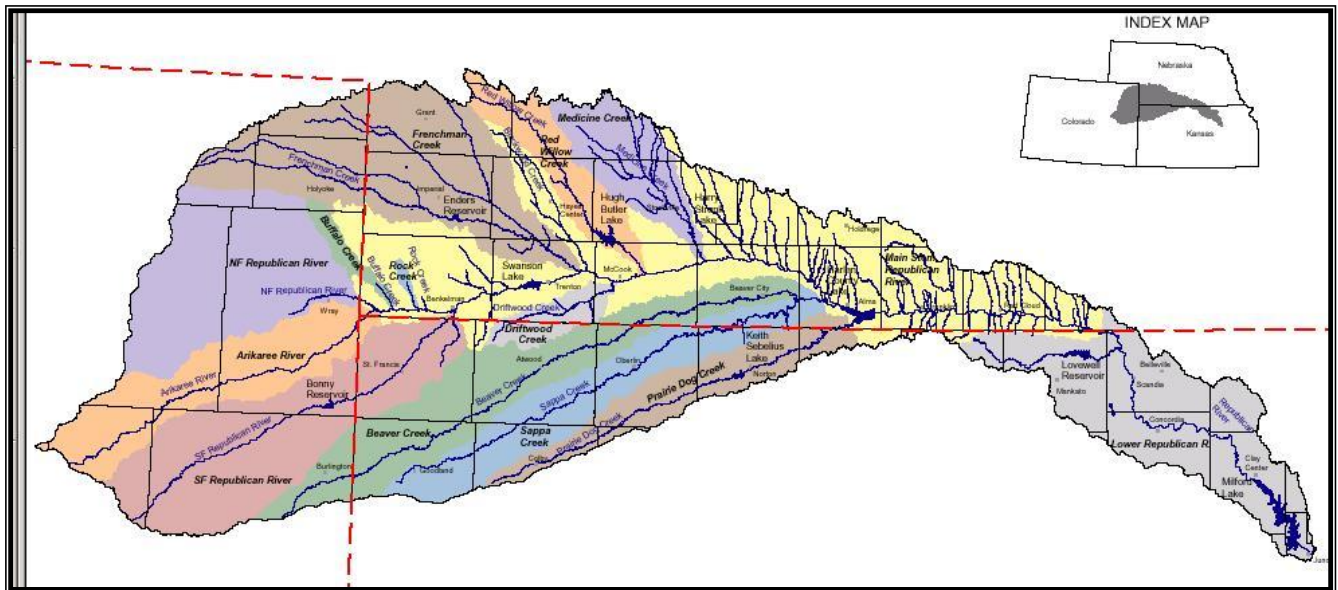


REPUBLICAN RIVER COMPACT ADMINISTRATION 57th ANNUAL REPORT

FOR THE YEAR 2017



MANHATTAN, KANSAS

August 21, 2018

57th Annual Report for the Year 2018 Annual meeting

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SUMMARY AND MINUTES OF
THE 2018 ANNUAL MEETING OF
THE REPUBLICAN RIVER
COMPACT ADMINISTRATION

AUGUST 21, 2018

HELD AT THE
KANSAS DEPARTMENT OF
AGRICULTURE IN
MANHATTAN, KANSAS

Summary & Minutes

A transcript of this meeting was prepared by Cameron L. Preheim, of Appino & Biggs Reporting Service, Inc. (Exhibit A). The transcript was reviewed by each of the states, and upon final approval by the Compact Administration the transcript will serve as the official minutes of this Annual Meeting of the Compact Administration. Below is a summary of the meeting.

Agenda Item 1: Introductions

The annual meeting of the Republican River Compact Administration (RRCA) was called to order by Kansas Commissioner and Chairman David Barfield at 10:01 a.m., August 21, 2018. Commissioner Barfield asked for introductions around the room. A typed list of all attendees is attached as Exhibit B1 followed by the original attendance sheets as Exhibit B2. Some of the attendees included:

<u>Name</u>	<u>Representing</u>
David Barfield	Kansas Commissioner and Chairman
Chris Beightel	Kansas Engineering Committee Member and Chair
Kenneth Titus	Kansas Department of Agriculture Chief Counsel
Gordon "Jeff" Fassett	Nebraska Commissioner
Jesse Bradley	Nebraska Department of Natural Resources
Justin Lavene	Nebraska Attorney General's Office
Kevin Rein	Colorado Commissioner
Mike Sullivan	Colorado Deputy State Engineer
Ivan Franco	Colorado Engineering Committee Member
Scott Steinbrecher	Colorado Attorney General's Office

Agenda Item 2: Adoption of the Agenda

Commissioner Barfield introduced the proposed agenda and asked if there were any changes to the draft agenda. Commissioner Fassett noted the addition of the November 24, 2015 special

meeting report status under Agenda Item 3 and then moved to adopt the modified agenda. The commissioners unanimously adopted the modified agenda. A copy of the final agenda is attached as Exhibit C.

Agenda Item 3: Status of Report and Transcripts for 2016 Annual Meeting and Prior Special Meetings

Commissioner Barfield called for action on the completed RRCA annual reports for 2016 and 2017. Commissioner Fassett moved to approve all the reports listed under Item 3 on the agenda. The commissioners unanimously approved the reports.

Agenda Item 4: Report of Chairman and Commissioners' Reports

a. Colorado:

- i. Commissioner Rein thanked Kansas for hosting this year's meeting and then recognized Colorado staff present at the annual meeting. Commissioner Rein highlighted the achievement of the settlement between Colorado and Kansas (Exhibit D) and Colorado and Nebraska (Exhibit E) on previously resolved issues of 2003 through 2013.
- ii. Commissioner Rein mentioned the amended CREP agreement with the USDA and the involvement of Colorado Agriculture Commissioner Don Brown and Deputy State Engineer Mike Sullivan in making that agreement possible. The 2006 CREP agreement was amended and adds up to 60,000 acres available in a few more counties in Colorado to take those acres out of irrigation.
- iii. Commissioner Rein discussed rulemaking in Colorado, specifically regarding enforcement of rules. A public meeting was held recently in Burlington regarding the rule making.
- iv. Commissioner Rein mentioned the proposed boundary amendment for the Republican River Water Conservation District, which must be amended by statute and that was not accomplished by the legislature this year. The state plans to keep the boundary amendment a priority.

b. Nebraska:

- i. Commissioner Fassett thanked Kansas for hosting this year and recognized Nebraska staff for their efforts to keeping Nebraska in compliance with the compact. Commissioner Fassett noted that the RRCA resolutions adopted in past years are being implemented and have brought increased certainty, predictability, better accounting updates and forecasting for both Nebraska and Kansas.
- ii. Commissioner Fassett recognized the state's partners in achieving yearly compliance, specifically the natural resources districts. He noted that the districts were ready to implement actions that may be required to meet obligations under the compact for 2018 and are finalizing a basin-wide water plan with the goal of adopting the plan by December 2018.
- iii. Commissioner Fassett mentioned the Nebraska Water Sustainability Fund, which was intended to provide about \$11 million a year for water related

activities. The Frenchman Cambridge Irrigation District and the Nebraska Bostwick Irrigation District have taken advantage of the fund for projects.

- iv. Commissioner Fassett added that other water management funds were available to the Department of Natural Resources for state matching grants for a variety of projects including taking lands out of production via leasing arrangements and investing in new technologies. The goal of these efforts is to further reduce the use of surface and groundwater.
 - v. Commissioner Fassett mentioned the recent settlement between Colorado and Nebraska and how the settlement dollars will be specifically invested in projects and water management activities in the Republican River Basin.
 - vi. Commissioner Fassett discussed recent negotiations between the state, Bureau of Reclamation and irrigation districts on a new Memorandum of Agreement related to Harlan County Reservoir. The USBR new Regional Director Mike Black was given a tour of the basin and Commissioner Fassett is looking forward to working with the Bureau on funding and water management in the basin.
 - vii. Jesse Bradley then reported on water administration activities in Nebraska. 2017 was designated a Compact Call Year under the Nebraska forecast as outlined in the integrated management plans. Management activities in Nebraska included 20,000 acre-feet of action to supply water to the Kansas Bostwick Irrigation District in Harlan County Lake. There were closures of water rights for Water-Short Year Administration between Harlan and Guide Rock and administration upstream of the Cambridge diversion. Water use reports were sent out in December and that data was obtained and summarized for 2017. The full Nebraska water administration report is included in the annual report (Exhibit F).
- c. Kansas:
- i. Commissioner Barfield expressed appreciation for all the progress made in recent years by the states including the 2016 RRCA agreements and efforts by the states to maintain compact compliance. The 2018 settlement of claims agreement between Kansas and Colorado is another step forward for both states in terms of water supply certainty and funding for basin projects.
 - ii. Commissioner Barfield reported that the Kansas Bostwick Irrigation District had leveraged funds from the settlement with Nebraska, combined with grants from the Bureau of Reclamation, to accelerate the district's program of improving efficiencies within district lands. Approximately 3 miles of open canal was replaced with large diameter PVC pipe in the past year.
 - iii. Commissioner Barfield noted that in the Lower Republican Basin Kansas is exploring with water users the creation of a special access district to provide water users, who are frequently curtailed for a variety of administrative reasons, a source of water to call upon during these times. As part of this, the state will be seeking legislation for creation of the special access district.
 - iv. Commissioner Barfield mentioned a letter from the governor of the State of Kansas sent to Nebraska regarding the Interbasin Transfer application from the Platte Basin to the Republican. The concern expressed in the letter is that the

- transfer of water would potentially provide a path for invasive species of fish to enter the Republican Basin.
- v. Commissioner Barfield reviewed a few other matters in the Upper Republican River Basin, focusing on two Local Enhanced Management Areas (LEMAs). Based largely on the success and 5-year renewal of the relatively small LEMA within its boundaries, Groundwater Management District 4 developed a district-wide LEMA that has been through the hearing process and implemented by order on April 13, 2018. The district-wide LEMA set allocations in townships based on the rate of decline of the aquifer. He also noted that a group of water users have requested judicial review of the LEMA order, which is moving through the court system at this time.
 - vi. Commissioner Barfield then introduced the Director of the Water Office, Tracy Streeter, to give an update on the Kansas technology farms, which exist to study and promote technology for water conservation. Mr. Streeter further explained that the technology farms came about as part of the Kansas 50-year Water Vision. Farmers were wondering what technology worked best for conservation while maintaining yield and profitability. Three farms were studied the first year and the program is being explained to 12 to 15 sites across Kansas to help provide valuable data. Local industry has supported the technology farms by donating money and resources. Local farmers were able to hear and view the results of the technology farms in field days held in the summer. There is only one technology farm in the Republican River Basin at this time.

Agenda Item 5: Federal Reports

- a. Bureau of Reclamation:
 - i. Craig Scott distributed the Bureau's summary report of its operations in the Republican River Basin for 2017 (Exhibit G) and noted that the report included a brief synopsis of operations through July 31 of 2018.
 - ii. Mr. Scott then updated the commissioners on the Bostwick Memorandum of Agreement (MOA), which includes several amendments over the past couple years in response to Nebraska's Compact Call water right administration and the RRCA 2016 resolution. The amendments were necessary to describe the water accountings and delivery of water for water stored in Harlan County Lake.
 - iii. One of the amendments was to ensure that 20,000 acre-feet being provided by Nebraska for 2017 compact obligations was stored in Harlan County Lake for exclusive use for Kansas Bostwick Irrigation District.
 - iv. The MOA was modified in May 2018 to convert stored water under Kansas Bostwick's excess capacity contract to project water. Mr. Scott reported that recently the Bostwick Irrigation Districts requested that the Bureau develop a draft for a revised MOA to address the accounting system and well as provide provisions to address the RRCA resolution that was passed in August 2016. That draft is expected to be prepared by September 2018 and the Bureau hopes to have a long-term MOA in place before the end of the year.

- b. U.S. Army Corps of Engineers: A representative from the Corps was not present at the meeting.
- c. U.S. Geological Survey: John Miller distributed a written report and then gave a presentation of annual mean discharge for the compact sites in the Republican River Basin along with a graph showing the trend data over the years (Exhibit H). Mr. Miller noted that a couple sites hit near record lows, including Buffalo Creek near Haigler and the Republican River at Benkelman. Mr. Miller reported that while the upper tributaries are still trending downward and the lower portion of the basin seems to be experiencing a leveling. Mr. Miller updated the commissioners on the status of moving the Arikaree gage 2.6 river miles upstream. While there doesn't seem to be a significant gain in developing a rating for that site, there was improved safety for workers checking the gage. Until there is plenty of river flow to create a clean channel, the rating and record will be poor.

Agenda Item #6: Engineering Committee Report

- a. Assignments from 2016 Annual Meeting: Chairman Chris Beightel shared the Engineering Committee (EC) Report (Exhibit I). The EC met four times since the last annual meeting.
 - i. The following assignments were completed: (1) hold quarterly meetings, and (2) exchange information listed in Section 5 of the Accounting Procedures and Reporting Requirements, and (3) finalize 2017 accounting; (4) assign responsibility among the States to collect certain accounting data; (5) continue work on documenting historical changes to the RRCA Accounting Procedures; (6) provide updates on the progress of new and ongoing management strategies for maintaining compact compliance; (7) develop and publish an administration website that would be an informational page for the public; (8) continue work and provide updates on improving accounting tools developed by the Committee; (9) work on improving the understanding of and operation of the inputs to the accounting from the Lovewell Ops worksheet; and (10) prepare the RRCA meeting reports for the following dates for approval by the RRCA at the 2018 Annual Meeting. The reports are November 24th, 2015 Special Meeting; the August 24th, 2016 Annual Meeting; the May 25th, 2017 Special Meeting; and the August 22nd, 2017 Annual Meeting.
 - ii. Ongoing assignments include: (1) create a document memorializing when RRCA accounting procedures have changed over the past years and incorporate it into the accounting procedures; (2) provide updates on the progress of new and ongoing management strategies for maintaining compact compliance; (3) work on maintaining and enhancing the RRCA public website; (4) continue work and provide future updates on improving accounting tools developed by the Engineering Committee; (5) work on improving the understanding of operation of

the inputs to the accounting from the Lovewell Ops worksheet; and (6) summarize and document the status of Table 4 (a) in the RRCA Accounting Procedures and recommend how said document should be memorialized.

- b. Recommendations to RRCA: The EC recommends discussion by the RRCA on (1) the exchange of data and documentation and the modeling runs completed by Principia Mathematica for 2017; (2) discussion on the proposed 2017 accounting; (3) status of the administrative website; (4) documentation of Table 4 (a) of the RRCA Accounting; and (5) recommended engineering committee assignments for the following year.
- c. Recommended assignments for the EC: The EC's recommendations on assignments for the coming year are outlined in the report. Specifically, the EC recommends approval of the 2017 accounting as attachment 5 to the EC report. The spreadsheet is titled RRCA_accounting_2017_final.xlsx.

Agenda Item #7: Old Business

There were no items presented under Old Business.

Agenda Item #8: New Business and Assignments to Compact Committees

- a. Action on 2017 Engineering Committee Report and assignments: Commissioner Rein moved to approve the engineering committee report and associated assignments for the upcoming year. Commissioner Fassett seconded, and the motion passed unanimously.
- b. Action on 2017 Accounting: Commissioner Fassett moved to approve the 2017 accounting noted in the engineering committee report, and the spreadsheet noted in this meeting. Commissioner Rein seconded, and the motion passed unanimously.

Agenda Item #9: Remarks from the Public

- a. Mr. Tracy Streeter, Director of the Kansas Water Office, read a letter into the record from Kansas Governor Jeff Colyer regarding the Application A-19594, which is the diversion project from the Platte to the Republican in Nebraska (Exhibit J).
- b. Ms. Deb Daniel, the general manager of the Republican River Water Conservation District in Colorado, expressed appreciation for the RRCA parties working together to solve issues in the basin and the agreement between the states on depletions from 2003 to 2013. Ms. Daniel appreciated the funding made available, so the district can promote and encourage more retirement of irrigated acres in the South Fork focus zone. Ms. Daniel thanked all for their part in negotiating and promoting the approval of the Revised Colorado Republican River Conservation Reserve Enhancement Program. The program will help with voluntary retirement of wells and irrigated acres. Ms. Daniel closed by inviting everyone to join the signing for the CREP document on Tuesday the 28th at Three Corners.

- c. Mr. Todd Siel, General Manager of the Lower Republican Natural Resources District (NRD), expressed his thoughts on the Platte to Republican diversion project. Mr. Siel pointed out that the project applicants, including the NRD, recognize the need to control invasive species within the borders of the NRD district and that the diversion point would have safeguards so not serve as an open conduit for invasive species to enter the Republican River Basin. Mr. Siel expressed that compact compliance is a high priority for the NRD and the proposed project is important to their district.

Agenda Item #10: Future Meeting Arrangements

Commissioner Barfield stated that the 2018 meeting would likely occur in August with future details to come such as the location. The actual dates will be agreed upon at a later date.

Agenda Item #11: Adjournment

The meeting was adjourned at 11:15 a.m. on August 21, 2018.

The August 21, 2018 Annual Meeting report is hereby approved by unanimous vote of the RRCA on this 22nd day of August, 2019.

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

David W. Barfield DATE SIGNED: 8/22/2019
David Barfield, Chair and Kansas Commissioner

Gordon W. Fasset DATE SIGNED: 8/22/2019
Gordon "Jeff" Fasset, Nebraska Commissioner

Kevin D. Rein DATE SIGNED: 8/22/2019
Kevin Rein, Colorado Commissioner

Exhibits

- Exhibit A: Transcript of the 2018 Annual Meeting
- Exhibit B: Annual Meeting Attendance with Signature Pages
- Exhibit C: Agenda for the 2018 Annual Meeting
- Exhibit D: Colorado-Kansas Settlement 2018
- Exhibit E: Colorado-Nebraska Settlement 2018
- Exhibit F: Nebraska annual water administration report
- Exhibit G: Bureau of Reclamation Report 2018
- Exhibit H: U.S. Geological Survey Report 2018
- Exhibit I: Engineering Committee Report 2018
- Exhibit J: Kansas Governor Colyer letter to Nebraska DNR Director Fasset dated August 8, 2018

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2018 ANNUAL MEETING OF THE REPUBLICAN
RIVER COMPACT ADMINISTRATION

TRANSCRIPT
OF
PROCEEDINGS

Taken on August 21, 2018, beginning at 10:01 a.m.,
at the Kansas Department of Agriculture, 1320
Research Park Drive, in the City of Manhattan,
County of Riley, and State of Kansas.



