partnership and Acquisition.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 4.A. (full use of Colorado River basin water supplies), 5C (transmountain diversions).*



We are working with River District staff and another water entity with a shared goal to develop a water security program that would benefit the natural environment, recreational fishing, and water supplies. The program likely involves negotiations for the acquisition of water rights and, therefore, is best discussed in executive session.

*This matter is discussed in the confidential report. The Board may wish to discuss this negotiation items and related legal issues in executive session.*

#### **H. CWCB Proposed Deep Creek Wild and Scenic Instream Flow and Proposed Development Allowance, Water Division 5.**

*We recommend that the River District continue to work with the CWCB and BLM to advocate for a meaningful future water development allowance that does not adversely impact the environmental values sought to be protected by “peak flow” instream flow appropriation proposed by the BLM and possibly by the CWCB. We further recommend that, if necessary, the River District submit comments to the CWCB regarding the concerns with the proposed instream flow appropriation and take action to contest the proposed instream flow and file an appropriate statement of opposition.*

*STRATEGIC INITIATIVE(S): 6. Agricultural Water Use, 7. Water Needs/Project Development, and 8. Colorado’s Water Plan.*

We previously have discussed the stakeholder process related to a proposed Wild and Scenic River designation for Deep Creek. Part of those discussions concern the future appropriation of a Colorado Water Conservation Board instream flow on Deep Creek (instead of a federal reserved water right). An existing baseflow instream flow already exists on Deep Creek. The proposed instream flow to protect the Wild and Scenic reach’s “outstandingly remarkable values” would appropriate all remaining available flow in Deep Creek within the proposed Wild and Scenic stream reach.

We made clear that the River District likely would oppose any such claim unless it includes a reasonable future development allowance (sometimes referred to as an instream flow “carve-out”). Last July we discussed our concerns with the draft report prepared by the CWCB’s contractor regarding analysis of a potential development allowance. During last fall and winter, we worked with various stakeholders, including the BLM, and the CWCB and its contractor to refine the draft development allowance study. We anticipate a final draft from the contractor soon and are hopeful that the revised study will include a development allowance that we are able to support.

*The Board may wish to discuss this matter in executive session.*

#### **I. CWCB Proposed Instream Flows on Cottonwood, Monitor and Potter Creeks and Proposed Development Allowance, Water Division 4.**

*ACTION: We recommend that the River District continue to work with the CWCB and BLM to advocate for a meaningful future water development allowance that does not adversely impact the environmental values sought to be protected by “peak flow” instream flow appropriations proposed by the BLM and possibly by the CWCB. We further recommend that, if necessary, the River District submit comments to the CWCB regarding the concerns with the proposed instream*





*flow appropriations and take action to contest the proposed instream flows and file appropriate statements of opposition.*

*STRATEGIC INITIATIVE(S): 6. Agricultural Water Use, 7. Water Needs/Project Development, and 8. Colorado's Water Plan.*

Peter and Raquel Flinker have been working closely with the BLM, the CWCB and its consultant on refining a possible water development allowance that would be built into the peak flow instream flow appropriations that are proposed for Cottonwood, Potter, and Monitor Creeks. This subject is discussed in the confidential report.

*The Board may wish to discuss this subject in executive session.*

**J. Colorado River Compact and Interstate Negotiations, and Colorado River District System Conservation Pilot Program Participation.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 4 (Colorado River Water Supplies), 6 (Agricultural Water Use), and 8 (Colorado Water Plan – compact risk and conceptual framework).*

Interstate issues have obviously been at the forefront of River District staff's work efforts. The push (based on critical reservoir conditions) for the 7-Basin States to agree on a consensus proposal to reduce Colorado River demands by two-to-four million acre-feet is creating lots of work and some heightened tensions throughout the basin. The Bureau of Reclamation's decision to fund \$125 million of system conservation in the Upper Basin will present an immediate and significant policy issue for the River District. Peter and Andy (as well as other River District staff) have been working closely on this subject and associated issues. The key discussion points and issues are presented in Andy's public memo and proposed system conservation project decision criteria.

*These matters are discussed in the Confidential Report. The Board may wish to discuss these, and other sensitive negotiation and legal issues related to compact, and interstate matters in executive session.*

**K. Application of the City of Aurora, Case No. 19CW3159, Water Division 5.**

*ACTION: We request that the Board authorize counsel to stipulate to a consent decree in the Application of City of Aurora in Case No. 19CW315, Water Division 5, consistent with the Busk-Ivanhoe Settlement Agreement.*

*STRATEGIC INITIATIVE(S): 5C (transmountain diversions), and 9A (wise and efficient water use).*

In 2016, the River District and its West Slope co-parties won a significant victory at the Colorado Supreme Court in Aurora's change of use for its interest in the Busk-Ivanhoe transmountain diversion system. The case was remanded back to the water court and a lengthy negotiation process was held over a period of years, which resulted in a comprehensive settlement agreement between the West Slope parties (River District, Basalt Water Conservancy District, Eagle County,





Pitkin County, Grand Valley Water Users Association, Orchard Mesa Irrigation District, and the Ute Water Conservancy District) and the City of Aurora.

The settlement agreement includes a provision by which Aurora would bypass or make releases from Grizzly Reservoir (a component of the Independence Pass Transmountain Diversion System) in the amount of 900 AF to the Roaring Fork River basin to benefit flows in the upper Roaring Fork. The agreement further contemplates that Aurora may, when exchange potential exists, exchange that water from the confluence of the Roaring Fork and Frying Pan Rivers upstream into Ruedi Reservoir pursuant to an “if-and-when” contract with the Bureau of Reclamation. The settlement agreement specifies that the Ruedi contract will be held by Pitkin County. The water would then be available to exchange into Ivanhoe Reservoir for eventual conveyance to the East Slope.

The exchange operations are the subject of Aurora’s application in Case No. 19CW3159. The River District filed a statement of opposition in that case to ensure that any eventual decree is consistent with the settlement agreement. We have provided comments to Aurora on drafts of the decree. Aurora has agreed to our suggested edits, and we believe that the currently proposed decree is consistent with the settlement agreement.

*We recommend that the Board authorize counsel to stipulate to a consent decree in the Application of City of Aurora in Case No. 19CW315, Water Division 5, consistent with the Busk-Ivanhoe Settlement Agreement.*

**L. Colorado State Engineer’s Division 6 Water Measurement Rules.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 1 (Outreach and Advocacy).*

In 2021, the State Engineer began public outreach on measurement rules for Water Division 6, and held stakeholder meetings in Meeker, Walden, Steamboat Springs, and Craig in the summer of 2022. The final rules were published in the Division 6 Resume in October. Any protest of the proposed rules was due by December 31<sup>st</sup>. The River District provided comments on prior draft versions of the rules and participated in stakeholder meetings. We did not file a protest to the rules because the State Engineer’s office modified the proposed rules in a manner consistent with our comments. The Division 6 Measurement Rules are now effective. The rules can be found at this link: <https://dwr.colorado.gov/news-article/division-6-measurement-rules>

**M. Application of the Colorado River District, Ouray County, Ouray County Water Users Association, and Tri-County Water Conservancy District, Case No. 19CW3098, Water Division 4.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 4.A. (full use of Colorado River basin water supplies), 7.B. (identifying water needs and use of River District’s conditional and absolute rights to meet those needs).*



We continue to work cooperatively with the River District's co-applicants in this case with the goal of securing a conditional decree for storage and direct flow rights, as well as appropriative rights of exchange, to be used as a source of supplemental supply for water users in the Cow Creek and upper Uncompahgre River basins. The proposed project also will be operated to preserve and improve low flows for environmental and piscatorial purposes.

There are numerous objectors in the case, including the CWCB, CPW, local water users, and local and regional environmental organizations. We have had settlement discussion with CWCB and CPW staff and counsel and other objectors in the hope of resolving their opposition to the case. Progress in this case has slowed with the holidays, but we anticipate working with our co-applicants to provide the objectors with a revised proposed decree in January.

**N. Application for Change of Water Right of Michael Orpi, Case No. 22CW14, Water Division 4.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): 9A (Wise and Efficient Water User).*

We reported in October that we filed a statement of opposition in this rather unusual case. The application sought to move the place of use of a claimed water right located near Hotchkiss to a new place of use at Lake Powell. In a separate case, the Division 4 Water Court dismissed the applicant's claim to adjudicate the underlying water right that was sought to be changed to Lake Powell. Thus, the State Engineer filed a motion for summary judgment to have the change of water rights case dismissed -- because no underlying water right existed to change. Even if an underlying water right did exist, we would have opposed the application because it sought to use Colorado water resources outside of the State, in violation of Colorado's anti-export statute. Thankfully, the Division 4 Water Court recently granted the State's motion for summary judgment, and the change of water rights application was therefore dismissed.

**O. Proposed Amendment to Financial Governance Policy Regarding Emergency Expenditures.**

*ACTION: We request that the Board adopt the proposed amendment to its Financial Governance Policy.*

*STRATEGIC INITIATIVE(S): 12 (FINANCIAL SUSTAINABILITY); 13 (ASSET MANAGEMENT).*

The River District maintains emergency action plans for its reservoirs that outline the process and procedures for actions to be taken under various emergency scenarios. We have determined that it would be warranted to adopt a financial governance allowance to provide the General Manager to authorize expenditures in emergency situations, when time is of the essence, and the ability to timely convene the Board is not possible. Currently, subject to budgeting and appropriations, the General Manager has been delegated authority to make expenditures of up to \$50,000 in furtherance of the Board's policies. We recommend that the Board consider adding the following language to its Financial Governance Policy to clarify that the General Manger has the necessary authorization and spending authority to use Enterprise funds in the event of an emergency at any of the River District's Enterprise assets:



*In the case of an emergency, the General Manager may take any reasonable action deemed necessary, including the expenditure of available Enterprise funds, to protect life or property, to prevent material damage to or loss of River District Enterprise assets or to comply with the law. The General Manager shall report to the Board, as promptly as possible, the details of the emergency and any expenditure made pursuant to this authorization.*

*We recommend that the Board adopt an amendment to its Financial Governance Policy as set forth above.*

**P. Approval of Special Counsel Rate Increases.**

*ACTION: We request that the Board approve the 2023 rates for special counsel.*

*STRATEGIC INITIATIVE(S): 12A (financial sustainability).*

The River District uses special counsel for various legal matters. The River District's special counsel policy requires that the Board approve all special counsel and any rate increases for special counsel. We have received new rate schedules for 2023 for some of the River District's approved special counsel.

At Karp, Neu, Hanlon, P.C., the 2023 rates for two attorneys that currently work on River District matters, James Fosnaught and Shoshana Rosenthal are \$325.00 and \$300.000 per hour respectively. At Dietz & Davis, Karl Kumli's 2023 hourly rate is \$350.00, and at McConaughy & Sarkissan, P.C., the 2023 rates for Ivan Sarkissan and Trip Nistico are \$440.00 and \$330.00 per hour respectively. Each of these firm's rates reflect a government discount provided as a courtesy to the River District.

Considering the expertise of special counsel and the current legal market we believe that the 2023 special counsel rates are reasonable.

*We therefore recommend that the Board approve the 2023 rates for the River District's special counsel.*

**Q. General Counsel's 2023 Goals and Objectives.**

*ACTION: Update only.*

*STRATEGIC INITIATIVE(S): Identified in the individual goals and objectives.*

I have set forth below the list of proposed General Counsel Goals and Objectives for 2023 based on the Board's strategic initiatives, policy priorities, and input from its annual General Counsel evaluation and review at the October 2022 quarterly meeting, as well as subsequent developments.

1. Continue Implementation of the Colorado River Cooperative Agreement (CRCA).  
*Strategic Initiatives: 5A (Shoshone Permanency), 5C (River District's TMD policy), and 7D (alternative funding for water infrastructure).*



- a. Work with other Blue River Decree parties to mount a successful defense at the Colorado Supreme Court of the Division 5 Water Court’s ruling that the Green Mountain Reservoir Administrative Protocol is consistent with the Blue River Decree.
  - b. Negotiate and recommend to the River District potential amendments to the CRCA to address relatively minor technical issues, as well as potential substantive matters that may warrant revision.
  - c. Provide leadership on the West Slope investigation contemplated by the CRCA to fully explore all methods to preserve the Shoshone Call Flows.
  - d. Convene and implement the West Slope Fund Management Committee to manage the investments and disbursement criteria for income to the West Slope Fund.
2. Assist staff on development of a strategic water rights development plan. *Strategic Initiatives: 2A (outreach to assist constituents in consumptive and non-consumptive water needs), 3A (increase local storage), 4A (full use for benefit of River District’s inhabitants without overdevelopment), and 7B (use of River District’s conditional rights to meet identified needs).*
- a. Advise River District staff and Board on legal issues regarding development of the River District’s conditional water rights.
  - b. Assist staff’s refinement of strategic plan on development of conditional water rights.
3. Advise staff and Board on all legal matters related to Wolford Mountain Reservoir and Ritschard Dam. *Strategic Initiatives: 12A (financial sustainability) and 13 (asset management).*
- a. Proactively address risk management and consultant contract matters related to dam settlement and embankment issues, and other operational and maintenance matters.
  - b. Advise staff and Board on legal matters related to Wolford Mountain Reservoir.
4. Work with River District technical and external affairs staff to increase overall River District presence and outreach in Water Divisions 4 and 6. *Strategic Initiatives: 1C (inform community leaders on water matters), 1E (outreach), 2A (assist constituents with water needs), 2B (partnerships with local constituents), 6.D (agricultural water use).*
- a. Participate in meetings in those locations and assist River District constituents on matters such as local water projects, federal issues that may affect local water users, and the potential pros and cons of demand management. More specifically, work closely with River District staff to effectively utilize the River District’s status as a cooperating agency in the NEPA process for the Rio Blanco Storage Project (the proposed Wolf Creek



Reservoir) and the proposed West Fork Reservoir in the Little Snake River basin, both in Water Division 6. In Water Division 4, work to obtain a decree for the application in Case No. 19CW3098, in which the River District is a co-applicant with Ouray County, Ouray County Water Users Association, and the Tri-County Water Conservancy District.

- b. Protect interests of River District constituents related to water rights administration, instream flows, and proposed or existing transmountain diversions. In particular, advise the Board on an acceptable resolution to the proposed high-peak flow instream flows for Cottonwood, Potter, and Monitor Creeks in Water Division 4.

5. Advise the River District Board and work closely with River District staff and other entities (including the State of Colorado and the Upper Colorado River Commission), on interstate matters such as the Drought Contingency Plan, renegotiation of the 2007 Interim Guidelines, and implementation of the renewed System Conservation Project within the River District's boundaries. Advise the River District Board and staff on implementation of the State Water Plan. Maintain and protect the River District's positions regarding the development and implementation of a possible Colorado River basin demand management program. *Strategic Initiatives: 3 (hydrologic uncertainty), 4 (Colorado River supplies), 5 (TMDs), 6 (agricultural water use).*

- a. Expand knowledge, participation, and advice to the Board on interstate compact matters and other matters related to interstate Colorado River negotiations.
- b. Related to these items, advise the River District on the potential scope and extent of State Engineer rules and regulations related to the 1922 and 1948 Colorado River Compacts.
- c. Protect the West Slope's interests by helping the River District proceed with caution on matters related to demand management as it impacts West Slope agriculture.

6. Assist River District technical staff and advise the Board on negotiations related to implementation of the Eagle River MOU. *Strategic Initiatives: 4A (full use without risk of overdevelopment), 5 (TMDs), 7 (project development), and 9 (wise and efficient use of water).*

7. Provide leadership and assist River District staff on implementation of the River District's Community Partnership Program. Continue to work with River District staff to facilitate federal and state grants that help to implement the River District's strategic plan. *Strategic Initiatives: 2 (outreach), 3D (cost-effective water efficiency), 7D (aging infrastructure), 9A (efficient water use), 10B (water quality).*

8. Provide leadership and assist River District staff on achieving a resolution of the pending Colorado Springs Blue River System diligence case that provides the best possible result for the River District and its West Slope constituents. *Strategic Initiatives: 5C (transmountain diversions).*



The above list should not necessarily be interpreted as a “priority” list for legal staff. There are numerous ongoing tasks and activities that command legal staff’s time on an ongoing basis. Often, those items (such as the day-to-day litigation of water court cases, assisting staff on legislative matters or water rights administration, etc.) require substantial attention from legal staff. In addition, it should be anticipated that the goals and objectives may change throughout the year as priorities shift due to unforeseen circumstances or actions by others. Finally, it is possible that in some cases, General Counsel’s goals and objectives should be discussed with the Board in executive session, if necessary, to protect the confidentiality of attorney-client communications and matters subject to negotiation.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** ANDY MUELLER, GENERAL MANAGER

**SUBJECT:** 2023 FIRST QUARTERLY MEETING, GENERAL MANAGER'S REPORT

**DATE:** JANUARY 3, 2023

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### List of Actions Requested Under General Manager's Report:

**b. Colorado River System, SCPP, Demand Management:**

*(1) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to submit a grant application requesting \$434,190 from the Colorado Water Conservation Board through the Federal Technical Assistance Grant Program.*

*(2) Staff requests that the Board authorize an expenditure of \$144,730 in General Fund to support the matching funds needed to apply for the Federal Technical Assistance Grant Program.*

*(3) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to execute a professional services contract with The Freshwater Trust for \$578,920 (to be funded by the authorizations requested above) to support System Conservation and Demand Management test project design and development.*

**c. Building Remodel:**

*Staff requests that the Board authorize the General Manager to amend the contract with F&M Architects by \$34,660, for a total contract amount not to exceed \$80,000.*

**d. Staffing Discussion:**

*(1) Staff requests that the Board authorize General Manager to create and fill two new fulltime employee positions; specifically Engineering Technician and a Community Funding Partnership Program Manager.*





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*(2) Staff requests that the Board authorize the General Counsel to create and fill a new fulltime position of Staff/Associate Attorney.*

**g. USGS Joint Funding Agreement:**

*Staff requests that the Board delegate authority to the General Manager to enter into a new Joint Funding Agreement (JFA) with the USGS, subject to review and approval by legal counsel, in the gross obligation amount not to exceed \$680,000 to engage in cooperative streamflow measurement and water quality sampling activities in calendar year 2023, consistent with the adopted 2023 budget.*

*Delegated authority is also requested for the General Manager to enter into agreements, subject to review and approval by legal counsel, with cooperating partners for reimbursement of some of the USGS gauging and sampling activities, estimated to be an offsetting amount of not less than \$130,000 for the year.*

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**a. Colorado River Basin Hydrology Report – Update.**

Please see attached memo in the electronic packet by [clicking here](#).

**b. Colorado River Discussions, System Conservation Program, Demand Management and DROA.**

**REQUESTED ACTIONS:** See Memorandum From Amy Moyer and myself by [clicking here](#).

**STRATEGIC INITIATIVES:**

**4. Colorado River Supplies:** *Colorado may be closer to full use of its Colorado River supplies than commonly thought. Absent good planning, education, outreach, and mitigation measures to address regional water supply issues, Colorado risks overdevelopment of its Colorado River supplies to the detriment of existing water users. At some level of additional development, all existing uses junior to the compact (more than 500,000 acre feet) are at risk of curtailment under compact administration. The River District's will work on Colorado River Basin contingency planning and compact risk management, both related to low reservoir levels at Lake Powell that threaten power generation and the ability to meet Colorado River Compact obligations, be reflected in the Colorado Water Planning efforts.*

**4.A.** *The River District will advocate for full use of its Colorado River Basin water supplies for the benefit of the District's inhabitants, without undue risk of overdevelopment.*

**4.B.** *The River District will advocate for full protection and preservation of water rights perfected by use prior to the effective date of the 1922 Compact and thereby excluded from curtailment in the event of compact administration.*

**4.C.** *The River District will continue to study mechanisms, such as a Compact Water Bank and Contingency Planning that include demand management, drought operations of CRSP reservoirs, and water supply augmentation to address the risk of overdevelopment.*





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***4.D. The River District will work with the State Engineer's Office and other interested parties to develop an equitable mechanism for potential compact administration.***

***6. Agricultural Water Use: Most West Slope agricultural water use is senior to the Colorado River Compact. As Colorado nears full development of its Colorado River system water there will be pressure for temporary and permanent conversion of senior agricultural water rights to other uses. The Colorado River Compact Water Bank may provide a mechanism to protect agricultural water uses.***

***Strategic Initiatives***

- 6.A. The River District will continue to study the concept of a voluntary and compensated compact water bank in collaboration with other stakeholders to best preserve western Colorado agriculture.***
- 6.B. The River District will explore alternative transfer methods that allow agricultural water users to benefit from the value of their water rights without the permanent transfer of the rights, and without adverse impacts to the local communities and the regional economy.***
- 6.C. Although the River District recognizes that some reductions in demands of agricultural water rights may be necessary to protect existing water uses in the basin, the District will work to ensure that the burden of demand reduction is shared across all types of water use sectors, and that agricultural water rights, and agriculture itself, are not injured.***
- 6.D. The River District will protect the integrity of senior agricultural water rights within Colorado's prior appropriation system, recognizing the potential risks to those rights posed by the constitution's municipal right of condemnation.***

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**A. Supplemental Environmental Impact Statement and Seven States Discussions.**

On June 14, 2022 the Commissioner of the Bureau of Reclamation called upon the seven states in the Colorado River basin to develop plans to reduce consumptive use of water by two to four million acre feet within sixty days of her announcement. Six months later, that call remains largely unanswered. The basin states representatives and representatives of the Department of Interior (DOI) have engaged in a series of irregularly scheduled meetings but have made little progress. Due to the lack of progress by the states, in mid-November, the Bureau of Reclamation (BOR) under direction from the DOI issued a Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (Notice). The gist of the notice is that BOR is proposing dropping the minimum annual release from the Glen Canyon Dam from 7.0 MAF (as currently authorized by the 2007 Interim Guidelines) to as low as 5.5 MAF. A reduction in the annual release from the Glen Canyon Dam to 5.5 MAF would mean that the imposition of significant cuts on the Lower Basin water users in an unspecified manner and may accelerate the debate (and possible Supreme Court litigation) regarding the interpretation of the Upper Basin's obligations under Article III(d) of the 1922 Colorado River Compact.



The State of Colorado and a coalition of water users including the Colorado River District, Southwestern Water Conservation District and the entities comprising the Front Range Water Council submitted letters responsive to the Notice. Those letters can be found by [clicking here and here](#). Two agencies representing Nevada utilized the notice opportunity to submit a proposal on the table in an effort to move the conversation forward. This proposal was contained in a letter which can be found by [clicking here](#). The Seven Basin states have committed to utilizing the Nevada letter as the basis for a series of weekly negotiation meetings during the month of January with the goal of reaching an agreement among the states on a preferred alternative for the SEIS analysis being performed by the BOR. The BOR has indicated that the States have until January 31, 2023 to agree upon a preferred alternative. None of the Basin states are particularly happy with the proposal put forth by Nevada, which may mean that it is a step in the right direction toward an agreement.

You will note that while most of the Nevada proposal focuses on reductions in Arizona and California, it does propose what appears to be an annual 500 kaf DROA release from the upper CRSP reservoirs and a reduction in consumptive use of an additional 500 kaf from the Upper Basin states. Unfortunately, given the depleted state of the Upper CRSP reservoirs, a planned annual DROA release of 500 kaf or more does not seem to be realistic thinking, (i.e., the reservoirs are not capable of providing anywhere near that amount of additional water to the system for any extended time period due to the low level of storage). Additionally, given the poor hydrology in 2021 and likely 2022 reduced Upper Basin consumptive uses to somewhere between 3.5 and 4 maf, from an average of approximately 4.5 maf, it does not seem realistic (or frankly equitable) to plan for an additional reduction in consumptive use of another 500 kaf in the Upper Basin. We will keep you informed if there is any significant progress in these discussions.

## **B. Upper Basin System Conservation Program**

On December 14, 2023, the Upper Colorado River Commission (UCRC) announced the creation of a well funded (\$125 million from the Bureau of Reclamation) System Conservation Pilot Program (SCPP). The UCRC issued a request for proposals (RFP) soliciting responses from any water user in the Upper Basin. A copy of that RFP is attached to this report and can be found by [clicking here](#). The UCRC fast tracked this effort and has set a deadline for applications of February 1, 2023. As we have discussed previously, we have significant concerns regarding the way this SCPP program was rolled out by the UCRC. The UCRC proposed that it will contract directly with water users utilizing a form contract they are calling the System Conservation Implementation Agreement (SCIA). A copy of the SCIA template can be found by [clicking here](#). The RFP indicates that the UCRC will purchase an acre foot of conserved water for \$150 per acre foot; or the respondent to the RFP can propose a higher price per acre foot in their submission if they can establish a reasonable basis for doing so. At \$125 million and a fixed offering price of \$150 per acre foot of water conserved, this program could result in as much as 833,000 acre feet of water being transferred from Upper Basin water users to the Colorado River system over a period of one or two years. The potential for economic and social disruption and drought profiteering with a program of this size and scope is significant. Additionally, conserving water through a System



Conservation Program<sup>1</sup> does not allow the Upper Basin to store the water in any reservoir and/or utilize the water in a strategic way to assist in maintaining compact compliance. Instead, every drop of water conserved through this program will merely flow through Lake Powell and be used to feed the Lower Basin's voracious appetite for water. This is particularly true if the BOR does not impose proper System Loss Accounting on the Lower Basin contractors and force further reductions in consumptive use by the Lower Basin water users. We continue to believe that any SCP or Demand Management Program in the Upper Basin should only be implemented if the Lower Basin has committed in an enforceable manner to reducing consumptive use by a minimum of 2 maf of actual use on an annual basis.

Our State's Commissioner to the UCRC, Becky Mitchell, shares some of our concerns regarding the potential negative impacts and has agreed that any SCP contract with the UCRC for water diverted in and decreed for use within the geographical boundaries of the Colorado River District will be finalized only with the approval of both the Colorado Water Conservation Board and our District. While we are appreciative of Commissioner Mitchell's commitment, we also recognize that designing and implementing an evaluation and approval process here at the District will take significant resources. Attached to this memorandum by [clicking here](#) is a draft SCP Application Review Policy for the Board's consideration. It is my hope that we can discuss this policy in depth at the board meeting so that the Board can provide staff direction on the policy with the goal of having staff take the Board's comments and direction under advisement to revise the policy and bring it back to the Board for approval at one of our first bi-weekly legislative meetings. Staff has already been contacted by several water users in our District who have expressed interest in submitting a proposal to the UCRC so we anticipate some pressure to move quickly on this matter.

### **C. Demand Management**

You will recall that the Upper Division States entered into a Demand Management Storage Agreement (DMSA) with the Department of Interior in 2019. In that agreement, the Upper Division states agreed to study the feasibility and practicality of a Demand Management Program (DMP) where water users across the Upper Basin are paid to temporarily and voluntarily, not consume water that they otherwise would have. The key difference between a DMP as it is defined in the DMSA and the SCP is that any water conserved through a DMP can be stored in a storage account in the initial CRSP units for the sole purpose of aiding the Upper Basin in its good faith efforts to assure continued compliance with the 1922 Compact. While a DMP has significant hurdles and risks associated with it, as between DMP and an SCP, staff at the River District believe that DMP is highly preferred.

In addition to SCP, the UCRC's five point plan issued in August of 2022 indicated that the UCRC and the Upper Division States will expedite their ongoing analysis of Demand Management. The UCRC's report and executive summary regarding their study of a DMP were released at the December 14 UCRC meeting and can be found by [clicking here and here](#). The UCRC announced that the states intend to finalize their independent studies regarding feasibility of a DMP and

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<sup>1</sup> I have intentionally removed the word "pilot" because a program this size with no articulated goals regarding what the "pilot" is intended to study, or test, is not appropriately labeled "pilot."



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consider next steps at the June 2023 UCRC meeting. It seems, due to continued poor hydrology, the issuance of the 5 point plan, and significant political pressure that there is a reasonable chance that the UCRC may be authorizing a DMP as soon as this year. It turns out that our earlier work studying Demand Management positions the Colorado River District well for this eventuality.

In 2022, as the result of a multifaceted study of a DMP, the District designed a “Conceptual Market Structure” or “punching bag” for a Demand Management Market. After the CWCB “shelved” their feasibility study of a DMP, we put our efforts on hold. With the roll out of the SCP and the above-described pressure to stand up a DMP, it is clear that forces larger than the Colorado River District are in the process of establishing an active market paying Upper Basin water users for the non-use of their water. Given this reality and our concerns of what appears to be a fairly non-strategic, roll out of the UCRC SCP program, we are as concerned as ever that, without our involvement, a large-scale water conservation program may be implemented in Colorado that will negatively impact our agricultural economy and the communities that depend upon it.

Therefore, **attached here**, you will find a memorandum from Amy Moyer, Director of Strategic Partnerships, and myself, outlining a request for your endorsement of a fairly large-scale pilot program designed to test many of the elements of our Conceptual Market Structure. We look forward to your consideration of this proposal.

**c. District Office Remodel Update.**

***ACTION: Staff requests that the Board authorize the General Manager to amend the contract with F&M Architects by \$34,660, for a total contract amount not to exceed \$80,000.***

***STRATEGIC INITIATIVES:***

***11. River District Staff Resources: For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.***

***13. Asset Management: The River District will plan and implement operation, maintenance, and replacement (OM&R) activities to ensure the reliable and safe operation of all River District owned facilities and properties. The District recognizes that the significant investment in these assets as well as the financial stability of our District and Enterprise must be protected by regular maintenance and repair of its assets.***

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At the September budget workshop, staff requested authorization to contract with R.S. Wittrig Construction, Inc. to complete the office remodel project for \$1,028,000. The project was scheduled to commence on November 1<sup>st</sup>. However, less than two weeks before the start date, the contractor informed us they had been unable to secure the electrical and HVAC subcontractors. Subsequently, they withdrew from the project altogether. While this was a disappointing turn of events, it is possible that they withdrew in part because the project was underbid; which means we may have faced numerous change orders if we had proceeded.



Since November, staff has worked closely with the architect to find other contractors for the project. In late December, we received two bids, however, the estimated budget from both is nearly \$1,500,000 (including contingency). While the goals of the remodel remain the same and staff still believes it is a worthy project, we feel we cannot request authorization for a contract in that amount at this time. Staff is mindful of the overall budget and fiscal health of the District and recognizes the importance of balancing all goals of the District.

A significant amount of effort has been expended, both in time and financial resources, to prepare for the remodel project, and even though we are not proceeding to construction right now, we believe it has been worthwhile. Staff will continue to work to refine the office design to best suit the long-term needs of the District so that we will be in a good position to move forward when the time is right. The future is impossible to predict, but we will monitor the construction market for signs of increased contractor availability and hopefully price decreases with an eye toward bringing the project back to the Board for future consideration.

Staff also anticipates further work with the architects to revise the office design. The additional work will result in a total contract amount beyond the General Manager's authority. Therefore, staff requests that the Board authorize the General Manager to amend the contract with F&M Architects by \$34,660, for a total contract amount not to exceed \$80,000.

**d. Staffing Discussion.**

***REQUESTED ACTIONS:***

- 1. Staff requests that the Board authorize General Manager to create and fill two new fulltime employee positions; specifically Engineering Technician and a Community Funding Partnership Program Manager understanding that the exact title of these positions is subject to some refinement by General Manager..***
- 2. Staff requests that the Board authorize the General Counsel to create and fill a new fulltime position of Staff/Associate Attorney.***

***APPLICABLE STRATEGIC INITIATIVE(S):***

- 11. River District Staff Resources: For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.***
- 11. A. The River District will seek to be an attractive and competitive employer in the region, state, and water community. This includes maintaining, to the best of its ability, a highly competitive compensation package and supporting the work-life balance that is valued by the District and its employees.***
- 11. B. The River District will have an excellent workforce that is talented and adaptable. The District will focus on effective hiring for new employees, professional development for***





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*existing employees and management to ensure that the proper expertise and leadership attributes are maintained and developed in all staff positions.*

- 11. D. *The District will strive for efficient and effective communication that facilitates collaboration and teamwork. The District will continue to involve, empower, and support all staff in the fulfillment of the District's mission.***
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At the fourth quarterly meeting in 2022, the Board had a discussion regarding the growing workload for District employees. There is widespread recognition by the Board and District Staff that the diminishing flows in our rivers has increased both the volume and importance of the District's work inside the District with our constituents, within the State of Colorado, and in the interstate arena. There is justifiable concern that our existing staff, at all levels, is running the risk of burnout and setting the District up to be in the position where we are not effectively meeting all of the demands of our mission. The Board directed District management to explore expanding the District team in order to assure that all elements of the critical mission of the District can be adequately addressed. After significant discussion with team members at the District, an analysis of present and future workload, and an evaluation of District financial resources, staff recommends that the Board approve the creation of three new positions<sup>2</sup>: a Community Funding Partnership Program Manager, an Engineering Technician, and a Staff/Associate Attorney. A brief discussion of each position and its benefits to the District are as follows.

**Community Funding Partnership Program Manager:** This position will work closely with the Director of Strategic Partnerships and will take on many of the day-to-day grant application processing, contract management, fund tracking, and data generation activities. In addition to assisting the District with maintaining excellent application processing timing, the creation of this position will free up time for the Director of Strategic Partnerships to contribute to District's intrastate and interstate policy activities of the District. This position will also allow the District to modify the current position of Program Associate: Partnerships, Records and Contracts, to focus solely on records, non-CFP contracts, and administrative support in order to better support our multi-faceted efforts throughout the District. We propose that this position will have an annual salary range of \$85,000 to \$120,000 and that it will be funded by the annual District allocations to the CFP Fund which are a minimum of 4.2 million dollars.

**Engineering Technician:** Creating and filling the position of Engineering Technician will allow the District to hire a relatively low cost, junior level employee to assist the existing engineering staff with tasks such as project management related to the deformation studies, regular operations at Wolford Mountain Reservoir, water marketing activities, map creation and modification, assisting senior staff with responding to constituent assistance requests throughout the District, and providing administrative assistance to the engineering team. The implementation of this position should improve our capabilities in responding to constituent assistance requests and it will free up more senior staff time to work on critical projects such as the Shoshone Permanency efforts

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<sup>2</sup> The assigned duties for these proposed positions as described in this memorandum are accurate, however, if the Board approves the creation of these positions, staff asks the Board for some discretion in arriving at the final job titles.



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and the development of programmatic water conservation efforts which align with District priorities. We propose that this position's annual salary range will be \$59,615 to \$89,423. It is our intent that this position, and/or that of our Director of Asset Management/Chief Engineer will be largely, if not entirely, funded by the Enterprise Fund.

**Staff/Associate Attorney:** It is envisioned that this position will perform the vast majority of the District's contract work with third parties, process(es) and respond to routine legal questions from staff, and provide significant assistance to Senior Counsel and General Counsel in the representation of the District in water court. Creating and filling this position will free up time for the District's existing attorneys to utilize their years of experience and expertise for working on complex negotiations and working with our General Manager and Director of Government Relations in the important business of negotiating and advocating in the state and federal legislative and regulatory arenas. We propose that this position will have a salary range of \$88,400 to \$156,740. This position will be funded largely through the General Fund, with some cost sharing with the Enterprise Fund, due to the large number of contracts and work associated with maintaining the Enterprise assets.

We anticipate overhead costs associated with these new positions to be an additional 30 to 40% of the position's base salary and our analysis of the District's financial position is that we have sufficient projected future revenues available to fund these positions as described.

We welcome a rigorous discussion by the Board on this proposal.

**e. Proposed Change to Paid Parental Leave Benefit.**

Please see attached memo in the electronic packet by [clicking here](#).

**f. Upper Colorado Wild and Scenic Update.**

Please see attached memo in the electronic packet by [clicking here](#).

**g. USGS Joint Funding Agreement (JFA) Approval.**

Please see attached memo in the electronic packet by [clicking here](#).

**h. General Manager's Goals and Objectives for 2023.**

Please see attached memo in the electronic packet by [clicking here](#).

**i. Service Anniversary.**

***ACTION REQUESTED: No action, just informational.***

***APPLICABLE STRATEGIC INITIATIVE(S):***



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- 11. River District Staff Resources: For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.***
- 11. A. The River District will seek to be an attractive and competitive employer in the region, state, and water community. This includes maintaining, to the best of its ability, a highly competitive compensation package and supporting the work-life balance that is valued by the District and its employees.***
- 11. B. The River District will have an excellent workforce that is talented and adaptable. The District will focus on effective hiring for new employees, professional development for existing employees and management to ensure that the proper expertise and leadership attributes are maintained and developed in all staff positions.***
- 11. D. The District will strive for efficient and effective communication that facilitates collaboration and teamwork. The District will continue to involve, empower, and support all staff in the fulfillment of the District's mission.***
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On December 4, 2022, I celebrated my 5<sup>th</sup> anniversary of being hired by the Board as your General Manager.





# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS  
**CC:** ANDY MUELLER, GENERAL MANAGER  
**FROM:** DAVE “DK” KANZER, P.E. & DON MEYER, P.E.  
**SUBJECT:** COLORADO RIVER BASIN CONDITIONS & OUTLOOK – WINTER, WATER YEAR 2023  
**DATE:** DECEMBER 30, 2022

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***NO ACTION:*** This is an informational status report on water supply conditions for the Colorado River Basin, its sub-basins and related River District water enterprise operations.

***STRATEGIC INITIATIVE(S):***

***3. B. The River District will engage in support efforts aimed at understanding climate change and how it may affect water supplies.***

***3. C. The River District will engage in and support water supply planning efforts, local and regional, which include adapting to climate change impacts.***

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**Hydrological issues continue to challenge in Colorado River Basin...**

Although water year 2023 is off to a relatively good start, unfortunately, it is too early to make solid short-term projections for water managers and users.

While we know that after three consecutive below average water years, the Colorado River Basin (CRB) snowmelt runoff yield has significantly underperformed and decreased water storage, we don't know if and how long these dry conditions may persist. With record low reservoir conditions across much of the west, this uncertainty leaves water managers nervously watching weather patterns and for indicators and predictors as the annual snowpack slowly grows in the headwaters of the system.

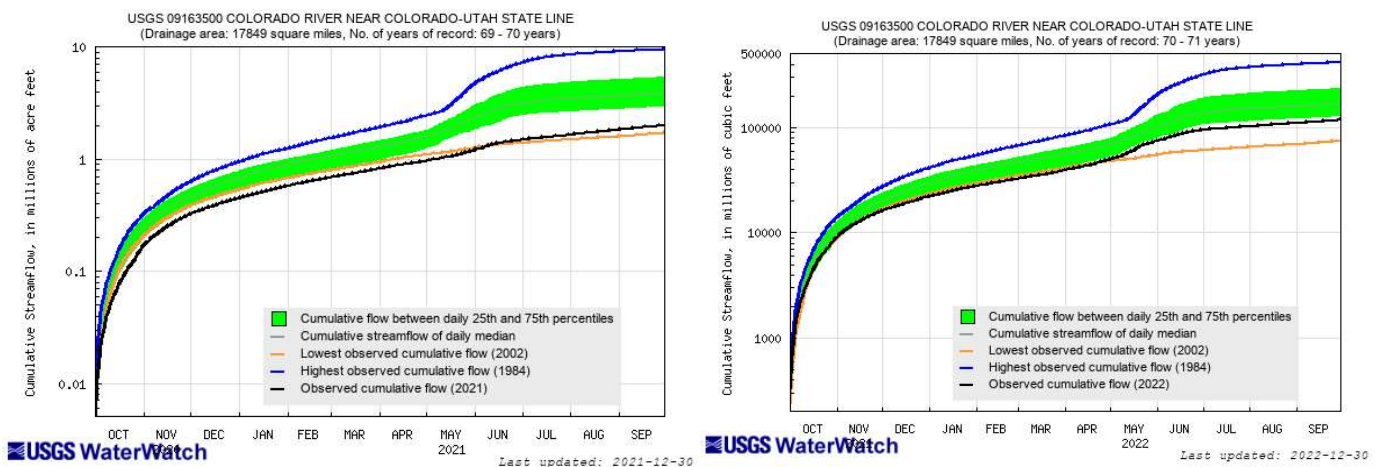
In the CRB, scientists agree that the cycle of accumulation and runoff has been adversely impacted by climate change. Recent hydro-climatological patterns have resulted in average to below average peak snowpack development on dry soils, followed by exposure to a warming spring climate with a thirsty atmosphere and moisture-deficient soils causing significant loss and inefficient runoff. Although summer monsoonal moisture can help restore soil moisture, and reset conditions, as it did in 2022 (especially in the south), it is a small piece of the overall annual water budget.

Unfortunately, it is still too early for any skillful predictions for 2023. Winter is the time of year when water supply forecast uncertainty is the highest. Hopefully the recent warm, dry cycle can



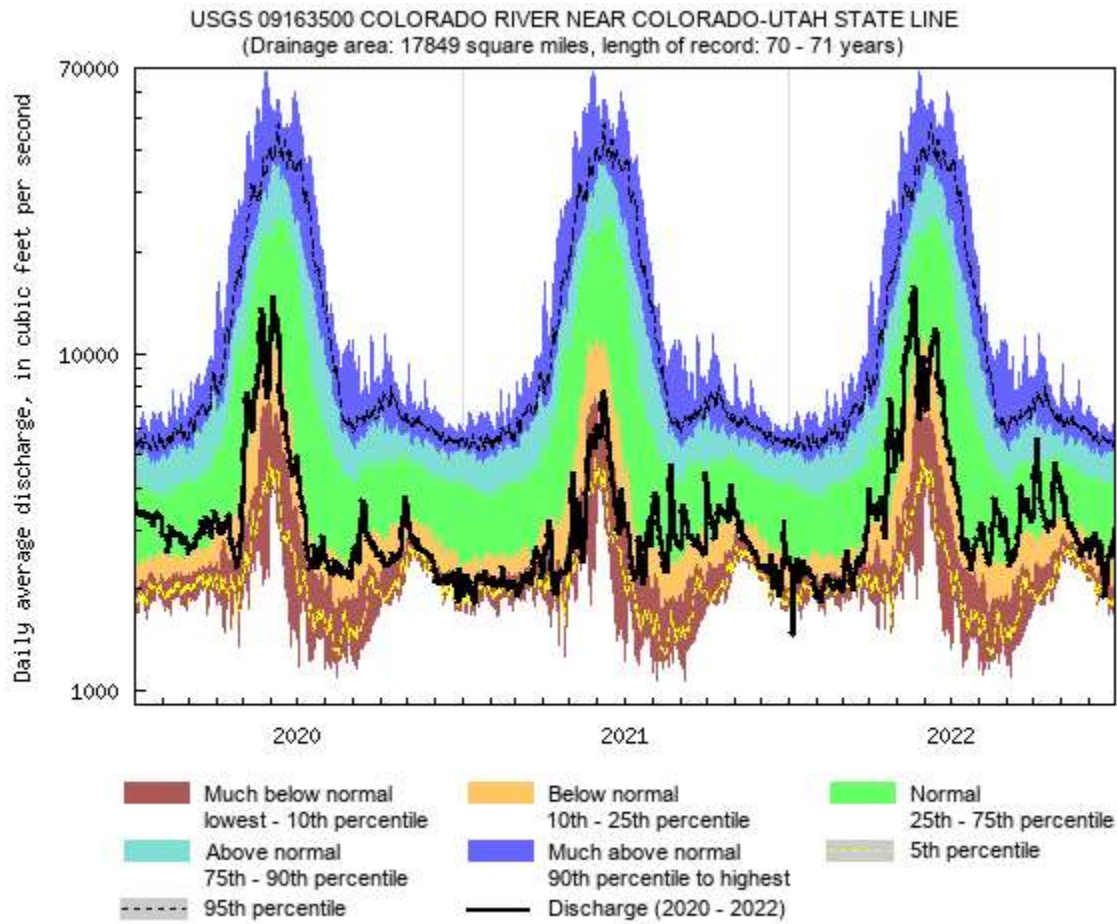
be broken with a consistent cool, wet signal throughout the winter and into spring, preserving and extending much needed runoff.

To examine and analyze the cumulative effects of ‘aridification’, or as it is now known, the ‘mega-drought,’ across the Upper CRB, cumulative flow curves can be used. **Figure 1** shows how flows have shifted drier, below the long-term average as seen in the Colorado River near the Colorado-Utah Stateline. The cumulative flow curves for 2021 and 2022 are compared. In 2021, the left panel shows how flows closely follow the minimum historical flows in orange and in 2022 on the right, the cumulative flows only approach the 25<sup>th</sup> percentile (the bottom edge of the green portion of curve) after spring runoff in May-June 2022, and then fall below that statistical measure. Three consecutive years of these low flows have resulted in significant cumulative hydrological deficits, manifested in historically low storage levels across the basin’s important reservoirs.



**Figure 1:** Cumulative observed stream flows Colorado River at the Utah-Colorado state line in 2022 have rebounded slightly as compared to 2021; however, a significant accumulated deficit remains as compared to the full 70-year hydrological period, as shown by grey line in center of the green area.

Similarly, the time series gage record only shows a slight improvement of observed basin yield. **Figure 2** clearly shows the consistent underperforming of the observed streamflow for the Colorado River at the State line for the last three years as against long-term statistical averages.

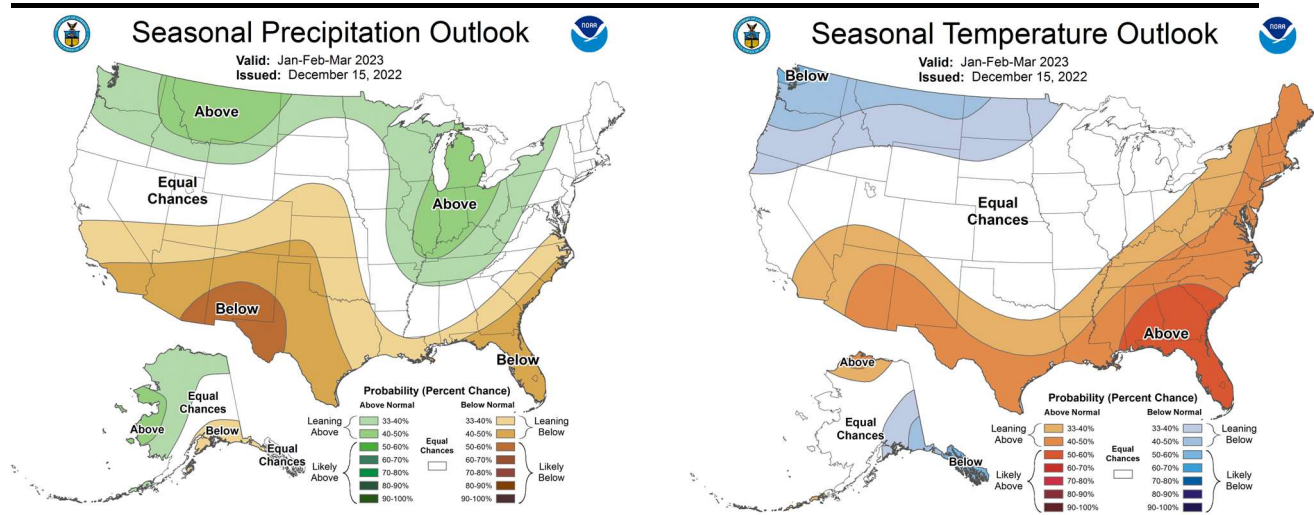


**USGS WaterWatch**

Last updated: 2022-12-30

**Figure 2:** Depiction of daily average discharge for the Colorado River near the Stateline since 2020, as compared to statistical percentiles. The bold, black line indicates that flows for most of the last three years, flows have been tracking at or below the 25-percentile level.

Looking ahead, the modeling performed by the NOAA Climate Prediction Center, shown in **Figure 3**, suggests that the outlook for precipitation and temperature over the next three months in the CRB follow a typical La Nina signal with cooler, wetter conditions to the north and drier and warmer conditions in the south.



**Figure 3: NOAA Three-Month (Jan-Feb-Mar) Temperature and Precipitation Outlook (Climate Prediction Center)**

With these outlooks and accumulated hydrological deficits across the CRB, the Colorado River Basin Forecast Center and US Bureau of Reclamation are using an inflow projection for Lake Powell for the 2023 April through July water supply season of approximately 5 million acre-feet or 79 percent of the average the last thirty years.

In recognition of the significant storage deficit in the CRB and to protect critical elevation associated with the hydropower facilities at Glen Canyon dam, Reclamation has proactively agreed to temporarily withhold water in Lake Powell by reducing releases by up to 523,000 acre-feet below the previously proscribed monthly volumes from December 2022-April 2023 downstream towards to the Colorado River compact measurement point and through the Grand Canyon. This is a temporary federal action to protect the ‘power pool’ level of 3525 feet above mean sea level, by slowing the decline of the reservoir level; Reclamation anticipates that this volume of water will be released later in 2023, maintaining the 7.0 MAF release identified in the August 2022 24 Month Study. Related actions to potentially hold back this volume of water permanently, and or to reduce operational releases below the minimum release (7 MAF) authorized by the 2007 Interim Shortage Guidelines (ISG) is being addressed by the creation a Supplemental Environmental Impact Statement related to potential operational changes (not anticipated in the original ISGs) which may result in the authorization of releases as low as 5.5 MAF from the Glen Canyon Dam as soon as 2023. Further discussion of this, as well as links to comments from the States and water users from Colorado on the SEIS initial scoping effort can be found in the General Manager’ Memo at [THIS LINK.](#)

Looking back, in 2022, Reclamation similarly and ‘temporarily’ held back 480,000 acre-feet of water in Lake Powell, thereby reducing water year releases from Glen Canyon dam to 7.0 million acre-feet. To further support Lake Powell storage elevations in 2022, additional releases were made from Flaming Gorge Reservoir of 500,000 acre-feet. Together with releases made in 2021, a total of 661,000 acre-feet of water were released from the initial units of the Colorado River



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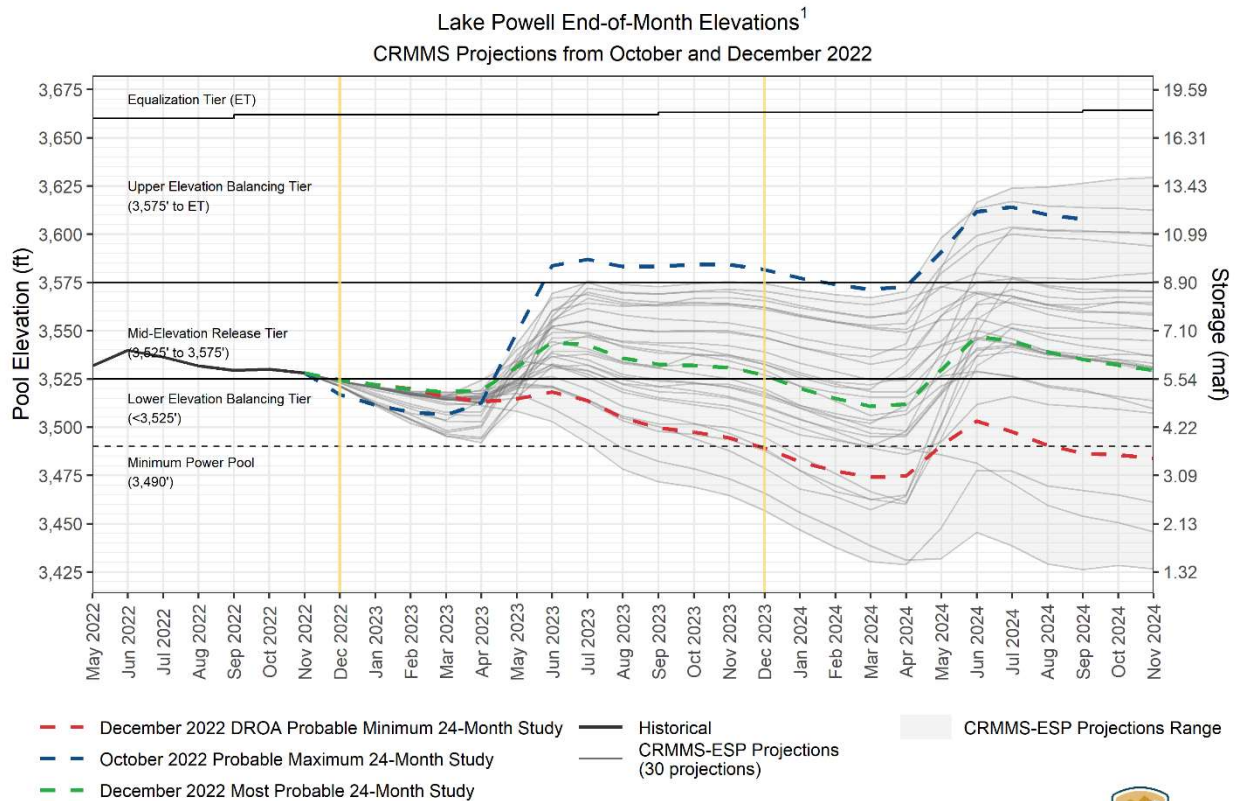
Storage Project (CRSP) under the Drought Response Operations Agreement “DROA” (as amended in 2022).

In the Lower Basin, Drought Contingency Plan (DCP) and Tier 2 Shortage criteria will constrain releases in 2023 with significantly decreased deliveries to Lower Colorado River Basin water users. This means that approximately 721,000 acre-feet less water will be available to the Central Arizona Project, Southern Nevada and Mexico pursuant to the 2007 Interim guidelines as amended by the 2019 Drought Contingency Plan.

Even with these actions, under the current forecasted operations, Lake Powell could end Water Year 2023 at or below the identified elevation to protect Glen Canyon dam power generation of 3525 feet above mean sea level. **Figures 4 and 5** summarize projected range of potential storage conditions at Lakes Powell and Mead in 2022 and 2023 under a range of assumptions.

These forecasts and related operational information are subject to change and will be updated when they become available and relevant updated planning study information may be provided at the Board meeting.

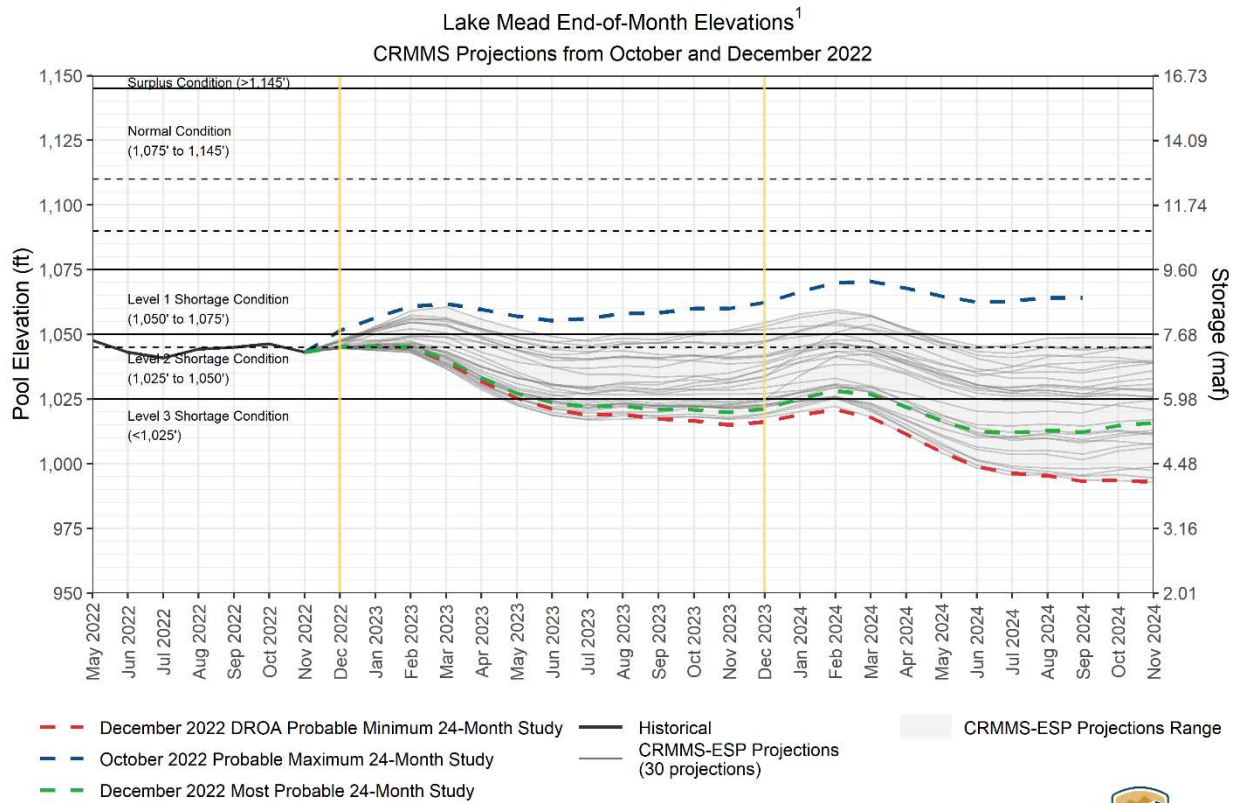




<sup>1</sup> Projected Lake Powell end-of-month physical elevations from the latest CRMMS-ESP and 24-Month Study inflow scenarios.



**Figure 4:** Lake Powell historical and projected end-of-month elevations are shown under different operational scenarios (minimum, most and maximum probable inflows / outflows) along with projected conservative operations and 500,000 acre-feet of additional DROA releases from Flaming Gorge Reservoir as compared to key threshold levels developed under the 2007 Interim Guidelines



<sup>1</sup> Projected Lake Mead end-of-month physical elevations from the latest CRMMS-ESP and 24-Month Study inflow scenarios.

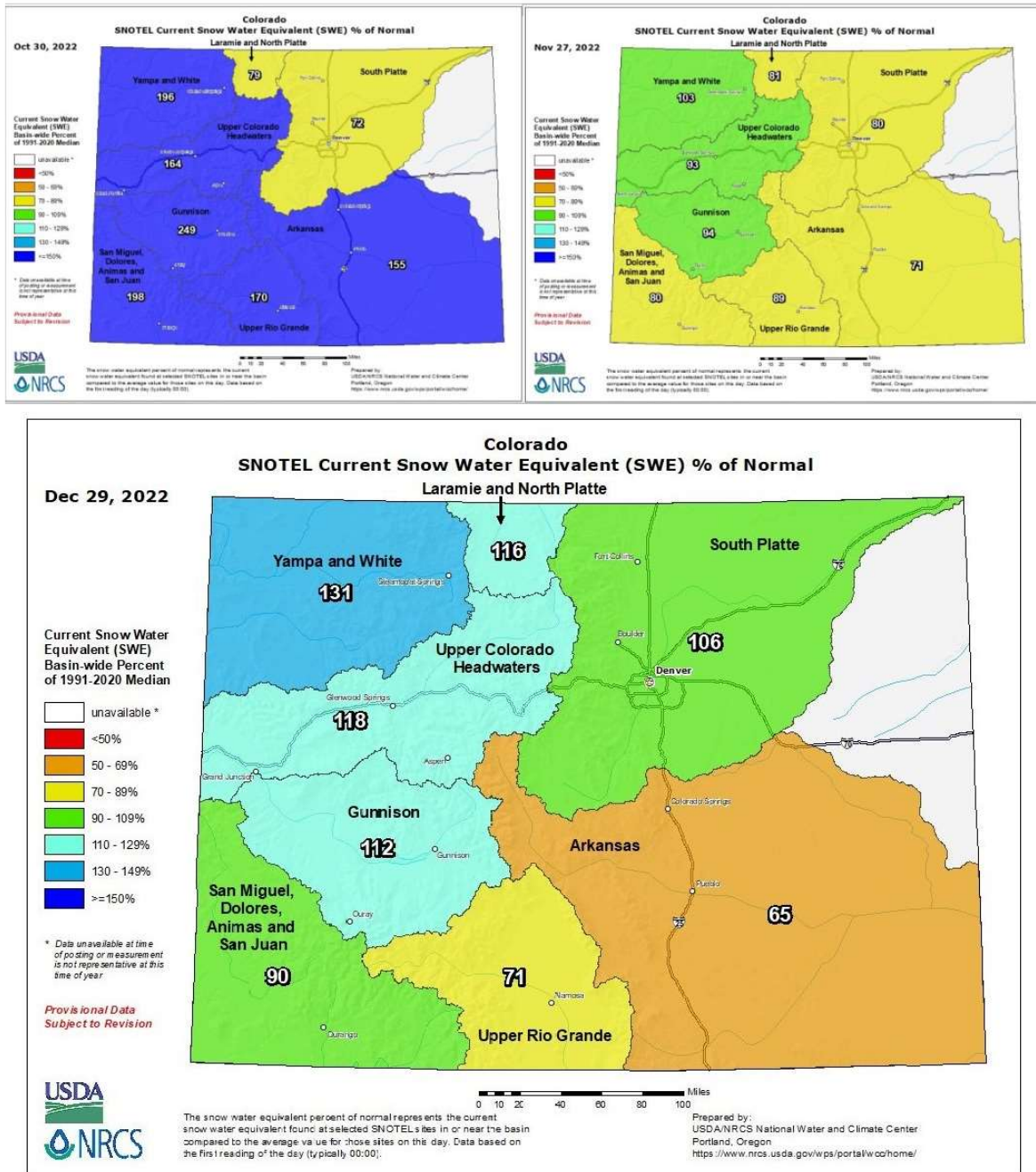


**Figure 5:** Lake Mead historical and projected end-of-month elevations are shown under different operational scenarios (minimum, most and maximum probable) along with key threshold levels developed under the 2007 Interim Guidelines. The red dashed line may be the most representative of recent operational decisions.



**Colorado River Headwaters within Colorado and Enterprise Operations**

The evolution of Snow Water Equivalent (SWE) as percent of average for major basins within Colorado for the last three months are shown in **Figure 7**. A couple of takeaways from these snapshots are 1) early climatological data as a percent of average can be very misleading, and 2) in the last month, snow conditions have improved in all basins except the Rio Grande and Arkansas.

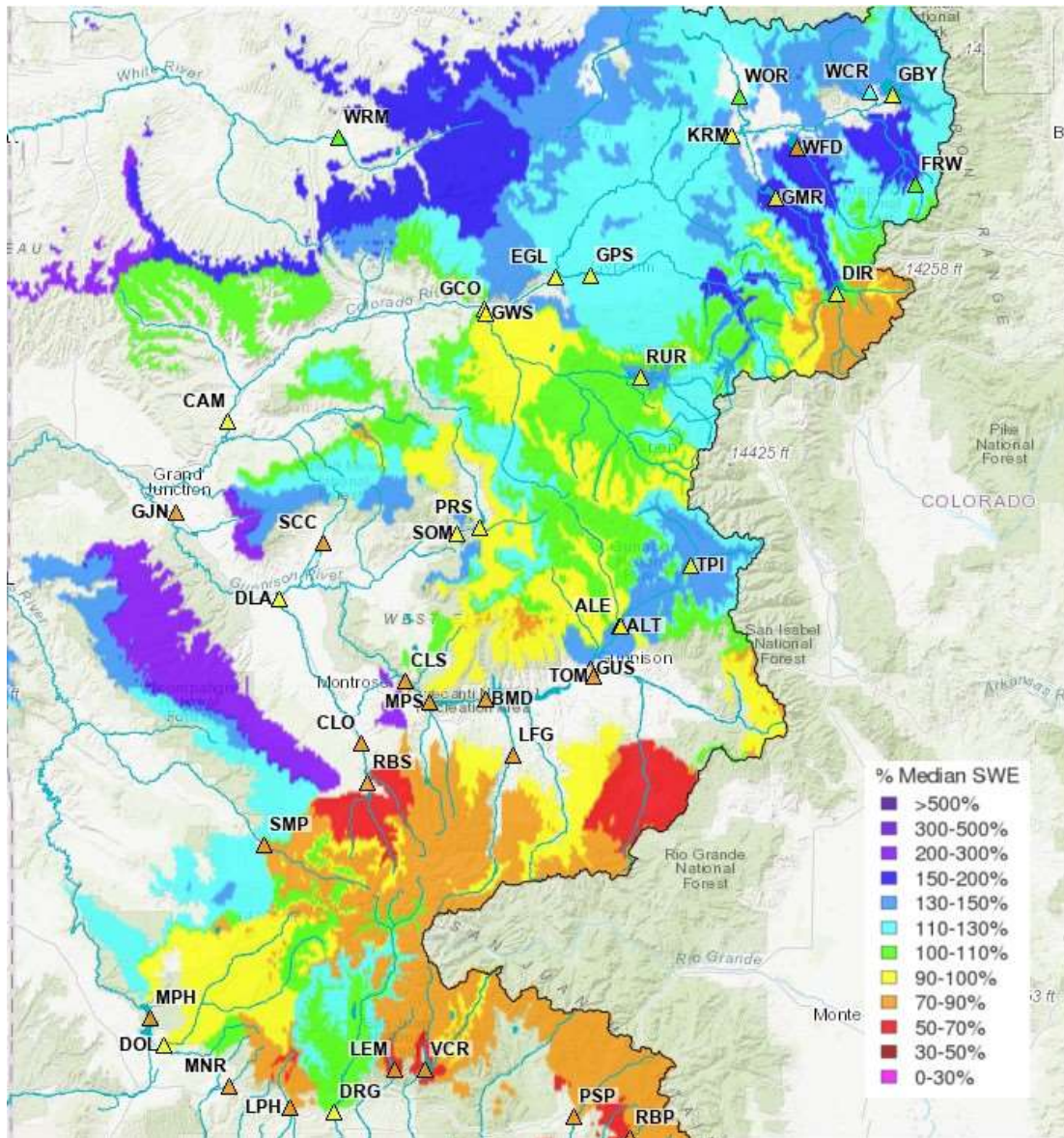


**Figure 6:** Maps of Snow Water Equivalent (SWE) as a percent of average for major basins within Colorado in late October, November and December 2022





CBRFC modeled snow and runoff forecasts for various nodes in the Colorado River basin within Colorado are shown in **Figure 7**, reflecting the disparity of moisture conditions from north to south. Runoff forecasts at this time of year are to be taken with a grain of salt.



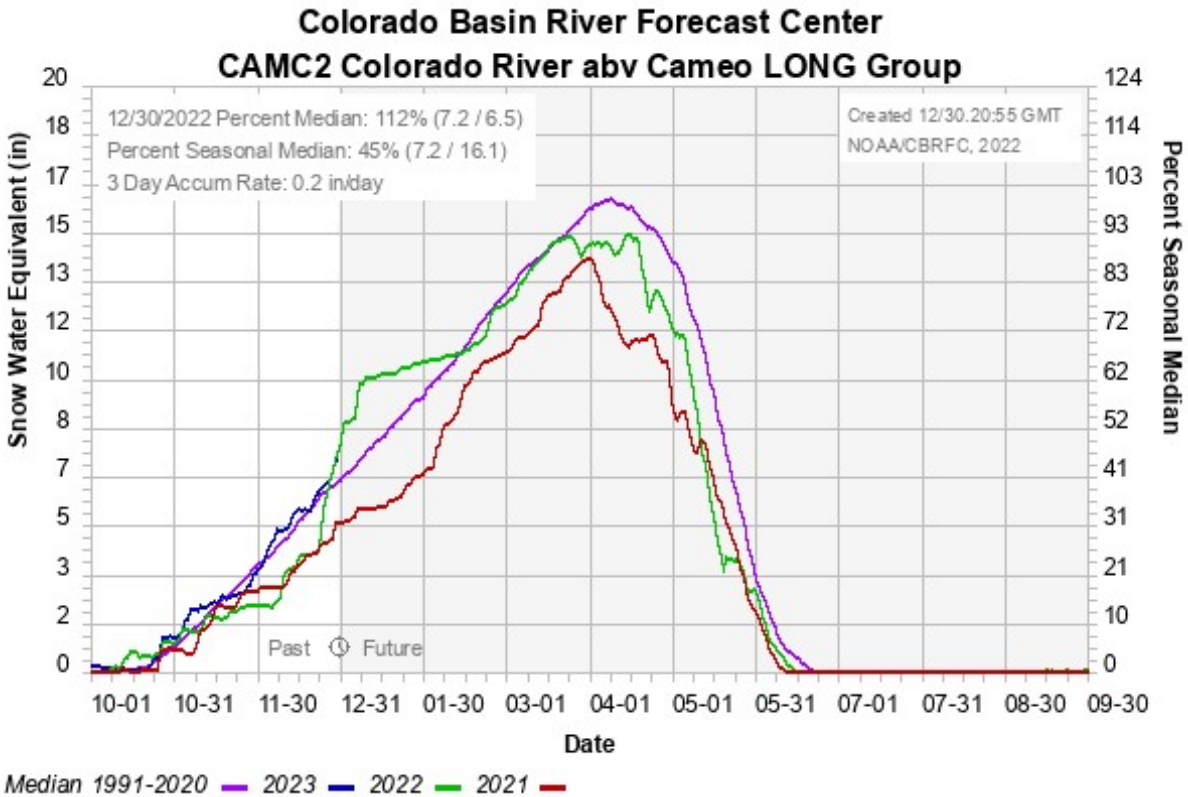
**Figure 7:** CBRFC modeled snowpack (polygons) and runoff forecasts (triangles) in the Colorado River Basin in Colorado

### Colorado River Basin and Wolford Reservoir Operations

Historical time series snowpack conditions (SWE) at Snotel sites above Cameo in Water Years 2021, 2022 and 2023 through December 2022 are shown in **Figure 8**. The chart indicates that

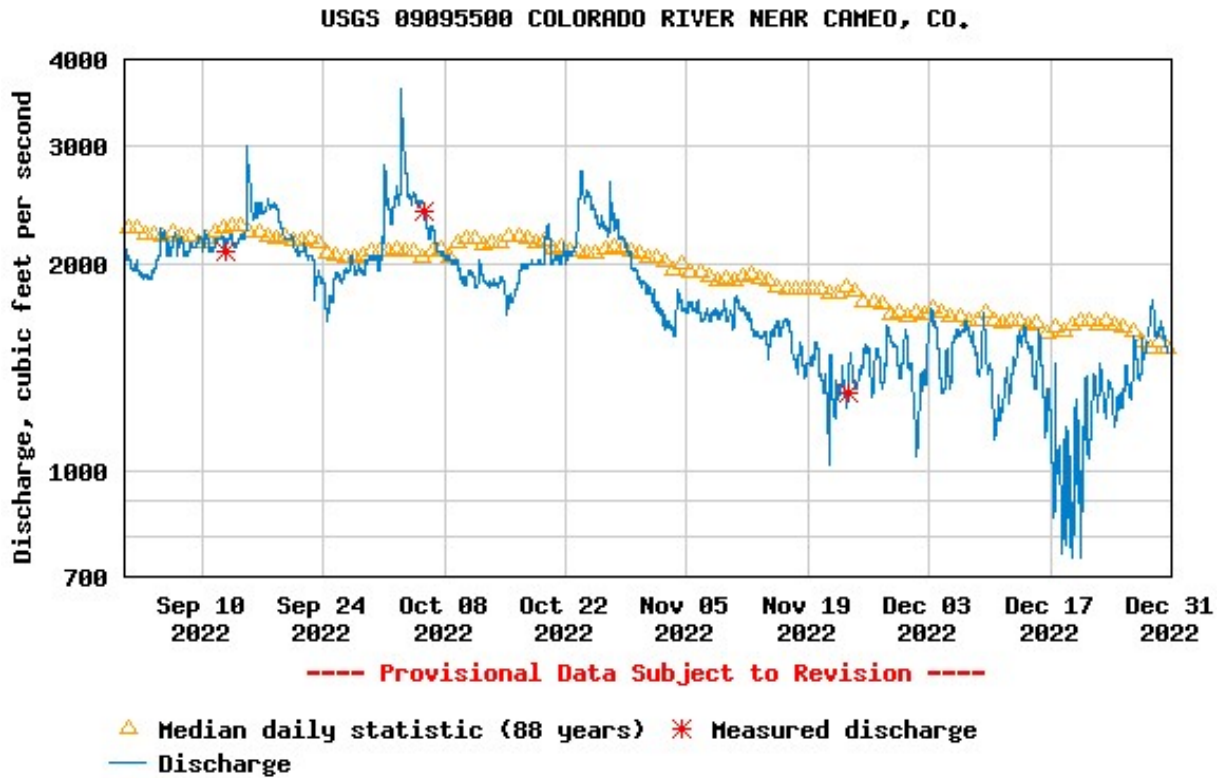


snowpack in the Mainstem Colorado River basin is slightly above average, as was the case in 2022. Recall that snowpack increased dramatically last December (green trace) due to the unusually wet conditions. Despite the early wet conditions in Water Year 2022, runoff at Cameo was only 90 percent of average.



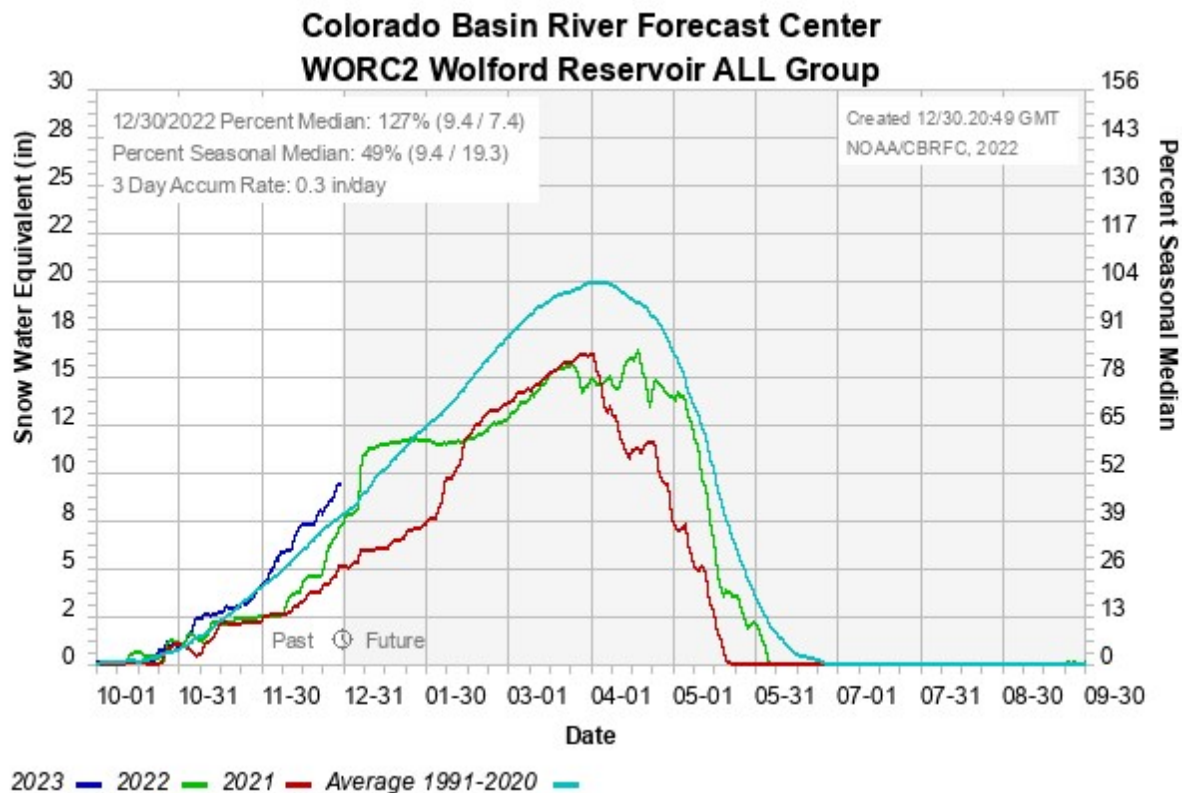
**Figure 8:** CBRFC comparison of SWE time series measurements for SNOTEL sites above Cameo for 2021 through 2023

Recent streamflows at the USGS gage near Cameo are shown in **Figure 9**. Until very recently the Colorado River was running well below average with freezing conditions evident mid-December.



**Figure 9:** *Chart of recent streamflow at the USGS gage Colorado River near Cameo*

Snowpack above Wolford is currently 127 percent of median, see **Figure 10**. The CBRFC Runoff forecast is 57 kaf or 108 percent of average, again very preliminary.



**Figure 10:** CBRFC comparison of SWE time series measurements for SNOTEL sites above Wolford for 2018 through 2022

Recent 2022 and 2021 Wolford Mountain Reservoir operations are depicted in **Figure 11**. In 2021 Wolford nearly filled, but was drawn down 36 kaf to 30 feet below full pool due in large part to Substitution operations. In 2022 the reservoir was drawn down 24 kaf to 19 feet below full pool., again largely due to Denver Water’s Substitution releases.



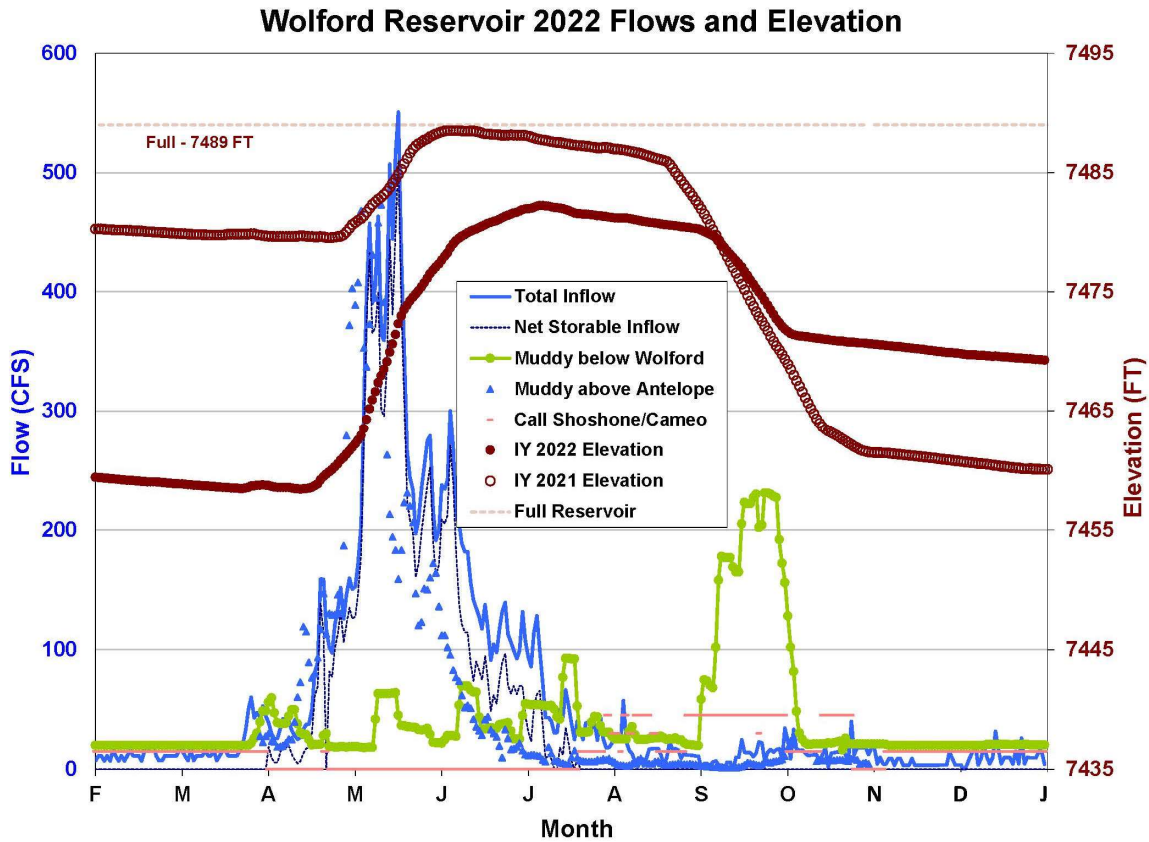
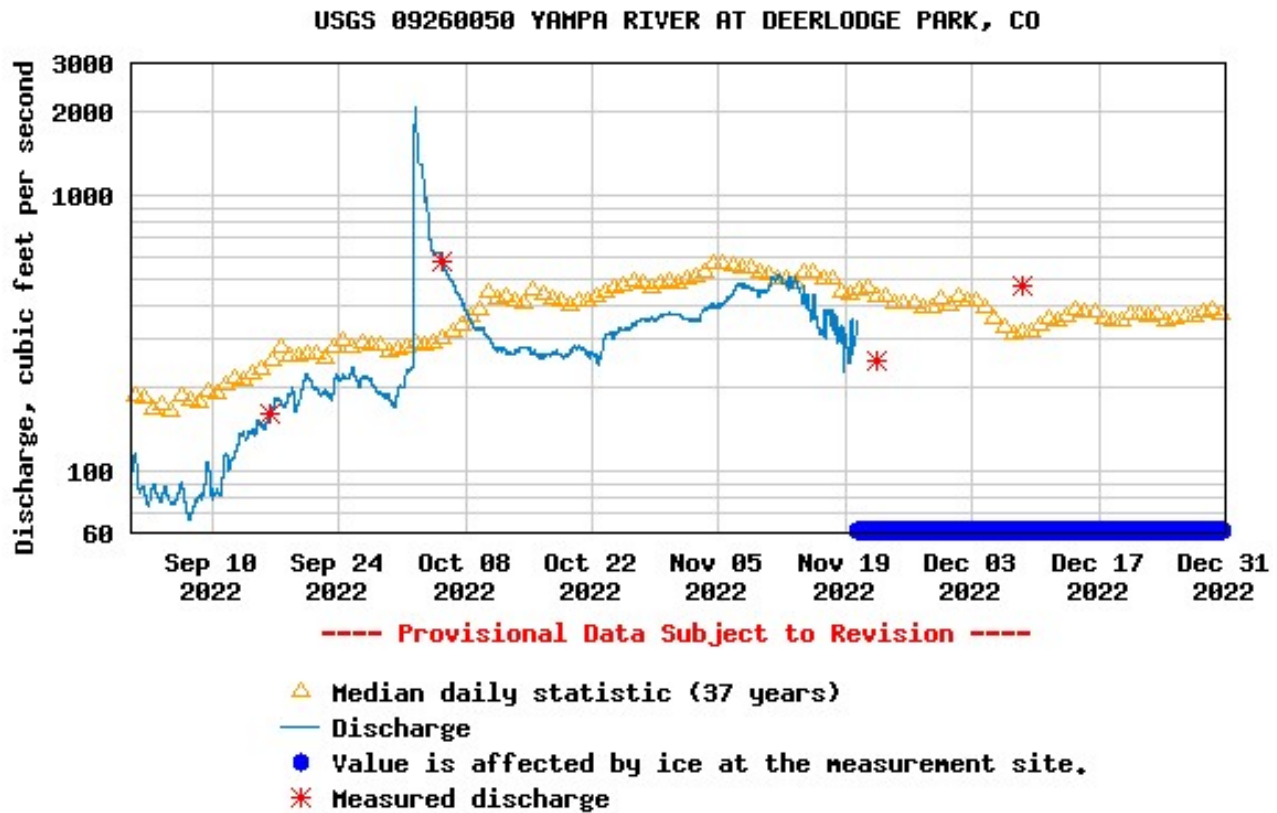


Figure 11: Chart of 2022 operations for Wolford Mountain Reservoir in comparison to 2021

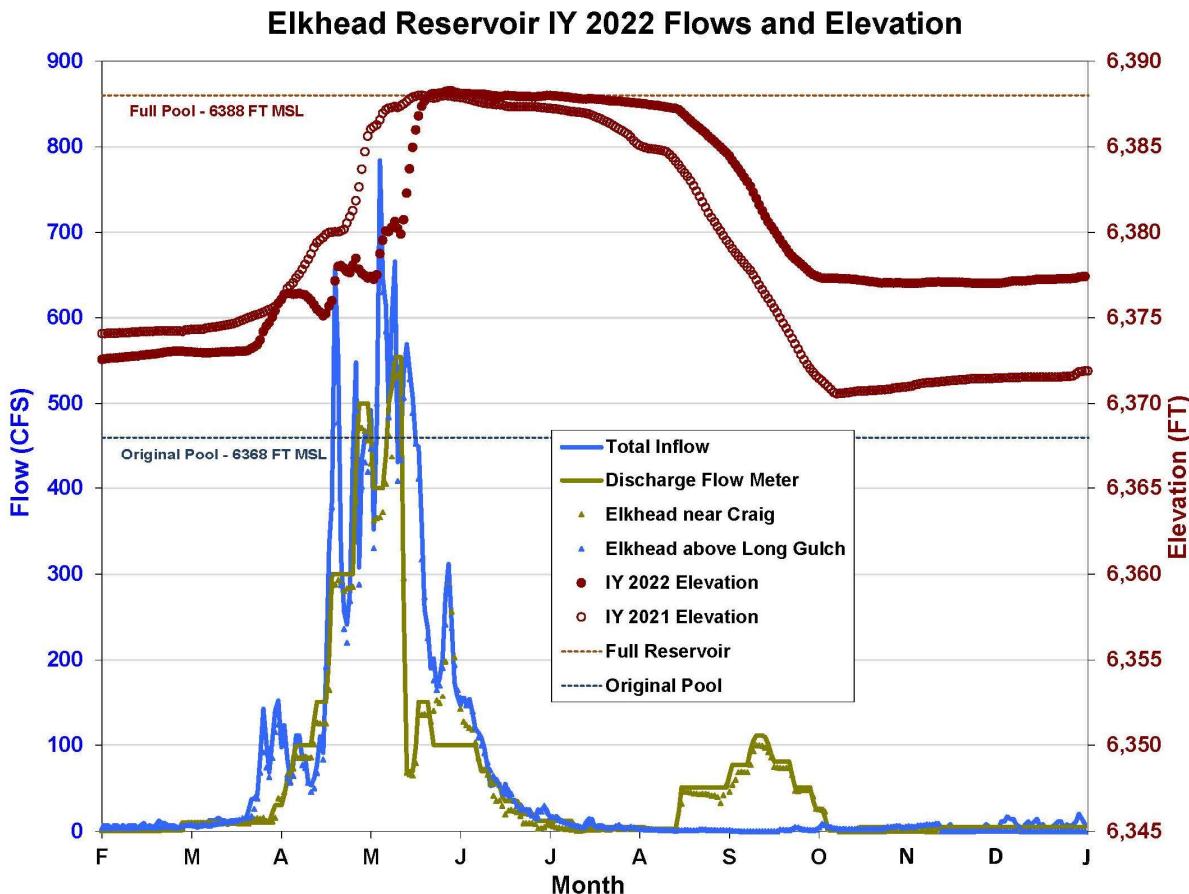
**Yampa River Basin and Elkhead Reservoir Operations**

Recent streamflows in the Yampa River at Deerlodge Park are shown in **Figure 12**. The 2,000 cfs spike on October 1<sup>st</sup> was indicative of the strong monsoonal season of 2022. The rain associated with this streamflow event fell more in the Little Snake River drainage - the peak on the Yampa River near Maybell, above the confluence with the Little Snake River, was 325 cfs.



