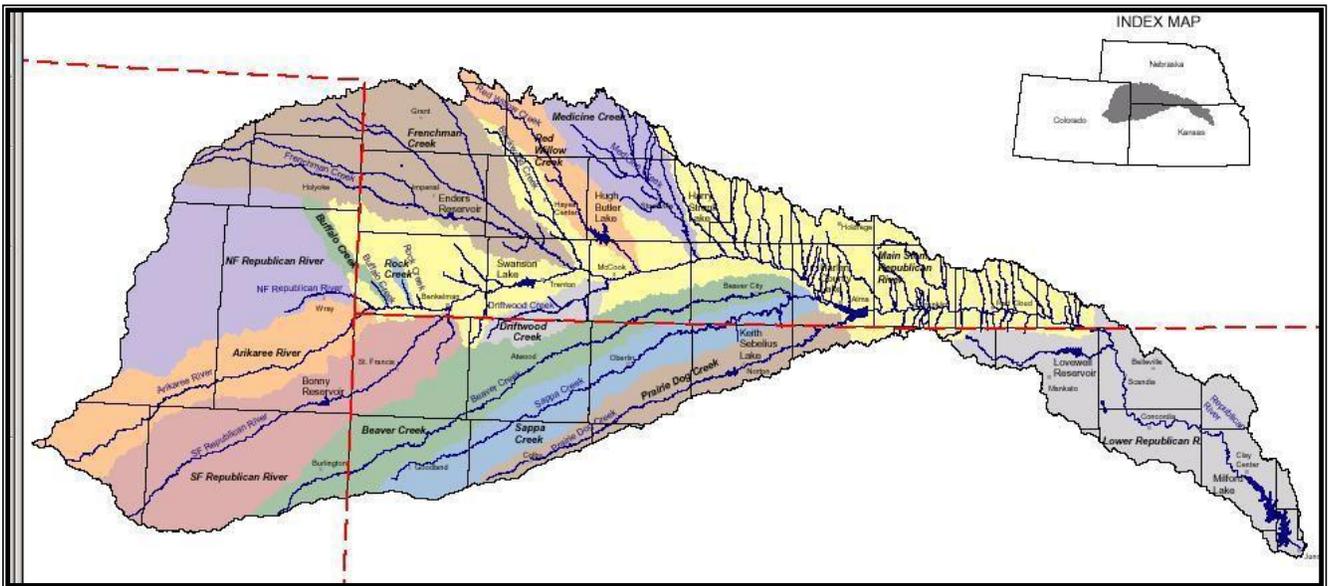


REPUBLICAN RIVER COMPACT ADMINISTRATION

63rd ANNUAL REPORT

FOR THE YEAR 2023



COLBY, KANSAS

AUGUST 28, 2024

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REPUBLICAN RIVER COMPACT ADMINISTRATION

Annual Meeting
August 28, 2024
Colby, Kansas



SUMMARY AND MINUTES OF THE ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION

AUGUST 28, 2024
COLBY, KANSAS

Summary & Minutes

A transcript of this meeting was prepared by Linda Rohman of General Reporting Service (Exhibit A). This summary and minutes were based on the transcript of the meeting. The summary and minutes were reviewed by each of the states, and upon final approval by the Republican River Compact Administration (RRCA) will serve as the official minutes of this Annual Meeting of the RRCA.

Agenda Item 1: Introductions

The annual meeting of the Republican River Compact Administration was called to order by Kansas Commissioner and Chairman Earl Lewis at 10:30 a.m., August 28, 2024. Commissioner Lewis asked for each commissioner to introduce attendees from their states. A typed list of all attendees is attached as Exhibit B, which also includes the original signed attendance sheets (for those attending in person). RRCA and state officials in attendance include:

<u>Name</u>	<u>Representing</u>
Earl Lewis	Kansas Commissioner and Chair
Chris Beightel	Kansas Engineering Committee Member
Kurtis Wiard	Kansas Attorney General's Office
Jesse Bradley	Nebraska Commissioner
Kari Burgert	Nebraska Engineering Committee Member
Justin Lavene	Nebraska Attorney General's Office
Jason Ullmann	Colorado Commissioner
Tracy Kosloff	Colorado Deputy State Engineer
Ivan Franco	Colorado Engineering Committee Member
Dan Steuer	Colorado Attorney General's Office

Agenda Item 2: Adoption of the Agenda

Commissioner Lewis introduced the proposed draft agenda and asked if there were any changes to the draft agenda. There were no changes proposed by Nebraska or Colorado. Hearing no further requests for changes, Commissioner Bradley moved that the draft agenda be adopted as proposed. Commissioner Ullmann seconded the motion. The commissioners unanimously approved the agenda. A copy of the final agenda is attached as Exhibit C.

Agenda Item 3: Status of the Annual Report for the year 2022 and possible action by the RRCA

Commissioner Lewis called for action on the completed RRCA Annual Report for the year 2022. Commissioner Ullmann moved that the RRCA accept the Annual Report for the year 2022. Commissioner Bradley seconded the motion. The commissioners unanimously accepted the report.

Agenda Item 4: Commissioners' Reports

a. Colorado:

- i. Commissioner Ullmann began his report by introducing himself as the new Commissioner for Colorado. Commissioner Ullmann was appointed state engineer in late March 2024 and now serves as the commissioner for several compacts for the State of Colorado. Commissioner Ullmann reported his background in water resources, including 14 years at the Division of Water Resources, 11 of those years in the Gunnison River Basin Office, and also city engineer for the City of Montrose, Colorado, and prior to that he gained 8-years of experience with several consulting engineering firms.
- ii. Commissioner Ullmann recognized former commissioner Kevin Rein for his service, as he retired December 2023 from his duties with the State of Colorado.
- iii. Commissioner Ullmann recognized the Republican River Water Conservation District (RRWCD) for their efforts over the last several years, which have resulted in nearly a hundred contracts with well owners that permanently retired historically irrigated acres in the South Fork Focus Zone. Commissioner Ullmann specifically thanked RRWCD manager Deb Daniel for her assistance to the State Engineer's office.
- iv. Commissioner Ullmann reported that Colorado sent a summary to Kansas and Nebraska of the 90 contracts that have been received by Colorado. The contracts between the RRWCD and well owners date from October 2016 through May 2024 and required a total of 12,942 acres to be retired from irrigation in the South Fork Focus Zone. Copies of the contracts, with personal information redacted, were provided electronically to Kansas and Nebraska.
- v. Commissioner Ullmann reported on providing a shapefile of the legal descriptions of irrigated land retirements that correspond to those contracts to assist Kansas and Nebraska with their review of the information and mapping efforts. Commissioner Ullmann noted that the number of acres retired in the contract is usually a subset of the larger legal description in the contracts.
- vi. Commissioner Ullman concluded his report by recognizing that there may be additional lands that have been retired pursuant to the 2016 resolution that are not documented in the contract acreage. At present, Colorado has only attempted to document and transmit documentation for those lands that are permanently retired under contract with the district. The state will continue its efforts to achieve the entire 25,000 acres by the end of 2029 and continue to support the RRWCD's efforts on that front.
- vii. Commissioner Lewis thanked Commissioner Ullmann for his report and asked if there were any questions for Colorado. Upon hearing none, Commissioner Lewis turned to Nebraska for their report.

b. Nebraska:

- i. Commissioner Bradley thanked Kansas for hosting this year's meeting. He also thanked Nebraska staff, NRD partners, and irrigation districts for their compliance efforts and activities over the past year.
- ii. Commissioner Bradley recognized former commissioner Tom Riley for his service, as he retired from the Department of Natural Resources in August 2024.
- iii. Commissioner Bradley reported that Nebraska remains in full compliance with the Compact and noted that water supply conditions for the 2023 calendar year were a bit unusual. The year started off dry followed by significant rainfall in the upper part of the basin, which relieved most of the drought in 2023. He noted that in 2024 the drought is at the moderate to low end of the scale still, but the state will be closely monitoring conditions.
- iv. Commissioner Bradley noted that water administration in 2023 was considered normal to less than usual due to the rainfall in the upper basin. In fall 2023, Nebraska completed a transfer of 1,860 acre-feet of Remaining Compact Compliance Volume to the Kansas account.
- v. Commissioner Bradley reported that the state continues activities under a Republican River basin-wide plan along with integrated management plans with each basin Natural Resources District (NRD). He mentioned working on modifications to the Tri-Basin NRD's plan.
- vi. Commissioner Bradley went into further detail about the basin-wide plan, noting the state's forecast of water supply and providing monthly updates to the states and NRD partners.
- vii. Commissioner Bradley reported that the NRDs had aggressively sought both state and federal funding to help producers obtain technology like telemetry-equipped water meters, weather stations, and soil moisture probes to assist in water conservation efforts across the basin. The Lower Republican NRD obtained a \$4.3 million WaterSMART grant to fund 1,800 telemetry meters and weather stations in their district.
- viii. Commissioner Bradley reported on the state's continued work with the Nebraska Bostwick Irrigation District's project to provide an alternate delivery to one of their canals in the lower part of the basin. The project was funded in part through WaterSMART, through a partnership with Bureau of Reclamation, Nebraska Bostwick and the state and could begin construction in 2025.
- ix. Commissioner Bradley mentioned the final bill at the special legislative session on property tax reform that would place caps on city and county government spending and property tax collection. There may be future work on the tax issue in 2025, so there may be future developments to report.
- x. Commissioner Bradley noted a couple projects that stemmed from the 2022 legislative session where the state focused on water infrastructure-related spending. One bill was on the Surface Water Irrigation Infrastructure Fund, where \$50 million was set up for the 60 or so irrigation districts in Nebraska. That fund provides 90 percent state funding against 10 percent match to projects that improve critical infrastructure for irrigation districts. All of the funding has been obligated and many projects have already been completed.
- xi. Commissioner Bradley reported that a new focus for the state agency as a result of the

2022 and last legislative sessions has been soil health and nitrate reduction. The state-led Strategic Ag Coalition is a partnership with state agencies, commodity boards, NRDs, and producer entities across Nebraska. The coalition has focused on creating a clearinghouse for information on soil health activities and clarifying how producers can obtain that information and make connections with other producers implementing those practices, including opportunities for field days. A website is planned for launch in late 2024.

- xii. Commissioner Bradley provided details on the Nitrate Reduction Incentive Act, where a pilot project was created to utilize \$1 million for nitrate reduction incentives across the state. The state will be releasing a guidance document on the program for the 2025 irrigation season. The program target is to reduce application rates by the lesser of 40 pounds per acre or 15 percent. The state has been coordinating with the NRDs to identify priority areas for the program.
 - xiii. Commissioner Bradley mentioned that the state received a \$307 million EPA grant that will be focused on agricultural and greenhouse gas emission reductions.
 - xiv. Commissioner Bradley concluded his report by updating Kansas on the Platte to Republican Diversion project application. The state held a hearing in May 2024 to receive input on the public interest criteria. There is no deadline established for a decision on the application at this time.
 - xv. Commissioner Lewis asked for any questions on the Nebraska report and upon hearing none, he proceeded to provide the Kansas report.
- c. Kansas:
- i. Commissioner Lewis thanked Kansas staff for the compact meeting arrangements, work with the Engineering Committee, and legal assistance throughout the past year.
 - ii. Commissioner Lewis reported that rainfall and drought conditions improved over the last year, especially in the upper basin. He mentioned that the central part of the state has been the most impacted by recent drought.
 - iii. Commissioner Lewis gave details on the Kansas' Minimum Desirable Streamflow (MDS) provisions and enforcement. In the Lower Republican area, the state has been administering 112 groundwater rights and 135 surface water rights due to low river flows.
 - iv. Commissioner Lewis moved on to the Upper Republican basin, where the local Northwest Kansas Groundwater Management District #4 (GMD4) has implemented a Local Enhanced Management Area (LEMA) to manage groundwater use reductions. He mentioned the current program will expire in 2027, so the state and GMD4 are studying the next phase.
 - v. Commissioner Lewis mentioned that the Kansas Geologic Survey (KGS) conducted aerial electromagnetic mapping of the GMD4 to assist in improving the groundwater model for the district that is based on the Republican River Compact model. The mapping will give detailed information about subsurface conditions and improve the model as the state or district may pursue targeted reductions in the future.
 - vi. Commissioner Lewis reported on changes at the Almena Irrigation District in the Upper Republican River basin. The district is served by Keith Sebelius Reservoir, and the district has essentially abandoned its canal system and is pumping directly out of the stream. Commissioner Lewis mentioned discussions taking place regarding

- ownership and future use of the abandoned canal land.
- vii. Commissioner Lewis reported on activities in the Lower Republican basin where the Kansas Bostwick Irrigation District has been improving efficiency by converting open laterals to PVC pipe and buried laterals for several years. In 2024, the district will bury about 5,000 feet of PVC pipe and is in the process of applying for a WaterSMART grant to improve the district's water handling system with automating check valves along the whole system.
 - viii. Commissioner Lewis noted that Kansas has been successful with the Natural Resources Conservation Service (NRCS) and their Regional Conservation Partnership Program (RCPP). At the state level, the Department of Agriculture's Division of Conservation was awarded a \$25 million RCPP grant that focuses on the High Plains Aquifer in the state's five groundwater management districts (GMDs). The primary goal is to reduce demand on the aquifer by as much as 10 percent over a five-year period. This includes providing the GMDs with additional staff to help producers manage their irrigation systems including conducting system audits to help producers optimize their water use.
 - ix. Commissioner Lewis also mentioned the Cheyenne County Conservation District's RCPP on the South Fork Republican River. In 2021, the first year awarded \$2.7 million towards phreatophyte removal, stock water use efficiency, and irrigation system improvements. Some of the funding is supplemented with the Colorado settlement funds.
 - x. Commissioner Lewis concluded his report by asking for any questions. Upon hearing none, he turned to the federal agencies for their reports.

Agenda Item 5: Federal Reports

- a. U.S. Bureau of Reclamation:
 - i. Aaron Thompson, U.S. Bureau of Reclamation (USBR) Nebraska-Kansas Area office, extended his sincere thanks to Director Riley and Director Rein for their leadership and dedication over the years.
 - ii. Mr. Thompson noted that he prepared a report (Exhibit D) regarding reservoir operations for the year 2023, as well as current year information through July 2024.
 - iii. Mr. Thompson mentioned that reservoirs across the region faced below-average water levels and challenging inflow conditions, with multiple reservoirs starting the year at historically low levels. Precipitation varied from 90 percent of average at Lovewell Dam to 143 percent of average at Red Willow Dam, which he mentioned was a significant improvement from 2022.
 - iv. Mr. Thompson reported that Bonny Reservoir remained dry, while Enders and other reservoirs like Swanson and Hugh Butler showed slight improvement in water levels due to spring precipitation.
 - v. Despite the noted improvements, irrigation releases were limited or absent with Enders, Swanson, Hugh Butler, and Keith Sebelius lakes all experiencing reduced operations. Enders Reservoir marked its 21st consecutive year without releasing storage water for irrigation. Keith Sebelius and Bonny Reservoir did not release any water for irrigation.
 - vi. Mr. Thompson noted that Harry Strunk failed to reach the top of conservation in 2023,

- which was the first time not filling since 2013.
- vii. Mr. Thompson mentioned that irrigation supplies from Harlan County Lake reached 119,000 acre-feet in June, therefore, Water-Short Year Administration was not in effect for 2023.
 - viii. Mr. Thompson highlighted some 2024 information, including precipitation for the year has been normal to slightly above normal at all project dams. All irrigation districts in the basin provided deliveries with the exception of Frenchman Valley Irrigation District. That is the second consecutive year that Frenchman Valley has not diverted any flows into the Culbertson Canal.
 - ix. Mr. Thompson concluded his report by noting that at the end of May 2024, the Nebraska Bostwick Irrigation District requested to transfer approximately 2,000 acre-feet from their account in Harlan County Lake to the Kansas Bostwick Account to ensure KBID's account reached 68,000 acre-feet. The irrigation supply for Harlan County Lake exceeded 119,000 acre-feet in June 2024 and that was the sixth consecutive year in which Water-Short Year Administration was not in effect.
 - x. Commissioner Lewis asked for questions for Mr. Thompson. Commissioner Bradley mentioned Nebraska's appreciation for the WaterSMART program and how that funding that is important to the water users.
 - xi. Commissioner Lewis asked Mr. Thompson to expand on the status of the Bonny Dam safety issue and work study. Mr. Thompson had no update prepared and encouraged the commissioners to reach out to Mr. Craig Scott for the status of Bonny Dam.
- b. U.S. Army Corps of Engineers: No report was presented.
- c. U.S. Geological Survey:
- i. Mr. John Miller discussed the U.S. Geological Survey (USGS) report for water year 2023 and provided the commissioners with a summary sheet (Exhibit E). He first gave an update on the 2018 relocation of the Arikaree River gage. The record has been much improved and the location more stable in the channel. The issue at the old site was beaver dams making it impossible to compute the discharge record, which led to estimating quite a bit of the record.
 - ii. Mr. Miller reported that the South Fork Republican River recorded very little flow in 2023 and again for 2024-to-date. In the summer of 2023, the USGS installed a radar gage on the bridge so that the low flows are recorded.
 - iii. Mr. Miller noted that a new gage at Red Willow near Red Willow was installed at a better location on the upstream side of the bridge and the USGS also installed a radar gage to help improve the gage height record at that site.
 - iv. Mr. Miller reviewed the 2023 water year record, which is October 1, 2022, to September 30, 2023. The annual mean discharge at nearly all the sites was up from the 2022 water year. There was improved rainfall throughout the basin, specifically at the upper end of the basin. North-central Nebraska is experiencing some drought conditions, however. Mr. Miller mentioned that the Sappa Creek near Stamford gage, which is just upstream of Harlan County Reservoir, was the only site that did not see improved discharge in 2023.
 - v. Mr. Miller provided details about the May 25th to 26th rain event that occurred in the Stratton to McCook area. The rainfall was around ten inches in a short period of time,

and conditions fit the criteria of a flash flood. The Republican River at Stratton gage went from under 100 cubic feet per second (cfs) to 12,000 cfs in two hours. They were able to get to the gage shortly after the peak to compute the event accurately. The event resulted in record gage heights at the Republican River at Stratton gage, the Frenchman Creek at Palisade gage, and the Republican River at McCook gage.

- vi. Mr. Miller concluded his report by mentioning that Driftwood Creek near McCook and the Courtland Canal were above the long-term mean.
- vii. Commissioner Lewis asked if there were any questions for Mr. Miller, upon hearing none, Commissioner Lewis turned to the Engineering Committee for their report.

Agenda Item 6: Committee Reports

Engineering Committee: Chris Beightel reviewed the Engineering Committee (EC) report (Exhibit F). Mr. Beightel provided summaries on the completion or progress of the EC's nine assignments, and he thanked his fellow Engineering Committee members, Kari Burgert from Nebraska and Ivan Franco from Colorado, and the states' respective teams, including Chelsea Erickson, and Willem Schreüder for all their work with the committee this past year.

- a. Assignments from the 2023 Annual Meeting
 - The EC met four times since the last annual meeting and completed the following assignments: (1) hold quarterly meetings, (2) exchange information listed in Section V the RRCA Accounting Procedures and Reporting Requirements, including all required data and documentation, (3) finalize the 2023 accounting, (4) continue work on documenting historical changes to the RRCA Accounting Procedures, (5) provide updates on the progress of new and ongoing management strategies for maintaining Compact compliance, (6) continue development and maintenance of the RRCA administrative website that serves as an informational page for the public, (7) continue work and provide updates on improving accounting tools developed by the EC, (8) prepare the 2023 RRCA annual meeting report, and (9) identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
- b. Committee Items for RRCA Discussion and Action
 - The EC recommends the proposed 2023 accounting presented in Attachment 2 and in the spreadsheet titled "RRCA Accounting 2023 Final.xlsx" for approval by the RRCA. Upon approval of the accounting, the above-mentioned spreadsheet file will be placed on the public website.
 - Modeling and data tasks to be assigned to Principia Mathematica for 2024. The EC recommends that Principia Mathematica continue to maintain the web-based accounting tool and perform periodic model and accounting updates at the same level of service as in 2023.
 - The EC requests discussion on the recommended assignments and agreement on final EC assignments for next year, including to continue to identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact

administration meeting.