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APPEARANCES

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ATTENDANTS:

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For Kansas:

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David Barfield, Commissioner and Chair
- Chris Beightel, Engineering Committee Chair
- Kansas Division of Water Resources
- Kenneth Titus,
- Kansas Department of Agriculture Counsel

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For Colorado:

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Kevin Rein, Commissioner
- Ivan Franco, Engineering Committee member and
- Colorado Resources Engineer
- Scott Steinbrecher,
- Colorado Attorney General's Office
- Mike Sullivan, Colorado Deputy State Engineer



1 For Nebraska:

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3 Gordon W. "Jeff" Fassett, Commissioner

4 Justin Lavene,

5 Nebraska Attorney General's Office

6 Jesse Bradley,

7 Nebraska Department of Natural Resources

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1 MR. BARFIELD: All right. Well, good
2 morning. I'll go ahead and call us to order here.
3 My name is David Barfield. I'm chief engineer
4 with the Kansas Division of Water Resources and
5 Commissioner for Kansas and chair of the compact
6 administration for this year.

7 I appreciate you all attending this year's
8 annual meeting of the Republican River Compact
9 Administration here in Manhattan, Kansas. So, we
10 have an agenda that's been provided that we'll
11 work through, and hopefully you all have that.

12 The first agenda item is Introduction. So, I
13 guess I would -- I would turn to Nebraska, and
14 maybe we'll just go around the -- the front table
15 here and introduce ourselves. And then we'll
16 actually just -- I'll just go around the room and
17 if we could have everybody just introduce
18 yourself.

19 We obviously have a court reporter here and
20 recording the proceedings, so just take your time,
21 enunciate, so -- so you're heard. So we can
22 capture it for the record.

23 So with that, Jesse, why don't you start?

24 MR. BRADLEY: Sure. Jesse Bradley with
25 the State of Nebraska.



1 MR. FASSETT: Jeff Fassett, I'm the
2 Director of the Department of Natural Resources
3 for Nebraska and the Commissioner for the State of
4 Nebraska.

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

7 MR. TITUS: Kenneth Titus, Kansas
8 Department of Agriculture counsel.

9 MR. BEIGHTEL: Chris Beightel, Kansas
10 Department of Agriculture and Engineering
11 Committee member.

12 MR. STEINBRECHER: Scott Steinbrecher,
13 Colorado Attorney General's Office.

14 MR. REIN: Kevin Rein, Colorado State
15 Engineer and Director of the Division of Water
16 Resources and Commissioner on the Compact.

17 MR. SULLIVAN: Mike Sullivan, Deputy
18 State Engineer for Colorado.

19 MR. FRANCO: Ivan Franco, Colorado
20 Division of Water Resources.

21 MR. RILEY: Tom Riley with The Flatwater
22 Group in Nebraska.

23 MS. BURGERT: Kari Burgert, Nebraska
24 Department of Natural Resources.

25 MS. FLAUTE: Carol Flaute, Nebraska



1 Department of Natural Resources.

2 MR. MILLER: John Miller, U.S. Geological
3 Survey.

4 MR. EDGERTON: Brad Edgerton, Frenchman
5 Cambridge Irrigation District.

6 MR. SCOTT: Craig Scott with the Bureau
7 of Reclamation.

8 MR. THOMPSON: Aaron Thompson with the
9 Bureau of Reclamation.

10 MR. DICKE: Scott Dicke with the Lower
11 Republican Natural Resources District.

12 MR. SIEL: Todd Siel, also with Lower
13 Republican NRD.

14 MR. GILE: Pete Gile, Kansas Bostwick
15 Irrigation District.

16 MR. GRIGGS: Burke Griggs, Special
17 Assistant Attorney General State of Kansas.

18 MR. STEWART: Kelly Stewart, KDA-DWR
19 Kansas.

20 MR. PERKINS: Sam Perkins, KDA-DWR
21 Kansas.

22 MR. CAO: Hongsheng --

23 THE REPORTER: I'm sorry.

24 MR. CAO: Hongsheng Cao, Division of
25 Water Resources.



1 MR. STEFFEN: Chris Steffen, Kansas
2 Wildlife and Parks.

3 MS. PUGH: Ginger Pugh, KDA-DWR.

4 MS. ERICKSON: Chelsea Erickson, State of
5 Kansas.

6 MR. SCHREUDER: Willem Schreuder,
7 Principia Mathematica.

8 MS. DANIEL: Deb Daniel, Republican River
9 District Colorado.

10 MR. AMPE: Peter Ampe, Counsel to the
11 Republican River District.

12 MR. LETOURNEAU: I'm Lane Letourneau with
13 the Kansas Department of Agriculture.

14 MR. LEWIS: Earl Lewis, Kansas Water
15 Office.

16 MR. STREETER: Tracy Streeter, Kansas
17 Water Office.

18 MR. BLANKENAU: Don Blankenau, outside
19 counsel for Nebraska.

20 MR. WILMOTH: Tom Wilmoth, outside
21 counsel for Nebraska.

22 MR. BARFIELD: All right. Thank you very
23 much. Hopefully everyone has had an opportunity
24 to sign in. If you haven't, try to remember to do
25 that as you leave. So the next item on the agenda



1 is adoption of the agenda. Are there any
2 modifications to the proposed agenda?

3 MR. FASSETT: Mr. Chairman, based on the
4 conversations we had previously, as shown on the
5 screen, our agenda has been modified to include a
6 couple of additional details that we talked about
7 ahead of this meeting.

8 So I would move for the adoption of the
9 agenda as amended as shown on the -- the board
10 here today.

11 MR. REIN: I'll second that.

12 MR. BARFIELD: All right, very good.
13 It's been moved and seconded to add the additional
14 detail on the reports that we will approve or
15 consider approving under agenda Item No. 3. All
16 in favor say aye.

17 THE COMMISSION: Aye, aye, aye.

18 MR. BARFIELD: All right. The motion
19 passed. All right. So then we will proceed
20 forward then with the agenda as approved.

21 THE REPORTER: Do I need to list the
22 speakers who approved it because I need names?

23 MR. BARFIELD: Yes. All right. So
24 Commissioner Fassett moved it. And Commissioner
25 Rein seconded it, so. All right. Very good.



1 So the next agenda item is the status of the
2 reports on the transcripts for essentially special
3 meetings and annual meetings for -- for 2016 and
4 2017.

5 I guess what's the pleasure of the group? We
6 have -- we -- well, we basically held a work
7 session here earlier this morning to sort of cap
8 off the work of recent -- well, of the year. And
9 particularly the recent weeks as we've gone to
10 take care of a number of items of business. And
11 at that -- at that meeting then we concluded that
12 the two annual reports with some slight additions
13 this morning of table of contents are I believe
14 ready for approval.

15 So what's the pleasure of the Administration
16 here?

17 MR. REIN: I'm sorry, we were talking.

18 MR. BARFIELD: No, that's okay. Are we
19 ready to act on these two reports?

20 MR. FASSETT: My understanding is
21 everything is in good shape, Mr. Chairman, so I'll
22 make a motion to approve all four of the items
23 that are listed on our agenda under this topic
24 No. 3.

25 MR. BARFIELD: All right. So



1 Commissioner Fassett has moved that we adopt the
2 -- all of these reports.

3 MR. REIN: Commissioner Rein, I'll second
4 that.

5 MR. BARFIELD: All right. Any
6 discussion? Hearing none, all in favor say aye.

7 THE COMMISSION: Aye, aye, aye.

8 MR. BARFIELD: All right. Those reports
9 are approved.

10 All right. From here we'll go to
11 commissioner reports. We'll start with
12 Commissioner Rein, Colorado.

13 MR. REIN: All right. Thank you,
14 Commissioner Barfield. And thank you to Kansas
15 for hosting, and for a great evening last night.
16 I want to thank the people from Colorado that are
17 here with me. You heard their names, Scott
18 Steinbrecher for the Colorado Attorney General's
19 Office, Mike Sullivan Deputy State Engineer, and
20 Ivan Franco for his work, and we also, again, as
21 you heard Commissioner Brown who is out of the
22 room right now. And Willem Schreuder and Deb
23 Daniel, Pete Ampe, we appreciate the Colorado
24 folks being here.

25 I have just a few items for my report. And



1 first one as -- as the other commissioners may, I
2 want to really recognize and pat ourselves on the
3 back for the last year for the settlement between
4 the -- between Colorado and Kansas, between
5 Colorado and Nebraska on the past issues of 2003
6 through 2013. It's just been a lot of work.

7 Again, I would have to thank Scott
8 Steinbrecher, Mike Sullivan and Commissioner Brown
9 for working on the Colorado side and their
10 respective counterparts on -- for all three states
11 -- or for the other two states.

12 It's -- it's something great to have behind
13 us, but also a real feather in our cap that we --
14 we pulled that off. So that's just a great thing
15 to sort of accomplish for the three states.

16 The second thing I want to mention is the
17 amended CREP Agreement with the USDA. Again, Don
18 Brown, commissioner of agriculture, and Mike
19 Sullivan, pretty incredible work to make that
20 happen. And I know that Kansas and Nebraska
21 assisted in -- in supporting that action, too.

22 What it really does it amends the 2006 CREP
23 agreement and adds acreage to be available, it's
24 up to 60,000 acres. And added a couple of
25 counties that were not included before. And this



1 just gives Colorado the extra room to work with,
2 the water users and for the -- the district in
3 Colorado, the Republican District to continue its
4 work to accomplish our goals for taking those
5 acres out of irrigation.

6 There will be a signing ceremony, as many of
7 you know, at the point where the two states meet
8 on August 28th and we're looking forward to that.
9 That will be a great way to punctuate finalization
10 of that agreement.

11 The third item to update the Commissions on
12 -- or the Commission on was the rule -- the rule
13 making in Colorado, and I believe last year I may
14 have reported that our rulemaking effort had been
15 paused.

16 It may be a good term for it, paused. In
17 April of 2017, we had an issue with how the
18 enforcement would take place and the vetting for
19 enforcement in Colorado for rule infractions and
20 propose to manage that with legislation. We were
21 not able to accomplish that.

22 We also slowed the process a little bit to
23 see what would happen with our boundary amendment
24 potential for the Republic River Water
25 Conservation District. And that also was not



1 successful in the legislature last year.

2 But to clarify, the rulemaking is to give all
3 of us direction, the State Engineer direction on
4 administration of water rights and water
5 diversions in the Republican River Basin, as far
6 as surface water goes and for groundwater uses
7 within the model domain.

8 The rules bring all of those together into
9 one direction and really gives all the water users
10 equal footing in those areas. As far as
11 administration we feel that it takes a lot of the
12 difficult and sometimes seemingly arbitrary
13 decision-making out of the State Engineer's office
14 and puts it more in local control.

15 So that the -- again, the Republic River
16 Water Conservation District can work with water
17 users to find the solutions to compact compliance
18 and let them work that through in a way that is --
19 is equitable to all.

20 We're looking forward to now starting that
21 rulemaking again. We met with the District just
22 back in July to -- to formally tell them that
23 we're going to, again, re-engage on the rulemaking
24 for the Republican, and we held a public meeting
25 in -- I'm sorry, in Burlington this last week for



1 all the water users. A public meeting where,
2 again, we described this effort to re-initiate the
3 rules and went through the rules in great detail.
4 And we hope that that went a long way to
5 alleviating the concerns of the water users in the
6 basin regarding the rulemaking. And I -- I think
7 that did work. So we -- we will continue the
8 rulemaking very soon.

9 I -- the fourth item I referred just a minute
10 ago, to the boundary amendment for the Republican
11 River Water Conservation District. And how that
12 would really assist in some -- some of the
13 administrative difficulties that we have in
14 Colorado.

15 We did not see the -- the local people have
16 success in the legislation last year with amending
17 that boundary. It was -- since that district was
18 created by statute it needs to have its boundary
19 amended by statute.

20 We did not see success in the legislature
21 last year, but we do see, you know, perhaps a
22 glimmer of -- of upcoming success. We have a
23 special interim committee that -- that meets
24 legislative members, it meets during the summer,
25 who did accept an effort to -- to try to have a



1 bill that does that.

2 That has, of course, a long way to go. It
3 needs -- it needs to have good support, but we may
4 see at least a more successful effort to try to
5 amend that boundary in the 2019 session.

6 That would not change the need for the rules,
7 but it's probably another piece that helps make
8 the administration clearer and more equitable in
9 Colorado.

10 That is my commissioner's report for today.
11 And if there aren't any questions I'll let that
12 rest.

13 MR. BARFIELD: Thank you. Any questions?
14 I have none either. All right. I'll turn to Mr.
15 Fassett to provide the Nebraska report.

16 MR. FASSETT: Thank you, Mr. Chairman.
17 Again, I would like to thank Kansas for hosting
18 our meeting. I appreciate being here today. Like
19 Colorado we've -- it's important to acknowledge
20 all of the work that goes into these meetings.
21 I'm -- we're a late arrival compared to you, Mr.
22 Chairman, to these meetings. And I know that the
23 history has been somewhat checkered and the fact
24 that these are as smooth as they are anticipated
25 to be, and the working nature goes a lot to the



1 efforts of our staff. Mr. Bradley here, legal
2 counsel, and staff in my department that are with
3 us today. They deserve a lot of the credit to
4 really advance the ball.

5 I have several things I'll update the
6 commission with. First of all, it's important to
7 announce for the record, if you will, we are in
8 compliance with the Compact, and we need to make
9 note of that. It's important to us and huge array
10 of activities that we have going on to make sure
11 that that happens.

12 We certainly are pleased to be implementing
13 resolutions that we all adopted from a couple
14 years ago. I think we are seeing that that has
15 indeed brought more certainty, more
16 predictability, better accounting updates that are
17 forecast for us and for Kansas and the Kansas
18 water usage. And I think we're hopefully going to
19 see the benefit of that over the long haul as this
20 commission and as others become much more involved
21 with water management activities, than just
22 worrying about the -- what the spreadsheets are
23 telling us. And to really see the on the ground
24 change I think is where we become very, very
25 excited about.



1 We, of course, have got a full set of
2 partners, the four natural resources districts
3 that cover all the corners of the Republican River
4 Basin in Nebraska have demonstrated just a huge
5 continuing commitment to help the State with
6 compliance. We -- we work with them, but they
7 have taken on tremendous amounts of the financial
8 and regulatory activities that allow us to
9 maintain our compliance now that we've achieved
10 that level. So we think things are in really good
11 shape.

12 We've got the benefit of a pretty good water
13 year this year. And we'll -- we'll continue to
14 track the accounting. Our districts are sort of
15 ready to implement the actions that may be
16 required of us to continue to meet our obligations
17 under the Compact for this Compact compliance
18 year.

19 We are bringing to closure the -- I've talked
20 for several years here about our basin-wide water
21 planning process that we initiated at the
22 legislature's encouragement over four years ago.
23 That is slowly coming to an end. We've engaged
24 some 40 to 50 people across a wide spectrum of
25 stakeholders across the basin. They've held 15



1 basically quarterly meetings over the last four
2 years. And we had our final water users
3 stakeholder meeting just this past June of 2018.

4 We've made great progress through a consensus
5 process to establish goals and objectives, action
6 items as outlined in the basin planned process
7 that we undergo in the State of Nebraska.

8 That draft plan is under final review by the
9 natural resources districts. With their approvals
10 and the Department's, we'll then have some public
11 hearings later this fall. And we hope for final
12 adoption either by December, maybe January of
13 2019.

14 Our ultimate statutory deadline is actually
15 next April to conclude this process, but this is a
16 25-year plan. We feel very good about the
17 enormous amounts of dialogue and understandings.
18 The research documents a lot of really good
19 educational efforts that for our state came along
20 and followed much of the contentious litigious
21 nature that we've all been embroiled in for quite
22 some time. So the timing, I think, is actually
23 playing out quite well and I know the Department
24 is very pleased with the final product now that
25 we're kind of honing in on it.



1 So I wanted to touch on some of the
2 investments just to let you know how aggressive
3 Nebraska has been. I've reported in the past that
4 in 2014 State of Nebraska established what is
5 called the Water Sustainability Fund. This was a
6 fund that was intended to provide about \$11
7 million a year for a wide variety of water related
8 activities. We've gone through some difficult
9 budget years in Nebraska, as other states have in
10 -- and not all of that money has been available.
11 But we've had a pretty steady flow of funds
12 through that fund. A number of the key entities,
13 irrigation districts in Nebraska in the Republican
14 River Basin have availed themselves of those
15 funds. Frenchman Cambridge Irrigation District,
16 Brad is with us today. They applied for and
17 received a substantial grant from the fund which
18 requires a substantial local match for investments
19 and activities within their district.

20 Likewise, the Nebraska Boswick Irrigation
21 District received about a \$2 million award from
22 this fund, which, again, was matched with funds
23 from the district and of the local natural
24 resources district in an interesting alignment of
25 the -- of the parties in our state. Again, for a



1 major activity of investment and projects that I
2 think we've had all an opportunity to take a look
3 at when we -- when we did the touring lately.

4 But that's -- that's sort of not all. You've
5 heard the report about the new diversion project
6 that's being proposed that's created some
7 controversy. That -- that project will likely if
8 it goes forward will receive some funding support
9 from the State as well.

10 But in addition to the Water Sustainability
11 Fund there are other separate water management
12 funds that the Department of Natural Resources
13 accesses to cover all of the river basins in
14 Nebraska that have been deemed to be fully or
15 overappropriated, and the Republican Basin is just
16 one of those. Through that funding mechanism
17 we've also awarded substantial new state matching
18 grants to all of the natural resources districts
19 in the Republican River Basin for the natural
20 resources districts to invest in a variety of
21 projects including activities for taking lands out
22 of production, through leasing arrangements,
23 investing in new technologies.

24 All pointed to a greater efficiency of the
25 use of surface and groundwater just as the



1 investments are occurring on the surface water
2 side. So those are really a great array of
3 investments. They're all done on a cost shared
4 basis with -- with local producers putting their
5 hard earned money on the table to push these
6 projects forward. Which, again, all are designed
7 and integrated through our efforts and through the
8 accounting to maintain the compliance that we've
9 now achieved.