**Figure 12:** Chart of recent streamflow conditions at the USGS gage Yampa River at Deerlodge Park

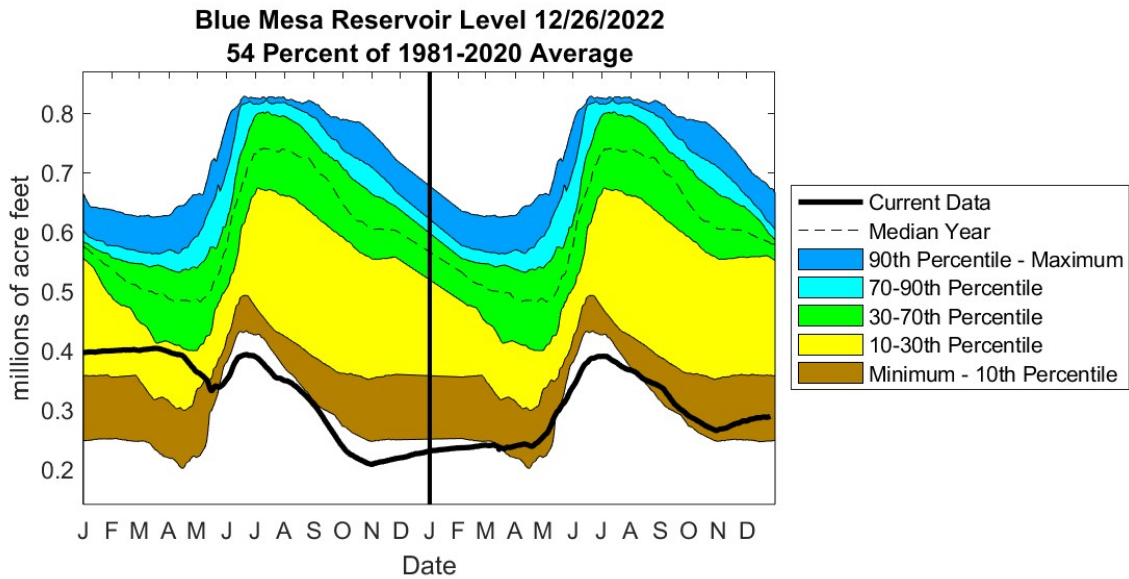
Recent 2022 and 2021 Elkhead operations are shown in **Figure 13**. In 2021, of the nearly 10 kaf made available for fish habitat, stream enhancement and Yampa mainstem call mitigation, a total of 8,931 af were released, reflecting a concerted effort by the River District, Tri-State Generation and Transmission Association, the Colorado Water Conservation Board, the Colorado Water Trust, and the Recovery Program to maximize the usefulness of water stored in Elkhead for multiple benefits. 2022 hydrology in the Yampa River is considerably better than in 2021, when runoff volume at Deerlodge and into Elkhead Reservoir were a dismal 30 and 24 percent of average, respectively. Regardless, the River District is entering into an agreement with CWCB to make available the remaining 650 acre-feet of water available in the water marketing pool of 4,457 acre-feet (less evaporation) in 2022 if dry conditions return.



**Figure 13:** Chart of 2022 Elkhead Reservoir Operations as compared to 2021

### Gunnison River Basin Operations

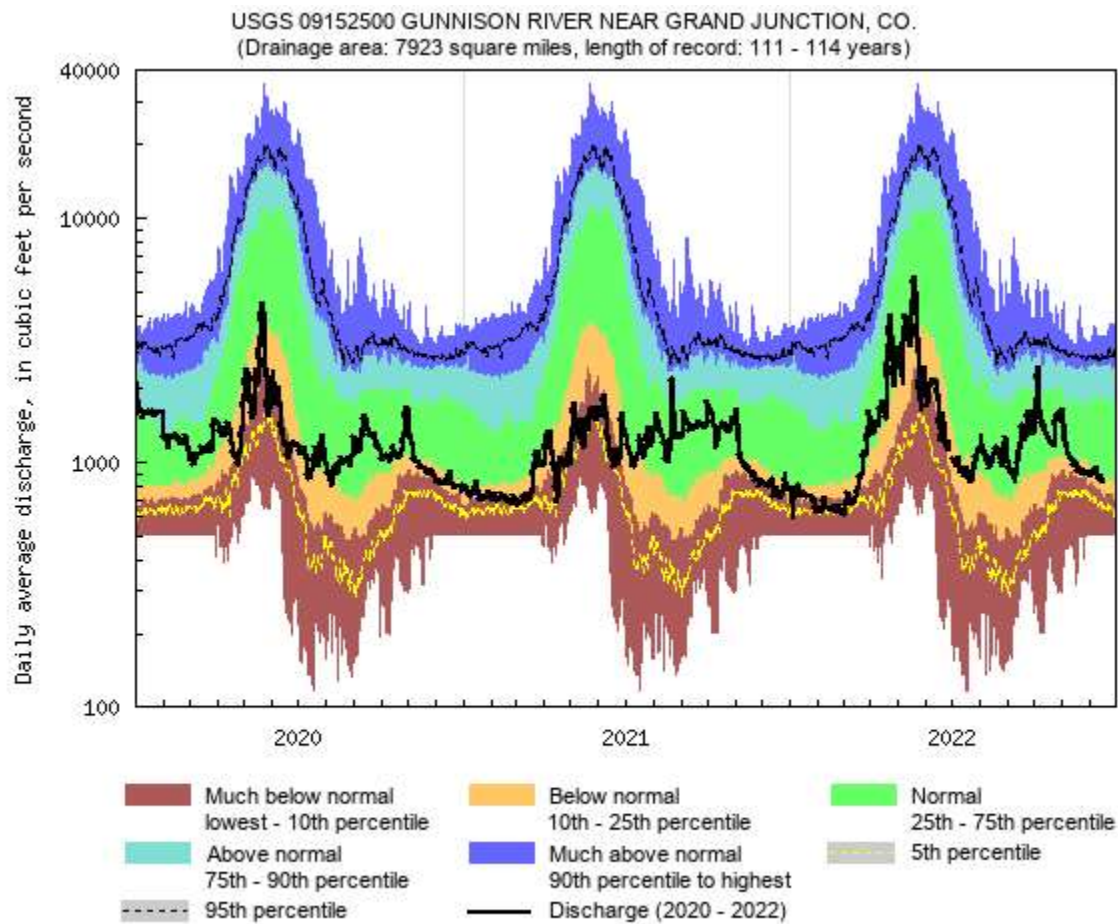
In terms of snowpack, it is too early to accurately characterize the upcoming Gunnison Basin water supply, however, due to the cumulative hydrological deficits in the upper basin and the low storage conditions in the state’s largest reservoir, Blue Mesa, shown in Figure 14, it appears that water users are potentially heading for another challenging year.



**Figure 14:** Chart of recent reservoir storage conditions at the Blue Mesa, in comparison to last year, showing record low storage conditions (source: Colorado Climate Center).

Below the Aspinall Unit, that includes Blue Mesa Reservoir, the Gunnison River continues to experience below average streamflow conditions in the lower Gunnison River as measured at the USGS gauge near Grand Junction over the last 24 months. This is depicted in **Figure 15**.





Last updated: 2022-12-30

**Figure 15:** Chart of recent streamflow conditions at the USGS gage Gunnison River near Grand Junction, in comparison to the previous years and long term statistics, showing below average river conditions. Recent releases from the Aspinall Unit and early snowmelt runoff benefitted river conditions and contributed to an early peak in 2022 (source: USGS).

According to Reclamation’s December 2022 24-month planning study, Blue Mesa could fill only to approximately 60% of its active capacity by July 2023 under average inflow conditions and Taylor Park Reservoir is projected to reach an effective fill, under average inflow conditions. Aside from these facilities, there are no available projections for other major storage facilities in the Gunnison Basin at this point in the season.

More information regarding the hydrology projections and operations will be available for additional discussion during the Board meeting.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** ANDY MUELLER, GENERAL MANAGER  
AMY MOYER, DIRECTOR OF STRATEGIC PARTNERSHIPS

**SUBJECT:** SYSTEM CONSERVATION/DEMAND MANAGEMENT PILOT PROJECTS

**DATE:** JANUARY 17-18, 2023

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### **ACTION ITEMS:**

- (1) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to submit a grant application requesting \$434,190 from the Colorado Water Conservation Board through the Federal Technical Assistance Grant Program.*
- (2) Staff requests that the Board authorize an expenditure of \$144,730 from the General Fund to provide the matching funds needed to apply for the Federal Technical Assistance Grant Program.*
- (3) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to execute a professional services contract with The Freshwater Trust for \$578,920 (funded as proposed above) to support a System Conservation and Demand Management test project design and development.*

### **STRATEGIC INITIATIVE(S):**

- 2. Outreach in All Basins*
- 3. Climate and Hydrologic Uncertainty*
- 4. Colorado River Supplies*
- 6. Agricultural Water Use*

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**Background:** Colorado River District Staff continues to engage and track rapidly unfolding events related to the Colorado River crisis. Most recently, the Upper Colorado River Commission announced a Request for Proposals for a System Conservation Pilot Program (SCPP) on December 14<sup>th</sup> at the UCRC 299<sup>th</sup> Regular Meeting in conjunction with the Colorado River Water Users Association (CRWUA) conference. Re-authorizing and re-initiating the SCPP was the first element listed as part of the Upper Division States' 5-Point Plan released in July 2022. Additionally, on December 23<sup>rd</sup>, the System Conservation Pilot Program was re-authorized by Congress as part of the Fiscal Year 2023 Omnibus Appropriations Bill.



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To implement the SCPP, the UCRC is immediately seeking proposals for voluntary, compensated, and temporary water conservation projects in 2023 with a deadline for submission of February 1, 2023. The Bureau of Reclamation authorized \$125 million for projects between 2023 – 2026 with a potential to increase in scale based on demand. Consistent with past implementation of the previously authorized SCPP from 2015-2018, the River District will have a decision-making role for projects located within the boundaries of the District.

Additionally, the four Upper Division States have indicated that they intend to move forward with a feasibility study and potential implementation of a Demand Management Program within this calendar year. In the face of the immediate crisis on the Colorado River, the Upper Division States face pressure from the federal government and from entities within the Upper Basin to move quickly to implement a Demand Management Program.

**Discussion:** While the River District will play an important role in the implementation of SCPP, the SCPP is a limited tool that does not allow the conserved water to be held in CRSP reservoirs for the benefit of the Upper Basin and would benefit from additional economic analysis, data-driven analytics, and appropriate sideboards, such as those proposed in the District’s Conceptual Market Framework. Staff believe there is an opportunity for significant progress toward the District’s readiness to use SCPP funding and additional funds made available through the Inflation Reduction Act in ways that support long-term, multi-benefit outcomes such as sustaining agricultural production economies, preserving communities, and addressing long-term supply gaps. Additionally, as discussions progress toward a potential Demand Management Program, Staff must ensure that West Slope concerns are fully analyzed and considered in a manner that adequately addresses the values identified by this Board and our constituents. As such, Staff believes it is imperative that the District take a proactive leadership role in designing and testing potential market structures for SCPP and/or Demand Management.

To accomplish this, District Staff have engaged The Freshwater Trust (TFT), a nonprofit organization based in Oregon, that specializes in precision analytics that drives data-driven decision-making at the watershed scale. As part of their Irrigated Lands Initiative, TFT has experience working with producers, ditch companies, and special districts to successfully navigate a water-constrained future. TFT shares Staff’s belief that without proactive steps to help communities adapt to changing conditions, the impacts of water supply shortages will affect agricultural producers, communities, and economic systems in far worse ways than might be achieved with a more proactive, adaptive approach.

Staff proposes moving forward in partnership with TFT to design and develop two ditch-scale test projects within our District to inform the development and implementation of both the SCPP and potential Demand Management Program. Tasks include: (1) Site Selection; (2) Baseline Assessments of key land and water attributes; (3) Site-Level Modeling Structures to prioritize field-level actions; (4) Payment and Incentive Structures to make initial determinations on prices; (5) Decision-Support System Development which includes model development to prioritize fields and show how each test project can be cost-optimized for total water savings; and (6) Implementation Guidelines to compile operating protocols, pricing structures, and (if applicable) impact mitigation procedures. A detailed scope of work is included as **Exhibit A**.



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To fund the proposal, Staff proposes a cost-share using River District General Funds and grant funding available through the Colorado Water Conservation Board. As part of the American Rescue Plan Act, a total of \$5 million in federal funding was allocated to the Colorado Water Conservation Board to support technical assistance grants that will enable entities to expand their capacity and expertise, in pursuit of federal funding opportunities that directly support the Colorado Water Plan objectives. Grants requires a 25 percent match.

In addition to partnering on funding, Staff commits to work closely with Commissioner Mitchell and the State of Colorado team to ensure the District's efforts build on previous work completed as part of the Demand Management Feasibility Investigation and ongoing interstate collaboration and negotiation.

Staff is reviewing two federal opportunities to fund test project implementation:

1. Upper Basin Drought Contingency Funding (\$50M) authorized through the Bipartisan Infrastructure Law.
2. Drought Response and Preparedness Funding (\$4B; \$500M allocated to the Upper Basin) authorized through the Inflation Reduction Act.

These funds are being allocated at the direction at the Upper Division State Commissioners, which will require coordination with Commissioner Mitchell on moving forward with a funding proposal.

To move forward with securing funding and executing a contract to design and develop test projects, District Staff propose the following Action Items:

- (1) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to submit a grant application requesting \$434,190 from the Colorado Water Conservation Board through the Federal Technical Assistance Grant Program.
- (2) Staff requests that the Board authorize an expenditure of \$144,730 in General Fund to provide the matching funds needed to apply for the Federal Technical Assistance Grant Program.
- (3) Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to execute a professional services contract with The Freshwater Trust for \$578,920 (funded as proposed above) to support System Conservation and Demand Management test project design and development.

**TEST PROJECT DESIGN & DEVELOPMENT.** In this task, TFT designs two ditch-scale test projects to inform development and implementation of the broader Pilot Program and demonstrate how a larger suite of SC/DM projects can be planned, funded, implemented, and managed across CRD’s service area. The approach to Test Project Design & Development is similar to Program Design (Task 2)—drawing from and building on the West Slope Feasibility Assessment (Task 1). The difference lies primarily in the fact that test project work focuses on field-level analyses (and possibly delivery and drainage network analyses) to guide implementation, whereas District Program Design is focused on ditch-, reach-, and/or subbasin-scale assessments to prioritize POAs.

Task Components	Deliverables	Cost Est.
<ol style="list-style-type: none"> <li>1. Site Selection</li> <li>2. Baseline Assessment</li> <li>3. Site-Level Modeling Structures</li> <li>4. Payment and Incentive Structures</li> <li>5. Decision-Support System Development (BasinScout®)</li> <li>6. Implementation Guidelines (YR 1)</li> </ol>	<ul style="list-style-type: none"> <li>• Two BasinScout® decision-support systems to guide implementation of each test project through prioritized sets of field-, farm-, and (eventually) ditch-level actions.</li> <li>• Policy, finance, and implementation guidelines.</li> </ul>	<b>\$578,920</b>

**Component Detail**

1. Site Selection

CRD will lead in selecting two test project locations at the ditch or similar scale. Ideally, two distinct and different projects will operate simultaneously: (i) one project focusing on a large system served by federal water—with a highly centralized and organized governance structure; and (ii) another project in a high mountain landscape with greater complexity and a less centralized governance and/or more informal operating structure. TFT will work with CRD to evaluate test project locations, set verifiable reduction targets, and anticipate implementation funding requirements.

2. Baseline Assessment

With the test project locations selected, TFT will perform analyses and mapping exercises to evaluate the presence, spatial variability, and changes over time of key land and water attributes at the site scale. These attributes are informed by the assessments conducted in Task 1 (West Slope Feasibility Assessment) and will once again examine (but at a site-specific scale): verifiable reductions in use, legal and physical water availability, water shepherding, environmental considerations, production considerations, infrastructure considerations, recruitment, other trends, economic outputs, and employment. Each analysis will provide input into the methods used in subsequent tasks. TFT will aggregate (and verify the quality of) data from multiple sources, including government agencies, data vendors, CRD, participating ditch companies and producers, and other local stakeholders and experts.

3. Site-Level Modeling Structures

TFT will develop and apply analytical methods for determining key components of BasinScout® that will be used to prioritize field-level (and possibly delivery and drainage network) actions. Methods will use approaches similar to those used in Task 2 (Colorado River District Program Design) and will assess: system reduction targets; field-level reduction potential (CU); field suitability; cost (i.e., payment and incentive structures); and other desired, multi-benefit project outcomes (including economic and environmental outcomes).

When executing consumptive use assessments at the field level, TFT aggregates the rapidly growing amounts of publicly available data to drive the insights necessary to achieve accurate measurement—employing effective ground-truthing and strong data privacy and management controls. For this project, consistent with the Upper Colorado River Commission’s (UCRC) 2022 resolution regarding consumptive use measurement, the Automated Metric (eeMetric) method will primarily be used.

Economic impact assessments in each of the test project locations will also have strong data management protocols. TFT will aggregate farm-level data to: (i) design projects that minimize the harm of seasonal fallowing (or other SC/DM activities) to the local economies; and (ii) inform strategies to mitigate indirect (third-party) economic impacts. TFT will forecast aggregated expenditures and revenues through



analyses of crop enterprise budgets, and use these forecasts to simulate changes in economic flows that are likely to occur under potential test project iterations. The direct, indirect, and induced economic impacts of various test project scenarios will be evaluated and compared using an input-output economic modeling tool linked to spatial data. TFT will identify which modeled test project conditions lessen undesirable third-party economic impacts and use these conditions to inform test project design. The analysis of impacts can inform additional mitigation policy strategies, as well.

#### 4. Payment and Incentive Structures

TFT and CRD will make initial determinations on prices and payment structures for voluntary reductions. It is anticipated that pricing and volumetric reduction targets will shift slightly as the project evolves, and as the relationship between pricing and targets is better understood. TFT will leverage lease pricing data from producer survey data, policy experts, and statistical analysis, working with partners who have established geographically specific water pricing indices in CRD's service area. And it will continue to draw from existing CRD studies, such as the Upper Basin Demand Management Economic Study.

#### 5. Decision-Support System Development (BasinScout®)

TFT will build two BasinScout® decision-support systems—one for each test project. The BasinScout® systems will apply Baseline Assessment data (Task 3.2) using the site-level modeling structures (Task 3.3), to prioritize fields (and possibly ditch and drain networks) for inclusion in the Test Project. The BasinScout® systems (a web application and data package) for each Test Project will characterize fields for suitability, likelihood of participation, modeled verifiable water savings (with participation), and estimated lease costs. BasinScout® will show how each Test Project can be cost-optimized for total water savings—procuring the greatest amount of water at the least cost, in a manner designed to maximize environmental outcomes and reduce risks to local economies. The models will also predict how the Test Project costs and outcomes will vary with recruitment success and other potential risk factors. TFT will also help assess CRD programmatic costs beyond the direct lease or other program payments made to farmers. BasinScout® will help CRD prioritize fields and farms for inclusion in the test projects and enable them to communicate with producers and ditch companies about recruitment opportunities.

#### 6. Implementation Guidelines (YR 1)

Finally, TFT will work with CRD to develop implementation guidelines that compile test project administration protocols, pricing structures, and (if applicable) impact mitigation procedures. (Note: the development of sophisticated mitigation programs is not accounted for in this task and, if developed, would require a separate scope of work.)



## COLORADO

### Colorado Water Conservation Board

Department of Natural Resources  
1313 Sherman Street, Room 718  
Denver, CO 80203

December 20, 2022

Genevieve Johnson  
Reclamation 2007 Interim Guidelines SEIS Project Manager  
Upper Colorado Basin Region  
125 South State Street, Suite 8100  
Salt Lake City, UT 84138

VIA ELECTRONIC MAIL  
[CRinterimops@usbr.gov](mailto:CRinterimops@usbr.gov)

RE: State of Colorado's Scoping Comments on the Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Ms. Johnson,

This letter outlines the State of Colorado's recommended scoping issues to be addressed in a future Supplemental Environmental Impact Statement ("SEIS") for the December 2007 Record of Decision entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead ("2007 Interim Guidelines").

### COLORADO'S INTERESTS

Because no major rivers flow into Colorado, and we are without the benefit of large reservoirs above our places of use that provide a steady, reliable source of supply even in drought years, Colorado must satisfy all its water demands from sources within the state. The Colorado River and its tributaries supply over forty percent of Colorado's water needs and provide water to the majority of the State's population. In Colorado, we have a long history of administering water rights according to the physical and legal availability of water supply in a particular location at a particular time. We rely on the snowpack and subsequent runoff for our water use, thus our use is subject to available water supplies under hydrologic conditions each year. Colorado's system of administration according to water availability has adapted well to changing circumstances, including a more than twenty-year drought occurring since 2002. Importantly, Colorado has had to cut uses and take shortages nearly every year, including cuts to water rights that are senior to the 1922 Colorado River Compact.



In addition to the State’s administration of water rights based on legal and physical availability, Colorado and the other Upper Division States have contributed over 661,000 acre-feet of water from upstream reservoirs to protect critical elevations in Lake Powell. Colorado has a substantial interest in the efficient management and operation of Lake Powell and Lake Mead, especially in current and ongoing dry conditions. Colorado therefore urges the Bureau of Reclamation (“Reclamation”) to manage these reservoirs within the available supply of the Colorado River while meeting the needs of the Basin States without jeopardizing significant, legally protected rights to the water of the Colorado River or compromising its ability to serve the present uses and future needs of Colorado citizens. In light of these priorities and concerns, Colorado submits these comments.

## COMMENTS

### A. Legal Framework

The 2007 Interim Guidelines are subject to the Law of the River,<sup>1</sup> and any SEIS must be consistent with that overarching legal framework. Any expansion of authorities or disregard for the Law of the River in such SEIS risks the certainty of process established by the Law of the River. Moreover, the SEIS should remain true to the scope, purpose, and timeline of the existing 2007 Interim Guidelines and modify operations only as to Lake Powell and Lake Mead and as to shortages in the Lower Basin.

#### 1. Relationship with Existing Law

Section IX.E of the 2007 Interim Guidelines describes the relationship of the Guidelines with existing law. Reclamation must develop the SEIS consistent with the provisions of Section IX.E. Specifically, the SEIS should not provide for any operations that guarantee a firm supply of water to any water user, change or expand authorities under applicable federal law with respect to authorities in the Upper Division States, require curtailment of water rights in the Upper Division States, or in any way change the apportionment made for use within each Basin under the 1922 Colorado River Compact, or change the allocations made for use within the individual Upper Division States under the 1948 Upper Colorado River Basin Compact. Importantly, the 1922 Colorado River Compact equitably divides the waters of the Colorado River system between the Upper Basin and the Lower Basin in perpetuity. The SEIS must not conflict with these foundational elements of the 1922 Compact.

#### 2. Secretarial Authority in the Lower Basin

While the 1948 Upper Colorado River Basin Compact allocates water among the Upper Division States, the Secretary delivers water from Lake Mead to users in the Lower Division States under the authorities of federal statutes and the U.S. Supreme Court’s decree in *Arizona v. California*. Thus, the Secretary serves as water master, enjoys broad authority, and plays a unique role in the management of the lower Colorado River system. The Secretary’s role in the lower Colorado River system is recognized in

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<sup>1</sup> The “Law of the River” refers to the body of law affecting interstate and international use, management, and allocation of water in the Colorado River system, including the 1922 Colorado River Compact, the 1944 Mexican Water Treaty, the 1948 Upper Colorado River Basin Compact, United States Supreme Court decisions and the United States Supreme Court Decree in *Arizona v. California*, and numerous federal statutes and regulations.





the 2007 Interim Guidelines. The Secretary makes annual determinations regarding the availability of water to be delivered from Lake Mead by considering such factors as the amount of water in system storage and predictions for natural runoff. While the 2007 Interim Guidelines were designed to provide some predictability and certainty, they were also designed to address shortages in the Lower Basin. Given the inadequacy of the Guidelines based on the history of operations, overuse in the Lower Basin, and unprecedented hydrologic conditions, the scope of the SEIS should include modified operations that are rooted in the reality of available supply and depleted storage in the Colorado River system.

### 3. Consultation

The 2007 Interim Guidelines provide for consultation with the Basin States and a goal to develop and achieve a consensus approach. Colorado supports a collaborative approach, so long as it does not implicate any obligations under the 1922 Colorado River Compact or harm Colorado’s significant rights and interests in the Colorado River. However, regardless of whether a consensus is reached through collaboration, Colorado also recognizes that any actions taken to modify releases at Glen Canyon Dam are under the Secretary’s authority without the consent, endorsement, or acquiescence from the State.

#### B. Scope

The 2007 Interim Guidelines “are intended to be applied each year during the Interim Period with respect to the operation and management of the waters of the Colorado River stored in Lake Powell and Lake Mead.” Reclamation has stated the purpose of the SEIS is to supplement the 2007 Interim Guidelines “in order to modify operating guidelines of Glen Canyon and Hoover Dam to address historic drought and low runoff conditions in the the Colorado River Basin.” Given the informal initiation of the NEPA process for post-2026 reservoir operations for Lake Powell and Lake Mead in June 2022, and the intent to initiate formal NEPA actions in 2023, Colorado requests that the SEIS be narrow in scope to avoid any duplication, interference, or conflict with the post-2026 reservoir operations process.

#### 1. Temporal Scope

The Interim Period under the 2007 Interim Guidelines runs through December 31, 2025—through the annual operating year of 2026. Colorado recommends the SEIS provide for any modified operations only through the same Interim Period, expiring December 31, 2025.

#### 2. Geographic Scope

The 2007 Interim Guidelines apply to operations in Lake Powell and Lake Mead and to reduced deliveries from Lake Mead to Lower Division States in shortage conditions. Colorado recommends the SEIS limit the geographic scope of any modified operations to be consistent with the Guidelines, and to not conflict with concurrent processes such as actions being taken under the Drought Response Operations Agreement—a critical component of the Upper Basin’s Drought Contingency Plan (“Upper Basin DCP”)—and pursuant to the provisions in that Agreement between Reclamation and the Basin States that serve as an overlay to the 2007 Guidelines but are separate and distinct from the Guidelines and from this SEIS process.



### 3. Substantive Scope

The 2007 Interim Guidelines provide for the coordinated operation of Lake Powell and Lake Mead in dry and low reservoir conditions, and they establish a shortage sharing strategy in the Lower Division States. Colorado recommends the SEIS limit the scope of any modified operations to Lake Powell and Lake Mead and shortage sharing in the Lower Basin. Colorado urges the Secretary to implement shortage sharing criteria in the Lower Basin that includes increased volumes and triggers at higher elevations than contemplated by the Guidelines, as more fully described below. However, the SEIS should not expand beyond reservoir operations at Lake Powell and Lake Mead and shortage sharing in the Lower Basin. The SEIS should not extend to operations of other Colorado River system reservoirs.

Moreover, any assumption of reductions in use or curtailment in the Upper Basin is beyond the scope of the SEIS. Uses in Colorado are determined by hydrology and the physical and legal availability of water at a particular time and location. The authority to administer and distribute the waters of the State are vested with the Colorado State Engineer.

#### C. Relation to Upper Basin Drought Contingency Plan

It is unclear how Reclamation intends to distinguish between actions taken pursuant to the Upper Basin DCP and actions developed under the SEIS. Colorado recommends that Reclamation clearly acknowledge the distinction between the 2019 Upper Basin DCP and this SEIS process. Concurrent with and separate from the 2007 Interim Guidelines are actions taken pursuant to the 2019 Upper Basin DCP. The Upper Basin DCP comprises a series of interstate agreements, finalized and codified in 2019, that are currently being implemented. Importantly, these are separate and distinct processes and actions, with separate and distinct scopes. Colorado recognizes that modeling of all DCP actions may inform alternatives analyzed for the SEIS. However, any modified operations under the SEIS should not presume or incorporate actions that have not been agreed upon by the Upper Division States pursuant to the Upper Basin DCP. The SEIS should not duplicate, interfere or conflict with the concurrent actions of the Upper Basin DCP.

#### D. Operations of Lake Powell and Lake Mead and Shortage Conditions in the Lower Basin

The operating experience under the 2007 Interim Guidelines and the Lower Basin DCP underscores the inadequacy of the shortage triggers imposed at critical reservoir elevations to address the impacts of dry hydrology and depleted storage. That inadequacy has been exacerbated by continued overuse in the Lower Division States triggering excess releases from Lake Powell through balancing despite decreased inflows into Lake Powell. The operations of Lake Powell and Lake Mead must reflect the reality of diminished supplies and depleted storage in the system.

##### 1. System Loss Accounting in the Lower Basin

As a first step to respond to current hydrology and reservoir conditions, it is critical to address evaporation and system loss in the Lower Basin. The SEIS and any proposed



modified operations should include Lower Basin evaporation and system losses in the assessment. Colorado further emphasizes the point made by the Upper Colorado River Commission that failing to fully account for the Lower Basin’s actual depletions, evaporation, seepage, and other system losses has also contributed to the declining and current reservoir elevations.

## 2. Reduced Deliveries from Lake Mead

In addition to accounting for system losses, Colorado urges Reclamation to develop shortage sharing criteria in the Lower Basin that includes increased shortage volumes and triggers at higher elevations in Lake Mead. We believe it is critical to have a meaningful and significant net decrease in deliveries from Lake Mead. The SEIS must, at a minimum, address overuse in the Lower Division States by further reducing deliveries from Lake Mead beyond what is provided for in the 2007 Interim Guidelines and the Lower Basin DCP. The SEIS should prohibit deliveries of ICS when in shortage conditions because any releases from Lake Mead due to ICS deliveries in shortage conditions is contrary to Reclamation’s stated purpose and need for the SEIS.

As mentioned above, the Secretary exercises broad authority in the Lower Basin to manage water supplies and determine how much and under what circumstances deliveries of water are made from Lake Mead. While the Secretary is required to base annual operations of Lake Powell and Lake Mead on the Guidelines, the Secretary reserves the authority to take other operational actions if extraordinary circumstances arise, such as “operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations, or other unanticipated or unforeseen activities arising from actual operating experience.” This Section 7.D in the Guidelines reserves broad authority of the Secretary to act to protect continued coordinated operations of Lake Powell and Lake Mead and to implement meaningful and significant shortages in the Lower Basin.

## 3. Balancing Releases

Recent modeling by Reclamation shows a heightened risk of system failure with balancing releases when in the Lower Elevation Balancing Tier. In order to protect critical elevations at Lake Powell, to in turn protect critical infrastructure at Glen Canyon Dam, and to continue to provide a secure source of supply for on-going releases to Lake Mead, all balancing releases made when Lake Powell is in the Lower Elevation Balancing Tier from Glen Canyon Dam should be suspended for the duration of the Interim Period.

### E. No Action Alternative

Colorado does not support the No Action Alternative set forth in the NOI as the Preferred Alternative for the SEIS. Due to prolonged drought and low runoff conditions accelerated by climate change and overuse in the Lower Basin, the 2007 Interim Guidelines and the Lower Basin DCP are inadequate to preserve and protect critical elevations at Lake Powell and Lake Mead. Failing to fully account for the Lower Basin’s actual depletions, including evaporation and system losses, failing to adequately reduce releases from Lake Mead, and allowing for continued balancing has contributed to the declining and current reservoir elevations. Therefore, any continuation of the current operations or extension of the 2007 Interim Guidelines is unsustainable and contrary to Reclamation’s stated purpose and need of the SEIS.



## F. Framework Agreement Alternative

Colorado, with the other Upper Division States, has committed to a process with the Lower Division States to develop a consensus Framework Agreement Alternative. The seven Basin States will be working on this process through January 31, 2023. In addition, Colorado is engaging with the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe on this process and along with the other Upper Division States, communicating with other Upper Division Tribes about the process. Given the urgency of completing the SEIS, we appreciate Reclamation's commitment to provide time for the seven Basin States to revise and refine the conceptual Framework Agreement Alternative.

### RESERVATION OF RIGHTS

Colorado's comments are intended to highlight overarching issues that will require acknowledgment, specification, or clarification as the SEIS process continues to progress. Colorado's failure to provide specific comments regarding details of the SEIS shall not be construed as an admission with respect to any factual or legal issue or the waiver of rights for the purposes of any future legal, administrative, or other proceeding. Furthermore, Colorado reserves the right to comment further on SEIS documentation as Reclamation proceeds with subsequent phases of the SEIS process.

### CONCLUSION

Colorado thanks Reclamation for the opportunity to provide these comments on the NOI for the development of a SEIS for the 2007 Interim Guidelines. We look forward to continuing our partnership with you and our partners across the Colorado River basin as we move forward in protecting and managing this critical resource.



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Rebecca Mitchell  
Colorado Commissioner  
Upper Colorado River Commission



## GO BACK TO MEMO

**Aurora Water**  
**Colorado River Water Conservation District**  
**Colorado Springs Utilities**  
**Denver Water**  
**Northern Colorado Water Conservancy District**  
**Pueblo Water**  
**Southeastern Colorado Water Conservancy District**  
**Southwestern Water Conservation District**  
**Twin Lakes Reservoir and Canal Company**

December 20, 2022

Reclamation 2007 Interim Guidelines SEIS Project Manager  
Upper Colorado Basin Region  
125 South State Street, Suite 8100  
Salt Lake City, UT 84138

VIA ELECTRONIC MAIL

[CRinterimops@usbr.gov](mailto:CRinterimops@usbr.gov)

RE: Scoping Comments on the Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Mr. Beaudreau:

On behalf of our respective organizations, we are writing in support of comments submitted by the state of Colorado, and to provide our own comments pursuant to the "Notice of Intent To Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead," (Notice) dated November 17, 2022 and published at 87 CFR 69042.

These comments reflect the unified position of our districts and municipal water utilities, throughout western Colorado, and the Front Range.

The Notice acknowledges that the Department lacks analyzed alternatives and measures that may be necessary to address projected conditions in and risks facing the Colorado River Basin. We agree that the immediate development of additional operational alternatives and measures for Lake Powell and Lake Mead are necessary.

Without repeating data concerning current and projected hydrologic conditions or storage levels in Lakes Mead and Powell, we note the alarming decline in storage to the point where potential actions may in fact be "too little, too late." The 2007 Interim Guidelines were intended to better coordinate operations of Lakes Mead and Powell, and particularly to define the conditions under which different

volumes would be released from Lake Powell, and the reservoir elevations in Lake Mead at which shortages in the lower basin would be imposed.

However, the measures provided in the 2007 Interim Guidelines have proven woefully inadequate due to declining hydrology and continued overuse in the lower basin. Moreover, despite both required and voluntary shortages in the lower basin, total lower basin water use, system losses and deliveries to Mexico have remained constant at around 10 maf, causing the alarming reduction in storage levels in Lakes Mead and Powell.

At the same time, water supply in the upper basin has fluctuated, and water users have suffered proportionately much larger shortages, driven by hydrology and the operation of the prior appropriation doctrine. For example, without large storage volumes upon which to rely, total use in the upper basin in 2020 was about 4.5 maf. In contrast, in the much drier year 2021, total use in the upper basin was only around 3.5 maf.

The Secretary enjoys broad authority to implement measures in the lower basin to address this system imbalance. Although the Secretary's authority with respect to Lake Powell is different and narrower, Lake Powell operations under the Interim Guidelines are driven in large part by storage levels in Lake Mead. Water use in the Upper Division states are administered under state authority, and the Secretary's authority in those states is much more limited.

In light of these conditions and the Secretary's authorities, we suggest the SEIS should analyze significant actions that will be necessary to mitigate the impacts of continued drought on storage levels in Lakes Mead and Powell. These actions are justified by the significant risks to infrastructure and by the clear potential for severe economic consequences to the 40 million people and 5 million acres of irrigated agriculture that depend on the Colorado River.

The Notice references preliminary alternatives that might be analyzed through the SEIS process. The "Framework Agreement Alternative" invites consensus-based proposals from states or other interests in the basin that would inform any decision. The "Reservoir Operations Modification Alternative" would be developed by the Department in the absence of (or in combination with) any Framework Agreement Alternative. We remain committed to work with the state of Colorado, other states and water users in the basin, Tribes, NGOs and the federal government in the consideration and development of a Framework Agreement Alternative. However, the comments below apply to the consideration of either of these alternatives. Given the tight timeframes, the dynamic nature of this process, and the critical need for action, we anticipate commenting further as the EIS process proceeds.

**The scope of the SEIS should be limited to the operation of Lakes Mead and Powell.** The 2007 Interim Guidelines relate exclusively to the coordinated operation of Lakes Mead and Powell. That scope should not be expanded to include other issues or facilities, for at least two reasons.

First, the scope should not include operation of Reclamation reservoirs in the upper basin. Those facilities are operated under different authorities and records of decision than the 2007 Interim Guidelines.

Second, the immediate problem is stabilizing and then recovering storage levels in Lakes Mead and Powell. As noted above, the critically low elevations in Lakes Mead and Powell have been caused by the inadequacy of the 2007 Interim Guidelines to respond to continued overuse in the lower basin, the

hydrology of the last 20 years, and the lack of action by the Secretary to date to address rapid and predictable declines in storage levels. Expanding the scope of the SEIS beyond the operation of Lakes Mead and Powell would only introduce greater uncertainty, complexity, and time to the SEIS process.

**The scope of the SEIS should include the potential for deep cuts in deliveries from Lake Mead, and earlier imposition of shortages in the lower basin, than provided in the 2007 Interim Guidelines and the DCPs.** The SEIS should consider significant expansion of the responses outlined in the 2007 Interim Guidelines, earlier and deeper shortages to lower basin deliveries from Lake Mead, in addition to accounting for system losses.

Specifically, the range of alternatives presently contemplated by Reclamation seem focused on protecting very low elevations in Lakes Mead (at 950' or 1000') and Powell (at 3490' or 3500'). The SEIS should include consideration of higher elevation alternatives in order to protect critical infrastructure in the face of rapidly declining hydrology.

It is apparent that reductions in demands in the lower basin will need to occur to deal with reduced deliveries from Lake Mead. With the availability of funding, the Department has the opportunity to mitigate the impact of such reductions in demands. The SEIS should consider not only reductions in demand during the interim period, but also permanent reductions in demands from the mainstem in the lower basin, to make the most effective use of such funds.

**The SEIS should build upon the actions required by the Interim Guidelines and the DCPs.** Concurrent with and separate from the 2007 Interim Guidelines are actions taken pursuant to the 2019 DCPs. The DCPs are interstate agreements that are currently being implemented. It is unclear how Reclamation intends to distinguish between actions taken pursuant to the DCPs and actions developed under the SEIS. The SEIS should build upon the commitments made in the DCPs and analyze new additional actions developed to address current conditions. The SEIS should not duplicate or conflict with the concurrent actions of the DCPs. All accounting under modified Interim Guidelines should reflect hydrologic reality.

**The scope of the SEIS should include analysis of the allocation of system losses in the lower basin among water users from Lake Mead.** System losses (including evaporation, evapotranspiration from riparian vegetation, waste, and bypasses), deplete the river by about 1.5 million acre-feet annually. The SEIS should consider the potential for imposing and allocating system losses among water users receiving deliveries of water from Lake Mead.

**The SEIS should consider removing the ability of contractors to release ICS from Lake Mead during the interim period.** Lake Mead currently stores nearly 3 million acre-feet of water characterized as ICS. Releasing this water to contractors will only exacerbate the already worsening conditions on the river. The SEIS should consider removing the ability of contractors to release ICS during the interim period.

**The SEIS should consider eliminating balancing releases from Lake Powell during the interim period.** Balancing of contents in Lakes Mead and Powell has served only to worsen conditions in Lake Powell. The SEIS should consider eliminating balancing releases from Lake Powell during the interim period, to protect Glen Canyon Dam, and provide the Secretary with additional flexibility to manage releases.

**The SEIS should recognize the Secretary's authority and discretion to further modify the 2007 Interim Guidelines.** As mentioned above, the Secretary exercises broad authority in the lower basin to manage

water supplies and determine how much and under what circumstances deliveries of water are made from Lake Mead. For example, Section 7.D. of the 2007 Interim Guidelines provides the Secretary will operate Lakes Mead and Powell pursuant to the Guidelines “unless extraordinary circumstances arise,” which “could include operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations, or other unanticipated or unforeseen activities arising from actual operating experience.” The SEIS should recognize the Secretary’s continued authority to act in such circumstances and, given recent operating experience under the Guidelines, consider a broader reservation of that authority in order to more swiftly respond to rapidly changing conditions in the lower basin.

We appreciate the opportunity to comment.



Aurora Water  
Marshall Brown, General Manager



Colorado Springs Utilities  
Travas Deal, Acting Chief Executive Officer



Colorado River Water Conservation District  
Andy Mueller, General Manager



Denver Water  
James S. Lochhead, Chief Executive Officer



Northern Colorado Water Conservancy District  
Bradley D. Wind, General Manager



Pueblo Water  
Seth Clayton, Executive Director



Southwestern Water Conservation District  
Steven Wolff, General Manager

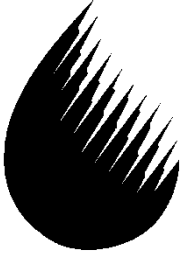


Southeastern Colorado Water Conservancy District  
James W. Broderick, Executive Director



Twin Lakes Reservoir and Canal Company  
Kalsoum Abbasi, President





SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

December 20, 2022

The Honorable Tanya Trujillo  
Assistant Secretary, Water & Science  
U. S. Department of the Interior  
Washington, DC 20240

Re: Notice of Intent to Prepare a Supplemental Environmental Impact Statement

Dear Assistant Secretary Trujillo:

Over the past 20 years, the Southern Nevada Water Authority (Authority) has been a leader in conserving Colorado River water supplies and planning for a future with less water. The majority of Nevada's 300,000 acre-foot allocation is used within the Authority's service area and makes up 90 percent of the water supply for 2.3 million Nevadans (approximately 70 percent of our state's population) and the more than 42,000,000 people that visit Las Vegas each year. By investing in conservation programs and anticipating future water-supply problems, Nevada has reduced its consumptive use by almost 100,000 acre-feet per year (afy) over the last 20 years, despite adding approximately 750,000 people. The Authority and Colorado River Commission of Nevada (CRCNV) (collectively, "Nevada") further recognize that there is simply far less water for use in the Colorado River Basin (Basin) than has been allocated. This imbalance must be addressed, which will require reductions in use by all water users in all sectors. Nevada is committed to working with the other states, the country of Mexico, and various other stakeholders and water users to achieve an equitable and sustainable water-use and operations solution for the Basin.

On November 17, 2022, the Bureau of Reclamation (Reclamation), under the Department of the Interior's (Interior) direction, issued a Notice of Intent To Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead (Notice). 87 FR 69043 (November 17, 2022) (collectively referred to as "SEIS" or "2007 Guidelines" for the existing operations under the preceding Record of Decision). Nevada appreciates and supports this effort to act quickly to stabilize the Colorado River through modified reservoir operations and reductions in consumptive uses. The Notice identifies the need for a SEIS that is directed at three sections of the 2007 Guidelines – specifically Section 2(D) (Determination of Lake Mead Operation under Shortage Conditions), Section 6 (the Coordinated Operation of Lake Powell and Lake Mead as to the Mid-Elevation Release and Lower Elevation Balancing tiers), and Section 7(C) (Implementation of Guidelines concerning the Mid-Year Review). The Notice also

states that the “Department currently lacks analyzed alternatives and measures that may be necessary to address such projected conditions,” while identifying “Preliminary Alternatives.” These are described as (1) No Action, (2) Framework Agreement Alternative, and (3) Reservoir Operations Alternative.

Through separate correspondence, the Authority has joined Central Arizona Water Conservation District (CAWCD) and The Metropolitan Water District of Southern California (MWD) to elaborate on specific concerns and unidentified consequences. Nevada offers the following comments and proposed Framework Agreement Alternative for Reclamation to consider for this SEIS.

### **Urgency in Adopting New and/or Modified Management Actions**

At the time the 2007 Guidelines were developed, water managers were just beginning to quantify the impacts of climate change and warming temperatures on the Basin. Since that time, numerous scientists, academia, and agency staff have all concluded the future of the Colorado River is significantly hotter and drier than the hydrology used to arrive at the shortage reductions in the 2007 Guidelines. The primary hydrology used in the 2007 Guidelines was based on an average natural flow at Lees Ferry of 15.07 million acre-feet (maf)<sup>1</sup>. From 2000 to 2022, the average annual natural flow was approximately 12.19 maf<sup>2</sup>, representing an annual reduction in supply of more than 12 times Nevada’s current Colorado River use. Furthermore, recent studies suggest the Basin may continue to warm by 2.5 to 5 degrees Fahrenheit by mid-century<sup>3</sup> and each degree of warming represents approximately a 5 percent decrease in runoff. Observed intervening inflows significantly below the range of uncertainty of the analyzed hydrology combined with water use that has exceeded the natural supply has pushed the river to a breaking point. Reclamation modeling shows that within the next 3 years the status quo could result in losses of critical federal infrastructure, uncertainty in the ability to release water from Lake Powell to Lake Mead, and significant hydropower impacts — particularly for grid stability and more acutely for small power users that rely heavily on hydropower, and unpredictable timing and scale of future shortages — undermining a key objective in the development of the original 2007 Guidelines. Reclamation must act as swiftly as possible if the water users that are reliant upon the Colorado River are to have any certainty regarding the magnitude and quantity of future water use, even in the short term. Understanding the magnitude and timing of water supply reductions is critical to successfully managing water resource portfolios and ensuring reliable water delivery to customers. Failing to act in 2023 to further reduce water use could result in the loss of over 1.97 maf of reservoir storage in Lake Mead, a 30 foot vertical decline. And if Lake Powell’s release is reduced to protect the ability to release water through the power plant, the reduction in Lake Mead could be 5.36 maf, a 70 foot vertical decline<sup>4</sup>. These declines represent the loss of large volumes of critical reservoir storage that will not be easily refilled. Further depletion of reservoir storage is directly increasing risk and uncertainty about future supply reliability.

### **Scope**

The scope of the SEIS should not be substantively different from that of the 2007 Guidelines. The three sections identified by Reclamation fundamentally form the basis of actions that can be implemented in a

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<sup>1</sup> Final EIS-Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead: Volume I, Chapter 3 – Affected Environment, U.S Bureau of Reclamation, October 2007.

<sup>2</sup> Provisional Natural Flow Data 1906-2022 Based on April, 2022 24-Month Study, Accessed May 2, 2022.

<sup>3</sup> Lukas, Jeff, and Elizabeth Payton, eds. 2020. Colorado River Basin Climate and Hydrology: State of the Science. Western Water Assessment, University of Colorado Boulder. DOI: <https://doi.org/10.25810/3hcv-w477>.

<sup>4</sup> Notice of Intent to Prepare a Supplemental Environmental Impact Statement, 80% ESP Analysis – 2002 to 2005 Trace, Public Information Webinar per 87 FR 69042, November 29, 2022. Presentation available at: <https://www.usbr.gov/ColoradoRiverBasin/SEIS.html>.

timely matter to meet the current crisis. While broader, and more inclusive, operating regimes are desired by many in the Basin, neither the 40,000,000 people that depend upon Colorado River water nor the environment through which it flows can afford to wait the several years it takes to negotiate such matters.

While not altering the scope of the SEIS, there are numerous complimentary actions that should be taken within the Basin to bolster the effectiveness of the 2007 Guidelines. The actions identified in the Drought Contingency Plans, the System Conservation Pilot Program, the 500+ Plan, and the Upper Basin's Five Point Plan all contribute to the stability of reservoir elevations. Their collective and interrelated nature require sufficient and accurate modeling to understand the range of impacts of the action alternatives that will be proposed in the SEIS.

Finally, other methods that help secure the water supply of the Basin have been proposed by Reclamation, Nevada, and others. These additional actions should be pursued with alacrity and in parallel with the operational changes contemplated by the SEIS. These include beneficial use definitions and determinations under 43 C.F.R. Part 417 (Procedural Methods for Implementing Colorado River Water Conservation Measures with Lower Basin Contractors and Others). It is well past time to prohibit the inefficient delivery, application, or use of water within all sectors and by all users; there simply is no water in the Colorado River System left to waste and each industrial, municipal, and agricultural user should be held to the highest industry standards in handling, using, and disposing of water. We further request that Reclamation act on the items articulated in the Authority's August 15, 2022, letter to Secretary of Interior Haaland, Assistant Secretary Trujillo, and Commissioner Touton<sup>5</sup>. It is critical that Reclamation pursue all options that will help reduce consumptive uses in the Basin and provide water supply reliability. To that end, Nevada strongly encourages Reclamation to immediately begin independent NEPA and ESA compliance for these activities.

### **Hydrology**

The fundamental driver for the SEIS is changed hydrology. The success of the SEIS in curtailing future risk, balancing reservoir elevations, and protecting the water supply of 40 million people will depend on evaluating potential alternatives against hydrologic scenarios that encompasses the full range of future hydrologic risk, specifically including sequences of drier than observed historical flows. Nevada's internal modeling with the Colorado River Simulation System Model uses a Direct Natural Flow adjusted to an annual average of 11.0 maf, compared to the observed annual average of 14.7 maf. Reclamation has recently used 80 percent of the ensemble stream flow projections for modeling with the Colorado River Mid-term Operations Model. Using the appropriate tools and hydrologic assumptions will help ensure that the full range of risk is analyzed.

### **Operational Objectives**

The purposes of the 2007 Guidelines as described in Section 4 of the Record of Decision are to:

- improve Reclamation's management of the Colorado River by considering trade-offs between the frequency and magnitude of reductions of water deliveries, and considering the effects on water storage in Lake Powell and Lake Mead, and on water supply, power production, recreation, and other environmental resources;

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<sup>5</sup> Letter from Southern Nevada Water Authority General Manager John J. Entsminger to Secretary of Interior Debra Haaland, Assistant Secretary for Water and Science Tanya Trujillo, and Commissioner of the Bureau of Reclamation Camille Calimlim Touton, Dated August 15, 2022.

- provide mainstream United States users of Colorado River water, particularly those in the Lower Division states, a greater degree of predictability with respect to the amount of annual water deliveries in future years, particularly under drought and low reservoir conditions; and
- provide additional mechanisms for the storage and delivery of water supplies in Lake Mead to increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions.

These objectives have not changed and continue to drive the need for the SEIS. Water supply and future operational certainty are paramount for water users, particularly our highly populated, river dependent urban areas. In order to successfully manage a water resource portfolio, water managers need to understand how and when water supplies will be reduced. Reducing available water supplies with little or no notice and predictability is significantly more likely to create economic disruptions. The Lower Colorado River Basin and the communities that the river serves are some of the most urbanized and arid regions of the United States. Nevada offers the following operational objectives for inclusion in the SEIS as a direct response to changed hydrology, operating Lake Powell and Lake Mead at levels previously un contemplated, and to protect the water supply for the 40 million people that rely on the river for municipal use.

#### Ensure water can be released from Glen Canyon Dam

Reclamation has offered several presentations and briefings on risks associated with losing the ability to release water through the Glen Canyon Dam power plants. These risks fundamentally harm water supply reliability for all those that rely upon water in the Lower Basin. The inability to reliably release water from Glen Canyon Dam imposes unacceptable risk to Lower Basin water supply and the predictability of that supply. These risks are well documented and well understood in the exchange of letters between Assistant Secretary for Water and Science, Tanya Trujillo, and the Seven Basin States that occurred in April and May of 2022<sup>6</sup>.

Any preferred alternative must ensure water deliveries from Glen Canyon Dam are not compromised, in turn requiring that sufficient elevations be maintained in Lake Powell.

#### Protection of ICS

Modifications to the 2007 Guidelines must uphold the contractual commitments of the Secretary of Interior to only deliver Intentionally Created Surplus (ICS) to the party that created such ICS. Many contractors, including the Authority, have spent years and invested hundreds of millions of dollars to conserve water that has helped to keep Lake Mead elevations higher than they otherwise would have been through the creation of ICS. Currently, ICS accounts for approximately 51 feet of Lake Mead's elevation. This storage must be preserved for the agencies that stored it.

Furthermore, under extremely limited circumstances, ICS that is stored in Lake Mead should be made available when Lake Mead is below elevation 1,025 feet to the contractor that stored the water if sufficient protections can be provided to satisfy the public health, safety, and welfare needs described below.

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<sup>6</sup> Letter from Assistant Secretary for Water and Science Tanya Trujillo to Governor's Representative for State of Nevada John J. Entsminger dated April 8, 2022; Letter from Colorado River Basin States Representatives of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming to Assistant Secretary for Water and Science Tanya Trujillo dated April 22, 2022; and Letter from Assistant Secretary for Water and Science Tanya Trujillo to Governor's Representative for State of Nevada John J. Entsminger dated May 3, 2022

### Protection of water supply for public health, safety, and welfare

Given the risk identified by Reclamation's recent modeling that Lakes Mead and Powell will decline below their respective power pools, and the consequent risk to public health, safety, and welfare, the preferred alternative should protect sufficient storage in Lake Mead to ensure that 18 months of deliveries necessary to meet public health, safety, and welfare can be made by Reclamation. As noted in the Notice:

[T]he Department has concluded that immediate development of additional operational alternatives and measures for Lake Powell and Lake Mead are necessary to ensure continued "operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations ..." 2007 Interim Guidelines at Section 7.D. 87 FR 69044

For domestic uses, the river in the Lower Basin provides water to approximately 27 million people. For some of these communities, the Colorado River is their exclusive source of water, or other domestic sources are insufficient to cover public health, safety, and welfare needs. It is imperative that these water supplies are offered the highest protection under the preferred alternative.

Reclamation should also consider the impact of further reductions in hydropower generation on the regional electric grid. A reliable supply of electricity is an important element in public health, safety, and welfare considerations. Electric supply is decreasing, particularly in the Southwest region. Impacts to hydropower generation should therefore be considered under any alternative, as this resource staves off energy emergencies, limits critical outages, and helps stabilize the grid. Accordingly, CRCNV has provided more detailed comments in **Attachment 1**.

### Related actions and considerations

#### Inclusion of Mexico

Mexico has been a progressive and dependable partner to the United States and Colorado River water users within the United States even as the worsening supply/demand imbalance has depleted storage within the system. In 2017's Minute 323 to the "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" signed February 3, 1944 ("1944 Water Treaty") for example, the United States and Mexico agreed on the "importance of aligning operations for both countries" and the need for their respective "governments and stakeholders to seek mechanisms to avoid reaching critically low reservoir elevations." Glen Canyon dam's infrastructure is currently threatened by significantly reduced inflows over the past two decades, in turn threatening to make deliveries to users in the Lower Basin difficult or impossible. Accordingly, the proposed Framework Agreement Alternative discussed below and in Attachment 2 hereto contemplates continued alignment of operations for users in both countries. Specifically, while the Tier 3 shortage volumes discussed below as a replacement for Section 2.D.1 of the 2007 Guidelines (500,000 combined acre-feet when Lake Mead is below 1,090 feet) do not expressly signal a revised shortage volume for Mexico to stay within the scope of the SEIS, to maintain alignment between the two countries Mexico's allocation would not exceed 1.375 maf when Lake Mead is below 1,090 feet and the overall Lower Basin allocation would not exceed 8.375 maf. Similarly, Mexico's Binational Water Scarcity Plan storage requirements set forth within Section IV of Minute 323 would be made as if Lake Mead is below 1,030 feet anytime Lake Mead is below 1,090 feet. And finally, Attachment 2 (discussing the assessment of evaporation and system losses to Lower Basin users) contemplates that such losses would be equitably assessed to all users, including Mexico.

### Compliance

The Lower Colorado River Multi-Species Conservation Program provides Endangered Species Act compliance for operations of the Lower Colorado River, including water deliveries and hydropower. The actions contemplated in the preferred alternative will likely necessitate expanded compliance for lower Lake Mead elevations and reduced deliveries to all water users, including reductions to only those volumes necessary to meet public health, safety, and welfare requirements. It is imperative this compliance moves swiftly and in parallel with this SEIS.

### **Proposed Framework Agreement Alternative**

This section introduces an alternative developed by the Authority to meet the stated “purpose” (modifying the operating guidelines to address drought and aridity) and “need” (avoiding critically low elevations) identified in the SEIS. The alternatives demonstrate how the system can effectively and safely operate through more restrictive shortage conditions (at 1,090 feet), equitable sharing of evaporation and system losses, continued DROA actions and additional reductions in use in the Upper Basin. The Authority believes these actions are implementable under this federal action, previous related federal actions and federal law. While the magnitude of water use reduction is striking, it is necessary, achievable, equitable, and effective.

The elements of this proposed alternative are articulated below.

### Lower Basin Shortage

Section 2.D.1 of the 2007 Guidelines shall be stricken and replaced with the following:

Deliveries to Lower Division States during Shortage Conditions shall be implemented in the following manner:

- a. The Lake Mead Protection Elevation for the year shall be set at the live storage volume in Lake Mead that is equivalent to the sum of the quantity of water stored as ICS (including any applicable ICS, DCP ICS, and Mexican Water Reserve) and 18 months of public health, safety, and welfare requirements for the Lower Basin and Mexico’s municipal water users.
- b. In years when Lake Mead content is projected to be at or below elevation 1,090 feet but above the Lake Mead Protection Elevation, a quantity of up to 7.0 maf shall be apportioned for use in the Lower Division States, of which 2.32 maf shall be apportioned for use in Arizona, 280,000 af shall be apportioned for use in Nevada, and 4.4 maf shall be apportioned for use in California; provided, however, that if 7.0 maf cannot be apportioned to the Lower Division States without reducing Lake Mead’s elevation to something below the Lake Mead Protection Elevation, then such amounts shall be reduced. This apportionment shall be dynamic throughout the calendar year and apportionments may be further reduced, but not increased from the initial determination made by the Secretary. Water deliveries for public health, safety, and welfare shall be prioritized.

### Lower Basin Drought Contingency Plan Contributions

Lower Basin Drought Contingency Plan Contributions shall be made each year Lake Mead is at or below elevation 1,090 feet as if Lake Mead is at or below elevation 1,030 feet.

The corresponding reductions from this modification and the previous modifications for Lower Basin Shortages shall result in the reductions summarized in the table below.

Projected January 1 Lake Mead Elevation (feet msl)	2007 Interim Shortage Guidelines Shortages		DCP Contributions			Combined Volumes (2007 Interim Guidelines Shortages & DCP Contributions)			
	Arizona	Nevada	Arizona	Nevada	California	Arizona	Nevada	California	Lower Division States Total
	(thousand acre-feet)								
At or below 1,090 and above Lake Mead Protection Elevation	480	20	240	10	350	720	30	350	1,100

#### ICS Deliveries

Under Section 3.C, modifications should be made under extremely limited circumstances such that ICS that is stored in Lake Mead is available when Lake Mead is below elevation 1,025 feet to the contractor that stored the water if sufficient protections can be provided to satisfy the public health, safety, and welfare needs of municipal water users.

#### Evaporation and Storage Losses or Equivalent Equitable Reductions

Annually, the Secretary shall assess 1.543 maf of system losses in a manner that ensures water apportioned for use does not exceed the volume listed in modified section 2.D.1 above (including applicable DCP contributions) minus 1.543 maf per year. One equitable proposal is to use the methodology described in **Attachment 2** to this letter, noting that reductions are intended to apply to each individual water user based upon the user's recent history of consumptive use. Because these losses occur without regard to priority, they should NOT be implemented in a manner that applies reductions exclusively to junior priority users.

#### Modified releases from Glen Canyon Dam

Operational experience has shown the balancing releases identified in Section 6 of the 2007 Guidelines are not practical or achievable in the face of changing hydrologic conditions and the desired reliability of water releases from Glen Canyon Dam. This alternative proposes that the following changes be made to Section 6, including within the table entitled Lake Powell Operational Tiers.

- Section 6.B.1 and 6.B.4 shall be stricken
- Section 6.B.2 balancing releases shall be not more than 10.0 maf and not less than 8.0 maf
- Replace Section 6.C.1 with the following: In Water Years when the projected January 1 Lake Powell elevation is below 3,575 feet and at or above 3,550 feet, the Secretary shall release 7.48 maf from Lake Powell in the Water Year unless Lake Powell is projected to drop below elevation 3,510 feet in that Water Year. If Lake Powell is projected to drop below elevation 3,510 feet in that Water Year, releases shall be reduced to protect elevation 3,510 feet.
- Change Section 6.D title to Lower Elevation Release Tier
- Replace Section 6.D.1 with the following: In Water Years when the projected January 1 Lake Powell elevation is below 3,550 feet, the Secretary shall release 7.0 maf from Lake Powell unless Lake Powell is projected to drop below elevation 3,510 feet in that Water Year. If Lake Powell is

projected to drop below elevation 3,510 feet in that Water Year, releases shall be reduced to protect elevation 3,510 feet.

Upper Basin Actions

In addition to those actions previously articulated in the Upper Basin DCP and Five Point Plan, whenever Lake Powell is projected to begin a calendar year at or below elevation 3,550 feet, the following additional actions should occur: 1) the Upper Basin states shall collectively reduce water use by 500,000 af; and 2) the Secretary shall use emergency authorizations within applicable DROA Agreements and associated Records of Decision to ensure a 500,000 acre-foot release is made to Lake Powell to the extent sufficient water exists in upstream storage.

In conclusion, Nevada strongly desires that this alternative be further refined through cooperation with the other Colorado River Basins States and river stakeholders. However, given the lack of progress achieving consensus on these issues previously, we felt it prudent to introduce the concepts and framework that are necessary to stabilize reservoir elevations and provide increased water supply reliability to the desert southwest. Nevada continues to stand ready to work with any of our partners to refine this alternative as quickly as possible for immediate implementation.

Sincerely,



John J. Entsminger  
Governor's Representative  
State of Nevada  
&  
General Manager  
Southern Nevada Water Authority



Eric P. Witkoski  
Executive Director  
Colorado River Commission of Nevada

cc: Camille Calimlim Touton, Commissioner, Bureau of Reclamation  
David M. Palumbo, Deputy Commissioner-Operations, Bureau of Reclamation  
Reclamation 2007 Interim Guidelines SEIS Project Manager, Upper Colorado River Basin Region  
via email: CRinterimops@usbr.gov

Attachments



## Attachment 1

The Colorado River Commission of Nevada (“CRCNV”) is required to protect and safeguard the State of Nevada’s allocation of Colorado River water and power resources granted to it by Congress. CRCNV has a significant interest in water matters impacting the Colorado River as well as hydropower resources from the Boulder Canyon Project, the Parker-Davis Generation Project, and the Salt Lake City Area Integrated Projects. The CRCNV provides hydropower from these projects to 23 contractors in southern Nevada including electric utilities (investor owned and public), municipalities, educational institutions, Nevada state agencies, and companies that produce goods and services.

### Scope of the Analysis

The scope of the Bureau of Reclamation’s (“Reclamation”) analysis needs to consider the impact of further reductions in hydropower generation on the regional electric grid. Electricity is not a convenience good. It is a critical element of public health, safety, and welfare that is in short supply. Over the next few years, as demand on the electricity grid increases, energy supplies are expected to tighten even further.

During the past few years, the Western electric grid has demonstrated its vulnerability to energy shortages, particularly during the summer months when it is subject to extreme heat events and natural disasters such as wildfires. The region relies on hydropower resources on the Colorado River to support the reliability of the electric grid. As highlighted by the North American Reliability Corporation (NERC) in its Summer Reliability Assessment study for 2022:

Energy output from hydro generators throughout most of the Western United States is being affected by widespread drought and below-normal snowpack. Dry hydrological conditions threaten the availability of hydroelectricity for transfers throughout the Western Interconnection. Some assessment areas, including WECC’s California-Mexico (CA/MX) and Southwest Reserve Sharing Group (SMSG), depend on substantial electricity imports to meet demand on hot summer evenings and other times when variable energy resource (e.g., wind, solar) output is diminishing. In the event of wide-area extreme heat event, all U.S. assessment areas in the Western Interconnection are at risk of energy emergencies due to the limited supply of electricity available for transfer.

Hydropower resources have recently been called on to stave off energy emergencies like the ones referenced in the WECC report. Between August 14 and August 19 of 2020, Western Area Power Administration (“WAPA”) and the Reclamation generated and transmitted additional hydropower energy in response to a heat-related energy emergency in the State of California. This action limited outages and helped stabilize the grid.

Hydropower has also been recently called on to respond to scarcity events exacerbated by regulatory and policy decisions affecting the electric grid’s reliability. Under a Federal Energy Regulatory Commission Order, the State of California, during periods of high demand, can intercept electricity generated in the Pacific Northwest that would otherwise be delivered to other states, including Arizona and Nevada, during times when these states are also experiencing high demand for energy. See FERC Order Docket No. ER21-1790. The intercept of power by California that would otherwise have been imported to other States happened as recently as September of 2022, straining power deliveries into Nevada and Arizona. During these shortage events, both Glen Canyon Dam and Hoover Dam were called on to provide as much power as possible to avoid rolling blackouts in the region.

Ideally, the scope of Reclamation's analysis should be broad enough to allow for detailed technical studies to be completed that assess the impact of reduced hydropower resources on the reliability of the electric grid in the Colorado River Basin. The technical scope should focus on hydropower's contribution toward resource adequacy, possible impacts to the transmission grid, and the risk that load will go unserved in the region. Given the short time frame for this SEIS process and the pressing need to implement measures that protect the water and power resources on the river, there may not be sufficient time to conduct such detailed studies. In that case, Reclamation should, at a minimum, consult with a broad range of industry experts and review existing reports, data and information concerning the risk of resource shortages during the next few years. At a minimum, Reclamation should consult with WAPA about its ability to operate the electric grid under a reduced generation scenario as well as WAPA's ability to respond to regional emergencies. Reclamation should also carefully review technical reports and analyses already completed by reliability organizations such as the Western Electric Coordinating Council, grid operators such as the California Independent System Operator (CAISO), electricity suppliers, and other experts in the region.

The drought has already taken a major toll on WAPA's contractors financially, particularly customers that are heavily dependent on hydropower resources. These contractors are not only paying more per MWh for their resources, but they are also having to replace lost hydropower generation with more expensive resources, resulting in substantial annual rate increases. Ideally, the scope of this SEIS should address the financial impact of losing hydropower resources on WAPA's customers including the impact to resource rates and the cost to customers to replace lost hydropower generation with other resources. Once again, given the short time frame for this SEIS process, consultation with WAPA's contractors, particularly those that are heavily reliant on hydropower resources, is warranted.

### **Operational Considerations**

Given the increasing demand for electricity and the need for energy in the region during 2023 and 2024, Reclamation needs to consider protecting the elevations of both Lake Powell and Lake Mead so that a reasonable amount of hydropower generation can be preserved. For every 25 feet further decline in elevation at Lake Mead, it is estimated that approximately 250,000 MWh of energy and 125 MW of capacity will be lost at Hoover Dam. This is in addition to the approximately 2.3 million MWh of energy that Hoover contractors have lost since the start of the drought.

Elevation 1,000 feet in Lake Mead is the minimum elevation for which the wide head turbines at Hoover Dam are rated and it is expected that approximately 1,000 MWs of capacity would remain available at that elevation. Although minimum power pool is believed to be 950 feet, it is important to recognize that we have no operating history at these lower lake elevations and a margin is needed to avoid possible technical difficulties that may arise at lower elevations. Further, at a level of 950 feet, Hoover generating capacity is expected to drop to 30 percent of rated capacity versus 50 percent of rated capacity at an elevation of 1,000 feet. Consequently, the amount of power that Hoover Dam provides and its contribution to Western Grid reliability is significantly reduced at an elevation of 950 feet. The ability to protect these elevations is a critical component of any preferred alternative and should be considered in the SEIS. CRCNV believes the proposed Nevada alternative will perform well for meeting these objectives.

### **Identification of Relevant Information and Studies**

Reliable generation forecasts are important to Reclamation's customers. Utility managers need to have a thorough understanding of the range of generation outcomes (energy and capacity) at varying levels of Lake elevations and releases so that they can plan for different outcomes. During this SEIS, it is recommended that Reclamation model a wide range of operating alternatives and publish the

hydropower generation resulting from those model runs. This will allow utility managers to plan for the future and secure replacement resources if necessary.

As noted above, with the short period allotted for the SEIS and the need to take action sooner rather than later, the CRCNV recommends that Reclamation rely heavily on consultation with experts in the electric industry including WAPA, a cross section of WAPA's customers, particularly those that are heavily dependent on hydropower resources, energy suppliers, and grid operators as well as a review of existing data and information to fully understand the energy supply and demand picture for 2023 and 2024 and weigh the risk of further reductions in hydropower resources.

More detailed technical studies and analysis should be undertaken to inform future decisions. These studies should assess the impact of reduced hydropower resources on the reliability of the electric grid in the Colorado River Basin and focus on hydropower's contribution toward resource adequacy, possible impacts to the transmission grid, possible impacts to market power prices, and the risk that load will go unserved in the region. These studies should be conducted over a longer period and under different supply and demand scenarios. In addition, more analysis needs to be done to quantify the financial impact of losing hydropower generation on WAPA and WAPA's customers. This financial analysis should include future resource rate projections under a wide range of generation outcomes as well as a quantification of replacement costs considering all benefits hydropower provides, including energy, capacity, ancillary services, and renewable benefits.

## Attachment 2

### SNWA Methodology to Assessing Lower Basin System Losses

In the Lower Basin (LB), system losses occur primarily as open-water evaporation and riparian evapotranspiration (ET). From Lee's Ferry to the Northerly International Boundary (NIB), SNWA estimates these losses to be approximately 1.543 million acre-feet per year. SNWA's objective is to develop an equitable method of assessing these system losses to LB water users that rely on the reservoirs and river system for the storage and transmission of water deliveries. The general approach to estimate system-loss assessments consisted of the following:

1. System losses were estimated for five reaches along the Colorado River from Lee's Ferry to the NIB:
  - Reach 1 Lee's Ferry to Hoover Dam*
  - Reach 2 Hoover Dam to Davis Dam*
  - Reach 3 Davis Dam to Parker Dam*
  - Reach 4 Parker Dam to Imperial Dam, and*
  - Reach 5 Imperial Dam to the NIB*
2. For each reach, water user groups were assembled to represent the water users that rely on the reach to store and/or transmit water deliveries and their average annual consumptive uses were estimated. These users would share in the system loss estimated for the reach.
3. For each reach, the estimated system loss was assessed proportionally to each state and corresponding water users based on their fraction of the total water deliveries within the reach.

Reservoir evaporation for lakes Mead, Mojave and Havasu and riparian ET for downstream reaches were estimated based on input data and relationships used in the CRSS model (Version 5 release, January 2022). For Lake Mead, the reservoir elevation-evaporation relationship was used to estimate evaporation at an elevation of 1,100 feet. For lakes Mohave and Havasu, the reservoir evaporation was computed by multiplying the monthly evaporation rates by the monthly target reservoir elevations described in Appendix B of the Interim Guidelines FEIS<sup>7</sup>. Losses between Davis Dam and Parker Dam were computed by summing the input values for the monthly depletions of the "Phreatophytes" object. Similarly, losses between Parker and Imperial dams were computed using the "Native Vegetation" object, and losses between Imperial Dam and the NIB were computed using the "Phreatophytes Imperial to NIB" object. The total system loss for each reach was estimated by summing the reservoir evaporation, if the reach included a reservoir, and the losses by riparian ET.

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<sup>7</sup> Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead – Final Environmental Impact Statement, U.S. Bureau of Reclamation, Lower Colorado River Region, Boulder City, NV, November 2007.

To assess system losses, the average annual consumptive use for each water user was computed for the period 2019-2021 using data reported in the USBR Decree Accounting Reports<sup>8</sup>. These values were used to estimate each state's proportion of water use within a given reach. Water user groups were formed by water user and state for each reach. A water user group represents all the water users who rely on a reach to store or transmit deliveries. So, a water user at the bottom of the system would rely on the storage and transmission of all five reaches and would have representation in all five water user groups. The water user groups were subdivided by state and state totals were computed for each reach.

State-assessment fractions were computed by dividing the total state consumptive use by the total consumptive use of the reach. State assessments were then computed by multiplying these fractions by the system loss estimated for the reach. State assessments were proportionally assigned to the individual water users of the corresponding state based on their proportion of the state's consumptive use for the reach.

The following tables represent summary assessments for each state and Mexico and the individual water user assessments for large water users. SNWA is happy to provide more detailed documentation and methodology upon request.

**SUMMARY OF ASSESSMENTS BY STATE / MX**

State	afy
AZ	401,018
CA	771,486
NV	17,570
MX	352,926
<b>TOTAL</b>	<b>1,543,000</b>

**SUMMARY OF WATER USER ASSESSMENTS**

Reach	State	Major Water Users	afy
1	NV	LVVWD/SNWA - SNWP	15,514
3	AZ	Central Arizona Water Conservation District	190,474
3	CA	The Metropolitan Water District of Southern California	110,464
4	AZ	AZ Colorado River Indian Reservation	45,378
4	AZ	Wellton-Mohawk I.D.D.	51,654
4	AZ	Yuma County Water Users' Association	47,611
4	AZ	Yuma Mesa I.D.D.	28,657
4	CA	Coachella Valley Water District	70,074
4	CA	Imperial Irrigation District	509,508
4	CA	Palo Verde Irrigation District	71,335
5	MX	Mexico	352,926
<i>Subtotal</i>			<b>1,493,596</b>
Reach	State	Remaining Water Users	afy
All	AZ	Other Users in AZ	37,243
All	CA	Other Users in CA	10,105
All	NV	Other Users in NV	2,056
<i>Subtotal</i>			<b>49,404</b>
<b>TOTAL</b>			<b>1,543,000</b>

<sup>1</sup> Major users considered to have losses greater than 10,000 afy

<sup>8</sup> Lower Colorado River Water Accounting and Water Use Report: Arizona, California, and Nevada, Calendar Years 2019-2021, U.S. Bureau of Reclamation, Interior Region 8: Lower Colorado Basin, Boulder City, NV.



# UPPER COLORADO RIVER COMMISSION

50 S. 600 E. Ste #100 • Salt Lake City, UT 84102 • 801-531-1150 • [www.ucrcommission.com](http://www.ucrcommission.com)

TO: Interested Upper Basin Water Users  
FROM: Upper Colorado River Commission  
DATE: December 14, 2022  
SUBJECT: Pre-Solicitation Notice of Request for Proposals regarding a potential funding opportunity for voluntary participation in a System Conservation Pilot Program for 2023

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On June 14, 2022, the United States Bureau of Reclamation (BOR) outlined the need for an additional 2.0 – 4.0 MAF/year of contributions to Lake Powell and Lake Mead to avoid critically low reservoir levels. In response, the Upper Division States of Colorado, New Mexico, Utah, and Wyoming, acting through the Upper Colorado River Commission (UCRC),<sup>1</sup> adopted a 5-Point Plan to proactively support critical infrastructure and resources related to the Colorado River Storage Project Act Initial Units.<sup>2</sup> A key component of the 5-Point Plan is establishing a System Conservation Pilot Program (SCPP) beginning in 2023.<sup>3</sup> The purpose of the SCPP is to conserve Colorado River System water through temporary, voluntary, and compensated measures to mitigate the impacts of ongoing drought and depleted storage in the Upper Colorado River Basin.

The UCRC is issuing this Pre-Solicitation Notice of Request for Proposals (RFP) to invite users of Colorado River System water in the Upper Division States to submit proposals for SCPP water conservation projects. The UCRC is looking for projects that reduce consumptive use through temporary, compensated, and voluntary water savings actions in 2023. If the SCPP is authorized, then the information provided through this pre-solicitation will be used for selection in the 2023 program. Implementation of the SCPP is contingent upon the passage of pending federal legislation and final authorization from BOR.

A key consideration for selection in the 2023 program will be the cost of the proposed project in terms of price per acre-foot for conservation reductions. Project compensation will be based on one of the following:

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<sup>1</sup> The UCRC is an interstate administrative agency established by the Upper Colorado River Basin Compact of 1948 (Upper Basin Compact). UCRC members consist of a Commissioner representing each of the four Upper Division States of Colorado, New Mexico, Utah and Wyoming (Upper Division States) and a Commissioner appointed by the President of the United States. The UCRC assists the Upper Division States in developing their apportionments of Colorado River water pursuant to the Colorado River Compact of 1922 and the Upper Basin Compact, and has specific responsibilities to assist in implementing the Upper Basin Compact consistent with laws of the Upper Division States.

<sup>2</sup> The 5-Point Plan letter is available here: <http://www.ucrcommission.com/wp-content/uploads/2022/07/2022-July-18-Letter-to-Reclamation.pdf>.

<sup>3</sup> Previously, the UCRC, BOR, and the Upper Division States, along with funding entities conducted another system conservation pilot program from 2015 through 2018.

- a. A proposal that accepts a fixed price of \$150 per acre-foot of water conserved (Fixed Price);  
or
- b. A proposal that requests a per acre-foot price that differs from the Fixed Price. Project Proponents seeking a price that differs from the Fixed Price must provide the basis and justification for their proposed price.

**Municipal, Industrial, and agricultural water users are invited to submit a Proposal describing a conservation project that can be implemented in 2023 under this Pilot Program by you or your organization. Proposals should include a detailed project description, the estimated amount of consumptive use that will be conserved as a result of the proposal, a proposed plan for verifying the conservation activities employed, the approximate time frame for a startup, project duration, the amount of funding requested and justification of non-fixed price proposals, and additional information as requested on the application form. The application form will be available for download from the UCRC webpage on or before December 19th (<http://www.ucrccommission.com/system-conservation-pilot-program-for-2023/>).**

Through the SCPP, municipal, industrial, and agricultural water users in the Upper Basin can submit a proposal and, if selected, will be monetarily compensated for voluntary actions that temporarily reduce the consumptive use of Colorado River System water in the Upper Basin. Proposals must include reductions in consumptive use. Depending on your state's laws, possible projects could include but are not limited to temporary fallowing or deficit irrigation of agricultural crops, reuse of industrial water, recycling of municipal supplies, improvement of distribution system efficiency to reduce consumptive use, reductions in municipal landscape irrigation or indoor use, and other methods that would result in additional water conservation for the Colorado River System in 2023.

SCPP participants will be selected consistent with the factors outlined in the "UCRC Facilitation Exhibit for Implementation of a Temporary System Conservation Pilot Program in the Upper Colorado River Basin" attached to the Funding Agreement<sup>4</sup> as well as any additional criteria deemed relevant by the Upper Division States and the UCRC in their review and selection process. A significant consideration for selection in the 2023 program will be the cost of the proposed project in terms of price per acre-foot for conservation reductions. Projects that engage in speculation and profiteering will not be selected. Other factors that will be considered include but are not limited to the following:

- A history of recent consumptive use of Colorado River water by the Project Proponent;
- Adherence of the Proposal to the requirements of the Facilitation Exhibit and the RFP;

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<sup>4</sup> The Funding Agreement can be viewed on UCRC's website at <http://www.ucrccommission.com/wp-content/uploads/2022/12/SCPP-2023-Funding-Agreement-FINAL.docx>.



- Priority will be given to projects that are likely to mitigate impacts of the ongoing drought;
- Diversity of location and type of conservation measures, including consideration of multiple benefits;
- The relative size of the Project in terms of acre-feet of water that may be conserved;
- The comparative ease or difficulty of implementing the Project, including the proposed Verification Plan for the Project;
- The amount of time required for the Project to generate conserved consumptive use;
- Required permitting and approvals, if any; and
- For non-fixed price Proposals, the amount of the proposed price per acre-foot and a justification for the proposed price.

The Upper Division States, through the UCRC, will jointly review and select project proposals. Project Proponents who submit Proposals that are selected will be required to execute a System Conservation Implementation Agreement (SCIA) with the UCRC, which will provide the terms and conditions for the design, implementation, verification, and evaluation of the Pilot Program Project and compensation to the participant (see contract template attached to the Funding Agreement with BOR at <http://www.ucrccommission.com/wp-content/uploads/2022/12/2023-SCPP-Facilitation-Exhibit-FINAL.docx>).

To be considered for funding under this RFP, proposals should be received by the UCRC by February 1, 2022. If you/your organization are interested in participating in the Program, please e-mail your proposal to the UCRC at [scpp@ucrccommission.com](mailto:scpp@ucrccommission.com). Please also copy the representative of the state in which the project is located at the e-mail addresses listed below.

For Colorado:	Amy Ostdiek, <a href="mailto:amy.ostdiek@state.co.us">amy.ostdiek@state.co.us</a>
For New Mexico:	Ali Effati, <a href="mailto:ali.effati@ose.nm.gov">ali.effati@ose.nm.gov</a>
For Utah:	Lily Bosworth, <a href="mailto:lbosworth@utah.gov">lbosworth@utah.gov</a>
For Wyoming:	Jeff Cowley, <a href="mailto:jeff.cowley@wyo.gov">jeff.cowley@wyo.gov</a>

Responses to the RFP must be submitted electronically in accordance with the instructions above. Faxed or mailed flash drives or hard copies will not be accepted.

The issuance of this RFP does not imply that the UCRC is bound to select a Proposal. The UCRC reserves the right to reject all or any of the Proposals for any or no reason.

This RFP is not an agreement or an offer. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. The UCRC accepts no liability of any nature, whether resulting from negligence or otherwise, however caused and arising from reliance of any prospective Project Proponent or any other person upon the statements contained in this RFP.

The Project Proponent shall bear all their costs associated with or relating to the preparation and submission of their Proposal, including but not limited to preparation, expenses associated with any presentations which may be required by the UCRC, or any other costs incurred in connection with or relating to the Proposal. All such costs and expenses will remain with the Project Proponent, and the UCRC shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Project Proponent or any other person in preparation or submission of the Proposal, regardless of the conduct or outcome of the selection process.

If you have any questions, please contact the UCRC or your state's representative, as listed above.

UPPER COLORADO RIVER BASIN  
SYSTEM CONSERVATION IMPLEMENTATION AGREEMENT

This System Conservation Implementation Agreement (“SCIA”) is entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_ (“Effective Date”), by and between the Upper Colorado River Commission (“UCRC”), acting through the officials executing this Agreement and \_\_\_\_\_, (“Contractor”), each being referred to individually as “Party” or collectively as the “Parties.”

In consideration of the mutual promises and covenants herein contained, the Parties agree as follows:

1. Parties

- 1.1 The UCRC was created by the Upper Colorado River Basin Compact (“Upper Basin Compact”) among the states of Arizona, Colorado, New Mexico, Utah, and Wyoming on October 11, 1948, and consented to by Congress in the Act of April 6, 1949 (63 Stat. 31, Chapter 48).
- 1.2 The Contractor is an Upper Division Water User proposing to voluntarily reduce consumptive use of Colorado River System water pursuant to the terms of this Agreement.

2. Authority

- 2.1 The UCRC is acting pursuant to authority granted under Article VIII of the Upper Basin Compact, which authorizes the UCRC to, among other things, perform all functions required by the Upper Basin Compact and do all things necessary, proper or convenient in the performance of its duties either independently or in cooperation with any state or federal agency. Pursuant to these authorities and Article X.2 of the UCRC By-Laws, the UCRC executed an agreement Regarding the Funding of a Temporary Colorado River System Conservation Pilot Program in the Upper Colorado River Basin (“Funding Agreement”) with the United States Bureau of

Reclamation on \_\_\_\_\_, 2022. Under this legal authority, the undersigned UCRC's designated representative has the authority to execute this SCIA and any related instruments on behalf of the UCRC.

2.2 The Contractor hereby warrants that the individual executing this SCIA on behalf of the Contractor has the full legal power and authority to do so and to bind the Contractor to the terms herein. The Contractor further warrants that by executing this SCIA, it agrees to meet any and all of its obligations under this SCIA and any exhibits.

3. Consideration

The parties acknowledge that the mutual promises and covenants contained herein are sufficient consideration.

4. Purpose

The purpose of this SCIA is to implement a Project approved for inclusion in the Pilot Program for System Conservation in order to mitigate the impacts of the long-term drought. Water conserved pursuant to approved Pilot Program Projects does not accrue to the benefit or use of any individual water user.

5. References

All references in this SCIA to sections (whether spelled out or using the § symbol), subsections, exhibits or other attachments, are references to sections, subsections, exhibits or other attachments contained herein or incorporated as a part hereof, unless otherwise noted.

6. Definitions

The following definitions shall apply for purposes of this SCIA only.

- 6.1 “Agent” means third parties, if any, engaged by the Contractor to aid in performance of its obligations.
- 6.2 “Colorado River Compact” means the document signed on November 24, 1922, at Santa Fe, New Mexico, pursuant to an act of Congress approved August 19, 1921 (42 Stat. 171).
- 6.3 “Colorado River System” shall have the same meaning as set forth in the Colorado River Compact.
- 6.4 “Consumptive Use” means the man-made diversions of water from the Colorado River System, less any return flow to the river system of water that is available for Consumptive Use in the Upper Basin.
- 6.5 “Evaluation” or “Evaluate” means the UCRC evaluating the results of the Pilot Program and reporting those results to Reclamation.
- 6.6 Funding Agreement means Reclamation Agreement No. [REDACTED] between Reclamation and the UCRC executed [REDACTED] 2022, as amended, which lays out the conditions pursuant to which the UCRC will receive funding from Reclamation to implement the Pilot Program.
- 6.7 “Pilot Program” means the pilot program identified and funded through the Funding Agreement and described in that Funding Agreement and its attachments.
- 6.8 “Project” means the actions taken by the Contractor to reduce Consumptive Use pursuant to the terms of this SCIA.
- 6.9 “Reclamation” means the United States Bureau of Reclamation.
- 6.10 “System Conservation” means a voluntary reduction of Consumptive Use of Colorado River water that can be estimated or measured. System Conservation does not include: (i) measures implemented by an Upper

Division Water User to meet Consumptive Use reduction obligations under any transfer, acquisition, or conservation agreement with another party, (ii) implemented for monetary payment or other valuable consideration from any third party not a signatory to this SCIA, or (iii) efforts that are voluntarily, administratively or judicially ordered to be undertaken by an Upper Division Water User for purposes other than System Conservation.

- 6.11 “SCIA” means this System Conservation Implementation Agreement, including its terms and conditions, attached exhibits, documents incorporated by reference under the terms of this SCIA, and any future modifying agreements, exhibits, or other attachments.
- 6.12 “Upper Basin” means those parts of the states of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain into the Colorado River System above Lee Ferry, and also all parts of said states located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the System above Lee Ferry, as defined in the Colorado River Compact.
- 6.13 “Upper Division Water User” means a person or entity within an Upper Division State that has an existing authorization under applicable state law to divert Colorado River System water for beneficial uses. Upper Division Water Users shall also include Native American Tribes or Tribal entities within an Upper Division State that have an existing authorization under applicable state law to divert and use Colorado River System water.
- 6.14 “Verification” or “Verify” means confirmation that the action(s) proposed by the Contractor and agreed to under this SCIA have been taken, as further described in Exhibit A to this SCIA, Verification Plan.

6.15 “Work” means Project, tasks, and any other activities the Contractor is required to perform to fulfill its obligations under this SCIA, including Exhibit A – Verification Plan.

7. Term

7.1 Effective Date and Termination Date: The term of this SCIA shall commence on the Effective Date indicated on page 1 above and terminate on \_\_\_\_\_, unless sooner terminated or extended as provided for below.

7.2 Work Commencement: The Parties’ respective performance under this SCIA shall commence on the Effective Date.

8. Warranties and Representations

The Contractor represents, warrants, and acknowledges the UCRC’s reliance on the following representations and warranties:

8.1 Rights to Use Water and Property:

- i. The Contractor has the legal right and authority to use the subject water and property described in Section 9 below under [insert state] law to perform the Contractor’s obligation under this SCIA. To the best of the Contractor’s knowledge, no legal impediment exists regarding the Contractor’s ability to perform the Contractor’s obligations under this SCIA; and
- ii. There is no known or anticipated claim, nor any known or anticipated action or proceeding before any court, tribunal, or other body, that could affect the Contractor’s right, title, and/or interest to the water or the land that are the subject of this SCIA.

8.2 Contractor’s Use of the Water: But for the Contractor’s participation in this SCIA and the Pilot Program, the Contractor would otherwise divert the



water that is the subject of this SCIA for consumptive use during the time period identified in the terms of this SCIA.