- c. Recommended Assignments for Engineering Committee: Committee member Chris Beightel reviewed the list of recommended assignments and referred commissioners to the EC report for further details of the assignments. Briefly, the tasks include:
- Meet quarterly to review tasks assigned to the committee
 - Complete the 2024 compact accounting
 - Continue to develop and maintain the Compact documents and website
 - Discuss verification of Colorado's dry-up acres in the South Fork Focus Zone
 - Provide updates on progress of ongoing management strategies
 - Prepare the 2024 RRCA annual report for approval at the 2025 meeting

Commissioner Lewis asked for any questions about the EC report or proposed assignments. Upon hearing none, he thanked the committee for the report and noted that the accounting and report will be adopted under the New Business section of the agenda.

Agenda Item 7: Old Business

Recognition of Colorado's acquisition of the contracts for retirement of at least 10,000 acres toward the 2016 resolution obligations.

Commissioner Lewis noted the discussion about the acreage retirement issue during the annual meeting work session. He recognized the work of Deb Daniel and the RRWCD. Commissioner Lewis noted that the states were provided copies of pertinent information regarding the total of just over 12,000 acres retired. Commissioner Lewis further noted that the states are still verifying the retirement from irrigation of those acres and noted that official approval could take place at a future special meeting.

Agenda Item 8: New Business and Assignments to Compact Committees

- a. Action on Engineering Committee Report and assignments
- i. Commissioner Ullmann discussed continuation of the South Fork retirement verification assignment to the Engineering Committee with the modification to complete that verification process to hold a special meeting for approval before December 31st, 2024. Commissioner Lewis and Commissioner Bradley both agreed to the parameters of the modified assignment for verifying the South Fork retired dry-up acres.
 - ii. Commissioner Ullmann moved to approve the Engineering Committee Report with all attachments and the modified South Fork verification assignment. Commissioner Bradley seconded the motion. The commissioners unanimously approved the report.
- b. Action on 2023 Accounting
- i. The Commissioners next discussed approval of the 2023 accounting as presented by the Engineering Committee. Commissioner Bradley moved to adopt the 2023 accounting. Commissioner Ullmann seconded the motion. The commissioners unanimously approved the 2023 accounting.

Agenda Item 9: Remarks from the Public

Commissioner Lewis asked for remarks from the public.

- a. Mr. Rod Lenz, representing the RRWCD, started by recognizing the Compact administration for their collaboration and accomplishments over the past year. Mr. Lenz discussed the district's recent engagement with the Bureau of Reclamation relating to Bonny Reservoir, including the dam. Mr. Lenz asserted that the district's goal is to get water through Bonny Reservoir, not only to benefit irrigators in northwest Kansas by filling the alluvium but also to get water to the Compact gage. Mr. Lenz noted that in mid-June the District measured 5 cfs into Bonny but there was very little water coming out of the outflow structure. Mr. Lenz asserted that there is potential to deliver water if the water can get through the dam and thus supplement compact compliance efforts.
- b. Ms. Deb Daniel, the general manager of the RRWCD, thanked the commissioners for holding the RRCA annual meeting in the western portion of the basin and Kansas staff for hosting this year. Ms. Daniel thanked Nebraska for their informative reports on WaterSMART and telemetry projects. Ms. Daniel thanked Commissioner Ullmann and his staff at Colorado's Division of Water Resources for their work with the district over the past year. Ms. Daniel explained that the district does not pay for retirement of non-irrigated acres in the South Fork Focus Zone. The district's water-use fee is based on irrigated acres, so they would not pay farmers to retire non-irrigated acres. Ms. Daniel asserted that the district is committed to reaching the full 25,000-acre requirement by the deadline. She urged anyone with questions to reach out to the state and district.
- c. Commissioner Lewis asked for any questions for Ms. Daniel or for any other public comments. Upon hearing none, Commissioner Lewis moved on to the future meeting arrangements.

Agenda Item 10: Future Meeting Arrangements

Commissioner Lewis noted that later in 2024 there will be a follow-up discussion, either in person or virtually, regarding verification of Colorado's dry-up acres. Commissioner Lewis mentioned that the 2025 annual RRCA meeting will likely be held in the Lower Republican River basin in late-August again. Commissioner Ullmann thanked Kansas for hosting.

Adjournment

Commissioner Lewis asked for a motion to adjourn. Commissioner Bradley moved to adjourn, and Commissioner Ullmann seconded the motion. The commissioners unanimously approved the motion to adjourn.

The August 28, 2024, Annual Meeting report is hereby approved by unanimous vote of the RRCA on this 28th day of August 2025.

As indicated by their signature and date below, the RRCA Commissioners agree that the report was approved by RRCA on the date indicated above.

Earl Lewis, Chair and Kansas Commissioner

DATE SIGNED:

Jason Ullmann, Colorado Commissioner

DATE SIGNED:

Matthew Manning, Nebraska Commissioner

DATE SIGNED:

Exhibits

- Exhibit A: Transcript of the 2024 Annual Meeting
- Exhibit B: Annual Meeting Attendance with Signature Pages
- Exhibit C: Agenda of the Annual Meeting
- Exhibit D: Bureau of Reclamation Report
- Exhibit E: U.S. Geological Survey Report
- Exhibit F: Engineering Committee Report

Exhibit A: Transcript

2024 ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION

August 28, 2024
10:30 a.m., Central Time
Colby Event Center
1200 South Franklin Avenue
Colby, Kansas 67701

ATTENDEES:

KANSAS

PRESENT:

Commissioner Earl Lewis, Chairman

Chris Beightel, KS Div. of Water Resources
David Engelhaupt, KS Div. of Water Resources
Chelsea Erickson, KS Div. of Water Resources
Danielle Holzwarth, KS Cheyenne Co. Conserv. Dist.
Stephanie Kramer, KS Div. of Water Resources, Chief Counsel
Lori Marintzer, USGS KS Water Science Center
Keadron Pearson, KS Water Office
Mike Schultz, KS Rural Water Asso., City of Brewster
Whitney Schultz, KS Farm Service Agency
Kurtis Wiard, KS Attorney General's Office

NEBRASKA

PRESENT:

Commissioner Jesse Bradley

Don Blankenau, NE Outside Counsel
Alex Boyce, Middle Republican NRD
Kari Burgert, NeDNR
Dale Cramer, Frenchman-Cambridge Irr. Dist.
Justin Lavene, NE Attorney General's Office
Todd Siel, Lower Republican NRD
Tom Wilmoth, NE Outside Counsel

COLORADO

PRESENT:

Commissioner Jason Ullmann

Peter Ampe, CO Republican River Water Conserv. Dist.
Deb Daniel, Republican River Water Conserv. Dist.
Ivan Franco, CO Div. of Water Resources
Tracy Kosloff, CO Div. Of Water Resources
Rod Lenz, Republican River Water Conserv. Dist.

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Kristin Schneider, Republican River Water Conserv. Dist.
Willem Schreüder, Consultant, Principia Mathematica, Inc.
Dan Steuer, CO Attorney General's Office
Marie Sullivan, CO Div. of Water Resources

OTHERS:

PRESENT:

Aaron Thompson, U.S. Bureau of Reclamation
John Miller, USGC NE Water Science Center

- - -

1 PROCEEDINGS:

2 CHAIRMAN LEWIS: Good morning everyone. We'll call the -- the
3 Republican River Compact meeting -- administration meeting to order. My name is Earl
4 Lewis. I am the chief engineering director of the Kansas Department of Agriculture's
5 Division of Water Resources and the State of Kansas compact commissioner. So, I would
6 like to thank everybody for attending and joining us here in Colby today. We're going to
7 do introductions, first, around the table, and then around the room. I think we've got a
8 small enough crowd that we can get everybody introduced and then work our way
9 through the agenda.

10 So, we'll -- we'll start this way.

11 MS. KRAMER: I'm Stephanie Kramer. I am chief counsel to the Kansas
12 Department of Agriculture.

13 MS. BURGERT: Kari Burgert with the Nebraska Department of Natural
14 Resources, Engineering Committee member.

15 COMMISSIONER BRADLEY: Jesse Bradley with the Nebraska Department
16 of Natural Resources.

17 MR. LAVENE: Justin Lavene with the Nebraska Attorney General's Office.

18 MR. BEIGHTEL: I'm Chris -- oh, you guys are going to go that way.

19 CHAIRMAN LEWIS: Yeah, go ahead. Introduce yourself though.

20 MR. BEIGHTEL: Chris Beightel, Kansas Department of Agriculture, Division
21 of Water Resources.

22 MR. WIARD: I'm Curtis Wiard with the Kansas Attorney General's Office.

23 COMMISSIONER ULLMANN: Jason Ullmann with the Colorado Division of
24 Water Resources.

1 MR. FRANCO: Ivan Franco with the Colorado Division of Water Resources.

2 MR. STEUER: Dan Steuer, Colorado Attorney General's Office.

3 CHAIRMAN LEWIS: And we're going to have Chris come around with --
4 pass the microphone. But while he's getting to the first person, I want to point out that
5 we are streaming this online as well.

6 MR. ENGELHAUPT: David Engelhaupt, Department of Agriculture, Division
7 of Water Resources.

8 MS. KOSLOFF: Tracy Kosloff, Colorado Division of Water Resources.

9 MS. SULLIVAN: Marie Sullivan, Colorado Division of Water Resources.

10 MR. MILLER: John Miller, U.S. Geological Survey, Nebraska Water Science
11 Center.

12 MS. MARINTZER: Lori Marintzer, USGS, Kansas Water Science Center.

13 MS. ERICKSON: Chelsea Erickson, with the Kansas Division of Water
14 Resources.

15 MR. SIEL: Todd Siel, Lower Republican Natural Resources District in Alma,
16 Nebraska.

17 MR. BOYCE: Alex Boyce, Middle Republican NRD.

18 MR. CRAMER: Dale Cramer, Frenchman-Cambridge Irrigation District at
19 Cambridge, Nebraska.

20 MS. HOLZWARTH: Danielle Holzwarth, Cheyenne County Conservation
21 District Manager in St. Francis.

22 MS. PEARSON: Keadron Pearson, Kansas Water Office.

23 MR. THOMPSON: Aaron Thompson with the Bureau of Reclamation.

24 MR. SCHULTZ: Mike Schultz, the City of Brewster, and also a

1 representative for the Kansas Rural Water Association, Kansas.

2 MS. SCHULTZ: Whitney Schultz, Thomas County Farm Service Agency.

3 MR. BLANKENAU: Good morning. Don Blankenau, outside counsel, State
4 of Nebraska.

5 MR. WILMOTH: Tom Wilmoth, also outside counsel for the State of
6 Nebraska.

7 MR. AMPE: Peter Ampe, counsel to the Republican River Water
8 Conservation District in Colorado.

9 MR. LENZ: Rod Lenz, Republican River Water Conservation District.

10 MS. DANIEL: Good morning. Deb Daniel, General Manager of the
11 RRWCD.

12 MS. SCHNEIDER: Kristin Schneider, a board member with the RRWCD.

13 MR. SCHREÜDER: Willem Schreüder, Principia Mathematica.

14 CHAIRMAN LEWIS: Thank you, everyone, again for -- for attending. We'll
15 have opportunity at the end for public comment if anybody would like to provide
16 comments to the -- to the administration.

17 Our first item on the agenda is the adoption of the agenda. So I would
18 ask if there are any amendments to the agenda and, if not, seek a motion for adoption.

19 COMMISSIONER BRADLEY: I'd move to adopt the agenda.

20 COMMISSIONER ULLMANN: I'll second.

21 CHAIRMAN LEWIS: We have a motion from Commissioner Bradley and a
22 second from Commissioner Ullmann. Any discussion?

23 (No response.)

24 All those in favor say aye.

1 COMMISSIONER ULLMANN: Aye.

2 CHAIRMAN LEWIS: Aye.

3 COMMISSIONER BRADLEY: Aye.

4 CHAIRMAN LEWIS: The motion is adopted. The agenda is adopted.

5 Second -- or the third thing is the status of the annual report for 20-- --
6 year 2022 and possible action by the administration. And I believe, Ivan, you're going to
7 be doing that.

8 MR. FRANCO: Well, I propose that -- I went ahead and made a final copy
9 that we have here for signature. It can be reviewed, but the Engineering Committee
10 went ahead and reviewed this final copy that I've sent to everybody, and I believe
11 everyone is in agreement. And I think we're ready for a motion by everyone here.

12 CHAIRMAN LEWIS: Thank you, Ivan.

13 Are there any questions on the report?

14 (No response.)

15 All right. I would entertain a motion to accept the report.

16 COMMISSIONER ULLMANN: I will. So moved.

17 CHAIRMAN LEWIS: Thank you, Commissioner Ullmann.

18 COMMISSIONER BRADLEY: Second.

19 CHAIRMAN LEWIS: Thank you, Commissioner Bradley.

20 A motion and a second. Any discussion?

21 (No response.)

22 All those in favor, say aye.

23 COMMISSIONER ULLMANN: Aye.

24 COMMISSIONER BRADLEY: Aye.

1 CHAIRMAN LEWIS: Aye.

2 Motion carried. The report is adopted.

3 We're going to move on to Commissioners' reports. So, Mr. Ullmann,
4 welcome to the administration.

5 COMMISSIONER ULLMANN: Thank you.

6 CHAIRMAN LEWIS: Appreciate your -- your being -- taking on this role and
7 look forward to collaborating with you on this Commission and on others. So, if you're
8 ready, please provide the Colorado report.

9 COMMISSIONER ULLMANN: Thank you. Thank you, Commissioner Lewis.

10 So, I guess, the first order of business would be to introduce myself as the
11 new Commissioner for Colorado. I am -- I was appointed state engineer four -- well, five
12 months ago now, I guess, in March, late March. And, in that role, you know, serve as a
13 commissioner on a number of compacts, including the Republican.

14 My background is I have worked for Division of Water Resources for 14
15 years. I worked for the past three years as the assistant state engineer covering our dam
16 safety, our stream measurement programs, and our water information and modeling
17 programs. Prior to that, I worked for 11 years in our Gunnison River Basin Office, 'cause
18 our agency is split up in seven different divisions. So Water Division 4, where I did a lot
19 of actual work with water commissioners on administration and water court activities
20 and things like that. So -- and then, prior to that, I was the city engineer for the City of
21 Montrose, Colorado, which is on the west slope, and did all manner of different
22 engineering related to traffic and water treatment, water -- wastewater treatment, and
23 decided I -- my background in water resources, more like raw water, I would like to go
24 back to that, and was lucky enough to get the job with the state. So, I also worked for

1 consulting engineering firms about -- for eight years prior to that.

2 So, a lot of experience with all the different things we do. I am learning
3 about some of the specific things related to some of the compacts I wasn't involved in,
4 including the Republican, very quickly. So I'm thankful to have great staff like Tracy
5 Kosloff and Marie Sullivan here, and Ivan and Dan, to help as I learn those things.

6 But I also want to recognize Kevin Rein for his service to the Commission.
7 He's retired as of December of last year and is enjoying his retirement and, also, doing a
8 little bit of engineering work on the side. So I guess it's hard for water resources
9 engineers to fully retire, but okay.

10 So, moving on to Republican River related specific events, I want to
11 recognize the Republican District as they introduced themselves for their river water
12 conservation district for their efforts over the last several years, which has resulted in
13 over a hundred contracts with well own- -- nearly a hundred contracts with well owners
14 in the South Fork focus zone that require -- requiring permanent retirement of
15 historically irrigated lands. In fact, I actually attended the state fair last Friday, where
16 Deb Daniel, the manager of the district, received the Colorado Commissioner of
17 Agriculture's Lega- -- Agricultural Legacy Award for all of her work doing this and
18 supporting agriculture.

19 So, thank you to Deb for all of her work and congratulations to her on her
20 award. It was well deserved. I can say that for all of her assistance that she's provided
21 the State Engineer's Office through the Republican River Conservation District.

22 So, as most people know here, Colorado has an obligation in the 2016
23 resolution, as amended in 2018, to use CREP or other voluntary programs to retire at
24 least 10,000 acres by 2024. In June, I sent an email to Kansas and Nebraska summarizing

1 the 90 contracts received by Colorado as of May 2024. These are contracts between the
2 Republican District and well owners that date from October 2016 through May of 2024
3 and required a total of 12,942 acres of retirement under those contracts in the South
4 Fork focus zone. We've also provided electronic copies of those contracts to Kansas and
5 Nebraska.

6 Based on discussions in the Engineering Committee and meetings with
7 the Deputy State Engineer, Tracy, who I mentioned earlier, and the Commissioners of
8 Kansas and Nebraska, Colorado provided a shapefile as well with -- a shapefile of those
9 legal descriptions of irrigated land retirements that correspond to those contracts to
10 allow Kansas and Nebraska to review that information and use it in their mapping
11 efforts. It's worth to note that the number of acres retired in the contract is usually a
12 subset of the larger legal description in the contracts. And we aren't claiming to have
13 retired the larger acreage necessarily, the full acreage represented, if it said a quarter --
14 you know, in this quarter section, there may be a number of acres within that quarter
15 section.

16 Also, we want to recognize that there may be additional lands that have
17 been retired pursuant to the 2016 resolution not documented in the contract acreage.
18 At this time, we have only attempted to document and transmit that documentation for
19 those lands that are permanently retired under contract with the district. The work of
20 achieving the entire 25,000 acres, which many of you know, is required by 2029,
21 continues, and we will continue to do what we can to support the Republican District's
22 efforts on that front.

23 So, that concludes my report.

24 CHAIRMAN LEWIS: Thank you, Commissioner.

1 Is there any questions for Colorado?

2 (No response.)

3 I don't have any either. Thank you for your report.

4 Commissioner Bradley, would you like to give the Nebraska report?

5 COMMISSIONER BRADLEY: Good morning. I guess I'll start off by, first,
6 thanking Kansas for hosting this year's meeting. This is a really nice facility you guys
7 have. I appreciate you guys. I know it takes a lot of effort to get these things pulled in.
8 And I thank Chelsea for -- for all the great snacks and coffee back there.

9 Also would want to thank staff from our agency, Kari Burgert here to my
10 left, Justin Lavene to my right. Kari's our Engineering Committee representative, and her
11 and a whole host of folks from the Department of Natural Resources worked to -- to
12 make this easy for me and worked with our NRD partners all across the state. I also want
13 to thank our NRD partners. I know we have a couple here in the audience. And also
14 irrigation districts in the basin, they're really critical to the water management we do in
15 Nebraska. Help us carry out the activities we need to do for compliance, so appreciate
16 their efforts.

17 I guess I'd also like to start off by recognizing Director Tom Riley. He
18 retired back here on August 2nd. So we certainly miss Tom and his role at the agency, but
19 continuing to move forward. Currently serving in an interim role myself, but we'll
20 hopefully have new leadership here in the near future.

21 Nebraska also remains in full compliance with all of our requirements of
22 the Republican River Compact and continues to do that going forward. In terms of water
23 supply conditions for the 2023 calendar year, kind of a bit of an unusual year in the sense
24 that the year started off pretty dry. A lot of drought condition throughout the basin.