10 Like Colorado we're very pleased to have --
11 to have the settlement, the recent settlement
12 negotiations that was a great effort, and we're
13 very appreciative of that. Just looking forward
14 to the check now, Mr. Rein.

15 MR. REIN: I left that off my report.

16 THE AUDIENCE: That's going to be a
17 little harder.

18 MR. FASSETT: So the next meeting report
19 may be different. Anyway, for us the settlement
20 resulted in us receiving some dollars. Which,
21 again, in Nebraska our governor and legislature
22 have already specifically targeted that those
23 dollars will be managed by my agency for
24 investment and projects in the Republican River
25 Basin and nowhere else.



1 So, again, we'll look forward in 2019, 20
2 whatever going forward to, again, package those
3 funds together with the other sources that I've
4 mentioned to -- for us to continue to focus on the
5 water management activities that are really
6 important.

7 So I wanted to note that, I think, we're
8 going to have a report from the Bureau here later,
9 but we've been very actively involved with the
10 Bureau of Reclamation and the irrigation districts
11 working on the new MOA activities related to
12 Harlan County. We are optimistic. Those
13 negotiations are ongoing, so they're not
14 completed. But they have generated a lot of good
15 dialogue from our perspective that I think -- we
16 think will bear some real fruit.

17 Although I was not able to make it, I know
18 the rest of you were able to participate in the
19 tour with the new regional director from the
20 Bureau of Reclamation, Mr. Black. I understand
21 that it went very well, and we certainly
22 appreciated his efforts and the attention that
23 he's giving to this basin and taking an on the
24 ground look at what's going on at this basin that
25 has had so much controversy. But we're really



1 looking forward to looking for opportunities,
2 quite honestly on the funding side with the Bureau
3 of Reclamation, not only in the management -- on
4 the water management side, but on the funding side
5 to help out where many of these projects were used
6 state dollars and local dollars are available to
7 see what kind of federal investments maybe we can
8 engage there as well.

9 And -- and with that I think like
10 Commissioner Rein I'm just -- we're really so
11 optimistic about the -- the change that occurred
12 in this river basin and to really move away from
13 our era of litigation, if you will. I know that
14 Justin is disappointed, but we're really -- we're
15 really encouraged. We're so much more focused on
16 investing in water resources, on water management,
17 on new technologies. On the careful beneficial
18 use of water in our state and we're watching,
19 hopefully you all do the same things in yours.

20 And that is how we're going all to survive
21 all this. And I think the focus is so much better
22 now from my perspective than some of the history
23 that many of you have gone through that I've not
24 had the pleasure.

25 So with that, Mr. Chairman, I might defer



1 briefly to Mr. Bradley to talk about water
2 administration that I think has been part of our
3 historical documentation at this meeting. So
4 Jesse may comment on some additional comments from
5 Nebraska.

6 MR. BARFIELD: All right. Very good.

7 MR. BRADLEY: Yeah, just a couple
8 highlights I guess from our 2017 water
9 administration activities. 2017 was designated as
10 a Compact Call Year under our forecast that's
11 outlined in our integrated management plans.

12 As a result of that, Nebraska outlined taking
13 approximately -- we took 20,000 acre feet of
14 action to get water supplied to Kansas Bostwick
15 Irrigation District and Harlan County Lake in
16 2017. We were able to do that. The United States
17 Bureau of Reclamation coordinated an effort
18 working with the Frenchman Cambridge Irrigation
19 District, Nebraska Bostwick Irrigation District
20 and KBID, got a revision developed for their MOA,
21 and also carried out a water exchange as part of
22 the activities to get that 20,000 acre feet in --
23 in Harlan County Lake.

24 I think overall in terms of water supplies,
25 things have continued to improve in the basin year



1 over year. As we go back to kind of 2013 each
2 year coming forward has gotten a little bit
3 better.

4 Just a couple points out of our water
5 administration report we -- we did our typical
6 closures during Water-Short Year Administration
7 between Harlan and Guide Rock and projected flows
8 for Courtland Canal. There was administration
9 upstream of the Cambridge diversion, which is
10 typical, starting in late June and through the
11 irrigation season. And then, of course, we sent
12 out our water use reports in December and got all
13 of those back and summarized in the data exchange.

14 I would also note that I provided a written a
15 copy of our full Water Administration Report for
16 inclusion in the transcript.

17 MR. FASSETT: Very good. Thank you, Mr.
18 Chairman.

19 MR. BARFIELD: All right. Thank you, Mr.
20 Fassett. I'll go ahead and do my report. And
21 then we might do a little bit of housekeeping on
22 attachments here that maybe we need to attend to.

23 I'd like to sort of add to the chorus of the
24 commissioners' comments here with respect to the
25 progress that has been made in the last number of



1 years. Again, for those of you that have been
2 around there has been a lot of really great work
3 to transition from an era of conflict to the
4 current status of things.

5 Culminating, you know, in the 2016 agreements
6 that we -- that we adopted -- the long-term
7 agreements, but -- but we haven't, as has been
8 indicated here, stopped there. We've continued, I
9 think, to make some significant progress. And I
10 certainly appreciate the individual efforts of the
11 states, of Colorado and Nebraska, as well as our
12 collective work in terms of forging agreements
13 that -- that provide benefits and certainty, I
14 think, to all three states, so.

15 So just to comment on a number of Kansas
16 matters. Again, as both commissioners have
17 referenced the states of Nebraska and Colorado.
18 In one agreement the states of Kansas and
19 Colorado, in another agreement have -- have made
20 another significant step forward that -- that
21 provides some certainty to Colorado with respect
22 to its past use under the Compact. And, again,
23 provides funding to -- to continue to benefit the
24 basin and we look forward to -- to getting a check
25 and also working with Colorado on its commitment



1 to use some of the additional funds in -- in their
2 basin above Kansas to -- to reduce its use there.

3 So, again, just another agreement that
4 resolves controversies between the states and
5 allows us to continue to work together in a
6 collaborative form in this compact.

7 The Kansas Bostwick Irrigation District, Pete
8 Gile is here, leveraging funds from the settlement
9 in Kansas from Nebraska, combined with grants of
10 -- from the Bureau of Reclamation, as well as
11 KBID's own resources continues to accelerate its
12 program of improving efficiencies within district
13 lands.

14 This past year they buried approximately
15 three miles of open canal and replaced it with a
16 large diameter PVC pipe. And they've got another
17 big project coming up this next year to continue
18 that effort.

19 We also continue to work with users in the
20 Lower Republican Basin. Our -- our focus there is
21 creating a special access district that would
22 allow water users who are curtailed for various
23 reasons, particularly the Minimum Desirable
24 Streamflow administration that we're currently
25 under, would provide a source of water for them to



1 call upon to essentially relieve them of that --
2 that administration in such period.

3 So we anticipate that we'll be seeking
4 legislation this coming session, essentially, to
5 allow that special access district to be created.
6 And we'll keep you apprised of that as it moves
7 forward.

8 I -- I do need to note that Kansas has
9 commented on a -- a transfer application,
10 Interbasin Transfer application from the Platte to
11 the Republican. We -- our governor sent a letter
12 on August 8th, basically expressing significant
13 concerns and really opposition to that proposed
14 transfer, as it would provide a potential path for
15 invasive species of fish to -- to enter the basin.
16 So we'll hear a little bit more about that during
17 the -- I think during the remarks from the public,
18 so...

19 All right. Just a few more matters within
20 the basin. In the upper basin, I've reported in
21 previous years our efforts to -- to reduce use in
22 the over appropriated areas of the Ogallala in
23 northwest Kansas, particularly with a tool called
24 Local Enhanced Management Areas or LEMAs. Last
25 year I reported that the first LEMA in Sheridan



1 County that started in 2013 to '17, it was a five-
2 year plan for a LEMA, that plan was very
3 successful. I reported last year that we had
4 received a request to extend the LEMA for another
5 five years. We -- we did hold a hearing on May
6 31st of 2017 in Hoxie and as a result of that
7 hearing there was an August Order of Decision.
8 And then in November a Order of Designation that
9 did extend that particular LEMA for another five
10 years. Largely based on the success of that
11 small, relatively small LEMA northwest Kansas GMD
12 Groundwater Management District No. 4 requested
13 last year, as I reported, a district-wide LEMA.
14 This LEMA essentially set allocations in
15 particular townships based on the rate of decline
16 in those townships with the more aggressive or --
17 or more limiting allocations in the areas and the
18 townships of the greatest decline and less
19 aggressive allocations in -- in areas of lesser
20 declines. We held two hearings on -- on that
21 particular LEMA, as it's required by statute, and
22 Orders of Decision were issued on February 23rd of
23 this year, 2018 returning the LEMA plan back to
24 the groundwater management district with proposed
25 modifications based on the hearing record. The



1 GMD accepted those modifications and I issued an
2 Order of Designation an April 13th of this year.
3 During that second hearing there was a group of
4 interveners that basically came to the -- the
5 hearing and -- and provided testimony, as well as
6 cross examining witnesses and such. That -- that
7 really sort of helped, I think, inform and shape
8 the final decision. In the end though, a group of
9 water users were not satisfied with the final
10 Order of Designation and a petition for judicial
11 review has -- has been filed with the Gove County
12 District Court. So we'll -- we'll see a legal
13 challenge it looks like to -- to that LEMA. And
14 -- and actually a second petition for judicial
15 review has also been filed in Thomas County on
16 sort of a smaller issue. So we'll -- we'll see
17 how those move forward as time goes on.

18 I think with that I will conclude my remarks.
19 I wanted to before we move on the agenda, just
20 sort of determine sort of the attachments to the
21 reports so we can kind of keep track of those as
22 we go here.

23 So we have an agenda to the report that we
24 will probably have as attachment. And I don't
25 know if we need to designate them or not or just



1 make sure we want to have a list of things that we
2 want to include in the hearing record. So
3 obviously the final agenda will be included. I
4 think we typically have an attendance list that
5 we'll include.

6 Jesse had mentioned the report that we will
7 include as an attachment as well. We'll -- we'll
8 figure out the numbers later. But we've -- we've
9 all referenced the two agreements between the
10 states of Colorado, and I think -- I think it
11 would be appropriate to include those in the
12 record at this year's meeting. Any objections?

13 MR. FASSETT: No.

14 MR. BARFIELD: All right. Hearing none,
15 we'll go ahead and include those. Is there
16 anything else that's been referenced up to this
17 point that needs to be included?

18 MR. FASSETT: I don't think so. Mr.
19 Barfield, I have one quick question though just on
20 -- on sort of Kansas's report.

21 MR. BARFIELD: Yes.

22 MR. FASSETT: In the past you've talked
23 about a lot of the effort that you've been
24 involved with, because I think you called them
25 technology farms?



1 MR. BARFIELD: Yes.

2 MR. FASSETT: I got that right? That the
3 department is involved with? I'm just curious has
4 that progressed much over this past year, and
5 we're -- we're looking for -- to the extent there
6 is a knowledge transfer or educational aspect that
7 we can learn from what you're doing.

8 We have a lot of technology investments
9 occurring within our natural resources districts.
10 So I was just curious if you had some comments on
11 that.

12 MR. BARFIELD: Yeah, and actually Tracy,
13 Tracy Streeter I wonder if you could maybe come up
14 and -- actually, yeah, go ahead, Tracy, come on
15 forward and I'll introduce you. Yes, we're very
16 -- very -- continuing very actively involved in --
17 I -- I talked about water conservation areas
18 that's -- that's an additional tool besides LEMA
19 in that a water user or group of water users
20 typically with a suite of water rights can -- can
21 enter into to commit to a certain amount of water
22 conservation. Typically there is some -- some
23 flexibility to use that reduced water more
24 efficiently. So we continue very active in those,
25 and there is a linkage between water conservation



1 areas and the water technology farms. Not in
2 every case, but in many cases. But we continue to
3 a certain degree to promote technology.

4 So, Tracy, why don't you make those comments,
5 if you would.

6 MR. STREETER: Can you hear me okay?

7 MR. BARFIELD: Yeah, it's working.

8 MR. STREETER: David summarized it very
9 well, they've -- they've been very popular. What
10 -- what really precipitated this happening was a
11 group of farmers talking about technology adoption
12 in development of our 50-year vision. They said
13 we don't know which technology works best for us
14 on our farms.

15 So the idea was, let's make some whole farm
16 scale research facilities. As David indicated we
17 wanted a Water Conservation Area or LEMA to
18 underpin those farms, so they were agreeing to
19 take some level of reduction and use the
20 technology to test the hypothesis that you can
21 save water with technology and maintain your yield
22 and profitability. And that's -- that's the name
23 of the game and they've been hugely popular.

24 We started three in the first year. We're in
25 the third year, and three the first year. And



1 then we've expanded, I think, we have 12 to 15
2 sites from Goodland all the way to Liberal. And
3 we've actually moved into the eastern part of the
4 High Plains aquifer around Wichita using
5 technology to kind of look at can we reduce
6 pumping to improve water quality, are we pushing
7 nutrients and chlorides through the soil profile
8 and back into the aquifer. And better management
9 for water quality consideration because the
10 aquifer in that part of the state generally is --
11 is stable. So they've been hugely successful, and
12 the cool thing about it is, we haven't put a lot
13 of money into them.

14 The industry has stepped up and they're
15 throwing product at us. The commodity
16 organizations, particularly Kansas Corn
17 Commission, they're checkoff dollars. They've put
18 a tremendous amount of money into these. Along
19 with a little -- a little bit of the state funds
20 from our office and the Department of Ag has put
21 money in over the years in different places. So
22 it's been a great partnership and -- and very
23 popular.

24 MR. BARFIELD: You might talk about the
25 field days that are done as well.



1 MR. STREETER: Yeah. Every year we have
2 a field day at each one. We've had a few already.
3 Next week is a big week, we've got -- most -- most
4 of them occur next week. If anybody is interested
5 in any of them they're -- they're posted on the
6 Water Office website. One in particular is in
7 Goodland on Wednesday, which is a full day event.
8 That one is unique because the technical college
9 in Goodland is a sponsor of the technology farm
10 where they're bringing kind of a workforce
11 development in precision ag curriculum into this
12 as well to show kids how to install stuff,
13 interpret the data and leave there either ready to
14 be a good crop consultant or go back home and farm
15 and be a little better versed on the use of the
16 technology.

17 So it's a cool deal where they work with
18 partnering farmers around Goodland to have a Water
19 Conservation Area. And they're also in the LEMA
20 that David described. And so they're getting --
21 getting some dollars from Kansas Corn, and the
22 Water Office put the technology out there.

23 And really what they're getting -- what we're
24 getting in return for our money is we're getting
25 access, they're sharing their data. Water use



1 data, of course, we -- we can get. But getting
2 yield data, input costs, things like that we don't
3 have, and it's been very powerful information.
4 We've got some great success stories where we see
5 very little water use and yields are meeting or
6 beating the neighbors. And their water use may be
7 beating the neighbors by as much as 20 percent.
8 But they're not seeing any downturn in yield or --
9 or net farm income.

10 MR. FASSETT: You mentioned Goodland, are
11 there others of these in the Republican River
12 Basin of Kansas?

13 MR. STREETER: It's the only one. The
14 Goodland one is the only one in the Republican, in
15 or near the Republican.

16 MR. FASSETT: Thank you, I appreciate
17 that.

18 MR. BARFIELD: Thanks for the question.
19 Technology is a powerful thing. You know, you can
20 use it to grow more crops or you can use it to --
21 to save water and especially in our declining
22 areas, in particular that's really -- the state's
23 really seeking to promote those technologies to
24 make our future better, so. And, again, the LEMA
25 and the Water Conservation Areas is a way to sort



1 of allow us to accomplish that focus. So I
2 appreciate the question. Any other questions?
3 Very good.

4 So we'll go ahead and move on to federal
5 reports. We'll start with the Bureau of
6 Reclamation. I believe Craig Scott is going to
7 provide that report.

8 MR. SCOTT: Good morning. I'm Craig
9 Scott representing the Bureau of Reclamation's
10 Nebraska-Kansas Area Office in McCook, Nebraska.
11 And I provided the copies of our annual report to
12 each of the commissioners on your tables. And
13 I've also got additional copies back there as you
14 come in the door. That report includes operations
15 data for 2017 for each of our reservoirs in the
16 basin, as well as operations data through July
17 31st of 2018. So all of that data, I won't go
18 into the specifics of that, but it is all of the
19 reservoir data pertinent to the basin is included
20 in that report. In regards to the Bostwick MOA,
21 Reclamation and the Bostwick Irrigation Districts
22 have made a number of -- have executed a number of
23 amendments over the last couple of years in
24 response to Nebraska's Compact Call water right
25 administration, as well as the Administration's



1 2016 resolution. These amendments were necessary
2 to describe the water accountings and the delivery
3 of water for water stored in Harlan County Lake.

4 The -- one of the amendments I would like to
5 touch on is the amendment regarding 2017
6 operations that was executed in December of 2016.
7 And that amendment, again, was to ensure water
8 being provided by Nebraska for 2017 Compact
9 obligations was stored in Harlan County Lake for
10 exclusive use for Kansas Bostwick Irrigation
11 District. And I believe Nebraska or Mr. Fassett
12 had touched on several of the operations that were
13 executed by Reclamation and the irrigation
14 districts at Harlan County Lake to ensure that
15 20,000 acre feet was available for Kansas
16 Bostwick's use in 2017.

17 The MOA was, again, modified in May of 2018
18 to convert stored water under Kansas Bostwick's
19 excess capacity contract to project water. And
20 just recently the Bostwick Irrigation Districts
21 has requested Reclamation develop a draft for a
22 revised MOA to address -- the accounting system,
23 as well as provide provisions to address the RRCA
24 Resolution that was passed in August of 2016. So
25 Reclamation is working on a draft. We expect to



1 prepare a draft MOA with the irrigation districts
2 in September. So in about a month we'll share
3 that, and continue to work towards having a long-
4 term MOA in place before the end of the year. So
5 with that, that's the end of my report.

6 MR. BARFIELD: Any questions for Mr.
7 Scott?

8 Thank you. And without objection I assume we
9 can include the Bureau's report in our annual
10 report. Very good.

11 I do not believe anybody is here from the
12 Corp of Engineers. All right. If not, I'll call
13 Mr. John Miller forward with the U.S. Geological
14 Survey for the USGS report.