- 8.3 Contractor Obligated to Submit Correct Information: All information submitted by the Contractor in the proposal and application to the Pilot Program and provided in support of this SCIA is true and correct to the best of the Contractor's knowledge as of the time of submittal and as of the Effective Date. If the Contractor should discover that any information submitted in the proposal, application or in the SCIA has become incorrect, the Contractor has a duty to immediately inform the UCRC in writing regarding what information is incorrect and the date on which the Contractor discovered that the information was incorrect. Following such communication, the UCRC and the Contractor will meet to discuss next steps with respect to this SCIA in light of the Contractor's communication.
- 8.4 Standard and Manner of Performance: The Contractor's performance hereunder shall comply with all applicable federal and state laws and the Contractor shall provide that any subcontracts be governed by the laws of the state in which the subject property is located.
- 8.5 Licenses, Permits, Etc.: As of the Effective Date of this SCIA, the Contractor must have, and at all times during the term hereof, shall maintain, at its sole expense, all rights, decrees, licenses, certifications, approvals, insurance, permits, and other authorizations, if any, required by law to perform its obligations hereunder including the payment of any assessments due. The Contractor must do so without reimbursement by the UCRC or other adjustment in any payment made to the Contractor under this SCIA. Additionally, all employees or Agents of the Contractor performing Work under this SCIA shall hold, at all times during performance under this SCIA, all required licenses or certifications, if any, to perform their responsibilities. The Contractor, if a foreign corporation or other foreign entity transacting business in the state(s) of Colorado, New Mexico, Utah, and/or Wyoming further warrants that it currently has obtained and shall maintain any applicable certificate of authority to transact business in the

state where the Project is located and has designated a registered agent in the state in which the subject property is located to accept service of process. Any revocation, withdrawal, or non-renewal of licenses, certifications, approvals, insurance, permits, or any such similar requirements necessary for the Contractor to properly perform the terms of this SCIA is a material breach by the Contractor and constitutes grounds for termination of this SCIA.

8.6 Contractor Compliance with Existing Laws and Legal Obligations: Upon execution by all Parties, this SCIA is a legal and binding obligation of the Contractor enforceable against the Contractor in accordance with its terms. The Contractor agrees and warrants that this SCIA does not violate any provision of any other agreement to which the Contractor is a party or to which the Contractor is subject. The Contractor's agreement to conserve water as part of the Pilot Program does not and will not violate applicable laws or recorded documents affecting the water and property described in Section 9 below.

8.7 Insurance: The Contractor represents and warrants that it has obtained and will maintain general liability insurance coverage on the property where the Project is located for the term of this SCIA. The Contractor shall provide proof of such insurance to the UCRC upon request.

## 9. Statement of Work

### 9.1 Contractor Information Required

- i. Subject Water: This section will include water rights, permit numbers, priority dates, share certificate numbers, nature or purpose of use, place of use, and any additional relevant information about the subject water.
- ii. Contractor Use of Subject Water: This section will include information regarding how the water has been consumptively used.

- iii. Project: This section details the things the Contractor agrees to do to achieve the goals of the Pilot Program.
- iv. Right of Entry: The Contractor agrees that after providing the Contractor upon at least twenty-four hours' notice, the staff, designees or agents of the UCRC, accompanied by the state engineer or the state engineer's authorized designee in the state where the Project takes place, will have the right to access and enter the subject property to Verify and Evaluate the results of the Project as specified in this SCIA, and as provided in the Verification Plan (Exhibit A).

## 9.2 Verification

- i. The UCRC will Verify that the Project is performed consistently with the terms of this SCIA and Exhibit A, Verification Plan, with the assistance of its staff, designees or agents, and/or the state engineer' or authorized designee in the state where the Project is located.
- ii. At the request of the UCRC, the Contractor agrees that, after completion of the Project, the Contractor will provide the UCRC additional information related to the Project and/or access to the Project site at reasonable times and upon at least twenty-four hours' notice as needed to aid in developing any final reports for the Pilot Program. This provision survives termination of this SCIA until completion of the Pilot Program.
- iii. The Contractor agrees to document the amount of anticipated conserved Consumptive Use as described in Exhibit A, Verification Plan.

10. Payments to Contractor

10.1 Compensation: The Contractor will be paid a maximum of \$ [REDACTED] for implementation of the Project, as follows: Compensation in exchange for implementation of the Project pursuant to this SCIA will be paid by the UCRC from the funds the UCRC receives from Reclamation for the Pilot Program, pursuant to the Funding Agreement. The Contractor will be paid \$ [REDACTED] within sixty days of the Effective Date, and \$ [REDACTED] no later than sixty days after completion of the Project if the Project was completed according to the terms of this SCIA and in compliance with the Verification Plan, Exhibit A, as confirmed to the UCRC's satisfaction. Payments will be mailed to Contractor at the following address:

[REDACTED]  
[REDACTED]  
[REDACTED]

10.2 Available Funds—Contingency—Termination: The expenditure or advance of any money or the performance of any obligation by the UCRC under this SCIA shall be contingent upon the UCRC's receipt of funds from Reclamation. If no funds or insufficient funds are provided by Reclamation or received by the UCRC for payment to the Contractor, either Party may terminate the Agreement, and no monetary or other liability shall accrue to the UCRC.

10.3 Conditions of Payment: Following the initial payment pursuant to Section 10.1, the UCRC shall make the final payment to the Contractor pursuant to Section 10.1 only upon determination by the UCRC that (i) the Contractor has fulfilled all of the requirements of this SCIA and (ii) the water that is the subject of this SCIA was legally or physically available for Contractor to consumptively use during the term of this SCIA. If the UCRC determines that the Contractor has not complied with any of the requirements of this SCIA and Exhibit A, Verification Plan, the UCRC has the option to holdback full or partial payment, at the UCRC's sole discretion, until the Contractor has cured the non-compliance to the UCRC's satisfaction. If the UCRC

determines that the water that is subject to this SCIA was not legally or physically available during the term of this SCIA, the UCRC has the option to forego all or a portion of the final payment.

10.4 Reimbursement for Erroneous Payments: If the Contractor is paid by the UCRC for progress and/or completion of the Project contemplated in Section 9, and Exhibit A, Verification Plan, that the Contractor subsequently fails to complete, the Contractor agrees to reimburse the UCRC for such overpayment within 30 days of receipt of a bill for collection from the UCRC.

10.5 Adjustment for Errors: The UCRC has the authority to make any adjustments to payments if it discovers an error has been made in prior payments.

#### 11. Contractor Reporting – Notification

Reports and notifications required of the Contractor to be submitted to the UCRC shall be in accordance with procedures prescribed by the UCRC.

11.1 Contractor Reporting: Upon completion of the Project, or sooner if provided in Exhibit A, Verification Plan, the Contractor shall submit to the UCRC information sufficient to confirm that the Contractor has performed each requirement described in Exhibit A, Verification Plan.

11.2 Litigation Reporting: Within 10 days after being served with any pleading in a legal action filed with a court or administrative agency related to this SCIA or which may affect the Contractor's ability to perform its obligations hereunder, the Contractor shall notify the UCRC, in writing, of such action and deliver copies of such pleadings to the UCRC's representative as identified herein.

11.3 Noncompliance: The Contractor's failure to provide required information and notifications to the UCRC in a timely manner in accordance with this

Section 11 and Section 28 may result in the delay of payment of funds and/or termination as provided under this SCIA.

11.4 Contractor Agents: To the extent that Contractor enters into agreement(s) or relationship(s) with Agents in the course of performance under this SCIA that could affect performance under this SCIA, Contractor shall notify the UCRC of the agreement and/or relationship. Copies of any and all written agreements entered into by the Contractor to perform its obligations hereunder shall be submitted to the UCRC. Any and all agreements entered into by the Contractor related to its performance hereunder shall comply with all applicable federal and state laws and shall provide that such agreements be governed by the laws of the state in which the subject property is located.

11.5 W-9 and Tax Documentation: Within fourteen days of the Effective Date of this SCIA, the Contractor shall provide the UCRC a fully executed Internal Revenue Service Form W-9, including a Taxpayer Identification Number or Employer Identification Number, as applicable. A blank W-9 form is provided to Contractor at the time of execution of this SCIA.

12. Contractor Records. The Contractor shall make, keep, maintain, and, upon request, provide to the UCRC or its agents or designees a complete file of all materials or records required in Exhibit A, Verification Plan. This provision survives termination of this SCIA until completion of the Pilot Program.

13. Breach

13.1 Breach Defined: In addition to any breaches specified in other sections of this SCIA, the failure of either Party to perform any of its material obligations hereunder in whole or in part or in a timely or satisfactory manner constitutes a breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Contractor, or the appointment of a receiver or similar officer for the Contractor or any of its property, which is not vacated or fully stayed within

twenty days after the institution of occurrence thereof, shall also constitute a breach.

- 13.2 Notice and Cure Period: In the event of a breach, the non-breaching Party shall give written notice of the breach to the other Party. If a breach is not cured within thirty days of receipt of written notice, or if a cure cannot be completed within thirty days, or if cure of the breach has not begun within thirty days and pursued with due diligence, the UCRC may exercise any of the remedies listed in Section 13. Notwithstanding anything to the contrary herein, the UCRC, in its sole discretion, need not provide advance notice or a cure period and may immediately terminate this SCIA in whole or in part if reasonably necessary to preserve public safety.
- 13.3 Remedies Generally: If the Contractor is in breach under any provision of this SCIA, the UCRC shall have all of the remedies listed in Section 13 in addition to all other remedies set forth in other sections of this SCIA following the notice and cure period set forth in Section 13.2. The UCRC may exercise any or all of the remedies available to it, in its sole discretion, concurrently or consecutively.
- 13.4 Payments and Reimbursements: If the Contractor is in breach, the UCRC shall reimburse the Contractor only for Work performed in accordance with this SCIA prior to the date of the breach and Work performed in accordance with this SCIA after the date of the breach to the extent it is accepted by the UCRC. If the UCRC is in breach by delayed payment, upon written notice from the Contractor the UCRC shall remedy and not be required to pay interest on the delayed payment.
- 13.5 Termination for Breach: If the Contractor fails to cure a breach, the UCRC may elect to terminate this SCIA. If the UCRC elects to terminate this SCIA, the UCRC shall deliver a termination notice to the Contractor in accordance with Section 28.1.



- 13.6 Obligations and Rights: After the date of a termination notice, and to the extent specified in such termination notice, the Contractor shall not engage in any Work, incur further obligations, or render any further performance hereunder. Upon receipt of a termination notice, the Contractor shall also terminate outstanding orders and subcontracts with third parties. However, the Contractor shall complete and deliver to the UCRC all Work not cancelled by the termination notice and may incur all obligations as are necessary to do so within this SCIA's terms.
- 13.7 Damages and Withholding: Notwithstanding any other remedial action by the UCRC, the Contractor shall remain liable to the UCRC for any damages sustained by the UCRC by virtue of any breach under this SCIA by the Contractor and the UCRC may withhold any payment to the Contractor for the purpose of mitigating the UCRC's damages, until such time as the exact amount of damages due to the UCRC from the Contractor is determined. The UCRC may withhold any amount that may be due the Contractor as the UCRC deems necessary to protect the UCRC against loss.
- 13.8 Remedies not Involving Termination: The UCRC, in its sole discretion, may exercise one or more of the following remedies in addition to other remedies available to it:
- i. Performance: If the Work fails to conform to the requirements of this SCIA, the UCRC may require the Contractor to bring the Work promptly into conformity with the requirements of this SCIA, at the Contractor's sole expense.
  - ii. Suspend Performance: The UCRC may suspend the Contractor's performance with respect to all or any portion of this SCIA pending necessary corrective action as specified by the UCRC without entitling the Contractor to an adjustment in price/cost or performance schedule. The Contractor shall promptly cease performance and incurring costs in accordance with the UCRC's directive and the UCRC shall not be liable for costs incurred by the

Contractor due to the suspension of performance under this provision.

- iii. Withhold Payment: The UCRC may withhold payment to the Contractor until corrections in the Contractor's performance are made and completed to the satisfaction of the UCRC.
- iv. Deny Payment: The UCRC may deny payment for those obligations not performed, that due to the Contractor's actions or inactions, cannot be performed or, if performed, would be of no value to the UCRC; provided, that any denial of payment shall be reasonably related to the value to the UCRC of the obligations not performed.

13.9 Contractor's Remedies not Involving Termination: The Contractor, in its sole discretion, may suspend the Contractor's performance with respect to all or any portion of this SCIA pending necessary corrective action as specified by the Contractor, in addition to other remedies available to it under this SCIA. The Contractor recognizes that the UCRC shall not be liable for any costs incurred by the Contractor during suspension of performance consistent with this provision.

#### 14. General Provisions

14.1 Assignments and Subcontracts: The Contractor's rights and obligations hereunder are personal and may not be transferred, assigned or subcontracted without the prior, written consent of the UCRC, which consent shall not be unreasonably withheld. Any attempt of Contractor at assignment, transfer, or subcontracting without such consent shall be void. All assignments, subcontracts, or Subcontractors approved by the Contractor or the UCRC are subject to all of the provisions hereof. The Contractor shall be solely responsible for all aspects of the Contractor's subcontracting arrangements and performance. The UCRC is solely responsible for all aspects of its subcontracting arrangements and performance.

14.2 Binding Effect: All provisions herein contained, including the benefits and burdens, shall extend to and be binding upon the Parties' respective heirs, legal representatives, successors, and assigns.

15. Conflict of Interest

15.1 Contractor: The Contractor shall not engage in any business or personal activities or practices or maintain any relationships that conflict in any way with the full performance of the Contractor's obligations hereunder. The Contractor acknowledges that with respect to this SCIA, even the appearance of a conflict of interest is harmful to the UCRC's interests. Absent the UCRC's prior written approval, the Contractor shall refrain from any practices, activities, or relationships that reasonably appear to be in conflict with the full performance of the Contractor's obligations to the UCRC hereunder. If a conflict or the appearance of a conflict exists, or if the Contractor is uncertain whether a conflict or the appearance of a conflict of interest exists, the Contractor shall submit to the UCRC a disclosure statement setting forth the relevant details for the UCRC's consideration. Failure to promptly submit a disclosure statement or to follow the UCRC's direction in regard to the apparent conflict constitutes a breach of this SCIA.

15.2 UCRC: The individual Upper Colorado River Commissioners, employees, and agents of the UCRC shall not personally benefit from this SCIA. The UCRC further warrants that to the best of its knowledge no such personal benefits or any conflicts of interest exist as a result of entering into this SCIA.

16. Legal Effect

16.1 Except as otherwise expressly stated herein, nothing herein shall be construed as affecting the legal status of the Contractor's property, including but not limited to the effect of taxes, liens, encumbrances, statutory or regulatory requirements, or entitlements.

- 16.2 Except as otherwise expressly stated herein, nothing in this SCIA is intended to affect the legal status, nor to diminish or modify the rights and entitlements of any Party or water user under existing law to water from the Colorado River System.
- 16.3 The Contractor agrees that the UCRC is not responsible for, and no action or conduct of UCRC, its agents, or employees shall be construed as advice or identification of the legal effect or consequences, if any, of the Contractor's decision regarding participation in the Pilot Program.

17. Effective Date, Termination, and Notice of Non-Liability

The Effective Date is stated on page 1 of this SCIA.

- 17.1 Early Termination: Subject to notice provided in accordance with Section 28.1, this SCIA may be terminated by either Party at any time prior to the Contractor engaging in any work in accordance with this SCIA and provided that the UCRC has not made any payment to the Contractor.
- 17.2 Extension: The UCRC and the Contractor may mutually agree in writing to extend the term of this SCIA for a period not to exceed two months at or near the end of any initial term or renewal term. The two-month extension shall immediately terminate when and if a replacement SCIA is approved and signed by the Parties.
- 17.3 Mutual Consent: Subject to notice provided in accordance with Section 28.1, this SCIA may be terminated at any time with the consent of both Parties under mutually acceptable terms executed in writing by the Parties.
- 17.4 By UCRC: The UCRC may terminate this SCIA unilaterally if required by changes in federal or state law or regulation, or by early termination of the Funding Agreement. Notice of termination shall be given as provided in Section 28.1.

17.5 By Contractor: The Contractor may terminate this SCIA unilaterally before receiving any payments made by the UCRC pursuant to this SCIA. Notice of termination shall be given as provided in Section 28.1.

18. Amendment

This SCIA may not be modified or amended except as follows:

18.1 By the Parties: Except as specifically provided in this SCIA, modifications of this SCIA shall not be effective unless agreed to in writing by both Parties in an amendment to this SCIA.

18.2 By Operation of Law: This SCIA is subject to such modifications as may be required by changes in federal or state law, or their implementing regulations. Any such required modification shall automatically be incorporated into and be part of this SCIA on the effective date of such change, as if fully set forth herein. Either party may terminate this SCIA by written notice to the other if said changes in federal or state law impact the ability of either Party to perform its obligations pursuant to the terms of this SCIA.

19. No Precedent

Nothing in this SCIA, nor the execution of this SCIA, shall be deemed to establish any precedent for managing or calculating consumptive use by the UCRC or the states of Colorado, New Mexico, Utah, and Wyoming. This SCIA does not establish any rights to obtain any similar agreement after termination of this SCIA. Each Party reserves the right to exercise and protect its respective rights, obligations, and entitlements related to use of water as it deems appropriate.

20. Entire Agreement/Severability

This SCIA, its exhibits, and its attachments, constitute the entire understanding of the Parties.

21. Counterparts

This SCIA and any amendments thereto may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument with the original.

22. Compliance with Existing Laws

The Parties intend that implementation of this SCIA be consistent with and subject to existing law, including but not limited to the Colorado River Compact, the Upper Colorado River Basin Compact, the Colorado River Storage Project Act of 1956, and the Colorado River Basin Project Act of 1968. The Parties further intend that this SCIA is consistent with the water rights and administration laws of the state in which the SCIA is to be implemented.

23. Indemnification and Waiver of Negligence Claims

23.1 To the extent authorized by law, the Contractor shall indemnify, save, and hold harmless the UCRC, its employees, and agents, against any and all claims, damages, liability and court awards including costs, expenses and attorneys' fees, to the extent such claims are caused by or alleged to be caused by any negligent act or omission of, or breach of contract by, the Contractor or its Agents pursuant to the terms of this SCIA. The Contractor will not have to indemnify the UCRC for claims caused by any act or omission of, or breach of contract by the UCRC, its employees, or agents pursuant to the terms of this SCIA.

23.2 If the indemnification provision set forth in Section 23.1 does not apply, the Parties agree to waive any claims for damages, liability, court awards

including costs, expenses and/or fees that could otherwise be asserted for any allegation of injury, negligent act or omission, or other non-contractual related matter by the other Party, its employees or agents or third-party beneficiaries designated under this SCIA. In the event a person or entity other than a Party or third-party beneficiary designated in Section 25 of this SCIA asserts a claim for injury, negligence or other non-contractual related claim, the Parties further agree to hold each other, the designated third-party beneficiaries, and respective employees and agents for each harmless against any claims, damages, liability and court awards including costs, expenses and attorneys' fees.

24. UCRC Employee Non-Liability

The Contractor acknowledges that the UCRC's employees or agents are not parties to this SCIA in their individual capacities and the Contractor agrees not to bring any legal proceeding or claim against a UCRC employee or agent in his or her individual capacity for any injury or damages when acting within the scope of his or her duties during performance of this SCIA. To the extent suit is brought against a UCRC member in which it is alleged Contractor's negligence caused any alleged injury, Contractor will defend and indemnify the UCRC member relating to the lawsuit.

25. Third Party Beneficiaries

Consistent with the terms and obligations of the Funding Agreement, Reclamation is an intended third-party beneficiary of this SCIA and may enforce the terms of this SCIA against the Contractor in the same manner as the UCRC. Except for Reclamation as provided in this Section 25, this SCIA does not confer any right or entitlement to benefits from this SCIA on any person or entity that is not signatory to this SCIA, including any of the Upper Division States, regardless of the legal theory on which such a claim is made.

26. Jurisdiction/Venue

This SCIA shall be interpreted, governed by, and construed under applicable state law. Venue for adjudication of any disputes under this SCIA shall be the appropriate state



court within the state in which the Project is located. Any dispute involving Reclamation under this SCIA will be resolved according to federal law.

Or, if the Contractor is a Tribe or Tribal entity:

Nothing in this SCIA shall be construed as an express or implied waiver of sovereign immunity. If any dispute arises regarding this SCIA, the Parties agree to meet and attempt to resolve the dispute before seeking any remedy.

27. Force Majeure

27.1 No Party shall be considered to be in default in the performance of any of its obligations under this SCIA when a failure of performance shall be due to any cause beyond the control of the Party affected, including but not limited to facilities failure, flood, earthquake, storm, lightning, fire, war, riot, civil disturbance, labor disturbance, sabotage, and restraint by court or public authority which by exercise of due diligence and foresight such Party could not have reasonably expected to avoid. A Party rendered unable to fulfill any of its obligations under this SCIA by reason of an uncontrollable force shall give prompt written notice of such act to the other Parties and shall exercise due diligence to remove such inability with all reasonable dispatch.

27.2 The Parties agree that compliance with environmental laws shall not be included in any of the conditions described in Section 27.1 that would affect the Parties' ability to perform obligations under this SCIA.

28. Contacts

28.1 Notice: All notices required to be given hereunder shall be in writing via email with confirmation of receipt or First Class U.S. mail to a Party's principal representative at the address set forth below. Any Party from time to time may by written notice substitute addresses or persons to whom such

notices shall be sent. Unless otherwise provided herein, all notice shall be effective upon receipt.

28.2 Representatives: The individuals listed below are the principal representatives of the respective Parties. Any Party may from time to time designate in writing new or substitute representatives or addresses. Until changed by notice in writing, all notices and communications shall be addressed as follows:

CONTRACTOR:

CONTRACTOR’S REPRESENTATIVE

[Redacted Contractor Name and Address]

Email: [Redacted Contractor Email]

[Redacted Contractor’s Representative Name and Address]

Email: [Redacted Contractor’s Representative Email]

UPPER COLORADO RIVER COMMISSION  
Charles R. Cullom, Executive Director  
50 S 600 E, Suite 100  
Salt Lake City, Utah 84111  
Email: [ccullom@ucrcommision.com](mailto:ccullom@ucrcommision.com)

29. Waiver

None of the provisions of this SCIA shall be considered waived, except when such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions, or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or that Party’s relinquishment of any such rights for the future, but such provisions and rights shall continue and remain in full force and effect. Furthermore, waiver of any breach under a term, provision, or requirement of this SCIA, or any right or remedy hereunder, whether explicitly or by lack of enforcement, shall not be construed or deemed as a waiver of any subsequent breach of such term, provision or requirement, or of any other term, provision, or requirement.

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30. Open/Public Records Act

This SCIA, including its attachments, exhibits, and any amendments or other related records, may be subject to request under an Open/Public Records Act request made pursuant to one of the Upper Division State's laws. Upon receipt of such a request, the state and any other government agency in possession of those records may be required to disclose them in their entirety to the requesting party. Contractor understands this obligation and has no expectation of privacy relating to any of the terms of this SCIA.

IN WITNESS WHEREOF, the Parties hereto have executed this System Conservation Implementation Agreement on \_\_\_\_\_ day \_\_\_\_\_ of 2023.

CONTRACTOR:

---

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

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

THE UPPER COLORADO RIVER COMMISSION:

---

By: Charles R. Cullom  
Executive Director

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



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

Proposed Policy  
Regarding  
System Conservation Program Application Evaluation Process  
January 2023

## I. EXISTING RELEVANT STATUTORY AUTHORITY AND DISTRICT POLICIES.

The Colorado River Water Conservation District (The Colorado River District, The River District, or CRD) was created in 1937 by the General Assembly of the State of Colorado which expressly found:

*[t]he conservation of the water of the Colorado river in Colorado for storage, irrigation, mining, and manufacturing purposes and the construction of reservoirs, ditches, and works for the purpose of irrigation and reclamation of additional lands not yet irrigated, as well as to furnish a supplemental supply of water for lands now under irrigation, are of vital importance to the growth and development of the entire district and the welfare of all its inhabitants and that, to promote the health and general welfare of the state of Colorado, an appropriate agency for the conservation, use, and development of the water resources of the Colorado river and its principal tributaries should be established and given such powers as may be necessary to safeguard for Colorado, all waters to which the state of Colorado is equitably entitled under the Colorado river compact.*

CRS§ 37-46-101.

The Colorado River District, among other powers, is expressly empowered to:

*...to perform all acts and things necessary or advisable to secure and insure an adequate supply of water, present and future, for irrigation, mining, manufacturing, and domestic purposes within said districts.*

CRS § 37-46-107(c).

In furtherance of its statutory mission and powers, the Colorado River District Board has, among others, adopted the following policies:



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*Agriculture is a critical component of Western Colorado's economy, environment, and community. The River District supports and promotes Western Colorado agriculture and will partner with agricultural interests to ensure a vibrant agricultural sector in Western Colorado. Moreover, the River District recognizes the considerable value of Western Colorado's agricultural water rights, especially those senior to the Colorado River Compact, and will work to protect and maintain agricultural rights on the West Slope and in local ownership.*

CRD Agricultural Water Use Policy, Revised and Adopted April 17, 2018.

*The River District, in cooperation with producers and other interests, is exploring voluntary, compensated mechanisms for the temporary use of senior agricultural water rights to meet critical water supply needs to prevent or to mitigate the impacts of compact administration under the 1922 and 1948 Colorado River compacts. The River District believes that these pro-active explorations are critical to the long-term protection and sustainability of agriculture and agricultural water rights in Western Colorado. Without some alternative mechanism, we foresee municipalities and water speculators pursuing buy-and-dry strategies on the West Slope to protect or mitigate against the consequences of Compact curtailment. Moreover, it must be remembered that municipalities in Colorado have the powers of eminent domain.*

CRD Agricultural Water Use Policy, Background and Discussion, Revised and Adopted April 17, 2018.

*The River District recognizes that the Colorado River is a highly variable system, and this hydrologic variability is forecast to become more frequent and more pronounced in the future. Therefore, the River District will continue to support the State of Colorado, in cooperation with the other three upper division states, in the development and implementation compact compliance strategies so that the Upper Basin will be fully prepared for periods of extended droughts that minimize impacts to existing uses and minimize the potential for shortages and disruptions to present and future West Slope economies.*

CRD Colorado River Compacts and Entitlements Policy, Revised and Adopted July 2020.

*The River District:*

- *Recognizes the importance of locally owned agricultural lands and waters to our present- day economies and future prosperity of communities on the Western Slope,*
- *Supports the state of Colorado's efforts to examine anti-water speculation laws,*
- *Supports the longstanding efforts by the State of Colorado to oppose interstate water marketing and transfers of water by private interests,*
- *Supports collaborative efforts to identify solutions to the challenges of water shortages brought on by a changing climate, reduced supplies, and overuse of the Colorado River by downstream states as it is often the existence or perception of the existence of water shortages which leads to speculative investments in water,*



- 
- *Will work to protect private property rights and the usufructuary nature of water rights in Colorado,*
  - *Will oppose state or federal policies that encourage or facilitate speculation in Colorado's water resources,*
  - *Will oppose efforts by private or for-profit entities to move or control water across state lines or through federally owned reservoirs, and*
  - *Will work with the state of Colorado and water leaders on both sides of the Continental Divide to protect our state's water resources from out-of-state special interests.*

CRD Speculation in Water Resources Policy, Adopted July 7, 2021.

## **II. BOARD FINDINGS RELATED TO THE PUBLIC INTEREST IN THIS POLICY.**

- A. In furtherance of its statutory charge, its mission and its longstanding policies, the Board of the Colorado River District hereby finds:
- that the agricultural lands, water and operations which occur within this District are essential for the preservation of the public health, safety and welfare of the inhabitants and the communities within the District.
  - Irrigated agriculture within the Colorado River District is essential for the production of food and fiber and is an essential element of local, regional and national food security.
  - Over ninety percent (90%) of the irrigated agricultural operations in the District Boundaries are owned, operated or leased by local families.
  - The continued viability of local agricultural producers is essential for the health, safety, and welfare of the people and communities of western Colorado.
- B. Furthermore, The Board expressly finds that any market established with public funds with the goal and/or effect of reducing the amount of acreage under irrigation, if designed and implemented in an incorrect manner will cause permanent and irreversible damage to the public health, safety and welfare of the inhabitants of the District.
- C. On December 14, 2022, the Upper Colorado River Commission (UCRC) announced that it had entered into a funding agreement with the United States Bureau of Reclamation (BOR) in which the BOR has agreed to provide a minimum of \$125 million dollars for the express purpose of establishing a market to pay water users in the Upper Basin of the Colorado River to reduce their consumption of water through a System Conservation Program (SCP). This SCP has the goal and likely intended effect of reducing the amount of acreage under irrigation within the Colorado River District. The UCRC has not established or announced any regulations, terms, or conditions which would serve to prevent the permanent and irreversible damage to the local production of food or the public health safety and welfare of the people of western Colorado that could be engendered by a large-scale reduction of irrigated acreage.



The State of Colorado's Commissioner to the Upper Colorado River Commission, in recognition of the significant public interest in the design and implementation of the SCP, has committed that before any SCP contract is entered between the UCRC and a water user who diverts and applies water to a beneficial use within the geographic boundaries of the Colorado River District, the transaction must be reviewed and approved by the Colorado River District and the Colorado Water Conservation Board.

It is therefore necessary for the protection of the public health, safety and welfare of the inhabitants that the Colorado River District Board devise a policy which will direct the District's implementation of a SCP Application Evaluation Process in a fair, equitable, and open manner.

### **III. THE COLORADO RIVER WATER CONSERVATION DISTRICT SYSTEM CONSERVATION APPLICATION EVALUATION POLICY.**

#### **A. INTERSTATE STRUCTURE.**

SCP is a program devised and implemented by the UCRC involving all four Upper Division States in an effort to help reduce water consumption in the Upper Basin as part of a larger effort to balance the supply and demand of the Colorado River. Because this program involves all four Upper Division States, the Colorado River District Board believes that the State of Colorado as a whole, should not contribute more than roughly 51.75% of the total water contributed to the SCP (based on Colorado's proportionate 1948 Upper Colorado River Basin Compact allocation). The proportionate contribution of Colorado should be measured on a three-year running average.

#### **B. INTRA-STATE COLORADO.**

- i. The UCRC, only with the prior approval by the State of Colorado and the Colorado River District, shall be the sole Buyer/Lessee of SCP water within the geographic boundaries of the Colorado River District.
- ii. For so long as the SCP or some future iteration of this program is in place, the Colorado River District shall only approve contracts within the Colorado River District Boundaries so long as there is no additional new transmountain diversion project or expansion of an existing transmountain diversion. No additional transmountain diversions includes any project or proposed project to export water or increase the amount of water diverted by an existing trans mountain diversion out of the Colorado River system within the State of Colorado and it includes but is not limited to any project that is not fully permitted by the federal government and/or the State of Colorado as of the date of the initial adoption of this policy by the Colorado River District Board.
- iii. All acquisitions of water under this program shall be voluntary, temporary, and compensated. In this context, notwithstanding the following discussion regarding geographic distribution of SCP activities within the State of Colorado, "voluntary" shall mean that the transaction between the UCRC and the individual water user shall





- be entered into without the threat of eminent domain or other coercion applied to the water user and shall be subject to availability as set forth in this policy.
- iv. No SCP contract shall be approved by the Colorado River District unless the applicant has provided enough information for the Colorado River District to verify that the reduction in consumptive use contemplated by the subject contract will not cause injury to any other decreed absolute or conditional water right.
  - v. A condition precedent to water being counted as contributed to the SCP shall be that there is an actual reduction in consumptive use during the same water year. A reservoir operator cannot simply release water to the stream and count it as SCP water without also demonstrating a corresponding reduction in consumptive use of water within the water user's system equal to the amount released and delivered from the reservoir.
  - vi. The SCP program and contracts must be consistent with Principle Four of the Colorado Water Plan's Conceptual Framework.
  - vii. The District reserves the right to impose measures to mitigate any secondary impacts to its local communities.

#### C. INTRA-STATE PROPORTIONALITY

- i. The Colorado River District will only approve SCP contracts within the geographic boundaries of the District if there are proportionate contributions of SCP water from other regions of the State which consumptively utilize Colorado River water.
- ii. The intrastate proportional share between the East and West Slope of Colorado shall be based on the respective percentage of post-compact consumptive use. (Approximately 57% and 43% respectively from the Colorado River Risk Study Phase III).
- iii. The proportional share between Colorado River sub-basins in Colorado shall be based on the basins' respective percentage of post-compact consumption.
- iv. The District will measure the proportional contribution from regions and sub-basins within the District on a running three year basis.

#### D. CONTRIBUTIONS TO THE SYSTEM CONSERVATION PROGRAM BY WATER USER SECTOR.

- i. Each type of consumptive water user sector (municipal, industrial, agricultural) shall be encouraged to contribute a proportional share of consumptive use within each basin.
- ii. Any agricultural water right, regardless of type of crop or productivity of land irrigated, can be utilized in the demand management program, although there is a preference by the Colorado River District that productive agricultural property remain in production.
- iii. An agricultural water right owner must quantify and demonstrate the reduction in consumptive use. Such reduction in consumptive use may come from:
  - a. complete, full season fallowing;
  - b. partial season fallowing;



- 
- c. deficit irrigation; or
  - d. other technique resulting in a demonstrable, quantifiable reduction in consumptive use.
- 
- iv. In order to encourage good soil health practices, prevent erosion, weed infestations, and airborne dust, participants in the program shall not allow invasive weed infestations and/or complete denuding of the crop land participating in the project. Cover crops and/or site specific soil health treatments shall be required as part of the program for any fallowed land.
  - v. No more than 30% of the irrigated land in any one sub-basin shall be fallowed under this program in any given year, and no more than 10% of the irrigated land in any one sub-basin shall be fallowed under this program for more than two consecutive years.
  - vi. No more than 30% of any federal project shall be fallowed under this program in any given year.
  - vii. No more than 30% or 200 acres (whichever is less) of land owned by a single entity (person, trust, corporation, limited liability company or group of related persons or entities) shall be fallowed under this program in any given year.
  - viii. No irrigated agricultural property shall be fallowed under this program for more than 2 consecutive years or 4 total years out of any running 10 year period.
  - ix. In order to maintain Western Colorado's ability to produce local food and the local agricultural operating work force, for an SCP contract related to agricultural land that is leased, i.e. not operated by the record owners of the ground and/or water right, 40% of any and all payments from the UCRC for the SCP contract shall be paid directly to the lessee.

#### E. ENVIRONMENTAL CONSIDERATIONS

The Colorado River District recognizes the importance of a functioning ecosystem and further recognizes the importance of healthy rivers as part of the functioning ecosystem within our District boundaries. The Colorado River District reserves the right to refuse to approve any SCP contract which has the strong likelihood of injuring the local or regional environment. The Colorado River District also recognizes that there may be proposed SCP contracts which enhance important attributes of the natural environment and the District reserves the right to create a preference for SCP contracts which bring this benefit.

#### IV. IMPLEMENTATION OF THIS POLICY

The Board hereby authorizes General Manager and General Counsel to create procedures for Colorado River District staff to implement this policy.



Hazen and Sawyer  
498 Seventh Avenue, 11th Floor  
New York, NY 10018 • 212.539.7000



# Interstate Investigation Regarding Feasibility of a Demand Management Program in the Upper Colorado River Basin

Upper Division States through the  
Upper Colorado River Commission

Investigation Summary Report  
December 2022

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## List of Acronyms

<b>Abbreviation</b>	<b>Definition</b>
<b>1922 Compact</b>	1922 Colorado River Compact
<b>1948 Compact</b>	1948 Upper Colorado River Basin Compact
<b>2007 Interim Guidelines</b>	2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead
<b>Ac-ft</b>	Acre-feet
<b>BO</b>	Biological Opinion
<b>CDL</b>	Cropland Data Layer
<b>CFS</b>	Cubic Feet Per Second
<b>CMIP</b>	Coupled Model Intercomparison Project
<b>CO-RIP</b>	Colorado Riparian Vegetation and Corridor Extent Dataset
<b>CRAU</b>	Colorado River Authority of Utah
<b>CRBPA</b>	1968 Colorado River Basin Project Act
<b>CRSPA</b>	1956 Colorado River Storage Project Act
<b>CCU</b>	Conserved Consumptive Use
<b>CWCB</b>	Colorado Water Conservation Board
<b>DCP</b>	Drought Contingency Plan
<b>DCP Act</b>	Drought Contingency Plan Act
<b>DM</b>	Demand Management
<b>DMC</b>	Demand Management Committee
<b>DMSA</b>	Demand Management Storage Agreement
<b>DROA</b>	Drought Response Operations Agreement

UCRC Interstate Investigation of Demand Management  
Investigation Summary Report

<b>Abbreviation</b>	<b>Definition</b>
<b>DRI</b>	Desert Research Institute
<b>eeMETRIC</b>	Earth Engine - Mapping EvapoTranspiration at High Resolution and Internalized Calibration
<b>EA</b>	Environmental Assessment
<b>EC</b>	Eddy Covariance
<b>EIS</b>	Environmental Impact Statement
<b>ESA</b>	Endangered Species Act
<b>ET</b>	Evapotranspiration
<b>ETo</b>	Reference Evapotranspiration
<b>EToF</b>	Fraction of Grass Reference Evapotranspiration
<b>FTE</b>	Full-Time Employee
<b>GIS</b>	Geographic Information Systems
<b>HLS</b>	Harmonized Landsat Sentinel
<b>Hazen</b>	Hazen & Sawyer
<b>I-O</b>	Inflow-Outflow
<b>IJA</b>	Infrastructure Investment and Jobs Act
<b>IRA</b>	Inflation Reduction Act
<b>ISC</b>	New Mexico Interstate Stream Commission
<b>LEM</b>	Lake Evaporation Model
<b>LFDO</b>	Lee Ferry Deficit Object
<b>MAF</b>	Million Acre-Feet
<b>M&amp;I</b>	Municipal and Industrial
<b>METRIC</b>	Mapping EvapoTranspiration at High Resolution and Internalized Calibration
<b>NDVI</b>	Normalized Difference Vegetation Index
<b>NEPA</b>	National Environmental Policy Act
<b>PPT</b>	Precipitation
<b>ROD</b>	Record of Decision
<b>RFP</b>	Request for Proposals

UCRC Interstate Investigation of Demand Management  
Investigation Summary Report

<b>Abbreviation</b>	<b>Definition</b>
<b>RMSE</b>	Root Mean Squared Error
<b>RSM</b>	Remote Sensing Method
<b>RTMA</b>	Real-Time Mesoscale Analysis
<b>Reclamation</b>	United States Bureau of Reclamation
<b>Reserve</b>	New Mexico Strategic Water Reserve
<b>SCPP, Pilot</b>	System Conservation Pilot Program
<b>UCRC</b>	Upper Colorado River Commission
<b>UDS</b>	Upper Division States



## Disclaimer

This summary report of the *Interstate Investigation Regarding Feasibility of a Demand Management Program in the Upper Colorado River Basin* is the culmination of a multi-year investigation guided by the Upper Division States (Colorado, New Mexico, Utah, and Wyoming) (UDS) through the Upper Colorado River Commission (UCRC), to study and evaluate the feasibility of a Demand Management Program (DM Program) consistent with the Demand Management Storage Agreement (DMSA).

The investigations summarized in this report are focused on the interstate components related to the consideration of the feasibility of a DM Program in the Upper Basin. Each UDS is conducting parallel and independent investigations related to feasibility, and each UDS has individual considerations regarding a potential DM Program. Nothing in this report interprets, precludes, or replaces any of the intrastate investigations.

This report and related materials and data are intended to inform the future consideration of a potential DM Program by the UDS through the UCRC. The future consideration of a potential DM Program will adhere to and conform to the steps and processes outlined in the DMSA. This report and related materials and data are unique to the investigation, to the hired contractors, and the assumptions, parameters, and purposes of this study, and therefore are not intended to be applied to or utilized for any other application, function, or concern outside the context of the investigation.

The information presented herein does not establish any precedent or formal position, or declaration of the UDS or the UCRC. The modeling and analysis conducted in this investigation are in no way indicative of any policy, procedure, or precedent regarding any interpretation of the “Law of the River”<sup>1</sup> and should not be construed as such.

In conjunction with this summary report, the DMC has developed an associated “Key Findings and Recommended Next Steps”<sup>2</sup> document for consideration by the UCRC Commissioners.

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<sup>1</sup> The “Law of the River” refers to the body of law existing on the Effective Date of the execution of the Drought Contingency Plan (DCP) Companion Agreement and affecting the interstate and international use, management, and allocation of water in the Colorado River System, including the 1922 Colorado River Compact, the Mexican Water Treaty of 1944, the 1948 Upper Colorado River Basin Compact, several United States Supreme Court decisions, the Consolidated Decree of the Supreme Court in *Arizona v. California*, and a host of federal laws and administrative regulations..

<sup>2</sup> Upper Colorado River Commission. *UCRC Demand Management Investigation*. Webpage: <http://www.ucrccommission.com/ucrc-demand-management-investigation/>.

## 1. Introduction

### 1.1 Colorado River Drought Contingency Plans



**Figure 1-1: Conceptual Map of the Colorado River and the Upper and Lower Colorado River Basins**

In response to ongoing dry conditions and depleted storage in the Colorado River Basin, the seven Colorado River Basin States and the Department of the Interior developed a series of Drought Contingency Plans (DCPs) as additional actions beyond those contemplated in the 2007 Interim Guidelines which became effective on May 20, 2019. The DCPs were developed with the intent of reducing the risk of reaching critical elevation levels in Lake Powell and Lake Mead through the Interim Period (through 2026). The Republic of Mexico agreed to participate in drought contingency efforts through its commitments under Minute 323 to the 1944 U.S.-Mexico Water Treaty.

The Upper Basin DCP (consisting of ongoing weather modification programs, the Drought Response Operations Agreement<sup>3</sup> (DROA), and the Demand Management Storage Agreement<sup>4</sup> (DMSA)) marked the culmination of negotiation

efforts dating back to 2014.<sup>5</sup>

The Lower Division States of Arizona, California, and Nevada, together with key water users in those states, developed the Lower Basin DCP (consisting of the Lower Basin Drought Contingency Plan Agreement<sup>6</sup> and the Lower Basin Drought Operations Exhibit<sup>7</sup>) to require additional reductions in water use beyond those specified in the 2007 Interim Guidelines to protect Lake Mead elevations and to incentivize additional voluntary conservation and storage at Lake Mead.

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<sup>3</sup> Upper Colorado River Commission. *Drought Response Operations Agreement*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2019/09/Attachment-A1-Drought-Response-Operations-Agreement-Final.pdf>.

<sup>4</sup> Upper Colorado River Commission. *Demand Management Storage Agreement*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2020/04/Attachment-A2-Demand-Management-Storage-Agreement-Final.pdf>.

<sup>5</sup> Upper Colorado River Commission. December 10, 2014. *Regarding Development of an Emergency Upper Basin Drought Contingency Plan*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2019/09/Upper-Basin-Drought-Contingency-Plan.pdf>.

<sup>6</sup> Upper Colorado River Commission. *Lower Basin Drought Contingency Plan Agreement*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2019/09/Attachment-B-LB-DCP-Agreement-Final.pdf>.

<sup>7</sup> Upper Colorado River Commission. *Exhibit 1 to the Lower Basin Drought Contingency Plan Agreement*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2019/09/Attachment-B-Exhibit-1-LB-Drought-Operations-1.pdf>.

The Upper and the Lower Basins executed a “Companion Agreement,” an agreement to “link” the Upper and Lower Basin DCPs into a coordinated Basin-wide approach.<sup>8</sup>



Figure 1-2: Signing of the DCP Agreements, May 20, 2019

The Upper Division States (UDS) of Colorado, New Mexico, Utah, and Wyoming, through the Upper Colorado River Commission (UCRC), consistent with the DMSA, are investigating the feasibility of a potential DM Program. This report is a summary of the work conducted by consultants hired by the UCRC to support the interstate investigation. In addition, each UDS is conducting its own investigations regarding the feasibility of a potential DM Program. The consideration of feasibility of a DM Program will necessarily require the consideration of both interstate and intrastate issues. Each UDS would have to

agree that a DM Program is feasible before such a program could be established.

## 1.2 Demand Management Storage Agreement (DMSA)

The DMSA requires the UDS and the UCRC to investigate the feasibility of a DM Program in the Upper Basin. Conceptually, a DM Program relies on the conservation of water that would have otherwise been consumptively used. The DM Program would propose voluntary, temporary, and compensated reductions in water use and store the conserved water in certain Upper Basin reservoirs for the purpose of maintaining compliance with the 1922 Compact. The DMSA authorizes the storage of up to 500,000 ac-ft of water in the Colorado River Storage Project Act (CRSPA) Initial Units of Lake Powell, Flaming Gorge, the Aspinall Unit, and Navajo Reservoir through 2057.

The DMSA does not in and of itself establish a formal DM Program. It provides the minimum conditions and requirements necessary to store water conserved through a DM Program. It also secures the authorization for storage capacity in the CRSPA Initial Units at no charge to the Upper Division States and provides the foundation for the legal and policy mechanisms and processes to investigate, establish, and implement a DM Program, if the UDS, through the UCRC, (1) agree to program feasibility, (2) elect to develop a program, and (3) agree to implement the program. The DMSA also requires consultation with the Lower Division States and agreement with the Secretary of the Interior on DM Program operations.

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<sup>8</sup> Upper Colorado River Commission. *Agreement Concerning Colorado River Drought Contingency Management and Operations*. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2019/09/Companion-Agreement-Final.pdf>.

### 1.2.1 DM Feasibility

The DMSA sets forth sequential steps for considering, approving, and implementing a DM Program. Specifically, the DMSA requires an investigation of and consensus among the UDS on the following in the assessment of feasibility:

- Verification of and accounting for the actual volume of Conserved Consumptive Use (CCU);
- Conveyance of the conserved water to appropriate destinations and accounting for associated conveyance losses;
- Providing for storage at and release from the CRSPA Initial Units of any CCU;
- Administration of an Upper Basin DM Program;
- Funding of an Upper Basin DM Program; and
- Compliance with federal and state laws within each UDS.

### 1.2.2 DM Program Development

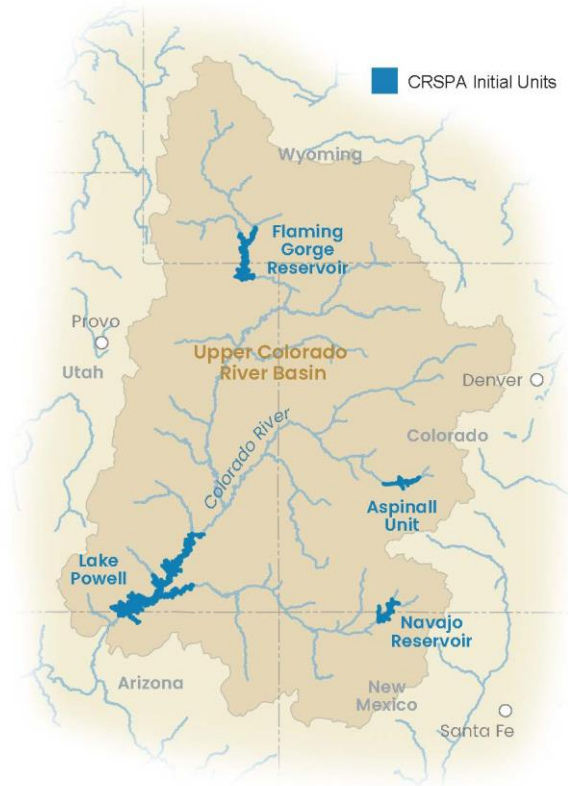
In addition to the consideration of DM Program feasibility, the framework for a DM Program must include the following requirements:

- 1) Water conserved will only be recognized as part of a DM Program if:
  - a. The source of conserved water is Upper Colorado River System water or imported water;<sup>9</sup>
  - b. The water is conserved, stored, and released for the specific purpose of helping the UDS assure continued compliance with Article III of the 1922 Colorado River Compact;
  - c. The water must have been beneficially and consumptively used under valid water rights before the year in which the water is being conserved as part of an Upper Basin DM Program (this requirement does not apply to imported water);
  - d. The water must have been physically available for diversion in the year it is conserved and would have been beneficially and consumptively used within a UDS but for the conservation for the benefit of an Upper Basin DM Program (this requirement does not apply to imported water); and
  - e. The conserved or imported water has arrived at a CRSPA Initial Unit after accounting for any transit and associated losses.
- 2) Any conserved or imported water to be stored in a CRSPA Initial Unit for the purposes of an Upper Basin DM Program shall be subject to the following:
  - a. Assessment of its proportionate share of evaporation during storage;
  - b. Available unfilled storage capacity;
  - c. An annual creation limitation at the CRSPA Initial Units combined;
  - d. A maximum combined storage limitation of 500,000 ac-ft at the CRSPA Initial Units;

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<sup>9</sup> Per the DMSA, "Imported Water" means water introduced to the Upper Colorado River System from outside the Colorado River System for the specific purpose of augmenting the supplies available for, or storing water as part of, an Upper Basin DM Program. Such Imported Water need not have been previously consumptively used in its basin of origin.

- e. Reduction, in any year in which water flows over or through the spillway at Glen Canyon Dam, by the amount of that flow on an acre-foot for acre-foot basis up to the full amount of water stored under an Upper Basin DM Program; and
  - f. Annual verification by the UDS, through the UCRC, and the Secretary of Interior, of the volume of conserved water, created, conveyed, and stored at the CRSPA Initial Units.
- 3) Any conserved water stored and released from a CRSPA Initial Unit under an Upper Basin DM Program shall:
- a. Be accounted for consistent with the provisions in the section above and within this section;
  - b. Through the year 2057, not be released or cause a different release from Lake Powell than would have otherwise occurred under the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines) or post-2026 operational rules. This provision survives termination of the DMSA through 2057; and
  - c. Be subject to release from any of the CRSPA Initial Units only at the request of the UCRC to help assure continued compliance with Article III of the 1922 Colorado River Compact. This provision survives the termination of the DMSA through 2057.



**Figure 1-3: Conceptual Map of the Upper Basin and CRSPA Initial Units (Not to Scale)**

This investigation includes and explores several DM Program design parameters and scenarios in an effort to inform consideration of potential program development.

### 1.2.3 DM Program Process

This report is focused on the feasibility investigation, which is the first of several required steps outlined in the DMSA. Subsequent steps are dependent on the consideration of feasibility. The process of implementing a DM Program includes the following:

- A UCRC Finding – As stipulated in the DMSA, the purpose of a DM Program shall be to accomplish a temporary, voluntary, and compensated reduction in consumptive uses in the Upper Basin, if needed in times of drought, and to help assure continued compliance with the 1922 Colorado River Compact. As a first step, the UCRC must make findings that a DM Program is necessary for continued compliance.
- Agreement and Consultation – Through the UCRC, the UDS and the Secretary of Interior must enter into agreements regarding the methodology, process, and documentation for verification and accounting for the creation, conveyance, and storage of conserved water to be stored in and



released from a CRSPA Initial Unit as part of a DM Program. Consultation (on a consensus basis) with the Lower Division States is required before entering into such agreements.

- UCRC Approval: The UCRC must approve the proposed Upper Basin DM Program; and
- State Approval: each UDS, acting through its UCRC representative, must approve the proposed Upper Basin DM Program.



Figure 1-4: Process Outlined by the DMSA for DM Program Consideration

### 1.2.4 Additional Considerations Post-2026

On December 31, 2025, the Upper Basin DCP, which includes the DMSA, and the 2007 Interim Guidelines, are set to expire. However, they will guide operations through 2026, and certain specific provisions of the DMSA will survive their termination and control the management of stored water through 2057. As noted above, water stored pursuant to the DMSA prior to December 31, 2025, is not subject to release from Glen Canyon Dam as promulgated in the terms of the 2007 Interim Guidelines and any post-2026 reservoir operating rules through 2057.

### 1.3 Approach to UCRC’s Interstate DM Investigation

In 2019, the U.S. Bureau of Reclamation (Reclamation) provided the UCRC with a grant to investigate the feasibility of a DM Program. The UCRC began the effort in the summer of 2019 after the passage of the DCP. The investigation process was conducted through the UCRC’s Demand Management Committee (DMC) – a body of representatives from each UDS and UCRC staff that guided the effort. The DMC’s interstate effort operated in tandem but separate from the UDS’ respective intrastate investigations and began with UCRC issuing a Request for Proposals (RFP)<sup>10</sup> for contractors that could assist the DMC in better understanding the legal, economic, and technical challenges related to interstate aspects of a DM Program.

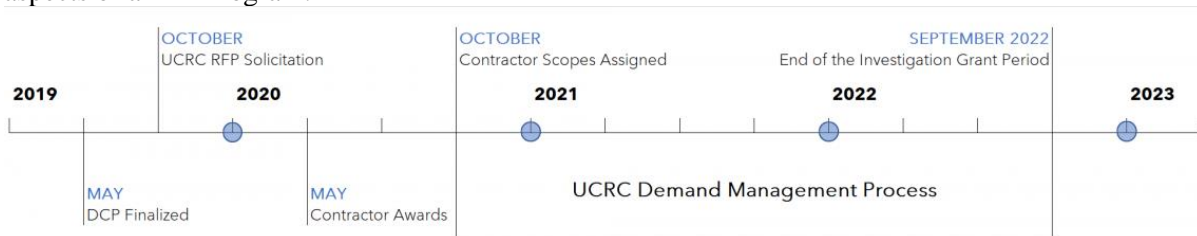


Figure 1-5: Sequencing of the UCRC Interstate Investigation of a DM Program

<sup>10</sup> Upper Colorado River Commission. *Request for Qualification-Based Proposals for Professional Services [for the UCRC Demand Management Investigation]*. Webpage: [http://www.ucrccommission.com/wp-content/uploads/2019/10/UCRC-Demand-Management-RFP.Final\\_.pdf](http://www.ucrccommission.com/wp-content/uploads/2019/10/UCRC-Demand-Management-RFP.Final_.pdf).

Awards were made to selected contractors in the summer of 2020, and contracting and development of scopes of work proceeded through the remainder of that year.<sup>11</sup> In 2021, the work assignments related to the investigation began (detailed below). As described in the RFP, the work fell under four general categories proposed for analysis - Legal, Technical, Economic, and Stakeholder Facilitation and Outreach. Consistent with the RFP, the DMC assigned discrete task orders, including the following:

### **1.3.1 Legal Analysis Scope**

The legal analyses contractor was assigned the following tasks related to legal research and review:

- 1) Identification of existing State and Federal legal authorities that may allow, facilitate, prevent, or constrain DM storage, as well as the potential need for legislative assistance to obtain such storage;
- 2) Research and review legal and administrative mechanisms necessary to “shepherd” CCU volumes to Lake Powell or other upstream CRSPA Initial Units;
- 3) Conduct a review of UDS laws related to longer-term participation in a DM Program related to non-impairment of water rights and/or forfeiture or abandonment statutes (e.g., does participation in a DM Program make water rights vulnerable under the laws of each or any State); and
- 4) Review and document “key findings” of the analysis and provide a listing of “next steps” that could be potentially undertaken to facilitate a successful implementation of a DM Program related to legal authorities and administrative frameworks that accomplish the effective storage and shepherding of DM volumes and flows.

### **1.3.2 Technical Analysis Scope**

The technical analyses were developed by multiple contractors who were assigned the following tasks within three main lines of inquiry: 1) modeling of water supply, reservoir storage, and river/streamflow routing related to DM Program scenarios; 2) conserved consumptive water use monitoring, estimation, verification, and related accounting techniques; and 3) DM Program duration and extent.

- 1) Investigations of (or related to) water supply, storage, and routing:
  - a. Research issues related to storing DM water at Lake Powell and other CRSPA Initial Units relative to a set baseline and potential DM scenarios;
  - b. Identify storage potential that may be available in each CRSPA Initial Unit considering the frequency of filling and the likelihood of available capacity to store DM volumes for a significant period;
  - c. Identify the technical and legal feasibility of maintaining accounting for storage volumes and system assessments within Lake Powell and other CRSPA Initial Units for storage of conserved water/DM volumes to maintain compliance with the 1922 Compact;
  - d. Per the existing authorities and obligations of each UDS to administer waters within the state for purposes of compact compliance, work with the States to evaluate the necessity for and means of monitoring diversion activities to ensure that conserved water can be shepherded to the place of storage; work with the UDS to estimate the likelihood that

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<sup>11</sup> UCRC made awards at their Regular Meeting held on May 19, 2020, and at a Special Telephonic Meeting on June 16, 2020. The contractors included Smith Hartvigsen (legal analysis), Desert Research Institute (technical analysis), AMP Insights (economic analysis), JUB Engineers (stakeholder engagement and outreach), and Hazen & Sawyer (project management and technical analysis).

such resources are available now and what might be required for future state resource additions to accomplish such monitoring and shepherding.

- 2) Monitoring, Accounting, and Verification of Conserved Consumptive Use (CCU) Volumes:
  - a. Research methods for measurement and verification of, accounting for, and monitoring of the amount of CCU that could potentially be generated by each of the UDS in a DM Program;
  - b. Research techniques or processes to assess CCU volumes related to field fallowing and related conserved volumes traveling from places of historical use to delivery at a designated CRSPA Initial Unit and/or ultimately to Lake Powell, including transit losses;
  - c. Research appropriate methods for evaluating evaporation at the CRSPA Initial Units and charging evaporation losses to stored water in Lake Powell or other CRSPA Initial Units;
  - d. Evaluate the cost-effectiveness of DM storage for various periods. For example, is there a cost-effective amount of storage beyond which evaporation losses are cost-prohibitive?
- 3) Duration and Extent of a DM Program:
  - a. Research the pros and cons (including economic and environmental considerations) of a DM Program being continuous or “interruptible” (e.g., whether the program should idle in years when the hydrology improves, when certain target elevations at Lake Powell are achieved, or when full DM storage is achieved);
  - b. Research and model DM volumes to assess their impact on Lake Powell elevations for the purpose of helping assure continued compliance with the 1922 Compact.

### **1.3.3 Economic Analysis Scope**

The contractor hired to conduct economic analyses was assigned the following tasks related to the compilation and review of economic data and other considerations concerning the range of potential impacts stemming from a DM Program in the Upper Basin.

- 1) Conduct an extensive literature review of related system conservation, water pricing, and other water conservation studies that could initially inform the investigation as to the state-of-the-science;
- 2) Develop a detailed description of the baseline/current economic conditions and recent trends in the Upper Basin, with particular emphasis on the direct and secondary relationships between the region’s economic and water use sectors. The baseline was established to assist with the development of DM Program scenarios and as a comparative tool that could help define the potential effects of those scenarios on the economic productivity and health of the Upper Basin;
- 3) Using the generated baseline and economic models, identify and analyze the nature and magnitude of possible direct and secondary economic impacts across sectors and geographies resulting from the provided DM Program scenarios within the Upper Basin;
- 4) Provide an array of potential strategies for minimizing negative impacts to water users, rate-payers, and regional and urban economies;
- 5) Conduct interviews with UDS agency staff and the UCRC to understand the range of potential administrative or transactional (non-participant-compensation) costs related to standing up a DM Program in the Upper Basin;
- 6) Provide a review of potential funding sources, including Federal, State, and intrastate programs, appropriations, and other funding mechanisms related to or that could be utilized to provide DM Program participant compensation;



- 7) Conduct a voluntary survey of Municipal and Industrial (M&I) water providers/users in the Upper Basin to understand their interest, willingness, or objections to participating in a potential DM Program.

#### 1.3.4 Stakeholder Facilitation and Outreach Scope

A contractor was assigned tasks related to stakeholder engagement and outreach activities. The contractor developed materials to provide an online central repository for information on the UCRC website where interested parties could look for updates on the investigation timeline and process and also direct such parties back to state-maintained studies and other resources. This work was finalized in the summer of 2022.<sup>12</sup>

## 2. UCRC Interstate Investigation of Demand Management

### 2.1 Verification and Accounting for Conserved Consumptive Use (CCU)

Accurate, reliable, and cost-effective CCU estimation is a significant component of a DM Program. There is a range of tools that can assist with this task, including those utilized during prior system water conservation pilots, those explored within this investigation, and ongoing pilots and field studies in the Upper Basin. The System Conservation Pilot Program (SCPP, Pilot) conducted by UDS through the UCRC from 2015-2018 provided valuable lessons relating to the quantification of temporary, voluntary, and compensated reductions in consumptive use and has helped to inform discussions and this investigation on approaches for estimating water conservation efforts at field scale.<sup>13</sup> Likewise, intrastate studies and pilot efforts to quantify CCU using remote-sensing tools in the Upper Basin have provided informative data and results.<sup>14</sup> This summary report on the UCRC's feasibility investigation restates some of the known tools for this quantification step and further explores some of the nascent remote-sensing-based approaches that allow for CCU quantification at scale.<sup>15</sup> An exploration of the possible transactional costs related to verification and accounting can be found in Section 2.5.3.

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<sup>12</sup> Upper Colorado River Commission. *UCRC Demand Management Investigation*. Webpage: <http://www.ucrccommission.com/ucrc-demand-management-investigation/>.

<sup>13</sup> The Colorado River System Conservation Pilot Program (SCPP, Pilot) was part of a larger basin-wide program supported by M&I and NGO partners interested in pursuing water conservation initiatives. The goals of the SCPP were to explore and understand whether voluntary, temporary, and compensated reductions in consumptive use in the Upper Basin were feasible to partially mitigate declines in elevation seen at Lake Powell and be utilized as a drought mitigation tool. From 2015-2018, the SCPP funded 64 projects for an estimated CCU of approximately 47,213 ac-ft at a total cost of \$8.52M. The SCPP established that there was interest in participating in voluntary reduction in consumptive use, and demonstrated the ability to administer a program, but also highlighted some of the difficulties of such an approach. This investigation builds on the lessons learned from SCPP to inform a potential DM Program in the Upper Basin. For more about SCPP, access the UCRC's webpage at: <http://www.ucrccommission.com/system-conservation-pilot-program/>.

<sup>14</sup> Cabot, P., Derwingson, A., Torres-Rua, A. (2020). *Evaluating Conserved Consumptive Use in the Upper Colorado – 2020 Report*. Website: [https://www.waterinfo.org/wp-content/uploads/2021/12/Evaluating-Conserved-Consumptive-Use-in-the-Upper-Colorado-Basin\\_2020-Project-Report-00484067xC13E4.pdf](https://www.waterinfo.org/wp-content/uploads/2021/12/Evaluating-Conserved-Consumptive-Use-in-the-Upper-Colorado-Basin_2020-Project-Report-00484067xC13E4.pdf).

<sup>15</sup> In November of 2021, the U.S. Congress passed the Investment in Infrastructure and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL) with funding allocated for Colorado River Basin DCP implementation. The UDS and UCRC requested support for the Upper Basin DCP in the form of additional measurement, monitoring, and verification instrumentation that could be used for both DROA and a potential DM Program. These infrastructure components include an expanded eddy-covariance (EC) tower and weather station network, soil moisture and snow monitoring, field-scale water balance and transit loss studies, and reactivation and installation of streamgages. The preliminary siting/scoping for this instrumentation is underway.

### 2.1.1 Estimation of Historical Consumptive Use

Per the DMSA, all water considered for conservation in a DM Program is required to have been placed to beneficial consumptive use and be available for use in the year of participation. Program administrators will need to establish historical consumptive use by the participants and the status of the user's entitlement during the period of proposed conservation. Depending on the monitoring, reporting, and historical information compiled for the participant, this may be a straightforward process, or it may require extra verification steps before application or proposal approval. As further described in section 2.1.3, Desert Research Institute's (DRI) assigned task was to perform an analysis of remote-sensing applications to evaluate participating SCPP fields. DRI was able to determine whether ET (and subsequent estimates of consumptive use related to irrigation) could be measured over a specified time period and a detectable pattern of ET and irrigation consumptive use be established, with the caveat that other variables (e.g., weather, field management, etc.) may also need to be evaluated. They acknowledged that their approach may be insufficient and require other steps for verification. They also reviewed remote-sensing applications for evaluation of historical use patterns, further described below.

#### 2.1.1.1 Historical Consumptive Use Review

All UDS maintain extensive data related to water rights administration and water-related land-use, including agricultural Geographic Information System (GIS) data. The DM Program application or proposal phase may require review, in coordination with the relevant State Engineer's Office or other agency, to ascertain the historical usage of the water right(s) in question. This would be a required step for all applicants, including both M&I and agricultural enrollees. Along with other application criteria and submission requirements, an important DM Program design element will be to establish relevant timeframes and approaches for estimating water use for the years prior to participation. Expedited water use reporting may be required for applicants that are interested in participating in an upcoming season, year, or relevant timeframe if the data for an immediately prior year are not yet available. In such cases, it may be necessary that the applicant develop supplementary information (e.g., metered data, field surveys, imagery, pumping records, etc.) that can be used as supporting evidence for a pattern of historical use.

For applicants that wish to enroll agricultural lands in a DM Program, remote-sensing tools that have been developed to estimate water use can be useful as either a primary or supplementary source of information for establishing historical trends of use. Relevant ET data can be extracted for the area of interest and included in an applicant package as a preliminary or expedited step toward establishing historical use patterns. This approach can be used in tandem with the relevant State Engineer's Office or other agency verification steps to provide a comprehensive and vetted picture of historical water use as a baseline for participation in a DM Program. As mentioned in SCPP



documentation,<sup>16</sup> it will be important to solicit the right set of information from applicants to capture the necessary level of detail for each proposed project.

#### 2.1.1.2 *Water Availability in Year of Participation*

Similar to the steps outlined above, there may need to be a consideration of whether the conserved water would have been available to the water user during the year of participation in a DM Program. There may be additional supplementary data and information required for this analysis as proof of eligibility. This second review would likely need to occur in the early spring timeframe for both types of enrollees as the coming year's hydrologic situation develops. There may also be a need for continued monitoring of water availability throughout the participation period.

#### 2.1.2 **On-site Direct Monitoring and Measurement of CCU**

During the SCPP, program administrators worked with participants or their representatives to establish project-specific verification plans that were included in their final contracts. Each plan contained procedures to verify and document that the participant had complied with their individual plan. These included the use of existing measurement devices as well as sufficient and controllable diversion structures (these were required for participation), combined with field site visits during the irrigation season. Field visits and metering data were used to verify that each Pilot participant had adhered to their plan. Measurement of CCU was done via post-processing using various estimation approaches available at the time of the Pilot.<sup>17</sup>

For larger diversions (transmountain diversions, metered diversions related to M&I entities, or agricultural canals), there is an existing network of measurement infrastructure that can serve to establish historical water use trends and also serve to document a corresponding reduction in requested water deliveries that result in CCU. There may be regions where this degree of instrumentation and monitoring capability is not feasible. In these cases, remote-sensing approaches may be helpful.

#### 2.1.3 **Remote-Sensing Approaches to Monitoring and Measurement of CCU**

The Desert Research Institute (DRI) specializes in remote-sensing approaches for the estimation of actual cropland ET and related agricultural irrigation consumptive water use (a fraction of the actual ET estimate). DRI collaborated with OpenET, a satellite-based ET cloud-computing, and data services platform,<sup>18</sup> to evaluate the following:

- 1) Investigate any correlations and/or relationships between a proxy for crop water demand (Net Reference ET<sup>19</sup>) and the difference between ET rates for fully irrigated versus fallowed fields;

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<sup>16</sup> Upper Colorado River Commission. (2018) *Appendix C: 2018 System Conservation Pilot Program Update*. Website: [http://www.ucrccommission.com/RepDoc/SCPPDocuments/2018\\_SCPP\\_RUFinal.pdf](http://www.ucrccommission.com/RepDoc/SCPPDocuments/2018_SCPP_RUFinal.pdf).

<sup>17</sup> Related post-project estimates of CCU were developed using climate data from nearby weather stations and each State's preferred method (Modified Blaney-Criddle for New Mexico, Utah, and Colorado, METRIC for Wyoming). These results were then adjusted to account for water supply limitations related to the relative wetness or dryness experienced in the Upper Basin for each year of the Pilot. These estimation approaches pre-date the adoption of a unified interstate remote-sensing-based method for estimating CCU by the Upper Division States and the UCRC in June of 2022, as discussed in later sections of this report.

<sup>18</sup> Melton, F., Huntington, J.L., Grimm, R., Herring, J., Hall, M., Rollison, D., Erickson, T., Allen R., Anderson, M., Blankenau, P., et. al. 2021 (in proof). *OpenET – Filling the Biggest Data Gap in Water Management for the Western U.S.* Journal of the American Water Resources Association. OpenET builds upon decades of research by NASA, USGS, USDA and university partners, and involves more than 45 scientists and software engineers from four NASA Research Centers, USGS, USDA, seven universities including DRI, NGOs, and private sector partners. OpenET provides monthly and annual ET data at 30m using Landsat imagery, weather data, and well-established ET models on the Google Earth Engine cloud-computing platform.

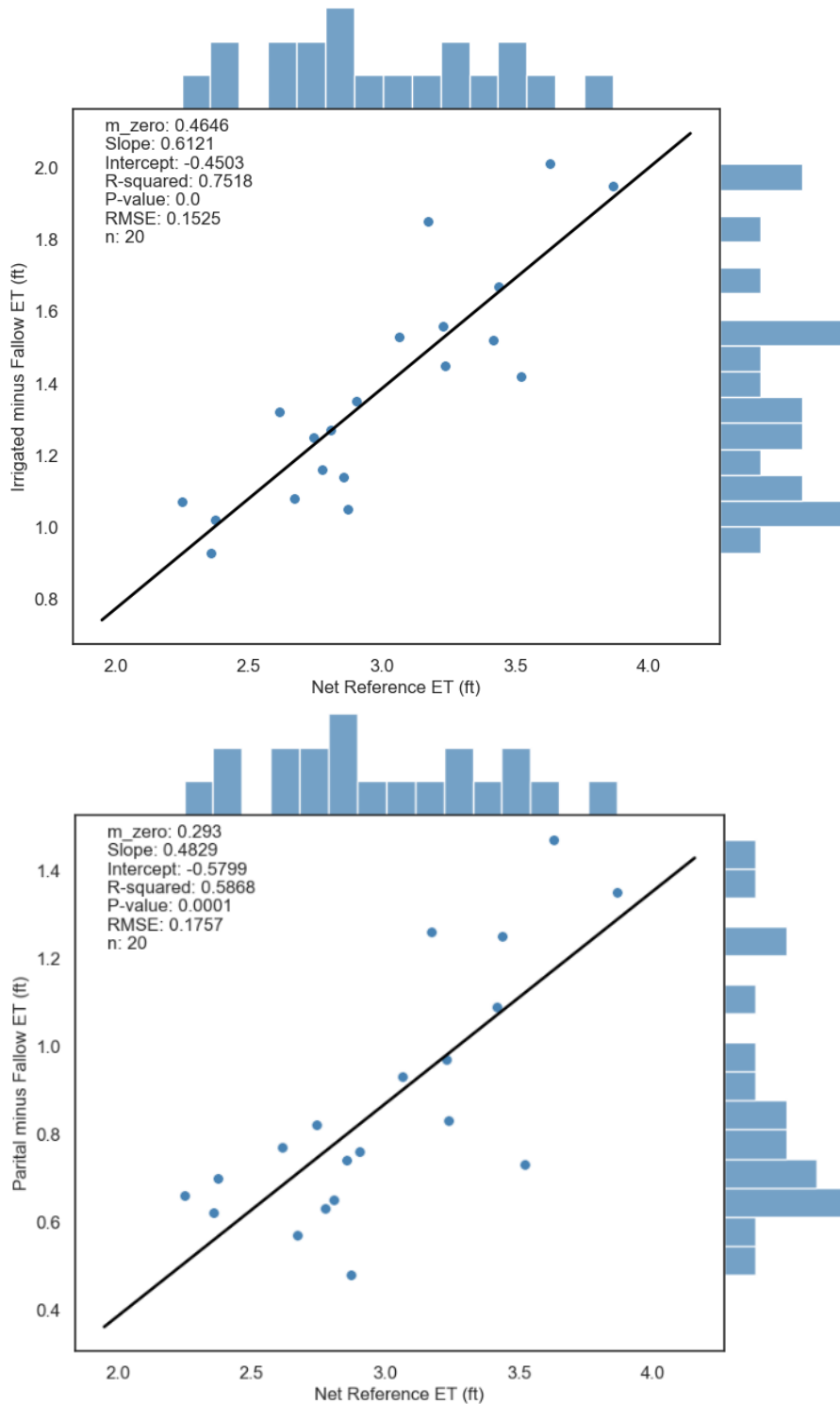
<sup>19</sup> Net Reference ET refers to the evapotranspiration rate from a fully watered reference surface, in this case grass-alfalfa.

- 2) Summarize ET data across the Upper Basin for recent sample years that could serve as a baseline comparison against conservative DM Program participation assumptions;
- 3) Analyze and review historical ET data for SPCP participant fields to detect reduced ET and identify data requirements or “lessons learned” needed to effectuate a remote-sensing approach;
- 4) Evaluate remote-sensing approaches to estimating the ET associated with riparian corridors in Upper Basin tributaries and the Colorado River mainstem to assist with the estimation of transit loss (provided in Section 2.3.1); and
- 5) Using riparian ET and other factors, assist with the development of strategies to optimize CCU conveyance and DM storage and release timing (further presented in Section 2.4.3).

*2.1.3.1 Net Reference ET vs. Difference in Fully-Irrigated, Partially-Irrigated, and Fallowed Fields*  
State-by-state comparisons of ET rates were developed for 2016-2020 to provide average differences between fully-irrigated, partially-irrigated, and fallowed conditions throughout the Upper Basin. These estimates showed variability in ET related to management practices, such as irrigation and crop type, as well as climate and hydrology. This was confirmed by completing a regression analysis for both fully-irrigated and partially-irrigated fields minus fallowed-field ET rates.<sup>20</sup> The regression analysis for the state-level average growing season ET rates shows differences between fallowed and fully-irrigated conditions ranging from 0.93-2.0 feet and differences between partially-irrigated and fully-irrigated conditions ranging from 0.45-1.45 feet (Figure 2-1, next page).

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<sup>20</sup> In line with recommendations made by the Upper Colorado River Basin Assessment for Agricultural Consumptive Use Study - Phase III Report and the adoption of the Earth Engine Mapping EvapoTranspiration at High Resolution and Internalized Calibration (eeMETRIC) remote sensing method (RSM) by the UCRC in June of 2022, eeMETRIC-based ET estimates were used for all comparisons, etc. during this investigation. Irrigation classifications were made using the NDVI-based Harmonized Landsat Sentinel-2 Mapper (publication pending) developed in conjunction with the Consumptive Use Study. Study reports may be accessed on the UCRC webpage: <http://www.ucrccommission.com/reports-studies/>.



**Figure 2-1: Regression analysis between top) Fully-Irrigated – Fallow ET rate and bottom) Partially-Irrigated – Fallow ET versus Net Reference ET. Each point represents an estimate from a state for 2016-2020. Irrigation classifications are based on the Harmonized Landsat Sentinel-2 (HLS) classification method. Blue bars along each axis represent the distribution of values for that parameter.**

Observed differences between irrigated and fallowed-field ET rates are a function of water availability, climate, crop type, and location (e.g., latitude, elevation, and/or riparian vs. upland). Comparison of state-

level, well-watered (i.e., 75th percentile) ET rates from alfalfa, grass hay, and corn crops indicate that alfalfa fallowing has the highest CCU potential, followed by grass-hay, and finally corn (Table 2-1).

**Table 2-1: 2016-2020 Average 75th percentile Growing Season and Annual ET Rates Aggregated by State and USDA Cropland Data Layer (CDL) Crop Type. The standard deviation is shown in parentheses.**

	<b>Q75 Growing Season ET Rates (inches/growing season)</b>			
	<b>Alfalfa</b>	<b>Grass Hay</b>	<b>Corn</b>	<b>Other</b>
<b>Colorado</b>	35.5 (1.2)	32.2 (1.4)	30.8 (2.9)	30.8 (2.1)
<b>New Mexico</b>	42.7 (2.3)	36.2 (2.3)	35.9 (2.7)	33.4 (3.5)
<b>Utah</b>	34.8 (1.4)	32.9 (1.6)	31.4 (2.4)	24.9 (3.4)
<b>Wyoming</b>	31.2 (1.5)	30.2 (0.7)	24.3 (5.2)	27.0 (2.1)
	<b>Q75 Annual ET Rates (inches/year)</b>			
	<b>Alfalfa</b>	<b>Grass Hay</b>	<b>Corn</b>	<b>Other</b>
<b>Colorado</b>	39.2 (1.0)	34.9 (1.2)	33.7 (2.6)	34.6 (2.0)
<b>New Mexico</b>	48.1 (2.3)	42.0 (2.8)	40.3 (2.6)	38.3 (3.5)
<b>Utah</b>	37.3 (1.3)	35.3 (1.5)	33.3 (2.4)	27.8 (2.8)
<b>Wyoming</b>	32.5 (1.4)	31.7 (1.0)	25.8 (6.4)	28.2 (2.0)

### 2.1.3.2 Summary of Upper Basin ET Rates and Potential CCU of a DM Program

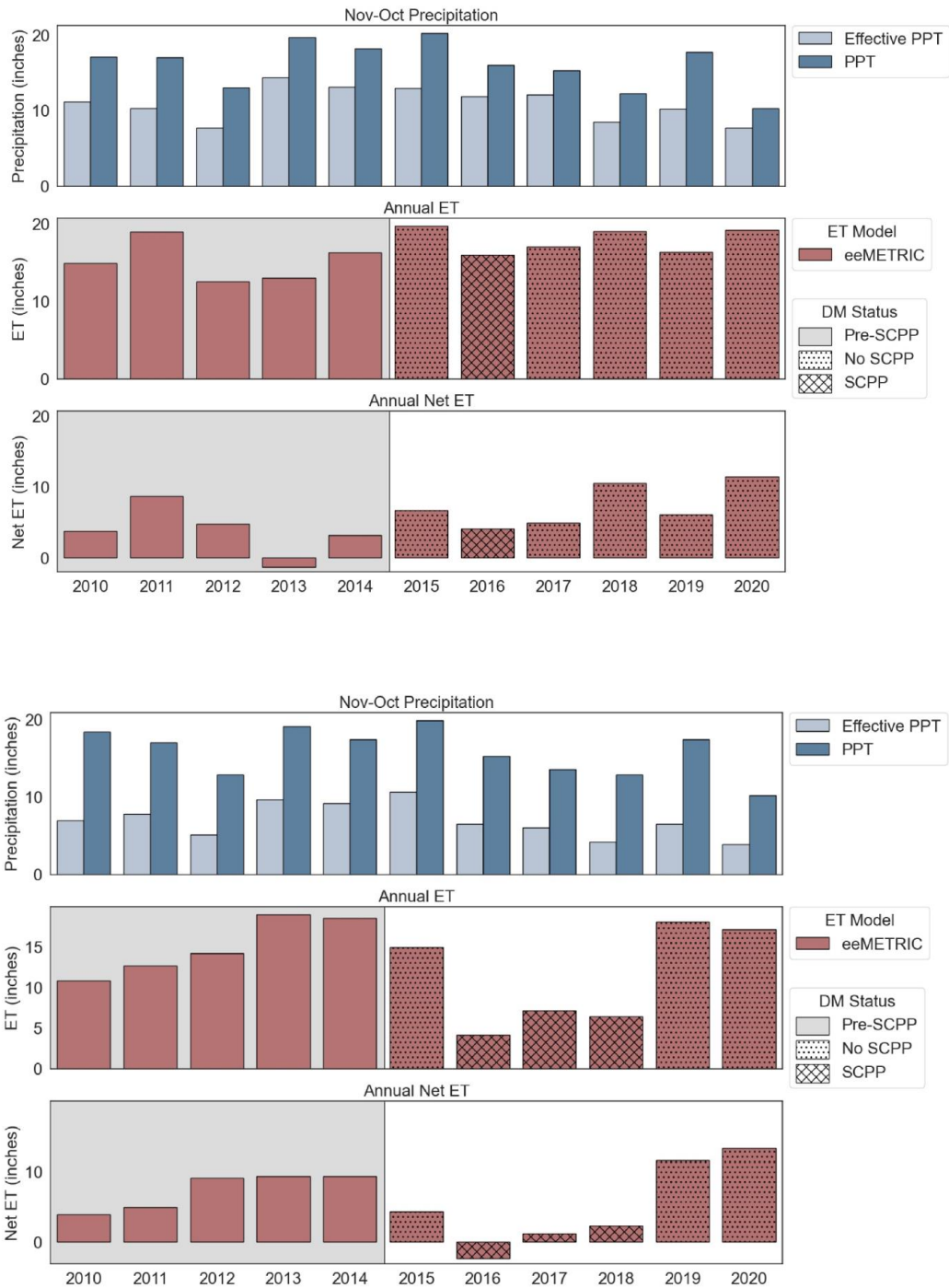
Utilizing the estimates of ET for fully-irrigated, partially-irrigated, and fallowed fields for the three primary crop types (alfalfa, grass hay, and corn), average CCU by state can be used to frame a range of potential CCU savings. For example, if a hypothetical DM Program yielded 100,000 acre-feet of water, the data from 2016-2020 suggests a 10% fully irrigated-to-fallowed conversion scenario. CCU estimates produced by this hypothetical scenario were based on average rates and generalized conditions; the actual application of a DM Program would require more detailed site-by-site considerations. The above illustrates how DM Program design criteria that consider crop type, climate, and other hydrology factors will necessarily influence actual CCU results.

### 2.1.3.3 SCPP Field Investigations

Investigations into all participating SCPP field ET rates showed a range of responses to fallowing. Evident decreases in ET and consumptive use were observed in upland settings where direct irrigation provided the primary source of water for the crop (Figure 2-2, bottom figure, next page). No consistent, measurable response was detected for fields located in riparian areas where continued access to shallow groundwater or sub-irrigation from adjacent fields likely mitigated irrigation removal to varying degrees (Figure 2-2, top figure, next page).

The comparison of SCPP field ET data with participation timeframes revealed the need to confirm baseline water usage prior to fallowing in order to identify and exclude fields where regular historical fallowing has occurred. Furthermore, consistent, accurate field boundary delineation was identified as a necessity to track the true extent of participation and to reliably monitor and quantify the impacts of fallowing on CCU from year to year.





**Figure 2-2: Time Series Plot of Annual Precipitation, Actual ET, and Net ET for Two Example SCPP fields located in Top) Riparian and; Bottom) Upland Setting. Clear reductions in ET and Net ET are observed during SCPP participation years at the upland site, while no significant change was seen at the riparian location. Negative ET values indicate groundwater storage used in subsequent time-step analyses.**

Effective precipitation influences agricultural field management and related irrigation, making temporal comparisons difficult without clear information on irrigation type, irrigation rate (e.g., deficit irrigation), crop type, and planting dates and extent. Field-scale effective precipitation estimates do not currently exist; therefore, temporal comparisons made during this investigation relied on crop modeling based on historical management practices and growth under well-watered conditions. Spatial comparisons of ET rates from irrigated, partially-irrigated, and fallowed fields may provide another method for estimating CCU if field-scale effective precipitation estimates are not readily available.

RSM estimates can provide average ET rates for different irrigation classes and crop types, which in turn can be used to assess differences in water use between fully-irrigated, partially-irrigated, and fallowed fields on a year-to-year basis. Unlike temporal approaches, spatial comparisons eliminate the use of gridded precipitation datasets which have significant spatial and temporal uncertainty in areas of complex terrain, as is evident in the Upper Basin. Spatial comparisons made during this study used average fallowed field ET as a proxy for effective precipitation; however, the use of other reference surfaces, such as natural vegetation or shrublands, may provide more representative estimates of effective precipitation and should also be evaluated.

## **2.2 Tools for Estimating Evaporation at CRSPA Initial Units**

DRI was also tasked with evaluating any existing or new tools that can be used to estimate evaporation losses at the CRSPA Initial Units for the purposes of assessing potential losses and optimizing storage.

The Lake Evaporation Model (LEM) developed by Zhao and Gao<sup>21</sup> produces reservoir evaporation estimates at daily and monthly time steps using near-surface weather data with the Penman combination equation. The LEM model was applied to Lake Powell and the upstream CRSPA Initial Units using RTMA data from 2016-2020. Estimates of total evaporation for each of the six reservoirs are shown below in Table 2-2, next page.

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<sup>21</sup> Zhao, G., & Gao, H. (2019). *Estimating reservoir evaporation losses for the United States: Fusing remote sensing and modeling approaches*. *Remote Sensing of Environment*, 226, 109-124.



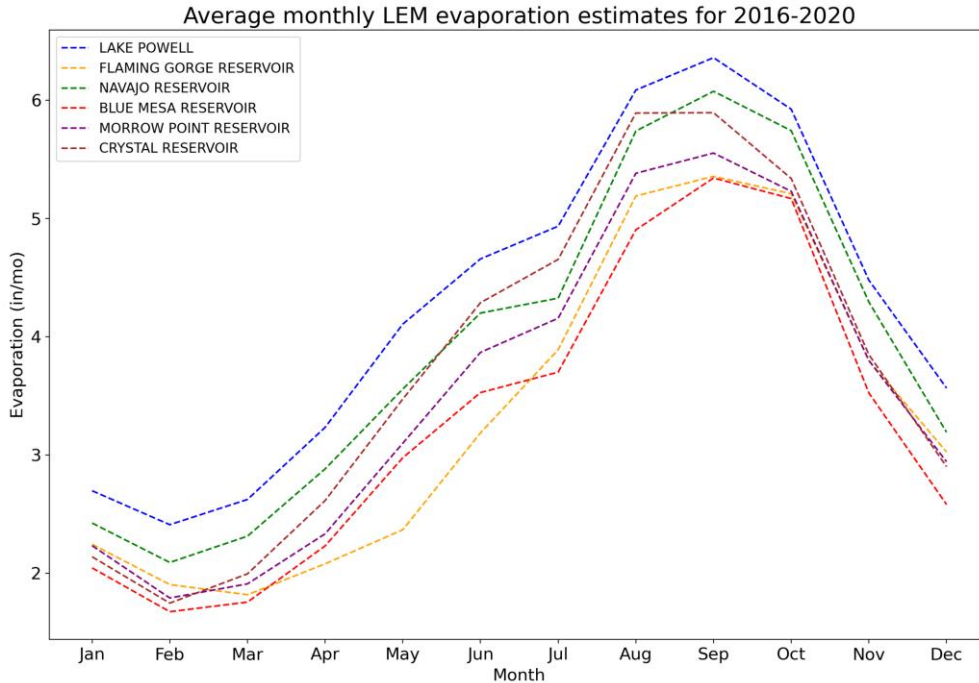
**Table 2-1: LEM Annual Evaporation Estimates for 2016-2020**

Reservoir	Annual Evaporation Estimates from LEM (inches/year)					
	2016	2017	2018	2019	2020	Average
<b>Lake Powell</b>	52.5	52.4	52.0	50.3	51.1	51.7
<b>Flaming Gorge Reservoir</b>	40.1	39.6	40.7	37.2	41.8	39.9
<b>Navajo Reservoir</b>	46.5	48.9	48.4	45.4	47.5	47.3
<b>Blue Mesa Reservoir</b>	40.3	41.4	39.8	37.9	39.4	39.8
<b>Morrow Point Reservoir</b>	43.5	43.3	42.9	39.7	42.6	42.4
<b>Crystal Reservoir</b>	45.7	44.3	45.1	42.9	46.0	44.8

Detailed comparisons of daily and monthly LEM estimates to eddy-covariance (EC) data collected at Lake Powell from 2019-2020 generally show good agreement. For daily data, results indicate slope values of 0.96 and 0.91, r-squared values of 0.26 and 0.53, and Root Mean Squared Error (RMSE) values of 0.047 and 0.039 inches per day for Warm Creek and Padre Bay, respectively. For monthly data, results were slightly better with slope values of 1.07 and 0.97, r-squared values of 0.89 and 0.94, and RMSE of 0.98 and 0.72 inches per month with comparisons at Warm Creek and Padre Bay, respectively.

Other locations show similar temporal patterns to Lake Powell with generally lower evaporation rates due to reservoir location (higher elevation and latitude), causing colder air and water surface temperature and reduced evaporative demand (Figure 2-3, next page). Generally, peak evaporation from LEM occurs in late summer and fall time periods. This was also observed to some degree with in-situ estimates of evaporation at Lake Powell. Heat storage within the water body alters the timing and magnitude of available energy for latent and sensible heat flux.