1 And then, we actually saw pretty significant rainfalls above average in the upper part of
2 the basin, which is unusual, and a lot of relief from the drought in that part of the state.
3 Really kind of got through wiping out most of the drought in 2023, but now kind of
4 starting to see that creep back in kind of on more of the moderate to low end of the
5 scale. So, watching that. But Harlan County Lake levels continue to be better than they
6 were last year. We started off the year, actually, a little bit less, I think, than we did in
7 '23, but it looks like they'll probably end up the irrigation season in a little bit better
8 condition than they did last year. So that's good to see.

9 In terms of the water administration in 2023, overall, it was a pretty
10 normal year in 2023, maybe a little bit less because of some of that upper basin rainfall
11 we were seeing. We did, in 2023, complete a transfer of 1,860 acre feet of what we call
12 Remaining Compact Compliance Volume. This is water that comes from terms of the
13 resolution that we adopted in 2016, and Kansas was able to request and then we
14 administered to Harlan County Lake. So, we completed that transfer in the fall of 2023
15 and made sure that was available in the Kansas account by the end of that year.

16 We also continue to do a lot of activities on our planning front. We have a
17 basin-wide plan in this part of the state, along with individual, what we call integrated
18 management plans, with each NRD. Those really provide the framework for planning for
19 our water future and determining the kind of investments and activities we want to carry
20 out to continue to comply with the Compact and continue to manage our responsi- --
21 our water in a sustainable way. And we're currently working on modifications to the Tri-
22 Basin NRD's plan. That'll be their second modification, I believe, and hope to get that
23 completed here by the end of the year. Those are largely just updates to bring it into
24 kind of conformance with the basin-wide plan that we had adopted a few years back.

1 We also continue to implement that basin-wide plan. Parts of that involve
2 things like the forecast of water supplies we do in the Republican Basin and
3 communicating that information out. We share out updates every month to the states
4 and NRD partners across the basin to let them know where we're at in terms of
5 compliance and water availability and sharing that information each month.

6 We also continue to see a lot of investments in water in the basin. The
7 NRDs have been aggressively seeking both state and federal funding to help really get
8 technologies in producers' hands. That's a lot of the more recent target. These are
9 going to be things like telemetry, weather stations, soil moisture probes. I know Todd
10 Siel is here from Lower Republican. They just were successful in acquiring a \$4.3 million
11 WaterSMART Grant to do about 1800 telemetry meters and weather stations in their
12 district, and we were happy to support that application, too. So I think we're well on our
13 way to likely seeing the majority of the basin or the entire basin under telemetry, real-
14 time meters, and accompanying precision ag instruments here by the end of this decade.
15 So we're -- we're really advancing on that front a lot in Nebraska and, also, starting to
16 see that expand into other parts of the state. Which I think is good to see those -- those
17 tools getting into producers' hands.

18 We've also continued to work with the Nebraska Bostwick Irrigation
19 District. This is on a project to provide a kind of an alternate delivery to one of their
20 canals in the lower part of the basin. This was, in part, funded through WaterSMART as
21 well through a partnership there with the Bureau of Reclamation, Nebraska Bostwick,
22 and ourselves. And moving that project forward, they're continuing to seek the
23 necessary easements to complete that project but, hopefully, will begin construction on
24 that in 2025.

1 We also had, in Nebraska, a unique special session here that we just
2 recently completed. The focus of that special session was on property tax reform. And,
3 you know, a little bit of a mixed bag. There were elements that came out of the final bill
4 that was going to ultimately place some caps on city and county government spending
5 and their property tax collection and then also front-loads a previously developed tax
6 credit. So probably more work will be coming in the next regular session, which will
7 begin in January; but that was kind of an interesting -- we haven't seen a special session
8 for quite a while, so kind of an interesting last month or so.

9 Just a couple updates in terms of projects. We, I think, previously
10 reported out, in the 2022 legislative session, we saw a lot of focus on water
11 infrastructure-related spending. One of those bills was on the Surface Water Irrigation
12 Infrastructure Fund, which I'm happy to report we're making really good progress on.
13 This was a \$50 million fund set up for the 60 or so irrigation districts in Nebraska. It
14 provides 90 percent state funding against a 10 percent match to improve critical
15 infrastructure for irrigation districts. And we've -- really, we've largely obligated all of
16 that funding, and a number of districts have already completed projects. So, I think
17 that's been a really good tool for those districts and necessary with the aging
18 infrastructure we face across the state.

19 We also have kind of some new charges that came out of that 2022
20 period and then just even this last session which are focused more on soil health and
21 nitrate reduction, which has really not been historically a focus of our agency. But we've
22 been leading a group we call the Strategic Ag Coalition. That's a partnership of the
23 Department, other state agencies, commodity boards, NRDs, and producer entities
24 across the state. And really focusing on creating a clearinghouse for information on soil

1 health activities and trying to clarify for producers where they can get information,
2 where they can make connections with other producers that are implementing those
3 practices. We can create opportunities for -- for folks to have opportunities to engage in
4 field days and those types of activities. So, that's been making good progress. We plan
5 to launch our website here later this year.

6 We, then, from this last session, we also received the authority to move
7 forward with what they called the Nitrate Reduction Incentive Act. It's really kind of set
8 up almost as a pilot, a \$1 million transfer to provide incentives for nitrate reduction
9 across the state. And so, we're getting ready to roll out a guidance document on that
10 and have that program go live in the 2025 irrigation season. And so, for that program,
11 the target of the legislation is to reduce application rates by the lesser of 40 pounds per
12 acre or 15 percent. And so, we've, again, leaned heavily on our NRD partners and have, I
13 think, a good plan of how we'll roll that program out with sort of staged incentives based
14 on the sort of phase area or priority area that those producers are in, which are related
15 to the concentration in the groundwater. So, that will be a program we start to roll out in
16 2025.

17 We're also working more closely with our Nebraska Department of
18 Environment and Energy group. They recently received a large EPA grant through the
19 climate action plan that they submitted for \$307 million. So a very large grant through
20 the EPA, but a big part of that will be focused on ag and greenhouse gas emission
21 reductions associated with agriculture and precision agriculture elements as well. So,
22 we're excited about that opportunity to furthering that partnership as well.

23 I know of interest probably to Earl and the folks from Kansas, we continue
24 to review the Platte to Republican Diversion project application. We held a hearing on

1 that earlier this year back in May. That process is sort of in the phase where we've held
2 different hearings through that process. Our most recent one was in May to take in
3 input on the public interest criteria. These are criteria laid out in Nebraska statute. And
4 so, we're taking that information in and will be weighing that application here and, you
5 know, continuing to review that. No real deadline established for the decision on that,
6 though, at this time. So, I'll beat you to the punch line.

7 I think, with that, I'll probably wrap up my remarks. And happy to take
8 any questions.

9 CHAIRMAN LEWIS: Thank you.

10 Any questions for Nebraska?

11 (No response.)

12 Thank you for your report.

13 As for Kansas, it's good -- first, I want to thank Chelsea Erickson, not only
14 for arranging for the refreshments in back, but also helped get all this -- the logistics set
15 up for finding this location and all that goes with it. So, I want to thank -- thank her for
16 that.

17 Likewise, we've got a great staff that works on this and Chris leading the Engineering
18 Committee for us and Stephanie helping out on the legal side as well. So really
19 appreciate the great team that we have helping to put this together. And, like I say, very
20 -- makes my job much easier.

21 The other thing we asked them to do is, you know, what are all the things
22 that are going on that you all might want to -- want to hear about as part of this report.
23 And it's -- it's always good to do that because it really highlights all of the activities that
24 are going on that, a lot of times, you don't think about. And there's certainly a lot going

1 on.

2 So, it all starts with -- with the condition of rainfall and the drought. And
3 we have had some improvement over the last year, year-and-a-half, especially in the
4 upper part of the basin for us. In the lower part, you know, kind of that north central
5 Kansas, has really struggled for a while now, and other parts of the state have as well.
6 Really a central part of our state is what's been most hard-hit by drought over the last
7 couple of years.

8 As it pertains to the Lower Republican, we have, in state statute,
9 minimum desirable streamflows, which were established in 1984 and is somewhat akin
10 to in-stream rights. But it's -- it really sets a standard at a USGS gage of how much flow
11 needs to be there; and, if not, then water rights that were issued after that are subject to
12 water-right administration. And in the Lower Republican, we have had administration
13 going on, essentially, continually since -- for the last two years. That affects around 112
14 groundwater rights and about 135 surface water rights. So we've got a number of folks
15 that have been limited or completely off, again, for the better part of two years because
16 we've had -- had low streamflow.

17 There's a lot of work (indiscernible) in the upper part of the basin. Our
18 groundwater management district, which covers northwest Kansas, I think we reported
19 in the past, still has ongoing local enhanced management areas, and they're out working
20 with producers to talk about what's the next iteration of those, because they expire in --
21 at the end of 2027. And so, what's the next phase of that? How much further can they
22 take their reductions?

23 As part of that effort, they -- and I know this is a -- something that
24 Nebraska, at least, has done or some of your NRDs. This year, working with the Kansas

1 Geological Survey, they hired an aerial electromagnetic mapping done of the entire
2 district and have, for a number of years, had a groundwater model for the district based
3 on the Republican River Compact model. But I think that the thought is the AEM
4 mapping will give us much better information about the subsurface, and then we can
5 improve the model going forward and really target actions on reductions or whatever
6 else we need to happen.

7 On -- we've got one irrigation district in the upper basin, the Almena
8 Irrigation District, tied to Keith Sebelius Reservoir. Last year -- I think it was last year --
9 we approved some changes to how they manage water, so they essentially have
10 abandoned their canal system and are pumping directly out of the stream. And, this
11 year, they're working on a lot of the easements and the canals themselves; and do they
12 turn those back over to the landowners and farm across those canals, or what do they
13 do with the canals. So, they're actively working on that as well.

14 In the lower portion, of course, we have -- you mentioned Nebraska
15 Bostwick. We have the Kansas Bostwick Irrigation District that has, for a number of
16 years, worked very diligently on improving efficiency primarily by converting open
17 laterals to PVC pipe and buried laterals. They continue to do that; and, this year, they're
18 burying about 5,000 feet of PVC pipe to replace some laterals and are in the process of
19 applying for another Bureau of Reclamation WaterSMART Grant, in that case to improve
20 their water handling system and some of the -- automating some of the check valves
21 along the system. I think another eight or nine structures will be converted if we are
22 successful that way.

23 We've been pretty successful as a state with NRCS and the Regional
24 Conservation Partnership Program on a couple of fronts. First, at the state level, our

1 Department of Ag's Division of Conservation last year was awarded a grant for our RCPP
2 agreement for \$25 million. That is focused on the high plains aquifer in our five
3 groundwater management districts targeting a number of practices, but primarily with
4 the goal of reducing the overall demand on the aquifer by as much as 10 percent over
5 that five-year period. So, a lot of things, irrigation management, technology, some of
6 those things. And that's -- that's beginning to be rolled out. There'll be additional staff
7 in each of the groundwater management districts to help producers, you know, manage
8 their systems better, do irrigation system audits, those kind of things, to make sure that
9 we are as efficient as possible and educate our producers on how they can be productive
10 with less water over time. So that's a big win.

11 I'd also like to point out the South Fork Republican River RCPP led by the
12 Cheyenne County Conservation District and Dani Holzwarth. So, I appreciate their
13 leadership in that; and, I think, in 2021 was the first year that they were awarded about
14 \$2.7 million, if I remember correctly, primarily targeted towards some phreatophyte
15 removal and then a number of issues related to water management and stock water use
16 in that basin as well.

17 We continue, through the Kansas Water Office and through the Cheyenne
18 County Conservation District, to -- to do cost share on irrigation system improvements in
19 Cheyenne County and South Fork, as well as some other practices as well. So, again,
20 continuing to -- to work on some of that funding that has been provided by Colorado as -
21 - in lieu of some of the damages a few years ago.

22 So, again, a lot going on. There's some other things I might make sure we
23 get in the record in a written report, but I think those are kind of the key things that
24 pertain to the Republican River system. So, I'd stop there and see if there's any

1 questions.

2 (No response.)

3 All right. Thank you very much.

4 We'll next move on to federal reports, and first up is the Bureau of
5 Reclamation. And, again, I'll have -- whoever's coming up to talk, I'd ask you to come up
6 and be over here by Chris. He's going to have a microphone for your use to make sure
7 that it gets on the record correctly and, also, that the folks online can hear you well.

8 So, Aaron, whenever you're ready.

9 MR. THOMPSON: Thank you. First off, I want to extend my sincere thanks
10 to both Director Riley and Director Rein for their leadership and dedication throughout
11 their time with us. Their vision and guidance have really made a lasting impact on our
12 team, and we truly appreciate the opportunity to work with them.

13 Reclamation has provided a report for the record, a similar format to
14 previous years. This report covers reservoir operations data for 2023 and current year
15 information through July of 2024. So, starting with 2023 operation highlights,
16 throughout 2023, reservoirs across the region faced below-average water levels and
17 challenging inflow conditions and multiple reservoirs starting the year at historically low
18 levels. Precipitation varied from 90 percent of average at Lovewell Dam to 143 percent
19 of average at Red Willow Dam. This was a significant improvement from 2022. Bonny
20 Reservoir remained dry, while Enders and other reservoirs like Swanson and Hugh Butler
21 showed slight improvements in water levels due to spring precipitation.

22 Despite these improvements, irrigation releases were limited or absent,
23 with Enders, Swanson, Hugh Butler, and Keith Sebelius Lakes experiencing reduced
24 operations. Enders Reservoir marked its 21st consecutive year without providing storage

1 water for irrigation. Other reservoirs, like Keith Sebelius and Bonny, also did not release
2 water for irrigation. Harry Strunk failed to reach the top of conservation in 2023 for the
3 first time not filling since 2013. This is the only eighth -- this is -- excuse me. This is only
4 the eighth time in 70 years that this has happened. Irrigation supplies from Harlan
5 County Lake reached 119,000 acre feet in June, therefore, water-short administration --
6 water-short year administration was not in effect for 2023.

7 Moving on to 2024 highlights, Table 2 in the attached -- in the report for
8 the current year shows the current year reservoir information through July 31st.
9 Precipitation for the year has been near normal to slightly above normal at all project
10 dams. All irrigation districts in the basin have provided irrigation deliveries in 2024 with
11 the exception of Frenchman Valley Irrigation District. This is the second consecutive year
12 Frenchman Valley Irrigation District has not diverted any flows into the Culbertson Canal.

13 At the end of May 2024, Nebraska Bostwick Irrigation District requested
14 to transfer approximately 2,000 acre feet from their account in Harlan County Lake to
15 KBID's account to ensure KBID's account reached 68,000 acre feet. Irrigation supplies for
16 Harlan County Lake exceeded 119,000 acre feet in June of 2024. This is the sixth
17 consecutive year in which water-short year administration was not in effect.

18 And that concludes my comments to the -- to the directors.

19 CHAIRMAN LEWIS: Thank you.

20 Is there any questions?

21 COMMISSIONER BRADLEY: No questions. I'd just say we do appreciate
22 the WaterSMART Program. It's been very important to our water users in Nebraska and
23 appreciate that funding from Bureau of Reclamation.

24 MR. THOMPSON: Thank you.

1 CHAIRMAN LEWIS: One -- one, maybe, question. Can you expand a little
2 bit on the status of the Bonny Dam safety issue and work study?

3 MR. THOMPSON: To be honest, I didn't prepare any remarks for that, so -
4 - but I would be happy to have my assistant, Craig Scott, give the directors an update
5 next time he has a chance.

6 CHAIRMAN LEWIS: That would be great. Thank you.

7 MR. THOMPSON: Yep, no problem.

8 CHAIRMAN LEWIS: All right. Thank you for your report.

9 Next up is the Corps of Engineers. I didn't hear anybody announce
10 themselves as the Corps of Engineers.

11 So, we'll move on to the USGS. Whenever you're ready. Thank you.

12 MR. MILLER: All right. Thank you. Thank you for the opportunity to -- to
13 share a little bit about the USGS operations in the Republican -- in the Republican Basin.
14 For the 2023 water year --

15 THE COURT REPORTER: Sir, excuse me. Could you state your name and
16 spell it for me?

17 MR. MILLER: Sure. Sure. John Miller with the U.S. Geological Survey.

18 THE COURT REPORTER: Thank you.

19 MR. MILLER: Okay. Just a -- first, a few notes on some gage operations,
20 some what I like to call gage-hardening efforts that we've made within the ba- -- within
21 the basin. The -- I guess those that have -- that have kind of followed the Arikaree River
22 gage, I looked back in my notes, and I thought that was just a couple of years ago that we
23 had moved that. But that actually was back in 2018 when we had moved that gage, and
24 just kind of an update on that. It has proven to be a much-improved record at that gage,

1 where the shifting is -- has gotten a lot more stable in that channel. You know, we're
2 pretty hesitant to move a gage. But, because of all the beaver dams in that area where
3 the old gage was at, it was just be -- getting almost impossible to compute discharge
4 record. In fact, we were at the point of having to estimate a lot of the record because of
5 the beaver activity. So, this new site definitely has improved that record at the Arikaree
6 River gage.

7 The South Fork of the Republican River, we seen just a little blip of flow in
8 2023 and, then again this year, there was a little bit of flow. We don't get a lot of
9 opportunity to -- to see that -- if our pressure system is working there, 'cause we don't
10 have water there very often. So, this last summer, we went ahead and installed a radar
11 gage on the bridge just so I don't miss any -- any flows that may come through -- come
12 through that -- that reach.

13 We've also installed a new gage at the Red Willow, near Red Willow gage.
14 We've moved it to a little bit better location on the upstream side of the bridge, and we
15 also installed a radar gage there also, which will, you know, at times, it's going to
16 improve the -- the gage height record at that site.

17 Okay. And just -- just kind of some -- some blanket statements about the -
18 - the discharge records in the 2023 water year. And if you're not familiar with that, that's
19 going to be October 1st, 2022, to September 30th, 2023, is what the data on the summary
20 sheet that was -- that's back there is covering. The annual mean discharge at just about
21 all of the sites was up from the 2022 water year. And this has been mentioned, we had
22 much-improved rainfall throughout the Republican River Basin, specifically at the upper
23 end of the basin.

24 It was mentioned that north central Nebraska is behind a little bit on

1 rainfall. And the Sappa Creek near Stamford gage, which is just upstream of the Harlan
2 County Reservoir, that was actually a site that didn't see improved discharge in 2023.
3 The only -- the only one, in fact.

4 Let's see, and I had to comment on that May 25th, 26th rain event that
5 occurred in -- in the Republican -- or in the Stratton to McCook area. Those of us that
6 are in the water world, those kind of events get really, really exciting. I didn't jot down
7 that rainfall amount, but I believe it was just in a short amount of time, was upwards of
8 10 inches of rain. Probably the most significant event was recorded at the Republican
9 River at the Stratton gage. This is -- this is definitely in the criteria of a flash flood. That
10 gage went from a little bit under a hundred cfs to -- to near 12,000 cfs in two hours. I'd --
11 I was -- actually had called some of my counterparts in Kansas to see if they had a boat.
12 I'd heard on my way down there to get, you know, a discharge measurement there, I'd
13 heard that we may need a boat to get to the gage. It had receded a little bit, so we were
14 actually able to get to the -- to the gage and get a -- and get a nice measurement. We
15 were off the peak a little bit there, but we were able to compute that event fairly
16 accurately.

17 A couple other significant numbers with that rain event. There was a
18 peak of record gage height at not only the Republican River at Stratton gage, but the
19 Frenchman at Palisade and the Republican River at McCook. And that is peak of record
20 gage height; not discharge, but peak of record gage height. So that was -- that was a
21 very, very significant event.