15 MR. MILLER: Hello everyone, I'm John
16 Miller, I'm with the U.S. Geological Survey, and I
17 did provide a handout with the 2017 water year
18 data report for all of the compact sites in the
19 Republican River -- River Basin showing our -- our
20 -- actually quite a little bit is shown there.
21 But the -- the annual meeting -- annual meeting
22 data -- or annual mean discharge for each site and
23 then, of course, the graph showing the -- the
24 trend data over the years, which is quite
25 interesting. I won't talk much about those, there



1 is a pile out there if you didn't get one. And I
2 think all of the tables here and the commissioners
3 have -- have that report also.

4 We did see a couple of the sites hit near
5 record lows that would be the -- I believe it was
6 the Buffalo Creek near Haigler and also the
7 Republican River at Benkelman. Those were kind of
8 the only -- only numbers that really stuck out.
9 We have seen in the lower part of the basin, you
10 know, the upper tributaries are still trending
11 downward, but there seems to be a leveling in the
12 lower -- lower portion of the Republican of that
13 trend downward. Just something to point out and,
14 again, the graphs will -- will show that.

15 Real quick I've been asked to kind of -- I
16 mentioned this last year I brought some of the
17 problems up that we're having with the discharge
18 computation with the record of river gage. And we
19 -- we actually moved that gage upstream. There it
20 shows this is a screen shot of the old site,
21 location in the new site location. It's about 2.6
22 river miles. You know, we really haven't made a
23 significant gain in developing a rating for this
24 site. There has been some improved safety for --
25 for the men that operate this. There is no



1 shoulder on that bridge, and I think the next --
2 next slide that comes is going to show that.
3 There is that. And you can see that this is the
4 -- I've got several slides that show the problems
5 that we have with the tumbleweed issue. Just real
6 short, many of you understand this, but for the
7 development of the stage discharge rating we need
8 a clean channel condition to develop a -- a good
9 rating. And that is lacking in -- in this reach
10 of the Arikaree. And really I've kind of come to
11 -- until the -- the base flow would return to more
12 what it used to be for channel maintenance and a
13 clean channel, the rating is going to be extremely
14 poor, and the discharge record, I shouldn't use
15 the word extremely, but it's going to be fair to
16 poor, it's really difficult. And we've ran into
17 that same type of issue. We -- we -- just a
18 little bit more background information. The
19 downstream landowner here has got some beaver dams
20 not too far into his property that he doesn't want
21 removed. So the beaver dams coupled with the
22 tumbleweed vegetative growth issue. And we're
23 just kind of scrambling to do a better job. So we
24 did some -- some recon work and we felt that the
25 -- I'll go through these photos here real quick.



1 This is the furthest down beaver dam that's still
2 in place at the old site. You can see the
3 backwater issues there. This is below that
4 culvert in that beaver dam. This is probably the
5 cleanest reach, but the flows are so minimal, the
6 channel depth is so minimal, the stage collection
7 would be difficult, plus the cattle operation is
8 here. The landowner was -- was willing to work
9 with us, but we thought that would be problematic.
10 So we did not choose this site. Here's -- this is
11 actually right by the old site just directly
12 downstream. The issue we battle with every year,
13 these beaver dams, and this is really a pond, not
14 a -- not a stream type condition that's preferred.
15 Just another shot of the tumbleweed backwatering
16 issue that we're faced with, and this still is the
17 old site. Just another shot of the old channel.
18 The new site location. This is early this spring.
19 I was pretty excited. I was like, well, this is
20 fairly clean channel. And this is before we --
21 and this is just a shot of a new gage. We're kind
22 of on a real, real low traffic road right now.
23 That man there is much happier where we're at.
24 The landowners are really receptive of -- both
25 upstream, downstream landowner, we've spoken with



1 both of them, and great, great folks. There is,
2 again, the minimal channel that's there, but as we
3 progressed through the summer it's -- we've ran
4 into this problem. Didn't see that last year. I
5 don't know if you have more cattle in that pasture
6 last year, but, again, we're faced with the
7 backwater condition with -- with vegetative
8 growth. And the only thing that's going to --
9 that's going to alleviate this issue is an
10 increase in the base flow to maintain that
11 channel. And that probably not going to happen in
12 the foreseeable future. So we'll continue to do
13 the best we can, but that's kind of up-to-date of
14 where we're at.

15 We threw out the possibility of the building
16 of a weir structure, but, again, I'm concerned
17 about vegetation growing up and investing all of
18 those dollars and not really gaining a lot of
19 improvement in that, in the overall record. So
20 that's where we're at with that gage.

21 Let's see, yeah, I think that's all I have.
22 Yeah, that was the end of just some photos of what
23 we've done there. If there's any questions I can
24 entertain those now, but that's the end -- the end
25 of my presentation.



1 MR. BARFIELD: Any questions for Mr.
2 Miller? All right, thank you for your work.

3 MR. MILLER: Yep.

4 MR. BARFIELD: All right. We'll include
5 then the handout that he provided with the gage
6 data in the report.

7 Do we need PowerPoint presentation? I'm not
8 feeling the need for it. What's the pleasure?
9 We'll just have the gage data. All right. Thank
10 you very much.

11 All right. That concludes our federal
12 reports. I'll now turn it over to Chris Beightel
13 to kind of walk us through the engineering report

14 MR. BEIGHTEL: Okay. Thank you, Mr.
15 Chairman. The Engineering Committee has produced
16 a written report and a signed copy of that report
17 has been given to each of the states, and we have
18 one for the court reporter as well.

19 The report includes an executive summary,
20 details of the assignments made to the Engineering
21 Committee at the 2017 annual meeting, and the
22 committee's progress on those assignments, items
23 for the RRCA discussion and possible action and
24 recommended assignments for the coming year.

25 So the executive summary provides an overview



1 of the committee's work this last year. So I will
2 now read that into the record.

3 The Engineering Committee, and I'll call it
4 the EC from now on, met four times since the
5 August 22nd, 2017, Republican River Compact
6 Administration, and I'll call that RRCA Annual
7 meeting. Over the past year, the EC completed
8 these assignments: 1) hold quarterly meetings.
9 2) exchange information listed in Section 5 of the
10 RRCA Accounting Procedures and Reporting
11 Requirements, including all required data and
12 documentation. 3) finalize 2017 accounting; 4)
13 assign responsibility among the States to collect
14 certain accounting data. 5) continue work on
15 documenting historical changes to the RRCA
16 Accounting Procedures. 6) provide updates on the
17 progress of new and ongoing management strategies
18 for maintaining compact compliance. 7) develop
19 and publish an administration website that would
20 be an informational page for the public. 8)
21 continue work and provide updates on improving
22 accounting tools developed by the Engineering
23 Committee. 9) work on improving the understanding
24 of and operation of the inputs to the accounting
25 from the Lovewell Ops worksheet; and 10) prepare



1 the RRCA meeting reports for the following dates
2 for approval by the RRCA at the 2018 annual
3 meeting. The reports are the November 24th, 2015,
4 special meeting; the August 24th, 2016, annual
5 meeting, yeah; the May 25th, 2017, special meeting
6 and August 22nd, 2017, annual meeting.

7 Ongoing assignments to the committee include:

8 1) create a document memorializing when RRCA
9 Accounting Procedures have changed over the years
10 and incorporate it into the Accounting Procedures.
11 2) provide updates on the progress of new and
12 ongoing management strategies for maintaining
13 compact compliance. 3) work on maintaining and
14 enhancing the RRCA public website. 4) continue
15 work and provide future updates on improving
16 accounting tools developed by the Engineering
17 Committee. 5) work on improving the understanding
18 of operation of the inputs to the accounting from
19 the Lovewell Ops worksheet; and 6) summarize and
20 document the status of Table 4(a) in the RRCA
21 Accounting Procedures and recommend how said
22 document should be memorialized.

23 The EC recommended discussion by the RRCA on
24 the exchange of data and documentation and the
25 modeling runs completed by Principia Mathematica



1 for 2017, on the proposed 2017 accounting, on the
2 status of the administrative website, on the
3 documentation of Table 4(a) of the RRCA
4 Accounting, and the recommended EC assignments for
5 the following year.

6 So details of the various EC tasks are
7 described further in the remainder of the report,
8 including attachments -- including as attachments
9 the EC meeting notes. And I would note that if
10 and when the EC report is approved by the
11 commissioners it will be posted on our snazzy
12 website, which is at Republicanriver.org, all one
13 word, Republicanriver.org. And Attachment 5 to
14 the committee's report includes the completed RRCA
15 accounting tables that have been agreed upon by
16 the committee.

17 Mr. Chairman, the Engineering Committee
18 respectfully recommends that the RRCA take action
19 at the appropriate time to approve the report that
20 we've provided, including the accounting for 2017.
21 And that concludes my report.

22 MR. BARFIELD: All right. Thank you,
23 Chris. We will be acting on this on an agenda
24 item later. Are there any questions for the
25 committee? All right. Seeing none, we'll



1 continue on. Are there any matters of old
2 business? We have none listed. I do not have
3 any. All right. Let's see, seeing none, we'll
4 continue on.

5 New business. So listed on the agenda are
6 two items that are -- that are related. With
7 respect to the work of the Engineering Committee.
8 First of all, there is action on the Engineering
9 Committee report and their recommended assignments
10 in that report. And secondly is action on the
11 accounting for 2017 that is made a part of the
12 report as well. So what's the pleasure of the
13 administration with respect to this new business?

14 MR. REIN: Commissioner, I'll make a
15 motion to accept and approve the Engineering
16 Committee report and assignments.

17 MR. BARFIELD: Okay.

18 MR. FASSETT: Second.

19 MR. BARFIELD: Okay. It's been moved and
20 seconded that we accept the Engineering Committee
21 report and their recommended assignments for next
22 year. All in favor. Any discussion? Seeing
23 none, all in favor say aye.

24 THE COMMISSION: Aye. Aye. Aye.

25 MR. BARFIELD: The motion passes. With



1 respect to the accounting what's the pleasure?

2 MR. FASSETT: I'll move adoption of the
3 2017 accounting.

4 MR. BARFIELD: Very good. Is there a
5 second?

6 MR. REIN: I'll second that.

7 MR. BARFIELD: All right. Any
8 discussion? All right. All in favor say aye.

9 THE COMMISSION: Aye. Aye. Aye.

10 MR. BARFIELD: The motion passes. All
11 right. At this point, we would look for remarks
12 from the public. Is there anyone who would like
13 to make a remark? If you would like to I would
14 ask you to come to the podium here and introduce
15 yourself and make your comments.

16 MR. STREETER: Thank you, Mr. Chairman
17 and members of the Compact Administration. For
18 the record, I'm Tracy Streeter, Director of the
19 Kansas Water Office. And what I would like to
20 read into the record, Mr. Chairman, is a letter
21 from Governor Jeff Colyer regarding the
22 Application A-19594, which is the diversion
23 project from the Platte to the Republican that has
24 been discussed previously this morning. So is
25 that okay that I just --



1 MR. BARFIELD: Certainly.

2 MR. STREETER: It's a very brief -- brief
3 letter and I can provide copies to the court
4 reporter if necessary. This letter is dated
5 August 8th, 2018. The letter was written by -- by
6 governor -- signed by Governor Jeff Colyer, M.D.,
7 at the -- at the recommendation of the governor's
8 Water Resource Subcabinet. It's addressed to Mr.
9 Jeff Fassett, Director of the Nebraska DNR.

10 Dear Director Fassett: The State of Kansas
11 objects to the Interbasin Transfer from the Platte
12 to the Republican River Basin. Application A-
13 19594 was filed with the Department of Natural
14 Resources on April 4, 2018, by the Central
15 Nebraska Public Power and Irrigation District and
16 the Platte Republican Diversion Interlocal
17 Agreement Partners. While this application states
18 that no adverse impacts exist, the transfer will
19 provide a pathway for invasive species of fish to
20 enter the Republican River Basin where currently
21 no evidence of these species exists.

22 According to the Nebraska Department of Game
23 and Parks, Asian carp (bighead and silver carp)
24 have been documented over the past several years
25 in the upper sections of the Loup, Platte and



1 Elkhorn Rivers. Numerous adults were sampled in
2 2017 in the Elkhorn and an overwintering
3 population of both silver and bighead were
4 documented in Turkey Creek, near Kearney,
5 Nebraska, which is a tributary to the Platte
6 River, which is the first documentation of an
7 overwintering population in this area. The
8 Department has also documented the existence of
9 Asian carp at the J2 return.

10 Asian carp have decimated sportfish
11 populations and pose safety hazards to river and
12 reservoir recreationalists in many parts of the
13 United States, most recently at Barkley and
14 Kentucky Lakes in Kentucky. Harlan County
15 Reservoir would be impacted by the presence of
16 these species, as well as Lovewell and Milford
17 Reservoirs in Kansas.

18 THE REPORTER: Slow down. State that
19 again.

20 MR. STREETER: Pardon me? What would you
21 like?

22 THE REPORTER: Where it would be
23 impacted.

24 MR. STREETER: Okay. Harlan County
25 Reservoir would be impacted by the presence of



1 these species, as well as Lovewell and Milford
2 Reservoirs in Kansas, and eventually the upper
3 Kansas River. Not only will species have a
4 detrimental environmental effect on the Republican
5 and Kansas River systems, but will have a profound
6 economic impact to the State of Kansas and local
7 economies surrounding the reservoirs.

8 The Kansas Republican River Compact
9 Administration has collaborated with the State of
10 Nebraska to develop strategies providing greater
11 water certainty for our water users and we support
12 water supply strategies to ensure compliance with
13 the Compact. However, the invasive species
14 implications to the Republican River resulting
15 from the Platte River transfer proposal prohibit
16 Kansas from supporting its permit approval. For
17 these reasons, I recommend that Application A-
18 19594 be denied. Sincerely, Jeff Colyer, M.D.,
19 Governor of Kansas.

20 Thank you.

21 MR. BARFIELD: Thank you.

22 All right. Other remarks? I see Ms. Daniel
23 moving forward.

24 MS. DANIEL: Good morning.

25 MR. BARFIELD: Morning.



1 MS. DANIEL: First of all, I would like
2 to thank David Barfield and all other staff for
3 sponsoring this meeting. My name is Deb Daniel,
4 and I'm the general manager of the Republican
5 River Water Conservation District in Colorado. I
6 just have a few words to say, and most of them are
7 thank you and -- and gratefulness, appreciation.

8 First of all, I would like to thank all of
9 you for working together. It is so gratifying to
10 see the negotiations that you've done this past
11 year or two, and we are so thankful that -- that
12 now we've got a working relationship between all
13 three states. Thank you very much. I want to
14 thank you for the agreement that you came to
15 Kansas, Colorado, and Nebraska on the depletions
16 from 2003 to 2013. It's good to have that taken
17 care of and behind us so that we continue to move
18 forward.

19 We also appreciate the funding that's been
20 made available so to that we can promote and
21 encourage more retirement of irrigated acres in
22 the South Fork focus zone.

23 Thank you to Tracy Streeter and his staff,
24 and for all of those involved with the Kansas
25 Water Office, their willingness to share their



1 information that they've been able to find in
2 slowing down the depletions in the Republican
3 River Basin. We appreciate their willingness to
4 share that information.

5 Thank you all for -- for negotiating and
6 promoting the approval of the Revised Colorado
7 Republican River Conservation Reserve Enhancement
8 Program. This is going to be extremely helpful
9 for us to have voluntary retirement of wells,
10 voluntary retirement of irrigated acres. Special
11 thank you to Mike Sullivan and to Don Brown for
12 all of your expertise in getting this done and
13 getting it to the final -- finalization of that
14 agreement for our program.

15 I also want to thank Kansas Secretary of Ag
16 Jackie McClaskey for all of her efforts in trying
17 to get this accomplished and to Nebraska in
18 helping us with this whole process.

19 And I'd also like to invite all of you to
20 join us for the three states coming together and
21 signing this important document. Our USDA
22 Undersecretary Bill Northey and staff will be
23 joining us and be on hand. And we would like to
24 invite all of you to be with us. Next Tuesday on
25 the 28th we're going to be right there where Don



1 Brown suggested at the three corners or as one of
2 by board members said, it's actually two corners
3 and a sidewall. We're going to be out there
4 signing this important document and we would like
5 to invite all of you to join us. And so with that
6 I would like to conclude. Thank you.

7 MR. BARFIELD: All right. Thank you.
8 Yes.

9 MR. SIEL: I'm Todd Siel, General Manager
10 of the Lower Republican NRD, one of the partners
11 in the discussed -- much discussed diversion
12 project.

13 I do want to point out, we at the NRD and our
14 partners recognize the potential that does exist
15 for invasive species. And they're cognizant of --
16 of the seriousness of -- of that issue. We've
17 taken that issue very seriously over the years.
18 We've aggressively, historically managed efforts
19 to eradicate or control invasive species within --
20 within the borders of our district along with our
21 partners. Invasive species are a concern.

22 I do want to point out one thing though, this
23 diversion would not be an open conduit. There is
24 a gate at the upper end, and at -- currently there
25 are no invasive species, such as invasive carp



1 that have been found in the canal. If there were
2 to be any invasive species we would do what would
3 be needed to prevent that. I know the diversion
4 point and where that's at with Central Nebraska
5 Public Power and Irrigation canal safeguard.
6 Certain safeguards could be put into place if
7 necessary, but those Asian carp have not been
8 found. I believe it's approximately 60 miles from
9 that point at this time. Obviously compliance
10 with the -- with this Compact is a high priority
11 for us, and the impetus for this project. So I
12 think it's just important to say we've already had
13 substantial restrictions placed upon groundwater
14 irrigation and pumping in those districts. And
15 that once again the impetus for this project, but
16 we are also concerned and will be very, very
17 interested and cognizant of -- of monitoring, you
18 know, if there are the presence of any invasive
19 species. So thanks.

20 MR. BARFIELD: All right. Thank you for
21 your remarks. Are there any others? Okay.
22 Seeing none, we'll continue on with the agenda and
23 working towards the conclusion here. So the next
24 item is future meeting arrangements. Kansas will
25 be hosting it next year. We've not finalized a



1 location. We would propose a date of maybe August
2 20 or 22nd of that week. August 20 is a Tuesday,
3 August 22nd is a Thursday. We don't have to fix
4 this in stone today, but do you have comments on
5 either -- a preference of either of those dates?
6 Okay.