Conversely, shallow water bodies warm more quickly than deeper systems and exhibit less heat storage, and demonstrate evaporation timing patterns more in line with annual temperature and incoming solar radiation patterns. Peak evaporation at Crystal Reservoir occurs earlier than other locations due to the average depth of the reservoir falling below 65.6 ft (a critical depth threshold in the evaporation calculations) during the 2016-2020 study period. All other reservoirs had depths consistently greater than 65.6 ft from 2016-2020. Incorporating depth information, especially during low storage periods when average depths are less than 65.6 ft, is critical for accurately estimating reservoir evaporation using this method.



**Figure 2-3: Average Monthly LEM Evaporation Estimates for 2016-2020 for all CRSPA Initial Units.**

Additionally, consideration of heat advected into and out of the reservoir through inflows and outflows will be different for each reservoir depending on location and operations, such as the timing and magnitude of releases or penstock elevations. Validation using in-situ or remotely-sensed surface temperature data may help reduce the uncertainty of simulated heat storage within the LEM model.

### 2.3 Estimation of Riparian ET Losses

DRI and Hazen & Sawyer (Hazen) were tasked to work in tandem to address investigation questions concerning the estimation of transit losses associated with CCU volumes shepherded downstream to CRSPA Initial Units. Figure 2-4, next page, illustrates a model of conceptual gains and losses during transit through a hypothetical reach. Transit losses are highlighted in yellow in Figure 2-4 and are further described in Table 2-3 on the following page.

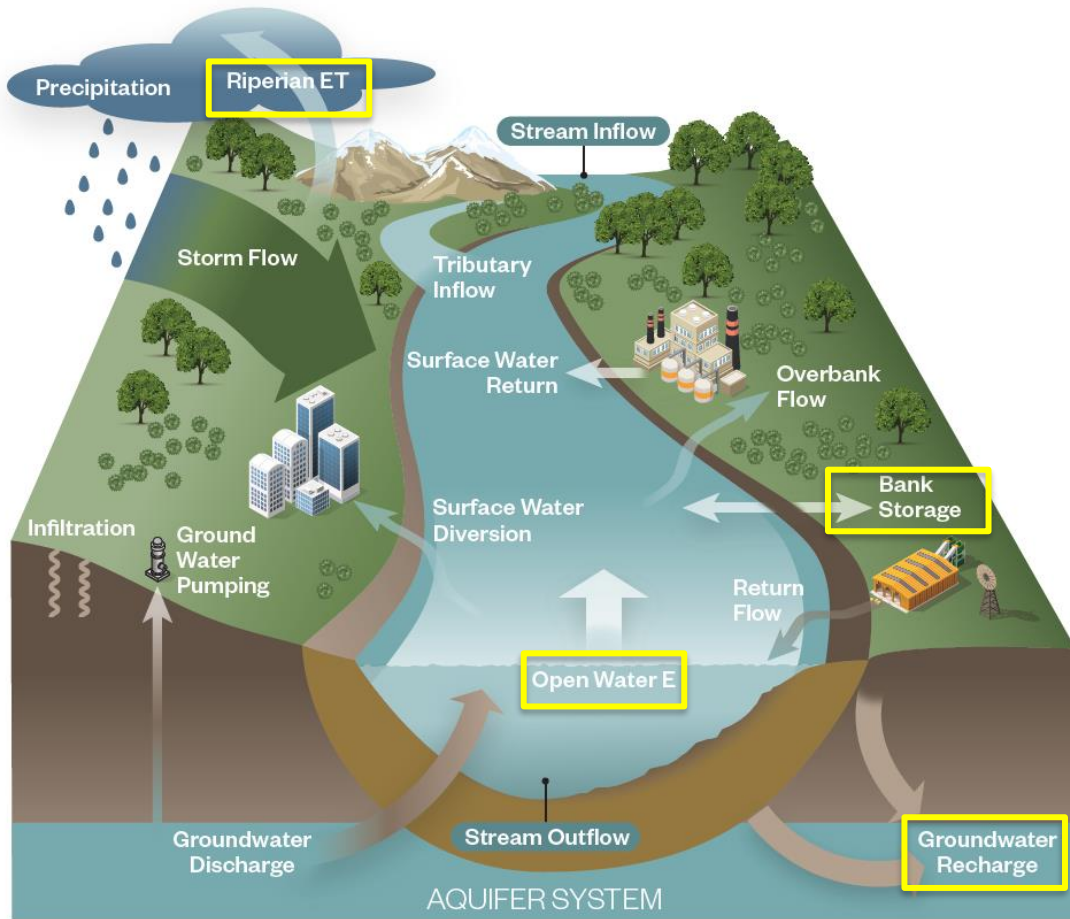


Figure 2-4: Conceptual Model of Reach Gains and Losses (Hazen, 2022)

**Table 2-3: Summary of Conceptual Losses During Transit**

Source of Transit Loss	Description
Riparian Evapotranspiration (ET)	<ul style="list-style-type: none"> <li>• Reflects depletions resulting from ET associated with riparian vegetation</li> <li>• Influenced by temperature, precipitation, net irradiance, vegetative cover, and water availability</li> <li>• Recent advances in remote-sensing have increased the ability to efficiently calculate and scale estimates of riparian ET for river basin scale applications</li> <li>• <i>Current research suggests this is the largest source of natural surface water losses during transit, although this varies by location and site characteristics.</i><sup>22</sup></li> </ul>
Open Water Evaporation	<ul style="list-style-type: none"> <li>• Accounts for direct evaporative losses from the water surface</li> <li>• Influenced by temperature, wind, precipitation, net irradiance, river stage, and reach geometry</li> <li>• <i>Expected to be a smaller loss than riparian ET but to occur with a similar seasonal cycle</i></li> </ul>
Bank Storage	<ul style="list-style-type: none"> <li>• Defined as water that is stored in the reach bank/channel reach resulting from an increase in stage</li> <li>• Influenced by flow volume, duration of high flow event, and amount of time between subsequent high flow events</li> <li>• Only a portion of bank storage is considered “lost” since water is eventually returned to the reach after flows have receded (generally within days to months)</li> <li>• <i>Losses from bank storage accounted for within riparian ET and/or groundwater recharge/infiltration</i></li> </ul>
Groundwater Recharge	<ul style="list-style-type: none"> <li>• Reflects surface water seepage to deep aquifers</li> <li>• Influenced by local soil moisture, geologic conditions, differential head between groundwater and surface water, and groundwater pumping</li> <li>• <i>Significant uncertainty associated with the magnitude of these losses given geological heterogeneity and inability to measure groundwater storage and pumping at scale</i></li> </ul>

The contractors reviewed documentation and, where possible, quantified transit losses that CCU may experience in the process of being shepherded from its place of origin to an upstream CRSPA Initial Unit and/or to Lake Powell. Of the sources of transit losses described in Table 2-3, riparian ET was the only component that could be quantified, given existing data. Other elements of transit loss were not quantified for the following reasons:

- Channel open water evaporation was not quantified, given the need for reach-specific geometries and the general assertion that it is expected to be a smaller contributor to transit losses when compared to riparian ET.

<sup>22</sup> Zipper, Samuel C., et al. "Quantifying Streamflow Depletion from Groundwater Pumping: A Practical Review of Past and Emerging Approaches for Water Management." *JAWRA Journal of the American Water Resources Association* 58.2 (2022): 289-312.

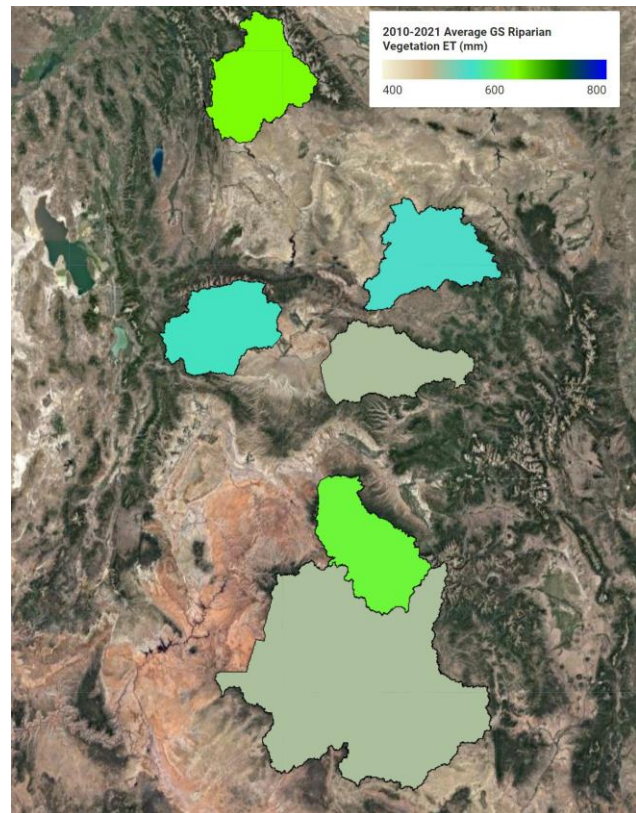
- Bank storage was not quantified, given that most losses are eventually returned to the reach and that real losses are accounted for within riparian ET and groundwater recharge.<sup>23</sup>
- Groundwater recharge was not quantified, given the lack of observational data availability and relative complexity required to model losses and/or gains.<sup>24</sup>

This task also discussed approaches the UDS may employ to account for transit losses in their routine water administration. Lastly, a proposed approach was explored to incorporate transit losses into existing modeling tools for the Upper Basin.

### 2.3.1 Quantification of Riparian ET

Riparian ET<sup>25</sup> is a key component of water loss during transit from one storage location to another; however, it is seldom quantified. While streambed seepage losses may be significant in some areas (e.g., due to groundwater withdrawals for irrigation and subsequent ET), such losses are difficult to quantify and likely minimal compared to riparian ET losses that can be more readily and accurately estimated at scale.<sup>26</sup> Given these challenges, subsequent analyses focused on riparian ET variability and magnitude at six Upper Basin catchments to better understand the controls and drivers of transit-based evaporative losses (Figure 2-5).

The combination of evaporative demand, plant type, and water availability in this study governed riparian ET rates for each study catchment area. The highest average growing season and annual riparian vegetation ET rates



**Figure 2-5: Map of 2010-2021 Growing Season ET Rates for Riparian Areas in the Study Catchments**

<sup>23</sup> Livingston, Russell K. *Transit losses and travel times of reservoir releases along the Arkansas River from Pueblo Reservoir to John Martin Reservoir, southeastern Colorado*. No. 78-75. US Geological Survey, 1978. Also see Pahl, 1985, Page 19 of citation below: “Livingston argues that the evaporation loss is the only true loss to the system; therefore, conveyance losses to a downstream on-channel reservoir, which has the capability of collecting virtually all water in bank and channel storage in the recession of a release from an upstream reservoir, should be only those losses from evaporation, transpiration, and groundwater withdrawals.”

<sup>24</sup> Groundwater/surface water interactions in the Upper Basin are an area of active research involving complex modeling using coupled hydrologic-groundwater flow models (e.g., Rosenberg et al., 2013; Tran et al., 2020).

<sup>25</sup> ET is actual ET (mm), Net Reference ET (ETo) is grass reference ET (mm), and EToF is the fraction of Reference ET (unitless). Actual ET from eeMETRIC represents water flux from both evaporation and transpiration. ET is a function of both atmospheric and plant water demand as well as water availability. Atmospheric water demand is driven by both regional and local climate with specific links to the vapor pressure deficit (i.e., air temperature and humidity), solar radiation, and wind speed, while plant water uptake is a generally driven by plant type, leaf density, and productivity. During water limited periods, EToF decreases due to plant stress from insufficient available soil moisture.

<sup>26</sup> Pahl, Randall A. *Conveyance losses due to reservoir releases in natural streams in Wyoming*. U of Wyoming, 1985.



were seen in the Green River and Dolores River catchments, while the lowest riparian vegetation ET rates were seen in the San Juan and White River catchments (Table 2-4).

While evaporative demand was relatively high in the San Juan and White River catchments, water availability and vegetation vigor throughout the riparian zone were low, and therefore actual ET rates were low (i.e., maintained a complementary relationship). Higher Normalized Difference Vegetation Index (NDVI) values observed in the Green River catchment reflected generally healthy grasses that are typical throughout riparian areas of Wyoming. Conversely, the San Juan catchment showed predominantly lower NDVI values throughout the riparian zone. Lower NDVI is reflective of the lower-density sage and black brush that is typical of riparian areas in southern Utah and New Mexico.<sup>27</sup>

**Table 2-4: 2010-2021 Growing Season (GS) Riparian ET Statistics for Each Study Catchment Area**  
The table is sorted with the lowest ET rate catchments at the top and the highest at the bottom. Standard deviation values are shown in parentheses.

Catchment Area Average	Growing Season ET (mm)	Growing Season EToF	Growing Season ETo (mm)
<b>WHITE RIVER NEAR WATSON, UTAH</b>	504 (33)	0.54 (0.05)	963 (50)
<b>SAN JUAN RIVER NEAR BLUFF, UT</b>	509 (27)	0.47 (0.04)	1117 (56)
<b>LITTLE SNAKE RIVER NEAR LILY, CO</b>	546 (42)	0.60 (0.06)	925 (46)
<b>DUCHESNE RIVER NEAR RANDLETT, UT</b>	557 (36)	0.59 (0.04)	952 (53)
<b>GREEN RIVER NEAR LA BARGE, WY</b>	621 (46)	0.73 (0.05)	852 (45)
<b>DOLORES RIVER NEAR CISCO, UT</b>	630 (28)	0.63 (0.03)	1016 (61)

EToF distributions for each catchment follow similar patterns to NDVI but also reflect water availability and soil moisture since EToF incorporates both ET's evaporation and transpiration components. Unlike NDVI, wet soil or exposed surface water has high EToF due to evaporation (not transpiration).

Figure 2-6, next page, shows three observed riparian zones in the Upper Basin that highlight the different vegetation/moisture scenarios, which strongly affect the associated EToF and NDVI values.

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<sup>27</sup> Woodward, Brian D., et al. (2018) *CO-RIP: A riparian vegetation and corridor extent dataset for Colorado river basin streams and rivers*. ISPRS International Journal of Geo-Information 7.10: p 397.

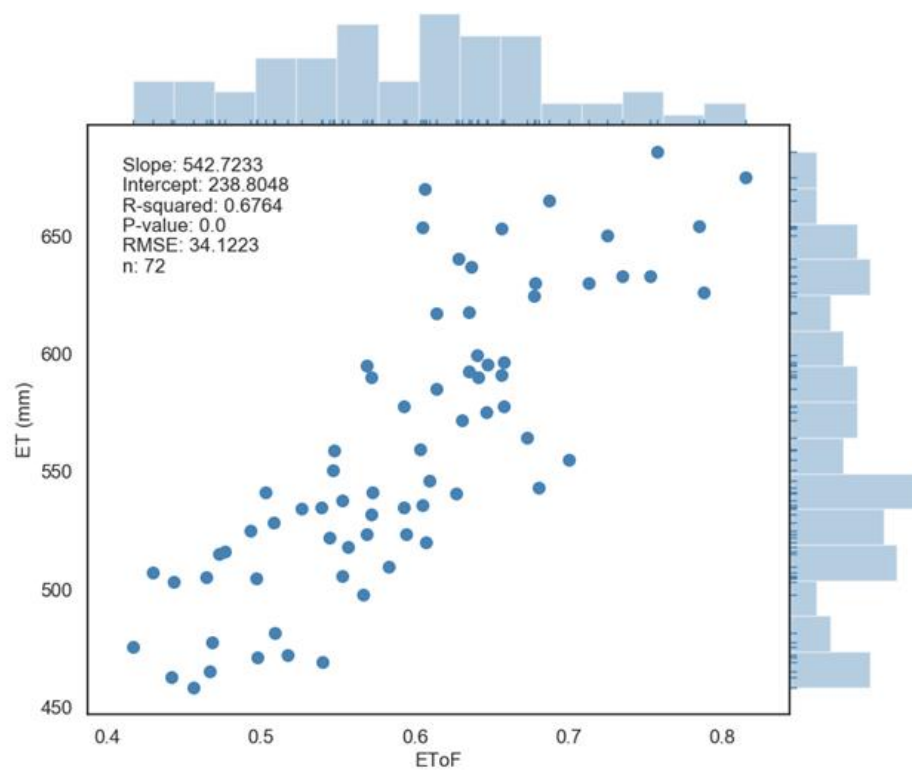


**Figure 2-6: Left) Aerial photo of Green River, WY riparian zone, Middle) Aerial photo of White River, CO riparian zone, Right) Aerial photo of San Juan River, NM riparian zone.**

- High NDVI, High EToF
  - Dense, vigorous riparian vegetation with relatively high soil moisture
  - High transpiration
  - Left example of Figure 2-6: Green River, WY
- Low to moderate NDVI, High EToF
  - Sparse and or stressed vegetation with relatively high soil moisture
  - Potential for exposed surface water if NDVI values are negative
  - High evaporation
  - Middle example of Figure 2-6: White River, CO
- Low NDVI, Low EToF
  - Sparse and or stressed vegetation with relatively low soil moisture
  - Low transpiration and evaporation
  - Right example of Figure 2-6: San Juan River, NM

Regression analysis between ET, EToF, and ETo shows a strong correlation between growing season EToF and ET ( $r$ -squared=0.67, Figure 2-7, next page), while ETo is not significantly correlated with riparian ET rates ( $r$ -squared = 0.07, not shown). ETo represents the potential ET from a well-watered grass surface and is considered a proxy for atmospheric evaporative demand. Results indicate that interannual variability in riparian ET rates throughout the Upper Basin is more closely tied to vegetation vigor and water availability than to climate.





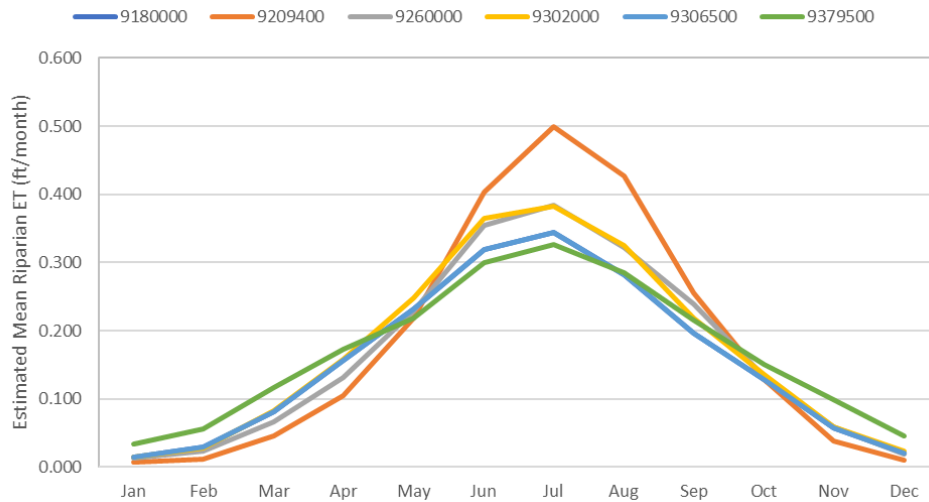
**Figure 2-7: Scatterplot between Growing Season Riparian ETof and ET within the Catchment Areas between 2010-2021. Each point represents a single catchment for a single year between 2010-2021 (6 catchments, 11 years, 72 observations)**

Regression analysis between average growing season streamflow and riparian ETof show positive relationships for all catchment areas. This finding suggests that increases in streamflow result in higher ET through increased water availability and plant productivity throughout the riparian zone. Notably, most catchment areas demonstrate breakdowns in the linear relationship between flow and ETof at lower flows. This low-end scatter is likely related to substantial vegetation stress and potential reduction in the extent of riparian vegetation growth during low-flow periods.

Increases in ETof indicate more vegetation vigor and, or surface evaporation; however, overall ET is a function of both plant productivity and atmospheric demand. Analysis between streamflow and actual ET rates did not demonstrate significant relationships. The complementary nature of atmospheric demand and moisture availability drives actual ET rates. This complementary feedback is especially true for the Upper Basin, where clear hot/dry, and cool/wet seasonal climate patterns prevail.

Analysis between monthly streamflow and ETof showed clear seasonal patterns, with most sites exhibiting stronger correlations during summer months than winter. Higher correlations during summer are likely driven by increases in atmospheric and plant water demand. Relationships during winter are less prominent due to dormant vegetation. Results from the remotely-sensed riparian ET analysis show that the lowest ET rates occur during the winter and spring. In agreement, Livingston found that releases during periods of lower antecedent streamflow resulted in more significant losses to bank and channel storage but notes these are not actual losses since they are recoverable at some

time scale unless extracted by riparian vegetation for transpiration.<sup>28</sup> Low ET rates and high flow conditions make late winter and early spring the most efficient time for conveying stored water from one location to another (with site-specific exceptions). ET rates and streamflow relationships established by this analysis apply to other areas throughout the Upper Basin and provide a path forward for the incorporation of actual ET rates within integrated modeling and planning studies related to transit loss and optimization of storage and release.



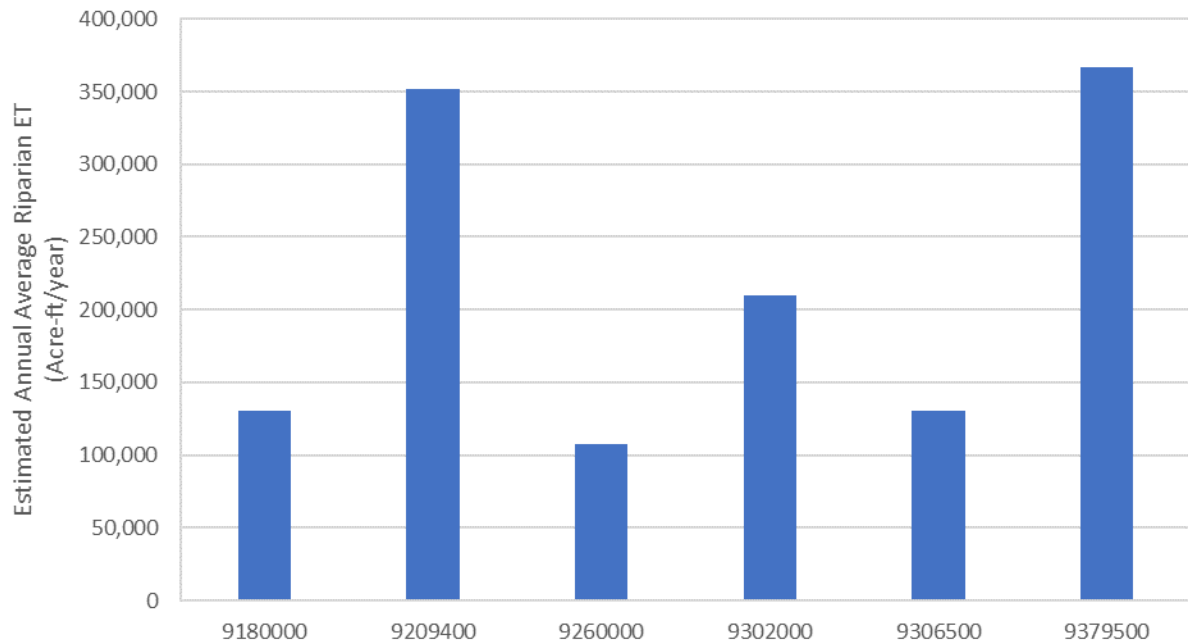
**Figure 2-8: Summary of Monthly Average Riparian ET in Catchments above Selected Gages**

Figure 2-8 shows that, on average, 89% of annual riparian ET calculated at the gage locations occurs between April and October.<sup>29</sup> The seasonal timing and estimated rate of the riparian ET are generally consistent with reservoir evaporation in the Upper Basin (see Figure 2-3), with annual peaks occurring in July and the majority of ET occurring between April and October.

An average volume of riparian ET for each catchment was estimated by multiplying the ET rate by the riparian corridor vegetation area. This information was used to estimate annual volumetric riparian ET losses in the six catchment areas, summarized in Figure 2-9, next page. Estimated volumetric losses from riparian ET are in a similar order of magnitude to reservoir evaporation for the CRSPA Initial Units examined in Section 2.2.

<sup>28</sup> Ibid. pg. 20.

<sup>29</sup> On average, 75% of annual riparian ET calculated at the gage locations occurs between May and September.



**Figure 2-9: Estimated Annual Average Riparian Corridor ET for Study Catchments**

### 2.3.2 Approaches to Quantifying Transit Loss Employed by UDS

UDS DMC members were interviewed regarding state calculation or estimation of transit losses and approaches to estimating transit losses for CCU (Table 2-5).

**Table 2-5: Summary of UDS’ Approaches to Quantifying Transit Losses**

State	Approach to Quantifying Transit Losses
Colorado	<ul style="list-style-type: none"> <li>Daily transit losses tracked for all reservoir releases</li> <li>Losses are highly dependent on short-term factors such as bank storage, attenuation, and travel time that tend to “even out” over longer time scales</li> </ul>
New Mexico	<ul style="list-style-type: none"> <li>Currently working on several initiatives, including the development of a RiverWare™ model for the San Juan Basin that includes estimated transit losses.</li> </ul>
Utah	<ul style="list-style-type: none"> <li>Static losses applied to reservoir releases specific to each administrative basin and date back to original decrees</li> <li>Generally, on the order of 1-2%, but can vary by basin and seasonally</li> <li>Little documentation defining the quantification methodology</li> </ul>
Wyoming	<ul style="list-style-type: none"> <li>Some basins within the state have established transit loss rates.</li> <li>Commissioned earlier studies that attempted to look at losses within managed basins.<sup>30,31</sup> These studies are not currently used operationally.</li> </ul>

<sup>30</sup> Hasfurther, V.R. (1985). *The Use of Meander Parameters in Restoring Hydrologic Balance to Reclaimed Stream Beds*. Book Chapter 5 in *The Restoration of Rivers and Streams Theories and Experience*. Wyoming Water Research Center, University of Wyoming, Laramie, WY.

<sup>31</sup> Turner, J.P., Hasfurther, V. (1992). *Modeling of hydrologic conditions and solute movement in processed oil shale waste embankments under simulated climatic conditions*. Environmental Simulation Lab, University of Wyoming, Laramie, WY.

## 2.4 Storage and Release from the CRSPA Initial Units of CCU

To better understand the potential range of storage and release resulting from a potential DM Program Hazen was asked to conduct a baseline vs. DM scenario analysis using CRSS. For the study, Hazen used the CRSS version released by Reclamation in April 2021 and then repeated the analysis with the January 2022 release (with no specified DROA operations). The analyses relied on a comparison of baseline CRSS simulations of specified supply, demand, and operational scenarios with potential hypothetical DM Program scenarios developed by the DMC for selected metrics. As part of this modeling effort, DM scenarios and related impacts to storage and releases were simulated by adjusting CRSS rulesets. Similarly, the simulations run by Hazen included the development of DM accounts, scenario-specified DM CCU contributions, and accrual parameters, rules for the assessment of evaporative losses within the DM account, and DM water conveyance rules.

### 2.4.1 DM Program Hypothetical Scenarios

The modeled baseline included a range of water supply, demand, and operations described in

**Table 2-6** through the end of the modeling period of 2057 (the expiration of some of the provisions of the DCP).

**Table 2-6: Assumptions for Modeled Future Baseline Conditions**

Hydrologic Ensembles	Description
Full Hydrology (i.e., “Historical”)	Historical hydrology from 1906 to 2019, re-sampled using the index sequential method <sup>32</sup> to produce 114 traces <sup>33</sup>
Stress Test Hydrology	“Stress test” hydrology based on the recent 30-year period from 1988-2019, re-sampled using the index sequential method to produce 32 traces
CMIP3 Hydrology	112 traces derived from the Coupled Model Intercomparison Project 3 (CMIP3) – a dataset based on climate models
<b>Demand</b>	
2016 UCRC Depletion Demand Schedule <sup>34</sup>	A series of estimated current and future depletion demand projections used for planning purposes by the UCRC and the UDS. This is the default demand variable in CRSS.
<b>Operations</b>	
2007 Interim Guidelines (Early CRSS Models and then with No DROA Operations)	2007 Interim Guidelines and the 2019 Drought Contingency Plan are extended through the end of the simulation period – with and without DROA Operations

<sup>32</sup> An index sequential method repeats historical hydrology as a continuous sequence changing the starting year with each simulation.

<sup>33</sup> A “trace” is one instance or sequence of hydrology. For example, the measured historical record from 1906 – 2019 represents a single trace.

<sup>34</sup> Upper Colorado River Commission (2017). *2016 Depletion Demand Schedule. The schedules used in these analyses was incorporated into the CRSS versions in use at the time of the model release, and pre-date the Updated 2016 Depletion Demand Schedule released by UCRC in June of 2022.* Webpage: <http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/>.

To evaluate a potential DM Program, the DMC provided Hazen with a range of potential hypothetical DM contributions modeled over varying accrual timeframes. Modeled CCU contributions for each state were distributed geographically and by agriculture, export, and M&I sectors based on 2020 pro-rata depletions as outlined in the 2016 UCRC Depletion Demand Schedule.<sup>35</sup>

The DMC further provided model conditions that would initiate a DM Program and specify when it would become dormant. For practical modeling purposes, it was assumed that once a DM Program was begun, it would remain active through at least one entire irrigation season, regardless of changing conditions.

Resulting CCU was modeled to ultimately reside in Lake Powell, accruing losses due to evaporation. For the purposes of modeling, if model flows at the Lee Ferry Deficit Object (LFDO) were reduced below 75 maf over a ten-year period, the DM storage volume was modeled as a release. In some hydrologic scenario traces, the DM storage volume was also released as a “spill” due to high runoff.<sup>36</sup>

#### **2.4.2 DM Hypothetical Scenario Modeling Results**

The following sections review the modeling results detailing the frequency of DM Program initiation and related volumes of CCU stored, the storage potential in upstream CRSPA Initial Units, and sample trace analyses of DM storage releases.

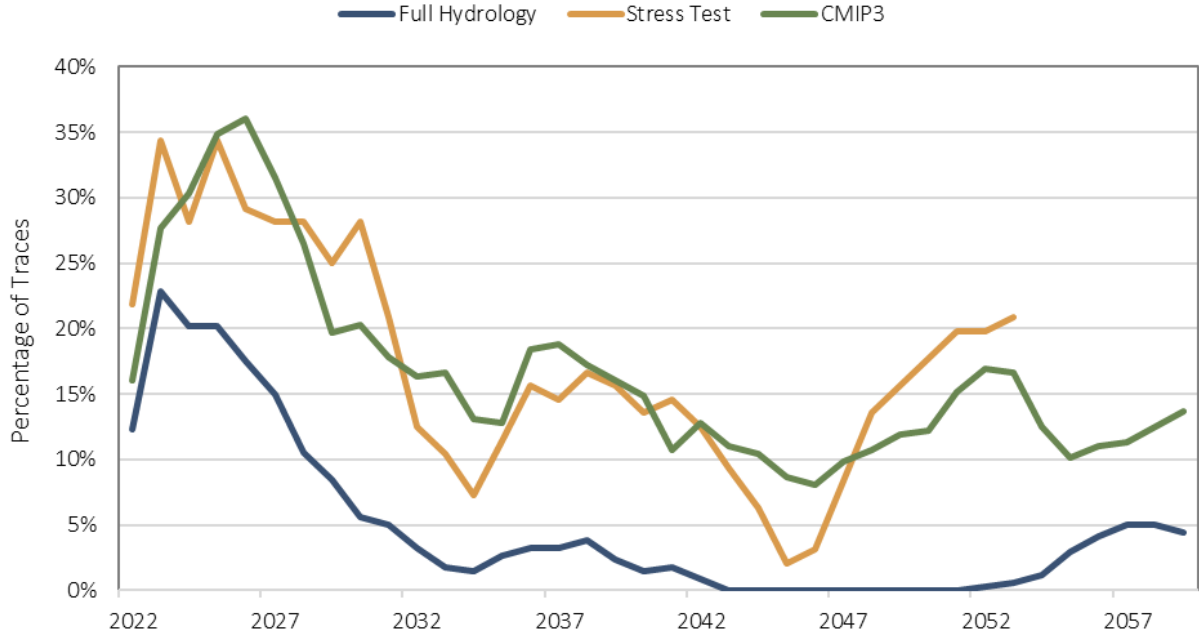
##### *2.4.2.1 Modeled Frequency of DM Program Initiation and Volume of CCU*

The potential frequency of hypothetical DM Program implementation and the volume of CCU accumulated is dependent on the assumed conditions for initiation, hydrologic scenario, accrual period of the DM Program (e.g., how long it takes to accrue CCU), and specifics of CCU contributions by state and sector. The scenarios provided by the DMC resulted in conditions that initiated a hypothetical DM Program in about 35% of the CMIP3 and Stress Test hydrology traces within the first five years of the simulation periods compared to less than 25% of the traces in the Full Hydrology ensemble (Figure 2-10, next page).

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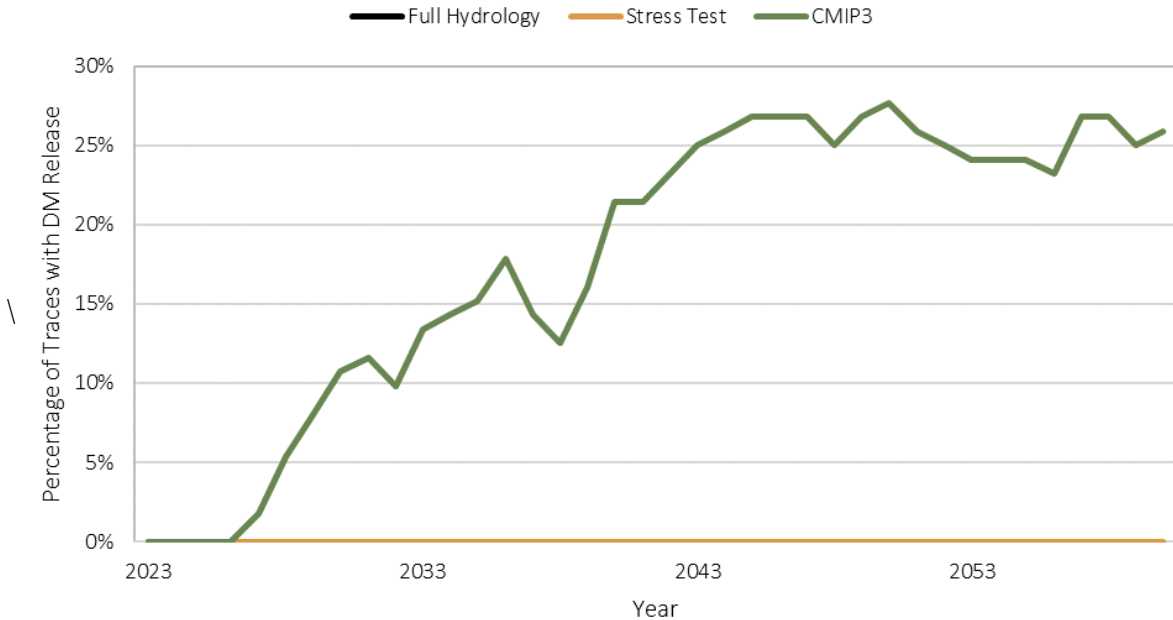
<sup>35</sup> Ibid.

<sup>36</sup> The LFDO object in Reclamation’s CRSS model is a component for measuring flow at a specific location in the Colorado River Basin but in no way is indicative of any policy, procedure, or precedent regarding any interpretation of the “Law of the River” and should not be construed as such.



**Figure 2-10: Percentage of Traces with Initiation of a DM Program per Hydrology Ensemble**

The frequency of DM Program initiation within any given trace depended on Lake Powell storage and elevation and the frequency and volume of modeled subsequent DM-related releases (e.g., where DM storage was called upon to sustain flows at the LFDO). DM releases were made in 0% of traces under the Stress Test and Full Hydrology ensembles but were present in over 25% of the CMIP3 traces after 2043 (Figure 2-11, next page).

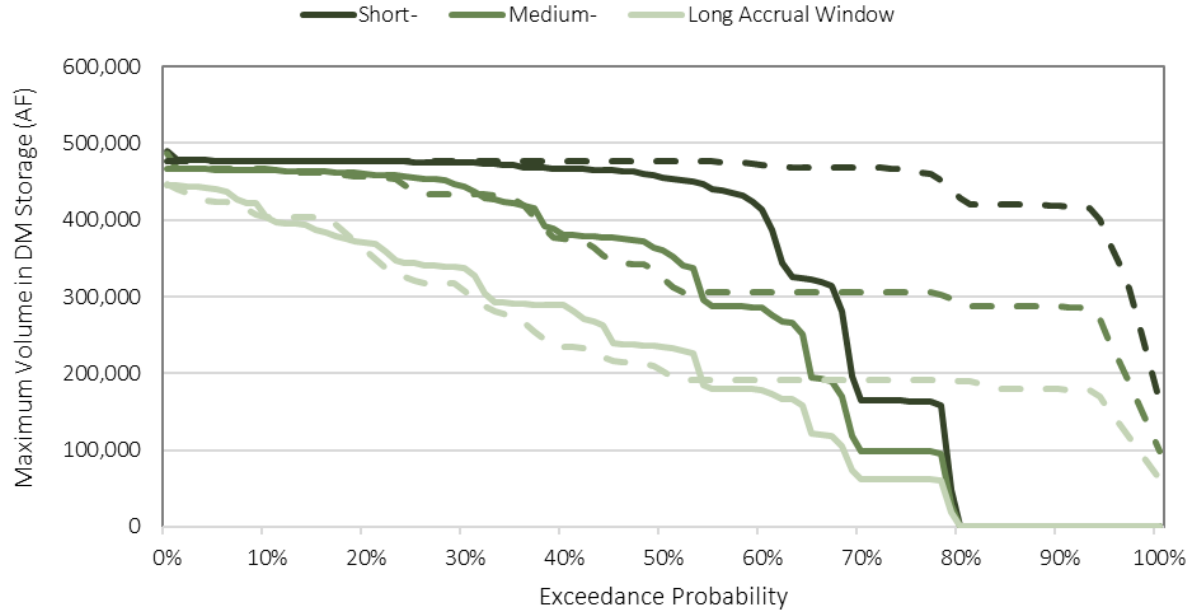


**Figure 2-11: Percent of Traces with DM Release per Hydrology Ensemble**

In the model results, the frequency of the initiation of a hypothetical DM Program and the amount of CCU stored were more sensitive to hydrology and length of the accrual window than various CCU contribution levels from the states. More CCU was conserved in traces of drier hydrologic ensembles because the DM Program was initiated more frequently, sometimes coupled with DM releases.

As illustrated in Figure 2-12, next page, on a temporal basis, more DM water was stored in scenarios with shorter accrual timeframes. The shorter accrual scenario differed from longer durations of the same in part because longer accrual durations resulted in smaller storage volumes before DM releases were required to be made. Generally speaking, more DM water was stored and released in scenarios with shorter accrual timeframes and drier hydrology ensembles.





**Figure 2-12: Distribution of Maximum DM storage by Trace (inc. Evaporative Losses) for CMIP3 hydrology ensemble (solid lines) and Stress Test hydrology ensemble (dashed lines)**

2.4.2.2 *Modeled Storage Potential in Upstream CRSPA Initial Units*

Storage potential in upstream CRSPA Initial Units was examined by comparing CRSS-modeled storage (across the Full, Stress Test, and CMIP3 hydrology ensembles) to the following parameters:

- Live storage capacity identified for each upstream CRSPA Initial Unit in CRSS;
- Modeled volume of CCU above and below each upstream CRSPA Initial Unit.<sup>37</sup>

Table 2-7 summarizes the DM scenario volumes of CCU water (totaled across all traces) conserved above upstream CRSPA Initial Units. The total volume of potential CCU storage potential differs based on the hydrology ensemble; however, consistently 20% of the CCU volume occurs above the upstream CRSPA Initial Units.

<sup>37</sup> Blue Mesa is assumed to be representative of conditions in the Aspinall Unit.

**Table 2-7: Summary of Potential DM Storage in Upstream CRSPA Initial Units.  
Summary Statistics are Calculated Across All Modeled Traces for Each Hydrology Ensemble**

Initial Unit	% of Months All CCU Can be Stored	Total Potential CCU Storage (AF)	Total CCU Bypassed to Lake Powell (AF)	% of CCU Bypassed to Powell
<i>Full Hydrology</i>				
Flaming Gorge	100%	1,958,736	0	0%
Blue Mesa	99.2%	523,107	55,763	10.7%
Navajo	99.5%	965,077	68,316	7.1%
<i>Stress Test</i>				
Flaming Gorge	100%	1,775,883	0	0%
Blue Mesa	100%	468,365	0	0%
Navajo	99.9%	874,709	22,415	2.6%
<i>CMIP3</i>				
Flaming Gorge	99.9%	7,203,215	50,504	0.7%
Blue Mesa	99.3%	2,110,106	403,147	19.1%
Navajo	99.5%	2,838,577	950,796	33.5%

In most months in which a DM Program was active, there was sufficient physical space to store CCU in the upstream CRSPA Initial Units. However, in months where storage was limited, significant volumes of the conserved water would need to be bypassed to Lake Powell. Flaming Gorge was in the best position of the upstream CRSPA Initial Units to retain CCU water on both a volume and percentage basis. The capture of CCU in excess of the available storage in Blue Mesa was likely limited due to modeled operations of Morrow Point and Crystal reservoirs downstream. Navajo Reservoir was slightly more constrained than Blue Mesa. Other operational considerations, such as environmental flows, hydropower operations, operational spill, and rule curves, have the potential to impact the ability to store CCU in upstream CRSPA Initial Units; however, additional modeling would be required to further quantify these impacts.

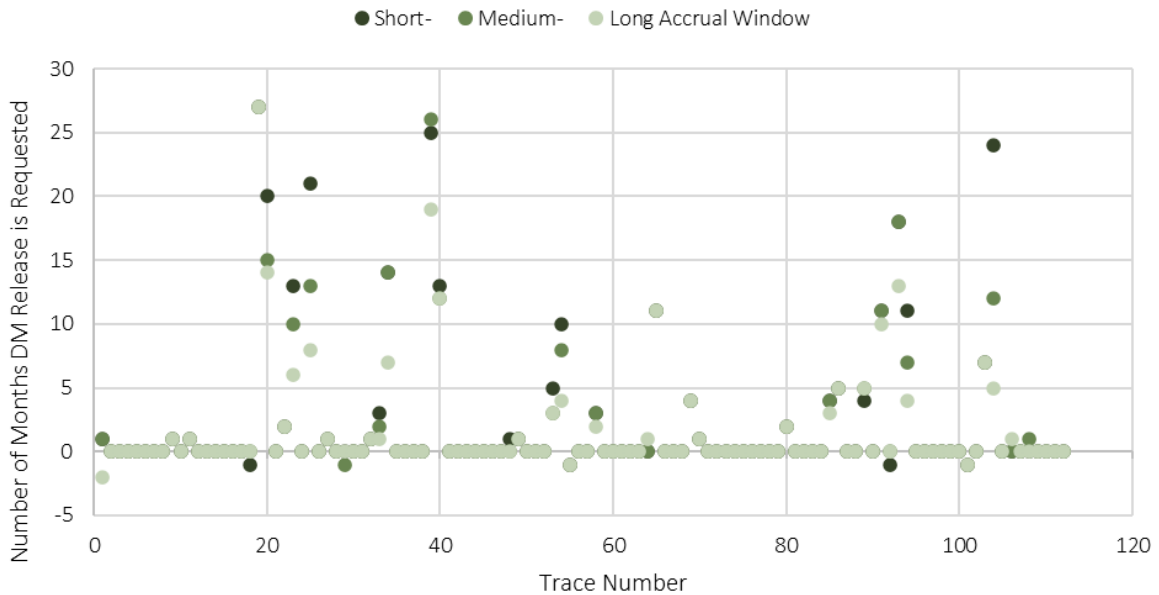
#### 2.4.2.3 Modeled Analysis of DM Releases

The risks and mitigation related to a hypothetical DM Program and theoretical compliance with provisions of the 1922 Compact were considered using three modeling metrics. These modeling metrics are solely for discussion purposes and are not intended to be viewed as a policy consideration relative to compliance with provisions of the 1922 Compact.

1. The number of subsequent months that DM releases were requested by the model versus the baseline;
2. The modeled frequency of DM releases versus the baseline (measured as a percent of hydrologic traces modeled); and
3. The modeled DM release volume versus the baseline. Modeling showed that there was a marginal improvement in DM release volume requests (results not shown).

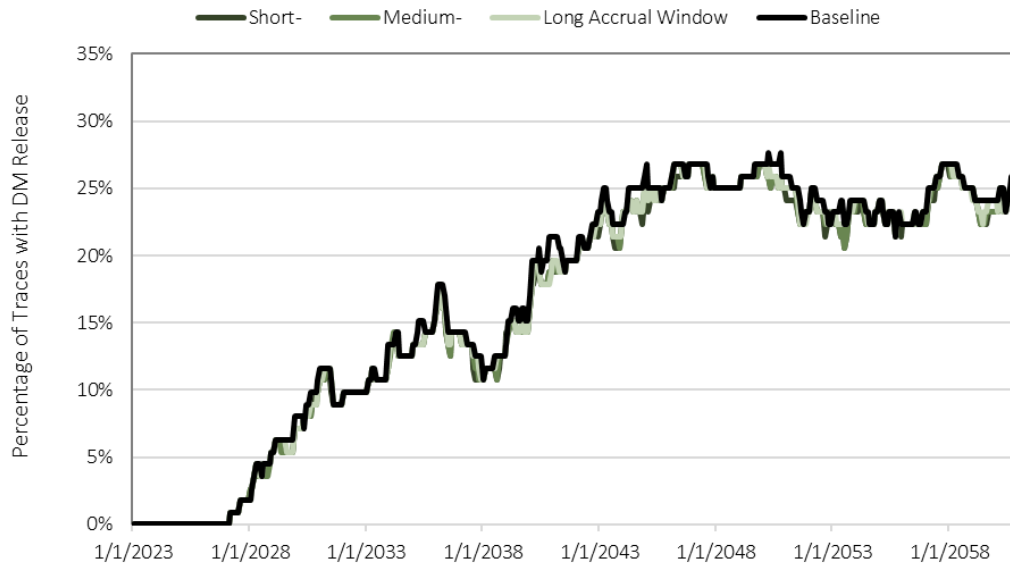
Figure 2-13, next page, illustrates the difference in the number of months in which DM releases were requested by the model versus the baseline. The figure shows that the initiation of a DM Program

reduces the number of months where DM releases are requested by the model for up to 27 months within the most impacted trace as compared against all traces in the ensemble. The number of months with DM releases was not particularly sensitive to the scenario program accrual window or relative contribution amounts from various states. Conceptually, this finding indicates that a hypothetical DM Program could successfully reduce risk related to compliance with the 1922 Compact within the model space by reducing the duration and/or frequency of requested DM releases in CRSS.



**Figure 2-13: Difference in the Number of Months of hypothetical DM Release Requested by the Model Relative to the Baseline with the CMIP3 Hydrology Ensemble**

Figure 2-14, next page, shows the modeled frequency of requested DM releases versus the baseline. The figure shows that the initiation of a DM Program can reduce the percentage of traces where DM water is released but does not have a significant impact on the total volume of the requested DM release.

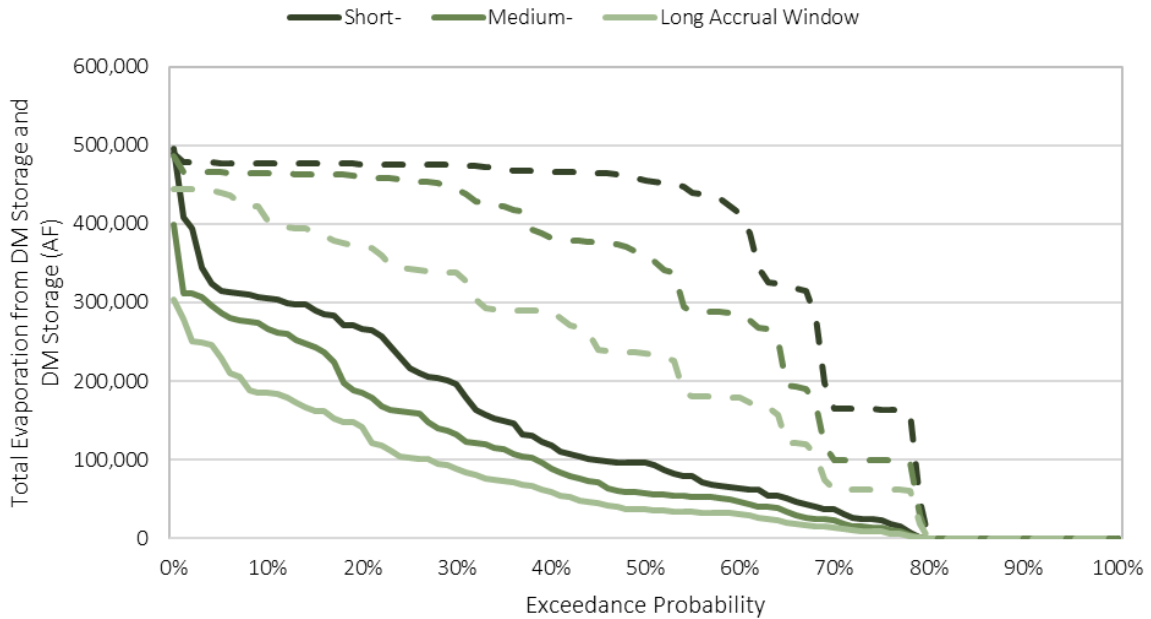


**Figure 2-14: Percentage of Modeled Traces with Requested DM Releases within the CMIP3 Hydrology Ensemble and Varying Accrual Windows**

#### 2.4.2.4 Modeled DM Storage Evaporation

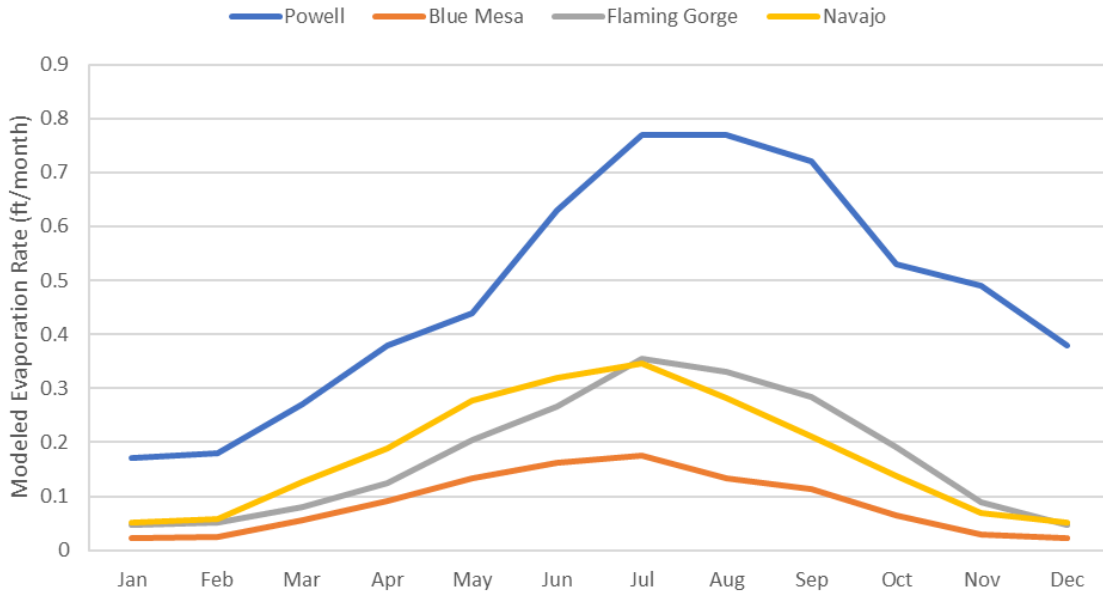
Hazen also provided an analysis of the expected losses of stored CCU due to reservoir evaporation and examined the potential effectiveness of reducing evaporative losses by maintaining DM storage in upstream CRSPA Initial Units (see also Section 2.4.3 on Optimization).

Higher evaporative losses were associated with scenarios in which more water was stored but not required for later release by the model (e.g., in the Full Hydrology ensemble) or for scenarios where DM water is stored at the beginning of the simulation and released at the end of the simulation (e.g., in the Stress Test Hydrology Ensemble). Figure 2-15, next page, shows DM storage and related evaporative losses as an exceedance distribution for the CMIP3 hydrology ensemble and varying accrual windows. In the figure, 50% of the traces result in a storage volume of approximately 250,000-480,000 ac-ft with attendant losses of approximately 40,000-100,000 ac-ft.



**Figure 2-15: Distribution of Total DM storage evaporation (solid) and Total DM storage (dashed) for CMIP3 Hydrology Ensemble and Varying Accrual Window**

CRSS represents evaporation in the upstream CRSPA Initial Units based on the product of a monthly varying evaporation rate and the modeled reservoir surface area. The evaporation rate is distinct for each reservoir in the model; Figure 2-16, next page, plots the modeled evaporation rates for each of the CRSPA Initial Units analyzed in the above section. Blue Mesa, Flaming Gorge, and Navajo Reservoir had significantly lower evaporation rates (45-94% of Lake Powell’s rates by month).



**Figure 2-16: CRSS Evaporation Rates for Upstream CRSPA Initial Units**

CRSS modeling suggested that, on average, 20% of expected CCU (approximately 100,000 ac-ft out of the total 500,000 ac-ft) may be conserved in upstream CRSPA Initial Units. An estimated breakdown of the total modeled CCU above each upstream CRSPA Initial Unit is presented in Table 2-8. Available storage in the upstream CRSPA Initial Units varies based on modeled hydrologic conditions; however, under most conditions, there was sufficient void space to capture the majority of CCU.

**Table 2-8: Distribution of CCU in CRSPA Initial Units**

CRSPA Initial Unit	Modeled Approximate Max. CCU (ac-ft)
Flaming Gorge	58,051
Blue Mesa	16,270
Navajo	25,679
Lake Powell	400,000
<b>Total</b>	<b>500,000</b>

Based on these findings, and if all available CCU<sup>38</sup> upstream could be stored in the upstream CRSPA Initial Units, rough calculations estimate that annual evaporative losses from the upstream CRSPA Initial Units would be approximately 1,867 ac-ft per year on average.<sup>39</sup> If the same volume of CCU were stored only in Lake Powell, annual evaporative losses would be 3,474 ac-ft per year on average. Under these assumptions, maximizing storage of CCU in the upstream CRSPA Initial Units could result in up to 46% less evaporative loss than if all CCU were stored in Lake Powell.

<sup>38</sup> Available CCU in this context refers to all CCU generated above the upstream CRSPA Initial Units equivalent to 20% of the total 500,000 ac-ft or 100,000 ac-ft.

<sup>39</sup> Assumes long-term average reservoir storage and annual average evaporation rates.

### **2.4.3 Optimization Strategies for Hypothetical DM Storage Release and Conveyance**

DRI and Hazen analyzed potential DM storage and release strategies. Analyses showed that a potential strategy for storage, release, and conveyance of CCU would be to:

1. Hold CCU storage in the upstream CRSPA Initial Units for as long as possible in order to minimize evaporative losses during said storage; and
2. Prioritize CCU releases to Lake Powell during winter months to take advantage of relatively low riparian ET and water demand (see Section 2.3.1). (However, this is not always the case in all locations.)

Consistent with this potential strategy, CCU would need to be released from the upstream CRSPA Initial Units at appropriate times. Storing CCU in upstream CRSPA Initial Units provides flexibility in the timing of DM releases. Given this flexibility, CCU releases may be prioritized during the winter months as:

- Riparian ET, which is expected to make up the largest measurable transit loss, is at an annual minimum during these months (see Figure 2-8); and
- Water demand is also expected to be the lowest during these months, which decreases the need for water administration activities.

## **2.5 Primary and Secondary Economic Impacts of a DM Program**

AMP Insights provided a comprehensive study at an interstate scale of an economic baseline and primary and secondary economic impacts associated with a potential DM Program with three components:

1. Quantitative analysis of potential impacts on agricultural water users;
2. Qualitative analysis of potential impacts on M&I water users, and
3. A review of potential programmatic risks that could result in adverse economic impacts to participants and/or DM activities as well as options to mitigate those risks.

### *2.5.1.1 Economic Analysis Methods*

Relevant baseline information on agricultural production in the Upper Basin, combined with the key assumptions of each DM scenario, was used to estimate the potential adverse direct and secondary economic impacts of a DM Program on gross crop revenues at a state and interstate scale. That analysis did not include estimates of direct participant compensation or the potential positive secondary impacts of participant compensation on the regional economy, which may offset adverse impacts to both individual participants and the broader regional economy.

Participation in a potential DM Program by agricultural producers would require reducing consumptive water use otherwise used for irrigating crops. Fallowing, in turn, results in decreased crop production and the need for variable inputs such as seed, fertilizer, water, and labor. The analysis



proved by AMP made several high-level assumptions that were applied to the DM scenarios provided by the DMC.<sup>40</sup>

- Participating acres were fallowed for the full irrigation season;
- Fallowing was temporary and rotational;
- Any potential injury to other water users from fallowing would be assessed and mitigated if needed before an individual agricultural producer would be allowed to legally participate; and
- Only decreases in consumptive water use were considered.

Participation by crop type was assumed to be proportional to current production levels (measured in acres). No assumptions were made regarding the type of irrigation method (and resulting efficiency), farm size, ownership structure, or geographic location; however, findings from various conservation projects and other recent publications on the potential economic impacts of a DM Program suggest that not only likelihood to participate, but also the cost-effectiveness of water acquired may vary based on these (and other) key variables.

The starting point for estimating the direct impacts of each DM scenario was the remaining water available for agriculture annually in each state after that state's modeled DM contribution for the year was met per the DM scenarios provided. This was calculated by subtracting the modeled annual DM water savings volume from the estimated average annual historic amount of water consumptively used by agriculture.

Dividing this total amount of water by the estimated average consumptive use per acre for each UDS resulted in an estimate of the total number of acres within each state that could be irrigated in that year. Subtracting this number from the average or "typical" historical average number of acres irrigated annually provided a representative estimate of the number of acres that would need to be fallowed annually in each state to provide the water that could meet that state's modeled DM scenario contribution.

Next, the fallowed acres were "assigned" a crop — based on the predetermined crop mix for the Upper Basin region of each state — as well as an estimated loss in yield for both the enrollment year and the subsequent year. In order to estimate the total value of gross revenue from crops lost annually, the total units (i.e., tons for alfalfa and bushels for corn and wheat) of yield lost were multiplied by the average price per unit.

The secondary economic impacts were estimated using input-output (I-O) modeling — a method commonly used to model the interrelationships of economic sectors/industries and describe the multiplier effect of changes in one sector/industry across a broader economy. I-O modeling is frequently used to assess the potential economic impact of a new program, such as a DM Program, or investment in a particular industry. Results of I-O analyses are typically expressed as multipliers that represent the additional economic impact above the direct effects on the industry of focus.

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<sup>40</sup> The DM scenarios referenced here were also used in the Technical Analysis section.

### 2.5.1.2 *Agricultural Impacts*

For the Upper Basin as a whole (if it is assumed that 100% of modeled CCU for a DM Program were to come from agriculture – see M&I section below for alternate assumptions), projected direct economic impacts (i.e., reduction in crop revenue) ranged between -\$173.6 million and -\$176.2 million across the scenarios considered. The estimated annual impact varied by the assumed duration of the program under a given DM scenario. The inclusion of secondary economic impacts increased this result by approximately 1.6 times to -\$277.7 million and -\$281.9 million. Results also demonstrated that for a given set of assumptions, the choice of DM scenario (e.g., length of accrual window) had minimal effects on the projected total impact on gross crop revenues, although participant crop selection would impact the extent of the economic impact. These results did not factor in economic benefits, including direct compensation to producers.

In order to approximate the minimum compensation agricultural producers might need in order to participate in a DM Program, the per unit impacts were also estimated. Estimated reductions in crop revenue based on a representative crop mix and all non-alfalfa hay ranged from \$303-\$409/ac-ft and \$142-\$212/ac-ft, respectively. These values are estimated reductions in gross revenue, not net revenue, and do not include potential savings on variable costs, such as seed or fertilizer, that DM participants may not need to purchase for that year. Recognizing that, these values could be considered a rough approximation of the minimum “break-even” compensation agricultural producers would need in order to consider participating in a DM Program. Slightly different assumptions regarding yield, consumptive water use, and price contributed to the difference in values.

### 2.5.1.3 *M&I Impacts*

A diverse set of strategies could potentially be used by the M&I sector to participate in a DM Program, including, but not limited to, increasing conservation/efficiency measures to reduce consumptive use, utilizing redundant water supplies or water supplies from different basins, and/or changing rate structures or rates to incentivize consumer conservation. For the M&I sector, the potential economic impacts of participating in a DM Program may be much greater for water providers, given that the rate structure for many providers is set such that a portion of revenue comes from the volume of water delivered. For example, an analysis of potential revenue losses for three large water providers in the Upper Basin on a per unit basis ranged from \$204-\$1,577/ac-ft.

### 2.5.1.4 *Risks and Potential Mitigation*

A variety of potential risks exist for individual agricultural producers, the regional economy, and for the DM Program itself. Risk at all levels, from the individual farm to regional to basin-wide, can be minimized or mitigated through appropriate program design choices and implementation success. It is critical to recognize, however, that there are no iron-clad design options to remove all risks completely. Markets for irrigated crops and livestock and M&I water use patterns and needs are subject to both hyper-local and global influences, neither of which are predictable.

Key farm-level risks identified include inadequate compensation, changing property tax status, and challenges related to maintaining land health on fallowed fields. State-specific mechanisms may be considered to help mitigate some of these risks. The risk of inadequate compensation could be minimized by using up-to-date, regionally specific enterprise budgets and premium payments on top of break-even payments to encourage optimal levels of participation. A DM Program could provide

early outreach and education on the common changes that could occur to land health during and after fallowing and provide mitigation measures on how to maintain land health during and after the fallowing period.

The cumulative toll of potential farm-level impacts also creates risk at the local/regional level. Regional risks include overdependence on one crop type, geographic area, or farm size and other impacts on small rural communities. Regional-level risks to consider include disproportionate impacts (i.e., potentially overburdening some producers or geographic areas while sparing others from negative impacts), impacts to small, rural communities, and impacts to irrigation ditch companies.

### **2.5.2 Approaches for Funding a DM Program**

A wide range of private and public funding sources are potentially available to support a DM Program. These funding sources vary in terms of which aspects of a DM Program they might support, with some more appropriate for covering landowner compensation while others may be better for covering one or more types of transaction costs (e.g., deal development and negotiation, administrative processing, or accounting and verification). This section summarizes relevant federal and state government funding sources as well as potential municipal, corporate, philanthropic, and other investment sources. The assessment was informed by various funding program reviews (as further described in sections below), research on previous voluntary and compensated conservation programs and other conservation efforts, as well as interviews with conservation program managers and other experts.

#### **2.5.2.1 Federal**

Congress primarily appropriates federal funding related to water management and agricultural water use through Reclamation and the Department of Agriculture's Natural Resources Conservation Service. Numerous established grant programs in both agencies are potentially viable funding sources for one or more elements of a DM Program. In general, however, these grant programs are not a good source of funding to compensate landowners for their consumptive water use due to the objectives of both agencies to advance and support agricultural water development and management while also reallocating water savings to other uses. Thus, a key challenge is to determine how best to utilize and/or modify provisions of the authorizing legislation (i.e., Secure Water Act and Farm Bill) for both agencies to shape these existing programs to be more useful for a DM Program.

Congress can also directly authorize the appropriation of funds for water-related issues through large omnibus bills such as the Farm Bill, the 2021 Infrastructure Investment and Jobs Act (IIJA), or the recently enacted 2022 Inflation Reduction Act (IRA). These bills may be more appropriate for funding landowner compensation under a DM Program as opposed to other program components.

#### **2.5.2.2 State**

Each UDS has a different perspective on potential sources and uses of state funding to support a DM Program. In Colorado, certain state water efforts have been funded through general fund appropriations and collection of fees. However, these efforts are distinct from a potential DM Program in a number of ways.

New Mexico periodically requests and sometimes receives appropriations from their state legislature towards the New Mexico Strategic Water Reserve, a statewide program that could be used for the purpose of a DM Program in the San Juan River Basin in the future.

The Utah state legislature has made significant investments in water conservation activities in the state, most recently appropriating approximately \$500 million in 2022 toward these efforts. This funding includes support for the Colorado River Authority of Utah's (CRAU) five-year strategic (management) plan, which contemplates DM pilot programs in the Colorado River Basin in Utah, as well as the development of tools to monitor, account for, and verify intra- and interstate DM activities.

Wyoming's Water Development Program provides for the planning, selection, financing, construction, acquisition, and operation of water projects. This can include projects for the conservation, storage, transmission, supply, and use of water. Projects are developed and recommended each year to Wyoming's state legislature by the Wyoming Water Development Commission. Additionally, Wyoming's state legislature has previously provided funding to assure compliance with interstate water compacts and decrees in some of Wyoming's other river basins. However, programs like a potential DM Program have not previously been presented for consideration or funding.

#### *2.5.2.3 Municipal*

There is the potential for municipalities and other water providers to participate in funding a potential DM Program. Several Upper Basin municipalities have expressed interest in helping to fund a DM Program in order to reduce the risk to their water supply that may result from involuntary water supply cuts. Within each UDS, municipal participation in a potential DM Program may impact and influence local financing options.

#### *2.5.2.4 Funding Review Results*

Passage of the IIJA in 2021 and the IRA in 2022 may make substantial federal funding available for water conservation efforts across the western United States, which may include reauthorization of the SCPP and other water conservation measures. Because of this substantial infusion of federal funding, it is likely less compelling to seek funding from WaterSMART or other programs in the near term; however, there could be an opportunity to develop U.S. Department of Agriculture funding for landowner compensation under the next Farm Bill, expected to be developed by Congress in 2023. State funding may also be further explored to support the implementation of a potential DM Program. Finally, philanthropic funding could provide support in gauging local interest and educating water users about a DM Program. Table 2-9, next page, provides a more comprehensive summary of the potential funding sources for a DM Program.

**Table 2-9: Summary of Potential Funding Sources for a DM Program**

Source	Agency/ Entity	Opportunity	Funding Focus				Ripeness	
			Water Costs	Transaction Costs (UCRC, State)	Transaction Costs (NGO)	Planning/ Technical Assistance	Current or Past (SCPP) DM Funder	Current/ Timely Funding Available
Federal	Congress	Infrastructure Investment and Jobs Act of 2021	X	X			X	X
		Inflation Reduction Act of 2022	X	X				X
		Interest Bearing Account	X	X	X	X		
		Earmarks	X	X	X	X		
	Bureau of Reclamation	Operational Budget		X		X	X	
		WaterSMART		X		X		X
	Natural Resources Conservation Service	Conservation Innovation Grants (CIG)				X		X
		Environmental Quality Incentives Program (EQIP)	X*					X
		Conservation Reserve Program (CRP)	X*					X
		Conservation Stewardship Program (CSP)	X*					X
Regional Conservation Partnership Program		X*					X	
	Watershed & Flood Protection Program (PL-566)	X*			X		X	
State	Colorado	New Fees or Taxes	X	X		X		N.A.
		General Fund Appropriations	X	X		X	X	
		Ballot Measure	X	X		X	X	
	Utah**	General Fund Appropriations	X	X		X	X	
	New Mexico**	General Fund Appropriations	X	X		X	X	
Wyoming**	General Fund Appropriations	X	X		X	X		
Municipal	Lower CRB	Direct Funding (like SCPP)	X	X	X		X	
	Upper CRB	Direct Funding (like SCPP)	X	X	X		X	
Other	Philanthropic	Various Grant and Direct Funding Options	X		X	X	X	X
	Corporate	Bonneville Environmental Foundation	X				X	
		California Water Action Collaborative	X					
		Individual Companies	X					X
	Private Capital	Impact Investing	X					X
		Quantified Ventures CRB Water Scarcity	X					
	TNC NatureVest	X						

\* These funding sources do not directly state whether or not they will fund water costs, but also do not rule out such funding

\*\*New fees/taxes or a ballot measure to support a DM Program would require political support in each of the UDS.

**2.5.3 Costs Related to DM Program Administration**

This section discusses the need for and scale of programmatic or transaction costs that may be required to implement and manage a DM Program apart from the costs of compensating participants (i.e., paying water users to forgo their use). At a high level, transaction costs are an array of administrative and operational expenses like outreach to water users, drafting and reviewing applications, contracting with water users, monitoring and verifying projects once approved and implemented, shepherding water, and other DM Program activities. These costs are distinct from money paid to water users for actions like fallowing irrigated fields. Table 2-10, next page, shows a breakdown of transactional costs for a potential DM Program into five broad categories.

**Table 2-10: Categories of Transaction Costs for a DM Program**

High-Level Category (from Garrick et al., 2013)		Category	Description
Institutional Lock-in Costs*	Static Transaction Costs	Education & Outreach	Promote the program to the general public and, more importantly, to water users to encourage participation
		Project Design & Development	Identify projects/water user partners, design specific projects (i.e., partial vs. full season fallow, etc.), hold initial contract negotiation, draft DM program application and any necessary state water right applications, and other tasks
		Project Implementation	Finalize and receive approval for DM and water right applications, finalize contracting
		Verification, Monitoring & Shepherding	Conduct verification during irrigation/water use season, coordinate/manage reservoir releases
	Institutional Transaction Costs	Adaptive Management & Policy	Fundraise and promote policies to lower barriers and other lock-in costs and sources of inefficiency for DM program operation
*Law/policy/other institutional dynamics that can increase all categories of transaction costs			

Efforts to better understand the costs of a DM Program highlighted that little information about individual transaction costs is available. The summarized findings included in this report, therefore, are focused on the potential scale of costs rather than a specific program cost.

Colorado’s ongoing intrastate DM feasibility effort has attempted to estimate transaction costs for three scenarios with differing levels of effort and complexity, and this provides the most useful starting point for the Upper Basin as a whole. Depending on a wide range of factors, Colorado’s estimates range from \$300,000 in “program costs” up to \$19.5 million. Reported spending on the administration of the SCPP, including the costs of detailing a Reclamation employee to the UCRC, from 2015-2018 totaled at least \$327,000, or roughly \$81,750 per year. These costs do not include additional UCRC and state staff costs or costs borne by NGOs who actively participated in the Pilot.

Another way to think about transaction costs is based on the total transaction costs incurred per unit of water transacted. In an examination of transaction costs in a large-scale water transactions program in the Columbia River Basin, Garrick and Aylward (2012) found that transaction costs ranged from approximately \$400 to \$13,300 per discounted cubic feet per second (cfs) transacted, with a median value of \$2,225/discounted cfs (in 2007 dollars). Depending on the DM Program design and implementation, the amount of water transacted in any year could vary greatly. Based on experience with Columbia River Basin transactions, transaction costs in the Upper Basin would likely be higher

in general; the increased costs would primarily come from law and policy that is less conducive to water markets/transactions, and also the potentially high verification and shepherding costs predicted for an Upper Basin DM Program.<sup>41,42</sup>

The final way to summarize possible cost information is by using qualitative information provided during interviews with UDS personnel. For example, there were two staff members in New Mexico who spent some of their time on SCPP. New Mexico also predicted that a DM Program would require between 1.5-2.0 full-time equivalents (FTE) in their state. This estimate was for all possible DM Program-related work, primarily reviewing DM project applications, contracting, verification, monitoring, and limited shepherding (representatives noted that capacity requirements could increase if projects involved complex water rights administration). Unlike New Mexico, where there were no NGO employees supporting SCPP efforts, Wyoming, Colorado, and Utah all had active NGO partners supplementing state capacity. The number of FTEs required for each state would vary depending on the amount of water each state would eventually contribute to a DM Program and the level of complexity of DM projects (especially the complexity of calculating consumptive use reductions, verification processes, and monitoring/ shepherding requirements). It is likely that the estimate of 1.5-2.0 FTEs per state is a lower-bound estimate.

#### 2.5.3.1 Administration Costs Review and Results

Transaction costs are difficult to define fully and enumerate. Despite this difficulty, transaction costs, and the extent to which they are understood and planned for, are significant drivers of DM Program success. For example, in markets for goods with public-resource characteristics like water, high transaction costs and failures to account for and fund them are some of the most common barriers to success.

A specific cost estimate of transaction costs for a potential DM Program was beyond the scope of this effort. Also, if developed, the eventual cost of a DM Program is likely to be heavily influenced by UDS and UCRC policy-maker decisions and program design.

Most of the information available and provided here focuses on the transaction costs associated with participation in a DM Program by agricultural water users. It is important to note, therefore, those transaction costs are likely to vary by water use sector.

Costs for project verification and determination of CCU are among the most critical transaction costs because they directly affect the Upper Basin's ability to move water into DM storage. Prioritizing analysis and spending on these transaction costs will be important; however, such is the nature of transaction costs that underfunding education and outreach, for example, could result in fewer projects to verify and less CCU. The most important message of the research conducted is that failing to adequately account for and then fund the full range of transaction costs could result in fewer participants in a potential DM Program.

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<sup>41</sup> Szeptycki, Leon F.; Forgie, Julia; Hook, Elizabeth; Lorick, Kori; and Womble, Philip. (2015). *Environmental Water Rights Transfers: A Review of State Laws*. All In-stream Flows Material. Paper 3.

<sup>42</sup> Szeptycki, L. & Pilz, D. (2017). *Colorado River Basin Environmental Water Transfers Scorecard*. Stanford Woods Institute for the Environment.



#### 2.5.4 Costs Related to Participant Compensation

Participation in a DM Program is, by definition, “temporary, voluntary, and compensated.” Therefore, an important aspect of program design is to determine the appropriate level(s) of compensation for participating individuals or entities. Selection of too low a value could result in low participation levels, while too high a value could result in overpayment for water. To better inform any strategy employed by the UDS and UCRC, this section reviews how participant compensation levels have been determined elsewhere (e.g., pilot projects, economic modeling), as well as any lessons learned that might inform DM Program design in the Upper Basin.

Overall, employed methods for determining participant compensation in previous voluntary and compensated conservation programs are inconsistent and variable. Reasons cited for this include geographic limitations; difficulties associated with transacting and moving water; the global economy’s inelasticity to changes in crop production; and a disinclination for the program to set the market price of water in the region.

Instead, compensation used in water conservation pilot programs and studies to date has been determined through a variety of methods, including stakeholder interviews, direct negotiations with participants, and break-even or incentive compensation associated with assumed behaviors resulting from participation (e.g., full season fallowing of a crop). Regardless of the method, the unit for which participants were compensated was typically the volume of CCU. CCU, particularly for agriculture, however, is difficult to ascertain as a standardized measure — variables like geographic region, climate variability, crop mix, irrigation technology, and DM Program-related activity (i.e., full season fallow, split season fallow, crop switch, etc.) – all have the potential to affect this measure.

Some of the previous temporary and compensated conservation measures that relied on stakeholder interviews and negotiations with participants cited a reluctance by those involved to establish a fixed compensation level, and instead, the proponents negotiated compensation on an individual-by-individual basis. A rough estimate of the value of agricultural output per ac-ft of CCU typically served as the starting point for negotiations. Other factors that informed negotiations included expressed interest from potential participants, budget availability for the program, and participant willingness to accept certain levels of compensation. In addition, a previous literature review found that participant compensation “always exceeded the loss in profit on lands participating in temporary water leasing programs.”<sup>43</sup>

The following section presents summarized findings from a review of pilot projects and economic impact analyses of a potential DM Program. Note that all reported values are per year and shown in constant 2020 dollars.

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<sup>43</sup> WestWater Research. (2018). *Secondary Economic Impacts & Mitigation Strategies*. Cited in *BBC Research & Consulting et al., 2020*. Webpage: <https://swwcd.org/wp-content/uploads/2020/09/upper-basin-demand-management-economic-study-in-western-colorado.pdf>.

#### 2.5.4.1 Compensation Costs Review and Results

The following bullets summarize estimated participant compensation from prior studies and pilots; however, they are not to be misconstrued as proposed or estimated for any future potential water conservation compensation or formal DM Program:

- After the removal of one outlier value, the average compensation for participants in the Grand Valley Water Users Association (GVWUA) Conserved Consumptive Use Pilot Project (2017) and UCRC SCPP (2015-2018) was approximately \$220/ac-ft.<sup>44,45</sup>
- Another recent study focused on the potential economic impacts of voluntary conservation measures and involuntary curtailment in Colorado's Upper Gunnison Basin and used a stakeholder survey process as the basis for setting compensation levels. Compensation that considered both direct and residual impacts ranged from \$78-\$207/ac-ft depending on the length and conditions of participation.<sup>46</sup>
- A study in Colorado on the potential economic impacts of a DM Program used survey results to estimate the annual direct costs for fallowing alfalfa and corn (\$75/acre) and grass hay (\$35/acre, including residual effects on yield in the year following participation). For break-even and premium incentive compensation, payments of \$194-\$263/ac-ft (with an average of \$236/ac-ft) and \$136-\$183/ac-ft were calculated, respectively.<sup>47</sup>
- A similar study in Wyoming also used the break-even and premium-based compensation approach but developed a very specific profile for participants, who would respond to reduced water use one of two ways. The first scenario assumed participants would purchase hay to replace hay lost from fallowing and set compensation as the participant's baseline net operating income plus the cost of purchasing replacement hay. Compensation payments under this approach ranged from \$266-\$418/ac-ft, depending on the crop type. The second scenario set compensation as a participant's baseline net operating income, plus the cost of fallowing under the program, plus a 50% premium on the net operating income. This approach resulted in a range of payments from \$202-\$261/ac-ft depending on crop mix.<sup>48</sup>

Summarized findings include:

- With regards to agricultural participant compensation, the break-even amount (i.e., the minimum value a participant would likely consider) has the potential to vary based on

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<sup>44</sup> Grand Valley Water Users Association and JUB Engineers. (2017) *2017 Conserved Consumptive Use Pilot Project*. Webpage: [https://www.coloradomesa.edu/water-center/documents/October13\\_CCUPP\\_UteWater\\_Luke.pdf](https://www.coloradomesa.edu/water-center/documents/October13_CCUPP_UteWater_Luke.pdf).

<sup>45</sup> Ibid. pg. 10.

<sup>46</sup> Harvey Economics. (2020). *Economic Impacts of Irrigation Water Curtailment Scenarios for the Upper Gunnison Basin*. Accessed at: <https://ugrwcd.org/wp-content/uploads/2021/03/Harvey-Economics-Study-of-Gunnison-Basin-October-2020-Board-Meeting.pdf>.

<sup>47</sup> Ibid. pg. 44.

<sup>48</sup> Hansen, K., R. Coupal, E. Yeatman, and D. Bennett. (2021). *Economic Assessment of a Water Demand Management Program in Wyoming's Portion of the Colorado River Basin*: Summary. Bulletin B-1373. Laramie, WY: University of Wyoming Extension. Available at: <https://www.wyoextension.org/agpubs/pubs/B-1373-1-web.pdf>.

a number of factors, such as current water use, geography, crop type, irrigation technology, farm size, etc.

- Participant compensation may need to be higher than the break-even value of the water — to cover additional costs (e.g., the cost of fallowing fields) and/or a premium over and above the value of the water and costs of participation to the producer.
- Lower commitments of CCU may attract more participants than full-season fallowing projects or higher levels of conserved water commitment.
- When establishing participant compensation, there are pros and cons to setting a fixed compensation level versus conducting a reverse auction or engaging in individual negotiations. While actual compensation per acre-foot paid to participants would likely be lower under a strategy using a reverse auction or individual negotiations, these strategies would likely result in higher transaction costs as compared to a fixed compensation strategy. Ditch companies also may need to be compensated for lost revenue resulting from ditch member participation.

## **2.5.5 Survey of M&I Water Providers Regarding Participation in a DM Program**

While there is a growing repository of research and literature focused on the potential incentives for and impacts of participation by agricultural producers in DM, similar efforts related to M&I users are relatively limited. A voluntary online survey of M&I users in the Upper Basin identified by the DMC was conducted with the goal of assessing the potential for these water users to participate in a DM Program. The survey included questions on existing programs or plans to address water supply shortages, potential participation in a DM Program, and characteristics of the agency/entity.

### *2.5.5.1 M&I Survey Methods, Demographics, and Results*

A total of sixteen entities completed the survey, resulting in a response rate of approximately 32%. Responses by state were as follows: Colorado (4), New Mexico (3), Utah (3), and Wyoming (5), Unknown State (1). All but two respondents reported that they work for a publicly owned agency/entity. One respondent worked for a private water provider, while the other worked for an entity that operates industrial power plants. Eleven of the fifteen water providers (73%) used a tiered-rate structure, as opposed to a flat rate (3) or a flat rate combined with a tiered structure (1).

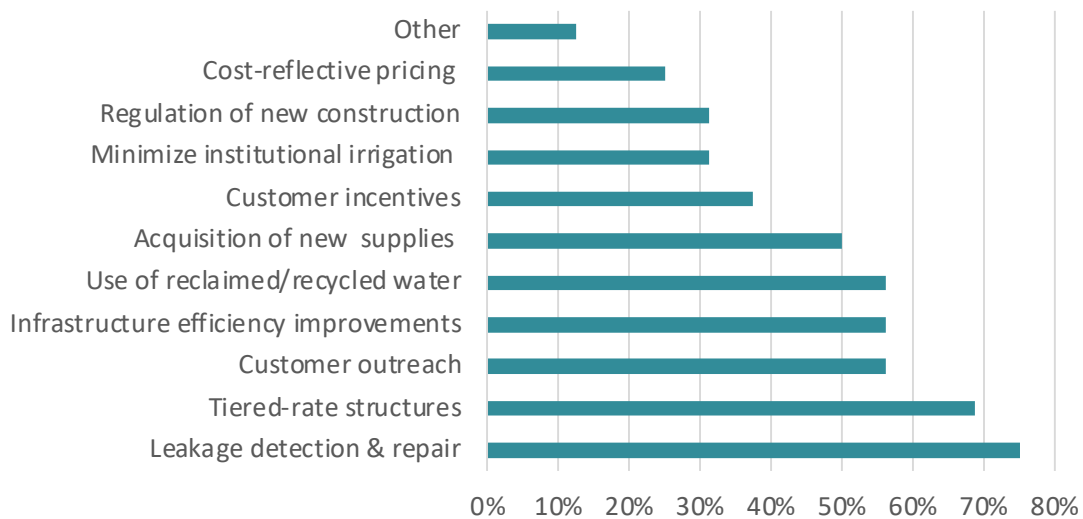
The size of the populations served by respondent agencies ranged from 2,000 to 1.5 million. Five of the twelve respondents (40%) answering this question worked for agencies serving populations of 10,000 or fewer individuals.

The percentage of direct water supply coming from the Colorado River varied substantially across respondents, with results ranging from 0% to 100%. Five of the twelve respondents answering this question stated that 100% of their entity's primary water supply came from the Colorado River. Three responding entities relied on the Colorado River for supplemental water supply, from which all of their supplemental supply is derived.

Respondents were asked how secure, in terms of providing a reliable volume of water, they perceived their current primary and supplemental water supply sources to be. Responses varied by both respondent and source type (i.e., primary versus supplemental); however, nearly all respondents perceived their entity's primary water supply sources to be at least "somewhat secure." Generally, supplemental sources were perceived as less secure than primary water supply sources, and a few respondents believed their supplemental water sources were "not at all secure." When shifting the

focus from the security of current water supply sources to potential future water shortages, the majority of respondents (15 of 16) stated that their entity is “very” or “extremely” concerned about the potential for future water supply shortages/scarcity.

To better understand whether respondents had already implemented programs or initiatives to proactively address potential water shortages, a question about the number and types of such programs/initiatives was asked. A total of ten different programs or initiatives were listed as responses, along with an “other” option. All respondents had at least one program or initiative in place to proactively address potential water shortages. The number of programs/initiatives implemented by a single agency ranged from one to eleven, with a median number of four per respondent. Distribution system leakage detection and repair was the most reported program/initiative, followed by the use of a tier-rate structure (Figure 2-17).



**Figure 2-17: Municipal Water Provider and Industrial Use Programs & Initiatives**

Seven of the sixteen respondents (44%) stated that their entity tracks the amount of water that could be/had been saved by these programs/initiatives, and five of those seven also tracked the cost per unit of water saved.

Just over half of the respondents (9 of 16) stated their agency has a formal drought response or water scarcity contingency plan. Six of those nine respondents’ plans include additional programs or initiatives that are not in place but would be implemented as part of the plan. These additional programs included real-time monitoring of water use, watering restrictions, audits of more significant water users, outreach to property managers, regulation of new construction, and implementation of a tiered rate structure.

In response to a question on how respondents plan for or respond to costs associated with water supply shortages, three respondents stated their agency does nothing. Across the other thirteen respondents, the most common actions reported were adjusting rates, use of reserve funds, and additional scenario planning.

In terms of potential willingness to participate in a temporary, voluntary, and compensated Upper Basin DM Program, responses were as follows: No (3), Maybe (10), Yes (2), No Response (1).

Respondents who answered “Maybe” or “Yes” were asked to elaborate on any interests and/or concerns related to a DM Program, as well as whether there were specific DM Program design elements (e.g., pricing, conditions, incentives) that might help mitigate those concerns. Primary concerns expressed included soil health, increased rates for customers, safeguarding against speculators, and use of water by Lower Division States. Possible DM Program design elements listed included pricing, conditions, incentives, safeguards, and credits for future water needs.

Finally, respondents were asked whether they had any other thoughts or recommendations for how their entity and/or others might effectively participate or interact with a DM Program. A wide variety of responses were submitted — with some respondents reiterating their willingness to participate and support a DM Program and others requesting more information.

## **2.6 Intrastate and Interstate Legal Authorities and Administrative Frameworks Regarding the Storage and Release of DM Water**

This section analyzes the intra- and interstate legal authorities and administrative frameworks that the UDS and the UCRC may use or that do not prohibit the storage and release of DM water from the CRSPA Initial Units for a DM Program. It does not, however, offer any opinion on whether the UCRC or the UDS should or should not pursue a DM Program.

### **2.6.1 Federal Authorities**

Any discussion on Federal authorities and a DM Program must begin with the Colorado River Drought Contingency Plan Authorization Act (DCP Act), which Congress passed in 2019.<sup>49</sup> In enacting the DCP Act, Congress directed the Secretary of the Interior to operate Colorado River System reservoirs in accordance with the DCPs. By ratifying the DCPs, including the DMSA, Congress codified the ability of the UDS, through the UCRC, to store up to 500,000 acre-feet in the CRSPA Initial Units for a DM Program. However, the DCP Act states that any DM Program must comply with applicable Federal environmental laws and must not affect water rights. The legal authorities embodied in the “Law of the River” appear to be broad and flexible enough to not prohibit a DM Program. Nothing in the 1922 Compact or the 1948 Upper Colorado River Basin Compact (1948 Compact) prohibits a DM Program.

In addition, the following subparagraphs from Article VIII of the 1948 Compact vest the UCRC with sufficient authority to perform the tasks contemplated in the DMSA:

- (3) “Make estimates to forecast water run-off on the Colorado River and its tributaries;”
- (4) “Engage in cooperative studies of water supplies of the Colorado River and its tributaries;”
- (5) “Collect, analyze, correlate, preserve and report on data as to the stream flows, storage, diversions and use of the waters of the Colorado River, and any of its tributaries;”
- (7) “Make findings as to the quantity of water deliveries at Lee Ferry during each water year;”

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<sup>49</sup> Pub. L. No. 116-14, 133 Stat. 850 (2019).

(9) “Make findings to the quantity of reservoir losses and as to the share thereof chargeable under Article hereof to each of the States;”

(10) “Make findings of fact in the event of extraordinary drought...in the Upper Basin, whereby deliveries by the Upper Basin of water which it may be required to deliver in order to aid in fulfilling obligations of the United States of America to the United Mexican States arising under the Treaty between the United States of America and the United Mexican States, dated February 3, 1944.”