22 And then, two -- just a couple other notes. The Driftwood Creek near
23 McCook and the Courtland Canal were above the long-term mean, which is something I
24 don't get to say about Republican River gages very often, so I thought I would -- I thought

1 I would mention -- would mention that.

2 I believe, yeah, that's the end of -- that's the end of my report. Is there
3 any questions?

4 CHAIRMAN LEWIS: Thank you, John.

5 Is there any questions?

6 (No response.)

7 I don't think so. Thank you for your report.

8 MR. MILLER: All right. Thank you.

9 CHAIRMAN LEWIS: Next up, committee reports, Engineering Committee.
10 So, Chris Beightel, whenever you're ready.

11 MR. BEIGHTEL: Thank you, Mr. Chairman.

12 This last year, the Engineering Committee was assigned nine assignments,
13 and I'll go through those briefly. But before I do, I want to thank my fellow Engineering
14 Committee members, Kari Burgert from Nebraska and Ivan Franco from Colorado, and
15 also the -- our respective teams that do just a tremendous amount of the work for the
16 Engineering Committee, including Chelsea Erickson and Willem Schreüder, the -- our
17 consultant. So, anyway, thank you for all that. Lots of reviewing of documents and
18 checking of numbers to get to this point.

19 So, I'll go briefly through the assignments that we had. Number one was
20 meet quarterly to review the tasks, which we did in November of 2023; then, this year,
21 January, April, and July.

22 Exchange the required Compact data by April 15th of 2024, which we did,
23 and then provided subsequent updates as necessary to get to an accounting that we
24 could agree on.

1 The third assignment was to finalize the 2023 accounting and recommend
2 it for approval. We were able to get to agreement on all of the accounting numbers, and
3 we will be recommending the agreed-upon accounting to the Commission for action a
4 little bit later in the agenda.

5 Number four was continue to work on creating a document memorializing
6 when RRCA accounting procedures have changed over the years. We are keeping that
7 document up to date, and it's posted on our website, which I'll mention a little bit later, I
8 guess.

9 Provide updates on progress on new and ongoing management strategies
10 for maintaining Compact compliance. That's a space for the committee to get together
11 and just talk about those management strategies and anything that the states are doing
12 to improve Compact compliance or tracking or anything like that.

13 Number six, continue efforts to develop and publish an administrative
14 website. We are -- we are doing that and posting news items. We have all the historical
15 documents, some history of the Compact itself. And Chelsea from Kansas is doing most
16 of the heavy lifting on that, but with lots of good input from the other states. So that's
17 out there. That's where you'll find meeting minutes and meeting announcements and
18 things like that.

19 Number seven, continue working on and providing updates on accounting
20 tools developed by the EC, and that's a space for us to just talk about how we can make
21 the accounting more accurate, more efficient, those kinds of things. So, from time to
22 time, we come up with ideas and bounce them around the committee. So, that's good.

23 Number eight, prepare the 2023 annual meeting report for approval by
24 the RRCA at the 2024 annual meeting. And that has been approved and, I believe, acted

1 upon already earlier in the agenda, so that's great. Check that one off the box.

2 And, number nine, our last assignment, was to identify a mutually
3 agreeable verification process for the 10,000 acres of irrigation that Colorado committed
4 to in the 2016 resolution. And that was the one assignment that we did not completely
5 get through. While we recognize that the -- there's been a tremendous amount of
6 progress made, and I -- actually, it's been described earlier, so I'm not going to describe
7 that again. But we didn't make it through there, because we just need to get to the last
8 bit of verification of those acres. And so, we're working through that bit, and I think we
9 will expect a -- some direction from the Administration on continuing that assignment.

10 So, some other items for discussion and some recommendations from the
11 EC. We -- we certainly -- the Engineering Committee recommends the 2023 accounting
12 as presented in the Engineering Committee report for approval by the administration,
13 which I mentioned will be taken up a little bit later in the agenda. We recommend that
14 we continue our relationship with Principia Mathematica to do the work on the
15 accounting and model runs and related work that has been done in the past at the same
16 level of service. We recommend that we, again, deal with the acreage verification that
17 we talked about earlier.

18 And, in that vein, just a few more. And the standard recommended
19 assignments, we recommend that we go ahead and meet quarterly again next year; that
20 we complete the 2024 Compact accounting and come to agreement and meet all of
21 those time lines; that we continue to maintain and develop the documents that I
22 mentioned and the website; and provide updates on progress and ongoing management
23 as is appropriate; and then prepare the 2024 annual meeting for approval by the RRCA at
24 the 2025 annual meeting. And I did -- I kind of paraphrased those assignments, but the

1 assignments are in the Engineering Committee report. And so, I would ask, you know,
2 for the sake of clarity for the record, that the assignments that are in the report be
3 assigned to the Engineering Committee, along with whatever else the administration
4 decides to assign to us.

5 And, lastly, I'd just note, again, that this report and all the other reports
6 will be posted at our website at <https://republicanriver.org>, in case you want to go there.

7 So, that's all I have, Mr. Chairman. Thank you.

8 CHAIRMAN LEWIS: Thank you, Chris.

9 Are there any questions about the report or the proposed assignments?

10 (No response.)

11 I don't see any questions. Thank you for the report. And we will deal
12 with adoption of the report and the assignments, as well as the accounting, under new
13 business.

14 Old business, we have recognition of Colorado's acquisition of the
15 contracts for the retirement of at least 10,000 acres towards the 2016 resolution
16 obligations. And we had pretty extensive discussion about this during the work session.
17 I do want to echo Commissioner Ullmann's recognition of Deb Daniel and her team and
18 the hard work that they've done to get to this point. So that's -- we recognize that is no
19 easy task or no small accomplishment. So, we certainly -- and we've provided copies of
20 all that information. We recognize that, you know, we've totaled those up, and it's a
21 little over 12,000 acres. As Chris said during the Engineering Committee, we've not quite
22 gotten through the verification process, but I think that our intent -- and you'll hear that
23 here in the -- in the assignments in a little bit -- is to get that done yet this year, and then
24 probably hold a special meeting, either in person or virtually, to pass a resolution to

1 recognize that.

2 So, I don't know. Anything you want to add, Commissioner Bradley?

3 COMMISSIONER BRADLEY: No. I think you covered it.

4 CHAIRMAN LEWIS: Commissioner Ullmann?

5 COMMISSHER ULLMANN: I think I covered it in my report, so --

6 CHAIRMAN LEWIS: Great. All right. Well, thank you very much.

7 So we are on to new business, and back on action on the Engineering
8 Committee report and its assignments. So, are there any other questions regarding the
9 report or the proposed assignments? And, if not, I would entertain a motion to accept
10 the report, as well as the proposed assignments.

11 COMMISSIONER ULLMANN: I think, is this maybe the proper time to talk
12 about the -- the assignment for continuing to work -- for the Engineering Committee to
13 continue to work on the verification or review the data that has been provided?

14 CHAIRMAN LEWIS: Yes, I think it would be.

15 COMMISSIONER ULLMANN: Okay.

16 CHAIRMAN LEWIS: Yes.

17 COMMISSIONER ULLMANN: So, I think that's, you know, as we discussed
18 during the work session, just that continued work with what you already stated, the goal
19 of having a special meeting in -- prior to December 31st to recognize that verification.

20 CHAIRMAN LEWIS: Commissioner Bradley, is that acceptable to you?

21 COMMISSIONER BRADLEY: Yes.

22 CHAIRMAN LEWIS: Okay. Is that --

23 COMMISSIONER ULLMANN: With that, I'll make a motion to approve the
24 Engineering Report, if that's the motion you're looking for.

1 CHAIRMAN LEWIS: And the attached assignments as well, correct?

2 COMMISSIONER ULLMANN: And the attached assignments as well, yes.

3 CHAIRMAN LEWIS: With the modification. So, thank you.

4 Do we have a second?

5 COMMISSIONER BRADLEY: I'll second the motion.

6 CHAIRMAN LEWIS: All right. Any further discussion on the motion?

7 (No response.)

8 Hearing none, all in favor say aye.

9 COMMISSIONER ULLMANN: Aye.

10 COMMISSIONER BRADLEY: Aye.

11 CHAIRMAN LEWIS: Aye. Motion carried.

12 Next is action on the 2023 accounting, which, again, the Engineering
13 Committee put together and presented to us. So, any questions on the accounting?

14 And, if not, then I'd accept a motion to approve the accounting as presented.

15 COMMISSIONER BRADLEY: I would move to adopt the 2023 accounting.

16 COMMISSIONER ULLMANN: I'll second that.

17 CHAIRMAN LEWIS: A motion and a second. Any discussion on the

18 motion?

19 (No response.)

20 Hearing none, all in favor say aye.

21 COMMISSIONER ULLMANN: Aye.

22 COMMISSIONER BRADLEY: Aye.

23 CHAIRMAN LEWIS: Aye. The accounting is adopted.

24 So, we're on to remarks from the public. So, at this time, anybody that

1 would like to address the administration, I'd ask that you come up and stand by Chris
2 here. Speak into the mic so that everybody can hear you, as well as those folks online.
3 And, again, for the record, if you could state your name, who you're with, and make sure
4 that the reporter understands the spelling. So, thank you. Go ahead.

5 MR. LENZ: Thank you. My name is Rod Lenz with the Republican River
6 Water Compact -- no, Republican River Conservation District. Anyhow, thank you for the
7 opportunity to speak with you today. The first thing I want to do, is I want to recognize
8 the Compact administration for your collaboration of three states together, because I
9 think you guys are accomplishing so much more than you did years ago, and it's really
10 refreshing to see.

11 I want to talk just a little bit about our engagement -- Republican River's
12 engagement with BOR on the Bonny project, because I know part of the retirement of
13 acres down in South Fork depends on us getting water through Bonny. So we've kind of
14 en- -- we've engaged with BOR in their analysis of Bonny. We were -- we are delighted to
15 the fact that they invited us to participate in some of their value surveys that they did
16 when they were evaluating Bonny. So we spent a week with the BOR last November, and
17 we've had several follow-up meetings. And, in those meetings, we were able to raise, as
18 far as priorities, Compact compliance to the number three priority, which I think is
19 phenomenal. So, once again, I want to thank BOR for including us in those decisions.

20 So, going forward, you know, our goal is to get water through Bonny. And,
21 really, the first people that are going to benefit from that are the irrigators in northwest
22 Kansas. And we know that. We may get some impact at the gage at some point, but
23 we've got to actually fill alluviums to get to the gage. We know that. It doesn't change
24 the fact that Bonny should be dealt with, and water flow is the primary concern for us.

1 An example of -- of the status right now. In mid-June -- mid-June, I was
2 west of Bonny. And we found -- we measured five cfs, and it went into Bonny. And very
3 -- at the highest peak, there was very little water coming out of the outflow structure.
4 So, we've got some potential there to deliver some real water. And so, that's the -- the
5 target that we have, and it's not just the retirement of 25,000 acres. We know that
6 25,000 acres will provide some water, but it doesn't do much good if we don't get it
7 through the dam.

8 So, I just want to kind of update you on that, and I know Deb's going to
9 talk a little bit about the 25,000 acres.

10 CHAIRMAN LEWIS: Before you leave, first of all, thank you for your
11 report.

12 Are there any questions?

13 MR. LENZ: Sorry about that.

14 CHAIRMAN LEWIS: No, you're okay.

15 (No response.)

16 All right. Thank you.

17 MR. LENZ: Thank you.

18 CHAIRMAN LEWIS: (Indiscernible.)

19 MS. DANIEL: Good morning. Thank you so much for allowing us this
20 opportunity to speak. Thank you very much for all of you coming out and being in our
21 basin. You've heard me several years in a row say it's so important, I feel, that out -- the
22 people that are making the
23 decisions --

24 COMMISSIONER ULLMANN: Say your name.

1 MS. DANIEL: I'm so sorry. My name is Deb Daniel. I'm the general
2 manager of the Republican River Water Conservation District in Colorado. I apologize for
3 that.

4 So, anyway, back to -- thank you. Thank you for coming out here. I know
5 it's a -- not an easy task to leave your office and your busy lives to come out here into the
6 basin, but I think it's so important that you're here, and we've got people here that
7 you're affecting. The decisions that you're making are affecting us. So, thank you for
8 coming here.

9 Thank you, Earl, and your staff for setting this up. And Chelsea, as always,
10 she's really great about keeping in touch with all of us.

11 Thank you, Nebraska, for coming and all of your input about WaterSMART
12 is really interesting. Telemetry, our basin is starting to talk about it and look at it.

13 And, of course, Jason Ullmann, he is -- he's only been in our state in this
14 position for a short period of time, but it has been a joy to work with Jason and with his
15 staff, with Tracy Kosloff. Thank you so much for working with us. Marie that's from --
16 here from our state also. Of course, with Ivan Franco and Dan Steuer. Really appreciate
17 all of you being here.

18 And -- and you heard several times about the acres that are in the South
19 Fork focus zone. But one thing I want you to understand is the Republican River District
20 has a water-use fee. And we have a fee based on irrigated acres. We have several
21 different things that we go through and evaluate in those contracts. We do not pay for
22 one acre that was not irrigated. So I just want you to understand that, you know. When
23 there is nothing here that was previous- -- that was not irrigated, because the thing is,
24 why would we take away that income source and pay them for something that they

1 never did irrigate.

2 So, I just want to tell you how strongly I feel these are acres we -- you've
3 been submitted some of our contracts, not all of them. And we're well on our way to
4 making it. I've had several people say, "Well, what do you think about 25,000? That's a -
5 - that's another big reach." But we will be making that. And I'm hoping that we can even
6 achieve that before the deadline. I really have strong hopes that we will. But I want you
7 to understand, I feel very strongly, these are retired acres. And I know that, in a very
8 short period of time, you'll be able to find all of that. So, have any questions about it?
9 Please reach out to our state, reach out to us. We're here to help you understand what
10 we've -- what we've accomplished.

11 So, I think that's probably all that I have. Are there any questions?

12 CHAIRMAN LEWIS: Are there any questions?

13 (No response.)

14 COMMISSIONER ULLMANN: No.

15 COMMISSIONER BRADLEY: Thank you.

16 MS. DANIEL: Thank you.

17 CHAIRMAN LEWIS: Thank you, Deb.

18 Anybody else that would like to address the administration today?

19 (No response.)

20 All right. Seeing none, again, appreciate everybody coming in and
21 attending today. We're down to our last agenda item, which is future meeting
22 arrangements. And, as you've heard, we'll have a follow-up discussion, either virtually or
23 in person, yet this year. We'll kind of track along with the Engineering Committee
24 progress on that before we set a date to make sure -- we'll want to do that as quickly as

1 possible after we are all comfortable with -- we're -- we can verify those acres. So, I
2 wouldn't want to set a date yet, but we'll certainly do it before the end of the year.

3 Next year about this same time our plan is to be in what we call the Lower
4 Republican. Again, as Deb pointed out, we want to get folks in northwest Kansas, we
5 want our constituents in north central Kansas to get an opportunity as well, so we'll be
6 working on something, probably, in the Concordia or Clay Center area, that type of thing.
7 Again, start circulating some dates here soon so everybody can get it on their calendar,
8 at least. Again, probably sometime in August of 2025.

9 Any other comments on future meeting arrangements or any -- anything
10 else that we need to bring before the administration today?

11 COMMISSIONER ULLMANN: I'll just -- I'll just say thank you. I neglected
12 to thank Kansas for all of your great work to host the meeting. So, thank you for your
13 staff and your work to do that.

14 CHAIRMAN LEWIS: All right. Hearing nothing else, I'd entertain a motion
15 to adjourn.

16 COMMISSIONER BRADLEY: I'd move to adjourn.

17 COMMISSIONER ULLMANN: I'll second that.

18 CHAIRMAN LEWIS: I have a motion and a second. All those in favor say
19 aye.

20 COMMISSIONER ULLMANN: Aye.

21 COMMISSIONER BRADLEY: Aye.

22 CHAIRMAN LEWIS: Aye.

23 We are adjourned.

24 (Whereupon, on August 28, 2024, the meeting was adjourned.)

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CERTIFICATE

GENERAL REPORTING SERVICE, contract transcription agency for the Republican River Compact Administration, does hereby certify that this Transcript of Proceedings was prepared from the record of the proceedings made by General Reporting Service on August 28, 2024; that, to the best of my ability, the preceding pages constitute a true and accurate verbatim transcription of this proceeding in a format consistent with the requirements of the Republican River Compact Administration and Nebraska Supreme Court rules; that said Transcript of Proceedings consists of:

VOLUME I -- Pages 1 to 49, incl.;

and that the cost of said Transcript of Proceedings, including postage, if any, is \$_____.

Dated this 12th day of September 2024.

By: _____
Certified Reporter and Transcriber

Exhibit B: Attendance

EXHIBIT B1 - Attendance

ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION
August 28, 2024
Colby, Kansas
Record of Attendance
(in alphabetical order)

<u>Name</u>	<u>Representing</u>
Peter Ampe	Colorado Republican River Water Conservation District
Chris Beightel	Kansas Division of Water Resources
Don Blankenau	Nebraska Outside Counsel
Alex Boyce	Nebraska Middle Republican Natural Resources District
Jesse Bradley	Nebraska Commissioner
Kari Burgert	Nebraska Department of Natural Resources
Dale Cramer	Nebraska Frenchman-Cambridge Irrigation District
Deb Daniel	Colorado Republican River Water Conservation District
David Engelhaupt	Kansas Division of Water Resources
Chelsea Erickson	Kansas Division of Water Resources
Ivan Franco	Colorado Division of Water Resources
Danielle Holzwarth	Kansas Cheyenne County Conservation District
Tracy Kosloff	Colorado Division of Water Resources
Stephanie Kramer	Kansas Division of Water Resources Chief Counsel
Justin Lavene	Nebraska Attorney General's Office
Rod Lenz	Colorado Republican River Water Conservation District
Earl Lewis	Kansas Commissioner & Chair
Lori Marintzer	U.S. Geologic Survey, Kansas Water Science Center
John Miller	U.S. Geologic Survey, Nebraska Water Science Center
Keadron Pearson	Kansas Water Office
Linda Rohman	Court Reporter
Kristin Schneider	Colorado Republican River Water Conservation District
Willem Schreüder	Principia Mathematica
Mike Schultz	Kansas Rural Water Association/City of Brewster
Whitney Schultz	U.S. Department of Agriculture Farm Service Agency
Todd Siel	Nebraska Lower Republican Natural Resources District
Dan Steuer	Colorado Attorney General's Office
Marie Sullivan	Colorado Division of Water Resources
Aaron M. Thompson	U.S. Bureau of Reclamation
Jason Ullmann	Colorado Commissioner
Tom Wilmoth	Nebraska Outside Counsel
Kurtis Wiard	Kansas Attorney General's Office

Republican River Compact Administration
 August 28, 2024 Colby, Kansas

	Name - please print	Representing
1	Kari Burgert	NeDNR
2	Wahney Schultz	FSA
3	MIKE SAUTZ	City of Brewster
4	Dale Cramer	Frenchman-Cambridge Irr. Dist
5	Lori Marintzer	USGS KSWSC
6	Keb Jamel	RRW CD
7	Kristin Schneider	RRW CD
8	Danielle Holzmann	IN CO. Conservation Dist.
9	Chris Beightel	KIA DNR
10	Earl Lewis	KS Commissioner, chair
11	Jason Wilmann	CO Commissioner
12	Linda Rohman	Court reporter
13	John Miller	us Geologic Survey
14	Justin Lavene	Nebraska Attorney General's Office
15	Don Blankenau	NE Outside Counsel

Republican River Compact Administration
 August 28, 2024 Colby, Kansas

	Name - please print	Representing
1	TOM WILMST	NEBRASKA
2	Jesse Brault	Nebraska
3	Alex Boyle	Nebraska
4	DAN STEUER	COLORADO
5	Marie Sullivan	Colorado
6	Peter Ampe	RRWCD
7	Keaton Pearson	KWO
8	Tracy Kosloff	Colorado
9	Todd Siel	Nebraska
10	Kurtis Wiard	Kansas
11	David Engelhaupt	KDA-DWR
12	Chelsea Erickson	KDA-DWR
13	Stephanie Kramer	KDA-DWR
14	Juan Franco	Colorado DWR
15	William Schreidy	RRWCD Principia Maternalize

Republican River Compact Administration
August 28, 2024 Colby, Kansas

	Name - please print	Representing
1	Aaron M. Thompson	Reclamation
2	Red Lenz	RRWCD
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Exhibit C: Agenda

AGENDA FOR
**2024 ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION**

August 28, 2024, 10:00 a.m. Central Time

1200 South Franklin Avenue

Colby, Kansas 67701

1. Introductions
2. Adoption of the Agenda
3. Status of annual report for the year 2022 and possible action by the RRCA
4. Commissioners' Reports
 - a. Colorado
 - b. Nebraska
 - c. Kansas
5. Federal Reports
 - a. Bureau of Reclamation
 - b. U.S. Army Corps of Engineers
 - c. U.S. Geological Survey
6. Committee Reports
 - a. Engineering Committee
 - i. Assignments from 2023 Annual Meeting
 - ii. Committee recommendations to the RRCA
 - iii. Recommended assignments for Engineering Committee
7. Old Business
 - a. Recognition of Colorado's acquisition of the contracts for retirement of at least 10,000 acres toward the 2016 resolution obligations
8. New Business and Assignments to Compact Committees
 - a. Action on Engineering Committee Report and assignments
 - b. Action on 2023 Accounting
9. Remarks from the Public
10. Future Meeting Arrangements
11. Adjournment

Exhibit D: U.S. Bureau of Reclamation Report

RECLAMATION

Managing Water in the West

Nebraska-Kansas Area Office

Report

To The

Republican River

Compact Administration

Colby, Kansas



— BUREAU OF —
RECLAMATION

**U.S. Department of the Interior
Bureau of Reclamation
Missouri Basin Region
Nebraska-Kansas Area Office**

August 28, 2024

REPUBLICAN RIVER COMPACT MEETING

August 28, 2024
Colby, Kansas

2023 Operations

As shown on the attached Table 1, precipitation in the Republican River Basin varied from 90 percent of normal at Lovewell Dam to 143 percent of normal at Red Willow Dam. Total precipitation at Reclamation project dams ranged from 21.34 inches at Bonny Dam to 28.81 inches at Norton Dam.