7 MR. FASSETT: It's up to you.

8 MR. BARFIELD: All right. We'll -- we'll
9 figure that out when we figure out the location.
10 Typically we have one meeting a year that we -- in
11 the two to that we host in the lower basin area.
12 And then one in the upper. So we'll -- we'll look
13 at options for either near Colby or possibly,
14 there is -- there is a good meeting place in
15 Oberlin. So we'll -- we'll work on that and share
16 that with you in the near future. If that's okay?

17 MR. FASSETT: I think as early
18 notification on dates is always appreciated with
19 our -- the lives of the people at this table,
20 so...

21 MR. BARFIELD: Very good. Yeah, we'll
22 seek to do that in the next -- next few weeks
23 then. All right. I guess I would like to see if
24 there is any matters that need to be discussed
25 that we missed here before we conclude.



1 MR. REIN: I have none.

2 MR. BARFIELD: All right. Well, I would
3 again like to also express appreciation to my
4 staff. It is a fair amount of work to bring this
5 together, not only Chris, but all of the staff
6 have really pitched in to get the work done and to
7 make this a successful meeting. I just really
8 want to recognize Chelsea Erickson, as well as
9 Ginger Pugh for providing -- they -- they had a
10 baking session last night. So we want to make
11 sure you -- if you haven't yet that you will enjoy
12 that before you go. We actually have lunch coming
13 at noon. So if you want to hang around until then
14 we have enough for -- for anyone that's -- that's
15 here to -- to remain behind and to enjoy that with
16 us. Again, I appreciate everybody's efforts.
17 Again, as has been said here a number of times the
18 states, the federal agencies, the local agencies,
19 it's just been -- as you've heard, great to see
20 all of the progress that's being made in this
21 basin as we -- as we work together collectively.

22 So with that I'll adjourn this year's annual
23 meeting. Thank you very much.

24 (THEREUPON, the meeting concluded at
25 11:15 a.m.)



C E R T I F I C A T E

S T A T E O F K A N S A S

S S :

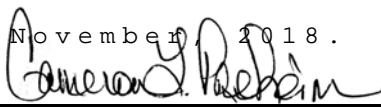
C O U N T Y O F S H A W N E E

I, Cameron L. Preheim, a Certified Court Reporter, Commissioned as such by the Supreme Court of the State of Kansas, and authorized to take depositions and administer oaths within said State pursuant to K.S.A 60-228, certify that the foregoing was reported by stenographic means, which matter was held on the date, and the time and place set out on the title page hereof.

I further certify that after review and changes made by the Department of Agriculture, the foregoing constitutes a transcript of said proceedings.

I further certify that I am not related to any of the parties, nor am I an employee of or related to any of the attorneys representing the parties, and I have no financial interest in the outcome of this matter.

Given under my hand and seal this
7th day of November, 2018.



Cameron L. Preheim, C.C.R. No



**ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION**

August 21, 2018

Attendance: Manhattan Kansas

Name	Representing
Peter Ampe	HM & Rathburn
David Barfield	Kansas Division of Water Resources
Chris Beightel	Kansas Division of Water Resources
Don Blankenau	Outside Counsel for Nebraska
Jesse Bradley	Nebraska Department of Natural Resources
Don Brown	Colorado Department of Agriculture
Kari Burgert	Nebraska Department of Natural Resources
Hongsheng Cao	Kansas Division of Water Resources
Deb Daniel	Republican River Water Conservation District
Scott Dicke	Lower Republican Natural Resource District (Nebraska)
Brad Edgerton	Frenchman Cambridge Irrigation District
Chelsea Erickson	Kansas Division of Water Resources
Jeff Fassett	Nebraska Director of the Department of Natural Resources
Carol Flaute	Nebraska Department of Natural Resources
Ivan Franco	Colorado Division of Water Resources
Pete Gile	Kansas Bostwick Irrigation District
Burke Griggs	Kansas Attorney General's Office
Justin Lavene	Nebraska Attorney General's Office
Earl Lewis	Kansas Water Office
Lane Letourneau	Kansas Division of Water Resources
John Miller	U.S. Geologic Survey
Sam Perkins	Kansas Division of Water Resources
Cameron Preheim	Court Reporter, Appino & Biggs Reporting Service, Inc
Ginger Pugh	Kansas Division of Water Resources
Kevin Rein	Colorado State Engineer
Tom Riley	Nebraska – Flatwater Group
Willem Schreüder	Principia Mathematica
Craig Scott	US. Bureau of Reclamation
Aaron Thompson	U.S. Bureau of Reclamation
Todd Siel	Lower Republican Natural Resource District (Nebraska)
Chris Steffen	Kansas Wildlife, Parks and Tourism
Scott Steinbrecher	Colorado Attorney General's Office
Kelly Stewart	Kansas Division of Water Resources
Tracy Streeter	Kansas Water Office
Mike Sullivan	Colorado Division of Water Resources
Kenneth Titus	Kansas Division of Water Resources
Tom Wilmoth	BLJJ, LLC

SIGN IN SHEET**2018 ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION**

August 21, 2018, 10:00 a.m.
 Kansas Department of Agriculture
 Manhattan, KS 66502

No.	NAME	Representing
1	Kelly Stewart	KDA / DWR
2	Arson Thompson	Reclamation
3	Craig Scott	USBR
4	Steve Samuil	RRWCD
5	Scott Dicke	LRNRD
6	Todd Siel	LRNRD
7	Ivan Franco	Colorado DWR
8	Brad Edgerton	FCTD
9	KEVIN REIN	COLO SEO
10	Ginger Pugh	KDA-DWR
11	William Schneider	Principia
12	Kenneth Titus	KDA/DWR
13	Bulka Guigas	KS AH'y Gen.
14	JEFF FASSETT	Nebraska
15	Jesse Bradley	Nebraska
16	Chris Beightel	Kansas
17	Tom Riley	Nebraska
18	Carol Flaute	Nebraska DNR
19	Earl Lewis	KS Water Office
20	T Jumbo	KWO

SIGN IN SHEET

**2018 ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION**

August 21, 2018, 10:00 a.m.
Kansas Department of Agriculture
Manhattan, KS 66502

21	Chelsea Erickson	KS-DWR Stockton
22	Kari Burgert	NE DNR
23	LANG LETOURNEAU	KS Dept of Ag
24	Peter Anpe	HM & R. L. Co.
25	Scott Steinbrecher	Colo. Atty. General's Office
26	Don Brown	Colorado Dept of Agriculture
27	John Miller	USGS
28	TOM WILMONT	BLJJ, LLC
29	Pete Gile	KS Bostwick I. D.
30	Chris Steffen	KS wildlife + Parks
31	David Barfield	KDA-DWR
32	Sam Perkins	KDA-DWR
33	Mike Sullivan	CAWR
34	Hengsheng Gao	KS-DWR (added)
35	Cameron Preheim	Court Reporter (added)
36	Justin Lavene	Nebraska Attorney General (added)
37	Don Blankenau	Outside Counsel-NE (added)
38		
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45		

**FINAL AGENDA FOR
2018 ANNUAL MEETING OF THE
REPUBLICAN RIVER COMPACT ADMINISTRATION**

August 21, 2018, 10:00 a.m. Central Time
Kansas Department of Agriculture Rm. 124
1320 Research Park Drive
Manhattan, KS 66502

1. Introductions
2. Adoption of the Agenda
3. Status of Report and Transcript for the November 24, 2015 special meeting; August 24, 2016 annual meeting, May 25, 2017 special meeting and August 22, 2017 annual meeting and possible action by the RRCA
4. Commissioners' Reports
 - a. Colorado
 - b. Nebraska
 - c. Kansas
5. Federal Reports
 - a. Bureau of Reclamation
 - i. Status report on the Memorandum of Agreement (MOA) among Reclamation and the Bostwick Division
 - b. U.S. Army Corps of Engineers
 - c. U.S. Geological Survey
6. Committee Reports
 - a. Engineering Committee
 - i. Assignments from 2017 Annual Meeting
 - ii. Committee recommendations to the RRCA
 - iii. Recommended assignments for Engineering Committee
7. Old Business
8. New Business and Assignments to Compact Committees
 - a. Action on Engineering Committee Report and assignments
 - b. Action on 2017 Accounting
9. Remarks from the Public
10. Future Meeting Arrangements
11. Adjournment

SETTLEMENT OF CLAIMS REGARDING COLORADO'S PAST
USE OF WATER UNDER THE REPUBLICAN RIVER COMPACT

WHEREAS, the Republican River Compact (Compact) equitably apportions the waters of the Republican River Basin among Colorado, Kansas, and Nebraska (States); and

WHEREAS, Congress approved the Compact in 1943, 57 Stat. 86 (1943); and

WHEREAS, the States entered into a Final Settlement Stipulation (FSS), dated December 15, 2002, to resolve pending claims brought by Kansas against Nebraska in the Supreme Court of the United States regarding the Compact in the case of *Kansas v. Nebraska and Colorado*, No. 126 Original; and

WHEREAS, the FSS was approved by decree of the Supreme Court of the United States on May 19, 2003, 538 U.S. 720 (2003); and

WHEREAS, Colorado and Kansas intend for this settlement agreement to foster economic growth in Northeast Colorado and Northwest Kansas that will benefit the residents of both states; and

WHEREAS, Colorado and Kansas now wish to resolve disputes over Colorado's past use of water under the Compact and FSS and to continue into a new era of cooperative management of the waters of the Republican River Basin.

NOW THEREFORE BE IT AGREED,

1. Colorado shall pay Kansas \$2 million to resolve any disputes over Colorado's past use of water under the Compact and FSS for any accounting period ending on or prior to December 31, 2013;
2. Colorado agrees to pursue a good faith effort to spend an additional \$2 million by December 31, 2027, in the South Fork of the Republican River Basin within Colorado to further the purposes of the Compact and to assist with Colorado's compliance with the Compact and FSS;
3. Colorado agrees to waive and to be forever barred from bringing all claims for damages, all other claims asserted, and all claims that could have been asserted against Kansas for violations of the Compact and the FSS for any accounting period ending on or prior to December 31, 2013;
4. Kansas agrees to waive and to be forever barred from bringing all claims for damages, all other claims asserted, and all claims that could have been asserted against Colorado for violations of the Compact and the FSS for any accounting period ending on or prior to December 31, 2013;

5. Kansas agrees to pursue a good faith effort to spend the \$2 million paid pursuant to paragraph 1 for the benefit of the South Fork of the Republican River Basin within Kansas to further the purposes of the Compact and to assist Kansas in maintaining compliance with the Compact and the FSS;
6. Colorado and Kansas each agree to present respective reports to the annual meeting of the Republican River Compact Administration detailing any expenditures made pursuant to paragraphs 1, 2, and 5, until the \$2 million described in paragraph 1 and the \$2 million described in paragraph 2 are fully expended;
7. By entering into this settlement agreement, neither Colorado nor Kansas admits to violating the Compact. Furthermore, the amount of payment was the subject of negotiation among Colorado and Kansas, does not constitute a valuation of water in either state, and may not be used by them as evidence of the value of water in any future dispute in the Republican River Basin or any other basin; and
8. Failure by Colorado to pay Kansas under paragraph 1 of this settlement agreement by December 31, 2018 shall release both Colorado and Kansas from any obligations under this settlement agreement. Failure by Colorado to spend funds under paragraph 2 of this settlement agreement shall not release either Colorado or Kansas from this settlement agreement. Failure by Kansas to spend funds under paragraph 5 of this settlement agreement shall not release either Colorado or Kansas from this settlement agreement.

The undersigned Governors and Attorneys General for Colorado and Kansas, having authority to commit their respective states to a settlement of claims, hereby commit them to the terms of this settlement agreement.

Fully executed on this 15th day of August, 2018.

John W. Hickenlooper
Governor, State of Colorado

Cynthia H. Coffman
Attorney General, State of Colorado

Jeff Colyer
Governor, State of Kansas

Derek Schmidt
Attorney General, State of Kansas

By:  _____

ROBERT JAROS, CPA, MBA, JD (or designee)

Colorado State Controller

SETTLEMENT OF CLAIMS REGARDING COLORADO'S PAST
USE OF WATER UNDER THE REPUBLICAN RIVER COMPACT

WHEREAS, the Republican River Compact (Compact) equitably apportions the waters of the Republican River Basin among the States of Colorado, Kansas, and Nebraska (States); and

WHEREAS, Congress approved the Compact in 1943, 57 Stat. 86 (1943); and

WHEREAS, the States entered into a Final Settlement Stipulation (FSS), dated December 15, 2002, to resolve pending claims brought by Kansas against Nebraska in the Supreme Court of the United States regarding the Compact in the case of *Kansas v. Nebraska and Colorado*, No. 126 Original; and

WHEREAS, the FSS was approved by decree of the Supreme Court of the United States on May 19, 2003, 538 U.S. 720 (2003); and

WHEREAS, Nebraska and Colorado now wish to resolve disputes over Colorado's past use of water under the Compact and FSS and to continue into a new era of cooperative management of the waters of the Republican River Basin.

NOW THEREFORE BE IT AGREED,

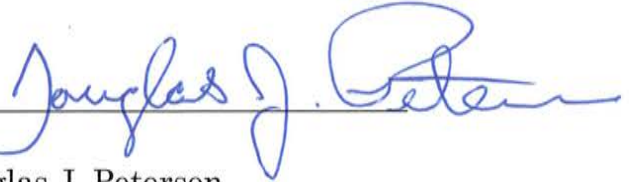
1. Contingent upon appropriation by the Colorado General Assembly during the 2018 legislative session, Colorado shall pay Nebraska \$4 million;
2. In consideration for that payment Nebraska agrees to waive and to be forever barred from bringing all claims against Colorado for violations of the Compact and the FSS for any accounting period ending on or prior to December 31, 2013;
3. By entering into this settlement agreement, Colorado does not admit to violating the Compact. Furthermore, the amount of payment was the subject of negotiation among Colorado and Nebraska, does not constitute a valuation of water in any of the States, and may not be used by them as evidence of the value of water in any future dispute in the Republican River Basin or any other basin; and
4. Failure by Colorado to pay Nebraska under this settlement agreement by December 31, 2018 shall release Nebraska from any waiver of claims and shall release Colorado and Nebraska from any other obligations under this settlement agreement.

The undersigned Governors and Attorneys General for the States of Colorado and Nebraska, having authority to commit the States to a settlement of claims, hereby commit the States to the terms of this settlement agreement.

Fully executed on this 31 day of January, 2018.

/s/ 

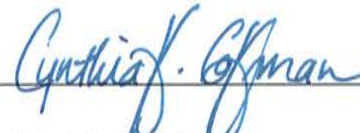
Pete Ricketts
Governor, State of Nebraska

/s/ 

Douglas J. Peterson
Attorney General, State of Nebraska

/s/ 

John W. Hickenlooper
Governor, State of Colorado

/s/ 

Cynthia H. Coffman
Attorney General, State of Colorado

By:  _____

ROBERT JAROS, CPA, MBA, JD (or designee)

Colorado State Controller

REPORT OF WATER ADMINISTRATION ACTIVITIES FOR THE REPUBLICAN RIVER BASIN IN NEBRASKA FOR THE CALENDAR YEAR 2017

January 1, 2017

A letter was mailed to the USBR notifying them that a Compact Call Year was in effect.

February 1, 2017

Letters were mailed to irrigators reminding them that the 2016 Water Use Reports (WUR) must be filed with the Cambridge Field Office or they will be closed.

March 6, 2017

Eighteen (18) closing notices were mailed to irrigators who did not return their 2016 WUR notifying them that they are closed.

June 26, 2017

Ninety Three (93) closing notices were mailed to irrigators in the Republican River Basin.

July 5, 2017

One (1) opening notice was mailed for returned WUR.

July 10, 2017

Six (6) regulating/opening notices were mailed to irrigators in the Republican River Basin notifying them that they were open and the legal amount they could pump.

July 19, 2017

One Hundred Forty Seven (147) regulating/opening notices were mailed to irrigators in the Republican River Basin notifying them that they were open and the legal amount they could pump.

July 26, 2017

One Hundred Sixty One (161) closing notices were mailed to irrigators in the Republican River Basin.

September 7, 2017

Ninety One (91) regulating/opening notices were mailed to irrigators in the Republican River Basin notifying them that they were open and the legal amount they could pump.

October 3, 2017

Five (5) Storage opening notices were mailed to the USBR for federal reservoirs in the Republican River Basin.

October 5, 2017

Thirty One (31) closing notices were mailed to irrigators in the Republican River Basin

December 12, 2017

2017 Water Use Reports were mailed to all IR (irrigation from a natural stream), SI (irrigation from reservoirs on lands also covered by a natural flow appropriation), and SO (irrigation from reservoirs on lands not covered by a natural flow appropriation) permits in the Republican Basin with the exception of federally owned canals.

RECLAMATION

Managing Water in the West

Nebraska-Kansas Area Office

Report

To The

Republican River

Compact Administration

Manhattan, KS



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

August 21, 2018

Bureau of Reclamation
Nebraska-Kansas Area Office

Republican River Compact Administration
August 21, 2018

REPUBLICAN RIVER COMPACT MEETING

August 21, 2018
Manhattan, Kansas

2017 Operations

As shown on the attached Table 1, precipitation in the Republican River Basin varied from 143 percent of normal at Bonny Dam to 72 percent of normal at Lovewell Dam. Total precipitation at Reclamation project dams ranged from 17.10 inches at Enders Dam to 26.60 inches at Harlan County Dam.

Inflows varied from 60 percent of the most probable forecast at Bonny Reservoir and Hugh Butler Lake to 127 percent of the most probable forecast at Swanson Lake. Inflows into Bonny Reservoir totaled 4,580 AF while inflows at Harlan County Lake totaled 118,889 AF.

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

<u>District</u>	<u>Farm Delivery</u>
Frenchman Valley	0.0 inches
H&RW	0.0 inches
Frenchman-Cambridge	4.4 inches
Almena	0.6 inches
Bostwick in NE	5.2 inches
Kansas-Bostwick	9.7 inches

2017 Operation Notes

Bonny Reservoir – Remained empty at elevation 3638.00 feet, 34.0 feet below the top of conservation. The annual computed inflow totaled 4,580 AF. Reservoir inflows were bypassed the entire year as ordered by the State of Colorado. A total of 1,057 AF was bypassed into Hale Ditch from April 7th through July 12th.