(12) “Perform all functions required of it by this Compact and do all things necessary, proper or convenient in the performance of its duties hereunder, either independently or in cooperation with any state or federal agency.”

Given this authority, the UCRC would likely be able to make findings and perform functions related to the implementation of a DM Program, including playing an administrative role like the one it played in implementing the SCPP.<sup>50</sup>

Similarly, the CRSPA and Colorado River Basin Project Act (CRBPA) would not prohibit the Secretary from operating the CRSPA Initial Units in cooperation with the UDS and with agreement from the UCRC to facilitate the storage and release of water for a DM Program if such a program is established and implemented under the DMSA.

The DCP Act requires compliance with federal environmental laws, where applicable. Such laws include, but may not be limited to, the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA) in the context of the storage and release of water conserved for DM purposes from the CRSPA Initial Units. NEPA requires federal agencies to prepare an environmental assessment (EA) or Environmental Impact Statement (EIS) depending on the degree and nature of the impacts that an action with a federal nexus has on the human environment. An EA determines whether said federal action has the potential to cause significant environmental impacts. If the federal agency conducting the EA determines that the federal action will not result in significant environmental impacts, the agency will issue a “finding of no significant impact,” and the NEPA process will conclude. If, however, the EA determines that the environmental impacts of a proposed federal action will be significant, it will prepare an EIS. The EIS process can include the development of baseline investigations, alternative action considerations, and impact analyses. The EIS process ends with the issuance of a Record of Decision (ROD) that includes provisions intended to mitigate impacts on the environment and to ensure compliance with any ESA requirements.<sup>51</sup>

Reclamation has issued RODs and biological opinions (BO) for each of the CRSPA Initial Units that include provisions intended to ensure their operations satisfy the authorized purposes of the project and meet ESA requirements for ESA-listed species. Operating a DM Program outside of the existing RODs could require additional analysis, including potentially another EIS, which could take years and would likely present a significant constraint on a potential DM Program. Nevertheless, each ROD appears to include operational flexibility, meaning that it may be possible to operate a DM Program within the parameters of the existing RODs, thereby avoiding the need for further EIS development.

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<sup>50</sup> For more on the SCPP, see: <http://www.ucrccommission.com/system-conservation-pilot-program/>.

<sup>51</sup> 16 U.S.C. § 1531 *et seq.*



## 2.6.2 State Authorities

How each UDS would administer a DM Program would depend on the individual laws of each state. Multiple approaches are available for the intrastate administration of a DM Program. Such approaches may include but are not limited to, treating DM water as a beneficial use or administering a DM Program pursuant to each state's water rights administration and supervision authorities. The feasibility of any given approach would depend on the laws and requirements of each state.

### 2.6.2.1 Colorado

Colorado provided its own legal research on a potential DM Program. More specifically, the Colorado Water Conservation Board (CWCB) adopted Colorado's 2019 Work Plan to help guide the initial stage of the intrastate feasibility investigation in Fiscal Year 2019-2020. One component of the Work Plan was to establish workgroups comprised of subject-matter experts and key Colorado River stakeholders, which were directed to meet at least four times publicly in Fiscal Year 2019-2020, and to identify key threshold issues for consideration. One such workgroup was the Law and Policy Workgroup, which prepared a full report available on the CWCB's website.<sup>52</sup>

There are several outstanding legal and policy questions relating to a potential DM Program in Colorado, and the conclusions drawn could impact how such a program operates and whether it works within existing law. These key legal and policy issues include, but are not limited to:

- Would participation in a potential program be considered a beneficial use under Colorado law?
- What is the definition of Compact compliance?
- How is program eligibility determined?
- How is CCU defined for purposes of participation in a potential DM Program?
- What is the appropriate definition of "temporary" in the context of a potential DM Program?
- What is the appropriate procedure for DM Program project review and approval?

### 2.6.2.2 New Mexico

There are a number of provisions within current New Mexico law that would allow and possibly facilitate a DM Program. However, none of these provisions are specific to a DM Program, and there are questions as to how exactly New Mexico would implement a DM Program.

New Mexico's Interstate Stream Commission (ISC) ensures compliance with the state's interstate compacts. As such, it has broad authority to negotiate compacts, conduct investigations, and "do any and all other things necessary to protect, conserve, and develop the waters and stream systems of [New Mexico], interstate or otherwise."<sup>53</sup> Among other authorities, the ISC operates the New Mexico Strategic Water Reserve (Reserve), by which the ISC can acquire water rights to "assist the state in complying with interstate stream compacts and court decrees," among other purposes.<sup>54</sup> New Mexico law specifies that water rights the ISC acquires for the Reserve "shall remain in their river reach or

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<sup>52</sup> Colorado Water Conservation Board. (2020). *Demand Management Feasibility Investigation Update*. CWCB Website: [https://dnrweblink.state.co.us/CWCB/0/edoc/212913/Demand%20Management%20Update\\_20200723.pdf](https://dnrweblink.state.co.us/CWCB/0/edoc/212913/Demand%20Management%20Update_20200723.pdf).

<sup>53</sup> N.M. STAT. ANN. § 72-14-3. The ISC consists of the State Engineer and eight unsalaried members appointed by the Governor.

<sup>54</sup> *Id.* § 72-14-3.3(B) (1978); N.M. CODE R. § 19.25.14.9.



ground water basin of origin,” and the cumulative impacts of reserve acquisitions “shall not adversely affect existing users or delivery systems.”<sup>55</sup>

Given the Reserve’s express statutory purpose of “complying with interstate stream compacts,” the Reserve might be a possible mechanism that New Mexico could use to implement a DM Program. New Mexico law requires applications to the New Mexico State Engineer to change the purpose or place of use of a water right.<sup>56</sup> A DM Program in New Mexico will likely involve Navajo Reservoir, so water conserved pursuant to a DM Program could be stored in Navajo Reservoir and released to Lake Powell at the most appropriate time. If water were already stored in Navajo Reservoir pursuant to a contract prior to its participation in a DM Program, it could be administratively easy to change from the authorized purpose of storage to DM purposes.

Forfeiture for non-use can occur following four consecutive years of non-use in New Mexico,<sup>57</sup> but a water right placed in the Reserve is protected against forfeiture.<sup>58</sup> Because forfeiture only applies after the water has not been used for a period of four years, any water leased for a DM Program without an approved change application for DM purposes would not be at risk of forfeiture as long as the lease is for less than four consecutive years.

A change application would likely be needed, however, to authorize the storage and release of DM Program water.<sup>59</sup> For such applications to be approved, the storage and release of DM Program water would likely need to qualify as a beneficial use. New Mexico’s Constitution states that “beneficial use shall be the basis, the measure and the limit of the right to the use of water.”<sup>60</sup> New Mexico’s statutes, however, do not define beneficial use.<sup>61</sup> Instead, New Mexico’s courts have recognized a flexible interpretation of beneficial use.<sup>62</sup> Some New Mexico court cases have held that a physical diversion is required for a use to be beneficial.<sup>63</sup>

Currently, there appears to be a question as to whether DM Program water would qualify as a beneficial use under New Mexico law. Nevertheless, two recent instream flow approvals may provide guidance on how the State Engineer might review and administer DM Program applications. In 2019, the State Engineer approved a temporary instream flow permit for Audubon, New Mexico, to use

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<sup>55</sup> *Id.* § 72-14-3.3(F) and (H). The ISC cannot acquire water rights served or owned by an acequia or community ditch, nor can it acquire water rights served by an irrigation district, except through contractual arrangement with the district board or as a special water users association. *Id.* § 72-14-3.3(A). It also cannot acquire water rights through condemnation can only acquire water rights that have sufficient seniority and consistent historic beneficial use to effectively contribute to its purposes. *Id.*

<sup>56</sup> *Id.* §§ 72-5-24, 72-5-23.

<sup>57</sup> *Id.* § 72-5-28(A).

<sup>58</sup> *Id.* § 72-14-3.3(A).

<sup>59</sup> *Id.*

<sup>60</sup> N.M. CONST. art. XVI, §. 3.

<sup>61</sup> N.M. STAT. ANN. § 72-12-2; N.M. STAT. ANN. § 72-1-2 (1978) (governing water rights that are appropriated for irrigation purposes and stating: “Beneficial use shall be the basis, the measure and the limit of the right to the use of water, and all waters appropriated for irrigation purposes, except as otherwise provided by written contract between the owner of the land and the owner of any ditch, reservoir or other works for the storage or conveyance of water, shall be appurtenant to specified lands ... so long as the water can be beneficially used thereon, or until the severance of such right from the land in a manner hereinafter provided in this article.”).

<sup>62</sup> See e.g., *Carangelo v. Albuquerque-Bernalillo Cnty. Water Util. Auth.*, 2014-NMCA-032, ¶ 41, 320 P.3d 492, 505 (N.M.App. 2013); *State ex rel. Off. of State Eng’r v. Romero*, 2020-NMCA-001, ¶ 28, 455 P.3d 860, 868 (N.M.App. 2019); *State ex rel. Martinez v. McDermott*, 1995-NMCA-060, ¶ 10, 901 P.2d 745, 748 (N.M.App. 1995).

<sup>63</sup> *State ex rel. Erickson v. McLean*, 308 P.2d 983, 987 (N.M. 1957) (emphasis added). See also *State ex rel. Reynolds v. Miranda*, 1972-NMSC-003, 493 P.2d 409 (N.M. 1972) and *Hagerman Irr. Co. v. Murray*, 1911-NMSC-021, 113 P. 823 (N.M. 1911) (including similar language regarding the physical diversion of water as a requirement for beneficial use).

water rights for instream flow in a specified stream segment of the Rio Gallinas for fish and wildlife purposes. In 2020, the State Engineer approved a temporary instream flow permit for Trout Unlimited to use water rights for instream flow in a specified stream segment of a tributary to the Rio Chama. In both cases, the water or a portion of the water is temporarily unavailable for its original irrigation purpose and is instead used for instream flow. The New Mexico Office of the State Engineer also imposed conditions in both approvals to ensure that the new purpose of use will be monitored and metered and will not impair the water rights of other users in the system. Both permits require points of diversion where the water enters the stream, along with measuring devices to show control of the water permitted for instream use. In other words, the installation of measuring devices appears to satisfy the physical diversion requirements discussed above.

### 2.6.2.3 Utah

DM Program water likely qualifies as a beneficial use under Utah law, in which case it would be treated similarly to other water rights for administration and distribution purposes, notwithstanding practical and technical considerations. Although beneficial use is the “basis, the measure and the limit of all rights to the use of water,” there is no statutory definition of beneficial use in Utah.<sup>64</sup> Instead, Utah courts have held that the concept of beneficial use is not static and “is susceptible to change over time in response to changes in science and values associated with water use” and that what qualifies as a beneficial use depends on the facts and circumstances of each case.<sup>65</sup> Given Utah’s recognition that beneficial use depends on the circumstances of each case, the DMSA and the DCP Act could create the context by which DM Program water qualifies as a beneficial use under Utah law.

If DM Program water qualifies as a beneficial use, the Utah State Engineer would need to approve a change application to convert a water right to DM Program water use. The required conditions for State Engineer approval of a change application do not inherently prohibit a change for DM Program water use.<sup>66</sup>

Recent changes in Utah law could facilitate a DM Program. In 2020, the Utah Legislature passed H.B. 130, which expressly recognized what are known as “fixed-time” change applications that can be filed to authorize a change in an underlying water right for periods of time that exceed one year but do not exceed ten years.<sup>67</sup> H.B. 130 further specified that proof requirements do not apply to fixed-

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<sup>64</sup> UTAH CODE ANN. §§ 73-1-3 and 73-3-1(4).

<sup>65</sup> *In the General Determination of the Waters of Utah Lake and Jordan River. Butler, Crockett & Walsh Develop. Corp. v. Pinecrest Pipeline Operating Co.*, 2004 UT 67, ¶ 46, 98 P.3d 1 (quoting *Jeffs v. Stubbs*, 970 P.2d 1234, 1245 (Utah 1998)). This decision also quotes portions of *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use*, 28 *Envtl. L.* 919, 942 (1998), including: “What is a beneficial use, of course, depends upon the facts and circumstances of each case. What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time?” See also *Delta Canal Co. v. Frank Vincent Family Ranch, LC*, 2013 UT 69, ¶ 22, 420 P.3d 1052 (stating, “Over time, the types of use considered to be beneficial have expanded to encompass not only economically beneficial uses, but also uses that promote conservation, recreation, and other values deemed to be socially desirable.”) (internal quotations and citations omitted).

<sup>66</sup> *Id.* § 73-3-8(1)(a) (stating in relevant part that “it shall be the duty of the State Engineer to approve an application if there is reason to believe that... (ii) the proposed use will not impair existing rights or interfere with the more beneficial use of the water; (iii) the proposed plan: (A) is physically and economically feasible... (B) would not prove detrimental to the public welfare; (iv) the applicant has the financial ability to complete the proposed works; (v) the application was filed in good faith and not for the purposes of speculation or monopoly.”)

<sup>67</sup> *Id.* § 73-3-3(1)(b).

time and temporary change applications, meaning that the holder of an approved fixed-time application is not required to show that the right is diverted.<sup>68</sup>

H.B. 130 also authorized split-season use of water rights in which “the holder of a perfected water right grants to a water user the right to make sequential use of a portion of the water right.” Relatedly, if DM Program water is a beneficial use, water rights leased by the State of Utah for a DM Program would not be subject to abandonment and forfeiture. Utah law also includes further protections, providing that a water right is not subject to abandonment or forfeiture “if its place of use is contracted under an approved state agreement or federal conservation following program.”<sup>69</sup> A DM Program would likely satisfy both the “state agreement” component of this protection because Utah will likely need to lease water rights to use them in a DM Program. A DM Program may also qualify as a “federal conservation following program” under Utah law since a DM Program will require additional agreements with the United States.

#### 2.6.2.4 Wyoming

Wyoming law would not easily accommodate DM Program water as a beneficial use. Wyoming law provides in relevant part that “[b]eneficial use shall be the basis, the measure and limit of the right to use water at all times . . . .”<sup>70</sup> Although Wyoming’s statutes do not define beneficial use, Wyoming’s statutory framework has historically required a physical diversion of water for the use to be considered beneficial. For instance, in 1900, the Wyoming Supreme Court noted that an “appropriation consists in a diversion of the water by some adequate means, and its application to a beneficial use.”<sup>71</sup> The only use that does not require a diversion that Wyoming law recognizes as a beneficial use is an instream flow right held by the State of Wyoming to establish or maintain fisheries – a purpose that is separate from DM.<sup>72</sup> Wyoming’s temporary water right transfer statute is also limited to uses that involve a physical diversion of water – “highway construction or repair, railroad roadbed construction or repair, drilling and producing operations, or other temporary purposes” – which are not of the same kind or character as DM Program water or DM.<sup>73</sup>

Instead, Wyoming would likely need to administer a DM Program pursuant to its water rights administration and supervision authorities. The Wyoming State Engineer has broad constitutional authority<sup>74</sup> that may provide the basis to implement a DM Program similar to how they curtail and shepherd water to ensure compliance with Wyoming’s other interstate compacts and decrees. The Wyoming Constitution vests the State Engineer, who administers Wyoming’s interstate compacts and decrees, with “general supervision of the waters of the state and of the officers connected with its distribution.”<sup>75</sup> It also authorizes the Wyoming Board of Control, which adjudicates and finalizes water rights and considers other related matters, to supervise the waters of the state, “their

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<sup>68</sup> *Id.* § 73-3-16(8).

<sup>69</sup> *Id.* § 73-1-4.

<sup>70</sup> *Id.* § 41-3-101

<sup>71</sup> *Farm Inv. Co. v. Carpenter*, 61 P. 258, 265 (Wyo. 1900) (“Private ownership of water in the natural streams is not recognized. The right to divert water therefrom and apply the same to beneficial uses, is, however, expressly guaranteed [*sic*]. By such diversion and use a priority of right to the use of the water may be acquired.”).

<sup>72</sup> WYO. STAT. §§ 41-3-1001 (41-3-1002(e)).

<sup>73</sup> WYO. STAT. ANN. § 41-3-110(a). Although the term “temporary purposes” is not defined, the Wyoming Supreme Court has held that “[u]nder the rule of statutory construction, *eiusdem generis*, a general term which concludes a list of specifically enumerated terms should be restricted to the same genus as the things enumerated. *Reliance Ins. Co. v. Chevron U.S.A. Inc.*, 713 P.2d 766, 770 (Wyo. 1986).

<sup>74</sup> *John Meier & Son, Inv. V. Horse Creek Conservation Dist. of Goshen Co.*, 603 P.2d 1283 (Wyo. 1979).

<sup>75</sup> WYO. CONST. art. 8, § 5.

appropriation, distribution and diversion,” and “the various officers connected therewith.”<sup>76</sup>

The Wyoming Supreme Court has also held that because the State Engineer and the Board derive their authority from the Wyoming Constitution rather than from legislative action, they can act in accordance with their constitutional authority unless the Legislature or the courts direct otherwise.<sup>77</sup> The authority of the State Engineer and the Board is not unlimited, as both authorities must comply with court decrees and statutes passed by the Legislature.<sup>78</sup> Nevertheless, the opposite also appears to be true: unless limited by a court order or statute, the State Engineer and the Board have broad authority to fulfill their constitutional duties.

The Wyoming Legislature or the courts have not limited the authority of the State Engineer and the Board. They have the authority to regulate the waters of the state in accordance with state laws, which include Wyoming’s interstate compacts and court decrees.<sup>79</sup> For instance, the State Engineer’s office is already utilizing its constitutional authority to enforce and implement the requirements of Wyoming’s other interstate compacts and decrees, including the Bear River Compact and the Yellowstone River Compact, where the State Engineer has regulated water rights.

The State Engineer’s administration of the U.S. Supreme Court’s 2001 modified North Platte Decree and its related stipulations provides another example of how the State Engineer is exercising interstate stream authority. By stipulation, Nebraska, Wyoming, and the United States have jointly agreed to a method of allocating water during periods of shortage, under which Reclamation must follow certain procedures and guidelines when allocating storage water from the Pathfinder and Guernsey Reservoirs and the Inland Lakes. Under these guidelines, each spring, Reclamation must advise the other parties whether the current year is likely to be an “allocation year,” meaning that there will be an automatic priority call if storage and forecasted water supplies are less than 1,100,000 acre-feet.<sup>80</sup> Such a call, in turn, requires the State Engineer to determine whether the call is valid and warrants upstream regulation. If regulation is needed, the State Engineer regulates junior diversions from the North Platte River above Guernsey Reservoir.<sup>81</sup>

Wyoming may want to structure its approach to a DM Program so that participating water rights are protected from abandonment and forfeiture. Under Wyoming law, a water right holder will be “considered as having abandoned [a] water right and shall forfeit all water rights and privileges appurtenant thereto” if the right holder fails, either intentionally or unintentionally, to use the water for a beneficial use for five successive years. Because participation in a DM Program is temporary, water rights that participate in a DM Program for less than five successive years would arguably not

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<sup>76</sup> *Id.* art. 8, § 2. The Board’s discretion is also subject to court review.

<sup>77</sup> *John Meier & Son v. Horse Creek Conservation Dist.*, 603 P.2d 1283, 1288 (Wyo. 1979) (emphasis added). *See also White v. Wheatland Irrigation Dist.*, 413 P.2d 252, 258 (Wyo. 1966) (holding that “the board’s authority to entertain and decide the ... proceeding [cannot] be subject to doubt, notwithstanding the lack of a statutory provision relating to a change in point of diversion such as is now prescribed .... [i]t has long been recognized that orders of the board establishing such rights are clothed with the dignity of decrees entered by the courts.”).

<sup>78</sup> *See e.g., Green River Development Co. v. FMC Corp.*, 660 P.2d 339, 349 (Wyo. 1983).

<sup>79</sup> Wyoming law authorizes the governor to appoint any commissioners needed to represent Wyoming on any joint commission with other adjoining states for the purpose of negotiating compacts or agreements. WYO. STAT. ANN. § 41-11-201 *et seq.* Although such commissions may negotiate compacts and perform other such duties, including conducting certain investigations, this authority does not appear to affect the State Engineer’s constitutional duty to administer Wyoming’s interstate and intrastate water resources under WYO. CONST. art. 8, § 5.

<sup>80</sup> *See* Interstate Streams Division, Wyoming State Engineer’s Office, *Summary of North Platte River and Laramie River Court Decrees* (Dec. 1, 2004), [https://waterplan.state.wy.us/plan/platte/2006/atlas/overview/Basin\\_Decrees\\_Agreements.pdf](https://waterplan.state.wy.us/plan/platte/2006/atlas/overview/Basin_Decrees_Agreements.pdf).

<sup>81</sup> This priority call excludes the Pathfinder Modification Project.

be subject to abandonment and forfeiture.<sup>82</sup>

Notwithstanding the Wyoming State Engineer’s constitutional authority to implement a DM Program, there are some ambiguities in Wyoming law regarding how the state would implement the specifics of a DM Program. However, such considerations are beyond the scope of this analysis of legal authorities.

### **2.6.3 Potential Legal Approaches for Shepherding Conserved Water to Storage**

The DMSA expressly recognizes that each UDS is responsible for regulating within its boundaries the appropriation, use, and control of water apportioned to it by the Compacts. In the context of a DM Program, this means that state law will govern the shepherding of DM water to and from the CRSPA Initial Units, as well as any water right approvals that may be needed for water rights holders to participate in a DM Program.

There are at least two possible approaches that the states could use to administer a DM Program. Under the first, DM water would be considered a beneficial use and would be stored, released, and shepherded like other water rights, consistent with state law. Under the second approach, the state would use its water rights administration and supervision authorities to convey water. While each state retains the right to regulate the appropriation, use, and control of Compact water within its boundaries, a DM Program will require the shepherding of DM water across state boundaries as well.

### **2.6.4 Legal Considerations for the Facilitation of a DM Program**

If the UDS elect to create a DM Program, there are a few key legal considerations or “ground rules” that will be necessary.

First, only the UDS, through the UCRC, have access to the unfilled storage capacity of the CRSPA Initial Units under Section III.B of the DMSA to store DM water. This means that only the UDS, in conjunction with the UCRC, can operate a DM Program. The Upper Division’s compliance with the 1922 Compact is also specific to the states and cannot be fulfilled by non-state entities, including political subdivisions of a state. More specifically, in those states that elect to pursue a beneficial use approach as part of the DM Program, DM water could only qualify as a beneficial use if the state is the entity securing the water for the DM Program through a lease with the right holder, a water right application filed in conjunction with the right holder, or some other state-approved process. Because a non-state entity lacks the authority to provide compliance with the 1922 Compact, this is the only way such use could be considered beneficial. The same is true under a water right administration/supervision approach because the state, rather than the right holder, would store and release the water at issue.

Second, the DMSA requires a consensus approach to the development and implementation of a potential DM Program. However, a one-size-fits-all approach to DM will not work, and each Upper Division State must have sufficient flexibility to implement a DM Program in accordance with their respective intrastate authorities and policies.

Third, a collaborative approach to the development of a DM Program is required. Section III.B.3.d of the DMSA expressly requires each UDS, acting through the UCRC, to approve any Upper Basin DM

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<sup>82</sup> WYO. STAT. ANN. § 41-3-401(a).

Program. Moreover, collaboration will also be needed with the Federal Government and the Lower Division States because, as noted previously, Section III.B.3.b requires further agreements between the Upper Division and the Secretary of the Interior to create a DM Program. In turn, this Section of the DMSA also requires the UCRC and the Secretary to consult with the Lower Division States using a “consensus-based approach.” While the DMSA only calls for a consultation with the Lower Basin, it is unlikely the Secretary would approve the additional agreements the Upper Division States need to enter into with the U.S. to create a DM Program if Lower Division States object to the proposed program.

## **2.7 Approaches for Administration of an Upper Basin DM Program**

The DMSA specifies that approaches for the administration be evaluated as part of the DM Program investigation. Framing for this component of the feasibility investigation is ongoing and being developed and will be subject to the further direction of the UDS and the UCRC Commissioners.



[GO BACK TO MEMO](#)

# Interstate Demand Management Investigation: Key Findings and Recommended Next Steps

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December 2022

Upper Division States through the  
Upper Colorado River Commission





# Interstate Demand Management Investigation:

## Key Findings and Recommended Next Steps

December 2022

Between 2019 and 2022, the Upper Division States, through the Upper Colorado River Commission (UCRC), conducted interstate-focused investigations funded by a grant from the Bureau of Reclamation (Reclamation).<sup>1</sup> The investigations were administered by the UCRC Demand Management Committee (DMC) (consisting of UCRC staff and Upper Division State advisors) and provided essential information regarding the implications of a potential Demand Management (DM) Program in the Upper Colorado River Basin, consistent with the 2019 Upper Basin Drought Contingency Plan (DCP)<sup>2</sup> and the Demand Management Storage Agreement (DMSA).<sup>3</sup> Procured contractors completed the investigations consistent with a scope of work and task orders prepared by the DMC. The contractors' analyses and results are presented in a final Summary Report<sup>4</sup> for the investigation. As contemplated in the DCP and affirmed in the 5-Point Plan outlined in UCRC's July 18, 2022 letter to Reclamation<sup>5</sup>, a potential DM Program is one of several possible tools to respond to continuing drought in the Upper Colorado River Basin. To aid in the consideration of the feasibility and potential development of a DM Program, the DMC has identified key findings from the investigation and is providing recommendations for next steps.

### Key Findings

In preparing these findings, the DMC considered the analyses and results from the interstate investigation, which are further described in the Summary Report, and other relevant available information and data. The sections below summarize the general categories addressed in the investigation.

#### Verification and Accounting for Consumptive Use and Conserved Consumptive Use (CCU)

- Existing water use data housed within state agencies and robust, scientifically valid techniques for estimation of historical consumptive use and conserved consumptive use (CCU) are available and applicable for a potential DM Program.
- The application of verification and accounting methods for historical consumptive use and CCU must consider historical water availability and potential water availability during the year of proposed participation in a DM Program.
- The use of remote-sensing techniques to measure agricultural evapotranspiration (ET) and related consumptive use requires the consideration of site-specific conditions, including but not limited to: riparian vs. upland location, field management, established historical crop type, weather/climate information, and accurate land use (field) boundaries.

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<sup>1</sup> The interstate investigation results do not include nor are they intended to provide legal or policy perspectives regarding rights or obligations under the 1922 Colorado River Compact or the 1948 Upper Colorado River Basin Compact.

<sup>2</sup> Colorado River Drought Contingency Plan Authorization, 2019 (Pub. L. 116-14). Webpage: <http://www.ucrccommission.com/colorado-river-drought-contingency-planning/>.

<sup>3</sup> Upper Basin Demand Management Storage Agreement, 2019. Webpage: <http://www.ucrccommission.com/wp-content/uploads/2020/04/Attachment-A2-Demand-Management-Storage-Agreement-Final.pdf>.

<sup>4</sup> Upper Colorado River Commission. (2022) *The Upper Division States and the Upper Colorado River Commission Interstate Investigation of a Demand Management Program in the Upper Colorado River Basin Summary Report*. UCRC Webpage: <http://www.ucrccommission.com/ucrc-demand-management-investigation/>.

<sup>5</sup> Upper Colorado River Commission. (2002) *Upper Division States and UCRC Provide 5-Point Plan for Additional Protection Actions*. Webpage: <http://www.ucrccommission.com/upper-division-states-and-ucrc-provide-5-point-plan-for-additional-protection-actions/>.

- Increasing the density of monitoring, measurement, and reporting networks will increase the accuracy of consumptive use and CCU estimation, as well as the estimation of potential conveyance losses. Funding from the federal Infrastructure Investment and Jobs Act (IIJA) is currently being used to increase the density of existing networks.
- In addition to the key findings from the Summary Report, remote-sensing approaches are being implemented by the UCRC<sup>6</sup> and Reclamation in the Upper Division States for interstate purposes.

### **Estimating Evaporation at Colorado River Storage Project Act (CRSPA) Initial Units and Transit Loss**

- Evaporation estimates from CRSPA Initial Units and transit loss estimates for some tributaries in the Upper Basin are available. More research is needed to better understand transit loss for all reaches.
- Research is underway to develop new tools for reservoir evaporation estimation that provide a statistically significant correlation to in-situ monitoring, which will likely improve current estimates.
- Remote-sensing approaches are available to evaluate and assess losses related to riparian corridor evapotranspiration (ET).
- Transit losses are time, location, scale, and distance-sensitive. The Upper Division States employ various tools and methods to estimate transit loss in their intrastate water management regimes. Estimation of transit losses may require potentially simplified but consistent assumptions for interstate purposes.

### **Modeling of Water Supply, Reservoir Storage, River/Streamflow Routing, Program Duration, and Optimization**

Modeling and analysis of historical data and DM scenario results suggest:

- A potential DM Program may help support continued compliance with the 1922 Compact under the modeled dry hydrologic scenarios.
- A potential DM Program, while beneficial, may not fully address all risks under *all* hydrologic traces.
- A potential DM Program may require successive years of implementation to accrue and maintain significant DM storage volumes when compensating for evaporative losses at CRSPA Initial Units, especially Lake Powell.
- Sufficient DM storage potential is available at upstream CRSPA Initial Units.
- The upstream CRSPA Initial Units experience significantly less evaporative loss than Lake Powell.
- DM storage in upstream CRSPA Initial Units may optimize the effectiveness of CCU by enabling strategic timing of releases, which could minimize impacts related to evaporation and downstream losses.

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<sup>6</sup> Upper Colorado River Commission. (2022) *Resolution of the Upper Colorado River Commission Consumptive Use Measurement in the Upper Colorado River Basin, June 14, 2022*. Accessed at: <http://www.ucrccommission.com/wp-content/uploads/2022/07/2022-06-14-Resolution-Consumptive-Use-Measurement.pdf>.

## **Economic Findings**

- Economic analysis suggests that the direct and secondary impacts related to a potential DM Program may be substantial, are dependent on local factors, and will need further consideration as part of potential DM Program development and implementation.
- The passage of the IJA in 2021 and the Inflation Reduction Act (IRA) in 2022 has made substantial federal funding available that could be used to support a potential DM Program in the short term.
- Adequate funding and sufficient program administration are critical to potential DM Program success. However, estimated costs related to DM Program administration vary widely. A potential DM Program is likely to be more costly than the 2015-2018 Upper Basin System Conservation Pilot Program due to increased project review, verification, monitoring, accounting, and water administration activities.
- Results generated from a voluntary survey of M&I providers in the Upper Basin indicated that respondents are currently considering and implementing appropriate measures to address potential shortage, and a majority indicated a willingness to participate in a potential DM Program, provided that concerns regarding negative environmental impacts, satisfactory compensation, safeguards against speculation, and protection of DM Program waters from subsequent use by the Lower Division States are addressed.

## **Legal Findings**

- The Upper Division States, through the UCRC, have exclusive rights to unfilled storage capacity at the CRSPA Initial Units in order to store DM water in perpetuity and free of charge in accordance with the terms of the DMSA.
- Only the Upper Division States, through the UCRC, may operate a DM Program.
- Only the UCRC may make findings that a DM Program is necessary to assure continued compliance with the 1922 Compact and request the release of water stored pursuant to a DM Program.
- Compliance with the 1922 Compact is also specific to the States and cannot be fulfilled by non-state entities, including political subdivisions of any State.
- The DMSA requires a consensus approach to develop and implement a potential DM Program. However, each Upper Division State will require sufficient flexibility to comply with their respective intrastate laws, rules, and policies.
- A collaborative approach to the development of a DM Program is required not only among the Upper Division States but also with the Federal Government, along with consultation with the Lower Division States.

## **Conclusions from the Key Findings**

Completion of the UCRC's interstate investigation is a significant step in the consideration of the feasibility of a DM Program. The Key Findings suggest that continued investigations into the feasibility of a potential DM Program are warranted. The DMC acknowledges that ongoing intrastate investigations must be completed prior to full consideration of a DM Program.

## **Recommended Next Steps**

The DMSA outlines the steps for the development of a DM Program. In particular, the Upper Division States, through the UCRC, must determine whether a DM Program is feasible, develop a DM Program in accordance with the terms of the DMSA, and secure the appropriate approvals, agreements, and consultations pursuant to the DMSA. Only after these requirements are satisfied and the UCRC has found that a DM Program is necessary can a DM Program be implemented. Consistent with the UCRC's commitment to consider a DM Program once interstate and intrastate investigations are concluded, the DMC recommends that the UCRC Commissioners consider the following:

- Direct the DMC to address remaining questions regarding DM Program feasibility, consistent with Article III.B.1 of the DMSA, and present results at the June 2023 UCRC Regular Meeting.
- Direct the DMC to draft a DM Program concept that incorporates the intrastate investigations and present the proposed concept at the June 2023 UCRC Regular Meeting. The purpose of the concept is to inform the discussion of DM Program feasibility.
- Direct the DMC to prepare a recommendation for consideration by the UCRC Commissioners regarding feasibility at the June 2023 UCRC Regular Meeting.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** ANDY MUELLER, GENERAL MANAGER  
AUDREY TURNER, CHIEF OF OPERATIONS

**SUBJECT:** RECOMMENDED CHANGES TO PAID PARENTAL LEAVE BENEFIT

**DATE:** JANUARY 1, 2023

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***REQUESTED ACTION:*** Staff requests that the Board revise the parental leave policy to allow a full-time, regular employee who has been employed for at least six months up to eight weeks of paid time off for the birth, adoption, or foster care placement of a child. Additionally, staff recommends that the Board revise the policy to allow up to four weeks of additional sick leave to be used for the purposes of parental leave.

***STRATEGIC INITIATIVE(S):***

***11. River District Staff Resources:*** For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.

***11. A. The River District will seek to be an attractive and competitive employer in the region, state, and water community. This includes maintaining, to the best of its ability, a highly competitive compensation package and supporting the work-life balance that is valued by the District and its employees.***

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### **I. Background Information**

Over the last decade, the Board has reviewed the leave policy for parental leave two times, in 2013 and 2020. In 2013, the review and modification to the policy resulted in allowing an employee to utilize eight weeks of accrued sick leave for maternity or paternity leave (up from four weeks). In 2020, the Board adopted a Parental Leave Policy which provides four weeks of paid parental leave (i.e., not reliant on the use of accrued sick leave) for the birth, adoption, or foster care placement for an employee who has worked for the District for at least six months. In October, the Board recently discussed and voted to opt-out of the newly enacted Family and Medical Leave Insurance Program (FAMLI), the state's premium funded partial paid family and medical leave program. During that discussion, the Board heard from staff that while the District offers competitive



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benefits for employees and their families, continued and potentially additional support is imperative for employees, especially new parents.

As outlined in the strategic plan, the River District seeks to be an attractive employer, maintaining a competitive compensation package and supporting the work-life balance that is valued by the District and its employees. Supporting parents to the best of our ability is important and mutually beneficial for the employees and the District. As has been discussed with the Board over many years, the employees of the District are our biggest asset and crucial to fulfilling our mission.

## **II. Current District Leave Policies**

As a reminder, employees accumulate sick leave at 8 hours per month. This is a fair accrual rate and is usually sufficient for typical medical absences. Most employees begin accruing vacation at 8 hours per month as well. Under the current policy, eligible employees may take four weeks of paid parental leave and then utilize up to eight weeks of additional accrued sick leave or accrued vacation, PPL/comp time, or floating holidays. At the sick leave accrual rate, an employee would need to work for the District for over three years while never taking a sick day to take utilize eight weeks of accrued sick leave. We continue to desire to cultivate a culture where employees take sick leave when they are ill, and to encourage employees to rejuvenate by utilizing accrued vacation leave. Additionally, it is challenging for an employee to completely deplete their accrued sick and vacation leave for parental leave and then be left with no available leave for other absences that arise after having a child, such as medical leave for self or family, or vacation.

Employees also have access to short and long-term disability insurance for unpaid leave as well as access to the District's sick leave donation policy.

Paid parental leave is garnering well-deserved attention at the state and federal level. In 2019, the Federal Employees Paid Parental Leave Act (H.R. 626) was passed which provides eligible federal employees twelve weeks of paid parental leave after twelve months of service and requires twelve weeks of work subsequent to completion of paid parental leave. Currently, the State of Colorado provides employees two weeks of Paid Family Medical Leave, which includes parental leave. As mentioned before, all Colorado employees will have access to twelve to sixteen weeks of partial paid leave under FAMLII beginning in January 2024. The District opted out of the employer portion of the premium but will facilitate any employee wishing to contribute their part of the premium. Many employers, public and private have recently moved to provide expanded paid parental leave to eight to twelve weeks.

Since adopting the paid parental leave policy in 2020, we have had three employees utilize the benefit with an approximate cost to the River District of \$24,000. While it is difficult to anticipate the cost of the increased benefit, we conservatively estimate one employee utilizing the paid parental leave per year at an estimated cost of \$18,500. There are other intangible costs during a leave of absence that include coverage for employees during the absence, lost productivity, etc. However, there are numerous studies showing the benefits of parental leave for mothers and fathers, including physical and mental health, creating a solid foundation for parents and children, time to establish childcare, and allowing parents to recover before coming back to work.



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Additionally, we believe that the availability of expanded paid parental leave is consistent with the District's policy to provide competitive benefits and compensation so that we can continue to attract and retain the best and brightest employees in our field.

### **III. Recommendation**

Staff requests that the Board revise the parental leave policy to allow a full-time, regular employee who has been employed for at least six months up to eight weeks of paid time off for the birth, adoption, or foster care placement of a child. Additionally, staff recommends that the Board revise the policy to allow up to four weeks of additional sick leave to be used for the purposes of parental leave.





# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** RAQUEL FLINKER, SENIOR WATER RESOURCES ENGINEER/ PROJECT MANAGER

**SUBJECT:** UPPER COLORADO WILD AND SCENIC STAKEHOLDER GROUP UPDATE

**DATE:** JANUARY 3, 2023

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***ACTION:** Status update, no action requested.*

**STRATEGIC INITIATIVE(S):**

- 1. Outreach and Advocacy*
- 3. Climate and Hydrologic Uncertainty*
- 10. Water Quality*

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The Upper Colorado River Wild and Scenic Stakeholder Group was formed as an independent, collaborative group in 2007. The group was formed to develop a local management alternative to Wild and Scenic River designation of the Upper Colorado River (Segments 4 through 7 of the Upper Colorado River which include the reach of the Colorado River from the top of Gore Canyon to a point one mile east of No Name Creek near Glenwood Springs) with the intention of protecting and perhaps enhancing the outstandingly remarkable values (ORVs) on this part of the river. The Stakeholder Group consists of 6 interest groups: Conservation/Environment/Fishing, Local Government, Recreational Floatboating, West Slope Water Users, State Interests, and East Slope Water Users. In 2020, the Stakeholder Group released the Amended and Restated Upper Colorado River Wild and Scenic Stakeholder Group Management Plan. The goal of the plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users.

The Stakeholder Group Management Plan was adopted by the BLM and USFS with the objective of assisting the two agencies in meeting management requirements under the Wild and Scenic Rivers Act for eligible stream segments on the Colorado River. The Wild and Scenic Rivers Act requires that BLM and USFS maintain the identified ORVs, water quality, and free-flowing condition of the eligible stream segments. The Stakeholder Group Management Plan was adopted to monitor and protect the ORVs identified in BLM and USFS Eligibility Reports for Segments 4 through 7 of the Upper Colorado River. The federal agencies submit an effectiveness review annually evaluating the effectiveness of the Stakeholder Group Management Plan.



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Here are the recent Stakeholder Group notable developments:

- 1) In response to recommendations in the 2021 Annual Effectiveness Review, the Cooperative Measures Committee (one of the four standing committees) is discussing the potential for and feasibility of a Stakeholder Group funded pool of water to be utilized in the Wild and Scenic segments. Releases from this pool of water would target improving critical flow and temperature conditions. Leasing CRD water is being considered as part of this effort.
- 2) Statistical issues with some Floatboating ORV “Not likely to return” indicator threshold values included in the Stakeholder Group Management Plan due to lack of sufficient data. There were multiple meetings to discuss this issue, but due to a lack of consensus, no changes were made to the plan. It is concerning that the group was unable to correct the plan mostly due to disagreements with the East Slope Water Users interest group.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS

**CC:** ANDY MUELLER, GENERAL MANAGER

**FROM:** DAVE 'DK' KANZER, P.E., DIRECTOR OF SCIENCE AND INTERSTATE MATTERS

**SUBJECT:** AUTHORIZATION REQUEST: 2023 USGS JOINT FUNDING AGREEMENT FOR DATA COLLECTION

**DATE:** DECEMBER 30, 2022

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***ACTION(S):*** Request delegated authority from the Board to the General Manager to enter into a new Joint Funding Agreement (JFA) with the USGS, subject to review and approval by legal counsel, in the gross obligation amount not to exceed \$680,000 to engage in cooperative streamflow measurement and water quality sampling activities in calendar year 2023, consistent with the adopted 2023 budget.

*Delegated authority is also requested for the General Manager to enter into agreements, subject to review and approval by legal counsel, with cooperating partners for reimbursement of some of the USGS gauging and sampling activities, estimated to be an offsetting amount of not less than \$130,000 for the year.*

**STRATEGIC INITIATIVE(S):**

- 2. A. The River District will increase its outreach efforts with water organizations and other local organizations in the Gunnison, White and Yampa River basins. The goal will be to use River District resources to help those basins address their consumptive and non-consumptive water needs.***
  - 3. C. The River District will engage in and support water supply planning efforts, local and regional, which include adapting to climate change impacts.***
  - 7. A. The River District will work proactively with District constituents and basin roundtables to better quantify and refine both the consumptive and non-consumptive water needs, in amount, location and timing, throughout the District, including projected needs that may result from climate change.***
  - 7. C. The River District will look for opportunities where its efforts are needed as a catalyst to help in-District interests plan for and meet their water needs in a manner that is consistent with the District's compact contingency planning goals and objectives.***
  - 10. A. The River District will proactively convene and facilitate, as needed, local stakeholder groups to address local and regional water quality concerns to protect against regulatory actions.***
-

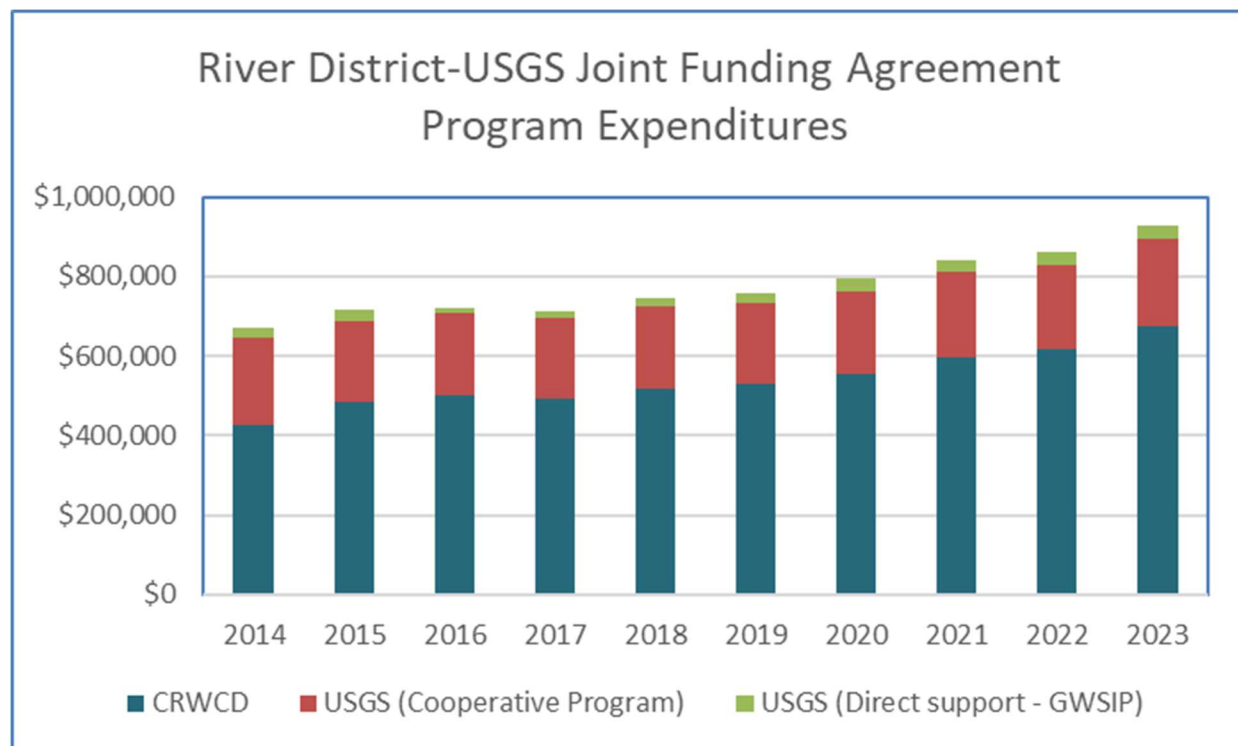


**Background**

For more than 30 years, the Colorado River District (River District) has helped manage one of the largest surface water monitoring and assessment programs in Colorado. In partnership with the United States Geological Survey (USGS), the program collects and analyzes a broad array of water quality and quantity data across all sub-basins of the River District. After rigorous review, the resulting data products published on public websites, accessible by water resource managers and water users to support important planning, management and decision making.

The annual cooperative monitoring activities are carefully reviewed by staff and partner groups (e.g., conservancy districts, watershed groups and local governments) to ensure that strategic objectives are being met and to help constituents understand and manage their water resources. These active stakeholder groups work with staff and constituents to streamline water resource data collection efforts, increasing efficiency and reducing potential redundancy.

Over the last ten years the program has grown considerably in scope and cost. Figure 1 charts the changes since calendar year 2014 and shows the cooperative cost share amounts between the River District (including local partner contributions) and the USGS.



**Figure 1:** Since 2014, the Joint Funding Agreement between the Colorado River District and the US Geological Survey, has grown to keep up with inflation, averaging about 4% per annum. The program is cooperatively funded by the River District together with local partners (approximately 70%) and USGS (approximately 30%).

Active stakeholder groups exist in the Upper and Lower Gunnison, the Upper, Middle and Lower Colorado River, the Roaring Fork, the Eagle, the White and the Yampa River Basins. All these



groups are supported wholly or in part by the River District-USGS JFA. These coordination efforts also bring in significant contributions from these interested stakeholders, proposed to be more than \$130,000 in 2023; partnerships in the Eagle River watershed make up almost two-thirds of this amount.

### **Proposed 2023 USGS Joint Funding Agreement Details**

Valued at a total of almost \$930,000, the 2023 CRD-USGS cooperative water program is the largest such program in the State of Colorado. Aside from the CRD community funding partnership, it represents the largest single River District budget item, at approximately \$680,000. This amount represents the ‘customer cost’ to cover stream gaging, discrete water quality sampling and continuous monitoring of temperature, specific conductivity and other parameters at different locations across the Upper Colorado River basin and tributaries within the River District.

To help expand activities, the USGS provides cooperative matching funds of approximately \$250,000, or about 30% of total program costs via federally appropriated funds and the River District and partners provide the rest of the funding. With the contracted partnership contributions, it is anticipated that the net expenditure of River District funds will not exceed \$550,000.

The proposed cooperative monitoring and assessment activities for the annual Joint Funding Agreement (JFA) are summarized by basin and program, as an attachment to this memo. The total projected cost of these data collection and analysis activities is \$926,813 with a federal cost share of \$250,073 being provided by the USGS. The River District contributions are consistent with the adopted budget for 2023 with support from the General Fund of \$527,960 and \$148,780 from the Enterprise Fund. The summary of the Joint Funding Agreement is [attached here](#).

The detail of activities and expenditure breakdown including frequency, location, parameters collected, and technologies employed are summarized in a detailed workbook complete with a series of tables and spreadsheets; these are available upon request.

### **Monitoring activities in review 2022 and Colorado River Wildfire Impacts Monitoring**

In recent years, additional state and federal funding have been available to support and expand reach-specific watershed and water quality monitoring related to wildfire impacts. Together with local partners, staff has assisted in the leveraging of these funding opportunities and has adjusted sampling priorities and activities based upon dynamic watershed conditions. For example, wildfires, extreme precipitation events, and regulatory listings have influenced changes in the data collection and analysis activities. Recently, in the Colorado River mainstem, there has been increased focus on water quality issues and on the creation of early warning information related to emerging threats to water resources. In 2022, a new data dashboard was created to make water quality data more accessible and usable by water treatment operators and direct diverters in the Colorado mainstream watershed.

The results from data collection activities in 2022 are being finalized. Although much focus remains on downstream impacts from the East Troublesome, Grizzly Creek and Pine Gulch fires that burned in 2020, with the monitoring of many chemical constituents and/or real-time

## Authorization Request: USGS Joint Funding Agreement for 2023

December 30, 2022

Page 4 of 4



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parameters that serve as indicators of watershed change, there are other areas of emerging concern, such as the fingerprinting and sourcing of E Coli bacteria in the Grand Valley, characterizing harmful algal blooms in Blue Mesa Reservoir and in the White River Basin and more. Having the ability to gather multi-year data under JFA programs helps the River District not only to understand and quantify both short-term and long-term issues brought about watershed-scale changes but to provide real-time information to interested water users and managers.

[GO BACK TO MEMO](#)

Summary of CY2023 Joint Funding Agreements between the Colorado River Water Conservation District and the U.S. Geological Survey

PROJECT	PERIOD COVERED	TOTAL	CRWCD	USGS	GWSIP
<b>PROGRAM TOTALS</b>		<b>\$926,813</b>	<b>\$676,740</b>	<b>\$217,976</b>	<b>\$32,097</b>
<b>Data Collection Programs</b>					
<b><u>General Program</u></b>					
CRWCD - Streamflow gages	Jan-Dec 2023	\$75,131	\$53,166	\$14,568	\$7,397
CRWCD - Water quality network	Jan-Dec 2023	\$25,549	\$18,257	\$7,292	\$0
CRWCD - Wildfire science support	Jan-Dec 2023	\$10,249	\$5,369	\$4,880	\$0
<b>Upper Gunnison River Basin Program:</b>					
Streamflow gages	Jan-Dec 2023	\$16,365	\$10,645	\$3,696	\$2,024
Water quality network	Jan-Dec 2023	\$32,076	\$23,886	\$8,190	\$0
<b>Lower Gunnison and North Fork Gunnison Basins Selenium and Water Quality Program:</b>					
Jan-Dec 2023	Jan-Dec 2023	\$62,709	\$46,370	\$16,339	\$0
<b>Grand Valley Total Mean Daily Load Water Quality Program:</b>					
Jan-Dec 2023	Jan-Dec 2023	\$49,896	\$38,750	\$11,146	\$0
<b>Colorado River Basin Salinity and Selenium Trend Monitoring:</b>					
Jan-Dec 2023	Jan-Dec 2023	\$23,540	\$17,288	\$6,252	\$0
<b>White River Program:</b>					
Streamflow gages	Jan-Dec 2023	\$41,161	\$26,986	\$8,131	\$6,044
Water quality network	Jan-Dec 2023	\$19,714	\$14,680	\$5,034	\$0
Sediment	Jan-Dec 2023	\$9,398	\$6,998	\$2,400	\$0
Algae (flex funds)	Jan-Dec 2023	\$17,900	\$17,900	\$0	\$0
<b>Water Temperature Network:</b>					
Jan-Dec 2023	Jan-Dec 2023	\$11,827	\$8,593	\$3,234	\$0
<b>Yampa River Basin Streamgaging and Water-Quality Program:</b>					
Streamflow gages	Jan-Dec 2023	\$4,900	\$3,052	\$0	\$1,848
Water quality network	Jan-Dec 2023	\$61,518	\$45,325	\$16,193	\$0



**Roaring Fork River Basin Streamgaging and Water-Quality Program:**

Streamflow gages	Jan-Dec 2023	\$39,200	\$25,764	\$13,436	\$0
Water quality network	Jan-Dec 2023	\$32,405	\$24,133	\$8,272	\$0

**Eagle River Basin Streamgaging and Water-Quality Program:**

Streamflow gages	Jan-Dec 2023	\$39,200	\$30,874	\$934	\$7,392
Water quality network	Jan-Dec 2023	\$148,095	\$109,924	\$38,171	\$0
<b>subtotal</b>		<b>\$720,833</b>	<b>\$527,960</b>	<b>\$168,168</b>	<b>\$24,705</b>

**Enterprise Program**

Streamflow gages	Jan-Dec 2023	\$76,742	\$53,571	\$15,779	\$7,392
Water quality network	Jan-Dec 2023	\$129,238	\$95,209	\$34,029	\$0
<b>subtotal</b>		<b>\$205,980</b>	<b>\$148,780</b>	<b>\$49,808</b>	<b>\$7,392</b>

Prepared: October 6, 2022  
Revised: December 20, 2022



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** ANDY MUELLER

**SUBJECT:** GENERAL MANAGER 2023 GOALS AND OBJECTIVES

**DATE:** JANUARY 4, 2023

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Given the nature of the Colorado River District's mission, I continue to have numerous goals and priorities for 2023, I have attempted to distill many goals into a few, relatively straightforward goals, which reflect the Board's priorities as expressed in the Strategic Plan.

- 1. Goal: Personally lead the District's effort to implement the provisions of the CRCA related to the permanency of the Shoshone call.**

***APPLICABLE STRATEGIC INITIATIVE: 5.A. Trans Mountain Diversions.***

- Lead the effort in finalizing a strategy for the implementation of the permanency effort.
- Work collaboratively with the General Counsel to move forward in this matter.
- Develop necessary coalition of allies and funders for successful completion of this goal.

- 2. Goal: Continue to provide statewide and basin-wide leadership on Colorado River supplies and operations.**

***APPLICABLE STRATEGIC INITIATIVES:***

***4.A. through 4.D. Colorado River Supplies;  
5.A. through 5.C. Trans Mountain Diversions; and  
6.A. Agricultural Water Use.***

- Provide leadership and direction in the Upper Basin on crisis management and Interim Guideline renegotiations.
- Continue to support the District's work on hydrologic modeling and the development of accurate and unbiased information so the River District retains its position as a trusted source and an important participant in these ongoing matters.
- Continue involvement in the Upper Basin DCP planning efforts focusing on CRSP Reservoir reoperation protocols and water supply augmentation.



- 
- d. Develop and advocate for an alternative path with respect to both the Upper Basin System Conservation Program and a potential Demand Management Program that is reflective and protective of the values of the District and our constituents.
  - e. Develop and strengthen collaborative working relationships with our intra and interstate partners in the Basin.
  - f. Provide leadership and direction with respect to the application and operation phases of the System Conservation Pilot Program in 2023.

**3. Goal: Develop and implement a successful plan of action addressing issues arising from the operation, maintenance and potential rehabilitation of Wolford Mountain Reservoir.**

***APPLICABLE STRATEGIC INITIATIVES:***

***12. Financial Sustainability; and***

***13. Asset Management.***

- a. Continue to provide direct oversight and leadership in developing confidence in understanding of the risks associated with operations.
- b. Engage with our partnering agencies in all appropriate venues to resolve any differing perspectives regarding obligations.
- c. Devise and implement any necessary course of action in a manner which keeps public safety as the District's number one priority and is financially responsible to the District.
- d. Continue District preparedness to deal successfully with any outcome related to our ongoing analysis of the dam deformation.

**4. Goal: Utilize The Community Funding Partnership Fund to strategically drive River District policies and priorities.**

***APPLICABLE STRATEGIC INITIATIVES:***

***1. Outreach and Advocacy;***

***2. Outreach in All Basins;***

***3. Climate and Hydrologic Uncertainty;***

***7. Water Needs/Project Development;***

***8. Water Efficiency and Conservation; and***

***12.A. Financial Stability.***

- a. Emphasize funding opportunities which are most likely to leverage the vast amount of federal funding available this year.
- b. Explore creative programmatic opportunities for the District to create regional projects and partnerships within District boundaries and/or sub-basins to attract and retain federal funding in furtherance of the District's mission.
- c. Continue to develop contacts and partnerships with agencies and elected officials' offices to facilitate the accomplishment of this goal.



- 
- 5. Goal: Develop and implement plans to optimize workload for District team members in such a way as to best assure success in all key mission areas while simultaneously providing a supportive environment for employee growth.**

***APPLICABLE STRATEGIC INITIATIVES:***

***11.A. and 11.B. River District Staff Resources.***

- a. Develop and implement plans to bring additional personnel on board in such a manner as to best serve the core mission of the District.
  - b. Continue the implementation of a cross departmental, team approach to projects with the goal of leveraging our existing staff resources to more effectively and consistently meet our Strategic Plan Initiatives. Model and encourage cross departmental communication to strengthen and develop efforts where employees can provide unique skills and knowledge to assist other team members in accomplishing their goals and projects.
  - c. Develop and support staff in innovative methods of achieving our District's mission and strategic goals and support and encourage staff professional development.
  - d. Provide a sense of stability and security among employees through frequent professional and positive communications. Strive to be accessible to all employees so that they are properly supported and engaged in fulfilling work.
- 6. Goal: Provide leadership in the development of data to better understand the impacts of climate and hydrologic uncertainty and to develop efforts within the District, State and Basin to mitigate the effects of decreasing hydrology.**

***APPLICABLE STRATEGIC INITIATIVE:***

***3.A. Climate and Hydrologic Uncertainty.***

- a. Assist in the collation, synthesis and distribution of study results addressing this issue.
- b. Develop opportunities to identify and financially support efforts at further development of unbiased data on this issue.
- c. Work with local communities within the District to assist in the development of plans related to firm water supply considering climate change and uncertain hydrology in the Colorado River.
- d. Support staff efforts to identify water users who may be particularly vulnerable to variable climate and support staff efforts to assist those constituents in developing and implementing plans to address these issues.

[GO BACK TO AGENDA](#)

- 11. Presentation by Erin Light, Division 6 Engineer, Regarding Division 6 Water Administration and Conditions. (No Material Available).**



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER  
PETER FLEMING, GENERAL COUNSEL

**FROM:** ZANE KESSLER, DIRECTOR OF GOVERNMENT AFFAIRS

**SUBJECT:** TRIENNIAL SURVEY OF CRWCD CONSTITUENTS – 2022 POLLING RESULTS

**DATE:** JANUARY 1, 2023

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**ACTION:** *No specific action requested with this memo.*

**STRATEGIC INITIATIVE(S):** *1. Outreach and Advocacy: As the entity in the State of Colorado, statutorily charged to protect, develop, manage, and safeguard the water resources of the Colorado River Basin for the welfare of the District and for all citizens of Colorado, the River District has a basic responsibility to inform our constituents of statewide and basin-wide issues affecting water users of the Colorado River. In order to achieve the various strategic initiatives outlined in this Plan, the River District recognizes that public support will be required.*

*The District maintains a robust public education and outreach effort through an evolving variety of media and public meetings it either organizes or co-sponsors. Through pro-active involvement and dedication of resources, the District seeks to shape and influence public policy and legislation affecting Colorado River water resources, District water users, and operations of the District.*

**Strategic Initiatives:**

- *1.A. The River District will continue to enhance and expand partnerships and working relationships with key elected and appointed officials to advance western Colorado's perspectives on proposed legislation and regulations affecting western Colorado water resources at both the state and federal levels.*
- *1.B. The River District will assume a leadership role in offering timely and accurate public information regarding topical trends and developments concerning water resources, water use, and water conservation.*
- *1.C. The River District will make special efforts to inform and involve community leaders, especially elected leaders, in water-related matters.*
- *1.E. The River District will ensure its outreach and communications extend to all 15 counties of the District.*



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In an ongoing effort to better understand the opinions and concerns of our constituents related to water issues on the Western Slope, the River District has conducted public opinion research on a triennial basis for more than a decade. Ms. Lori Weigel is the founder and Principal of Denver-based New Bridge Strategy. Ms. Weigel has conducted the District's polling efforts since 2009.

This year, New Bridge Strategy conducted a survey among N=500 registered voters living in the River District from November 30-December 6, 2022. In order to track the opinions of our constituents over time, some comparisons are made to past surveys conducted by the District as far back as 2009.

The sample for the 2022 triennial survey was drawn proportionally from the Colorado counties that are part of the River District. Interviews were conducted via live telephone interviews (both cell phones and landlines) and via email or text invitations to a web-based version of the survey.

Quotas were set for key demographic sub-groups, such as gender and age. The margin of error is +4.38% for the overall sample. The margin of error will vary for sub-groups.

Ms. Weigel will present the findings of New Bridge's most recent poll at the Quarterly Board meeting on January 18. Ms. Weigel and District staff will be available for questions from the Board following her presentation.





# **Colorado River District Survey Key Findings**

*December 2022*

# Methodology

New Bridge Strategy conducted a survey among N=500 registered voters living in the River District from November 30-December 6, 2022. Some comparisons are made to similarly conducted surveys over the past decade.

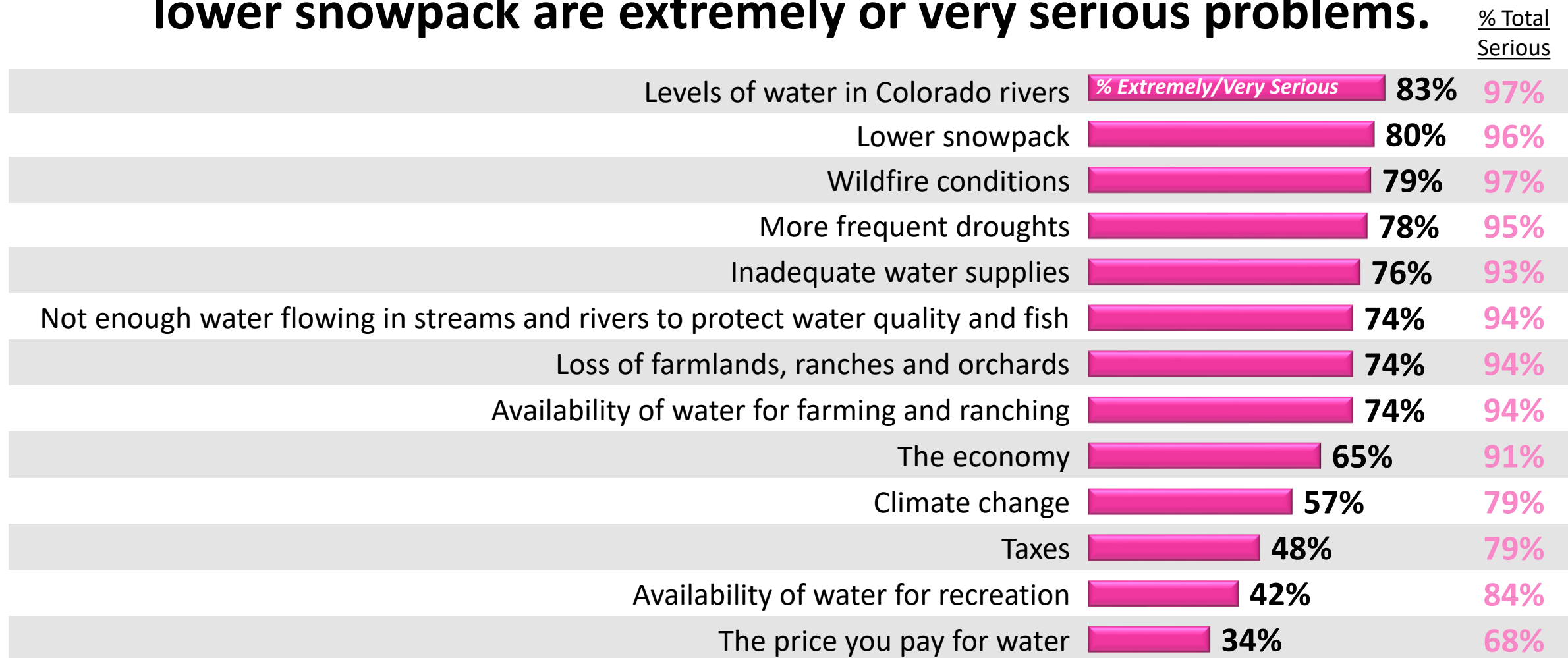
The sample was drawn proportionally from the Colorado counties that are part of the River District. Interviews were conducted via live telephone interviews (both cell phones and landlines) and via email or text invitations to a web-based version of the survey. Quotas were set for key demographic sub-groups, such as gender and age.

The margin of error is  $\pm 4.38\%$  for the overall sample. The margin of error will vary for sub-groups.



# Challenges Facing the River District

# At least four-in-five voters say the levels of water in Colorado rivers and lower snowpack are extremely or very serious problems.



The following list of issues are sometimes said to be problems in this part of Colorado. Please indicate if you think each issue is an extremely serious problem, a very serious problem, a somewhat serious problem, or not a problem in this part of Colorado.

# Compared to previous years, including 2013, more voters say water-related issues are extremely or very serious problems than ever before.

<i>% Extremely/Very Serious</i>	June 2009	May 2010	June 2013	June 2016	November 2020	December 2022
Levels of water in Colorado rivers	-	-	66%	38%	-	83%
Lower snowpack	33%	-	65%	29%	-	80%
Wildfire conditions	-	-	77%	-	83%	79%
More frequent droughts	35%	-	72%	-	68%	78%
Inadequate water supplies	37%	32%	50%	37%	-	76%
Not enough water flowing in streams and rivers to protect water quality and fish	27%	-	52%	38%	-	74%
Loss of farmlands, ranches and orchards	55%	52%	51%	41%	-	74%
Availability of water for farming and ranching	-	-	61%	-	50%	74%
The economy	75%	72%	60%	-	50%	65%
Climate change	-	-	-	-	53%	57%
Taxes	46%	47%	40%	-	34%	48%
Availability of water for recreation	-	-	35%	-	40%	42%
The price you pay for water	-	15%	20%	20%	-	34%

*The following list of issues are sometimes said to be problems in this part of Colorado. Please indicate if you think each issue is an extremely serious problem, a very serious problem, a somewhat serious problem, or not a problem in this part of Colorado.*

# The levels of water in Colorado rivers is a top-tier problem to voters across party lines.

<b>GOP</b>
Availability of water for farming/ ranching 85%
Loss of farmlands/ranches/orchards 81%
The economy 81%
Levels of water in Colorado rivers 73%
Inadequate water supplies 70%

<b>IND</b>
Levels of water in Colorado rivers 86%
Lower snowpack 84%
Wildfire conditions 82%
Not enough water flowing in streams/ rivers to protect water quality/fish 79%
More frequent droughts 78%

<b>DEM</b>
Wildfire conditions 94%
More frequent droughts 94%
Levels of water in Colorado rivers 93%
Lower snowpack 92%
Climate change 90%

Showing % Extremely/Very Serious

*The following list of issues are sometimes said to be problems in this part of Colorado. Please indicate if you think each issue is an extremely serious problem, a very serious problem, a somewhat serious problem, or not a problem in this part of Colorado.*

# Wildfire conditions is the top problem in the North counties and East region, while the levels of water in Colorado rivers ranks highest elsewhere.

North Counties
Wildfire conditions 84%
Levels of water in Colorado rivers 83%
Lower snowpack 83%
More frequent droughts 80%
Not enough water flowing in streams/ rivers to protect water quality/fish 79%

Mesa County
Levels of water in Colorado rivers 81%
Loss of farmlands/ ranches/orchards 74%
Wildfire conditions 73%
Lower snowpack 73%
Availability of water for farming/ranching 71%

South Counties
Levels of water in Colorado rivers 86%
Lower snowpack 84%
More frequent droughts 82%
Inadequate water supplies 80%
Wildfire conditions 78%

East Region
Wildfire conditions 88%
Lower snowpack 86%
Levels of water in Colorado rivers 86%
More frequent droughts 82%
Not enough water flowing in streams/ rivers to protect water quality/fish 81%

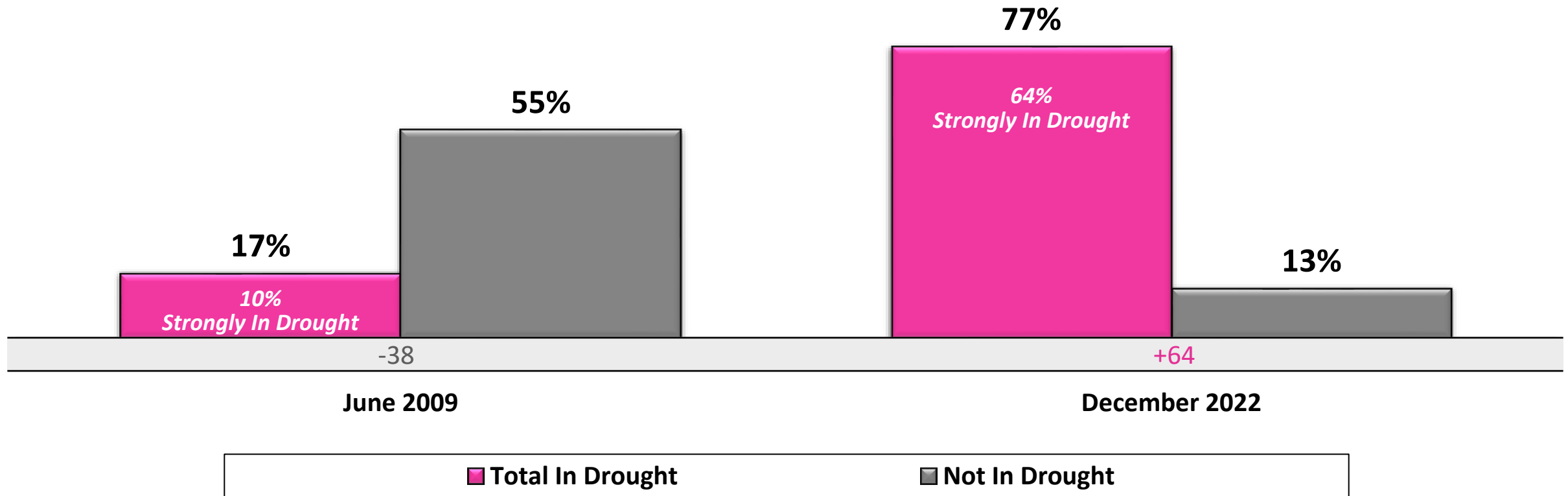
West Region
Levels of water in Colorado rivers 81%
Loss of farmlands/ ranches/orchards 77%
Lower snowpack 77%
Inadequate water supplies 76%
Availability of water for farming/ranching 76%

Showing % Extremely/Very Serious

The following list of issues are sometimes said to be problems in this part of Colorado. Please indicate if you think each issue is an extremely serious problem, a very serious problem, a somewhat serious problem, or not a problem in this part of Colorado.

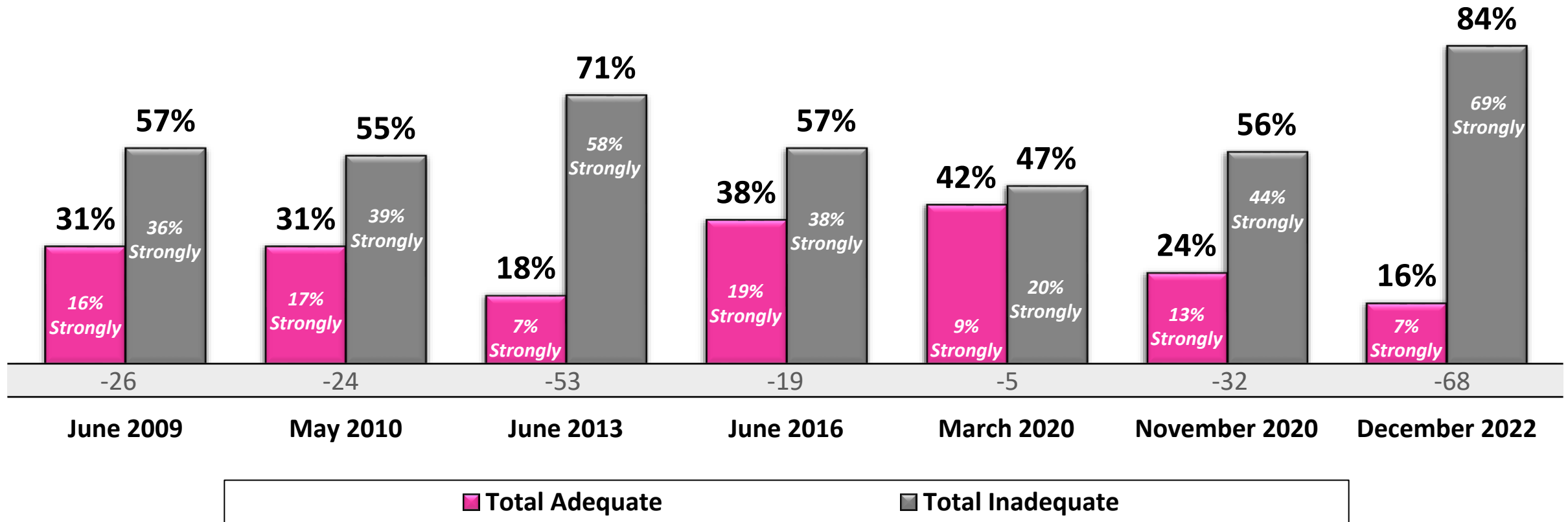


# Over three-quarters today say the region is in a drought – 60 points higher than when we last asked this in 2009.



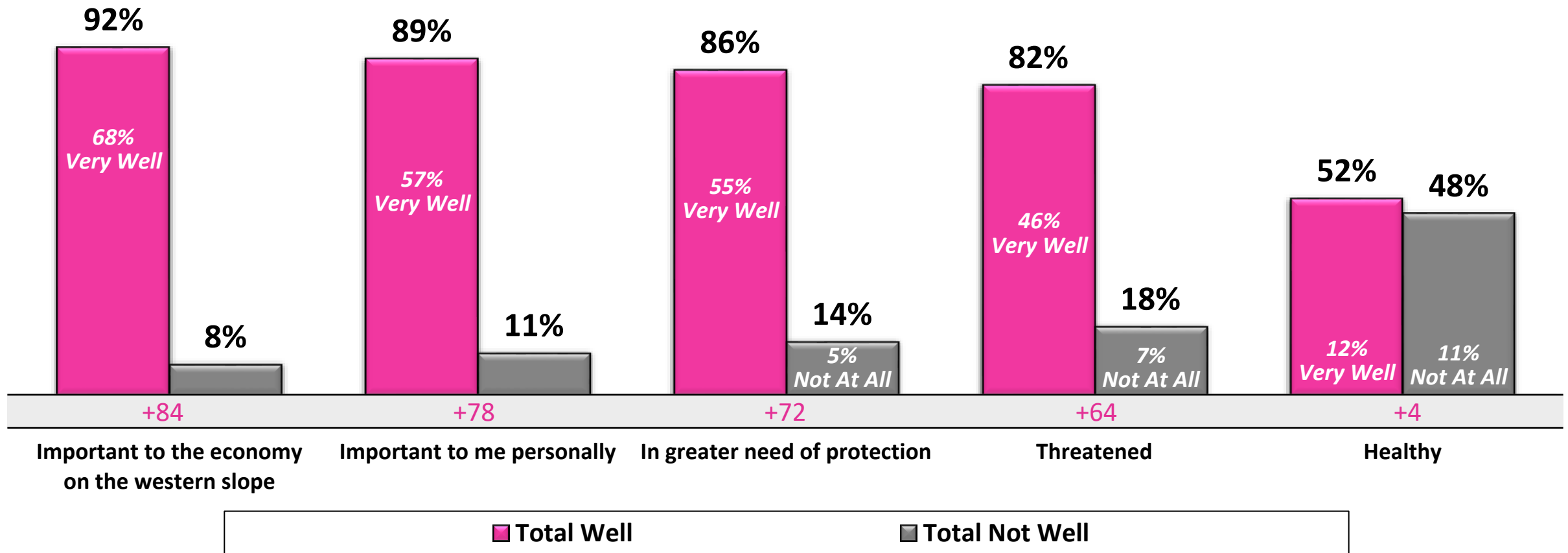
*Would you say we are in a drought today, not in a drought, or do you not have enough information to say?*

# A strong majority of voters say that Colorado does not have an adequate water supply, and this view is now the highest ever.



*Based on what you have seen, read or heard, would you say that Colorado does or does not have an ADEQUATE supply of water to meet future needs, say ten years from now?*

# Most voters say the Colorado River and rivers/streams flowing into it are important to the economy, themselves and in greater need of protection.



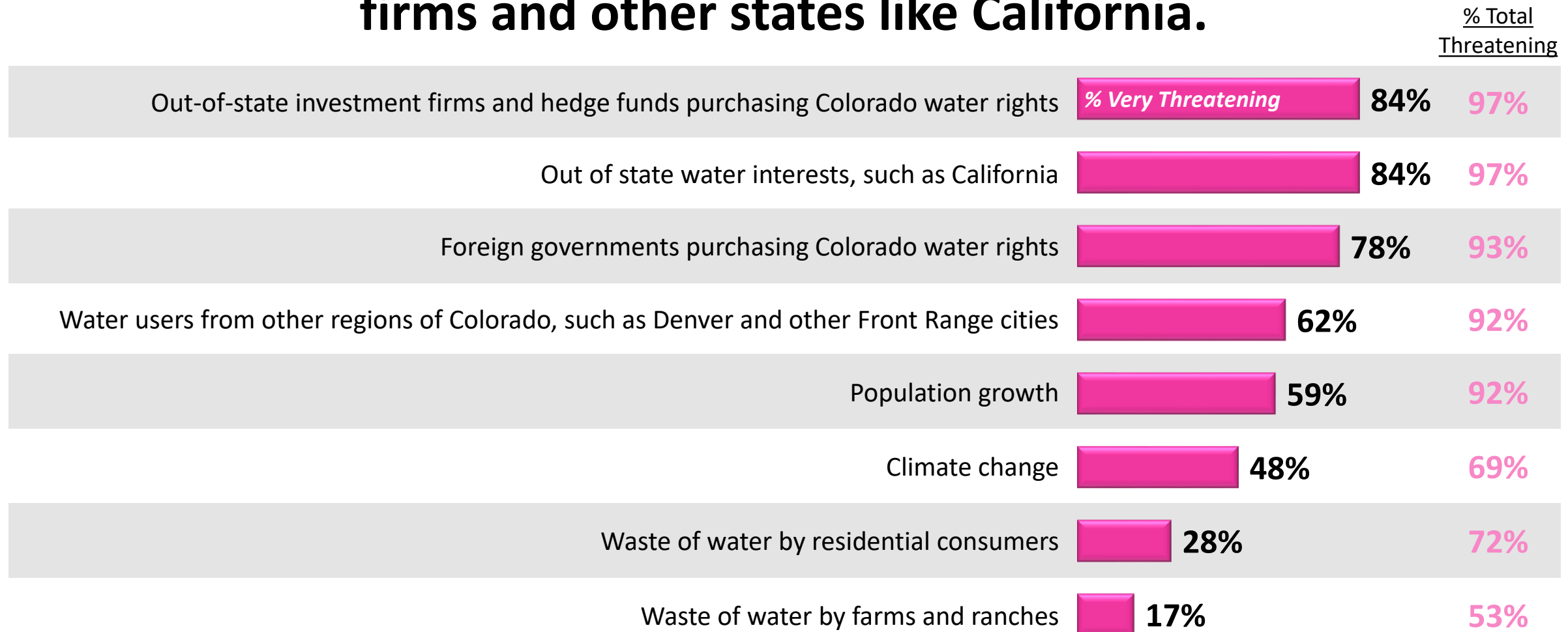
For each one of the following words and phrases, please indicate how well you think it describes the Colorado River and the rivers and streams that flow into it ... Does it describe it very well, fairly well, not very well, or not well at all?

# Fewer voters than before say the Colorado River and rivers/streams flowing into it can be described as healthy or personally important.

<i>% Very Well</i>	June 2009	June 2013	June 2016	December 2022
Important to the economy on the western slope	76%	79%	78%	68%
Important to me personally	69%	68%	70%	57%
In greater need of protection	55%	58%	58%	55%
Threatened	37%	52%	39%	46%
Healthy	34%	27%	33%	12%

*For each one of the following words and phrases, please indicate how well you think it describes the Colorado River and the rivers and streams that flow into it ... Does it describe it very well, fairly well, not very well, or not well at all?*

# The biggest threats to water are perceived as out-of-state investment firms and other states like California.



*Next, the following are some things which some people say are threats to the amount of water available for use here in Western Colorado. For each one, please indicate if you see that as very threatening, somewhat threatening, only a little threatening, or not threatening at all to the amount of water available for your use.*

# Almost every single threat we tested is at the highest level ever, with the notable exception of waste by residential consumers.

<i>% Very Threatening</i>	June 2009	June 2013	June 2016	December 2022
Out-of-state investment firms and hedge funds purchasing Colorado water rights	-	-	-	<b>84%</b>
Out of state water interests, such as California	<b>57%</b>	<b>72%</b>	<b>73%</b>	<b>84%</b>
Foreign governments purchasing Colorado water rights	-	-	-	<b>78%</b>
Water users from other regions of Colorado, such as Denver and other Front Range cities	<b>46%</b>	<b>63%</b>	<b>60%</b>	<b>62%</b>
Population growth	<b>43%</b>	<b>40%</b>	<b>43%</b>	<b>59%</b>
Climate change	<b>24%</b>	<b>37%</b>	<b>34%</b>	<b>48%</b>
Waste of water by residential consumers	-	<b>37%</b>	<b>30%</b>	<b>28%</b>
Waste of water by farms and ranches	-	<b>8%</b>	<b>8%</b>	<b>17%</b>

*Next, the following are some things which some people say are threats to the amount of water available for use here in Western Colorado. For each one, please indicate if you see that as very threatening, somewhat threatening, only a little threatening, or not threatening at all to the amount of water available for your use.*

# The biggest threat to water availability is out of state water interests for Republicans and Independents, and climate change for Democrats.

GOP
Out of state water interests 91%
Out-of-state investment firms/hedge funds purchasing water rights 89%
Foreign governments purchasing water rights 85%
Water users from other regions of CO 66%
Population growth 55%

IND
Out of state water interests 81%
Out-of-state investment firms/hedge funds purchasing water rights 81%
Foreign governments purchasing water rights 80%
Water users from other regions of CO 62%
Population growth 62%

DEM
Climate change 87%
Out-of-state investment firms/hedge funds purchasing water rights 81%
Out of state water interests 77%
Foreign governments purchasing water rights 65%
Population growth 61%

Showing % Very Threatening

*Next, the following are some things which some people say are threats to the amount of water available for use here in Western Colorado. For each one, please indicate if you see that as very threatening, somewhat threatening, only a little threatening, or not threatening at all to the amount of water available for your use.*



# Every region is more concerned about threats from out-of-state or foreign governments to local water.

North Counties
Out-of-state investment firms/hedge funds purchasing water rights 86%
Out of state water interests 81%
Foreign governments purchasing water rights 77%
Water users from other regions of CO 65%
Population growth 61%

Mesa County
Foreign governments purchasing water rights 83%
Out of state water interests 81%
Out-of-state investment firms/hedge funds purchasing water rights 80%
Water users from other regions of CO 62%
Population growth 57%

South Counties
Out of state water interests 91%
Out-of-state investment firms/hedge funds purchasing water rights 86%
Foreign governments purchasing water rights 76%
Population growth 59%
Water users from other regions of CO 58%

East Region
Out-of-state investment firms/hedge funds purchasing water rights 81%
Out of state water interests 81%
Foreign governments purchasing water rights 73%
Climate change 66%
Population growth 64%

West Region
Out-of-state investment firms/hedge funds purchasing water rights 85%
Out of state water interests 85%
Foreign governments purchasing water rights 82%
Water users from other regions of CO 67%
Population growth 57%

Showing % Very Threatening

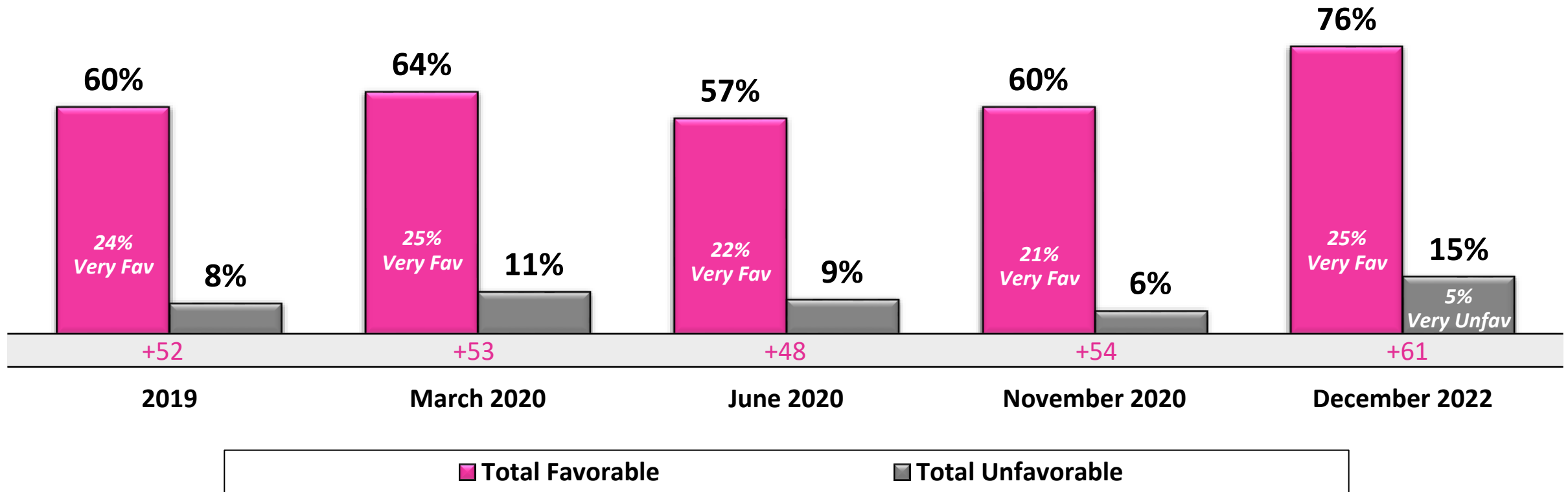
*Next, the following are some things which some people say are threats to the amount of water available for use here in Western Colorado. For each one, please indicate if you see that as very threatening, somewhat threatening, only a little threatening, or not threatening at all to the amount of water available for your use.*



# Perceptions of Government

# The Colorado River District has a favorable image with around three-quarters of voters – the highest we have tracked.

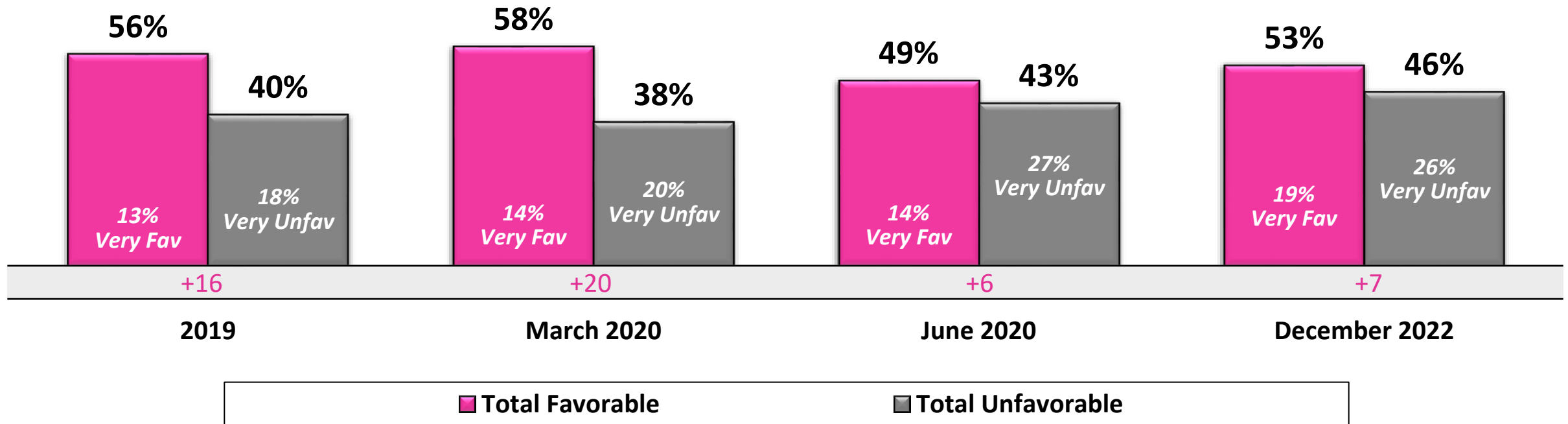
*Colorado River Water Conservation District, also known as the Colorado River District*



Now I'm going to read you the names of a few entities here in Colorado. Please tell me whether you have a favorable or unfavorable opinion of each one. If you have never heard of one, please just say so.