Inflows varied from 34 percent of the most probable forecast at Bonny Reservoir to 170 percent of the most probable forecast at Swanson Lake. Inflows into Bonny Reservoir totaled 1,659 AF while inflows at Harlan County Lake totaled 95,417 AF.

Average farm delivery values for total irrigable acres were as follows:

<u>District</u>	<u>Farm Delivery</u>
Frenchman Valley	0.0 inches
Frenchman-Cambridge	3.3 inches
Almena	0.0 inches
Bostwick in NE	6.2 inches
Kansas-Bostwick	11.1 inches

2023 Operation Notes

Bonny Reservoir – Remained empty at elevation 3638.00 feet, 34.0 feet below the top of conservation. The annual computed inflow totaled 1,659 AF. Reservoir inflows were bypassed the entire year as ordered by the State of Colorado. No water was bypassed into Hale Ditch in 2023.

Enders Reservoir – The reservoir level began the year at a level of 3,078.21 feet (34.1 feet below the top of conservation). This was the lowest start of the year elevation recorded since initial filling and is 1.79 feet below the outlet works intake (Deadpool). The reservoir level increased gradually during the spring to a peak elevation of 3,081.74 feet on July 11th. Due to the extremely low water supply available, no water was released from Enders Reservoir during the irrigation season. The end of the year reservoir level was 3,080.75 feet (31.5 feet below the top of conservation). The Frenchman Valley Irrigation District did not divert natural flow from Frenchman Creek in 2023.

Swanson Lake – The lake level began the year at elevation 2,727.58 feet (24.4 feet below the top of conservation) and gradually increased throughout the late winter and spring. Numerous precipitation events in May caused the lake to rapidly rise approximately 7.6 feet. The district did not divert into Meeker-Driftwood Canal in 2023. The end of the year elevation of 2,738.64 feet (13.4 feet below the top of conservation) was the peak elevation for the year.

Hugh Butler Lake – The reservoir level at the first of the year was 2,560.72 feet (21.1 feet below the top of conservation). Late winter, spring and summer inflows gradually increased the lake level to a summer peak of 2,567.31 feet on August 9th. Due to a low reservoir content at the beginning of the year the district did not make releases for Red Willow Canal. The end of year elevation was 2,566.63 feet (15.2 feet below the top of conservation). Bartley Canal diverted 7,099 AF of natural flow in 2023.

Harry Strunk Lake – The reservoir level at the beginning the year was 2,361.96 feet (4.1 feet below the top of conservation). The reservoir did not fill for the first time since 2013. Irrigation releases started June 25th. The reservoir level peaked at elevation 2,365.91 feet on June 25th. The district diverted 22,285 AF into Cambridge Canal. The end of year elevation was 2,361.96 feet at the end of the year (4.1 feet below the top of conservation).

Keith Sebelius Lake – The reservoir elevation was 2,290.62 feet (13.7 feet below the top of conservation) at the first of the year. Late winter, spring and summer inflows gradually increased the lake level to a yearly peak of 2,294.91 feet on September 24th. No irrigation releases were made in 2023. Inflows in December exceeded evaporation, gradually increasing the elevation to the end of year elevation of 2,294.55 feet (9.8 feet below the top of conservation).

Harlan County Lake – Harlan County Lake began the year at 1,938.50 feet (7.2 feet below the top of conservation). The conservation pool did not fill in 2023 but did peak at 1941.31 feet (4.4 feet below top of conservation) on June 8th. The conservation pool was split May 30th as irrigation releases began. The projected irrigation supply at the end of June was 119,000 AF. It was determined that Water Short Year Administration would not be in effect in 2023. Bostwick in Nebraska Irrigation District diverted 34,500 AF in 2023. Kansas-Bostwick Irrigation District diverted 56,340 AF in 2023. A ten-year summary of Harlan County Lake operations is shown on Table 3. The end of year elevation was 1,937.98 feet (7.8 feet below the top of conservation).

Lovewell Reservoir – The reservoir elevation at the beginning of 2023 was 1,578.59 feet (4.0 foot below top of conservation). Rains in late May and June raised the lake elevation to a yearly peak of 1583.45 (0.9 feet above top of conservation). All flood water accumulations were utilized for irrigation. Irrigation releases for canal seasoning/flushing began May 30th with releases in earnest beginning starting mid-June and continued until September 16th. Irrigation releases lowered the lake to an annual low of 1574.70 (7.9 feet below conservation) on September 15th. Republican River flow was diverted via the Courtland Canal into Lovewell Reservoir after the irrigation season. The pool level at the end of the year was 1,580.13 feet (2.5 foot below top of conservation).

Current Operations (As of 7/31/24)

Bonny Reservoir – The reservoir is currently empty. No water has been released into Hale Ditch in 2024. Bonny Dam has recorded 13.51 inches of precipitation during the first seven months of the year (114% of average).

Enders Reservoir - The reservoir level is currently 31.2 feet below full and 0.37 feet below last year at this time. Enders Dam recorded 11.30 inches of precipitation during the first seven months of the year (85% of normal). This is also the twenty-first consecutive year that Frenchman Valley Irrigation District has not received storage water for irrigation.

Swanson Lake – The lake level is currently 12.3 feet from full and is 1.4 feet above last year at this time. Precipitation for the year is at 104% of normal (14.09 inches). Irrigation releases began on June 24th.

Hugh Butler Lake – The lake level is currently 16.48 feet below full and is 0.9 feet below last year at this time. Irrigation releases began on June 23rd. The precipitation total so far this year is 16.46 inches (126% of normal).

Harry Strunk Lake – The lake level is currently 3.7 feet below the top of conservation. Precipitation at the dam during the first seven months of the year was 16.88 inches (120% of normal). Irrigation releases began on May 7th. The lake level is currently 1.6 feet below last year at this time.

Keith Sebelius Lake – The lake is currently 10.5 feet below full. Lake level is 0.6 feet below last year at this time. Precipitation at the dam during the first seven months of the year was 18.44 inches (115% of normal).

Harlan County Lake – The lake level is approximately 5.0 feet below full. The lake level is 1.5 feet above last year at this time. Harlan County Dam has recorded 17.05 inches of precipitation so far this year (113% of normal). Irrigation releases started on June 13th. The available irrigation supply from Harlan County Lake on June 30th was 119,000 AF.

Lovewell Reservoir – The reservoir level is currently 2.8 feet below the top of conservation and approximately 1.7 feet above last year's elevation at this time. Lovewell Dam recorded 14.46 inches of precipitation during the first seven months of the year (83% of average). Canal releases began on May 30th.

A summary of data for the first seven months of 2024 is shown on Table 2.

TABLE 1
NEBRASKA-KANSAS PROJECTS
Summary of Precipitation, Reservoir Storage and Inflows
CALENDAR YEAR 2023

Reservoir	Total Precip.	Percent Of Average	Storage 12-31-21	Storage 12-31-22	Gain or Loss	Maximum Content	Storage Date	Minimum Content	Storage Date	Total Inflow	Percent Of Most Probable
	Inches	%	AF	AF	AF	AF		AF		AF	%
Box Butte	23.09	134	9,113	12,786	3,673	17,181	7/14	7,772	9/9	19,911	129
Merritt	26.27	123	61,533	61,451	-82	66,523	7/9	49,035	9/8	211,958	110
Calamus	26.31	104	96,605	100,936	4,331	121,663	5/15	55,832	9/17	288,124	106
Davis Creek	32.31	124	12,838	13,661	823	30,043	7/11	11,996	4/15	63,335	131
Bonny	21.34	120	0	0	0	0	#N/A	0	#N/A	1,659	34
Enders	22.70	118	6,545	7,948	1,403	8,539	7/11	6,550	1/1	5,003	102
Swanson	25.17	124	24,473	55,612	31,139	55,612	12/31	24,495	1/1	42,263	170
Hugh Butler	28.44	143	10,986	16,306	5,320	16,995	8/9	11,002	1/1	9,867	99
Harry Strunk	23.00	109	19,165	27,835	8,670	34,298	6/25	19,257	1/1	31,441	78
Keith Sebelius	28.81	115	12,322	17,260	4,938	17,767	9/23	12,334	1/1	10,750	165
Harlan County	28.30	121	225,470	219,693	-5,777	258,197	6/7	209,935	9/21	95,417	92
Lovewell	25.10	90	23,703	27,797	4,094	38,260	6/6	16,633	9/15	51,628	105
Kirwin	24.10	101	70,612	58,237	-12,375	75,125	6/22	57,252	11/14	17,777	59
Webster	20.39	85	44,193	30,064	-14,129	48,425	6/22	29,783	12/12	11,868	61
Waconda	18.84	74	159,307	160,397	1,090	167,901	7/20	157,829	11/14	66,976	47
Cedar Bluff	19.43	91	83,230	72,874	-10,356	83,464	1/22	72,594	12/12	7,955	70

TABLE 2
NEBRASKA-KANSAS AREA OFFICE
Summary of Precipitation, Reservoir Storage and Inflows

JANUARY - JULY 2024

Reservoir	Precip. Inches	Percent Of Average %	Storage 7/31/2023 AF	Storage 7/31/2024 AF	Gain or Loss AF	Inflow AF	Percent Of Most Probable %
Bonny	13.51	114	0	0	0	1,085	34
Enders	11.30	85	8,406	8,184	(222)	2,477	73
Swanson	14.09	104	54,612	59,221	4,609	21,324	100
Hugh Butler	16.46	126	15,900	15,029	(871)	5,159	78
Harry Strunk	16.88	120	31,055	28,526	(2,529)	20,527	76
Keith Sebelius	18.44	115	16,996	16,178	(818)	4,737	99
Harlan County	17.05	113	233,787	251,681	17,894	83,409	106
Lovewell	14.46	83	21,656	25,994	4,338	24,910	86

Inflow at Swanson Lake includes water from augmentation (pumping) projects.

**TABLE 3
HARLAN COUNTY LAKE**

Year	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	Precipitation		End of Year Content (AF)	Projected Irrig. Water Supply On June 30th (AF)
					Harlan County Dam* (% of Average)	Rep. Basin Dams (% of Average)		
2014	92,209	35,502	32,387	18.53	80%	105%	148,842	59,000
2015	106,728	54,502	33,652	28.85	125%	115%	167,416	79,600
2016	126,679	63,972	35,920	27.82	120%	109%	194,203	103,500
2017	118,889	52,764	36,081	26.60	115%	104%	224,247	111,600
2018	120,146	53,451	35,914	29.61	128%	128%	255,028	106,600
2019	402,546	272,471	55,374	30.94	134%	132%	329,729	139,716
2020	125,674	130,068	45,704	17.38	75%	74%	279,631	143,392
2021	130,998	88,222	42,022	28.22	121%	91%	280,385	141,404
2022	64,506	70,579	48,842	17.02	73%	66%	225,470	130,000
2023	95,417	65,068	36,126	28.30	121%	102%	219,693	119,000

NOTE: On June 30, 2024 Projected Irrigation Water Supply was 119,000 AF.

* Average Annual Precipitation at Harlan County Dam is 23.13 inches

Exhibit E: U.S. Geological Survey Report

Republican River Basin streamflow-gaging stations with records published by USGS for water year (WY) 2023

[DCP, data-collection platform; NDNR, Nebraska Department of Natural Resources; USACE, U.S. Army Corps of Engineers; USBR, U.S. Bureau of Reclamation; USGS, U.S. Geological Survey]

Station number	Station name	Mean discharge (ft ³ /s)		WY 2023 as	WY 2023 as	WYs used	Remarks
		WY 2023	Long-term	percentage of long-term mean	rank/years (1 highest)	for long-term mean	

USGS Compact stations supported by the Groundwater Streamflow Information Program (GWSIP)

06821500	Arikaree River at Haigler, Nebr	2.0	14.8	13.3%	74/91	1933 - 2023	
06823000	North Fork Republican River at Colo-Nebr State Line	35.7	40.8	87.5%	63/88	1936 - 2023	
06823500	Buffalo Creek near Haigler, Nebr	2.2	5.6	38.8%	75/83	1937 - 2023	
06824000	Rock Creek at Parks, Nebr	5.3	11.7	45.2%	81/83	1938 - 2023	
06824500	Republican River at Benkelman, Nebr	39.4	76.3	51.6%	54/56	1939 - 2023	
06827500	South Fork Republican River near Benkelman, Nebr	0.1	31.0	0.2%	80/86	1940 - 2023	
06835500	Frenchman Creek at Culbertson, Nebr	36.3	61.3	59.2%	55/73	1941 - 2023	Since Enders Reservoir
06836500	Driftwood Creek near McCook, Nebr	9.6	7.7	124.5%	21/77	1942 - 2023	
06838000	Red Willow Creek near Red Willow, Nebr	6.3	12.4	50.6%	51/62	1943 - 2023	Since Hugh Butler Lake
06847000	Beaver Creek near Beaver City, Nebr	0.9	13.8	6.4%	67/86	1944 - 2023	
06847500	Sappa Creek near Stamford, Nebr (USACE funds DCP)	6.3	35.5	17.7%	57/77	1945 - 2023	
06852500	Courtland Canal at Nebr-Kans State Line (USBR DCP)	91.8	74.8	122.7%	16/69	1946 - 2023	
06853020	Republican River at Guide Rock, Nebr	17.1	248.4	6.9%	71/73	1947 - 2023	Based on record from this and upstream station 06853000

USGS stations supported by USGS and/or other Federal or State agencies

06828500	Republican River at Stratton, Nebr	41.9	86.4	48.5%	58/73	1951 - 2023	Funded by USACE and GWSIP
06837000	Republican River at McCook, Nebr	45.0	111.8	40.3%	54/69	1955 - 2023	Funded by USBR, NDNR, and GWSIP
06844500	Republican River near Orleans, Nebr	66.9	214.2	31.2%	69/76	1948 - 2023	Funded by USACE and GWSIP

NDNR stations with USGS/USACE support for DCP, Web display, review, and publishing

06834000	Frenchman Creek at Palisade, Nebr	21.4	54.5	39.3%	59/73	1951 - 2023	
06843500	Republican River at Cambridge, Nebr	65.9	194.5	33.9%	67/74	1952 - 2023	Since Harry Strunk Lake

Online Annual Water Data Reports available at or through:

<http://wdr.water.usgs.gov>
<https://www.usgs.gov/centers/ne-water>

USGS North Platte Field Office

John Miller (jdmiller@usgs.gov)
 308-532-5323

USGS Lincoln Field Office

Tim Boyle (tboyle@usgs.gov)
 402-328-4125

Exhibit F: Engineering Committee Report

Engineering Committee Report
Republican River Compact Administration
August 28th, 2024

EXECUTIVE SUMMARY

This document reports the activities of the Republican River Compact Administration (RRCA) Engineering Committee (EC) from the August 31st, 2023, RRCA Annual Meeting to the August 28th, 2024, RRCA Annual Meeting. The EC met four times since the August 31st, 2023, RRCA Annual Meeting and completed eight of the nine tasks it was assigned. The following tasks were completed: 1) hold quarterly meetings; 2) exchange information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, including all required data and documentation; 3) finalize 2023 accounting; 4) continue work on documenting historical changes to the RRCA Accounting Procedures; 5) provide updates on the progress of new and ongoing management strategies for maintaining Compact compliance; 6) continue development and maintenance of the RRCA administrative website that serves as an informational page for the public and provide regular updates to the EC; 7) continue work and provide updates on improving accounting tools developed by the Engineering Committee; and 8) work to prepare the 2022 RRCA annual meeting report.

One task remains before the EC: 9) identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.

Attachment 1: Agendas and Minutes of the quarterly meetings of the EC

Attachment 2: Accounting Inputs and Accounting Tables from the RRCA Accounting for 2023 recommended by the EC for approval by the RRCA (Task 3)

COMMITTEE ASSIGNMENTS AND RELATED WORK ACTIVITIES

1. Meet quarterly to review the tasks assigned to the committee.
 - The EC met November 8, 2023; January 18, 2024; April 18, 2024; and July 11, 2024. See Attachment 1 for the approved minutes of these meetings.
2. Exchange by April 15, 2024, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation. By July 15, 2024, the states will exchange any updates to these data.
 - Nebraska posted its data on April 12, 2024, and provided an update on June 28, 2024.
 - Kansas posted its data on April 12, 2024, and provided an update to the data on July 9, 2024.

- Colorado posted its data on April 12, 2024, along with the Crop Irrigation Requirement (CIR) data. There were no changes to the data posted in April.
3. Finalize the 2023 accounting and recommend it for approval by the RRCA.
 - Colorado, Kansas, and Nebraska accounting data for 2023 are final and the EC hereby recommends approval of the accounting by the RRCA.
 - The applicable summary accounting tables are presented in Attachment 2.
 4. Continue work on creating a document memorializing when RRCA Accounting Procedures (AP) have changed over the years and incorporate it into the AP.
 - The most recent version of the document, as amended by Nebraska with the approved RRCA Groundwater Model 2022 Update from the 2023 RRCA meeting, was posted to the RRCA website.
 5. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - Kansas informed the EC that minimum desirable streamflow was being enforced in parts of the basin. The EC heard several updates on the status of automation efforts on the Courtland Canal along with preliminary information on the status of the NRCS-sponsored Regional Conservation Partnership Program in the Upper Republican River Basin, which will focus on phreatophyte removal along the river channel. Kansas received confirmation from Nebraska that the U.S. Bureau of Reclamation had complied with Nebraska's closing notice and added 1,860 acre-feet of Remaining Compact Compliance Volume to the Kansas Account.
 - Nebraska provided updates on the current year forecasting and Compact Compliance Volume estimates and kept the other states informed of the status of Water Short and Compact Call Year determinations. Nebraska discussed anticipated and completed management actions for its 2024 Compact Call Year, including administration of 3,440 acre-feet for the Kansas Bostwick Irrigation District (KBID) account in Harlan County Lake. Nebraska reported on activities regarding the Platte-Republican Diversion project.
 - Colorado provided updates on deliveries by the Colorado Compliance Pipeline (CCP), which was anticipated to be nearly 11,000 acre-feet for the year 2024. Colorado also detailed the efforts by the Republican River Water Conservation District (RRWCD) to retire acres in the South Fork Republican River basin area.
 6. Continue efforts to develop and publish an administrative website that would be an informational page for the public.
 - State staff have maintained and updated the website, which is accessible to the public, and reported back to the EC.

7. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee.
 - The EC continues to use the website accounting tool to validate the accounting spreadsheet results.
8. Prepare the 2023 RRCA annual meeting report for approval by the RRCA at the 2024 annual meeting.
 - The report has been finalized and approved by the EC and is hereby recommended for approval by the RRCA.
9. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
 - Kansas requested a GIS coverage of the retired acres to identify location and quantity of acres for verification.
 - The RRWCD provided a list of the retirement contracts along with a GIS shapefile, but Kansas wanted further clarification of the data and GIS shapefile.
 - Nebraska also requested a GIS coverage of the retired acres to identify location and quantity of acres for verification.

ITEMS FOR RRCA DISCUSSION & ACTION

1. The EC recommends the proposed 2023 accounting presented in Attachment 2 and in the spreadsheet titled “RRCA Accounting 2023 Final.xlsx” for approval by the RRCA. Upon approval of the accounting, the above-mentioned spreadsheet file will be placed on the public website.
2. In addition to any other assignments from the Administration, the EC recommends that Principia Mathematica continue in Compact year 2024 to maintain the web-based accounting tool and perform periodic model and accounting updates at the same level of service as in 2023.
3. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
4. The EC respectfully offers the following list of recommended assignments to work on in the coming compact year and report on at the 2025 annual meeting of the RRCA.

RECOMMENDED ASSIGNMENTS FOR THE COMING YEAR

1. Meet quarterly to review the tasks assigned to the committee.

2. Complete the 2024 compact accounting:
 - Exchange by April 15, 2025, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation.
 - Exchange by July 15, 2025, any updates to these data.
 - Finalize the 2024 accounting and recommend it for approval by the RRCA.
3. Continue to develop and maintain:
 - *Summary of Historical Changes to the RRCA's Accounting Procedures and Reporting Requirements* as necessary.
 - the RRCA administrative website that serves as an informational page for the public
 - accounting tools developed by the Engineering Committee.
4. Provide respective state updates on the progress of new and ongoing management strategies for maintaining compact compliance
5. Prepare the 2024 RRCA annual meeting report for approval by the RRCA at the 2025 annual meeting.

The Engineering Committee Report and the exchanged data will be posted on the web at <http://republicanriver.org/>

SUBMITTED TO THE RRCA BY


Christopher Beightel, Chair and Engineering Committee Member for Kansas


Kari Burgert, Engineering Committee Member for Nebraska


Ivan Franco, Engineering Committee Member for Colorado

**MINUTES of the
QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**

November 8, 2023 2:00 pm Central Time

1. Introductions
 - a. Kansas – Chris Beightel, Chelsea Erickson, Hongsheng Cao, Sam Perkins
 - b. Nebraska – Kari Burgert, Sam Capps, Brian Flynn, Elizabeth Esseks, Stefan Remund
 - c. Colorado – Ivan Franco, Willem Schreuder
2. Review/Modify Agenda
 - a. There were no modifications to the agenda.
3. Review and Update Progress on Engineering Committee Task List (See agenda items below)
4. Summary of Meeting Actions/Assignments
 - a. Chelsea to post the accounting tracking document on the website.
 - b. Ivan to consult with Kevin on concurrence with the Kansas RCCV letter.
 - c. Kansas will start a list of requests for verification of Colorado's retired acres.
 - d. Colorado will check internally and with the District on information that was available to provide for verification of Colorado's retired acres.
 - e. Annual report transcript review is on-going. Nebraska will start the reviewing process and then pass that along to Kansas.
5. Future Meetings
 - a. Request for using Zoom platform as Nebraska and Colorado do not have the Teams software.
 - b. Chris mentioned that Sam Capps had offered to set up the court reporter for the 2024 annual meeting, so Kansas has settled on the meeting date of August 29th in Colby.
 - i. Sam will check that date with the reporter.
 - ii. Elizabeth asked how to coordinate that process.
 - iii. Chris said Kansas would pay for her services if Nebraska can coordinate getting the reporter to the meeting.
 - c. Sam noted that Kari accepted the tech coordinator position in DNR. Her activities with the Engineering Committee will not be impacted by the change. Congratulations were offered to Kari and her new position.
6. Adjourn

ENGINEERING COMMITTEE TASK LIST

1. Meet quarterly to review the tasks assigned to the committee.
 - a The quarterly meetings have been scheduled.
2. Exchange by April 15, 2023, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation. By July 15, 2023, the states will exchange any updates to these data.
 - a No progress yet.
3. Finalize the 2022 accounting and recommend it for approval by the RRCA.
 - a No progress yet.
4. Maintain and publish updates to Summary of Historical Changes to the RRCA's Accounting Procedures and Reporting Requirement's as necessary.
 - a Chris asked for any updates to the document.
 - b Kari stated the most recent document was drafted by Nebraska, approved at the annual meeting and should be posted to the website.
 - c Chelsea noted that the document had not been published to the website yet, so will add that as an action item.
 - d Ivan agreed to Kari's review of the history of this task.
5. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - a Chris announced there were no updates from Kansas at this time.
 - b Kari noted that Nebraska had received Kansas' letter requesting RCCV and Tom (Riley) responded. The letter also requested Colorado concurrence with the issue. Kari mentioned that Nebraska will be making management actions by June 1, 2024.
 - Chris asked Ivan if Colorado has discussed the letter and Ivan responded that he would follow up on that question.
 - c Ivan mentioned the Colorado compliance report from September and asked Willem for an update on the Colorado Compliance Pipeline. Willem reported that the pipeline was turned on at the beginning of October and appeared to be on target to provide 12,500 acre-feet by the end of the year.
6. Continue development and maintenance of the RRCA administrative website that serves as an informational page for the public and provide regular updates to the EC.
 - a Chelsea will get the accounting history document added to the website. She also mentioned that all the annual meeting documents have been posted and the front page of the website has been updated as well.
7. Continue work and provide future updates on improving accounting tools developed

by the Engineering Committee.

- a There were no updates identified.
8. Prepare the 2022 RRCA annual meeting report for approval by the RRCA at the 2023 annual meeting.
 - a Elizabeth confirmed that Nebraska will begin review of the meeting transcript after the Basin-Wide Plan Annual Meeting.
 9. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
 - a Chris asked the committee to review the new task of verifying Colorado's 10,000 retired acres. There was a discussion about the specific language for the task.
 - b Chris asked for an informal discussion about the verification process and mentioned that Kansas would like to see a GIS coverage of the acres retired to identify location and quantity of acres for easier verification by the Kansas team. Chris mentioned there may be additional items to add.
 - c Kari mentioned that "when" of the retirement contracts may also be important to show the time period that the acres are retired, or if there is just a start date for the acre retirement.
 - d Chris suggested circulating a bullet-style list of items to discuss before the next committee meeting. He offered to provide a list to Nebraska first and then they pass it along to Colorado for additional review.
 - e Ivan confirmed that the District in Colorado has an internal list of the retirement contracts and a map but was not sure if they were ready for distribution. He offered to follow up with the District and also looked forward to reviewing the list of items to discuss. Ivan also offered to check with Kevin Rein to see if there was any additional information available relating to this task. Ivan mentioned he would send an email with the most up to date information he has available, so the states can review that before offering their list of questions.

**MINUTES of the
QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**
January 18, 2024 2:00 pm Central Time

1. Introductions
 - a. Kansas – Chris Beightel, Chelsea Erickson, Steven Thurlow
 - b. Colorado – Ivan Franco, Willem Schreüder
 - c. Nebraska – Kari Burgert, Sam Capps, Brian Flynn, Stefan Remund
2. Review/Modify Agenda
 - a. There were no modifications to the agenda.
 - b. Nebraska has made edits to the November draft minutes and will circulate those to Colorado next.
3. Review and Update Progress on Engineering Committee Task List (See agenda items below)
4. Summary of Meeting Actions/Assignments
 - a. Kansas will start a list of requests for verification of Colorado’s retired acres.
 - b. Colorado will check with the District on information that is publicly available for verification of Colorado’s retired acres.
 - c. Annual report transcript review is on-going.
5. Future Meetings
 - a. April 18 and July 11 next EC meetings.
 - b. Chris will send Zoom meeting links for each meeting.
6. Adjourn

ENGINEERING COMMITTEE TASK LIST

1. Meet quarterly to review the tasks assigned to the committee.
 - a The quarterly meetings have been scheduled.
2. Exchange by April 15, 2024, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation. By July 15, 2024, the states will exchange any updates to these data.
 - a Kari noted that the US Bureau of Reclamation (Bureau) has sent most of their data.
 - b Willem noted that he tried to enter the reservoir evaporation from the Bureau data and could not get that to line up, so asked if there was an adjustment made. Kari mentioned that the Bureau data are gross evaporation and then the states calculate net evaporation.
3. Finalize the 2023 accounting and recommend it for approval by the RRCA.
 - a No progress yet.
4. Maintain and publish updates to Summary of Historical Changes to the RRCA's Accounting Procedures and Reporting Requirements as necessary.
 - a Chelsea gave an update that the document has been posted to the three-states website.
5. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - a Chris mentioned the letter from Kansas to Nebraska for the RCCV. On December 14th, Kansas received confirmation from Nebraska that the Bureau had complied with Nebraska's closing notice and added the 1,860 acre-feet of Remaining Compact Compliance Volume that was requested by the state of Kansas to the Kansas Account. .
 - b Kari noted that Nebraska had sent the 2024 forecast to provide the final CCV, which was zero, and that 2024 is designated as a Compact Call Year. Nebraska DNR will be hearing from the Natural Resource Districts on their plans for compliance. Sam noted that Nebraska will provide Kansas with an update once those plans are reviewed and finalized.
 - Willem asked if 2024 is predicted as water short.
 - Kari noted that the water supply is forecasted at 103,000 acre-feet, so there would need to be quite a turn around to reach 119,000 AF.
 - c Ivan mentioned that Tracy Kosloff is now the acting State Engineer.
 - d Willem noted that the pipeline is running and forecasted to pump around 11,000 or 12,000 acre-feet. That estimate will be re-evaluated in April. The District is planning to deliver around 6,000 to 7,000 AF in spring.

- Chris asked if there were any problems with icing of the pipeline wells.
 - Willem says as long as the volume remains steady then there are no issues, but when the wells stop then there are issues with re-starting.
6. Continue development and maintenance of the RRCA administrative website that serves as an informational page for the public and provide regular updates to the EC.
 - a Chelsea updated that the accounting history document was added. Then she found a few broken links on various pages and got those fixed. Waiting on Nebraska to respond to an email about one of their links.
 - b Chelsea will update the Colorado commissioner information when the time comes.
 7. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee.
 - a There were no updates identified.
 8. Prepare the 2023 RRCA annual meeting report for approval by the RRCA at the 2024 annual meeting.
 - a Kari mentioned that Nebraska has done an extensive review of the annual meeting transcript and will pass that file along once it's finished.
 9. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 annual meeting.
 - a Chris suggested circulating a bullet-style list of items to discuss before the next committee meeting. He offered to provide a list to Nebraska first and then they pass it along to Colorado for additional review.
 - b Ivan confirmed that the District in Colorado has a list of the retirement contracts and a map but was not sure if they were ready for distribution. He offered to follow up with the District.
 - c Ivan mentioned there is a simple spreadsheet that Kevin Rein sent out with the contact numbers and descriptions.
 - d Ivan noted that the groundwater commission is working with water right owners to update the permits once the wells are retired and the water right canceled. The canceled final permit might be available after that process is complete.
 - Chris asked if the state collects water use data by water right in a database, to do a before and after comparison on the irrigated acres.
 - Ivan replied that there are published diversion records available for the permits.

**MINUTES of the
QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**

April 18, 2024 2:00 pm Central Time

1. Introductions
 - a. Kansas – Chris Beightel, Chelsea Erickson, Sam Perkins, Hongsheng Cao
 - b. Colorado – Ivan Franco, Willem Schreüder
 - c. Nebraska – Kari Burgert, Sam Capps, Brian Flynn, Stefan Remund, Elizabeth Esseks
2. Review/Modify Agenda
 - a. There were no modifications to the agenda.
 - b. Future meetings – annual meeting date and arrangements
3. Review and Update Progress on Engineering Committee Task List (See agenda items below)
4. Summary of Meeting Actions/Assignments
 - a. Colorado will continue working with the RRWCD on information that is available for verification of Colorado’s retired acres and share that with the other states.
 - b. Annual report development continues.
 - c. Nebraska complete irrigated acreage verification with the NRDs and send updated datasets.
 - d. Finalize the January Engineering Committee minutes; Colorado was ok with the Nebraska edits.
5. Future Meetings
 - a. July 11 EC meeting.
 - b. Annual meeting in Colby on August 28th. Chelsea will share information on hotels in the area. Expect the meeting format to remain the same as past meetings.
6. Adjourn

ENGINEERING COMMITTEE TASK LIST

1. Meet quarterly to review the tasks assigned to the committee.
 - a The quarterly meetings have been scheduled.
2. Exchange by April 15, 2024, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation. By July 15, 2024, the states will exchange any updates to these data.
 - a Chris noted that the majority of Kansas data was posted April 12th and a final post was done April 15th, including the CIR summary and crop distributions.
 - b Nebraska data was posted April 12th as well. Kari noted that the Nebraska NRDs hired a contractor to overhaul the database that stores pumping and acres data. That process is on-going. The pumping data and certified acres are available, but the data are still being reviewed for accuracy. Sam Capps mentioned that the NRDs plan to use the database information to build dashboards for the producers to use for real-time decisions.
 - Willem asked about the format of that database and if Nebraska's pre-processor and RRPP inputs will continue to be in the current formats. Kari stated that once that database updates are finalized, Nebraska would work with Willem and the EC to make any necessary updates to the files for the groundwater model.
 - c Willem noted that Colorado data were included in the model update for the CCP projection on April 12th. All Colorado data provided should be in final form. The only thing that is still outstanding is the CIR spreadsheet.
3. Finalize the 2023 accounting and recommend it for approval by the RRCA.
 - a No update to report.
4. Maintain and publish updates to Summary of Historical Changes to the RRCA's Accounting Procedures and Reporting Requirements as necessary.
 - a No update to report.
5. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - a Chelsea gave an update on the Cheyenne County Conservation District's work with the settlement money including new solar pumps and removal of phreatophytes along the South Fork Republican in Kansas.
 - b Willem noted that the Colorado pipeline shut off April 12th with 6,004 AF delivered. The projection total is 11,000 AF, so deliver another 5,000 starting in mid-October depending on how the year goes.
 - c There is no update on Colorado's retirement of South Fork acres.
 - d Kari noted that there is a public hearing for the Platte-Republican Diversion project in late-May. Nebraska DNR has been conducting administration on 3,440 AF of Nebraska management actions from Harry Strunk Reservoir for

the KBID account in Harlan County Lake.

6. Continue development and maintenance of the RRCA administrative website that serves as an informational page for the public and provide regular updates to the EC.
 - a Chelsea updated that the RRCA annual meeting is on the home page and will update as more information is available. Chelsea will also update a link that Stefan provided for the Nebraska page.
7. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee.
 - a No update to report.
8. Prepare the 2022 RRCA annual meeting report for approval by the RRCA at the 2023 annual meeting.
 - a Ivan mentioned that he received all the comments from the states and is working with the stenographer to get a final transcript. The meeting summary is in development as well.
9. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
 - a Chris reported that Earl Lewis contacted Deb Daniel with the Republican River Water Conservation District regarding the documentation of the South Fork focus zone retired acres and received a shapefile. The information Deb has provided needed more clarification, so Kansas is waiting to do a final review once additional data are available.
 - b Ivan mentioned that he located a comprehensive spreadsheet with the retirement information and hopes to get the Colorado GIS team to coordinate those documents into a user-friendly version with all the information available.

**MINUTES for the
QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**

July 11th, 2024 2:00 Central Time

1. Introductions
 - a. Kansas – Chris Beightel, Chelsea Erickson, Sam Perkins, Hongsheng Cao
 - b. Colorado – Ivan Franco, Willem Schreüder
 - c. Nebraska – Sam Capps, Elizabeth Esseks
2. Review/Modify Agenda
 - a. There were no modifications to the agenda.
3. Review and Update Progress on Engineering Committee Task List (See agenda items below.)
4. Summary of Meeting Actions/Assignments
 - a. Nebraska will take the lead to provide a draft accounting spreadsheet for review.
 - b. Kansas and Nebraska will contact the Colorado leadership and also the Republican River Water Conservation District (RRWCD) to follow up on the GIS coverage request for approving the RRWCD's acre retirements.
 - c. The states will review the draft minutes from the April and July meetings.
 - d. Kansas will provide a draft of the annual Engineering Committee report to review.
 - e. The states will review the forthcoming 2023 annual report for approval at the annual meeting on August 28th.
5. Future Meetings
 - a. The next meeting(s) will be in Colby, Kansas, Wednesday August 28th 8:30 AM for the work session and 10:00 AM for the compact annual meeting.
 - b. Kansas will work to provide a livestream of the compact meeting; details will be forthcoming.
6. Adjourn

ENGINEERING COMMITTEE TASK LIST

1. Meet quarterly to review the tasks assigned to the committee.
 - a. This task is complete.
2. Exchange by April 15, 2024, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that document, including all necessary documentation. By July 15, 2024, the states will exchange any updates to these data.
 - a. This task is complete.
3. Finalize the 2023 accounting and recommend it for approval by the RRCA.
 - a. Sam Perkins reported accounting changes for Kansas of 600 acre-feet increase and 3,500 irrigated acre decrease, which specifically was due to corrections to the reported data.
 - b. Ivan Franco noted that the Colorado data was unchanged but questioned if the CIR data had been posted yet. Willem confirmed that the CIR information is available on the website in the Colorado 2024 folder.
 - c. Sam Capps reported that the Nebraska update was provided on June 28th. The state is doing a final review of the groundwater model input files but does not expect any changes.
 - d. Chris asked Sam (Capps) if Nebraska planned to do the first review of the accounting spreadsheet and Sam confirmed that it is being drafted and will share the spreadsheet once it's done.
 - e. Willem Schreüder sent out an accounting update the morning of July 11th and said he was aware of a change in the gage flow on Medicine Creek and reported that all the canal flows are up to date as well. He asked if there were any new updates and Sam (Capps) replied that Nebraska is reviewing their groundwater inputs but does not expect any further changes.
4. Maintain and publish updates to *Summary of Historical Changes to the RRCA's Accounting Procedures and Reporting Requirements* as necessary.
 - a. No update to report.
5. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - a. Sam (Capps) noted that it is not in a Water Short Year but is a Compact Call Year, so they will continue providing monthly accounting updates of Compact Compliance Volume to the states.
 - b. Willem noted that the Colorado Compliance Pipeline (CCP) will likely start running again the beginning of November. The RRWCD plans to provide a total of 10,000 acre-feet for the year, so likely another 4,000 acre-feet will be pumped in November and December. The RRWCD will know more by the end of August on the final amount needed to pump.
6. Continue development and maintenance of the RRCA administrative website that serves as an informational page for the public and provide regular updates to the EC.
 - a. No update to report.
7. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee.
 - a. No update to report.