Enders Reservoir – Started the year at elevation 3084.41 feet, 27.9 feet below the top of conservation. This was the third lowest level ever recorded on the first of January since initial filling. The reservoir level increased gradually during the spring to a peak elevation of 3085.33 feet on April 3rd. On January 18, 2017 the Frenchman Valley and H&RW Irrigation Districts entered into an agreement with the Middle Republican Natural Resources District (MRNRD) to release 2,000 AF of storage water from Enders Reservoir to be used by downstream irrigation districts. The purchased water was released beginning on April 5th and ended on April 12th decreasing the pool level to elevation 3082.40 feet. The Frenchman Valley Irrigation District also cooperated with the MRNRD by forgoing diversions of the natural flow from Frenchman Creek in 2017. Evaporation decreased the reservoir level from June through late October reaching elevation 3081.53 feet on October 30th. The 2017

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computed inflow totaled 4,652 AF. No water was released from Enders Reservoir during the irrigation season. This was the sixteenth consecutive year that H&RW Irrigation District did not divert water. It was also the fourteenth consecutive year that storage releases were not made for Frenchman Valley Irrigation District. The end of the year reservoir level was 30.5 feet (elevation 3081.83 feet) below the top of conservation, the lowest level ever recorded at the end of the year since initial filling.

Swanson Lake – Started the year at elevation 2735.63 feet, 16.4 feet below the top of conservation. The annual computed inflow totaled 33,514 AF (includes water pumped from Colorado’s Compact Compliance Pipeline as well as Nebraska’s Rock Creek Augmentation Project). The lake level gradually increased throughout the late winter and spring. The peak elevation on June 9th was 2742.22 feet (9.8 feet below the top of conservation). The reservoir level decreased throughout the irrigation season and reached an elevation of 2736.24 feet on September 22nd. The district diverted 16,692 AF into Meeker-Driftwood Canal from June 22nd through September 5th. At the end of the year, the reservoir level was 14.7 feet below the top of conservation at elevation 2737.34 feet.

Hugh Butler Lake – Started the year at elevation 2564.94 feet, 16.9 feet below the top of conservation. The 2017 computed inflow was 6,802 AF, which was the second lowest ever recorded. Late winter and spring inflows gradually increased the lake level but summer evaporation slowed reservoir gains and the lake level peaked at elevation 2567.36 feet on May 29th. A total of 863 AF was released from Hugh Butler Lake beginning on July 24th and ending on August 11th for diversion into Bartley Canal. Due to the low water supply available, there were no diversions into Red Willow Canal for the eighth consecutive year. The reservoir elevation at the end of year was 2565.94 feet, 15.9 feet below the top of conservation.

Harry Strunk Lake – Started the year at elevation 2363.00 feet, 3.1 feet below the top of conservation. The annual computed inflow totaled 40,838 AF (includes water pumped from the Nebraska Cooperative Republican Platte Enhancement Project N-CORPE). The reservoir level was maintained near 0.5 foot below top of conservation from late-January through late-February with inflows passed through the outlet works. The reservoir filled to top of conservation on March 1st and began spilling over the uncontrolled spillway notch. The reservoir level peaked at elevation 2367.70 feet on March 30th. Releases resumed from the river outlet works on April 14th decreasing the pool level to elevation 2364.70 feet just prior to irrigation releases beginning on June 5th. Irrigation releases continued through September 7th reducing the reservoir level to elevation 2351.46 feet. The district diverted 25,406 AF into Cambridge Canal. Late fall and early winter inflows increased the level of Harry Strunk Lake to elevation 2359.09 feet at the end of the year (7.0 feet below the top of conservation).

Keith Sebelius Lake – Started the year at elevation 2291.25 feet, 13.0 feet below the top of conservation. The total 2017 computed inflow was 7,073 AF. The reservoir level slowly increased to an elevation of 2293.34 feet on June 7th. Irrigation releases began July 10th and continued until July 15th dropping the reservoir elevation to 2292.20 feet. The district diverted 771 AF into Almena Canal. The reservoir level gradually decreased during the summer and fall reaching elevation 2291.15 feet on September 22nd. Keith Sebelius Lake ended the year at elevation 2291.54 feet (12.8 feet below the top of conservation).

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Harlan County Lake – Started the year at elevation 1935.58 feet, 10.2 feet below the top of conservation pool. The 2017 computed inflow totaled 118,889 AF (includes augmentation water that passed through Harry Strunk Lake as well as release of storage water from Enders Reservoir and natural flow bypassed on the Frenchman Creek). The lake level gradually increased to a peak elevation of 1941.86 feet on June 6th. Irrigation releases began on June 12th and continued through September 14th. The lake level on September 14th was elevation 1937.69 feet. Bostwick Irrigation District in Nebraska diverted 26,850 AF in 2017. Irrigation releases from Harlan County Lake totaled 52,764 AF. The level of Harlan County Lake on December 31st was at elevation 1938.39 feet (7.3 feet below the top of conservation). A ten year summary of Harlan County Lake operations is shown on Table 3.

Kansas Bostwick Irrigation District (KBID) entered into an Excess Capacity Contract (Warren Act Authority) with Reclamation for the use of compact compliance water stored in Harlan County Lake during 2014. The latest amendment to the contract between KBID and Reclamation in December 2016 provided for 15,000 AF of water to be carried over into 2017. No water was released under this contract during the 2017 irrigation season. Losses due to evaporation resulted in 12,989 AF remaining in this pool to be carried over into 2018.

Lovewell Reservoir – Started the year at elevation 1582.51 feet, 0.1 foot below the top of conservation. The annual computed inflow total for 2017 was 55,402 AF. The reservoir pool gradually increased reaching a target level of 2.0 feet above top of conservation at the end of April. River releases were started on May 1st to maintain the pool level. Lovewell Dam recorded 3.55 inches of rain from May 16th through May 21st. Runoff from the rain events increased the reservoir level 1.8 feet to a peak elevation of 1586.45 feet on May 22nd. This level was 1.9 feet above the target elevation with 6,000 AF of additional storage. The river release was increased to 700 cfs on May 22nd and staged off by the end of the month when the pool level reached the desired target level. Approximately 12,500 AF was released to the river.

Releases to the canal began on May 1st with irrigation releases beginning in earnest on June 5th and continued through September 15th. The reservoir elevation at the end of the irrigation season was 1581.15 feet. Republican River flow was diverted via Courtland Canal into Lovewell Reservoir after the irrigation season until early December. KBID diverted a total of 62,094 AF in 2017, including 38,000 AF from Lovewell Reservoir. The reservoir level at the end of the year was elevation 1581.15 feet (1.5 feet below top of conservation).

Current Operations (As of 7/31/18)

Bonny Reservoir – The reservoir is currently empty. Inflows continue to be bypassed through the reservoir as ordered by the State of Colorado. Approximately 900 AF has been released into Hale Ditch in 2018. Bonny Dam has recorded 16.30 inches of precipitation during the first seven months of the year (138% of average).

Enders Reservoir - The reservoir level is currently 28.9 feet below full and 1.1 feet above last year at this time. Enders Dam recorded 23.17 inches of precipitation during the first

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seven months of the year (175% of normal). Due to the water supply shortage, H&RW Irrigation District is not irrigating for the seventeenth year in a row. This is also the fifteenth consecutive year that Frenchman Valley Irrigation District has not received storage water for irrigation.

Swanson Lake – The lake level is currently 10.7 feet from full and is 2.9 feet above last year at this time. Precipitation for the year is at 175% of normal (23.81 inches). Irrigation releases began on June 18th.

Hugh Butler Lake – The lake level is currently 12.6 feet below full and is 3.7 feet above last year at this time. The precipitation total so far this year is 16.08 inches (123% of normal).

Harry Strunk Lake – The lake level is currently 1.6 feet below the top of conservation. Precipitation at the dam during the first seven months of the year was 17.41 inches (123% of normal). Irrigation releases began on May 13th. The lake level is currently 7.6 feet above last year at this time.

Keith Sebelius Lake – Currently 10.9 feet below full. Lake level is 1.5 feet above last year at this time. No irrigation releases to date. Precipitation at the dam during the first seven months of the year was 19.56 inches (122% of normal).

Harlan County Lake – The current water surface level is approximately 7.0 feet below full. The lake level is 1.2 feet below last year at this time. Harlan County Dam has recorded 14.18 inches of precipitation so far this year (94% of normal). Irrigation releases began on May 27th. The available irrigation supply from Harlan County Lake on June 30, 2018 was 106,600 AF.

Lovewell Reservoir – The reservoir level is currently 1.2 feet below the top of conservation and approximately 1.4 feet above last year's elevation at this time. Lovewell Dam recorded 15.98 inches of precipitation during the first seven months of the year (91% of average). Canal releases began on May 24th.

A summary of data for the first seven months of 2018 is shown on Table 2.

Other Items

Excess Capacity Contract – Harlan County Lake – An Excess Capacity Contract (Contract) was executed with Kansas Bostwick Irrigation District (KBID) to temporarily store inflows into Harlan County Lake under the State of Nebraska's Compact Call water right administration. This Contract allowed water to be temporarily stored for KBID's use during the 2014 irrigation season. The contract was extended and amended into 2015, 2016, 2017, and 2018 to allow for carryover of the temporary storage. On May 31, 2018 this non-project water was converted to project water under KBID Account #2.

TABLE 1
NEBRASKA-KANSAS PROJECTS
Summary of Precipitation, Reservoir Storage and Inflows
CALENDAR YEAR 2017

Reservoir	Total	Percent Of	Storage	Storage	Gain or	Maximum	Storage	Minimum	Storage	Total	Percent
	Precip.	Average	12-31-16	12-31-17	Loss	Content	Date	Content	Date	Inflow	Of Most
	Inches	%	AF	AF	AF	AF		AF		AF	%
Box Butte	19.68	115	14,789	5,200	-9,589	22,979	MAY 23	2,230	OCT 23	18,618	124
Merritt	21.36	101	61,913	61,100	-813	64,170	FEB 24	41,996	JUL 26	209,434	112
Calamus	35.00	143	101,203	98,123	-3,080	120,690	APR 3	69,028	SEP 17	262,858	99
Davis Creek	23.05	91	14,300	12,710	-1,590	31,720	JUN 21	12,710	DEC 31	55,143	117
Bonny	25.11	143	0	0	0	0	N/A	0	N/A	4,580	60
Enders	17.10	89	10,264	8,595	-1,669	10,903	APR 3	8,412	SEP 22	4,652	73
Swanson	26.27	131	45,972	51,342	5,370	68,314	JUN 9	46,094	JAN 1	33,514	127
Hugh Butler	18.92	96	14,669	15,626	957	17,047	MAY 29	14,267	SEP 22	6,802	60
Harry Strunk	18.66	89	29,393	23,855	-5,538	37,689	MAR 30	15,005	SEP 8	40,838	103
Keith Sebelius	26.57	107	13,039	13,379	340	15,622	JUN 7	12,924	SEP 22	7,073	106
Harlan County	26.60	115	194,203	224,247	30,044	264,901	JUN 6	194,305	JAN 1	118,889	112
Lovewell	20.01	72	35,398	31,494	-3,904	48,288	MAY 22	18,001	SEP 15	55,402	93
Kirwin	25.39	107	77,029	93,163	16,134	95,040	JUN 16	77,029	SEP 21	51,139	202
Webster	23.88	101	67,864	78,246	10,382	86,046	MAY 22	66,574	SEP 22	49,021	294
Waconda	20.51	80	216,908	213,045	-3,863	260,260	MAY 30	204,607	MAR 10	200,092	165
Cedar Bluff	23.68	113	54,285	51,101	-3,184	57,947	JUN 7	51,101	DEC 28	9,338	74

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

JANUARY - JULY 2018

Reservoir	Precip. Inches	Percent Of Average %	Storage 7/31/2017 AF	Storage 7/31/2018 AF	Gain or Loss AF	Inflow AF	Percent Of Most Probable %
Bonny	16.30	138	0	0	0	2,849	52
Enders	23.17	175	8,854	9,583	729	3,948	104
Swanson	23.81	175	54,944	64,978	10,034	29,507	139
Hugh Butler	16.08	123	15,240	18,997	3,757	6,560	87
Harry Strunk	17.41	123	21,113	31,890	10,777	22,379	85
Keith Sebelius	19.56	122	13,797	15,661	1,864	5,977	122
Harlan County	14.18	94	241,369	228,139	(13,230)	60,980	80
Lovewell	15.98	91	28,462	32,078	3,616	26,622	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)		
2008	224,841	114,938	45,985	30.31	131%	131%	319,311	175,900
2009	136,747	94,079	41,721	24.50	106%	128%	320,258	156,000
2010	239,054	194,055	46,893	31.66	137%	119%	318,364	147,800
2011	174,830	120,989	49,241	30.69	133%	115%	322,964	157,700
2012	78,581	160,221	50,199	18.14	78%	64%	191,125	132,900
2013	48,794	75,355	40,042	17.46	75%	83%	124,522	81,400
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

NOTE: On June 30, 2018 Projected Irrig. Water Supply was 106,600 AF.

* Average Annual Precipitation at Harlan County Dam is 23.13 inches

Republican River Basin streamflow-gaging stations with records published by USGS for water year (WY) 2017

[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 2017 as rank/years (1 highest)	WYs used for long-term mean	Remarks
		WY 2017 as long-term mean	WY 2017 as rank/years (1 highest)	WYs used for long-term mean	

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

06821500	Arikaree River at Haigler, Nebr	0.9	15.7	5.8%	76/85	1933 - 2017	
06823000	North Fork Republican River at Colo-Nebr State Line	34.1	41.1	83.0%	63/82	1936 - 2017	
06823500	Buffalo Creek near Haigler, Nebr	1.8	5.8	30.2%	76/77	1941 - 2017	
06824000	Rock Creek at Parks, Nebr	12.9	12.2	105.7%	40/77	1941 - 2017	
06824500	Republican River at Benkelman, Nebr	43.3	80.5	53.8%	49/50	1948 - 1994, 2015-2017	
06827500	South Fork Republican River near Benkelman, Nebr	3.3	33.1	9.9%	71/80	1938 - 2017	
06835500	Frenchman Creek at Culbertson, Nebr	35.4	64.1	55.2%	55/67	1951 - 2017	Since Enders Reservoir
06836500	Driftwood Creek near McCook, Nebr	3.3	8.0	41.3%	60/71	1947 - 2017	
06838000	Red Willow Creek near Red Willow, Nebr	6.2	13.2	47.0%	51/56	1962 - 2017	Since Hugh Butler Lake
06847000	Beaver Creek near Beaver City, Nebr	1.4	14.7	9.5%	55/80	1938 - 2017	
06847500	Sappa Creek near Stamford, Nebr (USACE funds DCP)	10.3	36.6	28.1%	44/71	1947 - 2017	
06852500	Courtland Canal at Nebr-Kans State Line (USBR DCP)	54.5	75.0	72.7%	48/63	1955 - 2017	
06853020	Republican River at Guide Rock, Nebr	126.0	251.2	50.2%	43/67	1951 - 2017	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	43.3	90.8	47.7%	52/67	1951 - 2017	Funded by USACE and GWSIP
06837000	Republican River at McCook, Nebr	40.3	118.6	34.0%	57/63	1955 - 2017	Funded by USBR, NDNR, and GWSIP
06844500	Republican River near Orleans, Nebr	112.0	221.1	50.7%	57/70	1948 - 2017	Funded by USACE and GWSIP

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

06834000	Frenchman Creek at Palisade, Nebr	21.7	57.8	37.5%	58/67	1951 - 2017	
06843500	Republican River at Cambridge, Nebr	97.1	203.8	47.6%	62/68	1950 - 2017	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

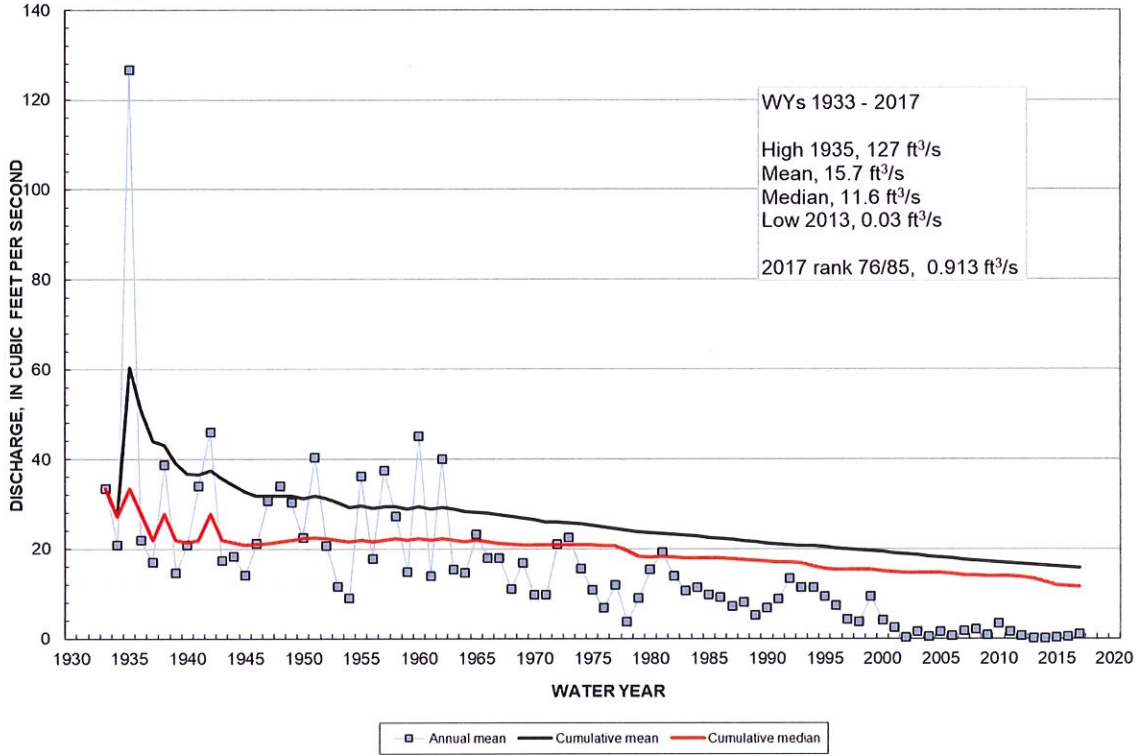
USGS Lincoln Field Office

Tim Boyle (tboyle@usgs.gov)