# While most voters have a positive view of the Colorado state government, it is more negative compared to 2019 and early 2020.

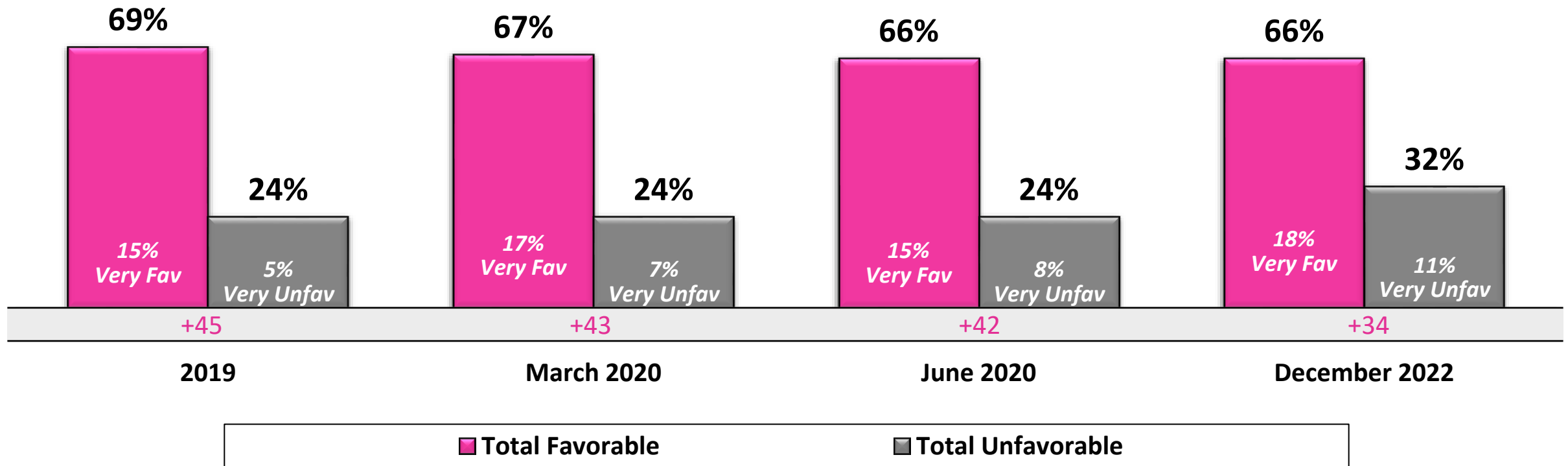
Colorado state government



Now I'm going to read you the names of a few entities here in Colorado. Please tell me whether you have a favorable or unfavorable opinion of each one. If you have never heard of one, please just say so.

# Going back to 2019, voters have held strongly positive views about their county government.

*Your county government*

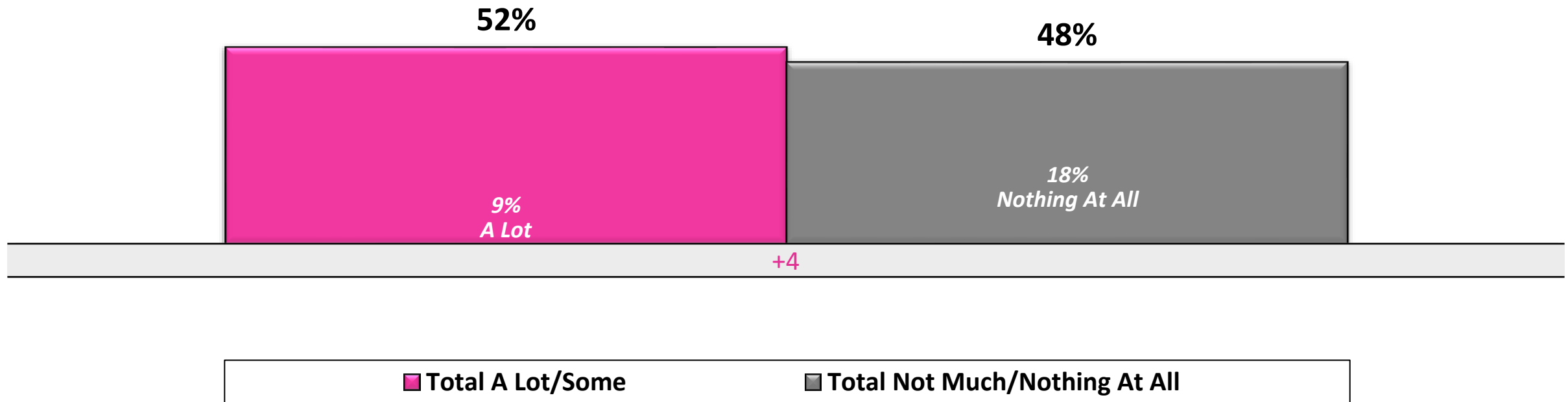


*Now I'm going to read you the names of a few entities here in Colorado. Please tell me whether you have a favorable or unfavorable opinion of each one. If you have never heard of one, please just say so.*



# **Western Slope Water Rights**

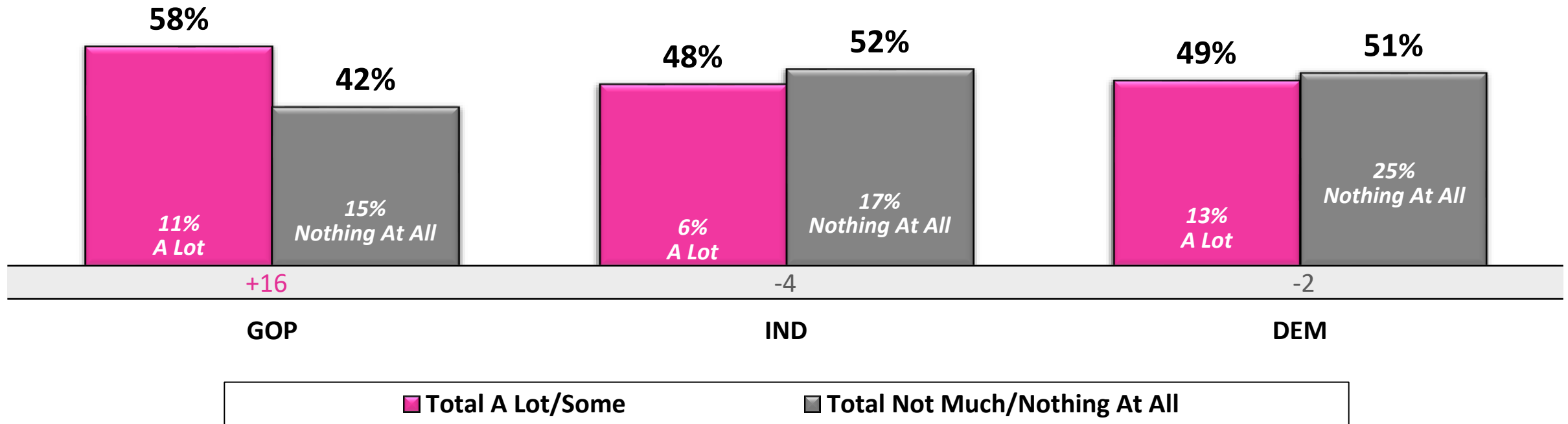
# Just over half of voters have heard a lot or some about about investment firms and foreign governments purchasing water rights on the West Slope.



*How much have you seen, read or heard about investment firms and foreign governments purchasing water rights on the West Slope?*

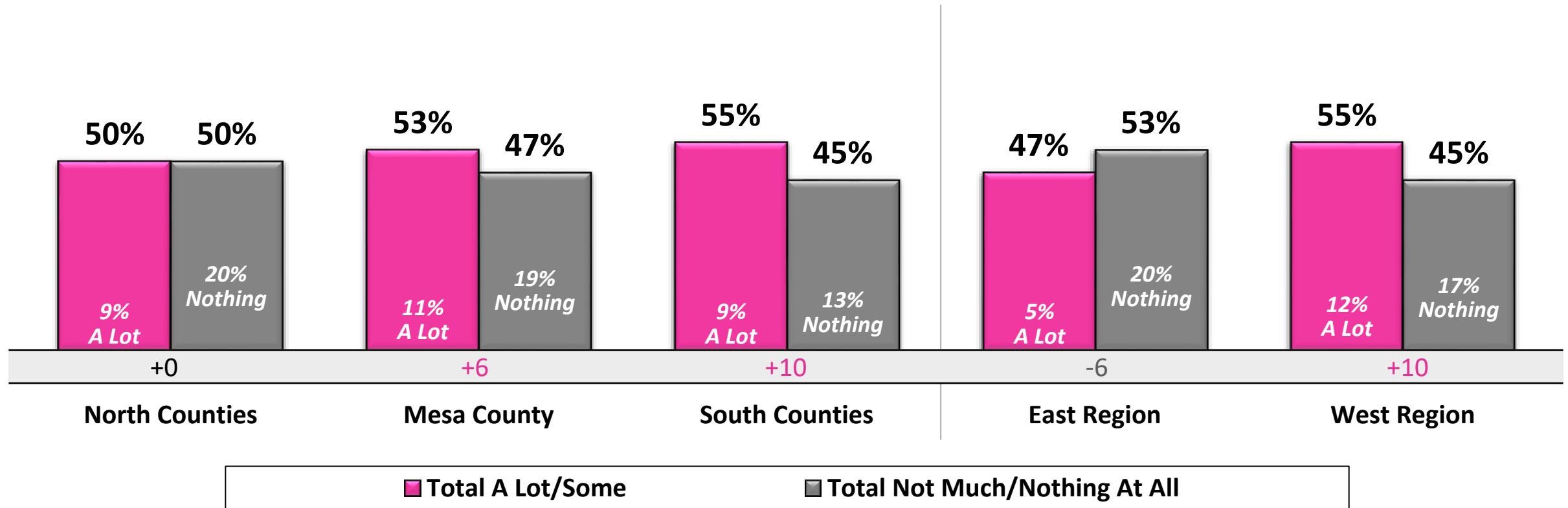


# Republicans are more likely to say that they have heard about investment firms and foreign governments purchasing West Slope water rights.



How much have you seen, read or heard about investment firms and foreign governments purchasing water rights on the West Slope?

# Voters in the West region are more likely than those in the East region to have heard about water rights on the West Slope getting purchased.



*How much have you seen, read or heard about investment firms and foreign governments purchasing water rights on the West Slope?*

# Nearly every voter is concerned about investment firms and foreign governments purchasing water rights on the Western Slope.

*Investment firms and foreign governments have recently been purchasing farms with senior water rights throughout the Colorado River Basin. For example, a New York based hedge fund has purchased five farms in Mesa County and may have plans to purchase more irrigated land. The firm invests in agricultural water rights and have expressed an interest in profiting off those rights during times of drought.*

98%

83%  
Very Concerned

1%

+97

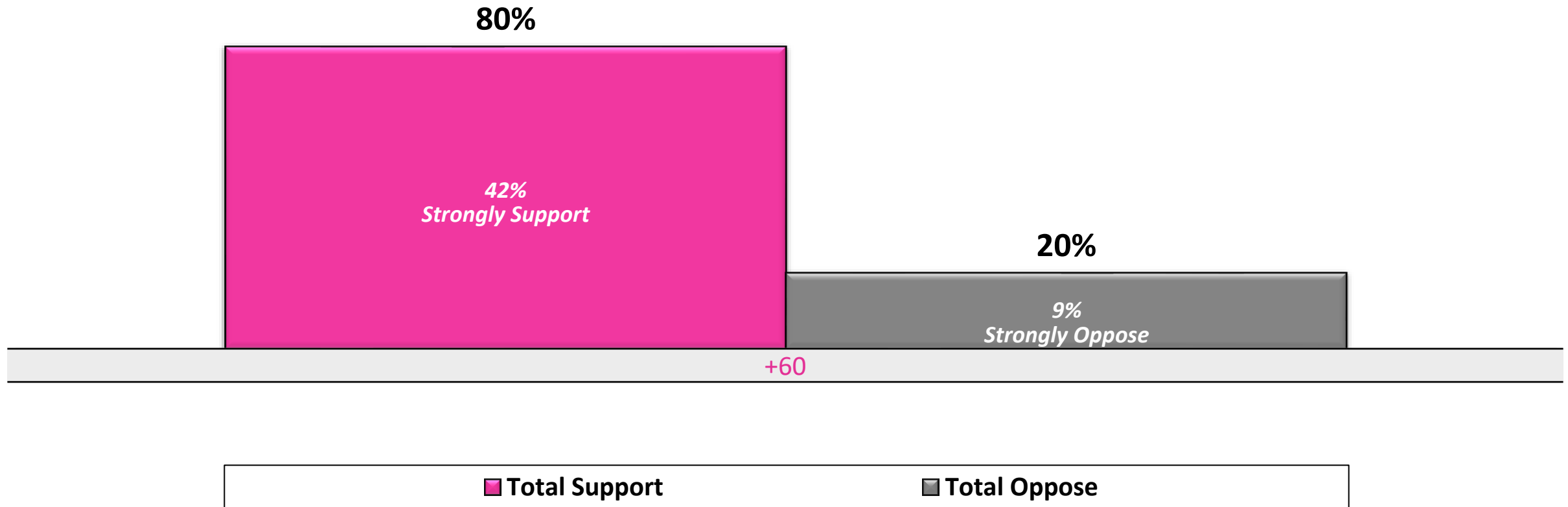
■ Total Concerned

■ Total Not Concerned

*Having heard that, how concerned are you about investment firms and foreign governments purchasing water rights on the Western Slope?*

# Four-in-five voters support a small tax increase dedicated to the Colorado River District to use easements to protect water.

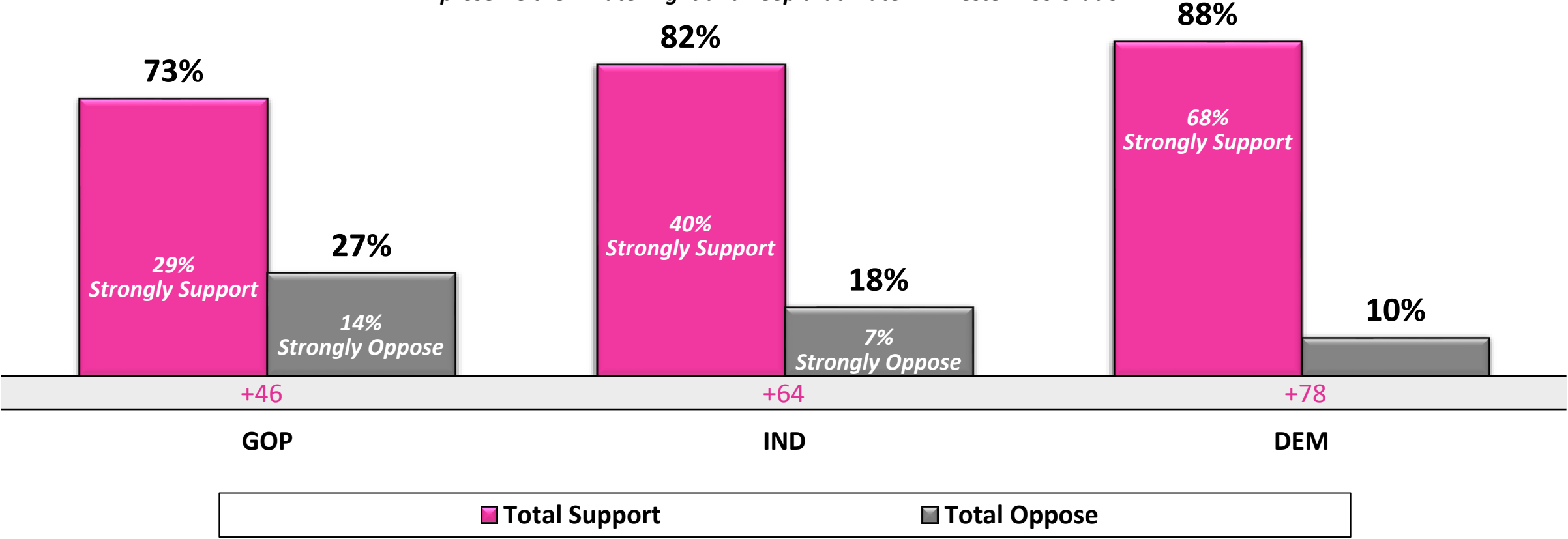
*Some people have proposed using voluntary land conservation agreements with willing farmers and ranchers that would pay those landowners to preserve their water right and keep that water in Western Colorado.*



*Would you support or oppose a small increase in taxes dedicated to the Colorado River District in order to protect West Slope water through these voluntary land conservation agreements?*

# Support is very high across party lines.

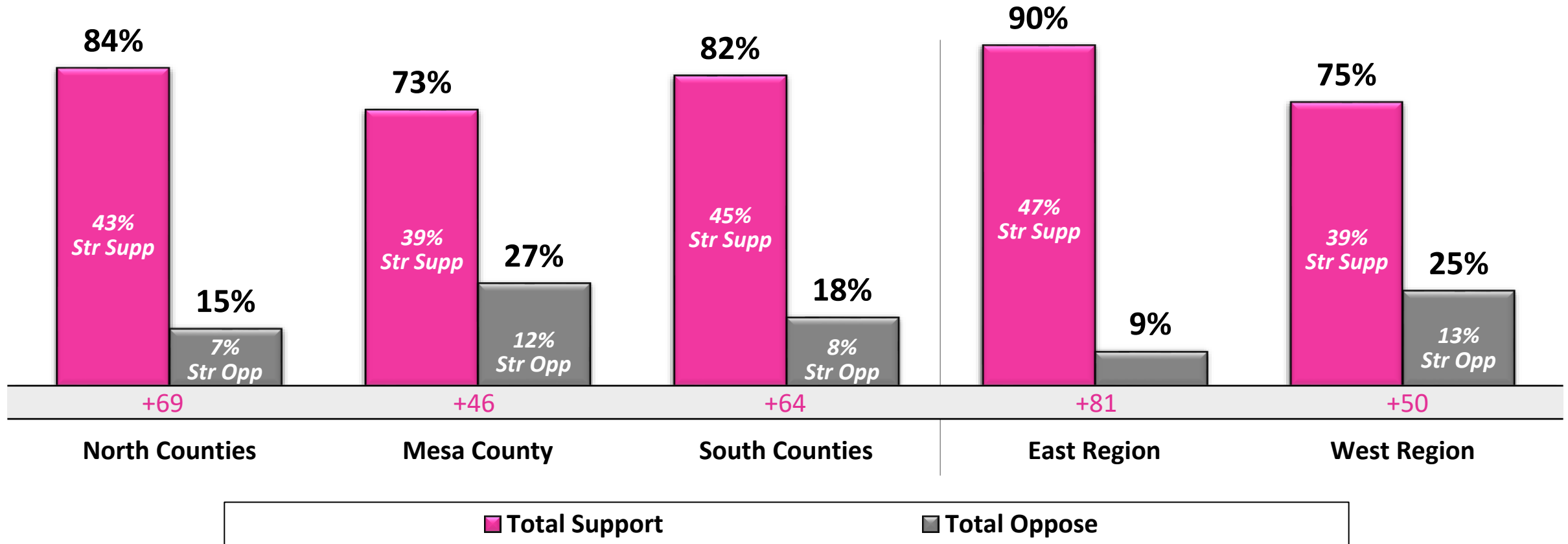
*Some people have proposed using voluntary land conservation agreements with willing farmers and ranchers that would pay those landowners to preserve their water right and keep that water in Western Colorado.*



*Would you support or oppose a small increase in taxes dedicated to the Colorado River District in order to protect West Slope water through these voluntary land conservation agreements?*

# Even in Mesa County, more than seven-in-ten support a small tax increase.

*Some people have proposed using voluntary land conservation agreements with willing farmers and ranchers that would pay those landowners to preserve their water right and keep that water in Western Colorado.*



*Would you support or oppose a small increase in taxes dedicated to the Colorado River District in order to protect West Slope water through these voluntary land conservation agreements?*

# Two-thirds of voters are more likely to agree with arguments in support of this tax increase rather than one rejecting it.

People who support increasing taxes to protect West Slope water say that we should protect West Slope Water from out-of-state companies and foreign governments who are seeking to profit at the expense of local food production and our rural communities.

67%

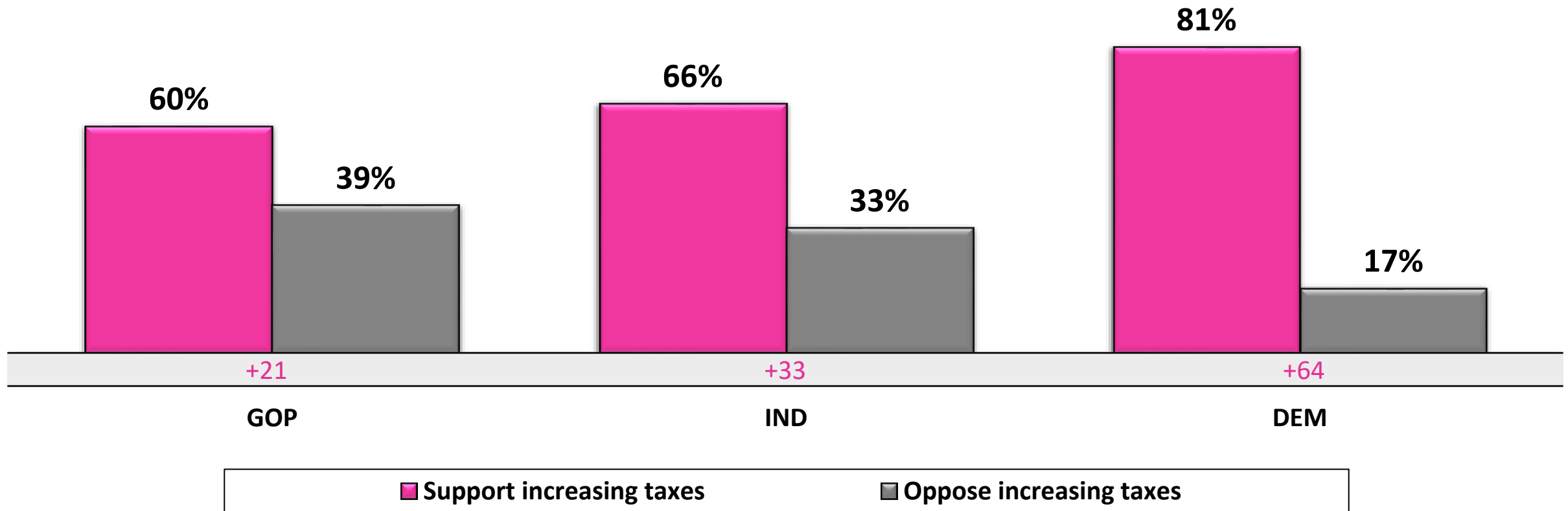
People who oppose increasing taxes to protect Western Slope water say that this is not a good time to raise taxes when families are struggling with higher prices for housing, groceries and gasoline.

32%

*And which one of the following statements comes closer to your own, even if neither one matches what you think exactly?*

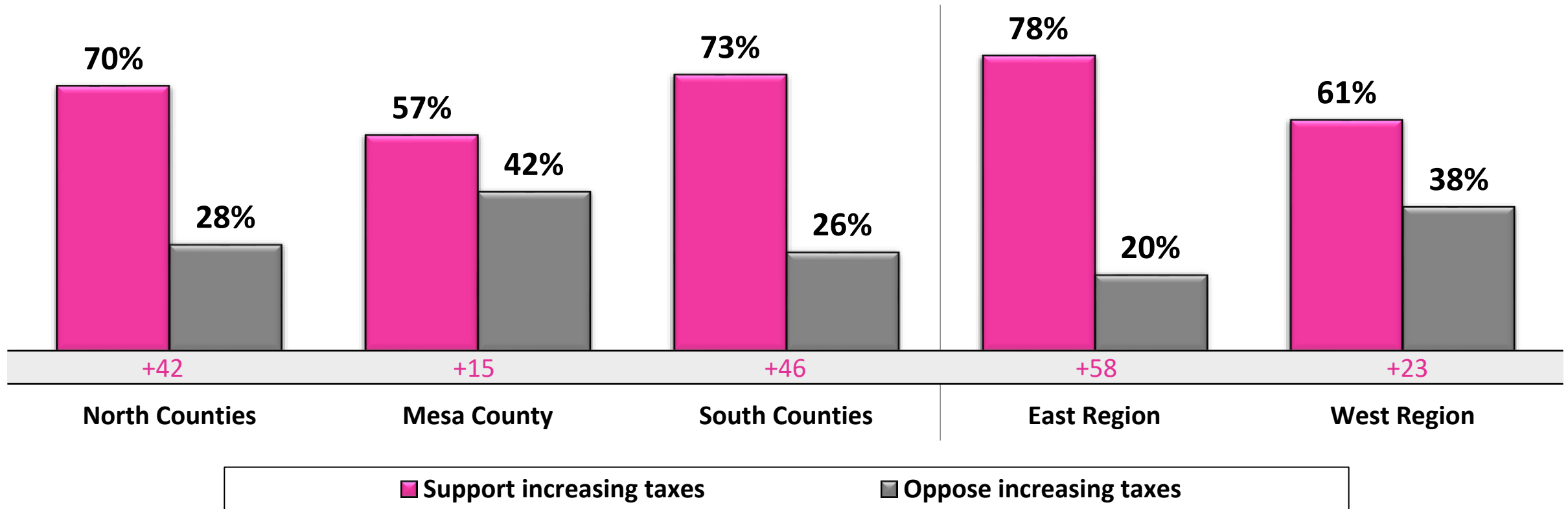


# While Democrats are most likely to agree with those supporting increasing taxes, Republicans and Independents also agree.



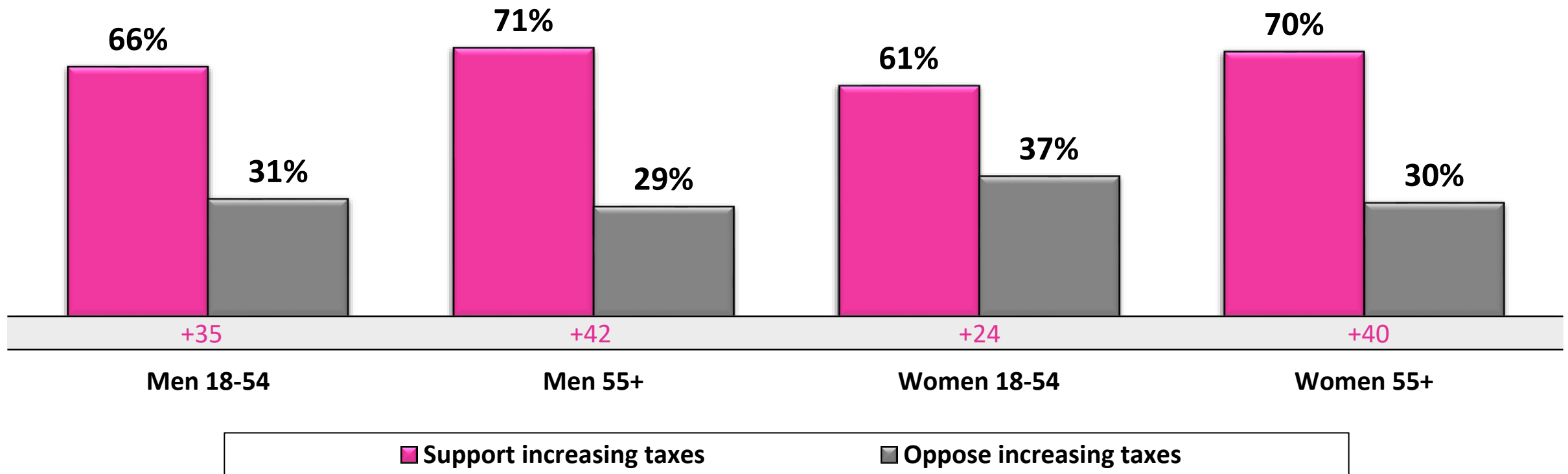
*And which one of the following statements comes closer to your own, even if neither one matches what you think exactly?*

# Majorities across regions – including in Mesa County – side with supporters of such a tax increase.



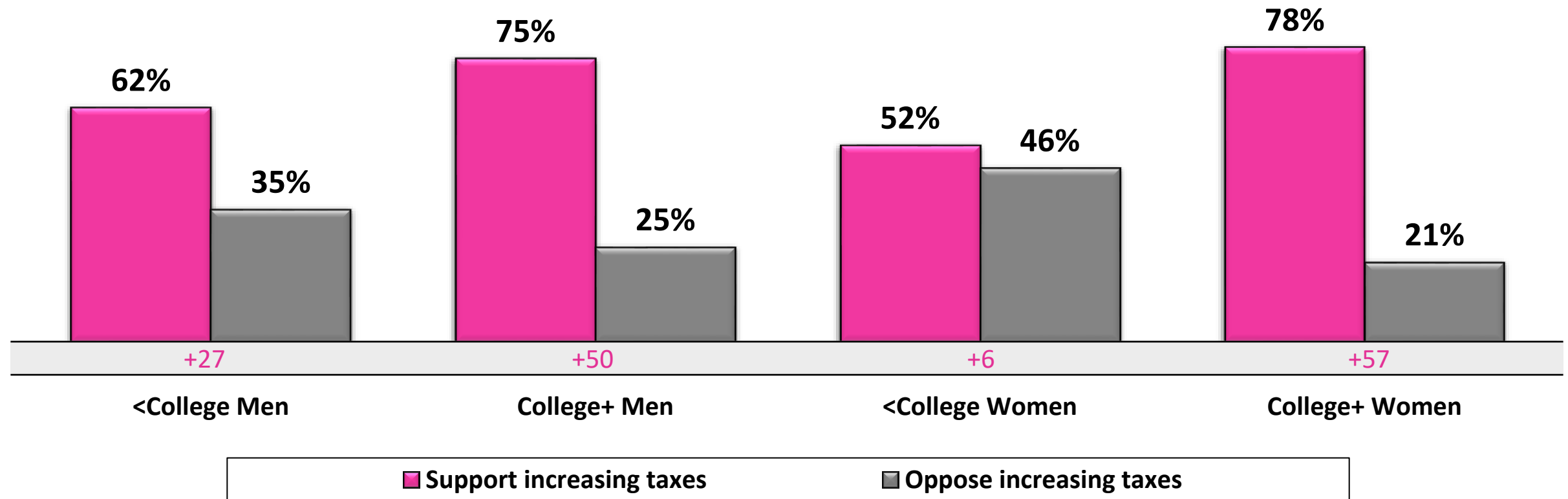
*And which one of the following statements comes closer to your own, even if neither one matches what you think exactly?*

# Older voters are more likely to agree with supporters of increasing taxes.



*And which one of the following statements comes closer to your own, even if neither one matches what you think exactly?*

# Women without a college degree are more divided when faced with opposition to such a tax increase.



*And which one of the following statements comes closer to your own, even if neither one matches what you think exactly?*



# The Bottom Line

# The Bottom Line

- The Colorado River District has a favorable image with around three-quarters of voters – the highest we have tracked.
- Voters express serious concerns about the health of Colorado rivers and surrounding areas. Almost all voters say that the levels of water in Colorado rivers is a serious problem, as is lower snowpack, wildfire conditions and other water availability problems we tested. More voters say water-related issues are extremely or very serious problems than ever before. This concern cuts across all major sub-groups, including across party lines.
- The biggest threats to water are perceived as out-of-state investment firms and other states like California. Over four-in-five say they are very threatening to the amount of water available for use in Western Colorado.
- A majority say they have heard a lot or some about about investment firms and foreign governments purchasing water rights on the West Slope. Voters are almost unanimous in their concern about these purchases. Though we did not test TABOR language, an overwhelming majority support a small tax increase dedicated to the Colorado River District to use easements to protect water. Two-thirds of voters are more likely to agree with arguments in support of this tax increase rather than one rejecting it.



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## Colorado River District Mixed Mode Survey

Interview Schedule

November 30 - December 6, 2022

Project #: 22076

N=500 Registered Voters

Margin of Error =  $\pm 4.38\%$

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*In this document...*

- *An asterisk (\*) in a response category means that less than 0.5% of respondents chose that response category and a dash (-) represents no response.*
  - *^ Denotes rounding. Due to rounding, some figures may be higher or lower by less than one-half of one percent.*
-



The following list of issues are sometimes said to be problems in this part of Colorado. Please indicate if you think each issue is **(ROTATE)** an extremely serious problem, a very serious problem, a somewhat serious problem, or not a problem in this part of Colorado.

**RANKED BY 2022 - % EXTREMELY/VERY SERIOUS**

	<b>EXT/V SRS</b>	<b>EXT SRS</b>	<b>V SRS</b>	<b>SMT SRS</b>	<b>NOT A SRS PROB</b>	<b>DK (DNR)</b>	<b>REF (DNR)</b>
The first/next one is... <b>(RANDOMIZE)</b>							
10.	Levels of water in Colorado rivers						
<b>12/22</b>	<b>83%</b>	49%	34%	14%	3%	--	--
<b>6/16</b>	<b>38%</b>	12%	26%	33%	27%	3%	*
<b>6/13</b>	<b>66%</b>	34%	32%	24%	9%	1%	--
3.	Lower snowpack						
<b>12/22</b>	<b>80%</b>	46%	34%	16%	4%	*	--
<b>6/16</b>	<b>29%</b>	8%	21%	37%	32%	2%	1%
<b>6/13</b>	<b>65%</b>	35%	30%	20%	11%	3%	*
<b>6/09</b>	<b>33%</b>	12%	21%	31%	31%	4%	1%
9.	Wildfire conditions						
<b>12/22</b>	<b>79%</b>	46%	33%	18%	3%	--	--
<b>11/20</b>	<b>83%</b>	52%	31%	12%	3%	1%	1%
<b>6/13</b>	<b>77%</b>	42%	35%	16%	6%	*	--
2.	More frequent droughts						
<b>12/22</b>	<b>78%<sup>^</sup></b>	45%	32%	17%	5%	--	--
<b>11/20</b>	<b>68%</b>	37%	31%	22%	8%	2%	*
<b>6/13</b>	<b>72%</b>	34%	38%	21%	5%	2%	*
<b>6/09</b>	<b>35%</b>	10%	25%	38%	25%	2%	--
1.	Inadequate water supplies						
<b>12/22</b>	<b>76%</b>	43%	33%	17%	6%	*	--
<b>6/16</b>	<b>37%</b>	12%	25%	31%	30%	1%	1%
<b>6/13</b>	<b>50%</b>	21%	29%	34%	14%	2%	--
<b>5/10</b>	<b>32%</b>	12%	20%	29%	38%	1%	--
<b>6/09</b>	<b>37%</b>	14%	23%	31%	30%	2%	*
4.	Not enough water flowing in streams and rivers to protect water quality and fish						
<b>12/22</b>	<b>74%</b>	42%	32%	19%	6%	--	--
<b>6/16</b>	<b>38%</b>	15%	22%	26%	35%	1%	*
<b>6/13</b>	<b>52%</b>	26%	27%	31%	11%	5%	*
<b>6/09</b>	<b>27%</b>	10%	17%	33%	36%	5%	--

Continued...

	<b>EXT/V SRS</b>	<b>EXT SRS</b>	<b>V SRS</b>	<b>SMT SRS</b>	<b>NOT A SRS PROB</b>	<b>DK (DNR)</b>	<b>REF (DNR)</b>
7.	Loss of farmlands, ranches and orchards						
<b>12/22</b>	<b>74%</b>	39%	35%	20%	5%	1%	--
<b>6/16</b>	<b>41%</b>	17%	24%	36%	19%	3%	--
<b>6/13</b>	<b>51%</b>	22%	28%	28%	16%	6%	--
<b>5/10</b>	<b>52%</b>	19%	33%	24%	20%	4%	--
<b>6/09</b>	<b>55%</b>	23%	32%	26%	17%	3%	--
11.	Availability of water for farming and ranching						
<b>12/22</b>	<b>74%</b>	36%	38%	20%	5%	1%	--
<b>11/20</b>	<b>50%</b>	20%	30%	33%	11%	5%	1%
<b>6/13</b>	<b>61%</b>	27%	34%	24%	8%	8%	--
5.	The economy						
<b>12/22</b>	<b>65%</b>	35%	30%	26%	8%	*	--
<b>11/20</b>	<b>50%</b>	19%	31%	34%	14%	1%	1%
<b>6/13</b>	<b>60%</b>	30%	30%	33%	5%	2%	--
<b>5/10</b>	<b>72%</b>	33%	39%	26%	1%	--	--
<b>6/09</b>	<b>75%</b>	34%	41%	22%	2%	1%	--
13.	Climate change						
<b>12/22</b>	<b>57%</b>	40%	17%	22%	21%	--	--
<b>11/20</b>	<b>53%</b>	32%	21%	18%	27%	1%	1%
6.	Taxes						
<b>12/22</b>	<b>48%</b>	23%	25%	31%	20%	*	--
<b>11/20</b>	<b>34%</b>	15%	19%	33%	30%	3%	*
<b>6/13</b>	<b>40%</b>	18%	22%	36%	23%	1%	--
<b>5/10</b>	<b>47%</b>	20%	27%	35%	17%	1%	*
<b>6/09</b>	<b>46%</b>	19%	27%	40%	12%	1%	--
12.	Availability of water for recreation						
<b>12/22</b>	<b>42%</b>	15%	27%	42%	16%	--	--
<b>11/20</b>	<b>40%</b>	16%	24%	38%	18%	3%	1%
<b>6/13</b>	<b>35%</b>	11%	24%	34%	28%	3%	--
8.	The price you pay for water						
<b>12/22</b>	<b>34%</b>	11%	23%	34%	31%	--	--
<b>6/16</b>	<b>20%</b>	11%	9%	28%	49%	2%	1%
<b>6/13</b>	<b>20%</b>	8%	13%	32%	42%	3%	2%
<b>5/10</b>	<b>15%</b>	8%	7%	22%	58%	5%	*

---

Thinking about one issue here in western Colorado –

14. Would you say we are in a drought today, not in a drought, or do you not have enough information to say?

**(IF “IN A DROUGHT,” THEN ASK:)** And do you feel strongly or not-so-strongly about that?

<u>6/09</u>	<u>12/22</u>	
10%	64%	STRONGLY IN DROUGHT
7%	13%	NOT-SO-STRONGLY IN DROUGHT
55%	13%	NOT IN DROUGHT
27%	10%	DON'T KNOW ENOUGH TO SAY
1%	-	REFUSED (DNR/NOT ONLINE)
<b>17%</b>	<b>77%</b>	<b>TOTAL IN DROUGHT</b>

15. Based on what you have seen, read or heard, would you say that Colorado does or does not have an ADEQUATE supply of water to meet future needs, say ten years from now?

**(IF ADEQUATE/INADEQUATE, THEN ASK:)** And do you feel STRONGLY or NOT-SO-STRONGLY that Colorado has an (ADEQUATE/INADEQUATE) supply of water to meet future needs?

<u>6/09</u>	<u>5/10</u>	<u>6/13</u>	<u>6/16</u>	<u>3/20</u>	<u>11/20</u>	<u>12/22</u>	
<b>31%</b>	<b>31%</b>	<b>18%</b>	<b>38%</b>	<b>42%</b>	<b>24%</b>	<b>16%</b>	<b>TOTAL ADEQUATE</b>
<b>57%</b>	<b>55%</b>	<b>71%</b>	<b>57%</b>	<b>47%</b>	<b>56%^</b>	<b>84%^</b>	<b>TOTAL INADEQUATE</b>
16%	17%	7%	19%	9%	13%	7%	Strongly Does/Adequate
15%	14%	10%	19%	33%	11%	9%	Not-So-Strongly Does/Adequate
21%	16%	13%	19%	26%	11%	14%	Not-So-Strongly Does Not/Inadequate
36%	39%	58%	38%	20%	44%	69%	Strongly Does Not/Inadequate
1%	1%	1%	*	2%	4%	--	Depends On Drought (DNR/NOT ONLINE)
1%	2%	1%	*	2%	2%	--	Depends On Growth (DNR/NOT ONLINE)
10%	11%	9%	3%	8%	13%	*	DON'T KNOW/UNSURE (DNR/NOT ONLINE)
*	--	--	2%	*	1%	--	REFUSED (DNR/NOT ONLINE)

**ONLINE:** Below are the names of a few entities here in Colorado. Please indicate whether you have a **(ROTATE)** favorable or unfavorable opinion of each one. If you have never heard of one, please indicate this by selecting Never Heard Of. **(SHOW IN ORDER, DO NOT RANDOMIZE)**

**PHONE:** Now I'm going to read you the names of a few entities here in Colorado. Please tell me whether you have a **(ROTATE)** favorable or unfavorable opinion of each one. If you have never heard of one, please just say so. **(READ IN ORDER, DO NOT RANDOMIZE)**

**(IF ANSWER)** And would you say you have a very (FAVORABLE/UNFAVORABLE) opinion or just a somewhat (FAVORABLE/UNFAVORABLE) opinion?

**RANKED BY 2022 - % VERY FAVORABLE**

V FAV	SMT FAV	SMT UNFAV	V UNFAV	NO OPIN	NVR HRD OF	DK/REF (DNR)
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**PHONE ONLY:** The first/next one is...

17.	Colorado River Water Conservation District, also known as the Colorado River District						
12/22	25%	51%	11%	5%	--	9%	*
		<b>76%</b>		<b>15%^</b>			
11/20	21%	39%	4%	2%	29%	2%	3%
		<b>60%</b>		<b>6%</b>			
6/20	22%	35%	7%	3%	18%	14%	1%
		<b>57%</b>		<b>9%^</b>			
3/20	25%	39%	8%	3%	9%	13%	3%
		<b>64%</b>		<b>11%</b>			
2019	24%	36%	6%	2%	19%	11%	2%
		<b>60%</b>		<b>8%</b>			
18.	Colorado state government						
12/22	19%	33%	20%	26%	1%	1%	--
		<b>53%^</b>		<b>46%</b>			
6/20	14%	35%	16%	27%	7%	*	1%
		<b>49%</b>		<b>43%</b>			
3/20	14%	43%	18%	20%	2%	1%	1%
		<b>58%^</b>		<b>38%</b>			
2019	13%	43%	22%	18%	4%	*	*
		<b>56%</b>		<b>40%</b>			
16.	Your county government						
12/22	18%	48%	21%	11%	1%	1%	*
		<b>66%</b>		<b>32%</b>			
6/20	15%	51%	16%	8%	8%	1%	1%
		<b>66%</b>		<b>24%</b>			
3/20	17%	49%	17%	7%	6%	2%	1%
		<b>67%^</b>		<b>24%</b>			
2019	15%	54%	19%	5%	5%	1%	1%
		<b>69%</b>		<b>24%</b>			

Thinking specifically about the Colorado River and the rivers and streams that flow into it –

For each one of the following words and phrases, please indicate how well you think it describes the Colorado River and the rivers and streams that flow into it ... Does it describe it **(ROTATE)** very well, fairly well, not very well, or not well at all?

**RANKED BY % VERY WELL**

	<b>TOTAL WELL</b>	<b>TOTAL NOT WELL</b>	<b>VERY WELL</b>	<b>FRLY WELL</b>	<b>NOT VERY WELL</b>	<b>NOT AT ALL</b>	<b>DK/REF (DNR)</b>
The first/next one is... <b>(RANDOMIZE)</b>							
23.	Important to the economy on the western slope						
12/22	92%	8%^	68%	34%	6%	3%	*
6/16	95%	4%	78%	17%	2%	2%	1%
6/13	94%	5%	79%	15%	4%	1%	1%
6/09	95%	4%	76%	18%	3%	1%	1%
22.	Important to me personally						
12/22	89%	11%	57%	32%	9%	2%	*
6/16	92%	7%	70%	22%	5%	2%	*
6/13	92%	7%	68%	23%	5%	2%	1%
6/09	91%	7%	69%	22%	4%	3%	1%
21.	In greater need of protection						
12/22	86%	14%	55%	31%	9%	5%	*
6/16	84%	15%	58%	26%	9%	6%	1%
6/13	83%	14%	58%	25%	9%	5%	3%
6/09	84%	14%	55%	29%	8%	6%	2%
19.	Threatened						
12/22	82%^	18%	46%	35%	11%	7%	*
6/16	67%	32%	39%	28%	20%	11%	1%
6/13	81%	17%	52%	29%	12%	5%	2%
6/09	68%	28%	37%	31%	20%	8%	4%
20.	Healthy						
12/22	52%	48%	12%	40%	37%	11%	*
6/16	76%	22%	33%	43%	17%	5%	1%
6/13	65%	31%	27%	38%	21%	10%	4%
6/09	79%	16%	34%	45%	13%	3%	5%

Next, the following are some things which some people say are threats to the amount of water available for use here in Western Colorado. For each one, please indicate if you see that as **(ROTATE)** very threatening, somewhat threatening, only a little threatening, or not threatening at all to the amount of water available for your use.

**RANKED BY % VERY THREATENING**

	<b>TOTAL THRT</b>	<b>TOTAL NOT THRT</b>	<b>VERY THRT</b>	<b>SMWT THRT</b>	<b>ONLY A A LITTLE THRT</b>	<b>NOT NOT AT ALL THRT</b>	<b>DK/REF (DNR/NOT ONLINE)</b>
The first/next one is... <b>(RANDOMIZE)</b>							
31.	Out-of-state investment firms and hedge funds purchasing Colorado water rights						
12/22	97%^	3%	84%	13%	2%	1%	*
24.	Out of state water interests, such as California						
12/22	97%^	2%	84%	14%	2%	*	--
6/16	90%	8%	73%	17%	4%	4%	1%
6/13	92%	6%	72%	20%	2%	3%	2%
6/09	83%	14%	57%	26%	6%	8%	3%
30.	Foreign governments purchasing Colorado water rights						
12/22	93%^	7%	78%	14%	4%	3%	--
25.	Water users from other regions of Colorado, such as Denver and other Front Range cities						
12/22	92%^	8%	62%	29%	6%	2%	*
6/16	85%	14%	60%	25%	5%	9%	1%
6/13	90%	8%	63%	27%	4%	5%	2%
6/09	75%	22%	46%	29%	9%	13%	3%
26.	Population growth						
12/22	92%	8%	59%	33%	6%	2%	*
6/16	79%	20%	43%	36%	8%	12%	1%
6/13	77%	21%	40%	37%	11%	10%	2%
6/09	80%	20%	43%	36%	8%	12%	--
27.	Climate change						
12/22	69%	31%	48%	21%	16%	15%	--
6/16	68%	32%	34%	33%	8%	24%	--
6/13	67%	32%	37%	29%	10%	22%	2%
6/09	55%	43%	24%	31%	13%	30%	3%
28.	Waste of water by residential consumers						
12/22	72%^	28%	28%	45%	21%	7%	*
6/16	70%	30%	30%	40%	12%	18%	--
6/13	77%	21%	37%	40%	12%	9%	1%

Continued...

	<b>TOTAL THRT</b>	<b>TOTAL NOT THRT</b>	<b>VERY THRT</b>	<b>SMWT THRT</b>	<b>ONLY A LITTLE THRT</b>	<b>NOT NOT AT ALL THRT</b>	<b>DK/REF (DNR/NOT ONLINE)</b>
29. Waste of water by farms and ranches							
<b>12/22</b>	<b>53%</b>	<b>47%</b>	17%	36%	26%	21%	--
<b>6/16</b>	<b>37%</b>	<b>59%</b>	8%	29%	17%	42%	4%
<b>6/13</b>	<b>37%</b>	<b>57%</b>	8%	29%	15%	42%	7%

Thinking about a couple of these threats --

32. How much have you seen, read or heard about investment firms and foreign governments purchasing water rights on the West Slope?

9%	A LOT
43%	SOME
30%	NOT MUCH
18%	NOTHING AT ALL
-	UNSURE/REFUSED ( <b>DNR/NOT ONLINE</b> )
<b>52%</b>	<b>TOTAL A LOT/SOME</b>
<b>48%</b>	<b>TOTAL NOT MUCH/ NOTHING AT ALL</b>

Investment firms and foreign governments have recently been purchasing farms with senior water rights throughout the Colorado River Basin. For example, a New York based hedge fund has purchased five farms in Mesa County and may have plans to purchase more irrigated land. The firm invests in agricultural water rights and have expressed an interest in profiting off those rights during times of drought.

33. Having **ONLINE:** read / **PHONES:** heard that, how concerned are you about investment firms and foreign governments purchasing water rights on the Western Slope?

83%	VERY CONCERNED
16%	SOMEWHAT CONCERNED
1%	NOT VERY CONCERNED
-	NOT AT ALL CONCERNED
*	UNSURE/REFUSED ( <b>DNR/NOT ONLINE</b> )
<b>98%^</b>	<b>TOTAL CONCERNED</b>
<b>1%</b>	<b>TOTAL NOT CONCERNED</b>

34. Some people have proposed using voluntary land conservation agreements with willing farmers and ranchers that would pay those landowners to preserve their water right and keep that water in Western Colorado.

Would you **(ROTATE)** support or oppose a small increase in taxes dedicated to the Colorado River District in order to protect West Slope water through these voluntary land conservation agreements?

**(PHONES IF SUPPORT/OPOSE)** Is that strongly (support/oppose) or somewhat?

42% STRONGLY SUPPORT

38% SOMEWHAT SUPPORT

11% SOMEWHAT OPPOSE

9% STRONGLY OPPOSE

\* UNSURE/REFUSED **(DNR/NOT ONLINE)**

**80% TOTAL SUPPORT**

**20% TOTAL OPOSE**

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35. And which one of the following statements comes closer to your own, even if neither one matches what you think exactly? **(ROTATE)**

67% People who support increasing taxes to protect West Slope water say that we should protect West Slope Water from out-of-state companies and foreign governments who are seeking to profit at the expense of local food production and our rural communities.

32% People who oppose increasing taxes to protect West Slope water say that this is not a good time to raise taxes when families are struggling with higher prices for housing, groceries and gasoline.

1% BOTH EQUALLY **(DNR/NOT ONLINE)**

\* NEITHER **(DNR/NOT ONLINE)**

1% UNSURE **(DNR/NOT ONLINE)**

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To ensure we speak to a representative sample of local citizens, could you please tell me --

D1. In what year were you born?

18% 18 - 34  
16% 35 - 44  
15% 45 - 54  
21% 55 - 64  
30% 65 AND ABOVE

- REFUSED (**DO NOT READ/NOT ONLINE**)

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Now, I have just a few more questions for statistical purposes only...

D2. And, how long have you lived in (**INSERT COUNTY**)? (**DO NOT READ CHOICES**)

12% LESS THAN FIVE YEARS  
16% FIVE TO TEN YEARS  
6% ELEVEN TO FIFTEEN YEARS  
45% MORE THAN FIFTEEN YEARS  
21% NATIVE

- DON'T KNOW (**DNR/NOT ONLINE**)  
- REFUSED (**DNR/NOT ONLINE**)

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**(ASK ONLINE OR IF NOT ON FILE)**

D3. And, no matter how you feel today, are you currently registered to vote as ....(**ROTATE**)

a Republican,  
a Democrat,  
or something else?

36% REPUBLICAN  
22% DEMOCRAT  
42% SOMETHING ELSE/INDEPENDENT

- REFUSED (**DNR/NOT ONLINE**)

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D4. And what was the last level of education you COMPLETED? **(DO NOT READ CATEGORIES)**

21% HIGH SCHOOL GRADUATE OR LESS  
6% TECHNICAL OR VOCATIONAL SCHOOL  
23% SOME COLLEGE  
34% GRADUATED COLLEGE  
16% GRADUATE/PROFESSIONAL SCHOOL  
  
- REFUSED **(DNR/NOT ONLINE)**

**21% HS OR LESS**  
**29% SOME COLL**  
**50% COLL+**

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D5. Gender **(PHONE: BY OBSERVATION)**

50% MALE  
50% FEMALE  
  
- NEITHER/PREFER NOT TO ANSWER

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[GO BACK TO AGENDA](#)

**13. Directors' Updates and Concerns. (No Material Available).**



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** AMY MOYER, DIRECTOR OF STRATEGIC PARTNERSHIPS  
MELISSA WILLS, PROGRAM ASSOCIATE

**SUBJECT:** COMMUNITY FUNDING PARTNERSHIP – ADMINISTRATIVE CHANGES

**DATE:** JANUARY 17-18, 2023

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**ACTION ITEMS:**

- (1) Staff requests that the Board approve the revised Community Funding Partnership Framework. *[Exhibit A]*

**STRATEGIC INITIATIVE(S):**

*11. River District Staff Resources: For the River District to successfully fulfill its mission and meet strategic initiatives of the organization, it is imperative to attract and retain a highly qualified staff. The River District values each employee and their contributions and recognizes that the success of the organization depends heavily on the success of its employees.*

*12. Financial Sustainability: The above strategic initiatives cannot be achieved without financial sustainability. The River District enjoys a diversified tax base for its Governmental Funds, which helps to reduce the impacts of dramatic downturns in its overall assessed valuation. Over the long-term, the Enterprise Fund is intended to be self-sustaining, managing the River District's business-type activities.*

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**Discussion:** In January 2022, Staff proposed several administrative changes to streamline processes, particularly as our portfolio of active grant contracts grows. Following the Board discussion, Staff proposed continuing to bring potential administrative changes at the District's First Quarterly Board Meeting each January. Staff is proposing two administrative changes identified both through process improvement exercises and through situations encountered during the existence of the Program.

**Framework Changes:**

- *Supplemental Funding:* The Program currently does not have a documented process for awarding supplemental funding following an initial funding award. Staff have received multiple inquiries to understand this process from existing grantees – largely due to unforeseen cost increases due to supply chain disruptions, labor shortages, and inflationary



changes to project costs. Creating these Guidelines will enable Staff to work with existing grantees – on a limited basis – to consider whether supplemental funding is warranted.

Staff recommends amending the Framework to recognize that in limited cases supplemental funding may be warranted due to unforeseen circumstances such as supply chain interruptions, inflationary changes, cost and availability of labor, and unanticipated fundraising challenges. After consultation with District Staff, Awardees may request a one-time supplemental funding request. District staff will consider requests for an increase of no more than 30% of the existing grant agreement, unless otherwise justified by District staff. Supplemental funding requests are not intended to change the original scope of the contract.

Supplemental funding requests will be considered by the Board or delegated authority granted to the General Manager consistent with the authority granted in Section IX of the Framework to review, consider, approve and/or deny applications in amounts up to \$50,000 for any single project and the District's Financial Governance Policy<sup>1</sup> which grants the General Manager authority to approve change orders to existing Board approved contractual agreements for additional expenditures up to \$50,000. Supplemental funding requests that increase the total funding award beyond the authority delegated to the General Manager must be considered by the Board.

Through the supplemental funding request, applicants should expect to address:

- unforeseen, unanticipated, extraordinary circumstances;
  - time sensitivity of the need for supplemental funds;
  - explanation of the applicant's inability to provide funds to complete the project;
  - analysis of other funding sources exhausted; and
  - discussion of unanticipated fundraising challenges.
- 
- *De-Authorization of Awarded Funding:* The Program currently does not have a documented process for de-authorizing grants that have been approved for award, but never contracted. Limited situations may arise where a project will not commence, or Staff may lose communication with an awarded project. This proposed change creates a defined process to ensure there is no miscommunication with awardees and to ensure our unobligated fund balance remains accurate.

Staff recommends amending the Framework adding that if an approved project does not have a fully executed Grant Agreement within two years of the project's authorization, the project will be de-authorized unless District staff recommends a time extension. Extension requests will be considered by the Board or delegated authority granted to the General Manager to review, consider, approve and/or deny applications in amounts up to \$50,000 for any single project. If a situation arises where it is certain that a project will not commence, District staff may recommend de-authorization prior to two years to be considered by the Board or delegated authority granted to the General Manager to review,

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<sup>1</sup> The District's Financial Governance Policy is attached as [Exhibit C](#) to this memo.



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consider, approve and/or deny applications in amounts up to \$50,000 for any single project. Awardees also may request de-authorization in writing prior to two years of the project's authorization at which point the project will be de-authorized.

**A revised Community Funding Partnership Framework is attached as Exhibit A to this memo.**

**Program Guidelines (Informational; No Action Required):** Staff will make conforming changes to the Program Guidelines available as an additional resource to project applicants. For your information, revised Guidelines are attached as **Exhibit B** to this memo.

## EXHIBIT A

**CRD  
COMMUNITY  
FUNDING PARTNERSHIP  
FRAMEWORK**

January 202~~3~~<sup>2</sup>

**Introduction:**

On November 3, 2020, the registered electorate of the Colorado River Water Conservation District (the District or CRD) approved Ballot Question 7A. Ballot Question 7A, in its entirety reads:

*Shall Colorado River Water Conservation District, also known as the Colorado River District, taxes be increased by an amount up to \$4,969,041 in 2021 (which increase amounts to approximately \$1.90 in 2021 for every \$100,000 in residential home value), and by such amounts as are generated annually thereafter from an additional property tax levy of 0.248 mills (for a total mill levy of 0.5 mills) to enable the Colorado River District to protect and safeguard Western Colorado water by:*

- *Fighting to keep water on the West Slope;*
- *Protecting adequate water supplies for West Slope farmers and ranchers;*
- *Protecting sustainable drinking water supplies for West Slope communities;*  
*and*
- *Protecting fish, wildlife, and recreation by maintaining river levels and water quality;*

*provided that the District will not utilize these additional funds for the purpose of paying to fallow irrigated agriculture; with such expenditures reported to the public in an annually published independent financial audit; and shall all revenues received by the District in 2021 and each subsequent year be collected, retained and spent notwithstanding any limits provided by law?*

When taking action to place this ballot question on the November 2020 ballot, the CRD Board adopted Resolution 2020-01 which included within in it an Implementation Plan. The Implementation Plan articulates the River District's clear intent and commitment as to how the newly authorized funds would be used by the District if the voters approved the ballot question. Specifically, the Board committed to allocating approximately 86% of the funds annually to fund partnerships with water users and communities within the District on projects identified as priorities by local communities and Basin Roundtables.

The Implementation Plan adopted by the Board pledged that the Board and staff of the Colorado River District will prioritize multi-purpose projects that meet needs in one or more of the following five categories:

- productive agriculture,
- infrastructure,
- healthy rivers,
- watershed health and water quality; and

- conservation and efficiency.

The Board indicated that the District is committed to expending funds in an equitable manner which, over time, disperses the benefits of the program geographically within the District boundaries and between the identified categories. The District is also committed to utilizing these funds to drive the initiation and completion of projects that are priorities for residents of the District by utilizing District funds as a catalyst for matching funds from state, federal and private sources.

In Resolution 2020-01, the District expressly stated that it will not utilize the funds raised by this ballot question for the purpose of paying to temporarily or permanently fallow irrigated agriculture and the Implementation Plan affirms the River District's commitment to coordinating and consulting local elected officials in all relevant counties prior to committing funds to any specific project or activity pursued by the District.

The purpose of the following document is to provide a transparent framework and common understanding as to how this program will function for all Colorado River District stakeholders, i.e. our taxpayers, water users, potential applicants, elected officials, community members, and River District Board members and staff.

On October 20<sup>th</sup>, 2021, the Board of Directors of the Colorado River Conservation District unanimously adopted a resolution establishing a Community Funding Partnership Fund with an associated Community Funding Partnership budget, which Commeneing with the 2021 budget cycle, the CRD shall create a line item in the General Fund Budget which identifies the funds available in the budget year for appropriation for project funding. Except as otherwise provided for herein, these funds shall only be allocated and committed with Board approval. The District recognizes and values the importance of transparent and public accounting and allocation of these funds; therefore, CRD staff shall be charged with conducting the following analysis and recommendation to the Board for each request to allocate project funding.

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**Purpose:** To provide District Board and staff with an appropriate, objective and transparent tool and process to evaluate any new external or internal request for project funding in order to determine the appropriateness of the request within the District's mission, the District's commitment to the citizens of the District as set forth in ballot question 7A approved on November 3, 2020 and as more specifically articulated by the Board in Resolution 2020-01.

**Intent:** To provide an objective framework and transparent process by which staff will initiate or receive, evaluate and potentially recommend to the Board of the CRD, requests for project funding from funds received by the District as a direct result of Ballot question 7A's passage. Additionally, this document is intended to provide guidance to the CRD Board members as they evaluate and make approval decisions on these project funding requests.

**Process:** All requests for funding under the CRD Community Funding Partnership shall be analyzed by staff pursuant to the following criteria. Projects that the staff determines meet the criteria shall be recommended to the Board for funding at the regular quarterly meeting or special Board meeting following staff's analysis hereunder. Staff members receiving requests for assistance from any party, (i.e. constituent, other government, Board Member, or non-governmental organization) and/or desiring to initiate any new project with funding from these funds on behalf



of the District must collaborate with the Director of Strategic Partnerships and Program Associate to work through the analysis set forth below and, utilizing the District-approved form, draft a concise written analysis recommending or advising against providing the assistance requested.

**Required Elements to Staff Analysis and Recommendation:**

**I. Mission Alignment:**

Does the request/project fit within the Mission of the District as expressed in the Board's Mission Statement, its Strategic Plan, and the language of question 7A?

- Staff should be able to objectively articulate which (hopefully multiple) strategic plan initiatives the request fits within.
- Is the requested activity in compliance with or contravene any written policy of the District? Staff should provide a reference to relevant policies and if no policies apply, explain why the project should be funded.

**II. Identification of which Categories from the Implementation Plan are Fulfilled:**

**A. Category Allocation:**

Staff shall identify which of the following categories or buckets apply to the proposed project and if more than one (which is preferred) identify the approximate percentage applied to each applicable category. This section of the analysis should contain a narrative prepared by staff which articulates the rationale supporting the identification of and allocation between categories.

- (I) Productive agriculture projects which could include multiple-use storage that addresses regional priorities; developing innovative and functional water leasing; suitable agriculture efficiency and conservation approaches; technical assistance and technological innovation; and dedicated resources for increasing community literacy about irrigated agriculture and supporting agricultural market growth. The District will not utilize these funds for the purpose of permanently or temporarily fallowing irrigated agriculture;
- (II) Infrastructure projects which could include upgrading aging infrastructure while incentivizing new storage and delivery projects that collaboratively address multiple needs, such as improved flows to meet demands, stream and watershed health, and habitat quality; multi-purpose projects and storage methods that are supported in the Water Plan and the Basin Implementation Plans;
- (III) Healthy rivers projects which could include those identified in stream management plans or similar projects, projects that support and sustain fish and wildlife, healthy aquifer conditions as they connect to healthy streams, economically important water-based recreation, wetland habitat, fish passage construction for new or revised water diversion structures, stream restoration projects, and environmental and recreational enhancements for new or revised water supply projects;
- (IV) Watershed health and water quality projects which could include projects identified in collaborative and science-based watershed management plans that reduce the risk from and increase resilience to fires and/or floods, rehabilitate

streams, or make landscapes resilient to climate change, including, but not limited to science-based mechanical forest treatments and prescribed fire, projects that address drinking water quality for under-resourced communities, and projects that address pollutants such as selenium, salts, and others, as well as mine remediation activities; and

- (V) Conservation and efficiency projects which could include supporting agricultural water infrastructure that increases reliability and efficiency; municipal and industrial projects that promote efficiency, water conservation, green infrastructure, and outdoor landscaping to reduce consumptive use; increase leak detection for infrastructure repair and replacement; assisting communities with water-smart community development and water conservation programs; and targeting smaller, fast-growing, and communities with older infrastructure with strategic, incentive-based investments.

#### **B. Fund Distribution by Category:**

To implement the District's commitment to funding each of these categories in approximately equal amounts over time, the District shall exert a reasonable effort to expend these project funds in a such a manner that the above five listed categories will receive approximately equal funding on a running five-year average. In order to assist the District Staff and Board, the District accounting staff shall keep a current year and a running five-year average as to how the District has allocated Community Funding Partnership funds. Staff shall include the effect of any recommended funding to the current year and running five-year average allocation when presenting any recommendation to the Board.

#### **C. Geographic Equity:**

The District has committed to expending the project funds in a manner which equitably disperses the funds geographically within the District boundaries over time. The District staff shall keep track of a five-year running average of where project funds are allocated, both on a county by county basis and on a sub-basin drainage basis (i.e. Gunnison, mainstem Colorado and Yampa/White/Green). When considering equitable geographic distribution, the staff and Board will consider all relevant factors, including but not limited to: the running average distribution of funds, the relative population of counties and basins, the relative financial contribution, the number of requests for funding from certain counties and or drainages and the relationship of any particular request to the strategic goals of the District. With each funding recommendation, the staff shall provide the current running five-year allocation of funds by basin and staff's analysis on the factors listed in this paragraph.

### **III. Analysis of Project Funding and Leverage of CRD Funds:**

The intent of the District is that District funds shall not be the sole source of funding for any project. It is the expectation and intent of the District that the applicant or project proponent will contribute funds and utilize District funds to leverage state, federal or private funds to the project. While there is, at this time, no minimum percentage contribution required by a project proponent,

the extent of project proponent and non-District funding shall be a factor in evaluating any project for District funding.

For any Community Funding Partnership request recommended for CRD funding, District staff shall require applicant or project proponent to provide a complete disclosure of all funds and funding sources being utilized to complete the project. If District funds are to be used as matching funds from a different source (i.e. federal, state or private funding sources), the District may award funds in a manner that is contingent upon the applicant receiving the matching funds.

Community Funding Partnership awards may be made in the form of grant, loan and/or investment in a project. If a project has funding from a non-public entity (whether in-kind or direct funding) and that entity has the intent to receive a profit from the operation or construction of the project, the applicant or project proponent shall disclose and deliver to the staff of the CRD all relevant funding agreements, letters of intent or understanding, contracts, operating agreements or corporate documents which serve as the basis of the agreement between the proponent and the non-public entity. In some circumstances, non-public partner projects may profit from projects funded by the River District. In such circumstances, staff may suggest conditions for the approval of project funding that provides a return on the River District's investment that is equitable in comparison to the rate of return to the private entity. In doing so, District staff shall evaluate all risks posed to the District related to this investment and/or loan and staff shall not commit the District to any obligation which is not authorized by law or may be considered a multi-year fiscal obligation.

#### **IV. Local Community Support:**

The District is committed to coordinating and consulting local elected officials in any and all relevant counties prior to committing funds to any specific project or activity pursued by the District.

Any applicant or project proponent shall, as part of the application process submit a letter of support for the project from the board(s) of county commissioners in which county the project is located and/or water from the project will be utilized. If a project is proposed to occur within the boundaries of a municipality, it is strongly recommended that the project proponent provide a letter of support from the governing body of said municipality. Should a letter of support for a project not be available from the appropriate local government(s), project proponents shall provide a detailed explanation of the reasons. Prior to recommending a project for funding to the Board in which there is not a letter of support from the local board(s) of county commissioners, the staff member in charge of processing the request shall work with the Director of Government Affairs and the General Manager to communicate with the District Director from the affected county and the relevant board(s) of county commissioners. Staff shall accurately convey any concerns or opposition to the project expressed by the board(s) of county commissioners to the CRD Board as part of the recommendation.

#### **V. Human Resource Requirements:**

It is the intent of the District that the project funding shall primarily be a financial relationship with the project applicant. There are, however, instances where the District may desire or need to

contribute technical, legal, administrative or government advocacy resources to the project. Projects for which staff recommends staff involvement beyond the project funding shall require staff to conduct the following additional analysis.

Staff should prepare a detailed and realistic analysis of the short, and long-term number of staff hours and the nature of the staff involvement.

- Identify who would be the lead District staff on any new project.
- The estimate should include the number of months/years of involvement, the number of hours for each anticipated staff member on a monthly or quarterly basis and a computation of the actual, loaded cost for each of the involved employees.
- If such request involves multiple departments, those department heads shall be brought into this initial analysis process.
- Need to have an affirmative finding that proposed staffing needs can be met by existing District staff capacity.

#### **VI. Risk Analysis:**

Staff shall conduct a thorough risk analysis of any funding request. Areas of risk to be analyzed shall include but not be limited to:

- Public health, safety and welfare;
- Consequences of project failure;
- Potential injury to vested absolute water rights;
- Potential for ongoing financial need (whether operational or during construction phase);
- Reputational risk to the District;
- Potential for District staff involvement beyond that identified above; and
- Evaluation and disclosure of any potential conflict of interest by District staff or Board members.

#### **VII. Additional Factors to be Evaluated:**

The District recognizes that the scope and type of projects which will be funded by this program will cover a wide spectrum of water projects and as such the District desires to keep funding criteria broad enough to be inclusive of as many different types of projects as possible. However, there are a number of elements that the District may consider when evaluating a funding request:

- A. Preservation of pe-Compact Water Rights;
- B. Non-injury to other water users;
- C. Negative effects caused by reduction in return flows;
- D. Reduction of water consumption;
- E. Reduction of operational costs to the operator;
- F. Enhancement of a project's long-term viability;
- G. Promotion of innovation within a water use sector;

- H. Development of applied research, science and data beneficial to the mission and strategic goals of the District;
- I. Size, complexity and importance of a project which may warrant consideration of multiple sequential funding awards; and
- J. Any other factors deemed relevant by the District.

## **VIII. Timing and Process:**

### **A. Application Forms:**

The District staff shall create an application form and an internal staff evaluation form. The District shall provide access to those forms together with the District's strategic plan, written policies and this framework to any interested applicant or project proponent.

### **B. Application Timing:**

The program will be funded annually with a rolling application process. The Board may consider any staff recommendation at any of its regular quarterly or special meetings. For a project proponent's request to be considered at a meeting of the Board, the project proponent shall submit all information required by staff no later than six weeks prior to the next regularly scheduled District Board meeting. The General Manager may make exceptions for emergency situations which, in the opinion of the General Manager, warrant such consideration. Neither the staff or Board shall be required to evaluate a request that is not complete or contain all relevant information and documentation. While the District will make every attempt to process funding requests in a timely manner, the District reserves the right to delay consideration of any request if the District has other business which it determines is of higher importance to the mission of the District.

### **C. Reconsideration Process:**

Should staff make a determination not to fund a project which is within the delegated authority of the General Manager (see, Section IX below), or make a determination not to recommend funding for a project of any size that does not satisfy all applicable criteria, an applicant may, within 30 days of receiving a notice of adverse determination, request that the River District reconsider the request. Such request shall be delivered in writing to the General Manager and shall specify the grounds for reconsideration. Upon receipt of a timely request for reconsideration, the General Manager shall schedule the request on the agenda of the next quarterly meeting of the Board at which there is practicable time to consider said appeal. The Board shall review and consider the request and may grant the applicant the opportunity to present their case or the Board may act on the request based on its review of the written reconsideration and any material submitted by the General Manager. The Board's determination of a request for reconsideration shall be final. The River District's determinations with respect to

project funding is a purely discretionary policy-making function of the River District and there are no adjudicatory or substantive rights associated with funding requests from the River District's Community Funding Partnership.

**D. Execution of Funding Program:**

Staff shall create and implement processes for successful applicants with respect to disbursement of funds, progress reports and completion reports and inspections and methods for appropriate recognition of District Funding on project literature and location. Applicants shall adhere to any such requirements.

**IX. Delegation of Authority to General Manager:**

The Board hereby delegates authority to the General Manager to review, consider, approve and/or deny application for the Community Funding Partnership in amounts up to \$50,000 for any single project. This delegation of authority shall not exceed an aggregate total of \$1,000,000 in any single calendar year. The General Manager shall abide by the terms of this Framework in considering any grant requests which fall within this delegation of authority. The General Manager shall provide a report to the Board on a quarterly basis of all requests approved or denied under this authority.

**X. Emergency Projects:**

The District recognizes the need to support emergency infrastructure repair and related activities that arise from a natural hazard or unforeseen emergency through no fault or lack of action on the part of a water right holder. The District staff shall develop a process to provide funding on an emergency basis with an allowance to reimburse prior costs upon staff review and approval by either the General Manager or Board. Emergency projects will follow the standard process for application consideration, including the delegations of authority granted to the General Manager to review, consider, approve and/or deny applications.

**XI. Supplemental Funding:**

The District recognizes that in limited cases supplemental funding may be warranted due to unforeseen circumstances such as supply chain interruptions, inflationary changes, cost and availability of labor, and unanticipated fundraising challenges. After consultation with District staff, Awardees may request a one-time supplemental funding request. District staff will consider requests for an increase of no more than 30% of the existing grant agreement, unless otherwise justified by District staff. Supplemental funding requests are not intended to change the original scope of the contract. The District staff shall develop a process including requirements for considering such requests.

Supplemental funding requests will be considered by the Board or delegated authority granted to the General Manager consistent with the authority granted in Section IX of the Framework and the District's Financial Governance Policy, which grants the General Manager authority to approve change orders to existing Board approved contractual agreements for additional expenditures up to \$50,000. Supplemental funding requests that increase the total funding award beyond the authority delegated to the General Manager must be considered by the Board.

**XII. De-Authorization of Awarded Funding:**

If an approved project does not have a fully executed Grant Agreement within two years of the project's authorization, the project will be de-authorized unless District staff recommend a time extension. Extension requests will be considered by the Board or delegated authority granted to the General Manager as discussed in Section IX of the Framework to review, consider, approve and/or deny applications in amounts up to \$50,000 for any single project. If a situation arises where it is certain that a project will not commence, District staff may recommend de-authorization prior to two years to be considered by the Board or delegated authority granted to the General Manager in Section IX of the Framework. Awardees also may request de-authorization in writing prior to two years of the project's authorization at which point the project will be de-authorized.

**XIII. Board Discretion:**

The Board reserves the right to modify this Framework at anytime in the future and further reserves the right to waive any requirement set forth herein.



## Program Guidelines

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### A. Background:

The Colorado River District's Mission is: **To lead in the protection, conservation, use, and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled.**

On November 3, 2020, the registered electorate of the Colorado River Water Conservation District (the District or CRD) approved Ballot Question 7A. Ballot Question 7A, in its entirety reads:

*Shall Colorado River Water Conservation District, also known as the Colorado River District, taxes be increased by an amount up to \$4,969,041 in 2021 (which increase amounts to approximately \$1.90 in 2021 for every \$100,000 in residential home value), and by such amounts as are generated annually thereafter from an additional property tax levy of 0.248 mills (for a total mill levy of 0.5 mills) to enable the Colorado River District to protect and safeguard Western Colorado water by:*

- *Fighting to keep water on the West Slope;*
- *Protecting adequate water supplies for West Slope farmers and ranchers;*
- *Protecting sustainable drinking water supplies for West Slope communities;*
- and*
- *Protecting fish, wildlife, and recreation by maintaining river levels and water quality;*

*provided that the District will not utilize these additional funds for the purpose of paying to fallow irrigated agriculture; with such expenditures reported to the public in an annually published independent financial audit; and shall all revenues received by the District in 2021 and each subsequent year be collected, retained and spent notwithstanding any limits provided by law?*

When taking action to place this ballot question on the November 2020 ballot, the CRD Board adopted Resolution 2020-01 which included within it an Implementation Plan. The Implementation Plan articulates the River District's clear intent and commitment as to how the newly authorized funds would be used by the District if the voters approved the ballot question. Specifically, the Board committed to allocating approximately 86% of the funds annually to fund partnerships with water users and communities within the District on projects identified as priorities by local communities and Basin Roundtables.



# CFP Program Guidelines

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The Implementation Plan adopted by the Board pledged that the Board and staff of the Colorado River District will prioritize multi-purpose projects that meet needs in one or more of the following five categories:

- productive agriculture,
- infrastructure,
- healthy rivers,
- watershed health and water quality; and
- conservation and efficiency.

The Board indicated that the District is committed to expending funds in an equitable manner which, over time, disperses the benefits of the program geographically within the District boundaries and between the identified categories. The District is also committed to utilizing these funds to drive the initiation and completion of projects that are priorities for residents of the District by utilizing District funds as a catalyst for matching funds from state, federal and private sources. In Resolution 2020-01, the District expressly stated that it will not utilize the funds raised by this ballot question for the purpose of paying to temporarily or permanently fallow irrigated agriculture and the Implementation Plan affirms the River District's commitment to coordinating and consulting local elected officials in all relevant counties prior to committing funds to any specific project or activity pursued by the District.

## **B. Pre-Application Applicant Activity:**

Applicants are encouraged to review these guidelines, the Community Funding Partnership Framework, the District Application form, and Budget Worksheet prior to applying for and/or consulting with District Staff. After reviewing those documents, Applicants are strongly encouraged to contact the District at [partnerfunding@crwcd.org](mailto:partnerfunding@crwcd.org) to arrange for a staff level pre-application meeting. Applications which are submitted without the pre-application consultation will be strongly disfavored.

## **C. Project Eligibility:**

A project proponent within the District's 15-county boundaries is eligible to apply for funding. Project proponents include stakeholders such as individuals, local governments, corporations, private entities such as mutual ditch companies, non-profit corporations, and partnerships. Completed projects are not eligible for funding.

## **D. Project Categories:**

Project Categories that were outlined in the Implementation Plan are as follows:

- I. Productive agriculture projects which could include multiple-use storage that addresses regional priorities; developing innovative and functional water leasing; suitable agriculture efficiency and conservation approaches; technical assistance and technological innovation; and dedicated resources for increasing community literacy about irrigated agriculture and supporting agricultural market growth. The District will not utilize these funds for the purpose of permanently or temporarily fallowing irrigated agriculture;

# CFP Program Guidelines

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- II. Infrastructure projects which could include upgrading aging infrastructure while incentivizing new storage and delivery projects that collaboratively address multiple needs, such as improved flows to meet demands, stream and watershed health, and habitat quality; multi-purpose projects and storage methods that are supported in the Water Plan and the Basin Implementation Plans;
- III. Healthy rivers projects which could include those identified in stream management plans or similar projects, projects that support and sustain fish and wildlife, healthy aquifer conditions as they connect to healthy streams, economically important water-based recreation, wetland habitat, fish passage construction for new or revised water diversion structures, stream restoration projects, and environmental and recreational enhancements for new or revised water supply projects;
- IV. Watershed health and water quality projects which could include projects identified in collaborative and science-based watershed management plans that reduce the risk from and increase resilience to fires and/or floods, rehabilitate streams, or make landscapes resilient to climate change, including, but not limited to science-based mechanical forest treatments and prescribed fire, projects that address drinking water quality for under-resourced communities, and projects that address pollutants such as selenium, salts, and others, as well as mine remediation activities; and
- V. Conservation and efficiency projects which could include supporting agricultural water infrastructure that increases reliability and efficiency; municipal and industrial projects that promote efficiency, water conservation, green infrastructure, and outdoor landscaping to reduce consumptive use; increase leak detection for infrastructure repair and replacement; assisting communities with water-smart community development and water conservation programs; and targeting smaller, fast-growing, and communities with older infrastructure with strategic, incentive-based investments.

## **E. Local Community Support**

The District is committed to coordinating and consulting local elected officials in all relevant counties prior to committing funds to any specific project or activity pursued by the District.

Applicants are required to submit a letter of support for the project from the board(s) of county commissioners in which county the project is located and/or water from the project will be utilized. If a project is proposed to occur within the boundaries of a municipality, it is strongly recommended that applicants provide a letter of support from the governing body of said municipality. Should a letter of support for a project not be available from the appropriate local government(s), applicants must provide a detailed explanation of the reasons.

## **F. Matching Criteria**

The Community Funding Partnership, at this time, has no minimum percentage contribution required by an applicant. However, it is the intent of the District that project funds will not be the

# CFP Program Guidelines

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sole source of funding for any project. It is the expectation and intent of the District that the applicant will contribute funds and utilize District funds to leverage state, federal or private funds to the project. The River District will accept past, cash contributions specific to the water activity or project as part of the Total Project Cost if the expenditure occurred within the last six months prior to the date of application.

## **G. Administrative and Project Management Support:**

The District recognizes the need to support the full project costs of running a program or developing a project. Applicants may request up to 10% of the total funding request for overall administrative and project management support. These costs must be identified as a separate line item in the project budget.

## **H. Evaluation Criteria:**

Applicants must submit a completed application and all supporting documentation to be considered for funding.

The following are required elements for staff analysis and recommendation:

- I. Mission Alignment
- II. Category Allocation, Fund Distribution by Category, and Geographic Equity
- III. Analysis of Project Funding and Leverage of CRD Funds
- IV. Local Community Support
- V. Human Resource Requirements
- VI. Risk Analysis
- VII. Additional Factors

Further information can be found in the Community Funding Partnership Framework adopted by the CRD Board of Directors.

## **I. Timeframe & Process for Internal Application Review:**

This is a rolling program and therefore, applications and requests for funding can be submitted at any time. Applicants should anticipate six to eight weeks for internal application review, analysis and funding recommendation, contingent upon receiving a complete application.

If the funding request requires Board approval (typically applications over \$50,000), complete application and all materials must be submitted no later than six weeks prior to the next regularly scheduled District Board meeting. The River District's regularly scheduled quarterly meetings fall on the third Tuesday of January, April, July, and October. To ensure sufficient time for staff review and analysis, CRD recommends the following deadlines for applications that require Board approval:

- November 15<sup>th</sup> (January Board Meeting)
- February 15<sup>th</sup> (April Board Meeting)
- May 15<sup>th</sup> (July Board Meeting)
- August 15<sup>th</sup> (October Board Meeting)

# CFP Program Guidelines

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The General Manager may make exceptions for emergency situations which, in the opinion of the General Manager, warrant such consideration. Neither the staff or Board shall be required to evaluate a request that is not complete or contain all relevant information and documentation. While the District will make every attempt to process funding requests in a timely manner, the District reserves the right to delay consideration of any request if the District has other business which it determines is of higher importance to the mission of the District.

To discuss application deadlines, we encourage applicants to arrange for a pre-application meeting about your proposed application.

## **J. Emergency Projects:**

The District recognizes the need to support emergency infrastructure repair and related activities that arise from a natural hazard or unforeseen emergency through no fault or lack of action on the part of a water right holder. For projects resulting from a natural hazard or unforeseen emergency, the River District will reimburse for project costs up to six months prior to the application date. In addition to the standard application, the applicant must include:

- A summary of the emergency which caused the repair or rehabilitation to be necessary.
- A description, with evidence if possible, that deferred maintenance and/or neglect of the applicant was not the cause of damage to the project.

Emergency projects will follow the standard process for application consideration, including the delegations of authority granted to the General Manager to review, consider, approve and/or deny applications.

## **K. Supplemental Funding:**

The District recognizes that in limited cases supplemental funding may be warranted due to unforeseen circumstances such as supply chain interruptions, inflationary changes, cost and availability of labor, and unanticipated fundraising challenges. After consultation with District staff, awardees may request a one-time supplemental funding request. District staff will consider requests for an increase of no more than 30% of the existing grant agreement, unless otherwise justified by District staff. Supplemental funding requests are not intended to change the original scope of the contract.

Through the supplemental funding request, applicants should expect to address:

- unforeseen, unanticipated, extraordinary circumstances;
- time sensitivity of the need for supplemental funds;
- explanation of the applicant's inability to provide funds to complete the project;
- analysis of other funding sources exhausted;
- discussion of unanticipated fundraising challenges;

Supplemental funding requests will be considered by the Board or delegated authority granted to the General Manager consistent with the authority granted in Section (L)(I) and the District's

# CFP Program Guidelines

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Financial Governance Policy, which grants the General Manager authority to approve change orders to existing Board approved contractual agreements for additional expenditures up to \$50,000. Supplemental funding requests that increase the total funding award beyond the authority delegated to the General Manager must be considered by the Board.

## **KL. Community Funding Partnership Approval Authority:**

I. General Manager Delegated Authority. The Board has delegated authority to the General Manager to review, consider, approve and/or deny application for the Community Funding Partnership in amounts up to \$50,000 for any single project. This delegation of authority shall not exceed an aggregate total of \$1,000,000 in any single calendar year.

II. Board Level Approval. Any request in the amount more than \$50,000 for any single project will be evaluated by the staff and, upon a favorable staff recommendation will be considered and denied and/or approved by the Board. A request for funding of more than \$50,000 for any single project not recommended for funding by the staff will not be considered by the Board.

III. Re-consideration. An applicant whose request is denied by the General Manager, or not recommended to the Board for funding may request re-consideration of their request by the Board pursuant to the process and subject to the time limits contained in section VII. C. of the Colorado River District Community Funding Partnership Framework. The River District has no obligation and an Applicant has no right to receive funding for any request. The River District's determination with respect to the Community Funding Partnership is a purely discretionary policy-making function of the River District and there are no adjudicatory or substantive rights associated with funding requests from the River District's Community Funding Partnership.

## **LM. Funding Agreement Terms:**

Upon approval of project funding, the CRD will enter into a contractual funding agreement with the project proponent. The contract will include appropriate special conditions, including but not limited to: 1) limitations on the use of Community Funding Partnership funds; 2) proponent's indemnification of the District; 3) proponent's insurance requirements; 4) proponent's repayment requirements for breach of contracts; and 5) a reporting schedule and requirement which may include interim and final progress reporting requirements.

The project proponent and all other interest holders, such as facility owners, shall accept all responsibility and liability associated with the proposed project, including, but not limited to, property interests, water rights, environmental and permit compliance, on-site and off-site project impacts, project construction, project operations, project maintenance and other obligations.

The CRD's minimum requirements for insurance for contractual agreements are as follows:

1. Commercial General Liability:
  - a. Bodily Injury & Property Damage:

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- \$1,000,000 each occurrence
    - \$1,000,000 aggregate
  - b. Personal Injury:
    - \$1,000,000 each occurrence
    - \$1,000,000 aggregate
- 2. Commercial Automobile Liability:
  - a. Bodily Injury & Property Damage:
    - \$1,000,000 any one accident or loss
- 3. Workers' Compensation and Employer's Liability:
  - a. Workers' Compensation: Statutory
  - b. Employer's Liability:
    - \$100,000 each accident
    - \$100,000 disease - each employee
    - \$500,000 disease - policy limit

## **MN. Funding Agreement & Distributions of Funds:**

The CRD's standard distribution of funds is as follows:

- Upon execution of the contract, receipt of required certificates of insurance and notification of project commencement, the CRD will forward 25% of the Total Award.
- Two progress payments will be made in 25% increments of the Total Award based upon evidence of paid invoices provided by the project proponent.
- The remaining 25% of the funds will be paid upon a determination that the project is substantially complete and the CRD has received a completed "Request for Final Payment" form with all required documentation.

Disbursements of project funding must be completed within three years of the contract date unless there is an extension requested and approved by District staff and/or board action.

The CRD reserves the right to modify the funding disbursement of project funds.

## **O. De-Authorization of Awarded Funding:**

If an approved project does not have a fully executed Grant Agreement within two years of the project's authorization, the project will be de-authorized unless District staff recommend a time extension. Extension requests will be considered by the Board or delegated authority granted to the General Manager as discussed in Section (L)(I) of the Guidelines to review, consider, approve and/or deny applications in amounts up to \$50,000 for any single project. If a situation arises where it is certain that a project will not commence, District staff may recommend de-authorization prior to two years to be considered by the Board or delegated authority granted to the General Manager in Section (L)(I) of the Guidelines. Awardees also may request de-authorization in writing prior to two years of the project's authorization at which point the project will be de-authorized.