8. Prepare the 2023 RRCA annual meeting report for approval by the RRCA at the 2024 annual meeting.
 - a. Ivan reported that the transcript edits were incorporated by the reporter, so that should be complete. He expects to have the annual report draft ready in a week or two.
 - b. Chris mentioned starting the Engineering Committee report for this year as well.
 - c. Chelsea Erickson confirmed the minutes for April were circulated prior to the EC meeting and awaits comments from NE and CO staff.
9. Identify a mutually agreeable verification process with criteria so that the Compact commissioners can verify that Colorado met its obligation of retiring 10,000 acres, and so such verification can take place on or before the date of the 2024 Compact administration meeting.
 - a. Chris reported that Kansas had obtained a spreadsheet from the RRWCD that included an Excel table, contract numbers and acres, but that Kansas needs a GIS coverage. Kansas was told that there were problems with the GIS file provided by the RRWCD and that the RRWCD was checking with its consultant to correct it. There has been no subsequent update from the RRWCD. Chris questioned if Ivan had an update.
 - b. Ivan mentioned that the GIS map issue was elevated to the Colorado leadership, and he confirmed that the full list of redacted contract files obtained from the RRWCD was all Colorado initially intends to provide. Ivan relayed that a GIS map was not considered necessary, as it was decided the spreadsheet/contracts were a complete record of the retired acres.
 - c. Sam (Capps) reported that Nebraska has not seen the coverage provided to Kansas by the RRWCD, but the state's concerns are similar to Kansas' concerns and Nebraska wants to see a map as well. Nebraska is interested in where the acres are located.
 - d. Chris noted that he will talk to Earl to take this up with the Colorado leadership further to get a GIS coverage of the acres.
 - e. Sam (Capps) mentioned that she would also talk with Tom about the matter of Nebraska approaching the RRWCD and Colorado leadership.

Attachment 2 - Accounting Inputs, Tables, and Attachments from the RRCA Accounting for 2023

Calendar Year		2023
Groundwater Data		
North Fork Subbasin	GW CBCU Colorado	19,066
	GW CBCU Kansas	0
	GW CBCU Nebraska	1,329
Arikaree Subbasin	GW CBCU Colorado	2,214
	GW CBCU Kansas	236
	GW CBCU Nebraska	157
Buffalo Subbasin	GW CBCU Colorado	435
	GW CBCU Kansas	0
	GW CBCU Nebraska	3,635
Rock Subbasin	GW CBCU Colorado	95
	GW CBCU Kansas	0
	GW CBCU Nebraska	5,161
South Fork Subbasin	GW CBCU Colorado	16,252
	GW CBCU Kansas	7,987
	GW CBCU Nebraska	1,165
Frenchman Subbasin	GW CBCU Colorado	187
	GW CBCU Kansas	0
	GW CBCU Nebraska	88,333
Driftwood Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	952
Red Willow Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	9,475
Medicine Creek Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	23,406
Beaver Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	4,624
	GW CBCU Nebraska	2,779
Sappa Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	(49)
	GW CBCU Nebraska	922
Prairie Dog Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	2,818
	GW CBCU Nebraska	0
Mainstem Subbasin	GW CBCU Colorado	(9)
	GW CBCU Kansas Above Guide Rock	(2,285)
	GW CBCU Kansas Below Guide Rock	69
	GW CBCU Nebraska Above Guide Rock	64,325
	GW CBCU Nebraska Below Guide Rock	2,854

Import Water Data		
North Fork Subbasin	Imported Water Nebraska	0
Arikaree Subbasin	Imported Water Nebraska	0
Buffalo Subbasin	Imported Water Nebraska	0
Rock Subbasin	Imported Water Nebraska	0
South Fork Subbasin	Imported Water Nebraska	0
Frenchman Subbasin	Imported Water Nebraska	0
Driftwood Subbasin	Imported Water Nebraska	0
Red Willow Subbasin	Imported Water Nebraska	43
Medicine Creek Subbasin	Imported Water Nebraska	11,141
Beaver Subbasin	Imported Water Nebraska	0
Sappa Subbasin	Imported Water Nebraska	0
Prairie Dog Subbasin	Imported Water Nebraska	0
Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	5,536
	Imported Water Nebraska Below Guide Rock	(17)
	Total	16,703

SW Pumping Data		
North Fork Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Colorado	192
	SW Diversions - Irrigation - Small Pumps - Colorado	0
	SW Diversions - M&I - Colorado	0
Arikaree Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Colorado	0
	SW Diversions - Irrigation - Small Pumps - Colorado	0
	SW Diversions - M&I - Colorado	0
	SW Diversions - Irrigation - Non-Federal Canals - Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	0
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Nebraska	0

Attachment 2 - Accounting Inputs, Tables, and Attachments from the RRCA Accounting for 2023

Calendar Year		2023
Buffalo Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
	SW Diversions - Irrigation - Small Pumps - Colorado	0
	SW Diversions - M&I - Colorado	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	189
	SW Diversions - Irrigation - Small Pumps - Nebraska	5
	SW Diversions - M&I - Nebraska	0
Rock Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Nebraska	0
South Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
	SW Diversions - Irrigation - Small Pumps - Colorado	0
	SW Diversions - M&I - Colorado	0
	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	0
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Nebraska	0
Frenchman Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Nebraska	0
Driftwood Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	0
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
Red Willow Subbasin	SW Diversions - M&I - Nebraska	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	44
Medicine Creek Subbasin	SW Diversions - M&I - Nebraska	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Small Pumps - Nebraska - Above Gage	34
	SW Diversions - M&I - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	36
Beaver Subbasin	SW Diversions - M&I - Nebraska - Below Gage	0
	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
	SW Diversions - Irrigation - Small Pumps - Colorado	0
	SW Diversions - M&I - Colorado	0
	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	18
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Small Pumps - Nebraska - Above Gage	0
	SW Diversions - M&I - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
	SW Diversions - M&I - Nebraska - Below Gage	0
Sappa Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	0
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Small Pumps - Nebraska - Above Gage	0
	SW Diversions - M&I - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
	SW Diversions - M&I - Nebraska - Below Gage	0
Prairie Dog Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	418
	SW Diversions - M&I - Kansas	361
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
Mainstem Subbasin	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	59
	SW Diversions - M&I - Nebraska - Below Gage	0
	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	1,069
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	2,616
	SW Diversions - Irrigation - Small Pumps - Nebraska	2,137
	SW Diversions - M&I - Nebraska	0
SW Diversions - Irrigation - Non-Federal Canals - Nebraska Below Guide Rock	0	
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	1,026	
SW Diversions - M&I - Nebraska - Below Guide Rock	0	

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Calendar Year		2023
Non-Federal SW Consumptive Use		
	% Non-Federal Canal Diversion Consumed	60%
	% Small Surface Water Pumps Consumed	75%
	% Municipal And Industrial SW Consumed	50%

Non-Federal Reservoir Evaporation Data		
North Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	61
Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Kansas	15
	Non-Federal Reservoir Evaporation - Nebraska	0
Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Nebraska	6
Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	73
South Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Kansas	132
	Non-Federal Reservoir Evaporation - Nebraska	0
Frenchman Subbasin	Non-Federal Reservoir Evaporation - Nebraska	56
Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	10
	Non-Federal Reservoir Evaporation - Nebraska	0
Red Willow Subbasin	Non-Federal Reservoir Evaporation - Nebraska	91
Medicine Creek Subbasin	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	119
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	2
Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Kansas	237
	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	90
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	254
	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	37
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	2
Prairie Dog Subbasin	Non-Federal Reservoir Evaporation - Kansas	208
	Non-Federal Reservoir Evaporation - Nebraska	11
Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	61
	Non-Federal Reservoir Evaporation - Nebraska - Above Guide Rock Gage - Whole Basin Value:	757
	Non-Federal Reservoir Evaporation - Nebraska - Below Guide Rock Gage - Whole Basin Value:	78

Stream Gage Data		
North Fork Subbasin	North Fork Republican River At Colorado-Nebraska State Line	28,618
Arikaree Subbasin	Arikaree River At Haigler	1,678
Buffalo Subbasin	Buffalo Creek Near Haigler	1,601
Rock Subbasin	Rock Creek At Parks	3,963
South Fork Subbasin	South Fork Republican River Near Benkelman	48
Frenchman Subbasin	Frenchman Creek At Culbertson	30,628
Driftwood Subbasin	Driftwood Creek Near McCook	7,130
Red Willow Subbasin	Red Willow Creek Near Red Willow	4,653
Medicine Creek Subbasin	Medicine Creek Below Harry Strunk	17,440
Beaver Subbasin	Beaver Creek Near Beaver City	648
Sappa Subbasin	Sappa Creek Near Stamford	4,923
Prairie Dog Subbasin	Prairie Dog Creek Near Woodruff	4,178
Mainstem Subbasin	Republican River At Guide Rock	14,677
	Republican River Near Hardy	34,861

Hardy Gage Data		
	USGS Gage 06853500 Republican River Near Hardy, NE	
Mainstem Subbasin	January	2523
	February	2410
	March	7361
	April	4173
	May	2091
	June	3006
	July	2301
	August	2561
	September	1918
	October	1454
	November	1673
	December	3389
	ANNUAL	34,861

Attachment 2 - Accounting Inputs, Tables, and Attachments from the RRCA Accounting for 2023

Calendar Year		2023
Reservoir Data		
South Fork Subbasin	Bonny Reservoir Evaporation	0
	Bonny Reservoir Change In Storage	0
Frenchman Subbasin	Enders Reservoir Evaporation	876
	Enders Reservoir Change In Storage	1,403
Red Willow Subbasin	Hugh Butler Lake Evaporation	850
	Hugh Butler Lake Change In Storage	5,320
Medicine Creek Subbasin	Harry Strunk Lake Evaporation	2,012
	Harry Strunk Lake Change In Storage	8,670
Prairie Dog Subbasin	Keith Sebelius Lake Evaporation	1,875
	Keith Sebelius Lake Change In Storage	4,938
Mainstem Subbasin	Swanson Lake Evaporation	4,093
	Swanson Lake Change In Storage	31,139
	Harlan County Evaporation Subject to Nebraska/Kansas Split	9,211
	Harlan County Evaporation Charged to Kansas	0
	Harlan County Change In Storage	(5,777)
	Lovewell Reservoir Ev charged to the Republican River	3,218

Canal Data			
North Fork Subbasin	Haigler Canal Diversions - Colorado	0	
	Haigler Canal Diversions - Nebraska	4,182	
	Haigler Canal Diversions	4,182	
South Fork Subbasin	Hale Ditch Diversions	0	
Frenchman Subbasin	Champion Canal Diversions	0	
	Riverside Canal Diversions	0	
	Culbertson Canal Diversions	0	
	Culbertson Canal Extension Diversions	0	
	Culbertson Canal % Return Flow	100%	
	Culbertson Canal Extension % Return Flow	100%	
	Driftwood Subbasin	Meeker-Driftwood Canal Diversions	0
	Meeker-Driftwood Canal % Return Flow	100.0%	
Red Willow Subbasin	Red Willow Canal Diversions	0	
	Red Willow Canal % Return Flow	100%	
Prairie Dog Subbasin	Almena Canal Diversions	0	
	Almena Canal % Return Flow	100.0%	
Mainstem Subbasin	Bartley Canal Diversion	7,099	
	Bartley Canal % Return Flow	67%	
	Cambridge Canal Diversion	22,285	
	Cambridge Canal % Return Flow	56.9%	
	Naponee Canal Diversion	862	
	Naponee Canal % Return Flow	66%	
	Franklin Canal Diversion	19,810	
	Franklin Canal % Return Flow	67%	
	Franklin Pump Canal Diversions	1,253	
	Franklin Pump Canal % Return Flow	58%	
	Superior Canal Diversions	11,708	
	Superior Canal % Return Flow	66%	
		Courtland Canal Diversions At Headgate	77,296
		Diversions to Nebraska Courtland	867
		Nebraska Courtland % Return Flow	26%
		Courtland Canal, Loss in NE assigned to upper Courtland KS	2,773
		Courtland Canal, Loss in NE assigned to delivery to Lovewell	6,511
		Courtland Canal At Kansas-Nebraska State Line	67,145
		Courtland Canal Diversions to the Upper Courtland District	21,178
		Courtland Canal Above Lovewell % Return Flow	47.4%
		Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	5,119
		Courtland Canal Deliveries To Lovewell Reservoir	43,621
		Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	38,774
		Courtland Canal Below Lovewell % Return Flow	40.0%
		To allocate Harlan County evaporation:	
	Kansas Bostwick Diversions During Irrigation Season (actual, or 3-year average)	43,964	
	Nebraska Bostwick Diversions During Irrigation Season (actual or 3-year average)	34,441	

Table 1: Annual Virgin and Computed Water Supply, Allocations, and Computed Beneficial Consumptive Uses by State, Main Stem, and Sub-Basin

2023 Basin	Virgin Water Supply	Computed Water Supply	Allocations				Computed Beneficial Consumptive Use		
			Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	41,110	41,110	9,210	0	10,110	21,790	19,240	0	3,840
Arikaree	4,300	4,300	3,380	220	720	(20)	2,210	250	160
Buffalo	5,800	5,800	0	0	1,910	3,890	440	0	3,760
Rock	9,290	9,290	0	0	3,720	5,570	100	0	5,230
South Fork	25,590	25,590	11,360	10,290	360	3,580	16,250	8,120	1,170
Frenchman	121,490	120,090	0	0	64,370	55,720	190	0	89,270
Driftwood	8,090	8,090	0	560	1,330	6,200	0	10	950
Red Willow	20,380	15,060	0	0	2,890	12,170	0	0	9,680
Medicine	40,530	31,860	0	0	2,900	28,960	0	0	23,580
Beaver	8,390	8,390	1,680	3,260	3,410	40	0	4,870	2,870
Sappa	5,440	5,440	0	2,240	2,240	960	0	210	960
Prairie Dog	14,520	9,580	0	4,380	730	4,470	0	5,400	60
Main Stem	123,120	98,590	0	50,380	48,210	0	(10)	43,510	106,050
Total All Basins	428,050	383,190	25,630	71,330	142,900	143,330	38,420	62,370	247,580
Main Stem Including Unallocated		241,920	0	123,620	118,300				
Total	428,050	383,190	25,630	144,570	212,990	0	38,420	62,370	247,580

Table 2: Original Compact Virgin Water Supply and Allocations

Basin	Virgin Water Supply	Colorado Allocation	% of Basin Supply	Kansas Allocation	% of Basin Supply	Nebraska Allocation	% of Basin Supply	Unallocated	% of Basin Supply
North Fork	44,700	10,000	22.4%			11,000	24.6%	23,700	53.0%
Arikaree	19,610	15,400	78.5%	1,000	5.1%	3,300	16.8%	(90)	-0.4%
Buffalo	7,890					2,600	33.0%	5,290	67.0%
Rock	11,000					4,400	40.0%	6,600	60.0%
South Fork	57,200	25,400	44.4%	23,000	40.2%	800	1.4%	8,000	14.0%
Frenchman	98,500					52,800	53.6%	45,700	46.4%
Driftwood	7,300			500	6.9%	1,200	16.4%	5,600	76.7%
Red Willow	21,900					4,200	19.2%	17,700	80.8%
Medicine	50,800					4,600	9.1%	46,200	90.9%
Beaver	16,500	3,300	20.0%	6,400	38.8%	6,700	40.6%	100	0.6%
Sappa	21,400			8,800	41.1%	8,800	41.1%	3,800	17.8%
Prairie Dog	27,600			12,600	45.7%	2,100	7.6%	12,900	46.7%
Tributaries Sub-Total	384,000							175,500	
Main Stem	94,500								
Main Stem + Unallocated	270,000			138,000	51.1%	132,000	48.9%		
Total	478,900	54,100		190,300		234,500			

Table 3A: Table to Be Used to Calculate Colorado's Five-Year Running Average Allocation and Computed Beneficial

	Col. 1	Col. 2	Col. 3	Col. 4
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit and CORWS	Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit and CORWS Credit Col 1 – (Col 2- Col 3)
2019	22,710	32,740	8,905	(1,125)
2020	24,200	26,910	6,218	3,508
2021	22,790	30,200	9,390	1,980
2022	19,270	26,580	8,501	1,191
2023	25,630	38,420	12,259	(531)
Avg 2019-2023	22,920	30,970	9,050	1,000

Table 3B: Table to Be Used to Calculate Kansas's Five-Year Running Average Allocation and Computed Beneficial

	Col. 1	Col. 2	Col. 3	Col. 4
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit	Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit Col 1 – (Col 2- Col 3)
2019	333,300	47,910	NA	285,390
2020	247,750	53,810	NA	193,940
2021	201,890	57,130	NA	144,760
2022	168,020	67,770	NA	100,250
2023	144,570	62,370	NA	82,200
Avg 2019-2023	219,110	57,800	NA	161,310

Table 3C: Table to Be Used to Calculate Nebraska's Five-Year Running Average Allocation and Computed Beneficial

	Col. 1	Col. 2	Col. 3	Col. 4
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit and NERWS	Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit and NERWS Credit Col 1 – (Col 2- Col 3)
2019	389,300	262,870	26,541	152,971
2020	303,070	252,400	18,995	69,665
2021	258,180	252,650	21,456	26,986
2022	221,860	249,960	16,157	(11,943)
2023	212,990	247,580	16,721	(17,869)
Avg 2019-2023	277,080	253,090	19,970	43,960

Table 4A: Colorado Compliance with the Sub-basin Non-impairment Requirement

Table 4A is left unpopulated pursuant to the August 24, 2016 “RESOLUTION BY THE REPUBLICAN RIVER COMPACT ADMINISTRATION APPROVING OPERATION AND ACCOUNTING FOR THE COLORADO COMPACT COMPLIANCE PIPELINE AND COLORADO’S COMPLIANCE EFFORTS IN THE SOUTH FORK REPUBLICAN RIVER BASIN”, paragraph E.