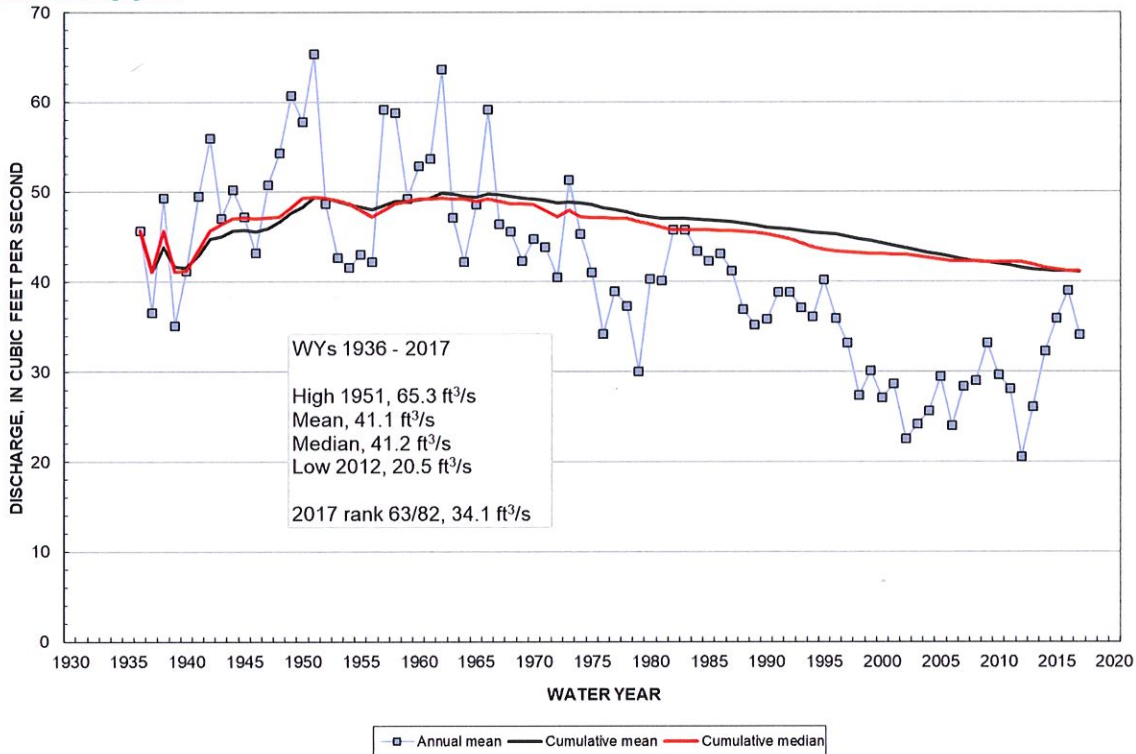
402-328-4125



06821500 Arikaree River at Haigler, NE

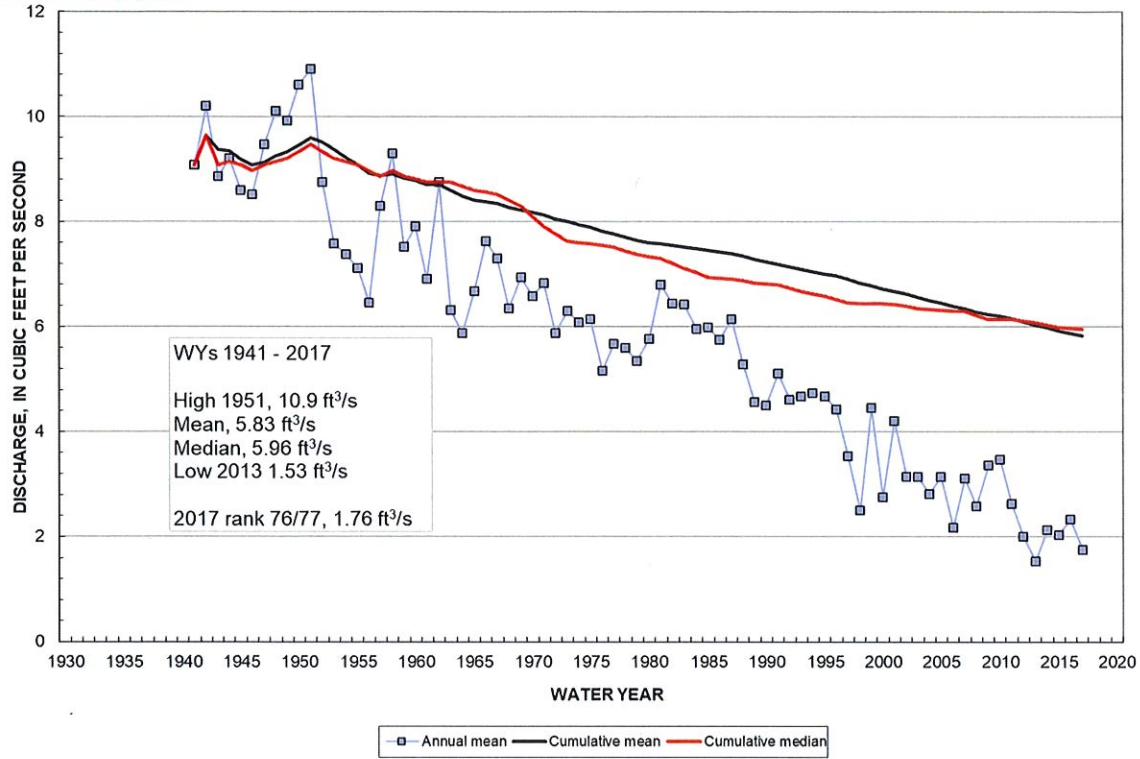


06823000 N Fk Republican River at CO-NE State Line

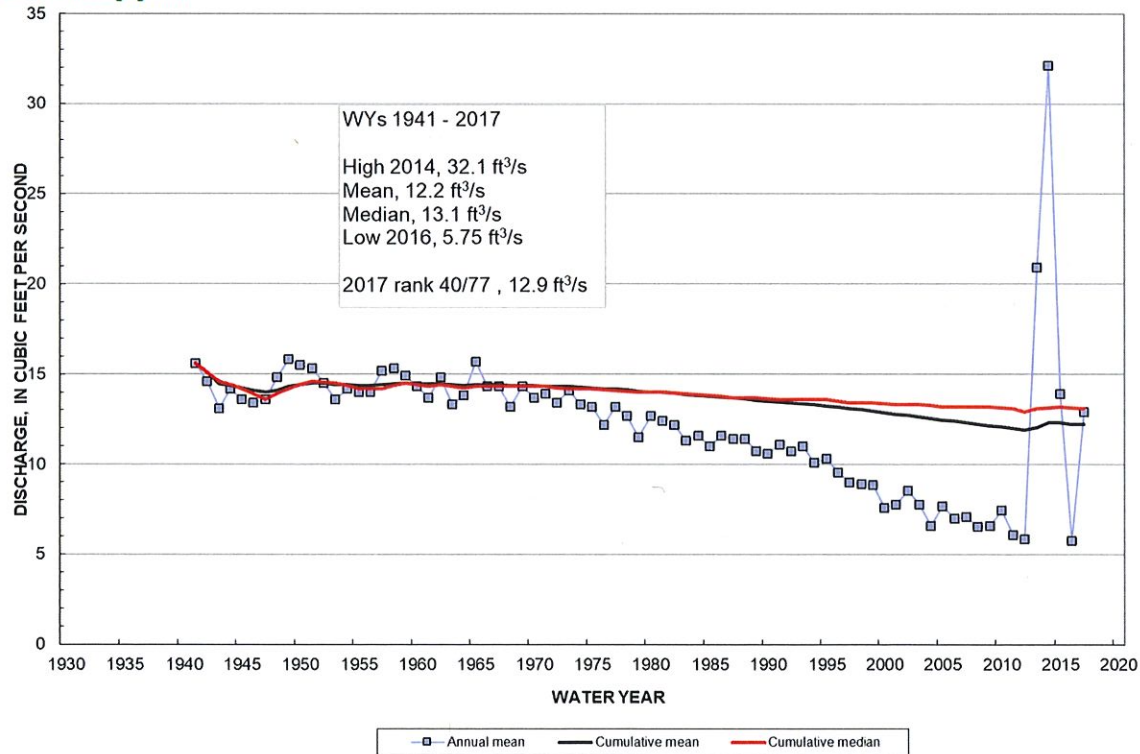




06823500 Buffalo Creek near Haigler, NE

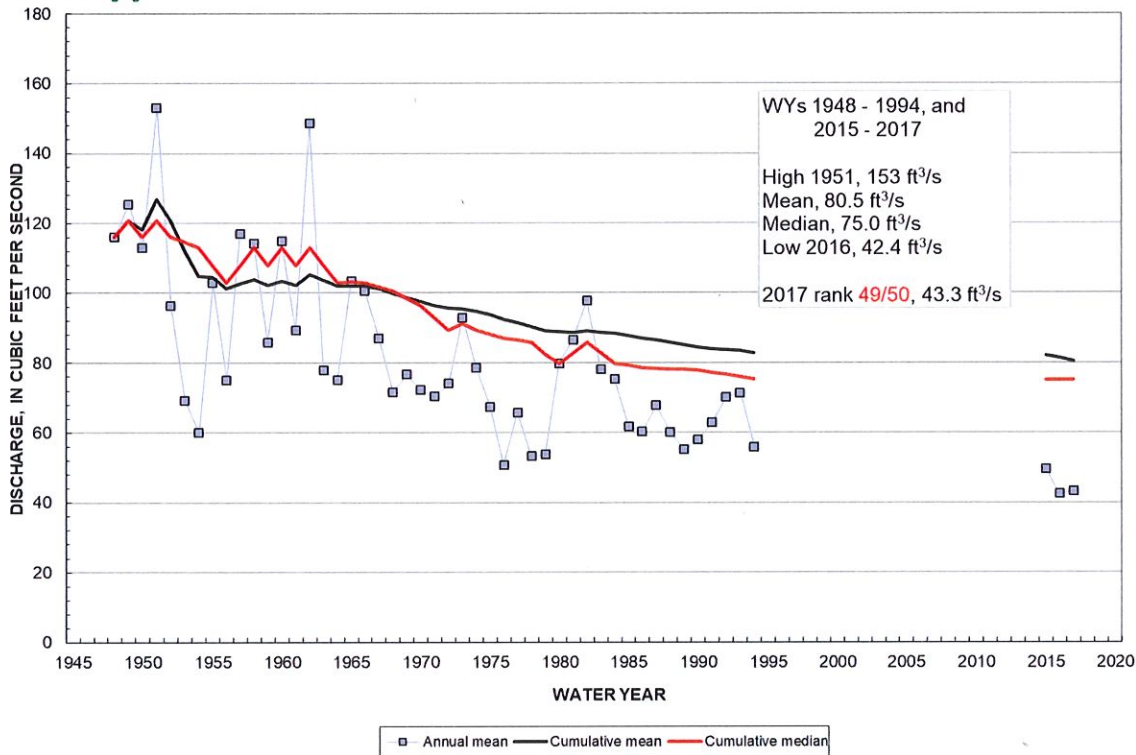


06824000 Rock Creek at Parks, NE

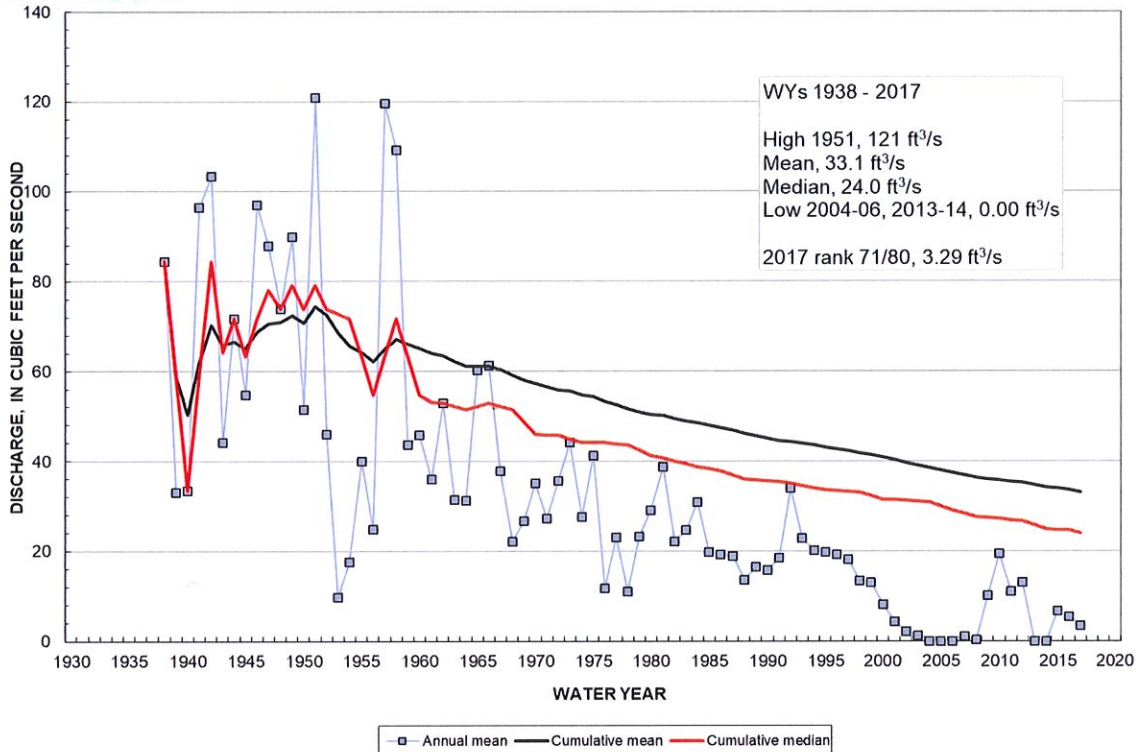




06824500 Republican River at Benkelman, NE

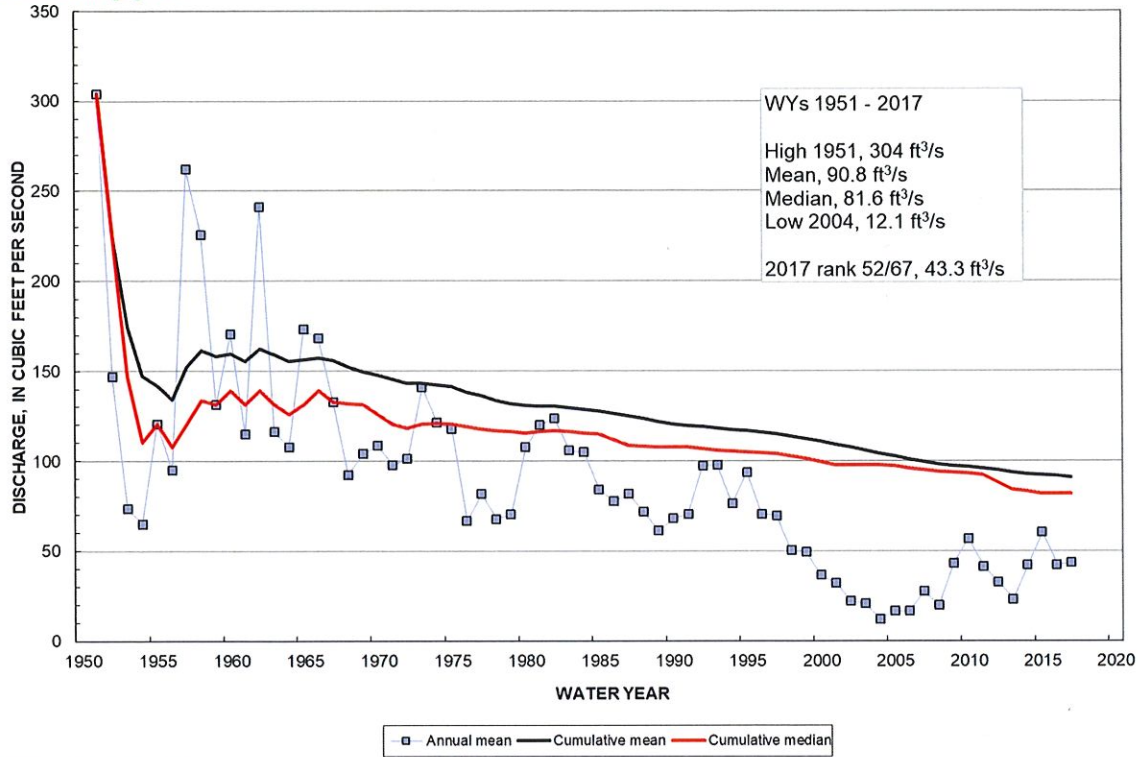


06827500 S Fk Republican River near Benkelman, NE

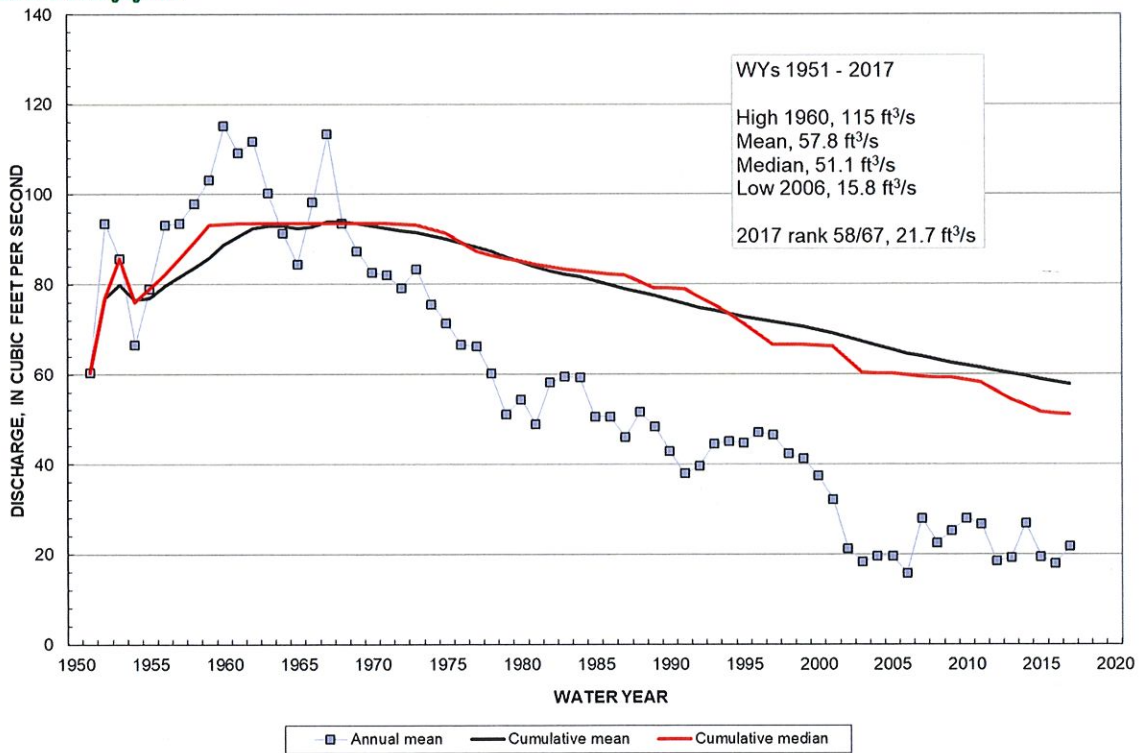