## **NP. Branding and Signage**

We encourage successful applicants to share the news of your funding award and project with your network, project partners, and community members. Upon award, District staff will coordinate

# CFP Program Guidelines

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with project proponents on award announcements and communication guidelines. For projects that include public access or public signage, you will be required to recognize the District's funding contribution using logos and signage approved by the District.

## **EQ. Right to Modify Guidelines, Framework and Application:**

The District reserves the right to add, modify or otherwise revise these Guidelines, the Community Funding Partnership Framework, Application, and Budget Worksheet at any time without advance notice. It is the Applicant's obligation to confirm that they have the most up to date program documents.

Adopted: July 20, 2004  
Revised April 19, 2005  
Revised January 21, 2014  
Revised January 19, 2021

**COLORADO RIVER WATER CONSERVATION DISTRICT**  
**FINANCIAL GOVERNANCE POLICY**

**I. CHECK ISSUANCE**

- A. Two signatures will be required for all checks written on any fund to pay for expenditures in the amount of \$5,000 and above. One signature must be that of the Secretary/General Manager, the Assistant Secretary or the Business Manager and the second signature must be that of either the Board President or Vice-President.

**II. ADMINISTRATIVE DUTIES**

- A. Subject to the Board's budgeting and appropriating funds for such expenditures, the Secretary/General Manager shall have the authority to make contracts for goods and services and to approve purchase orders and expenditures for the administrative operations of the District and its Enterprise, but not for the development and implementation of the District's and Enterprise's policies, except as provided in paragraph III below. The authorization and payment of administrative expenses shall require two signatures: one by the Secretary/General Manager or his designee and one by the accountant processing the expenditure. Administrative expenses include but are not limited to: payroll, taxes, insurance premiums, rent, office supplies and equipment, fleet vehicle purchases and maintenance, telephony and computer network support, and cleaning services.

**III. CONTRACTUAL AGREEMENTS**

- A. Subject to the Board's budgeting and appropriating funds for such expenditures, the Secretary/General Manager shall have the authority to make contractual agreements for expenditures for the implementation of the District's and Enterprise's policies, provided that the total cost to the



**COLORADO RIVER WATER CONSERVATION DISTRICT  
FINANCIAL GOVERNANCE POLICY  
Revised January 19, 2021  
Page 2**

District does not exceed \$50,000 and the initial expenditure under any cost-sharing agreement does not exceed \$100,000.

- B. The General Counsel, in consultation with the Secretary/General Manager, may approve substantive changes to the standard form contract for low-risk work.
- C. Subject to the Board's budgeting and appropriating funds for such expenditures, the Secretary/General Manager shall have the authority to approve change orders to existing Board approved contractual agreements for additional expenditures up to \$50,000. Additionally, the Secretary/General Manager shall have the authority to amend existing Board approved contractual agreements to extend the duration (but not the financial amount) of the contract without further Board approval.

**IV. WATER SUPPLY PROJECTS COMMITTEE**

- A. Subject to the Board's budgeting and appropriating funds for such expenditures, the Water Supply Projects Committee shall have the authority to make contractual agreements for expenditures up to \$250,000 associated with determining water supply project feasibility, water supply projects under construction and completed water supply projects.
- B. Subject to the Board's budgeting and appropriating funds for such expenditures, the Water Supply Projects Committee shall have the authority to approve change orders to existing contractual agreements for additional expenditures up to \$250,000.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** AMY MOYER, DIRECTOR OF STRATEGIC PARTNERSHIPS  
MELISSA WILLS, PROGRAM ASSOCIATE

**SUBJECT:** COMMUNITY FUNDING PARTNERSHIP – PROGRAM UPDATES AND FUNDING RECOMMENDATIONS

**DATE:** JANUARY 17-18, 2023

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### **ACTIONS:**

*(1) Staff requests that the Board approve the request to contribute, in the form of a grant, \$191,554 in funding from the Colorado River District Community Funding Partnership to Eagle County Conservation District for the Water Efficient Landscape Conversion Program. Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Watershed Health and Water Quality (10%) and Conservation and Efficiency (90%).*

*(2) Staff requests that the Board approve the request to contribute, in the form of a grant, \$64,350 in funding from the Colorado River District Community Funding Partnership to the White River Conservation District to support the White River Water Supply Study. Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Productive Agriculture (25%), Healthy Rivers (25%), Watershed Health and Water Quality (25%), and Conservation and Efficiency (25%).*

*(3) Staff requests that the Board approve the request to contribute, in the form of a grant, \$70,823 in funding from the Colorado River District Community Funding Partnership to RiversEdge West for the Uncompahgre and White River Riparian Restoration Project. Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Healthy Rivers (75%) and Watershed Health and Water Quality (25%).*

*(4) Staff requests that the Board approve the request to contribute, in the form of a grant, \$140,000 from the Colorado River District Community Funding Partnership to the Scripps Institution of Oceanography, Center for Western Weather & Water Extremes for the Enhancing Soil Moisture Observations to Support Water Resource Management in the Upper Yampa River Basin Project. Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Productive Agriculture*



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*(15%), Infrastructure (10%), Healthy Rivers (15%), Watershed Health and Water Quality (35%), and Conservation and Efficiency (25%).*

**STRATEGIC INITIATIVE(S):**

**2. Outreach in All Basins:** *While we have not ignored or been unhelpful to needs in other basins, a significant amount of the River District's time, energy and resources in the recent past have been focused on the mainstem of the Colorado River and helping to address the long-term needs of the mainstem. A priority in the near-term will be to put significant focus on the needs of the other basins within the River District.*

**2. A.** *The River District will increase its outreach efforts with water organizations and other local organizations in the Gunnison, White and Yampa River basins. The goal will be to use River District resources to help those basins address their consumptive and non-consumptive water needs.*

**2. B.** *The River District will look for and focus on opportunities where the River District can act as a catalyst to create partnerships that work for these other basins. A recent example of this is the cooperatively funded Lower Gunnison Project, orchestrated by the River District.*

**3. Climate and Hydrologic Uncertainty:** *Climate and hydrologic uncertainty should be a major driver of what the River District does in the mid- to long-term. The impacts to precipitation are not clear. However, the overwhelming evidence indicates a warming and increasingly variable climate. Hotter temperatures will certainly result in increased demands for agricultural and municipal water supplies due to longer and warmer growing seasons. Patterns of snowpack accumulation and runoff will change. Runoff is projected to occur earlier and quicker, and there will be an earlier return to possibly lower base flows after runoff. These factors will stress storage supplies. On a local and regional basis, storage supplies may prove inadequate.*

**3. A.** *The River District will continue to evaluate and pursue options to increase local water storage supplies and optimize and expand, where appropriate, existing water storage.*

**3. C.** *The River District will engage in and support water supply planning efforts, local and regional, which include adapting to climate change impacts.*

**3. D.** *The River District will work with water users to ensure practicable and cost-effective water use efficiencies in all sectors where appropriate for the local conditions.*

**6. Agricultural Water Use:** *Most West Slope agricultural water use is senior to the Colorado River Compact. As Colorado nears full development of its Colorado River system water there will be pressure for temporary and permanent conversion of senior agricultural water rights to other uses. The Colorado River Compact Water Bank may provide a mechanism to protect agricultural water uses.*

**6. D.** *The River District will protect the integrity of senior agricultural water rights within Colorado's prior appropriation system, recognizing the potential risks to those rights posed by the constitution's municipal right of condemnation.*

**7. Water Needs/Project Development:** *Through Colorado's Water Plan and the Basin Implementation Plans, water needs within the River District have been, and will continue to be, refined and prioritized. The River District owns a large portfolio of conditional water rights that may be suitable for meeting a portion of the identified water demands. However, developments*



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*in judicial case law have made it more difficult for all water users, including the River District, to maintain conditional water rights.*

*7. C. The River District will look for opportunities where its efforts are needed as a catalyst to help in-District interests plan for and meet their water needs in a manner that is consistent with the District's compact contingency planning goals and objectives.*

*7. D. The River District will actively pursue funding sources and provide financial assistance to be used for the refurbishment and modernization of the aging water supply infrastructure within the District in order to help preserve and improve existing supplies and operations.*

*9. Water Efficiency and Conservation: We are transitioning from an era emphasizing new supply development to an era which includes higher emphasis on wise use of our limited water resources, including higher water use efficiency and conservation of consumptive use. This is driven by both environmental imperatives, changing values, and increasing shortages of water resources available for development. The River District historically has supported efforts to increase water use efficiency and conservation. Examples of this are the number of grants the District has awarded for efficiency and conservation and the District's financial and staff support of the Orchard Mesa Irrigation District Efficiency Project and the Lower Gunnison Project.*

*9. A. The River District will continue to promote, encourage and support wise and efficient use of all of Colorado's water resources*

*12. Financial Sustainability: The above strategic initiatives cannot be achieved without financial sustainability. The River District enjoys a diversified tax base for its Governmental Funds, which helps to reduce the impacts of dramatic downturns in its overall assessed valuation. Over the long-term, the Enterprise Fund is intended to be self-sustaining, managing the River District's business-type activities.*

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**INFORMATIONAL – Program Updates:** The Community Funding Partnership closed 2022 awarding \$3.2 million to 47 projects, including 15 Accelerator Grants designed to support West Slope water projects access federal funding opportunities. Since 2021, the CFP Program awarded over \$6 million to 70 projects. These project statistics along with testimonials from CFP awardees can be found in the newly created 2022 Annual Report.

Staff has also launched the development of a Grants Management Software to further streamline the Program's operations. We expect to finalize this transition in Spring/Summer 2023. Additionally, Staff continues to partner with the District's External Affairs team to make website improvements including upgrades to the online project map and additional project videos.

Looking forward to 2023, Staff expects sustained demands for project funding, particularly as funding from the Bipartisan Infrastructure Law continues to be awarded. Staff remains committed to assisting our Accelerator Grant projects in supporting their federal funding applications, and we look forward to tracking the success of that initiative.



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**BOARD ACTION ITEM #1 – Water Efficient Landscape Conversion Program**

**Project Applicant: Eagle County Conservation District**

**Request: \$191,554**

**Recommended Amount: \$191,554**

**Location: Eagle County**

**Staff Recommendation:** Staff requests that the Board approve the request to contribute, in the form of a grant, \$191,554 in funding from the Colorado River District Community Funding Partnership to Eagle County Conservation District for the Water Efficient Landscape Conversion Program.

Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Watershed Health and Water Quality (10%) and Conservation and Efficiency (90%).

- I. **Project Description:** The Water Efficient Landscape Conversion (WELC) Program is a three-year pilot co-led by Eagle County Conservation District and Eagle River Watershed Council to establish a non-functional turf replacement and irrigation upgrade rebate program, construct examples of lawn alternatives through research and demonstration gardens, and launch educational opportunities to change behavior through outdoor water management practices and sustainable landscape conversion skills.

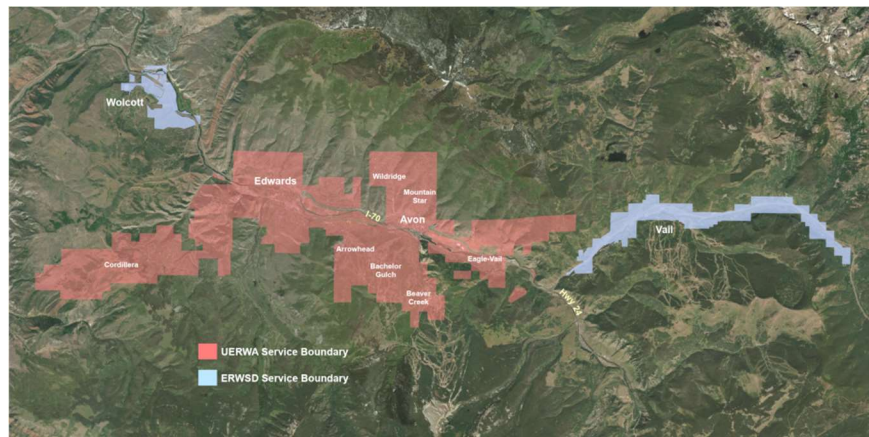
The WELC Program will offer a minimum of \$1/ft<sup>2</sup> turf replacement rebate to residential, commercial, and HOA properties with a goal of converting up to 90,000 square feet over three years. The WELC Program will also convert an additional 10,500 square feet of turf on locally-owned lands to demonstrate water-efficient landscapes and establish research plots to test turf alternatives. The WELC Program will also provide incentives to install efficient and intelligent irrigation systems. Community workshops focused on rain barrels and DIY landscaping, outreach at community events, and policy reviews of existing land-use ordinances will be conducted throughout the project to promote a whole-systems approach to sustainable landscaping.

Overall, the WELC Program will create turf replacement program in greater Eagle County by expanding opportunities beyond the Eagle River Water and Sanitation District's existing turf replacement rebate program. The establishment of a turf conversion rebate and education program in greater Eagle County will advance goals outlined in the Climate Action Plan adopted by Eagle County, planning and engagement efforts in the Eagle River Community Water Plan, and water efficiency plans adopted by smaller municipalities.



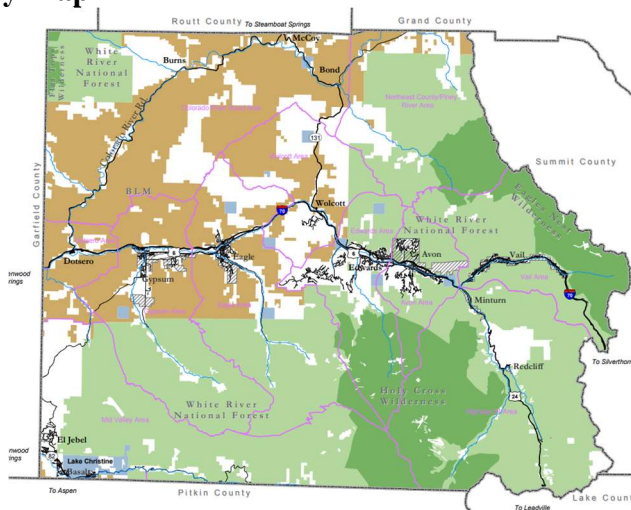


**Figure 1: Eagle River Water and Sanitation and Upper Eagle Regional Water Authority Boundaries**



Source: Eagle County Conservation District

**Figure 2: Eagle County Map**



Source: Town of Eagle; townofeagle.org

**II. Staff Analysis:**

Staff has completed a full staff analysis for this project and confirmed that the project aligns with the River District Mission, Strategic Plan, and Policy Statements. This project supports the River District's recognition that we are transitioning from an era emphasizing new supply development to an era which includes higher emphasis on wise use of our limited water resources, including higher water use efficiency. The Water Efficient Landscape Conversion Program is emblematic of this effort by seeking to incentivize behavioral change at the local level and serve as an example for other communities across the Western Slope.

The River District views this project as an important pilot to understand the opportunities and challenges to expanding non-functional turf removal across the West



Slope outside of existing programs operated by utilities. Therefore, Staff believes it is justified to contribute a high percentage of the total project costs. Additionally, Staff do not view this as a precedent for how the River District will support future non-functional turf removal requests.

- a. Project Funding and Leverage of CRD Funds:** Table 1 below identifies the project funders and matching dollars, which includes a diverse set of partners including nonprofits, local government, utilities, residents, and the Colorado Water Conservation Board. CRD funds will be used to support the three-year research project and will be largely dedicated to supporting turf replacement rebates and educational opportunities. The Applicant requested the River District contribute \$191,554 representing 52% of the total project costs including a total cash match ratio of 0.67 : 1 (\$128,500 : \$191,554).

The budget includes participant fees to participate in landscape assessments, landscape workshops, rain barrel workshops, and landscape assessment trainings. CRD notes that these costs will not be secured prior to project commencement. Other in-kind efforts not included in the budget are matching funds provided by the turf removal participants. Overall costs for turf conversion can range from \$4-\$12/sq. ft. and each participant will be responsible for covering the remaining expenses for material and labor, leaving the total project cost and matching funds much higher than reported.

**Table 1: Funding Partners**

<b>Funding Partner</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Funds Committed (Y/N)</b>
CWCB – Water Plan Grant	\$51,750		\$51,750	N* <i>Grant submitted</i>
CWCB – HB22-1151	\$25,000		\$25,000	N
Eagle County Conservation District		\$19,406	\$19,406	Y
Eagle River Water & Sanitation District		\$500	\$500	Y
Eagle River Watershed Council	\$5,000	\$20,120	\$25,120	Y
Town of Eagle	\$21,000	\$4,000	\$25,000	Y
Participant Fees	\$25,750		\$25,750	N
CSU Extension		\$5,990	\$5,990	Y
Colorado River District – Requested Community Funding Partnership	\$191,554		\$191,554	N
<b>Total</b>	<b>\$320,054</b>	<b>\$50,016</b>	<b>\$370,070</b>	

**Table 2: Project Budget**

<b>Task Name</b>	<b>Total</b>
Turf Replacement Rebate Program and Efficient Irrigation System Rebate	\$145,000
Research: Water Efficiency Survey & Lawn Alternatives Study	\$6,200
Education: Landscape Assessments & Training, Water Wise Example Gardens, Volunteer Planting Events, Landscape Workshops, Rain Barrel Workshops, HOA Policy Presentations	\$135,575
Outreach: Material Development, Advertising Campaigns, Community Events, Equipment, Travel	\$25,805
In-Kind Personnel	\$40,076
Administration	\$17,414
<b>Total</b>	<b>\$370,070</b>

There are no private entities participating in a manner that will result in a profit nor will there be a revenue stream generated from the completed project.

CFP funding will support the initial pilot stage of developing this program, allowing local partners to secure long-term funding to support the program in the future. The Eagle County Conservation District (ECCD) is exploring the option of a Mill Levy within the next three years and, if passed, ECCD will continue both rebate programs, and educational outreach on the importance of protecting and conserving water through sustainable outdoor water use and landscaping.

- b. Local Community Support:** The applicant has provided numerous letters of support including the Eagle County Board of County Commissioners, Town of Eagle, Town of Minturn, Town of Red Cliff, Town of Vail, Town of Gypsum, Town of Avon, Eagle River Water and Sanitation District, Edwards Metropolitan District, CSU Extension, New Roots CO, The Palmer Fund, and the Climate Action Collaborative.
- c. Human Resource Requirements:** The Colorado River District will not play any role in overseeing this project. However, Staff will participate in a final presentation from Eagle County Conservation District to hear lessons learned, opportunities, and challenges confronted in expanding existing turf removal programs.
- d. Risk Analysis:** Staff has completed a risk analysis and has not identified any significant legal liability or exposure to the District that warrants additional legal review. The applicants have provided a detailed application with strong partnerships. The project has received significant support from Eagle County and local municipalities along with technical experts such as CSU Extension and Eagle River Water and Sanitation District.





**e. Additional Factors to Consider:**

**Promotion of innovation within a water use sector:** By creating a county-wide turf replacement option, this project will serve as an example of a collaborative and holistic approach to growing water conservation programming for the West Slope, filling in the gaps of rebates and education for those outside of existing programs like that of Eagle River Water and Sanitation District and other water providers.

**Development of applied research, science, and data beneficial to the mission and strategic goals of the District:** The project includes three research components: (1) Water Efficiency Community Survey; (2) Turf Replacement Evaluation Study; and (3) Lawn Alternatives Study, which will provide data and analysis on desirable water conservation programming, alternative grass species applicability and drought tolerance, and overall water conservation through irrigation system upgrades and turf conversions. The applied research and data collection and analysis will directly link WELC program observations and efficacy to the Colorado River District's goal to support non-functional turf removal.

**BOARD ACTION ITEM #2 – White River Water Supply Study**

**Project Applicant:** White River Conservation District

**Request:** \$64,350

**Recommended Amount:** \$64,350

**Location:** Rio Blanco County

**Staff Recommendation:** Staff requests that the Board approve the request to contribute, in the form of a grant, \$64,350 in funding from the Colorado River District Community Funding Partnership to the White River Conservation District to support the White River Water Supply Study.

Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Productive Agriculture (25%), Healthy Rivers (25%), Watershed Health and Water Quality (25%), and Conservation and Efficiency (25%).

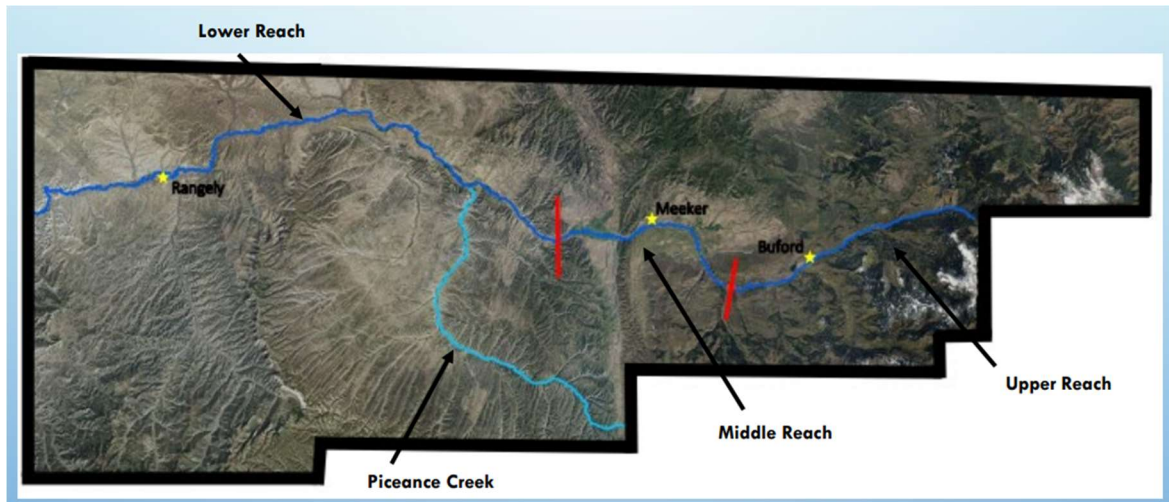
- I. Project Description:** The White River Water Supply Study is a priority resulting from the White River Integrated Water Initiative to identify the effects of flood irrigation to the White River, local aquifers, and communities.

Data will be collected in the middle reach defined as downstream from the confluence of the White River and Miller Creek to the west end of Powell Park to facilitate the development and application of a hydrologic model for the White River. Data will be collected by measuring the streamflow at the upper end of the middle reach, the tributary contributions, the ditch diversions, the groundwater head at wells, and the streamflow at the lower end of the reach. These measurements will be used to determine the location and timing of return flows to the White River and the overall effects of



existing irrigation practices to the health of the river. The final deliverable of this project is a return flow model for the middle reach of the White River.

**Figure 3: Identified Segments – White River Integrated Water Initiative**



Source: White River Integrated Water Initiative – 2021 State of the River Presentation

**II. Staff Analysis:** Staff has completed a full staff analysis for this project and confirmed that the project aligns with the River District Mission, Strategic Plan, and Policy Statements by engaging with local water supply planning efforts and encouraging data-driven decision-making as water users adapt to climate change impacts. Additionally, the River District will continue to promote, encourage, and support wise and efficient use of all of Colorado’s water resources. This study and model development will assist water users in making informed decisions that support productive agriculture, healthy rivers, and watershed health and water quality.

**a. Project Funding and Leverage of CRD Funds:** Table 3 below identifies the project funders and matching dollars. Colorado River District funds will be used to support data collection through the purchase and installation of well loggers, tributary measurement, and project administration and coordination. The Applicant requested the River District contribute \$64,350, representing 36% of the total project costs, which equates to total cash match ratio of 3.2 : 1 (\$202,940 : \$64,350).

The White River Conservation District is providing \$9,000 of cash equivalent staff-time to coordinate with ditch owners and collect field verifications of over 40 ditch diversions several times each year. In reviewing the initial request, Staff worked with the applicant to reduce the requested amount to the River District by \$5,000 to be supplemented by local cash contributions from the White River Integrated Initiative project partners.

**Table 3: Funding Partners**

<b>Funding Partner</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Funds Committed (Y/N)</b>
White River & Douglas Creek Conservation Districts		\$9,000	\$9,000	Y
CWCB Water Supply Reserve Fund	\$99,500		\$99,500	N* <i>Grant submitted</i>
Colorado State University – Water Center	\$98,440		\$98,440	N
Local Contributions from Initiative Partners	\$5,000		\$5,000	N
Colorado River District – Requested Community Funding Partnership	\$64,350		\$64,350	N
<b>Total</b>	<b>\$ 267,290</b>	<b>\$9,000</b>	<b>\$ 276,290</b>	

**Table 4: Project Budget**

<b>Task Name</b>	<b>Total</b>
Well Loggers & Installation	\$55,000
Tributary Measurement Installation and Monitoring	\$48,000
Ditch Diversion Verifications & Coordination	\$69,000
Model Development	\$98,440
Administration	\$5,850
<b>Total</b>	<b>\$276,290</b>

There are no private entities participating in a manner that will result in a profit nor will there be a revenue stream generated from the completed project.

- b. Local Community Support:** The applicant has provided letters of support from the Rio Blanco Board of County Commissioners, which supported the locally led efforts supporting water resources management, irrigated land, fisheries, and the general ecosystem.
- c. Human Resource Requirements:** The District will not play any role in overseeing construction of this project.
- d. Risk Analysis:** Staff has completed a risk analysis and has not identified any significant legal liability or exposure to the District that warrants additional legal review. The project team is working with a PhD-level researcher at Colorado State



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University and coordinating with the Division of Water Resources and USGS on stream gage data and placement.

**e. Additional Factors to Consider:**

**Preservation of pre-Compact water rights:** The middle reach of the White River includes the largest agricultural water diversions of which many hold pre-compact water rights.

**Development of applied research, science, and data beneficial to the mission and strategic goals of the District:** This study will support a greater understanding and an accurate model for the White River to understand return flow impacts, which can be applied to water management and drought contingency planning across the West Slope and Colorado River Basin. Expanded data collection will support additional understanding of the impact of return flows and the general water balance of the White River.

**BOARD ACTION ITEM #3 – Uncompahgre and White River Riparian Restoration Project**  
**Project Applicant: RiversEdge West**

**Request: \$70,823**

**Recommended Amount: \$70,823**

**Location: Montrose and Rio Blanco Counties**

**Staff Recommendation:** Staff requests that the Board approve the request to contribute, in the form of a grant, \$70,823 in funding from the Colorado River District Community Funding Partnership to RiversEdge West for the Uncompahgre and White River Riparian Restoration Project.

Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Healthy Rivers (75%) and Watershed Health and Water Quality (25%).

- I. Project Description:** This project will enhance fish and wildlife habitat, recreation, and riparian health on 19 acres of lands along 2 river miles of the Uncompahgre and White rivers by removing invasive tamarisk, Russian olive, and other noxious weeds and replacing them with diverse native plant species. These river corridors provide habitat for important wildlife including threatened and endangered species. In addition, agricultural and recreational uses of these rivers serve as the foundation of local communities' socioeconomic well-being. Invasive plants degrade rivers in myriad ways and this proposal will engage youth corps, volunteers, private landowners and local contractors in improving and maintaining the health of two West Slope rivers that are important to the surrounding communities.

**Uncompahgre River Site:** Work along the Uncompahgre River will focus on the removal of woody invasive species including tamarisk and Russian olive in two





designated green spaces on City of Montrose land, benefitting eight acres of riparian habitat. These areas have seen previous restoration efforts including Russian olive removal as well as channel, bank, and in-stream habitat improvements. Initial removal is planned through this project along with active revegetation with volunteer groups and local businesses.

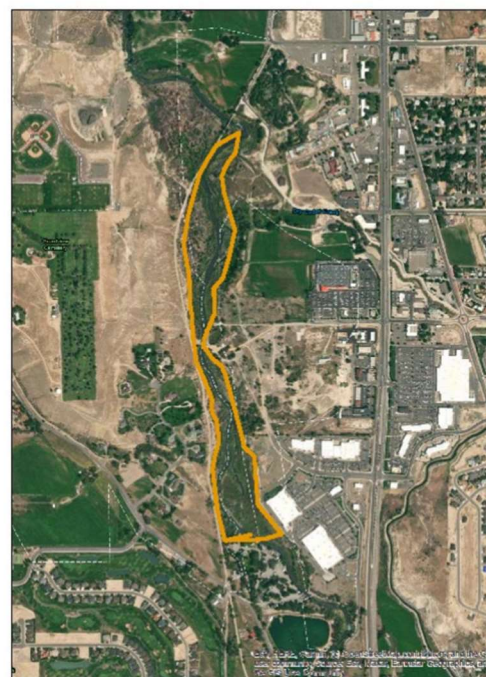
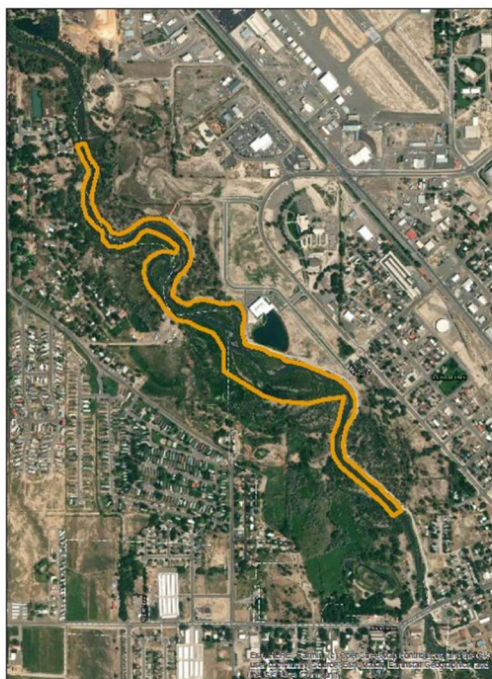
**White River Site:** The White River portion of this project will enhance 11 acres of riparian habitat on public and private lands on the main stem of the White River and Yellow Creek, a major tributary of the White River. Work will include the removal of invasive tamarisk and Russian olive as well as other noxious weeds.

Riparian restoration is a long-term process that requires follow up treatments, such as active revegetation with native plants and/or retreatment of invasives based on how sites react to initial treatments. Additional treatments will be necessary as well as retreatments of these areas. Treatment and revegetation strategies will be based off RiversEdge West (REW) monitoring data. REW's expectation on both the White River and Uncompahgre River sites is that the planned second year follow-up treatments will accomplish the bulk of the retreatment needs to keep them at a more easily managed level into the future.

**Figure 4 & 5: Uncompahgre River Treatment Sites**

Uncompahgre River North Treatment Site

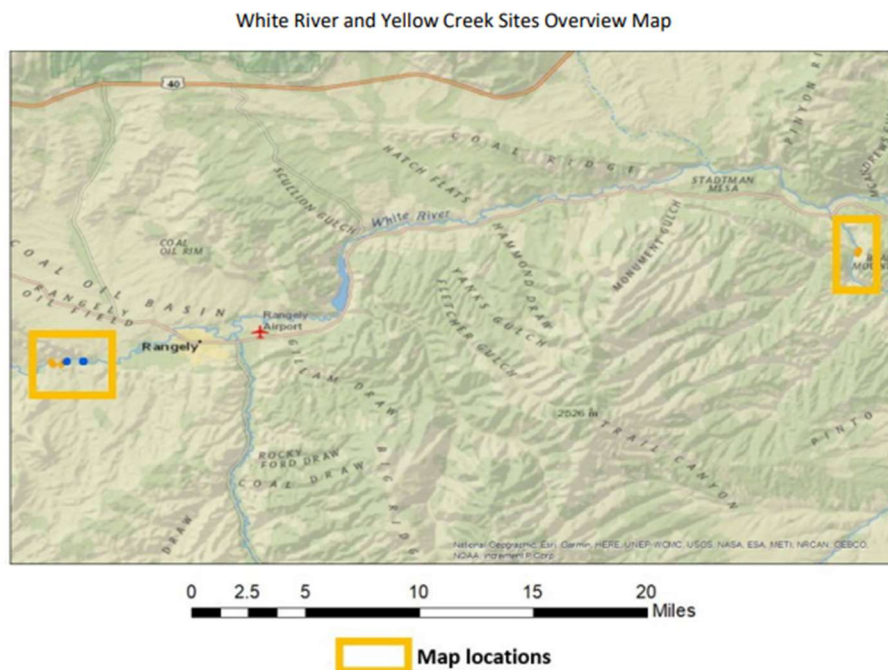
Uncompahgre River South Treatment Site



Source: RiversEdge West



**Figure 6: White River and Yellow Creek Treatment Sites**



Source: RiversEdge West

**II. Staff Analysis:** Staff has completed a full staff analysis for this project and confirmed that the project aligns with the River District Mission, Strategic Plan, and Policy Statements by protecting the water resources on two West Slope rivers that provide for municipal, agricultural, recreational, and wildlife habitat needs of local communities. Riparian restoration protects and enhances the Uncompahgre and White Rivers' water resources by improving wildlife and native fish habitat, protecting water quality, moderating atypical high flow events, regulating temperature through shade, enhancing recreational experiences, and reducing the risk of wildfire in the riparian zone.

**a. Project Funding and Leverage of CRD Funds:** Table 5 below identifies the current project funders and matching dollars, including local, state, and federal partners. Colorado River District funds will be used for coordination, monitoring, mapping, implementation, and maintenance for both the Uncompahgre and White River sites over the two year period. The Applicant requested the River District contribute \$70,823, representing 35% of the total project costs including a total cash match ratio of 1.75 : 1 (\$124,045: \$70,823).

**Table 5: Funding Partners**

<b>Funding Partner</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Funds Committed (Y/N)</b>
City of Montrose	\$10,000		\$10,000	Y
Uncompahgre Volunteers		\$5,000	\$5,000	Y
Bureau of Land Management	\$5,000	\$1,500	\$6,500	Y
Bureau of Reclamation	\$2,000		\$2,000	Y
Western Colorado Conservation Corps		\$1,000	\$1,000	Y
RiversEdge West	\$7,000		\$7,000	Y
Private Landowner		\$2,000	\$2,000	Y
CWCB – Water Plan Grant	\$100,045		\$100,045	N* <i>Grant submitted</i>
Colorado River District – Requested Community Funding Partnership	\$70,823		\$70,823	N
<b>Total</b>	<b>\$194,868</b>	<b>\$9,500</b>	<b>\$204,368</b>	

**Table 6: Project Budget**

<b>Task Name</b>	<b>Total</b>
Uncompahgre River Coordination/Monitoring/Mapping	\$20,610
Uncompahgre River Implementation/Maintenance	\$53,400
White River Coordination/Monitoring/Mapping	\$40,958
White River Implementation/Maintenance	\$89,400
<b>Total</b>	<b>\$204,368</b>

There are no private entities participating in a manner that will result in a profit nor will there be a revenue stream generated from the completed project.

- b. Local Community Support:** The project has provided numerous letters of support including both the Rio Blanco and Montrose Boards of County Commissioners. Additional letters of support include: the City of Montrose, Friends of the Uncompahgre River, Bureau of Land Management, Western Colorado Conservation Corps, RiversEdge West, Jamie and Nicholas Preciado (landowners), White River and Douglas Creek Conservation Districts, and Mayfly Outdoors. Formal supporters demonstrate a diverse partnership between local governments, non-profits, private landowners, and businesses.



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- c. Human Resource Requirements:** The District will not play any role in overseeing construction of this project.
- d. Risk Analysis:** Staff has completed a risk analysis and has not identified any significant legal liability or exposure to the District that warrants additional legal review. RiversEdge West (REW) has been managing riparian restoration projects for nearly two decades. As an example, REW co-leads the Dolores River Restoration Partnership created in 2009. The DRRP to date has removed over 2,000 acres of initial tamarisk stands, 2,600 acres of tamarisk resprouts, 3,700 acres of secondary weeds, and conducted 630 acres of active revegetation. Additionally, the project includes a diverse set of partners to ensure success and stakeholder buy-in.
- e. Additional Factors to Consider:**

**Enhancement of a project's long-term viability:** This project hopes to successfully develop a new partnership on the Uncompahgre River, similar to the existing Dolores River Restoration Partnership and the White River Partnership in existence and co-lead by RiversEdge West (REW). REW is committed to playing an active role in both project areas well into the future. This includes continued monitoring efforts, fundraising, and collaboration with partners into the future.

**Development of applied research, science, and data beneficial to the mission and strategic goals of the District:** This project hopes to refine Best Management Practices for riparian restoration projects in the context of climate change and declining water levels. Specifically, this project will contribute to climate change and restoration research by utilizing native plants that are grown in warmer, drier regions than the project location. REW will monitor these plants in comparison with the native plants to determine if they have higher survival rates.

#### **BOARD ACTION ITEM #4 – Enhancing Soil Moisture Observations to Support Water Resource Management in the Upper Yampa River Basin**

**Project Applicant:** Upper Yampa Coalition – including Scripps Institution of Oceanography, Center for Western Weather & Water Extremes & Yampa Valley Sustainability Council

**Request:** \$140,000

**Recommended Amount:** \$140,000

**Location:** Routt County

**Staff Recommendation:** Staff requests that the Board approve the request to contribute, in the form of a grant, \$140,000 from the Colorado River District Community Funding Partnership to the Scripps Institution of Oceanography, Center for Western Weather & Water Extremes for the Enhancing Soil Moisture Observations to Support Water Resource Management in the Upper Yampa River Basin Project.

Staff further recommends for the purpose of internal River District accounting that the awarded funds be attributed to the CFP funding categories: Productive Agriculture (15%), Infrastructure





(10%), Healthy Rivers (15%), Watershed Health and Water Quality (35%), and Conservation and Efficiency (25%).

- I. Project Description:** The Center for Western Weather and Water Extremes (CW3E), Yampa Valley Sustainability Council (YVSC), Upper Yampa Water Conservancy District (UYWCD), and Colorado Mountain College (CMC) propose to work closely with local and regional water managers to add eight stations to a soil moisture monitoring station network in the Upper Yampa River Basin. The primary objective of this network is to reduce uncertainty in seasonal snowmelt runoff predictions in the Upper Yampa by directly observing soil moisture in areas responsible for much of the runoff. This data collection will support water supply planning in a changing climate.

This project builds on efforts led by the Upper Yampa Water Conservancy District to support an initial basin analysis and the installation of a first soil moisture monitoring station in the Yampa River Basin over 2021 and 2022. Tasks include:

- 1. Develop a siting plan:** Using the previously generated and UYWCD-supported basin analysis and stakeholder input, the project team will select the sites for an additional eight stations.
- 2. Obtain site permits and prepare, test, and stage stations in the laboratory:** The project team will conduct on the ground scouting and acquire permissions for sites within prioritized areas listed in Task 1, purchase and test station instrumentation and hardware for eight stations, and make station design edits as needed for each permitted site, based on site-specific considerations (e.g., is fencing needed; is line power available).
- 3. Install eight stations:** This task will be split across the first two years of the period of performance.
- 4. Data dissemination and archiving:** CW3E will ensure near real-time data availability via several existing public platforms including the CW3E website and Mesowest<sup>1</sup>, and will work closely with local partners to add more dissemination avenues.
- 5. Develop long-term funding plan:** The project team will seek long-term funding for continued scaling of the network along with operations and maintenance of the installed stations.

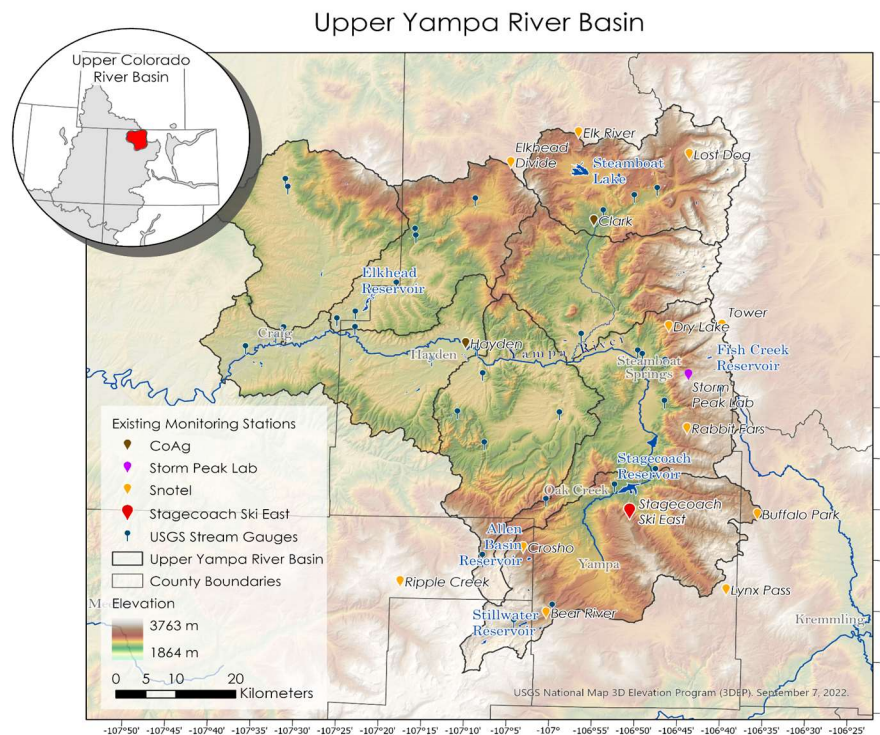
Significant gaps exist in soil moisture monitoring, and this project offers a targeted approach to fill data gaps with a focus on siting locations that can improve reservoir inflow forecasts. The project team hopes that increasing the capacity and capability of the soil moisture network will decrease uncertainty in streamflow predications and allow the data to be assimilated into high resolution models such as WRF-Hydro<sup>2</sup> and the next generation of models under development at the Colorado Basin River Forecast Center.

<sup>1</sup> <https://mesowest.utah.edu/>. Mesowest is a public data repository for real-time atmospheric data.

<sup>2</sup> WRF-Hydro is an open-source hydrologic model developed by the National Center for Atmospheric Research (NCAR) which seeks to provide accurate and reliable streamflow prediction.



**Figure 7: Project Map**



Source: Yampa Valley Sustainability Council

**III. Staff Analysis:** Staff has completed a full staff analysis for this project and confirmed that the project aligns with the River District Mission, Strategic Plan, and Policy Statements by supporting research aimed at understanding climate and hydrologic uncertainty. Scientists and water managers have indicated that soil moisture storage may be of increasing importance and is likely a key component in determining runoff as the climate continues to change. The observations proposed in this project will provide information about soil moisture impacts, which can be used to more reliably predict reservoir inflows.

**a. Project Funding and Leverage of CRD Funds:** Table 7 below identifies the current project funders and matching dollars. Colorado River District funds will be used to support a siting plan, permits, station fabrication, testing, and installation, data dissemination and archiving, data visualizations and dashboards, and developing a long-term funding plan. The Applicant requested the River District contribute \$140,000, representing 16% of the total project costs including a total cash match ratio of 5 : 1 (\$700,500 : \$140,000). While the project coalition has developed a diverse funding package that includes state, local, and non-profit support, the project is heavily dependent on state funds through the Colorado Water Conservation Board (CWCB). Should CWCB provide partial funding to phase the project, District staff will consider how to support a partial disbursement of CFP



funds to allow the project team to start on valuable and timely work to research and select monitoring sites, while they continue to fundraise the remaining project budget for Years 2 and 3.

**Table 7: Funding Partners**

Funding Partner	Cash	In-Kind	Total	Funds Committed (Y/N)
Upper Yampa Water Conservancy	\$100,000		\$100,000	Y
CWCB Water Plan Grant	\$560,000		\$560,000	N* <i>Grant submitted</i>
Yampa Valley Sustainability Council	\$13,500	\$9,720	\$23,220	Y
Colorado Mountain College		\$14,760	\$14,760	Y
Center for Western Weather & Water Extremes (CW3E)	\$27,000		\$27,000	Y
Colorado River District – Requested Community Funding Partnership	\$140,000		\$140,000	N
<b>Total</b>	<b>\$840,500</b>	<b>\$24,480</b>	<b>\$864,980</b>	

**Table 8: Project Budget**

Task Name	Total
Siting Plan	\$99,980
Permits and Station Fabrication and Testing	\$339,980
Station Installation	\$145,020
Data Dissemination and Archiving	\$120,000
Data Visualizations and Long-Term Funding Strategy	\$160,000
<b>Total</b>	<b>\$864,980</b>

There are no private entities participating in a manner that will result in a profit nor will there be a revenue stream generated from the completed project.

- b. Local Community Support:** The project coalition has provided letters of support from the Routt County Board of County Commissioners, the City of Steamboat, Mount Werner Water and Sanitation District, Upper Yampa Water Conservancy District, Colorado Water Trust, and Trout Unlimited.
- c. Human Resource Requirements:** The District will not play any role in overseeing construction of this project.



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- d. Risk Analysis:** Staff has completed a risk analysis and has not identified any significant legal liability or exposure to the District that warrants additional legal review. The project is supported by foundational work performed in 2021 and 2022 to create a basin analysis and the installation of a first soil moisture monitoring station. Additionally, the project is supported by the nationally renowned Center for Western Weather and Water Extremes (CW3E) that has successfully implemented similar monitoring networks in California and the West.

Given an out-of-state project partner and lead, Staff conducted initial due diligence and have addressed concerns with support and counsel from the project partners such as Upper Yampa Water Conservancy District, Aspen Global Change Institute, and Yampa Valley Sustainability Council (YVSC). The local project confirmed this is their preferred approach and have provided their confidence in the arrangement backed with recent experience with the CW3E. Staff will continue to encourage YVSC staff to take advantage of CW3E expertise to learn the processes needed to select, set-up and maintain these stations such that they can provide the technical resources in the future and be a resource for others interested in establishing similar systems.

- e. Additional Factors to Consider:**

**Enhancement of a project’s long-term viability:** This project advances current efforts to bolster the existing soil moisture pilot station funded by Upper Yampa Water Conservancy District with the hope that significant local and state investment will spur federal funding interest. Supporting the early-stage advancement of this soil moisture network will illustrate quantitative support for additional funding for new stations and long-term operations and maintenance.

**Development of applied research, science, and data beneficial to the mission and strategic goals of the District:** The observations proposed in this project will provide information about soil moisture storage which can be used to more reliably predict reservoir inflows.

### **INFORMATIONAL – Program Awards Under General Manager Authority**

The Board has previously authorized the General Manager to review, consider, approve, and/or deny application in amounts up to \$50,000 for any single project, not exceeding an aggregate total of \$1M in any single calendar year. In 2022, the General Manager, working with staff recommendations, authorized \$659,198 to 18 projects out of the \$1M calendar year cap.



**Table 9: General Manager Funding Approvals**

	<b>Project Applicant</b>	<b>Project Name</b>	<b>Funding Requested</b>	<b>Funding Approved</b>	<b>County</b>
<b>1</b>	Blue River Watershed Group	Blue River Integrated Water Management Plan - Phase 3	\$41,300	<b>\$25,000</b>	Summit
<b>2</b>	Pitkin County Open Space and Trails	Glassier Open Space Lease B Center Pivot	\$50,000	<b>\$50,000</b>	Pitkin
<b>3</b>	Pilot Rock Ditch Company	Pilot Rock Piping Project	\$49,990	<b>\$49,990</b>	Delta
<b>4</b>	Town of Basalt	Basalt Water Utility Master Plan	\$25,000	<b>\$25,000</b>	Eagle, Pitkin
<b>5</b>	Colorado Trout Unlimited	Clear Fork of East Muddy Creek Native Trout Restoration	\$50,000	<b>\$50,000</b>	Gunnison
<b>6</b>	Town of Hot Sulphur Springs	Technical Support for Emergency Water Treatment	\$48,540	<b>\$48,540</b>	Grand

- 1. Blue River Watershed Group; Blue River Integrated Water Management Plan - Phase 3:** The Blue River Watershed Group is working on the final phase of the Blue River IWMP to understand the natural and man-made factors to the declining fishery and to develop mitigation strategies on the Blue River (the 21 mile stretch between the Dillion and Green Mountain Reservoirs). The project started in 2020 and phase 3 funding will synthesize data to-date and present a prioritization of implementation projects.

<i>50% Healthy Rivers</i>	<i>50% Watershed Health and Water Quality</i>
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- 2. Pitkin County Open Space and Trails, Glassier Open Space Lease B Center Pivot:** Glassier Open space (125 total acres) is primarily leased for agriculture and historically has been completely flood irrigated. The project will install a center pivot, coupled with data analysis of the reduction in water use and the impact on the environment. The reduced diversions will be used to support the riparian areas and other impacted areas due to the reduction in return flows.

<i>75% Productive Agriculture</i>	<i>25% Conservation and Efficiency</i>
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- 3. Pilot Rock Ditch Company; Pilot Rock Piping Project:** Since 1888, the Pilot Rock Ditch has served ~350 acres of irrigated acreage North and East of the town of Crawford. Diverting directly from Little Coal Creek, the earthen canal is 1.5 miles long to the service area. This project proposes to pipe the upper 8,173 linear feet of the Pilot Rock Ditch, which due to drought conditions is increasingly in danger of failing. The project will



include a new headgate and diversion improvements, a settling basin and new measuring flume, 8010 LF of pipe, and a tie-in to the first split box on the system. The project is a long-term solution to enhance drought resiliency and upgrade aging infrastructure with a stable and reliable delivery system.

<i>45% Productive Agriculture</i>	<i>30% Infrastructure</i>	<i>15% Watershed Health and Water Quality</i>	<i>10% Conservation and Efficiency</i>
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- 4. Town of Basalt; Basalt Water Utility Master Plan:** The Town of Basalt is developing a Water Utility Master Plan (WUMP) to serve as a guide in years to come through capital improvements, operations/maintenance, and rate increases. Ultimately, the WUMP will address drought and water conservation, supply facility operation, evaluation of the Town’s distribution system, evaluation of water quality, municipal codes, evaluation of the Town’s raw water system, capital improvement plan, and a water rate study.

<i>15% Infrastructure</i>	<i>15% Watershed Health and Water Quality</i>	<i>70% Conservation and Efficiency</i>
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- 5. Colorado Trout Unlimited; Clear Fork of East Muddy Creek Native Trout Restoration:** The project aims to complete a fish barrier and related projects to establish about 13 miles of native Colorado River Cutthroat Trout habitat on the Clear Fork of the East Muddy Creek and its headwaters. The project includes installation of a new fish barrier; replacement of an aging gabion cage to protect an upstream USFS service road; and installation of rock structures to create pockets of refugia.

<i>20% Healthy Rivers</i>	<i>80% Watershed Health and Water Quality</i>
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- 6. Town of Hot Sulphur Springs; Technical Support for Emergency Water Treatment:** This project will firm up the Town's drinking water supply through an infiltration gallery well completed in the Colorado River alluvial aquifer. The project creates additional resiliency by developing an alternate treatment method that's not susceptible to increased debris or sediment events resulting from the East Troublesome Fire.

<i>30% Infrastructure</i>	<i>70% Watershed Health and Water Quality</i>
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**INFORMATIONAL – Table 10: 2022 Awarded Projects**

2022 Awarded Projects			
	Applicant	Project Name	Awarded Amount
1	Orchard City Irrigation District	Fruitgrowers Dam Outlet Gates Improvement Project	\$ 225,000
2	Town of Minturn	Minturn Water Storage Tank Project	\$ 250,000
3	The Nature Conservancy	Maybell Diversion and Headgate Modernization Project.	\$ 500,000
4	The Sonoran Institute	West Slope Growing Water Smart Project	\$ 102,000
5	Middle Colorado Watershed Council	Silt Preserve Water Rights and Pond Delivery	\$ 8,250
6	Buffalo Mountain Metropolitan District	Water Tank 3 Interior Rehabilitation Project	\$ 25,000
7	High Country Conservation Center	Advancing Irrigation Efficiency Across Summit County	\$ 76,475
8	Town of Oak Creek	Sheriff Reservoir Dam Rehabilitation Final Design	\$ 80,000
9	Somerset Domestic Waterworks District	Somerset Water Treatment Revitalization Project	\$ 91,702
10	Crawford Clipper Ditch Company	CCDC Upper West Lateral Pipeline and SCADA Project	\$ 150,000
11	Grandview Canal & Irrigation Company	Grandview Canal UML Headgate and Water Optimization Project	\$ 135,000
12	Colorado River District	2022 Yampa River Flow Pilot Project	\$ 26,250
13	Colorado WaterWise	Colorado Guidebook of Best Practices for Municipal Water Conservation	\$ 50,000
14	Morrisania Water Supply Company	Ditch Diversion and Pipe Project	\$ 50,000
15	Shelton Ditch Company	Shelton Ditch Headgate Project	\$ 35,000
16	Cimarron Valley & River Watershed Coalition**	Big Blue Ditch Diversion Rehabilitation and Piping Project Feasibility Study	\$ 45,000
17	Gibraltar Ditch Group	Gibraltar Ditch Improvement Project	\$ 95,000
18	Bear River Reservoir Company	Stillwater Reservoir Repair Estimate & Upgrades	\$ 125,000
19	Roaring Fork Conservancy	Predicting water conservation program participation rates with quantitative social surveys	\$ 41,300
20	YMCA of the Rockies	Gaylord Reservoir Dam Repairs	\$ 25,000
21	Routt County Environment and Health	Community of Phippsburg Water Augmentation Plan	\$ 10,000
22	Upper Gunnison River Water Conservancy District	Blue Mesa Reservoir High Frequency WQ Sampling for Harmful Algal Blooms	\$ 41,018
23	Upper Yampa Water Conservancy District	Water Quality Analysis in the Upper Yampa River Watershed and Stagecoach Reservoir	\$ 10,000

24	Moffat County	Lower Yampa River Augmentation Plan	\$ 50,000
25	Trout Unlimited	Upper Gunnison Irrigation Diversion Modernization	\$ 45,100
26	White River Conservation District**	PL566 Pre-Development Work	\$ 50,000
27	Grand County Irrigated Land Company**	Vail Ditch Conservation and Efficiency Project	\$ 27,000
28	Overland, Redlands Mesa, Stull, Durkee Ditch Cos**	Redlands Mesa Combined Efficiency and Optimization Project	\$ 26,000
29	Hartland Ditch Company**	Hartland Ditch Master Plan Study	\$ 12,000
30	West Divide Water Conservancy**	Martin Reservoir Enlargement & Reconfiguration	\$ 118,465
31	Western Slope Conservation Center**	North Fork Farmer's Ditch Diversion Improvement	\$ 45,000
32	Grand County**	Kawuneeche Valley Ecosystem Restoration Collaborative (KVERC)	\$ 48,500
33	Grand Valley Water Users Association**	Grand Valley Roller Dam Headworks Replacement Project	\$ 18,000
34	American Rivers**	Uncompahgre River Multi-Benefit Project	\$ 25,000
35	Project 7 Water Authority**	Regional Water Resiliency Program	\$ 47,600
36	Town of Collbran**	Hoosier Pipeline and Ditch Improvements	\$ 46,750
37	Orchard Mesa Irrigation District**	Orchard Mesa Check Infrastructure Improvements	\$ 29,000
38	Aspen Global Change Institute	Roaring Fork Basin-Evaluation of Soil Moisture for Water Planning	\$ 60,293
39	Airborne Snow Observatories, Inc.	Airborne Snow Observatory Snow Mapping in the Roaring Fork and Fryingspan	\$ 75,000
40	Roaring Fork Conservancy	Ruedi Reservoir Winter Release Program	\$ 20,000
41	Grand Valley Irrigation Company	GVIC ML 260 Lateral Piping Project	\$ 40,000
42	Blue River Watershed Group	Blue River Integrated Water Management Plan - Phase 3	\$ 25,000
43	Pitkin County Open Space and Trails	Glassier Open Space Lease B Center Pivot	\$ 50,000
44	Pilot Rock Ditch Company	Pilot Rock Piping Project	\$ 49,990
45	Town of Basalt**	Basalt Water Utility Master Plan	\$ 25,000
46	Colorado Trout Unlimited	Clear Fork of East Muddy Creek Native Trout Restoration	\$ 50,000
47	Town of Hot Sulphur Springs**	Technical Support for Emergency Water Treatment	\$ 48,540
	*Pending Board Approval	<b>2022 AWARD TOTAL</b>	<b>\$ 3,229,233</b>
	**Accelerator Grant		



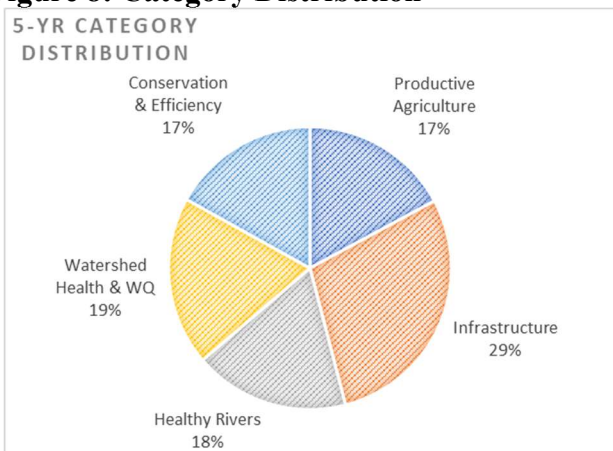
**INFORMATIONAL – Table 11: 2023 Awarded Projects**

2023 Awarded Projects			
	Applicant	Project Name	Awarded Amount
1*	Center for Western Weather & Water Extremes	Enhancing Soil Moisture Observations to Support Water Resource Management in the Upper Yampa River Basin	\$ 140,000
2*	RiversEdge West	Uncompahgre and White River Riparian Restoration Project	\$ 70,823
3*	White River Conservation District	White River Water Supply Study	\$ 64,350
4*	Eagle County Conservation District	Water Efficient Landscape Conversion Program	\$ 191,554
	*Pending Board Approval	<b>2023 AWARD TOTAL</b>	<b>\$ 466,727</b>
	**Accelerator Grant		
		<b>21, 22, 23 Award Total</b>	<b>\$ 6,557,222</b>
		<b>Remaining CFP Fund Balance</b>	<b>\$ 7,950,658</b>

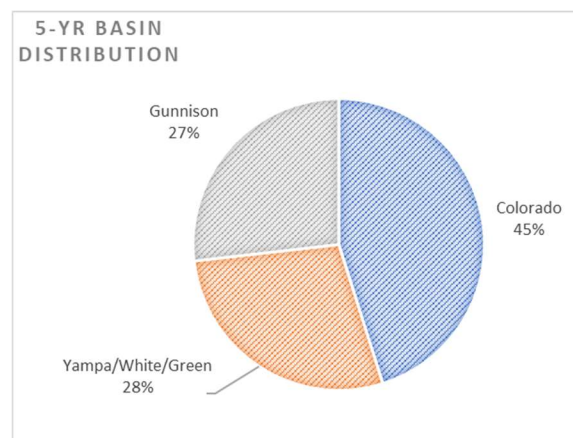
**INFORMATIONAL - Equity Targets**

Staff continues to track the District’s category and geographic equity targets. As a reminder, the CFP Framework includes a commitment to funding each of the defined categories in approximately equal amounts on a running five-year average. In addition, the Framework includes a commitment to equitably disperse the funds geographically within the District’s boundaries both on a county-by-county basis and on a sub-basin drainage basis on a running five-year average. The following charts depict current distributions across 2021 and 2022, including staff recommendations for 2023 projects including in this memo.

**Figure 8: Category Distribution**



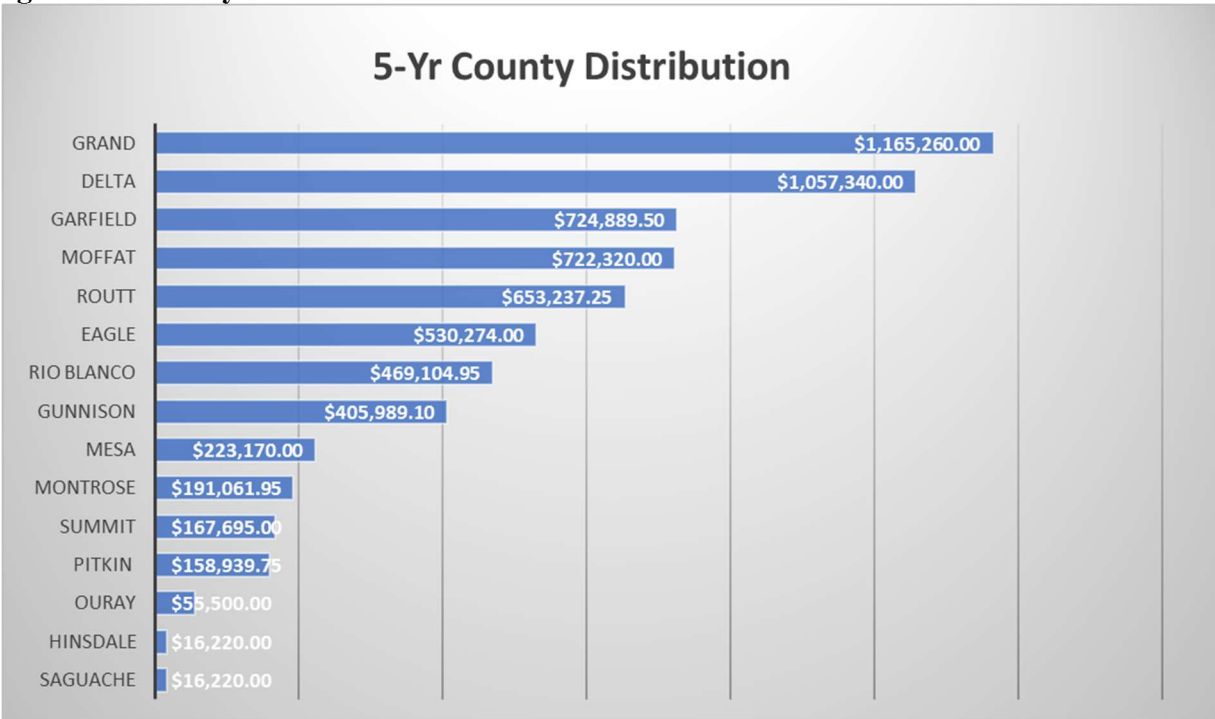
**Figure 9: Basin Distribution**







**Figure 10: County Distribution**



*\*Note: These charts include previous awards and staff recommendations contained within this memo.*



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** MARIELLE COWDIN, ZANE KESSLER, AND LINDSAY DEFRADES

**SUBJECT:** EXTERNAL AFFAIRS ACTIVITIES UPDATE

**DATE:** DECEMBER 30, 2022

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**NO ACTION:** *This is an informational report on the activities of the External Affairs team in Quarter Four of 2022.*

### **STRATEGIC INITIATIVE(S):**

#### **1. Outreach and Advocacy:**

**1.A.** *The River District will continue to enhance and expand partnerships and working relationships with key elected and appointed officials to advance western Colorado's perspectives on proposed legislation and regulations affecting western Colorado water resources at both the state and federal levels.*

**1.B.** *The River District will assume a leadership role in offering timely and accurate public information regarding topical trends and developments concerning water resources, water use, and water conservation.*

**1.C.** *The River District will make special efforts to inform and involve community leaders, especially elected leaders, in water-related matters.*

**1.D.** *The River District will expand its efforts to actively engage the public through our website and other social media, including new and emerging media platforms, with a goal of reaching and engaging younger generations of water users.*

**1.E.** *The River District will ensure its outreach and communications extend to all 15 counties of the District.*

**1.F.** *The River District will expand its branding efforts to ensure grassroots support and understanding of the River District and its mission.*

#### **2. Outreach in All Basins:**

**2.A.** *The River District will increase its outreach efforts with water organizations and other local organizations in the Gunnison, White and Yampa River basins. The goal will be to use*



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*River District resources to help those basins address their consumptive and non-consumptive water needs.*

**9. Water Efficiency and Conservation:**

**9.A. The River District will continue to promote, encourage, and support wise and efficient use of all of Colorado's water resources**

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**General Communications & Strategic Planning**

The External Affairs team's final quarter of 2022 focused heavily on external speaking engagements, interstate communications, and strategic planning for 2023. On the heels of a successful 2022 Annual Water Seminar, quarter four brought a slew of speaking invitations for District staff, allowing us to drive home River District priority messaging on Lower Basin overuse, faulty federal accounting, the diminishing Upper Basin headwaters hydrology propelling all water users to adapt to living with less, and how the District and the West Slope are leading by example.

The District also engaged with federal and interstate decisionmakers during a West Slope flyover with Bureau of Reclamation Commissioner Camille Touton, and on the District's Lower Basin Tour with Colorado stakeholders. The timing of these local and regional engagements aligned well with media appetite for expert voices on the mounting crisis in the Southwest, drawing eyes from media outlets coast-to-coast. River District communications have centered our organization as a key voice in the dialogue at local, regional, and national levels, with continued presence in the press (see Media Mentions attachment).

Moving forward, the External Affairs team has outlined a new Communications Strategic Plan to sustain and grow public awareness and trust in our role as both a watchdog for West Slope water users and as an advocate for the State of Colorado's entitlement to the Colorado River. This new plan will be a living document, an evolving guide allowing our team and the District to be both more active in our communications and more reactively nimble as cultural, political, and hydrologic environments changes quickly. See the I&O Committee Memo for more information.

**Community Funding Partnership Communications**

The Community Funding Partnership remains a beacon for positive action in River District communications, allowing the External Affairs team to show the West Slope and our constituents walking the talk of innovation as all water users in the Southwest adapt to a hotter, drier reality. Regular monthly meetings with Amy Moyer and Melissa Wills have the EA team working even more efficiently and with greater intention to highlight CFP voices and projects as we shift the program into a storytelling phase of marketing. 2023 planning with the CFP team also brings greater CFP program integration into broader District communication and outreach goals. More details on CFP/EA collaborative work can be found in the I&O Committee Memo.



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## Events

1. ***Annual Water Seminar*** – Aiming to build upon the success of the 2022 Annual Water Seminar, ‘Overdrawn,’ the EA Team is already preparing for the 2023 seminar, having booked the Meyer Ballroom at Colorado Mesa University in Grand Junction for **Friday, September 22, 2023**. Save-the-Date announcements as well as agenda planning and speaker invitations will commence in quarter one.
2. ***Water With Your Lunch*** – Our Zoom webinar series, Water With Your Lunch, will continue during the first week of February 2023, with our annual installment of ‘Know Your Snow.’ This webinar is traditionally the only outreach event we conduct with the recreational community in mind. Skiers and snow enthusiasts tune in to hear hydrologists and meteorologists assess current snowpack health and the potential runoff impacts for the remainder of the year. Our 2023 iteration will also focus on the work being done to improve forecast modeling to make sure that our predictions more accurately reflect the reality of how much water makes it into the system.
3. ***State of the Rivers*** – The External Affairs team has already locked in dates for the State of the River 2023 season. This series of meetings continues collaboration with our local partners and constituents, maintains our connection with the communities we serve, and strengthens our advocacy voice throughout the District. See below for confirmed and tentative dates. These meetings occur in the evening hours to make them more accessible to working members of the communities and include a light dinner, presentations from local partners, as well as relevant River District and Community Funding Partnership updates.
  - **Gunnison** (in Montrose) – March 20 immediately following the Gunnison Basin Roundtable Meeting
  - **Moffat & Routt Counties** (in Craig, Steamboat) – March 22 and 23 in coordination with *Ag Appreciation Week* and the Community Ag Alliance
  - **Rio Blanco County** (in Rangely) – April 5 with the White River Conservation District
  - **Mesa County** (in Grand Junction) – April 13 at CMU with the Ruth Hutchins Powell Water Center
  - **Middle Colorado** (in Glenwood Springs) – May 2 with the Mid-Colorado Watershed Council
  - **Grand County** (in Granby) – *Tentatively* May 22 with Grand County
  - **Summit County** (in Silverthorne) – May 23 with the Blue River Watershed Group
  - **Eagle River Valley** (in Edwards) – June 1 with Eagle River Water and Sanitation District
4. ***In addition to these events, staff has presented to or informed the following groups and organizations since the last board meeting:***

- Southwest Fresh Fest at Billy Goat Hop Farm
- Western CO Water & Wastewater Conference
- Colorado Water Center, CSU
- CWCB – Landscaping summit
- Forest Health Council
- Summit County BOCC
- Montrose Water summit
- Ouray County BOCC
- Rocky Mountain Golf Course Superintendent’s Conference
- Gunnison-Dolores Watershed Summit
- Rotary Club, Montrose
- Washington Association of Counties
- Northwest Community College
- SGM Water Forum
- CRWUA – Discussion with Colorado Water Users Panel
- National Park Service Colorado River Leadership Team
- Vail Resorts Colorado Resort Leadership Group
- Club 20 Water Section

## Outreach

### 1. *Digital Outreach*

#### a. Social Media

- i. During the last quarter, the River District’s social media audience gained 142 followers across the three platforms of Facebook, Twitter, and Instagram – a net growth of 1.9%. River District accounts have a total of 8,241 followers. Our Twitter audience count was impacted due to major changes in the management and ownership of the platform itself, impacts akin to those experienced by other organizations and individuals using Twitter regularly.
- ii. This quarter, the River District experienced the highest engagement rate on Instagram and Facebook. Facebook continues to be the best platform for promoting materials and reaching new audiences. Ad boosts of content related to Community Funding Partnership projects have been aimed at increasing our follower counts in Montrose and Grand County.
- iii. Current follower totals for three social media platforms.
  1. *Facebook: 3,187 followers*
  2. *Twitter: 3,113 followers*
  3. *Instagram: 1,941 followers*

#### b. E-Newsletter

- i. The EA Team continues to work with both the technical team and the CFP team to make sure that funding opportunities are relevant and up to date.



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- ii. As of December 30, 5,947 people receive the River District *News Drop* e-newsletter containing water news from across the state and region. The External Affairs Team also sends board update blogs and event announcements to this audience. During quarter four, the News Drop consistently had an open rate of between 31% and 41%.

## **2. *Media Relations***

- a. Between October 1 and December 30, 2022, the Colorado River District was featured in 26 news stories, op-eds, and columns. Links and dates for these stories are available **in the attached document**.

## GO BACK TO MEMO

### Aspen Journalism

1. 9/30/2022  
<https://aspenjournalism.org/newsletter/the-runoff-where-the-grant-money-flows/>
2. 11/16/2022  
<https://aspenjournalism.org/four-things-to-know-about-the-lower-colorado-river-basin/>
3. 12/2/2022  
<https://aspenjournalism.org/studies-tackle-water-replacement-options-for-shortages-on-crystal-river/>
4. 12/10/2022  
<https://aspenjournalism.org/upper-colorado-river-officials-release-details-of-water-savings-program/>
5. 12/18/2022  
<https://aspenjournalism.org/upper-basin-moves-closer-to-water-conservation-program/>

### Big Pivots

6. 9/28/2022  
<https://bigpivots.com/cheerful-delusions-about-the-colorado-river-crisis/>
7. 9/30/2022  
<https://bigpivots.com/pick-your-colorado-river-metaphor/>

### The Colorado Sun

8. 11/1/2022  
<https://coloradosun.com/2022/11/01/lake-powell-water-no-hydropower/>
9. 11/21/2022  
<https://coloradosun.com/2022/11/21/soil-moisture-better-still-mostly-below-average/>
10. 12/18/2022  
<https://coloradosun.com/2022/12/18/is-the-water-in-grand-lake-too-murky/>

### Deseret News

11. 12/16/2022  
<https://www.deseret.com/utah/2022/12/16/23512878/system-pilot-conservation-program-to-pay-colorado-river-conservation>

### Grand Junction Sentinel

12. 10/21/2022

[https://www.gjsentinel.com/news/river-district-kicks-in-for-airborne-snow-survey-work/article\\_f0648c06-50c4-11ed-ad75-db805fabfdeb.html](https://www.gjsentinel.com/news/river-district-kicks-in-for-airborne-snow-survey-work/article_f0648c06-50c4-11ed-ad75-db805fabfdeb.html)

13. 10/24/2022

[https://www.gjsentinel.com/news/mixed-water-year-not-wet-enough-to-remedy-dire-supply-issues/article\\_39120064-5197-11ed-be5d-0bb80070adcc.html](https://www.gjsentinel.com/news/mixed-water-year-not-wet-enough-to-remedy-dire-supply-issues/article_39120064-5197-11ed-be5d-0bb80070adcc.html)

14. 10/22/2022

[https://www.gjsentinel.com/news/western\\_colorado/river-district-head-california-water-cut-far-from-what-is-needed-from-that-state/article\\_6cda3140-4ff9-11ed-8142-ff351629cebe.html](https://www.gjsentinel.com/news/western_colorado/river-district-head-california-water-cut-far-from-what-is-needed-from-that-state/article_6cda3140-4ff9-11ed-8142-ff351629cebe.html)

### **High Country Shopper**

15. 10/13/2022

[https://www.highcountryshopper.com/spotlight/community/river-district-awards-half-million-in-accelerator-grants/article\\_7f2b9862-4b11-11ed-bef7-871b94c9f6af.html](https://www.highcountryshopper.com/spotlight/community/river-district-awards-half-million-in-accelerator-grants/article_7f2b9862-4b11-11ed-bef7-871b94c9f6af.html)

### **Montrose Press**

16. 11/5/2022

[https://www.montrosepress.com/free\\_access/opinion-why-you-should-attend-the-west-slope-water-summit/article\\_5e01502c-5bd4-11ed-9679-6fd87feacc1e.html](https://www.montrosepress.com/free_access/opinion-why-you-should-attend-the-west-slope-water-summit/article_5e01502c-5bd4-11ed-9679-6fd87feacc1e.html)

17. 11/11/2022

[https://www.montrosepress.com/news/colorado-river-users-warned-painful-changes-are-coming-as-water-summit-speakers-reiterate-call-for/article\\_075d4132-620e-11ed-8cda-93dd010e6336.html](https://www.montrosepress.com/news/colorado-river-users-warned-painful-changes-are-coming-as-water-summit-speakers-reiterate-call-for/article_075d4132-620e-11ed-8cda-93dd010e6336.html)

18. 11/25/2022

[https://www.montrosepress.com/free\\_access/project-7-wins-grant-funds/article\\_cace0a96-6b66-11ed-ace4-1bf6f81c8ed8.html](https://www.montrosepress.com/free_access/project-7-wins-grant-funds/article_cace0a96-6b66-11ed-ace4-1bf6f81c8ed8.html)

### **The New Yorker**

19. 12/18/2022

<https://www.newyorker.com/news/letter-from-the-southwest/the-water-wrangers-of-the-west-are-struggling-to-save-the-colorado-river>

### **Pro Publica**



20. 12/22/2022

<https://www.propublica.org/article/colorado-river-water-uncompahgre-california-arizona>

### **Steamboat Pilot and Today**

21. 11/10/2022

<https://www.steamboatpilot.com/news/oak-creek-to-bid-out-sheriff-reservoir-fixes-again-now-with-routt-county-state-support/>

22. 12/6/2022

<https://www.steamboatpilot.com/news/adapting-to-dry-periods-key-for-yampa-river-water-users-regardless-of-larger-colorado-river-crisis/>

### **Summit Daily**

23. 10/15/2022

<https://www.summitdaily.com/news/the-future-will-not-look-like-the-past-local-water-leaders-emphasize-outreach-education-about-the-blue-river%E2%82%AC/>

### **Water Education Colorado**

24. 10/19/2022

<https://www.watereducationcolorado.org/fresh-water-news/public-revised-colorado-water-plan-needs-more-urgency-and-accountability/>

25. 11/23/2022

<https://www.watereducationcolorado.org/fresh-water-news/think-big-colorado-water-projects-on-tap-for-up-to-800m-to-1-2b-in-federal-money/>

### **Western Slope Now**

26. 10/3/2022

<https://www.westernsloopenow.com/top-stories/water-conservation-group-gravely-concerned-about-future/>



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER  
PETER FLEMING, GENERAL COUNSEL

**FROM:** ZANE KESSLER, DIRECTOR OF GOVERNMENT RELATIONS

**SUBJECT:** STATE LEGISLATIVE AFFAIRS

**DATE:** JANUARY 1, 2023

---

**ACTIONS:** *Staff requests you establish bi-weekly telephone meetings during the Colorado legislative session.*

**APPLICABLE STRATEGIC INITIATIVE(S):**

**1. Outreach and Advocacy:** *As the entity in the State of Colorado, statutorily charged to protect, develop, manage, and safeguard the water resources of the Colorado River Basin for the welfare of the District and for all citizens of Colorado, the River District has a basic responsibility to inform our constituents of statewide and basin-wide issues affecting water users of the Colorado River. In order to achieve the various strategic initiatives outlined in this Plan, the River District recognizes that public support will be required.*

*The District maintains a robust public education and outreach effort through an evolving variety of media and public meetings it either organizes or co-sponsors. Through pro-active involvement and dedication of resources, the District seeks to shape and influence public policy and legislation affecting Colorado River water resources, District water users, and operations of the District.*

- **1.A.** *The River District will continue to enhance and expand partnerships and working relationships with key elected and appointed officials to advance western Colorado's perspectives on proposed legislation and regulations affecting western Colorado water resources at both the state and federal levels.*
- **1.B.** *The River District will assume a leadership role in offering timely and accurate public information regarding topical trends and developments concerning water resources, water use, and water conservation.*
- **1.C.** *The River District will make special efforts to inform and involve community leaders, especially elected leaders, in water-related matters.*



**2023 Legislative Session:** Departing from the traditional second Wednesday of the New Year, the Colorado General Assembly will open the 1<sup>st</sup> Regular Session of the 74<sup>th</sup> General Assembly on Monday, January 9, 2023.

There are no printed bills available as of the date of this memo. Water bills introduced as of Monday, January 16 will be distributed at your quarterly board meeting along with staff analysis and recommendations for action.

Note: staff has been approached by entities in the Grand Valley regarding their desires to more actively participate in River District legislative discussions, including providing comments to the Board on specific legislative issues.

With this in mind, staff is in the process of developing a plan for coordinated outreach to these entities and others on state legislative matters. Staff requests that Directors inform interested constituents that we conduct biweekly, public meetings throughout the state legislative session, and that they can contact Stephanie Moore to be added to the distribution lists for legislative updates and meeting notices.

From a partisan perspective, the 2023 legislative session will be the most left-leaning session in Colorado history. Democrats expanded their existing majorities in both chambers after the 2022 midterm election. In the House of Representatives, Democrats now have a 46-19 super-majority. In the Senate, they are just one vote shy of a super-majority – controlling 23 of the upper chamber’s 35 seats.

This year’s session will also have an unusual number of newcomers in the legislature. In total, 31 legislators – nearly 1/3<sup>rd</sup> of the total seats in the House and Senate combined – will be sworn-in for the very first time. This includes at least three legislators within the Colorado River District’s boundaries. The full slate of River District legislators is included below:

House District	Name	River District Counties
HD13	Julie McCluskie	Summit, Grand
HD26	Megan Lukens	Eagle, Moffat, Rio Blanco, Routt
HD54	Matt Soper	Delta, Mesa
HD55	Rick Taggart	Mesa
HD57	Elizabeth Velasco	Eagle, Garfield, Pitkin
HD58	Marc Catlin	Delta, Gunnison, Hinsdale, Montrose, Ouray

Senate District	Name	River District Counties
SD5	TBD, subject to vacancy committee decision	Delta, Eagle, Garfield, Gunnison, Hinsdale, Montrose, Pitkin
SD6	Cleave Simpson	Montrose, Ouray, Saguache
SD7	Janice Rich	Delta, Mesa
SD8	Dylan Roberts	Eagle, Garfield, Grand, Moffat Rio Blanco, Routt, Summit



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**Changes in Leadership:** For the first time since the Honorable Russ George served in the position from 1999 to 2000, a West Slope resident will hold the Speaker's gavel in the Colorado House. On Friday, November 11, Representative Julie McCluskie, of Dillon, was named the new Speaker of the House. For the last four years, Rep. McCluskie has represented Summit County, as well as Delta, Gunnison, Lake and Pitkin counties in what was House District 61. Now, after the decennial redistricting process, she will represent House District 13, which contains Jackson, Grand, Summit, Lake and Park counties and the majority of Chaffee County.

The Colorado House Republican Caucus elected Rep. Mike Lynch, of Wellington, to serve as minority leader in the House. Senate President Steve Fenberg, of Pueblo, and Majority Leader Dominic Moreno, of Commerce City, will stay in their positions. Senator Paul Lundeen, of Monument, was elected Minority Leader.

**Representative Catlin will Remain Vice Chair of House Ag Committee:** For the third legislative session in a row, Representative Marc Catlin will be the only Colorado Republican to hold a committee leadership position in the House. On December 13, Rep. Catlin was reappointed to serve as Vice Chair of the House Agriculture, Water and Natural Resources Committee.

Rep. Catlin will serve with Democratic Representative Karen McCormick, of Longmont, who has chaired the Committee since the 2021 session.

**West Slope Budget Leader Announces Retirement:** In early December, Republican Senator Bob Rankin, of Carbondale, announced that he intends to resign from the Colorado Senate, effective January 10, just one day after the 2023 legislative session begins. A vacancy committee for Senate District 5 will convene in Montrose in early January to select Sen. Rankin's replacement.

Rankin was first elected to the Colorado House in 2012 to serve House District 57, which covered northwestern Colorado, until Jan. 2019. Rankin was appointed by a vacancy committee for Senate District 8 in January of 2019 to finish out the term of former Sen. Randy Baumgardner.

Rankin has been the senior member of the powerful Joint Budget Committee (JBC), where he was a champion for conservative fiscal policies. He was first appointed to the committee in 2014.

In a press release announcing his decision, Rankin said that "after proudly serving this state for the past 10 years, I have made the decision to move forward with the next chapter of my life."

Speaker-designee Rep. Julie McCluskie, who served on the JBC with Rankin, said "for 10 years, Senator Rankin has exemplified the very best of what it means to be a public servant. His dedication and steadfast commitment to always putting Coloradans and good public policy ahead of politics has made our state a better place for everyone."

**Interim Committee Bills:** As was discussed at your October Quarterly Board meeting, the Interim Water Resources and Agriculture Review Committee (WRARC) met multiple times during the interim session and has put forward two bills for introduction in 2023.



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**Bill A – Task Force on High Altitude Water Storage** creates a task force to study the feasibility of implementing water storage in the form of snow in high altitude areas. The six-member task force includes engineers, state legislators, representatives from the recreation industry, and a representative from the U.S. Forest Service. The task force will meet at least once every 3 months through 2024 and will provide a report to the WRARC. This proposal was being spearheaded by Representative Hugh McKean. McKean tragically passed away in October and it is unclear if another legislator will take up the issue to push it forward.

**Bill B – Water Resources and Agriculture Review Committee.** Bill B changes the WRARC from an interim committee to a year-round committee. The year-round committee must meet a minimum of four times each year. The bill’s primary sponsor, Sen. Cleave Simpson, of Alamosa, has agreed to amend the bill to restrict the referral of new legislation to the Interim Session.

**Legislative Radar:** Although no bills or drafts have been printed on bill paper at this point, staff expects to see a handful of legislative efforts ranging from Big River policy issues to local water issues. Below is an initial list of legislative concepts currently being discussed/circulated within the water community.

- DNR Natural Infrastructure/Stream Restoration Bill: DNR is in the process of drafting a bill that they say aims to provide certainty to stream restoration proponents, water users, and water administrators about the types of stream restorations projects (think Beaver Dam Analogues) that can be implemented in the state without being subject to enforcement actions by the Division of Water Resources.
- Eagle River Water and Sanitation District is working with other utilities and water and sanitation districts to develop “do not flush” legislation that would require that “covered products” (e.g. baby wipes, diapering wipes, and premoistened nonwoven disposable wipe composed of petrochemical-derived fibers) for sale in Colorado be clearly and conspicuously labeled with the phrase “Do Not Flush” and a related symbol.
- Shepherding and/or compact compliance legislation: Staff is aware of at least one proposal to develop shepherding legislation with a goal of providing conservation districts and/or CWCB new tools and authorities to help ensure continued compliance with Colorado’s interstate obligations related to the Colorado River.
- Legislation allowing local governments the authority to prohibit ditch burning during red flag days.

**Governor’s Budget Proposal:** On November 1, as required by statute, Governor Jared Polis released his balanced budget proposal for FY 2023-24, concurrently submitting his budget proposal to the state’s JBC. Priority areas relevant to the River District include wildfire mitigation, water quality and defending Colorado’s water rights, and reducing the State’s energy footprint.



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In a press release, the Governor's office said "the Polis administration remains committed to preserving and protecting Colorado's precious water resources. The Governor's proposed budget includes new investments in technical capacity and policy expertise to ensure that the State can meet its interstate obligations while protecting the Colorado River entitlements that are paramount to Colorado's economy, livelihoods, and quality of life."

Colorado expects to spend \$12.6M of our sports betting revenues on water in FY 2023-24. Polis' budget proposal includes an additional \$5.0M transfer from General Fund in this budget for a total of \$17.6M for the Colorado Water Plan grant program and to provide matching funds for federal grant opportunities. Additionally, the proposal includes:

- \$1.9M to build a Colorado River Policy and Technical Support Team to ensure that Colorado is well represented with policy and technical expertise in interstate river compact negotiations.

As part of this \$1.9M investment, the Governor is proposing to separate the duties of the Colorado River to the Upper Colorado River Commissioner from the duties of the Director of the Colorado Water Conservation Board. His proposal creates a separate position for the Upper Colorado Commissioner which will allow the CWCB Director to focus on all the duties of the CWCB and not have to divide their time with the Colorado River discussions.

- \$4.1M to maintain and expand protective water quality efforts related to clean water and drinking water project permitting and inspections to ensure Colorado continues to maintain statewide clean water and drinking water quality standards in alignment with EPA standards.
- Approximately \$30.0M towards the State match requirement for the IJA federal supplement to the Clean Water and Drinking Water State Revolving Funds. Complementing S.B. 22-215 investments and base resources, the request for IJA match funds would provide the match needed in FY 2024-25 through FY 2026-27 to draw down over \$200M in federal funding to finance clean water and drinking water infrastructure projects throughout the state.

When all is said and done, the fate of Polis' proposal will depend on decisions made by the Joint Budget Committee, which writes the state budget.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER  
PETER FLEMING, GENERAL COUNSEL

**FROM:** ZANE KESSLER, DIRECTOR OF GOVERNMENT RELATIONS

**DATE:** JANUARY 1, 2023

**SUBJECT:** FEDERAL AFFAIRS UPDATE

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***ACTION REQUESTED:*** *No specific action requested with this memo; however, as always, Board direction and priority-setting is welcomed.*

***APPLICABLE STRATEGIC INITIATIVE(S):***

***1. Outreach and Advocacy:*** *As the entity in the State of Colorado, statutorily charged to protect, develop, manage, and safeguard the water resources of the Colorado River Basin for the welfare of the District and for all citizens of Colorado, the River District has a basic responsibility to inform our constituents of statewide and basin-wide issues affecting water users of the Colorado River. In order to achieve the various strategic initiatives outlined in this Plan, the River District recognizes that public support will be required.*

*The District maintains a robust public education and outreach effort through an evolving variety of media and public meetings it either organizes or co-sponsors. Through pro-active involvement and dedication of resources, the District seeks to shape and influence public policy and legislation affecting Colorado River water resources, District water users, and operations of the District.*

***1.A.*** *The River District will continue to enhance and expand partnerships and working relationships with key elected and appointed officials to advance western Colorado's perspectives on proposed legislation and regulations affecting western Colorado water resources at both the state and federal levels.*

***1.B.*** *The River District will assume a leadership role in offering timely and accurate public information regarding topical trends and developments concerning water resources, water use, and water conservation.*

***1.C.*** *The River District will make special efforts to inform and involve community leaders, especially elected leaders, in water-related matters.*

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## **Midterm Elections in the Rearview:**

Republicans on election day secured a majority in the U.S. House of Representatives, and Democrats maintained control in the Senate. In the House, Republicans will carry a slim majority – a final tally of 222 Republicans to 213 Democrats. The 50-seat majority for Senate Democrats grew to 51-49 after incumbent Senator Raphael Warnock (D-GA) defeated Republican challenger Hershel Walker in the December 6<sup>th</sup> runoff. That 51-seat majority, however, will have an asterisk next to it after Arizona Sen. Kyrsten Sinema announced in early December that she will switch her party affiliation from Democrat to independent. What exactly this means for the Democrats is not yet known. Sen. Sinema has been clear that she will not be caucusing with Republicans, but she has not attended Democratic Caucus meetings in the past either.