2023

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6
Sub-basin	Colorado Sub-basin Allocation (Five-year Running Average)	Unallocated Supply (Five-year Running Average)	Credits from Imported Water Supply and CORWS Credit (Five-year Running Average)	Total Available Supply (Five-year Running Average)	Colorado Computed Beneficial Consumptive Use (Five-year Running Average)	Difference Between Available Supply and Computed Beneficial Consumptive Use (Five-year Running Average)
North Fork						
Arikaree						
South Fork						
Beaver						

Table 4B: Kansas's Sub-Basin Non-impairment Compliance

2023

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7
Sub-basin	Kansas Sub-basin Allocation (Five-year Running Average)	Unallocated Supply (Five-year Running Average)	Unused Allocation from Colorado (Five Year Running Average)	Credits from Imported Water Supply (Five-year Running Average)	Total Available Supply Col 1 + Col 2 + Col 3 + Col 4 (Five-year Running Average)	Kansas Computed Beneficial Consumptive Use (Five-year Running Average)	Difference Between Available Supply and Computed Beneficial Consumptive Use Col 5 - Col 6 (Five-year Running Average)
Arikaree	168	(12)	962	N/A	1,118	150	968
South Fork	8,502	2,962	0	N/A	11,464	5,022	6,442
Driftwood	120	1,352	0	N/A	1,472	16	1,456
Beaver	3,744	54	1,930	N/A	5,728	5,478	250
Sappa	6,536	2,824	0	N/A	9,360	1,580	7,780
Prairie Dog	7,526	7,688	0	N/A	15,214	9,022	6,192

Table 5A: Colorado's Compliance During Water-Short Year Administration

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
Year	Is the year Water Short Pursuant to III.J?* (Yes or No)	Statewide Allocation	Beaver Creek Reduction Pursuant to Table 5F	Allocation - Beaver Creek Reduction (Col. 2 - Col.3)	Computed Beneficial Consumptive (excluding the Beaver Creek Sub-basin)	Imported Water Supply Credit - IWS Beaver Creek + CORWS Credit	Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit and CORWS Credit (Col. 4 - Col. 5 + Col. 6)
2019	No	22,710	0	22,710	32,740	8,905	(1,125)
2020	No	24,200	0	24,200	26,910	6,218	3,508
2021	No	22,790	0	22,790	30,200	9,390	1,980
2022	No	19,270	0	19,270	26,580	8,501	1,191
2023	No	25,630	0	25,630	38,420	12,259	(531)
Avg 2019-2023	No	22,920	0	22,920	30,970	9,050	1,000

Table 5F: Colorado's Beaver Creek Reduction During Water-Short Years

Water Short Year (WSY) Pursuant to III.J	Beaver Creek Allocation	Reduction = Average of last five WSY Beaver Creek Allocations
	Col. 1	Col. 2
2002	770	N/A
2003	260	N/A
2004	360	N/A
2005	910	N/A
2006	1,420	N/A
2007	2,320	744
2013	1,130	1,054
2014	1,250	1,228
2015	2,130	1,406
2016	2,430	1,650
2018	1,940	1,852

Table 5B: Kansas's Compliance During Water-Short Year Administration

Year	Allocation				Computed Beneficial Consumptive Use	Imported Water Supply Credit	Difference Between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit
	1	2	3	4			
Column	1	2	3	4	5	6	7
	Sum Sub-basins	Kansas' Share of Unallocated Supply	Kansas' Share of the Unused Colorado Allocation	Total Col 1 + Col 2 + Col 3			Col 4 - (Col 5 - Col 6)
2022	17,050	3,771	1,063	21,884	16,780	N/A	5,104
2023	20,950	7,783	1,456	30,189	18,860	N/A	11,329
Avg 2022-2023	19,000	5,777	1,260	26,036	17,820	N/A	8,216

Table 5E: Nebraska's Tributary Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit and AWS	Allocation - (CBCU - IWS AWS)
	Sub-Basin Total	Share of Unallocated Supply	Total			
2021	89,710	68,225	157,935	133,520	10,822	35,237
2022	77,390	66,054	143,444	127,090	9,442	25,796
2023	94,690	70,088	164,778	141,530	11,242	34,490
Avg 2022-2023	86,040	68,071	154,111	134,310	10,342	30,143

Table 5C: Nebraska's Compliance During Water-Short Year Administration

Year	Allocation				Computed Beneficial Consumptive Use			Imported Water Supply Credit and NERWS Credit	Difference Between Allocation and Computed Beneficial Consumptive Use offset by Imported Water Supply Credit Above Guide Rock and NERWS Credit
Column	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9
	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	Nebraska's Share of Unused Colorado Allocation	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Credits Above Guide Rock	Col 3 + Col 4 - (Col 7 - Col 8)
2022	221,860	9,277	212,583	1,017	249,960	2,870	247,090	16,174	(17,316)
2023	212,990	4,040	208,950	1,394	247,580	3,702	243,879	16,738	(16,797)
Avg 2022-2023	217,430	6,660	210,770	1,210	248,770	3,290	245,480	16,460	(17,060)

Table 5D: Nebraska's Compliance Under a Alternative Water-Short Year Administration Plan

Year	Allocation				Computed Beneficial Consumptive Use			Supply Credit and	and Computed Beneficial
Column	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9
	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	Share of Unused Colorado Allocation	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Credits Above Guide Rock	Col 3 + Col 4 - (Col 7 - Col 8)
2021	258,180	6,503	251,677	1,521	252,650	3,084	249,566	21,485	25,116
2022	221,860	9,277	212,583	1,017	249,960	2,870	247,090	16,174	(17,316)
2023	212,990	4,040	208,950	1,394	247,580	3,702	243,879	16,738	(16,797)
Avg 2021-2023	231,010	6,610	224,400	1,310	250,060	3,220	246,840	18,130	(3,000)

Attachment 1: Sub-basin Flood Flow Thresholds

Sub-basin	Sub-basin Flood Flow Threshold Acre-feet per Year ³
Arikaree River	16,400
North Fork of Republican River	33,900
Buffalo Creek	9,800
Rock Creek	9,800
South Fork of Republican River	30,400
Frenchman Creek	51,900
Driftwood Creek	9,400
Red Willow Creek	15,100
Medicine Creek	55,100
Beaver Creek	13,900
Sappa Creek	26,900
Prairie Dog	15,700

³ Flows considered to be Flood Flows are flows in excess of the 94% flow based on a flood frequency analysis for the years 1971-2000. The Gaged Flows are measured after depletions by Beneficial Consumptive Use and change in reservoir storage.

Attachment 2 - Accounting Inputs, Tables, and Attachments from the RRCA Accounting for 2023

Attachment 6: Computing Water Supplies and Consumptive Use Above Guide Rock

Note: At its Annual Meeting on August 21, 2020, the RRCA agreed that the Accounting Procedures (Rev. May 25, 2017) do not properly implement the Flood Flows provisions at the Hardy gage with respect to the calculation of Computed Water Supply above and below Guide Rock. The current implementation could impact Nebraska's Table 5C compliance test, specifically the Allocation above Guide Rock. Nebraska and Kansas each offered proposals to resolve the issue but could not reach agreement on a solution. Due to the infrequent occurrence of Flood Flows, the RRCA deferred resolution of the matter to a future date necessitated by and preceding impact to Nebraska's Table 5C compliance. The states wish to acknowledge and memorialize the issue to encourage work towards its resolution. As it stands, Attachment 6 calculates Virgin Water Supply Guide Rock to Hardy rather than Computed Water Supply Guide Rock to Hardy which would reduce Virgin Water Supply by the relevant Flood Flows as described in Section II. Definitions and

Year	Total Mainstem CWS	Hardy Gage	Superior Courtland Diversion Dam	Courtland Canal Diversions	Superior Canal Diversion	Courtland Canal Returns	Superior Canal Returns	Total Bostwick Returns Below Guide Rock	NE CBCU Below Guide Rock	KS CBCU Below Guide Rock	Total CBCU Below Guide Rock	Gain Guide Rock to Hardy	VWS Guide Rock to Hardy	Mainstem VWS Above Guide Rock	NE MS Allocation Above Guide Rock	KS MS Allocation Above Guide Rock	Nebraska Guide Rock to Hardy Allocation	Kansas Guide Rock to Hardy Allocation
2019	399,550	626,375	502,644	55,120	7,741	4,280	6,308	10,588	1,780	197	1,977	113,143	115,120	284,430	139,086	145,344	56,294	58,826
2020	264,600	251,239	202,416	44,380	10,070	7,327	8,024	15,352	2,266	616	2,882	33,471	36,353	228,247	111,613	116,634	17,777	18,577
2021	204,980	142,152	115,649	73,224	9,551	10,536	6,475	17,011	3,084	723	3,807	9,492	13,299	191,681	93,732	97,949	6,503	6,796
2022	160,360	69,608	32,213	74,964	9,827	15,494	6,460	21,954	2,870	661	3,531	15,441	18,972	141,388	69,139	72,249	9,277	9,695
2023	98,590	34,861	14,677	77,296	11,708	8,802	7,692	16,494	3,702	871	4,572	3,690	8,263	90,327	44,170	46,157	4,040	4,222

COURTLAND CANAL					
	2019	2020	2021	2022	2023
Return Flow From Courtland Canal To Republican River Above Lovewell From Kansas	761	536	912	835	1,007
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	3,519	6,791	9,625	14,659	7,794
Courtland Canal Diversions At Headgate	55,120	44,380	73,224	74,964	77,296
Courtland Canal At Kansas-Nebraska State Line	50,721	35,756	60,776	55,667	67,145
NE Courtland Canal CBCU (includes transportation loss)	108	342	711	1,420	646
Superior Canal CBCU	1,433	2,046	3,076	3,367	4,016

NEBRASKA					
	2019	2020	2021	2022	2023
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	84	552	665	763	1,026
SW Diversions - M&I - Nebraska - Below Guide Rock	0	0	0	0	0
SW Non-Federal Reservoir Evaporation - Below Guide Rock	(6)	84	51	95	78
SW Return - Irrigation	21	138	166	191	257
SW Return - M&I	0	0	0	0	0
GW CBCU Nebraska Below Guide Rock	1,723	1,769	2,534	2,203	2,854

KANSAS					
	2019	2020	2021	2022	2023
SW CBCU - Irrigation - Small Pumps	148	565	667	598	802
SW CBCU - M&I	0	0	0	0	0
GW CBCU Kansas Below Guide Rock	49	51	56	63	69

2023

Attachment 7: Calculations of Return Flows from Bureau of Reclamation Canals

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12
Canal	Canal Diversion	Spill to Waste-Way	Net Diversion	Field Deliveries	Canal Loss	Average Field Loss Factor	Field Loss	Total Loss from District	Percent Field and Canal Loss That Returns to the Stream	Total return to Stream from Canal and Field Loss	Return as Percent of Canal Diversion
Name Canal	Headgate Diversion	Sum of measured spills to river	Col 2 - Col 3	Sum of Deliveries to the field	Col 4 - Col 5	1 -Weighted Average Efficiency of Application System for the District*	Col 5 x Col 7	Col 6 + Col 8	Estimated Percent Loss*	Col 9 x Col 10 + Col 3	Col 11/Col 2
Σ Irrigation Season											
Σ Non- Irrigation Season											
Culbertson	0	0	0	0	0	30%	0	0	82%	0	100.0%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Culbertson Extension	0	0	0	0	0	30%	0	0	82%	0	100.0%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Meeker - Driftwood	0	0	0	0	0	30%	0	0	82%	0	100.0%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Red Willow	0	0	0	0	0	30%	0	0	82%	0	100.0%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Bartley	7,099	950	6,149	2,182	3,967	30%	655	4,622	82%	4,740	66.8%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Cambridge	22,285	1,584	20,701	10,241	10,460	30%	3,072	13,532	82%	12,680	56.9%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Naponee	862	184	678	326	352	35%	114	466	82%	566	65.7%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Franklin	19,810	2,671	17,139	6,423	10,716	35%	2,248	12,964	82%	13,302	67.1%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Franklin Pump	1,253	134	1,119	600	519	35%	210	729	82%	732	58.4%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Almena	0	0	0	0	0	30%	0	0	82%	0	100.0%
Superior	11,708	497	11,211	3,531	7,680	31%	1,095	8,775	82%	7,692	65.7%
	0	0	0	0	0	31%	0	0	92%	0	100.0%
Nebraska Courtland	867	0	867	775	92	23%	178	270	82%	221	25.5%
Courtland Canal Above Lovewell (KS)	21,178	1,733	19,445	12,095	7,350	23%	2,782	10,132	82%	10,041	47.4%
Courtland Canal Below Lovewell	38,774	5,128	33,646	27,227	6,419	23%	6,262	12,681	82%	15,527	40.0%

Attachment 8: Calculations of the Computed Water Supply Adjustment and Remaining Compact Compliance Volume for implementation of 2016 RRCA Resolution

CCV and RCCV Tracking ^a												
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12
Year	Start of Year RCCV	RCCV Adjustment	CCV	CCV Inflow Into HCL	RCCV Inflow Into HCL	Total CCV and RCCV Inflow Into HCL	Total CCV and RCCV Available for Release	CCV Released from HCL as Flow	CCV Released from HCL as Evaporation	CCV Retained in HCL (at End of Year)	CWSA	End of Year RCCV
	=Col. 12 of previous year	^b	^c			= Col. 4 + Col. 5	=Col. 6 + Col. 10 of previous year			= Col. 7 - (Col. 8 + Col. 9)	=Col. 10 - Col. 10 of previous year	= Col. 1 - Col. 2 + Col. 3 - Col. 6 ^d
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	8332	0	8332	8332	0	0	8332	8332	0
2016	0	0	41,935	24752	0	24752	33084	5084	4321	23679	15347	9,300
2017	9300	0	20,000	20,000	0	20000	43679	20000	2241	21438	-2241	9,300
2018	9300	0	0	0	0	0	21438	0	1339	20099	-1339	9,300
2019	9300	0	0	0	0	0	20099	0	2340	17759	-2340	9,300
2020	9300	1860	0	0	0	0	17759	0	3889	13870	-3889	7,440
2021	7,440	1860	0	0	0	0	13870	0	1550	12320	-1550	5,580
2022	5,580	1860	0	0	0	0	12320	0	4354	7966	-4354	3,720
2023	3,720	1860	0	0	1860	1860	9826	0	1026	8800	834	0

APV and RWS					RCCV Calc
Colorado		Nebraska			
Aug. Pumping Volume (APV)	Resolution Water Supply Credit (CORWS)	Aug. Pumping Volume (APV) Rock Creek That Passed Sub-basin Gage in the Current Year	Aug. Pumping Volume (APV) N-CORPE That Passed Sub-basin Gage in the Current Year	Resolution Water Supply Credit (NERWS)	Extra CCV Efforts Above CCV (Use with RCCV Calc)
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	15,766	0	15,766	0
7,448	7,448	19,397	42,758	62,155	0
10,760	10,760	1,098	25,932	18,698	8332
10,130	10,130	499	22,803	41,935	449
11,330	11,330	4,563	11,106	20,000	0
13,578	13,578	0	0	0	0
8,905	8,905	0	0	0	0
6,218	6,218	0	0	0	0
9,390	9,390	0	0	0	0
8,501	8,501	0	0	0	0
12,259	12,259	0	0	0	0

a. Calculations for RCCV, CWSA, & RWS don't start until Oct. 1, 2015
 b. See Provision 10 of the RRCA Resolution signed August 24, 2016, titled "Resolution Approving Long-Term Agreement Related to the Operation of Harlan County Lake for Compact Call Years" for the terms of assigning RCCV Adjustment. The RCCV Adjustment for each year is equal to 20% of the unadjusted portion of the RCCV, if it is a non-Compact Call Year, plus any remaining volumetric reductions from the previous four years.
 c. In years when the contributions from Nebraska's water management activities, consistent with the 2016 CCY HCL Operations Resolution, are greater than CCV and the NERWS is equal to the greater contribution volume, CCV in Column 3 should also be set equal to the contribution.
 d. The formula for calculation of RCCV is based on calendar year operations and will vary when operations occur in a different calendar year than NERWS Credit is applied.

Flood Flow Calculations Based on Accounting Procedures III.B.1 and Attachment 1.

Hardy Gage Monthly Data (acre-feet)					
	2019	2020	2021	2022	2023
January	13,289	55,339	7,475	8,005	2,523
February	6,875	33,332	7,332	7,615	2,410
March	61,131	33,775	28,746	9,074	7,361
April	21,669	23,421	20,400	6,592	4,173
May	66,000	31,732	25,198	4,958	2,091
June	69,761	10,810	14,672	3,981	3,006
July	118,015	30,811	8,141	18,172	2,301
August	82,834	8,337	8,550	3,666	2,561
September	30,188	3,488	3,034	2,326	1,918
October	21,527	4,298	2,535	1,624	1,454
November	59,330	7,632	7,470	1,775	1,673
December	75,757	8,265	8,600	1,815	3,389
ANNUAL	626,376	251,239	142,153	69,603	34,861
Over 400K	226,376	0	0	0	0

5-month Consecutive Period Flows (acre-feet)					
	2019	2020	2021	2022	2023
Jan-May	168,964	177,598	89,151	36,244	18,558
Feb-Jun	225,436	133,069	96,348	32,220	19,041
Mar-Jul	336,576	130,548	97,157	42,777	18,932
Apr-Aug	358,279	105,110	76,961	37,369	14,132
May-Sep	366,798	85,177	59,595	33,103	11,878
Jun-Oct	322,325	57,743	36,932	29,769	11,241
Jul-Nov	311,894	54,566	29,730	27,563	9,908
Aug-Dec	269,636	32,020	30,189	11,206	10,995

2-month Consecutive Period Flows (acre-feet)					
	2019	2020	2021	2022	2023
Jan-Feb	20,164	88,671	14,807	15,620	4,933
Feb-Mar	68,006	67,107	36,078	16,689	9,771
Mar-Apr	82,800	57,195	49,146	15,666	11,534
Apr-May	87,669	55,152	45,598	11,550	6,264
May-Jun	135,761	42,541	39,870	8,939	5,097
Jun-Jul	187,776	41,621	22,813	22,153	5,307
Jul-Aug	200,849	39,148	16,691	21,838	4,862
Aug-Sep	113,022	11,825	11,584	5,992	4,479
Sep-Oct	51,715	7,786	5,569	3,950	3,373
Oct-Nov	80,857	11,930	10,005	3,399	3,127
Nov-Dec	135,087	15,898	16,070	3,590	5,062

Final Sub-basin Flood Flows					
	2019	2020	2021	2022	2023
North Fork Flood Flow	0	0	0	0	0
Arikaree Flood Flow	0	0	0	0	0
Buffalo Flood Flow	0	0	0	0	0
Rock Flood Flow	0	0	0	0	0
Southfork Flood Flow	0	0	0	0	0
Frenchman Flood Flow	0	0	0	0	0
Driftwood Flood Flow	0	0	0	0	0
Red Willow Flood Flow	0	0	0	0	0
Medicine Creek Flood Flow	0	0	0	0	0
Beaver Flood Flow	0	0	0	0	0
Sappa Flood Flow	15988	0	0	0	0
Prairie Dog Flood Flow	25260	0	0	0	0
Mainstem Flood Flow	185128	0	0	0	0

Sub-basin Flows Above Attachment 1 Flood Flow Thresholds					
	2019	2020	2021	2022	2023
North Fork	0	0	0	0	0
Arikaree	0	0	0	0	0
Buffalo	0	0	0	0	0
Rock	0	0	0	0	0
South Fork	0	0	0	0	0
Frenchman	0	0	0	0	0
Driftwood	0	0	0	0	0
Red Willow	0	0	0	0	0
Medicine Creek	0	0	0	0	0
Beaver	0	0	0	0	0
Sappa	15,988	0	0	0	0
Prairie Dog	25,260	0	0	0	0
Sub-basin Sum	41,248	0	0	0	0

5-month Consecutive Period Test					
	2019	2020	2021	2022	2023
Jan-May	0	0	0	0	0
Feb-Jun	0	0	0	0	0
Mar-Jul	1	0	0	0	0
Apr-Aug	1	0	0	0	0
May-Sep	1	0	0	0	0
Jun-Oct	0	0	0	0	0
Jul-Nov	0	0	0	0	0
Aug-Dec	0	0	0	0	0
TOTAL	3	0	0	0	0

2-month Consecutive Period Test					
	2019	2020	2021	2022	2023
Jan-Feb	0	0	0	0	0
Feb-Mar	0	0	0	0	0
Mar-Apr	0	0	0	0	0
Apr-May	0	0	0	0	0
May-Jun	0	0	0	0	0
Jun-Jul	0	0	0	0	0
Jul-Aug	1	0	0	0	0
Aug-Sep	0	0	0	0	0
Sep-Oct	0	0	0	0	0
Oct-Nov	0	0	0	0	0
Nov-Dec	0	0	0	0	0
TOTAL	1	0	0	0	0

Combined Test					
	2019	2020	2021	2022	2023
FINAL TOTAL	4	0	0	0	0

The 63rd annual report of the Republican River Compact Administration for the Year 2023 is hereby approved by unanimous vote on this 28th day of August 2025.

DATE SIGNED:

Earl Lewis, Chair and Kansas Commissioner

DATE SIGNED:

Jason Ullmann, Colorado Commissioner

DATE SIGNED:

Matthew Manning, Nebraska Commissioner