Many pundits and lawmakers expected a healthy Republican majority in the House and a majority in the Senate in what some were anticipating as a “red wave.” Looking at national results, however, many political observers believe the likely factors that largely kept Democrats in power were voter turnout efforts, the lingering effects of the US Supreme Court’s Dobbs decision, and the quality of the candidates in key swing state races. Unaffiliated voters who were also concerned with crime and inflation ultimately didn’t choose Republican candidates in the numbers that were anticipated.

Environmentalists are touting their successful organizing and outreach strategy that brought “climate voters” to the polls in record numbers to help achieve key Democratic victories in the 2022 midterms and limit GOP gains. Some argue that their successes could help bolster ongoing and future advocacy on climate and environmental policy matters.

Of note, the 2022 midterms saw \$16.7 billion in federal and state spending, setting a record for a midterm election cycle.

## **Congress Passes Massive End-of-Session Omnibus Package:**

On December 23, in the waning hours of the 117<sup>th</sup> Congress, the U.S. House of Representatives passed a \$1.65 trillion [FY23 omnibus funding package](#) by a vote of 225 to 201. The U.S. Senate approved the measure one day prior by a vote of 68-29. Although the House was the last chamber to move on the omnibus, the lion’s share of the package was negotiated and hammered out by leadership in the Senate. Included below are a handful of legislative, appropriations and emergency funding highlights from the bill:

Inclusion of CRWCD Legislative Priorities: With the help of Senators Hickenlooper and Bennet, three bipartisan water bills important to the River District were included in the omnibus package. Those include:

- 1) *S. 3693, Upper Colorado and San Juan River Basins Recovery Act:* This legislation from Senators Hickenlooper (D-CO) and Romney (R-UT) makes minor but needed amendments to





the Upper Colorado River Endangered Fish Recovery Program's federal authorizing legislation. The House companion legislation, H. R. 5001, was led by Rep. Neguse (D-CO) and cosponsored by Rep. Lauren Boebert (R-CO).

The bill authorizes Reclamation funding through FY 24 for the programs, modifies the capital projects ceilings for the Upper Colorado and San Juan programs, changes the date for submittal of a key report by the Secretary of the Interior to Congress on the recovery programs post-2023 activities, and removes a restriction related to signing of the recovery program's cooperative agreements.

The legislation had passed the House, was sent to the Senate, passed by the full Senate Energy and Natural Resources Committee and was awaiting attachment to a larger bill that is assured passage by the Senate.

- 2) S. 4579/H.R. 9173 – The Colorado River Basin Conservation Act: led by U.S. Senators John Hickenlooper (D-CO) and John Barrasso (R-WY) and co-sponsored by Senator Bennet (D-CO), this bill reauthorizes the authority of the Upper Colorado River Commission to enter into water conservation contracts with water users in the upper basin (System Conservation Pilot Program).

As originally drafted, the reauthorization would have lasted through 2026, but was cut in half and, as enacted, reauthorizes the program through the end of 2024.

- 3) Amendment of the Bureau's Small Storage Program – The Omnibus bill amends the minimum size limitation of the Bureau of Reclamation's Small Storage Program (SSP), which was authorized and funded by the Infrastructure Investment and Jobs Act (otherwise known as the Bipartisan Infrastructure Law) earlier this year. By striking "2,000" and inserting "200" this allows the Bureau's SSP funding to be used for small water storage and groundwater storage projects with a minimum size of 200 acre-feet. This amendment was priority for Eagle River Water and Sanitation District and may also prove to be helpful for proposed storage projects on the Grand Mesa.

In the Lower Basin, H.R. 3877 – the Salton Sea Projects Improvements Act was also included in the omnibus package. This bill provides the Bureau of Reclamation additional project authorities to provide grants and enter into contracts to carry out projects to improve air quality, fish and wildlife habitat, recreational opportunities, and water quality in and around the Salton Sea.

### **Annual Appropriations within the Omnibus:**

- Department of the Interior: The bill provides \$1.954 billion for the Department of Interior, which includes \$1.931 billion for the Bureau of Reclamation (BOR). Funding for the BOR includes \$186 million to fund Western drought programs under the WIIN Act. These programs fund long-term drought strategies including, water storage, water recycling and reuse, and desalination.



- Conservation Programs: The bill provides \$941 million to the Natural Resources Conservation Service for Conservation Operations to assist with conservation planning and implementation assistance. The bill also provides \$75 million for Watershed and Flood Prevention Operations to protect and restore watersheds impacted by floods, wildfire and drought across the country.
- U.S. Fish and Wildlife Service: An increase of \$128 million was provided above FY22 enacted levels to bring FY23 levels to \$1.8 billion.
- Army Corps of Engineers: The bill provides \$8.66 billion. This is an increase of \$317 million above FY22 enacted levels.
- Wildland Firefighting: The total annual funding for wildfire suppression is \$4.395 billion, of which \$1.395 billion is provided in base suppression operations, \$2.55 billion is provided in the Wildfire Suppression Operations Reserve Fund, and \$450 million is provided in the disaster supplemental. This is \$550 million (14 percent) more than FY22.
- USDA Rural Development: The bill provides \$430 million in grants and \$1.47 billion in loan authority for rural water and wastewater programs, including up to \$20 million in loans for distressed communities.
- Environmental Protection Agency: \$10.135 billion was included for the EPA, an increase of \$576 million (6 percent) above the FY22 enacted level.
  - o \$76 million in water infrastructure loan programs under the Water Infrastructure Finance and Innovation Act (WIFIA) was included.

#### **Emergency Funding within the Omnibus:**

- Conservation Programs: \$27 million is provided for the Emergency Forest Restoration Program (EFRP) for non-industrial timber restoration, and \$925 million is provided for the Emergency Watershed Protection Program (EWP) for rural watershed recovery.
- Department of the Interior: \$2.43 billion for capacity, repair, and reconstruction needs resulting from hurricanes, flooding, wildfires, and earthquakes, of which \$1.5 billion is for recovery and restoration of access in units of the National Park Service.
- U.S. Forest Service: \$2.056 billion is provided to cover capacity needs related to wildfire emergency management and to provide for repair and reconstruction needs associated with recent wildfires, hurricanes, and other natural disasters.

#### **2023 Farm Bill Updates and Analysis:**

The planning and budgeting process for the 2023 Farm Bill has begun, and Congressional Agriculture committees are starting to outline the next five years' spending for national conservation, food, farm and nutrition programs. District staff is working to prepare for the next farm bill by engaging directly with Colorado Congressional staff, and by working through national agriculture and conservation organizations (Family Farm Alliance, National Water Resources Association, etc). It is expected that a large portion of our work at the District will be devoted to



the 2023 Farm Bill conservation title, which encompasses many of the programs important to on-farm and off-farms water conservation efforts West Slope.

**Senate Likely to Focus on the Middle Ground:** Democrats remaining in charge in the Senate after the election clears the way for Senator Debbie Stabenow (D-Mich.) to again chair the Senate Ag Committee. She would then have the power to control the committee schedule and what it works on — more important in the near term as the current farm bill expires this year. Senator John Boozman (R-Ark.) is expected to remain the committee’s ranking member. He and Senator Stabenow have a good working relationship and the Farm Bill will have to be bipartisan in the Senate to break a 60-vote filibuster. That being said, Senators Stabenow and Boozman’s positive relationship should help smooth the process in the Senate — which will ultimately have the final say on the massive piece of quinquennial legislation.

**Climate Focus Unclear:** The upcoming Farm Bill rewrite should put greater emphasis on climate resilience and organic agriculture, according to a new set of recommendations from a network of conservation and farm groups. The National Sustainable Agriculture Coalition (NSAC) called for changes to key farmland conservation programs to better manage rural land in an era of climate change. Recommendations range from boosting programs that promote healthier soil to reducing crop production in some circumstances. The group released a [144-page report](#) intended to chart a course toward a more climate-friendly farm bill in 2023, but did so well before Republicans took control of the House in the midterm elections. How its priorities will fare in a 2023 farm bill written with more Republican influence remains to be seen.

Democrats and Republicans have been divided over whether measures to address climate change should be part of the half-trillion dollar farm bill. But a push to include funding for so-called regenerative agriculture is appealing to GOP lawmakers who are watching farmers contend with high fertilizer prices and other mounting costs. Democrats want to expand regenerative agriculture in the farm bill and direct USDA to put more resources toward improving soil health across existing conservation programs. Republicans have shown some cautious support for the idea of helping farmers save money while they improve their soil, within limits.

### **Judicial Developments:**

**Federal Court Says Trump Administration's ESA Rules Still on the Books:** A federal judge has ruled that some key Trump Administration rules that govern the Endangered Species Act (ESA) are still in force while the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NOAA) complete a new rulemaking. The agencies are jointly working on the revised ESA rules, which cover complex issues including the designation of critical habitat and different protection levels for threatened as opposed to endangered species.

U.S. District Court for the Northern District of California Judge Jon Tigar rejected a request by environmental groups to vacate the Trump-era rules, stating he could not grant such a request without first making a full decision on the merits of the challenge. The Biden Administration had requested that the Trump ESA rules remain in place while they reconsider the regulations, stating



that a vacatur could be too disruptive and cause confusion in implementing the ESA. Judge Tigar’s decision reversed his earlier ruling that vacated the Trump rules, but that was overturned by the 9th U.S. Circuit Court of Appeals. One of the Trump Administration’s rules in question concerns how FWS and NOAA designate listed species’ critical habitat. Another eliminated FWS’s former policy of automatically extending to 11 threatened species the protections against “take” that the law provides for endangered species. And a third rule changed how FWS and NOAA Fisheries work with federal agencies to prevent proposed agency actions that could harm listed species or their critical habitat.

**Interior Department v Navajo Nation:** The Supreme Court of the United States (SCOTUS) has agreed to consider *Interior Department v. Navajo Nation*, deciding whether the federal government has a duty to protect the Navajo Nation's access to the dwindling flows of the Colorado River. The federal government argues in the case that it is not legally obligated to assess the Navajo Nation's needs because no treaty, agreement or law explicitly addresses the tribe's claim to Colorado River water.

The 9th U.S. Circuit Court of Appeals sided with the Navajo Nation and said Interior had a "duty to protect and preserve the Nation’s right to water." The Biden Administration argued that the lower court ruling would complicate ongoing efforts among Colorado River Basin states to reduce their use of water from the drought-plagued Colorado River. Oral argument is likely in the late March timeframe and the Court will likely issue a decision by June 30, 2023.

**Sackett v. EPA:** Fearing a Supreme Court ruling that could curb Clean Water Act (CWA) protections for wetlands and other water bodies, environmentalists are eyeing a series of alternative protections that they say can be used to temporarily protect waters, including increased conservation funding, stepped up local enforcement and new local mandates. In an issue paper released Nov. 1, a coalition of five national conservation organizations say that such protections are “at best, stopgap measures”. They believe that Congress will have to “step in and reaffirm” the original intent of the CWA: “to establish broad protections for the nation’s waterbodies.” The issue paper, “Clean Water Act on Trial: The Devastating Potential Consequences of *Sackett v. EPA*” examines possible outcomes if the Supreme Court sides with the petitioners in the *Sackett* case, in which agriculture and water groups have asked the Supreme Court to reinterpret the CWA and exclude most wetlands and streams from the definition of “Waters of the United States” (WOTUS). The paper says that Congress needs to step in and reaffirm the original law’s intent to protect all waters.



# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER  
PETER FLEMING, GENERAL COUNSEL

**FROM:** ZANE KESSLER, DIRECTOR OF GOVERNMENT AFFAIRS

**SUBJECT:** 2023 ANNUAL POLICIES REVIEW

**DATE:** JANUARY 1, 2023

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***ACTION:*** Staff requests that the Board review and advise of any desired changes to the attached policies. No formal action is requested.

***STRATEGIC INITIATIVE(S):*** 3. *Climate and Hydrologic Uncertainty:* Climate and hydrologic uncertainty should be a major driver of what the River District does in the mid- to long-term. The impacts to precipitation are not clear. However, the overwhelming evidence indicates a warming and increasingly variable climate. Hotter temperatures will certainly result in increased demands for agricultural and municipal water supplies due to longer and warmer growing seasons. Patterns of snowpack accumulation and runoff will change. Runoff is projected to occur earlier and quicker, and there will be an earlier return to possibly lower base flows after runoff. These factors will stress storage supplies. On a local and regional basis, storage supplies may prove inadequate.

***Strategic Initiatives***

- 3.A. The River District will continue to evaluate and pursue options to increase local water storage supplies and optimize and expand, where appropriate, existing water storage.
- 3.C. The River District will engage in and support water supply planning efforts, local and regional, which include adapting to climate change impacts.
- 3.D. The River District will work with water users to ensure practicable and cost-effective water use efficiencies in all sectors where appropriate for the local conditions.

4. ***Colorado River Supplies:*** Colorado may be closer to full use of its Colorado River supplies than commonly thought. Absent good planning, education, outreach, and mitigation measures to address regional water supply issues, Colorado risks overdevelopment of its Colorado River supplies to the detriment of existing water users. At some level of additional development, all existing uses junior to the compact (more than 500,000 acre feet) are at risk of curtailment under compact administration. The River District's will work on Colorado River Basin contingency planning and compact risk management, both related to low reservoir levels at Lake





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*Powell that threaten power generation and the ability to meet Colorado River Compact obligations, be reflected in the Colorado Water Planning efforts.*

*Strategic Initiatives*

- *4.A. The River District will advocate for full use of its Colorado River Basin water supplies for the benefit of the District's inhabitants, without undue risk of overdevelopment.*
- *4.B. The River District will advocate for full protection and preservation of water rights perfected by use prior to the effective date of the 1922 Compact and thereby excluded from curtailment in the event of compact administration.*

*5. Transmountain Diversions (TMD): The River District was created to protect West Slope interests in the face of transmountain diversions. That role continues today and will likely persist with increased pressure for further Front Range use of Colorado River supplies. The IBCC Conceptual Framework presented in Colorado's Water Plan sets forth seven principles to guide development of any potential new transmountain diversion. The River District will have a leadership role in evaluating any new TMD proposal in the context of the IBCC Conceptual Framework and the District's current policy on transmountain diversions.*

*The River District recognizes that certain existing water right control points on West Slope streams are critical to maintaining West Slope supplies and limiting transmountain diversions and will pursue protection of those water rights. A key provision to the Colorado River Cooperative Agreement pertains to the Shoshone Outage Protocol, which maintains river flows in the event of unscheduled outages of the power plant. The CRCA also provides for an investigation of an acquisition of the power plant and water rights in order to permanently protect the Shoshone Call and the resulting essential river flow.*

*Strategic Initiatives*

- *5.B. The River District will work to ensure that the IBCC Conceptual Framework is honored and fairly implemented.*
- *5.C. The River District will act in accordance with its formally-adopted Policy Statement on Transmountain Diversions.*

*7. Water Needs/Project Development: Through Colorado's Water Plan and the Basin Implementation Plans, water needs within the River District have been, and will continue to be, refined and prioritized. The River District owns a large portfolio of conditional water rights that may be suitable for meeting a portion of the identified water demands. However, developments in judicial case law have made it more difficult for all water users, including the River District, to maintain conditional water rights.*

*Strategic Initiatives*

- *7.C. The River District will look for opportunities where its efforts are needed as a catalyst to help in-District interests plan for and meet their water needs in a manner that is consistent with the District's compact contingency planning goals and objectives.*
  - *7.D. The River District will actively pursue funding sources and provide financial assistance to be used for the refurbishment and modernization of the aging water supply infrastructure within the District in order to help preserve and improve existing supplies and operations.*
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The attached policies are eligible for review by the Board of Directors according to the Board's triennial review process.

As a reminder, the Board's adopted practice is to review approximately one-third of the River District's existing policy statements on a rotating three-year basis. The process starts each January. For a complete list of River District policies, refer to our website:  
[www.coloradoriverdistrict.org/policies/](http://www.coloradoriverdistrict.org/policies/)

While this annual review of policies is a worthwhile endeavor, staff wants to be mindful of the Board's time and would like the discussion and input to be on substantive matters. Staff proposes to only bring substantive changes to the policy to the Board's attention for discussion and will internally handle minor edits such as punctuation and grammar.

This annual policy review is also an opportunity for Directors to consider and request drafting of new policy areas. Under your adopted process, a policy must be on the Board's agenda for at least two quarterly meetings before you take final action to adopt or re-adopt the policy.

Below and attached are four policies due for triennial review in 2023. Staff's recommended revisions for these policies are shown in redline format.

- Interstate Water Marketing
- Funding: Water Infrastructure and Programs
- Colorado River Compacts and Entitlements
- Transmountain Water Diversions

Adopted July 19, 2005  
Revised and readopted April 2008  
Revised and readopted July 2011  
Revised and readopted April 2014  
Readopted April 2017  
Readopted July 2020  
Draft Revisions: January 1, 2023

## Interstate Water Marketing

### **Colorado River Water Conservation District Policy Statements:**

**The Colorado River Water Conservation District (River District) opposes any proposal to market Colorado River water between the states of the Upper Colorado River Basin and Lower Colorado River Basin states without the unanimous consent of all seven states. The District also opposes marketing of Compact-related waters among states of the Upper Colorado River Basin without similar, unanimous consent of the Upper Basin states.**

**Furthermore, the River District will oppose any private or public entity attempting to engage in the interstate marketing of waters decreed for use in the State of Colorado.**

### **Background & Discussion:**

**For the reasons provided in its Policy Statement on Speculation in Water Resources, the River District opposes marketing the nonuse of Western Colorado's water resources for financial profit.**

The State of Colorado is signatory to the 1922 Colorado River Compact and the 1948 Upper Colorado River Basin Compact. The 1922 and 1948 compacts, along with the 1944 International Treaty with Mexico, a number of other federal laws, and United States Supreme Court decisions comprise the "Law of the River." The diversion of Colorado River water for consumptive beneficial uses within the State of Colorado is subject to, and limited by, provisions of the Law of the River.

The Colorado River Compacts of 1922 and 1948 protect Colorado from downstream states claiming prior (senior) use that would preclude Colorado's eventual development of its full entitlement. Accordingly, the compacts must be protected and defended from legal challenge or amendment unless all seven basin states agree to the terms of any proposed change. Any non-consensual proposal to market water between basins may represent an abrogation of the 1922 Compact.

The primary purposes of both compacts are to provide legal certainty regarding how much water each state can develop, to allow states to develop their water resources when the water is needed, and to preclude the interstate application of the prior appropriation doctrine. These, and other, benefits of the compacts outweigh any short-term benefit that may accrue to one state from interstate marketing of its compact-allocated water.



Under most interpretations of the compacts, the upper basin states do not have a clearly quantified allocation. Therefore, one upper basin state selling a portion of its unquantified entitlement is problematic, at best. At worst, it introduces lower basin interests into any eventual resolution of ambiguities in the 1948 Upper Colorado River Basin Compact and changes allegiances within the Upper Basin when negotiating ambiguities in the 1922 Compact.

In the lower basin of the Colorado River, interstate water storage agreements and consensual water marketing among states of the lower basin have been an important tool to manage limited supplies of and increasing demands for Colorado River water. Because of the structure and operation of the Colorado River, consistent with the Colorado River Compact of 1922, the River District fully supports water marketing among the lower basin states of the Colorado River contingent upon their mutual agreement.

Adopted July 18, 2017

Revised and readopted July 2020: Combining separate Funding and Infrastructure policies

Draft Revisions: January 1, 2023

## **Funding: Water Infrastructure and Programs**

### **Colorado River Water Conservation District Policy Statements:**

**The Colorado River Water Conservation District (River District) believes the State of Colorado and the federal government have important roles and responsibilities in water planning and development.**

**Moreover, the state and federal governments should encourage investment in capital maintenance, including extraordinary maintenance, to address and maintain – and upgrade where possible - the full function and benefit of Colorado’s aging water infrastructure.**

**In Colorado, the River District advocates that the state establish reliable and sustainable revenue resources to achieve the above goals. This goal should address full funding of Colorado’s Water Plan.**

**In the meantime, the state must protect revenues dedicated for water projects and programs for their statutorily intended uses (i.e., no more transfers to the General Fund) and develop dedicated revenue sources that provide for consistent and predictable annual appropriations.**

### **Background & Discussion:**

Severance tax and federal mineral leasing (FML) revenues have been the predominant sources of funding for water projects and programs supported and administered by the Colorado Water Conservation Board (CWCB). Historically, all or a portion of these funds have been subject in times of tight state budgets to transfer to the state’s General Fund for non-water related expenditure.

Annual severance tax and FML revenues are largely determined by world energy prices, which fluctuate dramatically year-to-year and are extremely difficult to forecast reliably. ~~An additional challenge to the viability of these funding streams is generated by our society’s push to wean itself from dependence on fossil fuels.~~—These fluctuations, lack of dependable forecasts and an overall declining revenue stream lead to unreliable budgeting and challenging fiscal management. State assistance to water projects and programs is too important to remain reliant on such unpredictable, erratic and declining revenue sources.

In 2019, Colorado voters approved Proposition DD to allow limited sports gambling. Tax revenues, after allocations to prevention programs and administration, will be dedicated to projects and initiatives proscribed in Colorado’s Water Plan. The Colorado River District position is that DD is only a down payment on Colorado’s Water Plan funding and that adoption of additional permanent funding should be a statewide priority.

At the federal level, Congress has helped by passing the Bipartisan Infrastructure Law (BIL), which includes more than \$8 billion for projects that will enhance water supply reliability across the West, including repairing aging dams and canals, building new surface and groundwater storage and conveyance facilities, funding water conservation and recycling projects, and improving watershed and ecosystem management. The package both aligns with the solutions water managers across the Western United States have requested for years and provides a balanced package of tools that local and regional managers may select from to best resolve the water needs and challenges in their local communities.

Since 2019, the State of Colorado has made multiple, one-time transfers from the General Fund to support the Water Plan and Basin Roundtables. In addition, the state has invested funding to support water projects in pursuit of federal funding. As part of the American Rescue Plan Act, a total of \$5 million in federal funding was allocated in 2022 for technical assistance grants to support federal grant applications. To support federal matching needs, the State created the Infrastructure Investment and Jobs Act Cash Fund in 2022 with an initial transfer of \$80 million to be used by state and local governments for non-federal matching funds.

The River District recognizes that being dependent upon federal and state funding for protection of water resources within the District is not the entire solution and as such the District supports the development of a-reliable local funding streams to complement the River District's Community Funding Partnership.

[GO BACK TO AGENDA](#)

[GO BACK TO MEMO](#)

Adopted July 19, 2005

Revised and readopted April 2008

Revised and readopted July 2011

Revised and readopted April 2014

Revised and readopted April 2017

Revised and adopted July 2020 (combining former separate Compacts and Entitlements policies)

[Draft Revisions: January 1, 2023](#)

## Colorado River Compacts and Entitlements

### Colorado River Water Conservation District Policy Statement:

The Colorado River Compacts of 1922 and 1948 must be enforced, protected and defended from legal challenge or amendment unless all seven basin states agree to the terms of any proposed change.

As proscribed in the Colorado River Water Conservation District's (River District) organic legislation in 1937, the River District is "given such powers as may be necessary to safeguard for Colorado, all waters to which the state of Colorado is equitably entitled under the Colorado River Compact."

The River District recognizes that the Colorado River is a highly variable system, and this hydrologic variability is forecast to become more frequent and more pronounced in the future. Therefore, the River District will continue to support ~~the State of Colorado, in cooperation with the other three upper division states, in~~ the development and implementation of compact compliance strategies so that the Upper Basin will be fully prepared for periods of extended droughts in a manner that minimizes ~~impacts to existing uses and minimize~~ the potential for shortages and disruptions to present and future West Slope economies.

New West Slope Colorado River water uses must be developed in a manner that minimizes the risk of compact curtailment to existing users. Any development of new transmountain Colorado River water projects must not increase the risk of compact curtailment to existing users.

The River District shall lead efforts to analyze the risk and risk factors of compact curtailment. Such analyses shall explore early warning signs of possible curtailment and recommend alternative avoidance and mitigation responses.

The River District shall lead the effort to inventory and maximize the efficient use of water supplies exempt from compact administration to ensure western Colorado retains the full benefit of pre-compact water rights.

### Background & Discussion:

The State of Colorado is signatory to the 1922 Colorado River Compact and the 1948 Upper Colorado River Basin Compact. The 1922 and 1948 Compacts, along with the 1944 International Treaty with Mexico, other federal laws, and United States Supreme Court decisions comprise the

“Law of the River.” The diversion of Colorado River water for consumptive beneficial uses within the State of Colorado is subject to, and limited by, provisions of the Law of the River.

The primary purposes of both compacts are to provide legal certainty regarding how much water each state can develop, to allow states to develop their water resources when the water is needed, and to preclude the interstate application of the prior appropriation doctrine. The Colorado River Compacts protect Colorado from downstream states claiming prior (senior) use of the Colorado River that would preclude Colorado’s eventual development of its full consumptive use entitlement.

The 1922 Compact negotiators allocated a greater amount of water than is reliably available. This and other unresolved technical and legal issues result in conflicting interpretations of the 1922 Compact, such as the language allocating the river’s waters: “in perpetuity to the Upper Basin and to the Lower Basin, respectively, the exclusive beneficial consumptive use of 7,500,000 acre feet of water per annum” (Article III(a)) and the requirement that “the States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre feet for any period of ten consecutive years.”(Article III(d)). Interbasin differences also include unresolved issues between the Upper and Lower Basin states regarding respective obligations to meet the United States’ Mexican Treaty obligation. Failure of the seven basin states to harmonize the terms, conditions and interpretation of the compacts by mutual agreement risks unilateral federal intervention to resolve these differences, likely leading to protracted, divisive, and expensive litigation.

~~Today, the 1922 Compact negotiators allocated a greater amount of water than is reliably available. This and other unresolved technical and legal issues result in conflicting interpretations of the 1922 Compact. Resolution of unresolved Colorado River compact issues, such as the Mexican Treaty obligation and the accounting of Lower Basin tributaries, will be challenging, time consuming, and costly. However, the cost of inaction is even greater.~~

Curtailment of Colorado River water uses to meet the 1922 Compact requirements, should it ever occur, is projected to impact all or nearly all post-compact Colorado River water uses. As additional water development in Colorado occurs, the risk of reaching or exceeding our compact entitlement increases. Due to the anticipated magnitude of any potential interstate curtailment, this risk will likely be shared by all post-compact water users in Colorado. The risks to the West Slope posed by the potential acquisition of pre-compact water rights by non-West Slope interests and dry-up of associated agricultural lands must be addressed. Further, the future effects of, and uncertainty surrounding, climate change represent additional risk and challenges regarding determination and management of Colorado’s remaining Colorado River entitlement and must be addressed.

~~The primary purposes of both compacts are to provide legal certainty regarding how much water each state can develop, to allow states to develop their water resources when the water is needed, and to preclude the interstate application of the prior appropriation doctrine. The Colorado River Compacts protect Colorado from downstream states claiming prior (senior) use of the Colorado River that would preclude Colorado’s eventual development of its full consumptive use entitlement.~~

~~There are, however, disputes about the interpretation of the language of the compacts. These include conflicting language allocating the river's waters: "in perpetuity to the Upper Basin and to the Lower Basin, respectively, the exclusive beneficial consumptive use of 7,500,000 acre feet of water per annum" (Article III(a)) and the requirement that "the States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre feet for any period of ten consecutive years."(Article III(d)) Interbasin differences also include unresolved issues between the Upper and Lower Basin states regarding respective water delivery obligations to the Republic of Mexico. Failure of the seven basin states to harmonize the terms, conditions and interpretation of the compacts by mutual agreement invites unilateral federal intervention to resolve these differences and legal proceedings that will be protracted, divisive, and exceptionally expensive.~~

Colorado must continue to improve and refine technical data regarding existing Colorado River uses within the state and throughout the Colorado River Basin, including a consistent and common method for calculating consumptive uses among the four Upper Basin states. Additionally, more and better science must be developed regarding historical Colorado River flows and periodic, sustained droughts, including refinement of paleo-hydrology studies and the potential impacts of climate variability on basin-wide hydrology.

The Colorado River Compact of 1922 expressly grandfathers water uses which pre-date the compact, protecting them from being curtailed ~~if~~when compact administration occurs. Therefore, full legal protection, along with efficient use, including by exchange, is of paramount importance regarding these strategic water rights.

The River District's involvement should include an active education program of its constituents, as well as other affected parties, regarding the issues involved, the importance of water storage and conservation, and the consequences of inaction.

GO BACK TO AGENDA

GO BACK TO MEMO

Adopted March 16, 2000

Revised & readopted July 19, 2005

Revised and readopted April 16, 2008

Revised and readopted July 2011

Revised and readopted April 2017

Revised and readopted July 2020

Draft Revisions: January 1, 2023

## Transmountain Water Diversions

### Colorado River Water Conservation District Policy Statements:

The Colorado River Water Conservation District (River District) believes there is no current or reasonably foreseeable need for new transmountain diversion projects. Transmountain diversion of Colorado River water results in adverse economic, environmental, and recreational impacts to the basin of origin. Front Range water demands can be met through a combination of better groundwater management, conservation, reuse, system interconnections, ~~re-operations,~~ storage of native flows, and in-basin transfers and exchanges.

Nevertheless, transmountain diversion proposals are likely to persist. Accordingly, the River District will continue ~~its historical willingness to represent and protect the interests of its constituents in its thorough examination of all projects that propose to export water from the Colorado's Western Slope examine fairly and thoroughly all project proposals and to work with willing project proponents to determine if an acceptable project can be developed that provides genuine benefits to both the receiving and exporting basins.~~ Additionally, in any examination of potential new transmountain diversion projects, the River District, at a minimum, will insist on adherence to the seven principles enumerated in the "IBCC Conceptual Framework" as described in Colorado's Water Plan, 2015.

The River District will advocate for and pursue full water-related mitigation for every transmountain project. Present and future West Slope water uses, including environmental and recreational needs, must be recognized and protected.

The River District will ensure that mitigation conditions on existing transmountain diversion projects are honored and upheld for the protection of in-basin water users and local environments. Additionally, the River District will advocate-insist that the transmountain diverted waters be efficiently used and fully reused to extinction wherever allowed by law.

Transmountain diversion projects seeking re-operations that result in an expansion of historical use must consult with the basin from which water is being diverted. Alternative re-operation regimes should include those that protect and benefit both the diverter and the basin-of-origin.

### Background:

Most of the Colorado's water is on the western side of the Continental Divide, while Colorado's population lives predominantly along the Front Range on the state's eastern slope. As a result,

Colorado has dozens of water projects that divert water from the Colorado River basin across the Divide. These projects range from small projects diverting a few hundred acre feet of water per year to the Colorado-Big Thompson (C-BT) Project, which diverts an average of more than 220,000 acre feet annually. On average, a total of roughly 500,000 acre feet of Colorado River Basin water is transmountain diverted annually in Colorado.

Transmountain diversion of water is 100% consumptive ~~to~~for the basin-of-origin. As such, transmountain diversion projects, especially larger transmountain diversions, often have unique and significant impacts on the basin from which the water is diverted. Therefore, water diverted across the Continental Divide must be used, reused whenever legally allowable, and be integrated into an overall program of water conservation.

The primary goal of the River District is the protection of existing water uses and preservation of future economic opportunities for the residents of Western Colorado. The River District is committed to meeting the present and future water needs of its residents.

The River District supports the House Bill 05-1177 process that resulted in the 2015 Colorado's Water Plan, especially the basin-by-basin review and identification of both consumptive and non-consumptive water needs and potential supply alternatives. Additionally, the District participated with the Interbasin Compact Committee (IBCC) formed by HB 1177 that developed the consensus criteria that any new transmountain diversion proposal should follow to ensure adequate local input, protection of local authorities, acceptance of hydrologic risk by the proponent, and full mitigation. These criteria are formalized as the "IBCC Conceptual Framework" for new water project development in Colorado's Water Plan, 2015.

Western Colorado's economy is increasingly dependent on tourism-related construction and recreational industries that rely on adequate stream flows and healthy river systems. As such, adequate protections for all Western Colorado water uses, including non-consumptive environmental and recreational uses, benefit the entire state.





# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER

**FROM:** IAN PHILIPS, DIRECTOR OF FINANCIAL AND ADMINISTRATIVE SERVICES  
DON MEYER, SENIOR WATER RESOURCES ENGINEER

**SUBJECT:** WATER MARKETING

**DATE:** JANUARY 4, 2023

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### **ACTIONS:**

*Staff requests that the Board approve the 2023 Water Contract Pricing and recommends an increase of 9.50 %. For contracts entered into prior to 2006 which are subject to a 5-year Operations and Maintenance (O&M) adjustment, staff recommends an 18% increase.*

### **STRATEGIC INITIATIVE(S):**

- 6. Agricultural Water Use*
- 7. Water Needs/Project Development*
- 12. Financial Sustainability*

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### **BACKGROUND**

In 2006, the Board changed the District's water marketing policy to allow annual price increases up to the 'Denver-Aurora-Lakewood' (FKA 'Denver-Boulder-Greeley') Consumer Price Index (CPI) plus New Growth Index (NGI), a measure of annual property value stemming from new growth. Contracts entered after the policy change allow for this annual increase. Prior contracts are limited to increases based on CPI every five years and only for the operation and maintenance (O&M) component of the fee. These prices were last updated in 2018 and are therefore due for review in 2023.

Last year the CPI and NGI were 3.70% and 1.30% respectively, totaling 5.00%, and the Board approved a 5.00% increase. This year the CPI and NGI are 8.0% and 1.58% respectively for a total of 9.58%. It is important to note that the CPI figure of 8.0% is only a projection, and current as of December 2022. The United States is currently facing the highest annual rate of inflation in more than three decades. As shown in the table below, the Board's approved increase of water marketing rates have historically been below the 'allowable' increase. Since 2011, the Board has approved an increase equal to the 'full-allowable' amount on only 3 occasions (in 2011, 2014 and 2022).



Given this current high rate of inflation and the associated increase in the costs of goods and services to the District, staff’s recommendation is an increase of 9.50%.

The O&M charge was increased 12.5% in 2018. The cumulative CPI increase between 2018 and 2023 is an 18.15% increase. Staff’s recommendation is to increase the O&M charge for pre-2006 contracts by 18%.

In February of 2022, the Colorado Water Conservation Board contracted for 1,750 AF of Ruedi supply (one-year contract) for mitigation of anchor-ice in the Fryingpan River. In June of 2022, the National Fish and Wildlife Foundation exercised their option in the Elkhead CRD contract pool, for 1,253 AF to meet the Programmatic Biological Opinion target flows in the Yampa River and improve river flow conditions. In December of 2022, the Roaring Fork Conservancy contracted for 825 AF of Ruedi supply (one-year contract) for mitigation of anchor-ice in the Fryingpan River during two weeks at the end of December 2022. The Colorado Water Conservation Board contracted for 3,041 AF of Ruedi supply (one-year contract) for mitigation of anchor-ice in the Fryingpan River, which is scheduled to be released in January and February of 2023. Staff will continue to explore water marketing opportunities in 2023 and will keep the Board informed of opportunities that can be developed.

**CURRENT AND RECOMMENDED PRICING**

Current and 2023 recommended pricing are shown in the following table:

<b>Post-2006 Contract Pricing Per Acre Foot (AF)</b>			
	<b>Current Pricing</b>	<b>Recommended Increase</b>	<b>Proposed 2023 Pricing</b>
Blue River	\$ 1,221.25	9.50%	\$ <b>1,337.25</b>
Colorado River above Roaring Fork – Ag	\$ 161.75	9.50%	\$ <b>177.00</b>
Colorado River above Roaring Fork	\$ 406.50	9.50%	\$ <b>445.00</b>
Colorado River below Roaring Fork – Ag	\$ 49.50	9.50%	\$ <b>54.00</b>
Colorado River below Roaring Fork	\$ 211.50	9.0%	\$ <b>231.50</b>
Eagle River	\$ 1,628.50	9.50%	\$ <b>1,783.00</b>
Eagle River – Ag	\$ 487.50	9.50%	\$ <b>533.75</b>
Elkhead Reservoir	\$ 207.00	9.50%	\$ <b>226.50</b>
Elkhead Reservoir – Ag	\$ 35.00	9.50%	\$ <b>38.25</b>
<i>Identified Source</i> Colorado River above Roaring Fork – M&I	\$ 610.00	9.50%	\$ <b>667.75</b>
<i>Identified Source</i> Colorado River above Roaring Fork - Ag	\$ 242.50	9.50%	\$ <b>265.50</b>
<i>Identified Source</i> Colorado River below Roaring Fork – M&I	\$ 317.00	9.50%	\$ <b>347.00</b>
<i>Identified Source</i> Colorado River below Roaring Fork - Ag	\$ 73.25	9.50%	\$ <b>80.00</b>
In-Channel – Identified Source: Wolford	\$ 242.50	9.50%	\$ <b>265.50</b>
In-Channel – Identified Source: Ruedi	\$ 73.25	9.50%	\$ <b>80.00</b>



**Older Existing Contracts with 5-year Adjustable O&M**

	Current Updated in 2018	5 Year CPI	Proposed 2023
Colorado Full Agriculture	\$ 138.50	18%	\$ 163.50
Colorado Interim Agriculture	\$ 35.00	18%	\$ 41.25
Colorado Interim M&I Water 91-10Yrs)	\$ 76.50	18%	\$ 90.25
Colorado Interim M&I Water (1-5Yrs)	\$ 103.00	18%	\$ 121.50
Colorado Wholesale M&I Water	\$ 111.00		\$ 111.00
Colorado O&M	\$ 35.00	18%	\$ 41.25
Eagle Wholesale M&I	Variable		
Eagle O&M	\$ 66.50	18%	\$ 78.50
Eagle River Agriculture	\$ 390.75	18%	\$ 461.00
Eagle Interim M&I	\$ 555.25	18%	\$ 655.00

**HISTORY OF ANNUAL PRICE INCREASES COMPARED TO CPI AND LGI**

<u>Year</u>	<u>CPI</u>	<u>(+)</u>	<u>LGI</u>	<u>(=)</u>	<u>Allowable Increase</u>	<u>(vs.)</u>	<u>Approved Increase</u>	<u>Difference</u>
2011	1.00%		1.98%		2.98%		3.00%	0.02%
2012	3.83%		3.18%		7.04%		3.83%	-3.18%
2013	2.10%		1.09%		3.19%		3.00%	-0.19%
2014	2.60%		1.28%		3.88%		3.88%	0.00%
2015	2.80%		1.06%		3.86%		2.80%	-1.06%
2016	1.50%		1.26%		2.76%		1.50%	-1.26%
2017	2.90%		1.32%		4.22%		2.90%	-1.32%
2018	3.00%		1.31%		4.31%		3.00%	-1.31%
2019	3.00%		1.45%		4.45%		3.00%	-1.45%
2020	1.90%		1.56%		3.46%		1.90%	-1.56%
2021	1.70%		1.43%		3.13%		1.70%	-1.43%
2022	3.70%		1.30%		5.00%		5.00%	0.00%

**AVAILABLE SUPPLIES**

Currently contracted (*excluding in-channel use*) and remaining *long and interim term* supplies available for contracting in summer 2023 are shown below. The Ruedi amount available shown in the table does not reflect the additional 4683.5 AF of Ruedi water supplies purchased from Reclamation by the Governmental Fund in 2013 to fully contract Ruedi Round II water, as that water was purchased with Capital Fund monies and is therefore not currently an Enterprise (Proprietary) asset and not included in the marketable pool of water available for lease.

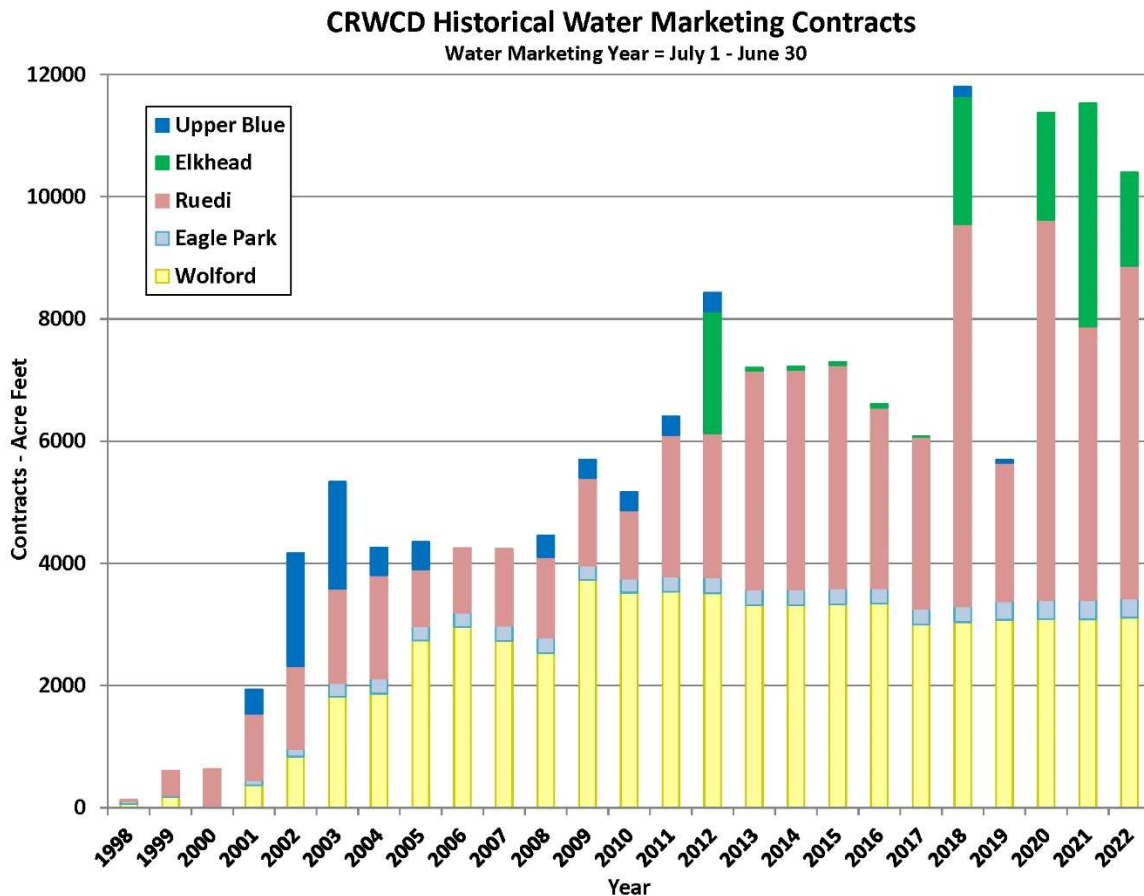
<b>Source</b>	<b>Available</b>	<b>Contracted</b>	<b>Pending</b>	<b>Remaining</b>	<b>Right of Refusals</b>	<b>Remaining w/ ROR &amp; Pending</b>
Wolford	8,100 AF	3,114 AF	0 AF	4,986 AF		4,986 AF



Ruedi	6,730 AF	1,580 AF	0 AF	5,150 AF	900 AF	4,250 AF
Eagle Park	432 AF	310 AF	0 AF	122 AF		122 AF
Elkhead	4,457 AF	0 AF	0 AF	4,457 AF		4,457 AF
<b>TOTAL</b>	<b>19,719 AF</b>	<b>5,004 AF</b>	<b>0 AF</b>	<b>14,715 AF</b>	<b>900 AF</b>	<b>13,815 AF</b>

**HISTORICAL CONTRACTING**

The following graph shows the amount of water contracted over time from the Enterprise’ dedicated water marketing pools in Elkhead, Wolford, Eagle Park and Ruedi, *including in-channel use (2022 amount includes current 3,041 AF CWCB contract)*. Without single year in-channel leasing, the volume leased under long-term contracts has generally remained flat, or slightly declined.



**Ruedi In-Channel Leases**

Between 2018 - 2021, the Colorado Water Conservation Board (CWCB) contracted for 10,500 AF of Ruedi supply (one-year contracts) for mitigation of anchor-ice in the Fryngpan River, which was released early in the following year. In February of 2022, the CWCB contracted for 1,750 AF of Ruedi Supply for mitigation of anchor-ice in the Fryngpan River. In late 2022 the Roaring



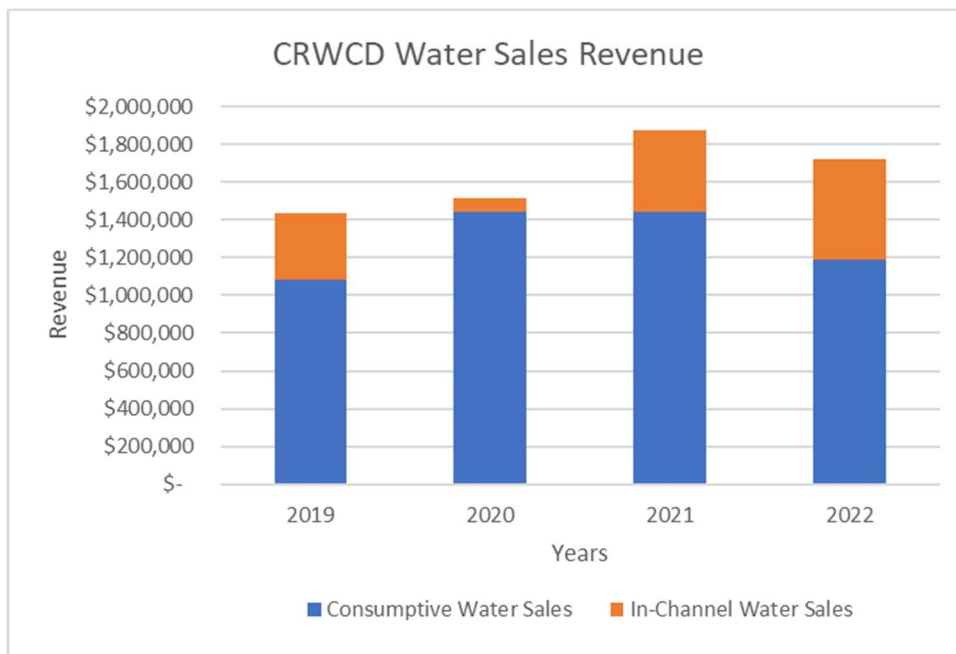
Fork Conservancy also contracted for 825 AF of Ruedi Supply for mitigation of anchor-ice in the Fryingpan River. The chart above also includes a CWCB lease of 3,041 AF for mitigation of anchor ice to be released in early 2023. The chart below is reflective of fiscal/calendar year and does not include a CWCB lease of 3,041 AF.

**Elkhead Leases**

The chart below includes Elkhead water leased in 2020 (1,500 AF), 2021 (1,253 AF), and 2022 (1,528 AF) from the dedicated contract pool for in-channel use pursuant to the USFWS Short Term Lease Program, to supplement Recovery Program deliveries to the Endangered Fish Critical Reach.

**Importance of In-Channel Leases**

The Enterprise Fund is mainly supported by annual water sales. Consumptive water contracts have remained relatively stagnant over the past decade. Since 2019, the In-Channel water leases have generated \$1,390,664 dollars. In certain years the percentage of In-Channel water sales revenue is as high as 31% of total water sales revenue. The following chart reflects recent revenue increases due to in-channel use (single year) leases relative to consumptive (full and interim term) leases. The Board policy currently limits in-channel leases to one year; however, staff is proposing changes to this policy, please see the related memo in the Board packet.





# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD  
ANDY MUELLER, GENERAL MANAGER

**FROM:** BRENDON LANGENHUIZEN, DIRECTOR OF TECHNICAL ADVOCACY  
HUNTER CAUSEY, DIRECTOR OF ASSET MANAGEMENT, CHIEF ENGINEER

**SUBJECT:** IN-CHANNEL USE WATER MARKETING POLICY REVISION

**DATE:** JANUARY 6, 2023

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### ***ACTIONS:***

*Staff requests the River District Board amend its Water Marketing Policy to allow multi-year in-channel use contracts for up to five years with annual approval by the River District General Manager.*

### ***APPLICABLE STRATEGIC INITIATIVES:***

- 7.C Water Needs/Project Development*
  - 12. Financial Sustainability*
- 

The River District Board amended its Water Marketing Policy in 2018 to approve leases for in-channel uses for the first time. This change established a new market for the River District Enterprise, which has steadily grown and currently comprises 28% of the water market sales revenue. Due to significant interest in in-channel use contracts, staff recommends removing the single-year contract limitation currently in place for in-channel leases and allow contracts for up to five years in duration. The intent of the increase in term length is to address requests by contractees to simplify the contracting process and add more certainty to the availability of water. These changes will ultimately make in-channel use contracts more attractive and aid the growth of this market in the future.

Considering the changing and drying climate and recent heavier reliance on reservoir storage by all water users, staff recommends adding a condition that in-channel use contracts be subject to annual approval of the General Manager. This condition will allow the River District to prioritize available storage should a concern arise regarding the availability of supplies not foreseen when the agreement was initially contemplated. Additionally, staff will assess and monitor available water market firm yield impacts from interim-term in-channel use contracts and establish protocols to protect long-term contracts firm yield such that could be used to inform the General Manger in his annual approvals. In the event the General Manager partially approves an in-channel use



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contract in a given year, the annual fee will only be assessed for that amount of water available for release that year.

Staff further recommends Paragraph 6 of the policies, which addresses shortage criteria, be modified such that in times of shortage, all in-channel use contracts be pro-rata shorted up to 100% prior to interim and full-term agricultural and M&I contracts being shorted. Additional Paragraph 6 modifications are recommended to first short out-of-basin contracts prior to any other contract taking a shortage.

Attached are redlines of the Water Marketing Policies for the Yampa River and Colorado River Supplies. It's important to note that the proposed amendments do not alter the maximum limits and would continue to require any request for amounts above the maximum be brought to the Board for approval.

Attachments:

Draft Water Marketing Policy for the Yampa River Supplies

Draft Water Marketing Policy for the Colorado River Supplies



**COLORADO RIVER DISTRICT**  
PROTECTING WESTERN COLORADO WATER SINCE 1937

**WATER MARKETING POLICY OF THE  
COLORADO RIVER WATER CONSERVATION DISTRICT'S  
COLORADO RIVER WATER PROJECTS ENTERPRISE  
FOR THE  
YAMPA RIVER BASIN**

**January 18, 2023~~February 9, 2022~~**

**All Prior Versions Superseded**



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1. PURPOSE OF MARKETING PROGRAM. The Colorado River Water Conservation District's ("District") Colorado River Water Projects Enterprise ("Enterprise") is authorized and directed to provide for the beneficial use of water available for use from the Enterprise's storage capacity in Elkhead Reservoir. The Enterprise's Board of Directors has approved the marketing of such water and other Enterprise water supplies as may be used to complement the use of such Reservoirs' water supplies through a contracting program described herein.
  
  2. AUTHORITIES UNDER PROGRAM.
    - a. The General Manager is delegated the authority of the Board to implement and administer this Policy and the water supply contracts and assignments made pursuant to this Policy subject to the several specific reservations of Board authority stated herein. The General Counsel shall assist in the negotiation and drafting of the Water Supply Contracts.
  
    - b. The General Manager is authorized by the Board to execute the Water Supply Contracts made pursuant to this Policy on behalf of the Enterprise without further Board action.
  
    - c. The General Counsel is directed and authorized to oppose Water Court applications which propose use of the Enterprise's water supplies without the existence of a current Water Supply Contract or otherwise at variance with this Policy.
  
  3. SOURCES AND SCOPE OF MARKETING PROGRAM.
    - a. Sources: "Yampa River Supply". Water delivered from Elkhead Reservoir, for which a storage water right decree was obtained by the River District in Case No. 02CW106, District Court for Colorado, Water Division No. 6, and for which additional storage water right decrees may be obtained in the future by the River District, and other water sources available to the Enterprise for use in its Water Marketing Program.
  
    - b. Geographic. The Enterprise may enter into contracts with third parties for use of Enterprise water supplies directly, or by exchange or augmentation, within Colorado Water Division No. 6, subject to site-specific determination by the District's General Manager and General Counsel of the legal and physical feasibility of such use and subject to the principles stated herein. The Enterprise will not contract to provide a water supply to any parcel of land that was previously served with water rights that were conveyed out of Water Division No. 6, absent express approval of the Enterprise Board of Directors. Contracts with third parties for use of the Enterprise water supplies outside of Colorado Water Division No. 6 or to facilitate uses outside of Water Division No. 6 (including for use outside of, or to facilitate use outside of, the District) require express approval, including pricing, by the Board of Directors.

- c. Conservancy District Programs. Several water conservancy districts are located within the District and have implemented, or plan to implement, water supply programs for the types of water use authorized by this Water Marketing Policy. In the interest of promoting maximum beneficial use of water within the District, it is appropriate to relate the Enterprise's water marketing program with the water supply programs and service areas of conservancy districts within the District in order to ensure the legal and financial integrity of all of those programs. The following principles are adopted in regard to such conservancy district water supply programs.
- i. The Enterprise recognizes the conservancy districts' first right to serve retail users within their service areas. The Enterprise may enter into contracts with that category of users within a conservancy district's service area which has an existing program to serve such users only if that conservancy district is unable or unwilling to provide service.
  - ii. Unless the Enterprise has entered into an agreement with a conservancy district by which that district will provide Enterprise supplies to wholesale users within a defined service area, the Enterprise may only enter into contracts with wholesale users which require a Water Supply Contract in excess of 50 acre-feet annually within any conservancy district's service area.
  - iii. The Enterprise may enter into contracts with the conservancy districts so that those districts can use Enterprise water in their water supply programs.
  - iv. The Enterprise will give notice to conservancy districts and other interested persons at such times when the Enterprise has entered into contracts which total approximately 50% and 75% of available Enterprise Yampa River Supply.
  - v. As a condition of the application of these principles regarding a specific conservancy district, such conservancy district's service area shall be defined by a map and explanatory information presented to the Enterprise by the conservancy district, which map and information are acceptable to the General Manager or to the Enterprise's Water Supply Projects Committee.

**4. NATURE OF WATER SERVICE.**

- a. Contract Form. The Enterprise shall provide water supply for agricultural and for municipal and industrial uses pursuant to contracts in the form attached hereto as Appendix A. That form of the Water Supply Contract shall be used for all Contract applications made on and after the date of the adoption of this Policy as revised, and that form also may be used for Contract applications which are in progress as of such date if the Contract applicant agrees. The Board reserves the authority to modify the substance of the Water Supply Contract on a case-by-case basis. The

General Manager and General Counsel may make non-substantive changes to the Contract on a case-by-case basis in order to tailor that Contract to specific situations.

- b. Type of Service. Service is “wholesale,” which means that the Enterprise will deliver water at the outlet of the Enterprise’s storage facilities into a stream system and that the user is responsible at the user’s sole cost for arranging and obtaining the legal use or credit.
- c. Primary Sources of Supply. As previously described in subparagraph 3.a. above, the Enterprise’s supply of water for the program described herein is anticipated to derive substantially from the following sources of supply:
  - i. Yampa River Supply. The Enterprise’s portion and share of the yield of Elkhead Reservoir, located on Elkhead Creek, a tributary of the Yampa River.
- d. Alternate Sources of Supply. The Enterprise may, in its discretion, provide water from alternate sources, provided that the releases from alternate facilities are suitable to physically meet the calling water right.

**5. CONTRACTING PROCESS AND TERMS.**

- a. Timing. As to particular sources of supply, the Enterprise shall not execute any contracts until that source has been legally acquired by the Enterprise and all needed permits satisfactory to the General Manager have been issued by appropriate agencies and received by the Enterprise. Pending legal acquisition of and the receipt of all permits for a particular source of supply, the Enterprise will process contract applications for such source but will defer contract execution.
- b. Applications and Fees.
  - i. Prospective Contractors shall make written application to the Enterprise on forms prepared by Enterprise staff and approved by the General Manager and General Counsel. Such completed application forms shall be accompanied by the Contractor’s non-reimbursable payment to the Enterprise of \$250.00 as the fee for the Enterprise’s processing of the application for approval, but, if the Contractor has filed a Water Court application without having executed a Water Supply Contract and the District has opposed that Application as provided in subsection 2.c. above, at the General Manager’s discretion the Contractor’s application fee shall be \$500.00.

- ii. The General Manager will impose a fee of \$250.00 for contract amendments and assignments. At the General Manager’s discretion, the assignment and/or amendment fee for clerical, non-technical changes for qualified non-profits (*i.e.*, 501(c)(3) type organizations) may be waived.
  
- c. Verification of Need. The application process shall include a description by the contract applicant of the nature of its water service, its places of use, its available water rights and supplies, and need for Contracted Water. The need of the contract applicant for program water in the quantity requested shall be verified by the General Manager, in consultation with the General Counsel as necessary. If the General Manager determines that all or any portion of a water contract request is not based upon legitimate need, the General Manager shall report that finding to the Enterprise Board, and the Board will allow the contract applicant to present written information in support of its claimed need. The Board’s decision on such matters shall be final.
  
- d. Consistency with Conservancy District Programs. The General Manager and General Counsel shall review all contract applications for consistency with the principles stated herein and in any separate agreements regarding water conservancy district water supply programs.
  
- e. Minimum and Maximum Quantities. The minimum amounts of water which may be contracted pursuant to this Policy shall be not less than 0.1 acre foot annually. The maximum amounts of water which may be contracted to each entity pursuant to this Policy shall be as set forth below unless otherwise approved by the Enterprise Board on a case-by-case basis.

<b>Source</b>	<b>Maximum</b>
Yampa River Supply	250 AF

- f. Project Year. The basis for calculating payment and delivery obligations shall be “Project Year” or multiples thereof, which shall be the period from July 1 in one year through June 30 in the succeeding year.
  
- g. Terms of Contracts. Three options are available for Contract terms.
  - Full Term: Contracts for five years to a maximum of 40 years from the date of execution of the Contract, with right to renew for a secondary term of 35 years, shall be considered full-term contracts.
  
  - Interim: Contracts for five (5) years or less from the date of execution of the Contract shall be considered interim-term contracts. Water for out-of-basin uses will be offered on an interim basis only.

- In-Channel Use: Contracts shall be limited to five (5) years or less and subject to annual approval by the General Manager. ~~in duration to one (1) Project Year and any renewal will require the written approval of the River District.~~
- h. Pricing. The price for each type of water will be reviewed and set annually by the Enterprise’s Board of Directors (which decision normally will be made prior to March 1 each year). Any annual increase in the contract price shall not exceed the then-current published Consumer Price Index (CPI) plus New Growth Index (NGI). The approved pricing for the current Project Year is as follows:

<b>SUPPLY PRICING</b>	
Yampa River: M&I	\$207.00 AF/year
Yampa River: Agricultural (full-term: 5-40 years)	\$207.00 AF/year
Yampa River: Agricultural (interim: 1-5 years)	\$35.00 AF/year
Yampa River: In-Channel Use (1- <u>5</u> years <u>only</u> )	\$35.00 AF/year

- i. Minimum Charges. The charge for water will be based upon the amount contracted times the applicable price, except that the minimum annual billing for any type of Supply shall be \$50.00, which amount shall escalate in the same manner as provided in subparagraph h. above.
- j. Payment after Renewal. If after the expiration of the initial 40-year term of the Contract, Contractor shall have the right to renew this Contract for the same Contracted Water amount for a secondary term of thirty-five (35) years, upon such terms and conditions as the River District is offering at that time, provided that the River District is offering up the full amount of Contracted Water for lease. In the event that the River District, on a non-discriminatory basis, decides not to offer up the full amount of the Contracted Water for lease, Contractor shall have the right to renew for a secondary term of thirty-five (35) years such lesser portion of the Contracted Water as may be offered by the River District.
- k. Assessments. Contractor shall pay any special assessment levied by the River District on Contractor to recoup expenses from extraordinary maintenance incurred by the River District or assessed upon the River District by its third party suppliers.
- l. Contract Execution. The applicant(s) for a Water Supply Contract shall have sixty (60) days after mailing or electronically transmitting the final Contract document to them in which to execute the final Contract and deliver the executed originals to the District’s offices. If such execution and delivery are not accomplished in that time, the applicant shall be deemed to have rejected the District’s offer to contract.
- m. Limitation on Disposition. Contractors may not sublet, sell, donate, loan or otherwise dispose of any of its rights to a Contract or Contracted Water without

prior written notice to, and the written approval of, the Enterprise. The Enterprise will approve such disposition in all instances in which a permanent transfer of the Contract is to be made to a successor in interest of Contractor by reason of the transfer of the title or other legal right to use the property served by the Contracted Water, or where the transfer is made to an entity such as a homeowners' association or special district created to serve the property originally represented to the Enterprise to be served with the Contracted Water. Any disposition of a Contractor's rights to a Contract or Contracted Water must be by written instrument signed by the Enterprise. An example of a Contract Assignment form is attached hereto as Appendix B. As provided in subparagraph 5.b.ii. above, a \$250.00 fee will be imposed for each contract assignment.

- n. Pricing upon Assignment. Assignment of a Contract will be subject to review and approval by the Enterprise, along with the then-current pricing and policy in effect at the time of the assignment.
6. SHORTAGE CRITERIA. Water shortages among the Enterprise's Contractors shall be apportioned in the following sequence:
- a. Out-of-basin contracts are pro-rata shorted up to 100%.
  - a.b. Non-firm contracts, when and if authorized by the Board, are pro-rata shorted up to 100%.
  - b.c. One-year ~~and out-of-basin~~ contracts are ~~then~~ pro-rata shorted up to 100%.
  - d. In-channel use contracts for two to five years are pro-rata shorted up to 100%.
  - e.e. Interim agricultural contracts for two to five years are then pro-rata shorted up to 100%.
  - d.f. Interim M&I contracts for two to five years are then pro-rata shorted up to 100%.
  - e.g. All remaining contracts then are shorted as necessary on a pro-rata basis.
7. DELIVERY CONTINGENCIES. There are several assumptions upon which the Enterprise's ability to deliver water pursuant to this Water Marketing Policy are contingent.
- a. Terms and conditions of applicable Water Court decrees for the sources of supply.
  - b. Terms and conditions of permits for all of said sources of supply and their related facilities.
  - c. The River District's and Enterprise's authorities pursuant to the River District Organic Act, C.R.S. §37-46-101, *et seq.*, and other applicable Colorado Constitutional and statutory provisions, including the Water Activity Enterprise Act, C.R.S. § 37-45.1-101, *et seq.*
  - d. Terms and conditions of any substitute supply plans and plans for augmentation or exchange regarding Contractors' use of the sources of supply.



**COLORADO RIVER DISTRICT**  
PROTECTING WESTERN COLORADO WATER SINCE 1937

**WATER MARKETING POLICY OF THE  
COLORADO RIVER WATER CONSERVATION DISTRICT'S  
COLORADO RIVER WATER PROJECTS ENTERPRISE**

**January 18, 2023~~February 9, 2022~~**

**All Prior Versions Superseded**



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1. PURPOSE OF MARKETING PROGRAM. The Colorado River Water Conservation District's ("District") Colorado River Water Projects Enterprise ("Enterprise") is authorized and directed to provide for the beneficial use of water available for use from the Enterprise's storage capacity in Wolford Mountain Reservoir and other sources of supply such as Eagle Park Reservoir. The Enterprise's Board of Directors has approved the marketing of such water and other Enterprise water supplies as may be used to complement the use of such Reservoirs' water supplies through a contracting program described herein.
2. AUTHORITIES UNDER PROGRAM.
  - a. The General Manager is delegated the authority of the Board to implement and administer this Policy and the water supply contracts and assignments made pursuant to this Policy subject to the several specific reservations of Board authority stated herein. The General Counsel shall assist in the negotiation and drafting of the Water Supply Contracts.
  - b. The General Manager is authorized by the Board to execute the Water Supply Contracts made pursuant to this Policy on behalf of the Enterprise without further Board action.
  - c. The General Counsel is directed and authorized to oppose Water Court applications which propose use of the Enterprise's water supplies without the existence of a current Water Supply Contract or otherwise at variance with this Policy.
3. SOURCES AND SCOPE OF MARKETING PROGRAM.
  - a. Sources.
    - i. "Colorado River Supply". Water delivered from Wolford Mountain Reservoir, for which storage water right decrees were obtained by the River District in Cases No. 87CW283, 95CW281, and 98CW237, District Court for Colorado Water Division No. 5, and for which additional storage water right decrees may be obtained in the future by the River District, water available from the River District's contractual right to water deliveries from Ruedi Reservoir, and other water sources available to the Enterprise for use in its Water Marketing Program.
    - ii. "Eagle River Supply". Water delivered from Eagle Park Reservoir or Homestake Reservoir and other supplies available to the River District as a shareholder in the Eagle Park Reservoir Company.
  - b. Volumetric.
    - i. Colorado River Supply. Based upon the program's "Hydrology Assumptions," attached as Appendix "A" to the Policy, up to but not more than 8,100 acre feet of Wolford Mountain Reservoir water per Project Year shall be available for contracted delivery by the Enterprise. The entirety of the amount of water contracted by the Enterprise from the U. S. Bureau of Reclamation for delivery from Ruedi Reservoir shall be available for delivery by the Enterprise as a component of this supply.
    - ii. Eagle River Supply. Based on the availability of 432 acre feet of average annual yield from Eagle River sources, not more than 432 acre feet of Eagle River sources water per Project Year shall be available for contracted delivery by the Enterprise.

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- c. Geographic. The Enterprise may enter into contracts with third parties for use of Enterprise water supplies directly, or by exchange or augmentation, within Colorado Water Division No. 5, subject to site-specific determination by the District's General Manager and General Counsel of the legal and physical feasibility of such use and subject to the principles stated herein. The Enterprise will not contract to provide a water supply to any parcel of land that was previously served with water rights that were conveyed out of Water Division No. 5, absent express approval of the Enterprise Board of Directors. Contracts with third parties for use of the Enterprise water supplies outside of Colorado Water Division No. 5 or to facilitate uses outside of Water Division No. 5 (including any use outside of, or to facilitate use outside of, the District) require express approval, including pricing, by the Board of Directors.
- d. Conservancy District Programs. Several water conservancy districts are located within the District. The Basalt Water Conservancy District, Middle Park Water Conservancy District, and West Divide Water Conservancy District have implemented or plan to implement water supply programs for the types of water use authorized by this Water Marketing Policy. In the interest of promoting maximum beneficial use of water within the District, it is appropriate to relate the Enterprise's water marketing program with the water supply programs and service areas of conservancy districts within the District in order to ensure the legal and financial integrity of all of those programs. The following principles are adopted in regard to such conservancy district water supply programs.
- i. The Enterprise recognizes the conservancy districts' first right to serve retail users within their service areas. The Enterprise may enter into contracts with that category of users within a conservancy district's service area which has an existing program to serve such users only if that conservancy district is unable or unwilling to provide service.
  - ii. Unless the Enterprise has entered into an agreement with a conservancy district by which that district will provide Enterprise supplies to wholesale users within a defined service area, the Enterprise may only enter into contracts with wholesale users which require a Water Supply Contract in excess of 50 acre feet annually within any conservancy district's service area.
  - iii. The Enterprise may enter into contracts with the conservancy districts so that those districts can use Enterprise water in their water supply programs.
  - iv. The Enterprise will give notice to conservancy districts and other interested persons at such times when the Enterprise has entered into contracts which total approximately 50% and 75% of available Enterprise Colorado River Supply.
  - v. As a condition of the application of these principles regarding a specific conservancy district, such conservancy district's service area shall be defined by a map and explanatory information presented to the Enterprise by the conservancy district, which map and information are acceptable to the General Manager or to the Enterprise's Water Supply Projects Committee.
4. NATURE OF WATER SERVICE.
- a. Contract Form. The Enterprise shall provide water supply for agricultural and for municipal and industrial uses pursuant to contracts in the form attached hereto as Appendix "B". That form of the Water Supply Contract shall be used for all Contract applications made on and after the date of the adoption of this Policy as revised, and that form also may be used for Contract applications which are in progress as of such date if the Contract applicant agrees. The Board reserves the authority to modify the substance of the Water Supply

Contract on a case-by-case basis. The General Manager and General Counsel may make non-substantive changes to the Contract on a case-by-case basis in order to tailor that Contract to specific situations.

- b. Type of Service. Service is “wholesale,” which means that the Enterprise will deliver water at the outlet of the Enterprise’s storage facilities into a stream system and that the user is responsible at the user’s sole cost for arranging and obtaining the legal use or credit.
- c. Primary Sources of Supply. As previously described in subparagraph 3.a. above, the Enterprise’s supply of water for the program described herein is anticipated to derive substantially from the following sources of supply:
  - i. Colorado River Supply. The Enterprise’s portion and share of the yield of Wolford Mountain Reservoir, located on Muddy Creek, a tributary of the Colorado River; and the Enterprise’s yield from Ruedi Reservoir, located on the Fryingpan River, a tributary of the Roaring Fork River/Colorado River system, pursuant to existing and anticipated future contracts between the Enterprise and the U.S. Bureau of Reclamation. The Enterprise’s Ruedi Reservoir supply is operationally bundled with its Wolford Mountain Reservoir supply, and the Water Supply Contract allows the Enterprise to deliver Colorado River Supply from either Wolford Mountain Reservoir or Ruedi Reservoir if suitable to physically meet the Contractor’s needs or the calling right. Contractors are therefore advised to include both Wolford Mountain Reservoir and Ruedi Reservoir in any augmentation, exchange, and/or temporary substitute supply plan(s) that rely on the Enterprise’s Colorado River Supply. Contractors have the option of identifying and contracting for a sole source of supply, either Wolford Mountain Reservoir or Ruedi Reservoir, “Identified Source of Supply Contracts” are limited as set forth in 5.e below and subject to the stated pricing in 5.h.
  - ii. Eagle River Supply. The Enterprise’s yield from Eagle Park Reservoir, located in the headwaters of the Eagle River, as a Class A shareholder in the Eagle Park Reservoir Company; the Enterprise’s yield from Homestake Reservoir, located on Homestake Creek, a tributary of the Eagle River, as a Class B shareholder in the Eagle Park Reservoir Company; and from other classes of stock that the Enterprise may acquire in the Eagle Park Reservoir Company. The Water Supply Contract allows the Enterprise’s Colorado River Supply to be substituted for Eagle River Supply to satisfy calls by senior water rights downstream of the confluence of the Eagle and Colorado Rivers. Applicants are therefore advised to include the Enterprise’s Colorado River Supply in any augmentation, exchange, and/or temporary substitute supply plan(s) that rely on the Enterprise’s Eagle River Supply.
- d. Alternate Sources of Supply. The Enterprise may, in its discretion, provide water from alternate sources, provided that the releases from alternate facilities are suitable to physically meet the calling water right.

## 5. CONTRACTING PROCESS AND TERMS.

- a. Timing. As to particular sources of supply, the Enterprise shall not execute any contracts until that source has been legally acquired by the Enterprise and all needed permits satisfactory to the General Manager have been issued by appropriate agencies and received by the Enterprise. Pending legal acquisition of and the receipt of all permits for a particular source of supply, the Enterprise will process contract applications for such source but will defer contract execution.

- b. Applications and Fees.
- i. Prospective Contractors shall make written application to the Enterprise on forms prepared by Enterprise staff and approved by the General Manager and General Counsel. Such completed application forms shall be accompanied by the Contractor's non-reimbursable payment to the Enterprise of \$400 as the fee for the Enterprise's processing of the application for approval, but, if the Contractor has filed a Water Court application without having executed a Water Supply Contract and the District has opposed that Application as provided in subsection 2.c. above, at the General Manager's discretion the Contractor's application fee shall be \$800.
  - ii. The General Manager will impose a fee of \$400 for contract amendments and assignments. At the General Manager's discretion, the assignment and/or amendment fee for clerical, non-technical changes for qualified non-profits (*i.e.*, 501(c)(3) type organizations) may be waived.
- c. Verification of Need. The application process shall include a description by the contract applicant of the nature of its water service, its places of use, its available water rights and supplies, and need for Contracted Water. The need of the contract applicant for program water in the quantity requested shall be verified by the General Manager, in consultation with the General Counsel as necessary. If the General Manager determines that all or any portion of a water contract request is not based upon legitimate need, the General Manager shall report that finding to the Enterprise Board, and the Board will allow the contract applicant to present written information in support of its claimed need. The Board's decision on such matters shall be final.
- d. Consistency with Conservancy District Programs. The General Manager and General Counsel shall review all contract applications for consistency with the principles stated herein and in any separate agreements regarding water conservancy district water supply programs.
- e. Minimum and Maximum Quantities. The minimum amounts of water which may be contracted pursuant to this Policy shall be not less than 0.1 acre foot annually. The maximum amounts of water which may be contracted to each entity pursuant to this Policy shall be as set forth below unless otherwise approved by the Enterprise Board on a case-by-case basis. A municipality may accumulate greater than 20 acre feet of Eagle River Supply if it requires as a condition of annexation the conveyance of an existing water supply contract for Eagle River Supply to serve the annexed parcel. Contracts shall be rounded off in one-tenth acre foot units.

<b>Source</b>	<b>Maximum</b>
Colorado River Supply	1,000 AF
Eagle River Supply	20 AF
Identified Source of Supply	10 AF*

\* Identified Source of Supply Contracts are limited to an overall cumulative amount of 100 AF.

- f. Project Year. The basis for calculating payment and delivery obligations shall be "Project Year" or multiples thereof, which shall be the period from July in one year through June in the succeeding year.
- g. Terms of Contracts. Three options are available for Contract terms.

- Full Term: Contracts for five years to a maximum of 40 years from the date of execution of the Contract, with right to renew for a secondary term of 35 years, shall be considered full-term contracts.
  - Interim: Contracts for five (5) years or less from the date of execution of the Contract shall be considered interim-term contracts. Water for out-of-basin uses will be offered on an interim basis only.
  - In-Channel Use: In-Channel Use Contracts shall be limited to five (5) years or less and subject to annual approval by the General Manager in duration to one (1) Project Year and any renewal will require the written approval of the River District.
- h. Pricing. The price for each type of water will be reviewed and set annually by the Enterprise’s Board of Directors (which decision normally will be made prior to March 1 each year). Any annual increase in the contract price shall not exceed the then-current published Consumer Price Index (CPI) plus New Growth Index (NGI). The approved pricing for the current Project Year is as follows:

<b>SUPPLY PRICING</b>	
Blue River Water (only year-to-year contracts available at this time)**	\$1,221.25 per AF/year
Colorado River <i>above</i> the Roaring Fork Confluence: M&I	\$406.50 per AF/year
Colorado River <i>above</i> the Roaring Fork Confluence: Agricultural	\$161.75 per AF/year
Colorado River <i>below</i> the Roaring Fork Confluence: M&I	\$211.50 per AF/year
Colorado River <i>below</i> the Roaring Fork Confluence: Agricultural	\$49.50 per AF/year
Identified Source of Supply <i>above</i> the Roaring Fork Confluence (Wolford): M&I	\$610.00 per AF/year
Identified Source of Supply <i>above</i> the Roaring Fork Confluence (Wolford): Agricultural	\$242.50 per AF/year
Identified Source of Supply <i>below</i> the Roaring Fork Confluence (Ruedi): M&I	\$317.00 per AF/year
Identified Source of Supply <i>below</i> the Roaring Fork Confluence (Ruedi): Agricultural	\$73.25 per AF/year
Eagle River Water: M&I	\$1,628.00 per AF/year
Eagle River Water: Agricultural	\$487.50 per AF/year
In-Channel – Identified Source: Wolford	\$242.50 per AF/year
In-Channel – Identified Source: Ruedi	\$73.25 per AF/year

\*\*Please contact the River District at (970) 945-8522 regarding availability.

- i. Minimum Charges. The charge for water will be based upon the amount contracted times the applicable price, except that the minimum annual billing for any type of Supply shall be \$50.00, which amount shall escalate in the same manner as provided in subparagraph h. above.
- j. Payment after Renewal. If after the expiration of the initial 40-year term of the Contract, Contractor shall have the right to renew this Contract for the same Contracted Water amount for a secondary term of thirty-five (35) years, upon such terms and conditions as the River District is offering at that time, provided that the River District is offering up the full amount of Contracted Water for lease. In the event that the River District, on a non-discriminatory basis, decides not to offer up the full amount of the Contracted Water for lease, Contractor shall have the right to renew for a secondary term of thirty-five (35) years such lesser portion of the Contracted Water as may be offered by the River District.
- k. Assessments. Contractor shall pay any special assessment levied by the River District on Contractor to recoup expenses from extraordinary maintenance incurred by the River

District or assessed upon the River District by its third party suppliers.

- I. Contract Execution. The applicant(s) for a Water Supply Contract shall have sixty (60) days after mailing or electronically transmitting the final Contract document to them in which to execute the final Contract and deliver the executed originals to the District's offices. If such execution and delivery are not accomplished in that time, the applicant shall be deemed to have rejected the District's offer to contract.
  - m. Limitation on Disposition. Contractors may not sublet, sell, donate, loan or otherwise dispose of any of its rights to a Contract or Contracted Water without prior written notice to, and the written approval of, the Enterprise. The Enterprise will approve such disposition in all instances in which a permanent transfer of the Contract is to be made to a successor in interest of Contractor by reason of the transfer of the title or other legal right to use the property served by the Contracted Water, or where the transfer is made to an entity such as a homeowners' association or special district created to serve the property originally represented to the Enterprise to be served with the Contracted Water. Any disposition of a Contractor's rights to a Contract or Contracted Water must be by written instrument signed by the Enterprise. An example of a Contract Assignment form is attached hereto as Appendix "C." As provided in subparagraph 5.b.ii. above, a \$400 fee will be imposed for each contract assignment.
  - n. Pricing upon Assignment. Assignment of a Contract, which Contract was executed prior to April 20, 2006, subjects the price of the Contracted Water to change depending on the specific facts of the assignment. The fixed price component of such contracts will not change when the assignment is made to an entity that will continue to serve the property originally represented to the Enterprise to be served with the Contracted Water (the variable component will continue to be subject to change pursuant to the terms of the Contract). All other types of assignments of a Contract executed prior to April 20, 2006, are subject to change in price at the then-current price set by the Enterprise. Any assignment of a Contract, which Contract was executed on or after April 20, 2006, is subject to change in price at the then-current price set by the Enterprise.
6. SHORTAGE CRITERIA. Water shortages among the Enterprise's Contractors shall be apportioned in the following sequence:
    - a. Out-of-basin contracts are pro-rata shorted up to 100%.
    - a-b. Non-firm contracts, when and if authorized by the Board, are then pro-rata shorted up to 100%.
    - c. One-year ~~and out-of-basin~~ contracts are then pro-rata shorted up to 100%.
    - b-d. In-channel use contracts for two to five years are then pro-rata shorted up to 100%.
    - e-e. Interim agricultural contracts for two to five years are then pro-rata shorted up to 100%.
    - d-f. Interim M&I contracts for two to five years are then pro-rata shorted up to 100%.
    - e-g. All remaining contracts then are shorted as necessary on a pro-rata basis.
  7. DELIVERY CONTINGENCIES. There are several assumptions upon which the Enterprise's ability to deliver water pursuant to this Water Marketing Policy are contingent.
    - a. Terms and conditions of applicable Water Court decrees for the sources of supply.
    - b. Terms and conditions of permits for all of said sources of supply and their related facilities.
    - c. The River District's and Enterprise's authorities pursuant to the River District Organic Act, C.R.S. §37-46-101, *et seq.*, and other applicable Colorado Constitutional and statutory provisions, including the Water Activity Enterprise Act, C.R.S. § 37-45.1-101, *et seq.*
    - d. Terms and conditions of any substitute supply plans and plans for augmentation or exchange regarding Contractors' use of the sources of supply.



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8. HYDROLOGY ASSUMPTIONS. The Enterprise has based its marketable yield for firm contracts on providing full delivery in a simulated 2001-2006 critical period. The Enterprise retains the authority to increase the marketable yield, provided it does not result in shortage to firm contracts in the simulated 2001-2006 critical period using the same hydrologic assumptions.





# COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

## MEMORANDUM

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**TO:** BOARD OF DIRECTORS, CRWCD

**FROM:** HUNTER CAUSEY, P.E.

**SUBJECT:** WOLFORD MOUNTAIN PROJECT CONCESSIONAIRE CONTRACT REQUEST AND DIVERSION IMPROVEMENT PROJECT

**DATE:** DECEMBER 29, 2022

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***ACTIONS:***

*Staff requests Board authorization for the General Manager, subject to review and approval by counsel, to execute a two-year agreement with Pass Creek Investments to act as the concessionaire for the recreation area and marina at the River District's Wolford Mountain Reservoir Project*

***STRATEGIC INITIATIVES:***

*13. A. Asset Management. The River District will carefully plan and implement operation, maintenance and replacement (OM&R) activities to ensure the reliable and safe operation of District assets.*

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### Pass Creek Investments Recreation Area Concessionaire

Since May 2020, Pass Creek Investments, owned by Doug and Kristin Prewitt, has operated the Wolford Recreation Area. The Prewitts have successfully demonstrated their ability to manage the Recreation Area over the past three seasons. Staff is recommending a new two-year contract.

Staff is using this contract renewal to evaluate and modify the fees, revenue split, and contract terms. The proposed fee schedule to be included in the concessionaire contract, attached to this memo, will help the River District recoup more operating costs from the recreation portion of the project. The fee modification includes a 14% increase to the nightly camping rate in the more developed A, B, and C camping loops or roughly equivalent to inflation since last being set in 2021. Camping in the less developed D camping loop is being adjusted down to reflect the fewer amenities. The adjustments also include reduced discounts for longer stays and increased dump station fees which are tiered depending on the size of the unit. Staff based the fee increases on familiarity with the industry, conversations with Rec Area users, and input from the current concessionaire. Depending on inflation and other factors, staff may revise the fees again in the future. Staff is also using this renewal to modify the contract terms to transfer more responsibilities



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to the concessionaire, including maintenance tasks currently performed by River District Staff. An adjusted revenue split of concessions and fuel sales, and marina rentals from 10% to 5% to the River District will account for the increased demand on concessionaire staff with a roughly \$6,000 decrease in revenue to the River District. Staff anticipates that this reduced revenue will be more than offset by the fee increases.

### **Schwab Ditch Diversion Improvement Project**

The Schwab Ditch, which diverts from Muddy Creek below Wolford Mountain Reservoir, irrigates a portion of the wetlands mitigation area at the project. The River District is the primary water user, with a portion of the water delivered to down-ditch irrigators. The diversion structure, constructed during the creation of the mitigation area, includes a sheet pile check dam that elevates the water surface at the diversion. A purchase agreement signed in 1993 defines the role of the River District in maintaining the ditch and delivering water to the downstream property.

Trout Unlimited (TU) and Colorado Parks and Wildlife (CPW) have identified the diversion structure as an impediment to fish passage and contributing to bank erosion in the stream reach. TU has prepared a Request for Proposals for design services to improve fish passage and implement channel improvements at the diversion. This phase of the project will be funded by the underlying property owner, the Bureau of Land Management (BLM), with no financial contribution by the River District. While staff supports the project in concept and its goals of improving the fishery and channel, the other ditch users have expressed concern that the project is not worthwhile and poses a risk to an already well-functioning structure. Staff values the existing good relationship with our fellow ditch users and is working with the project partners (TU, CWP, BLM, and the U.S. Fish and Wildlife Service) to identify ways to address concerns and progress the project. Staff recommends only proceeding with the design phase of the project if the concerns of our partners on the ditch are addressed.



**Proposed Fee Schedule**  
(Effective May 15, 2023)  
strikethroughs indicate prior rates

The fee schedule for Wolford Mountain Reservoir Rec Area is as follows:

INDIVIDUAL CAMPSITE FEE:

A, B, C loops  
~~\$35~~ \$40.00 per night per camping unit\*  
D loop  
~~\$35~~ \$30.00 per night per tent  
\$35.00 per night per camping unit\*  
All loops  
\$10.00 per additional vehicle  
15% discount for stays > 7 nights  
~~35%~~ 30% discount for stays > 30 nights

DUMP FEE NON-CAMPING

~~\$30~~  
\$50.00 travel trailers, Class B  
\$100.00 5th wheel, A, C, super C

GROUP CAMP AREA: A&B

\$250.00 per day for 8 camping units\*  
includes Rec Area use pass  
(by reservation only)  
~~\$1200~~ \$1,500 per week for 8 camping units\*  
includes Rec Area use pass  
~~\$3500~~ \$4,500.00 per month for 8 camping units\*  
includes Rec Area use pass  
Each camping unit is allowed one additional  
stored item  
~~\$25~~ \$35.00 per unit per day

Extra camping unit fee  
Max capacity 60 people

GROUP CAMP C /PICNIC AREA:

\$200.00 per day for 8 camping units\* includes  
Rec Area use pass (by reservation only)  
~~\$1000~~ \$1,200 per week for 8 camping units\*  
includes Rec Area use pass  
~~\$2900~~ \$3,500.00 per month for 8 camping units\*  
includes Rec Area use pass  
Each camping unit is allowed one additional  
stored item

Extra camping unit fee  
Max capacity 60 people

GROUP CAMP D AREA:

\$150.00 per day for 8 camping units  
~~\$20~~ \$25.00 per unit

Extra camping unit fee  
Max capacity 60 people



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<u>DAY USE:</u>	\$10.00 per vehicle per day
<u>DAY USE ANNUAL PASS:</u>	\$100.00 valid for daily entry May 1-April 30 of following calendar year (not including camping fees). After October 1, Annual Day Use Pass is \$30.00 but expires April 30
<u>CAMPING CANCELLATION FEE:</u>	\$10.00 if made 2 days or more from reservation start
<u>LATE CHECKOUT FEE:</u>	\$10.00
<u>MARINA SLIP RENTAL FEE</u>	
Weekday (Mon-Thurs)	\$25 per night
Weekend Fri-Sun)	\$45 per night
Weekly (7 days)	<del>\$100</del> \$175 per week
Season (May15- Oct 15)	<del>\$1000</del> \$1200 per year Includes annual day pass, season ANS fee, and trailer parking. Limited to same calendar year.
<u>MOORING BUOY RENTAL FEE</u>	<del>\$20</del> \$25 per night (Mon-Thurs)
<del>\$30</del> \$35 per night (Mon-Thurs)	
	<del>\$700</del> \$800 per year
<u>DRY BOAT STORAGE FEE</u>	<del>\$75</del> \$100 per month Day use fee applied for nightly use

**19. Future Meetings:**

- a. Second Regular Joint Quarterly Meeting, April 18-19, 2023, Glenwood Springs, CO.**
- b. Third Regular Joint Quarterly Meeting, July 18-19, 2023, Glenwood Springs, CO.**
- c. Budget Workshop, September 21, 2023, Colorado Mesa University, Grand Junction, CO.**
- d. Annual Water Seminar, September 22, 2023, Colorado Mesa University, Grand Junction, CO.**
- e. Fourth Regular Joint Quarterly Meeting, October 17-18, 2023, Glenwood Springs, CO.**
- f. Other Meetings:**
  - i. Colorado Water Congress Annual Convention, January 25-27, 2023, Aurora.**
  - ii. Colorado River District State of the River Meeting, March 3, 2023, Montrose.**
  - iii. Colorado River District State of the River Meeting, April 5, 2023, Rangely.**
  - iv. Colorado River District State of the River Meeting, April 13, 2023, Grand Junction.**
  - v. Colorado River District State of the River Meeting, May 2, 2023, Glenwood Springs.**
  - vi. Colorado River District State of the River Meeting, May 22, 2023, Granby.**
  - vii. Colorado River District State of the River Meeting, May 23, 2023, Silverthorne.**