06828500 Republican River at Stratton, NE

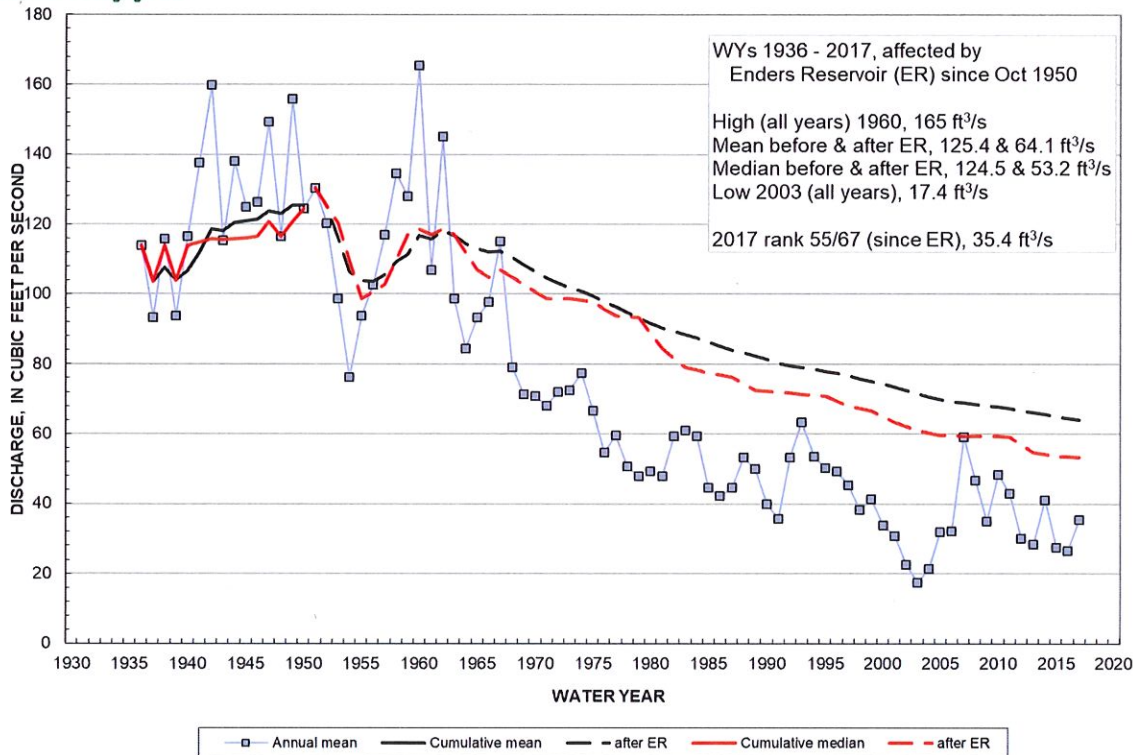


06834000 Frenchman Creek at Palisade, NE

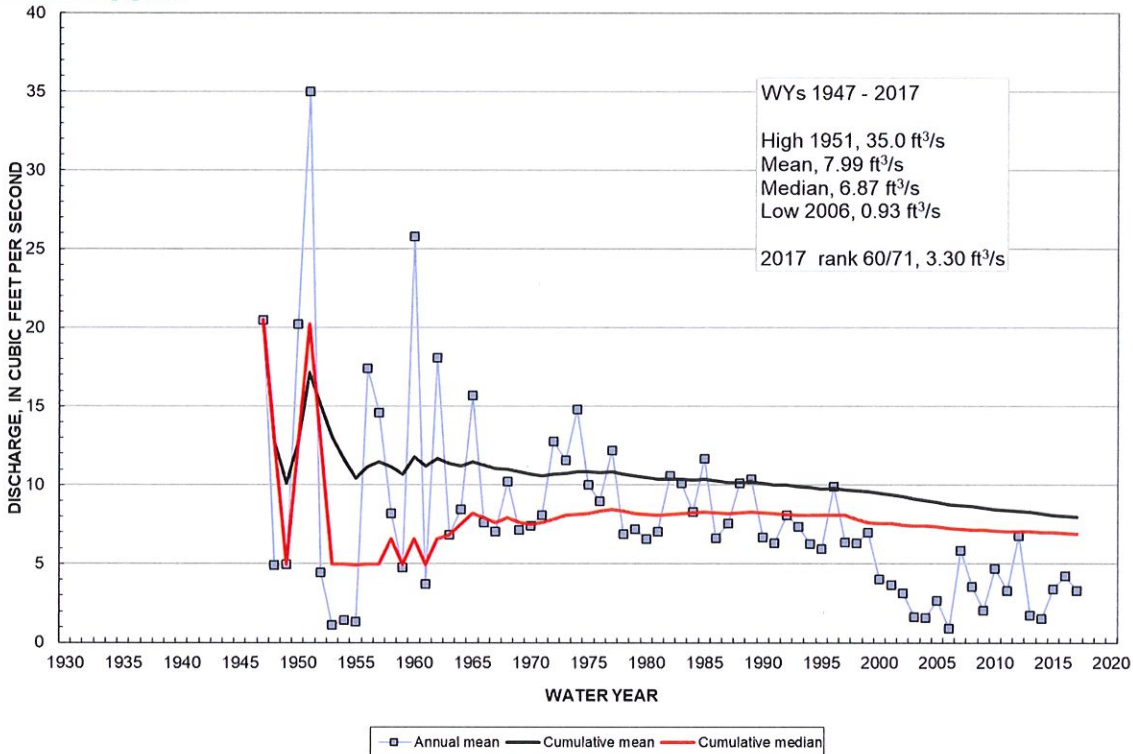




06835500 Frenchman Creek at Culbertson, NE

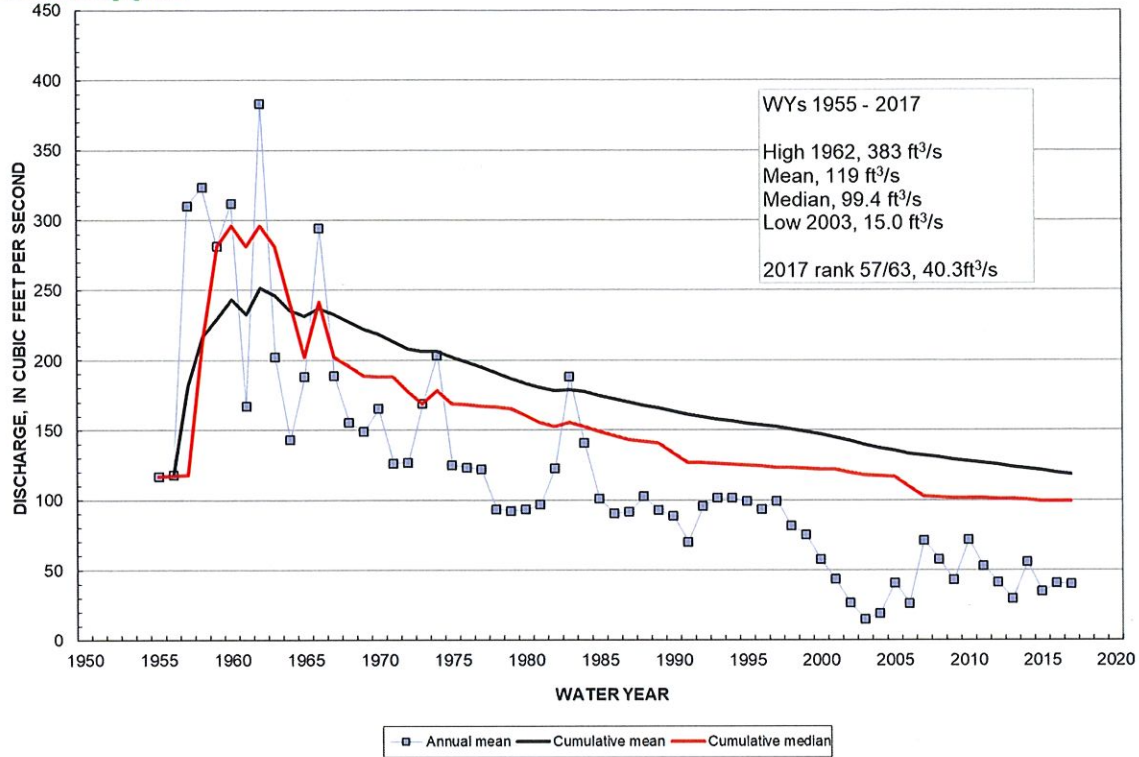


06836500 Driftwood Creek near McCook, NE

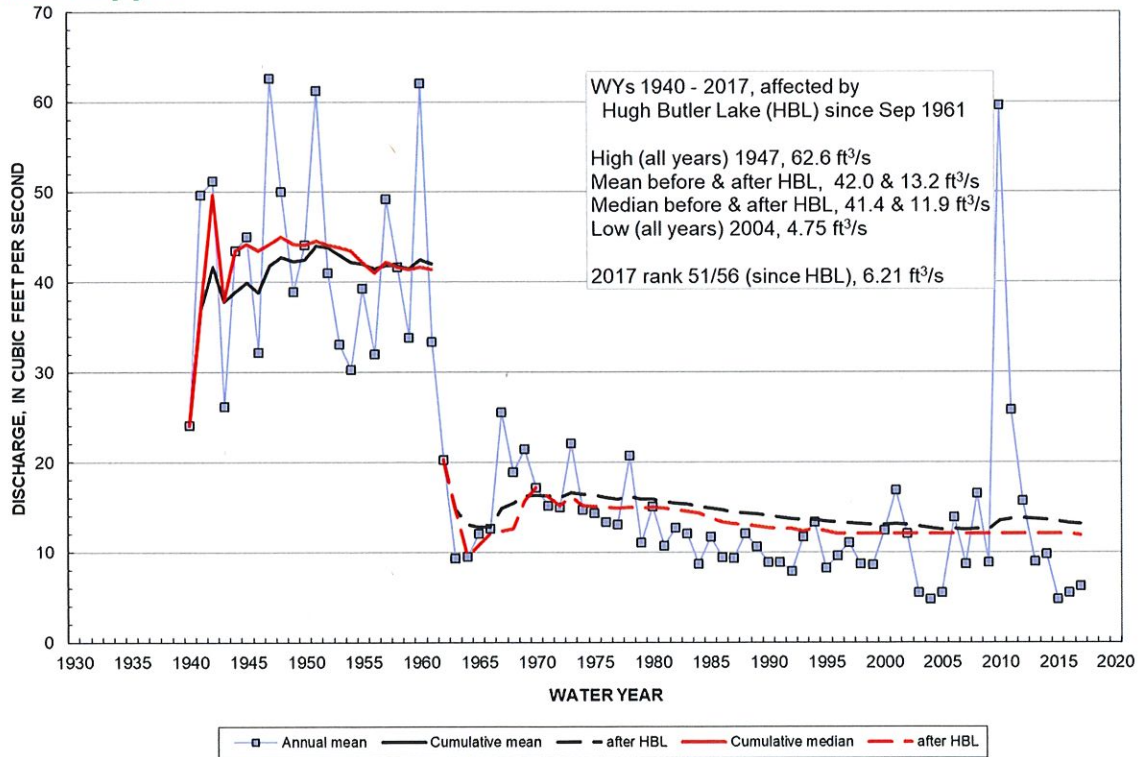




06837000 Republican River at McCook, NE

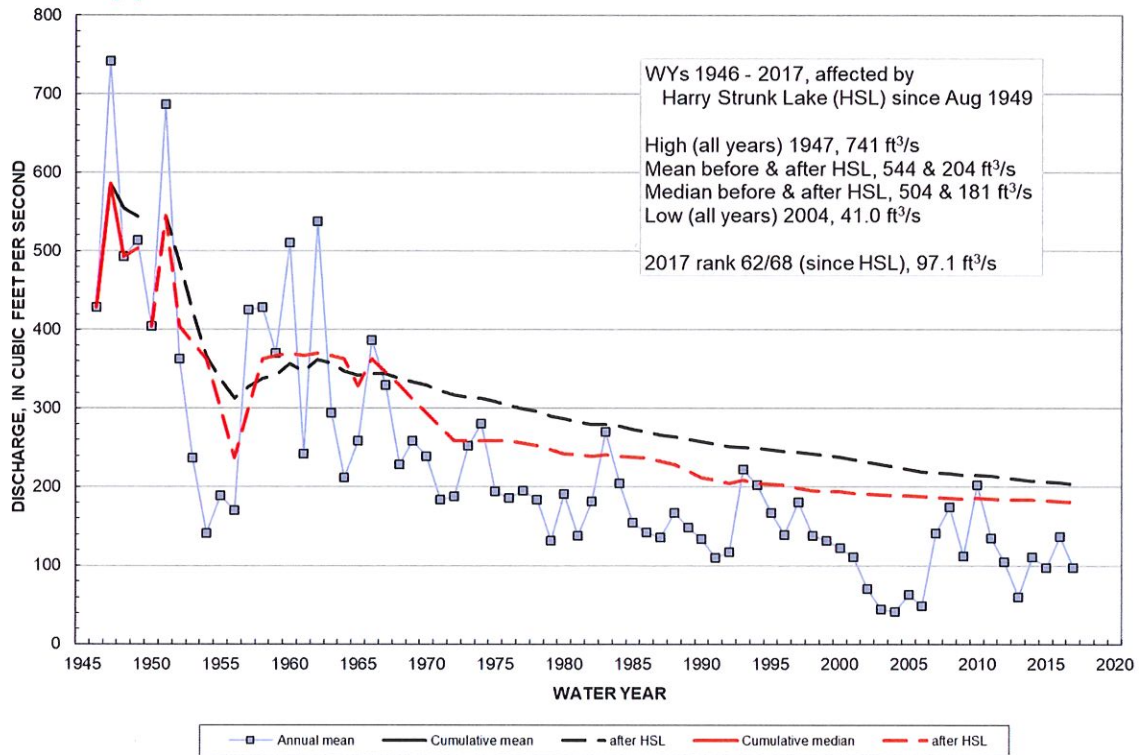


06838000 Red Willow Creek near Red Willow, NE

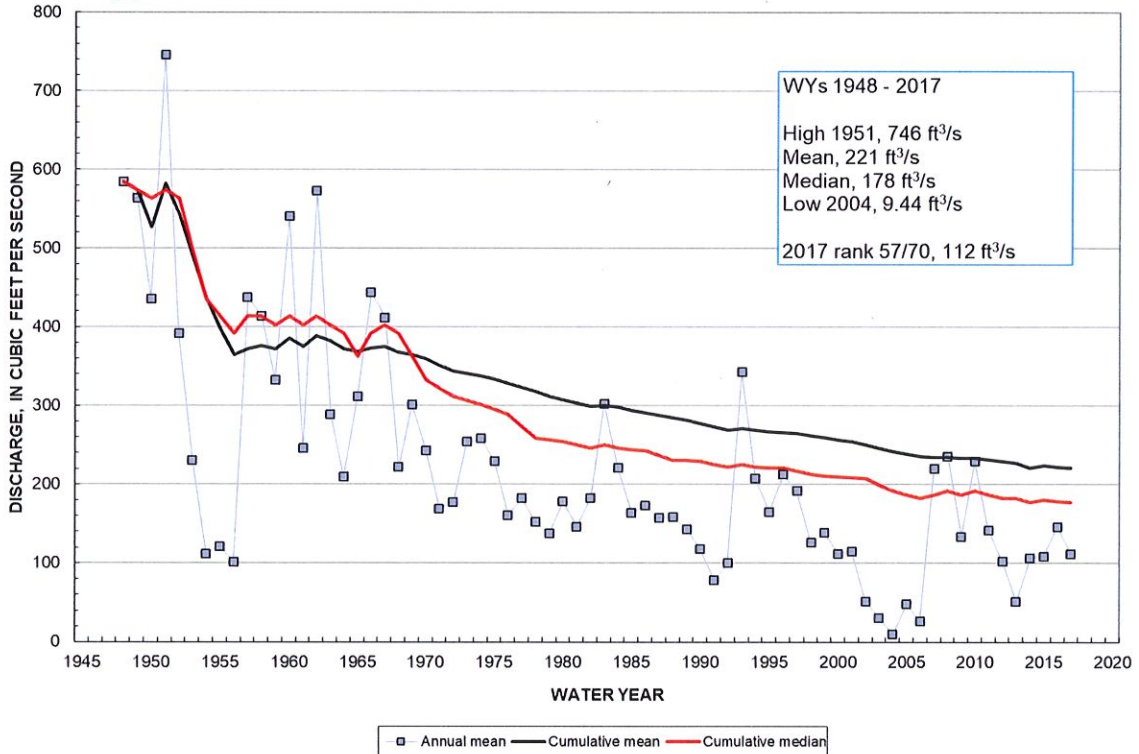




06843500 Republican River at Cambridge, NE

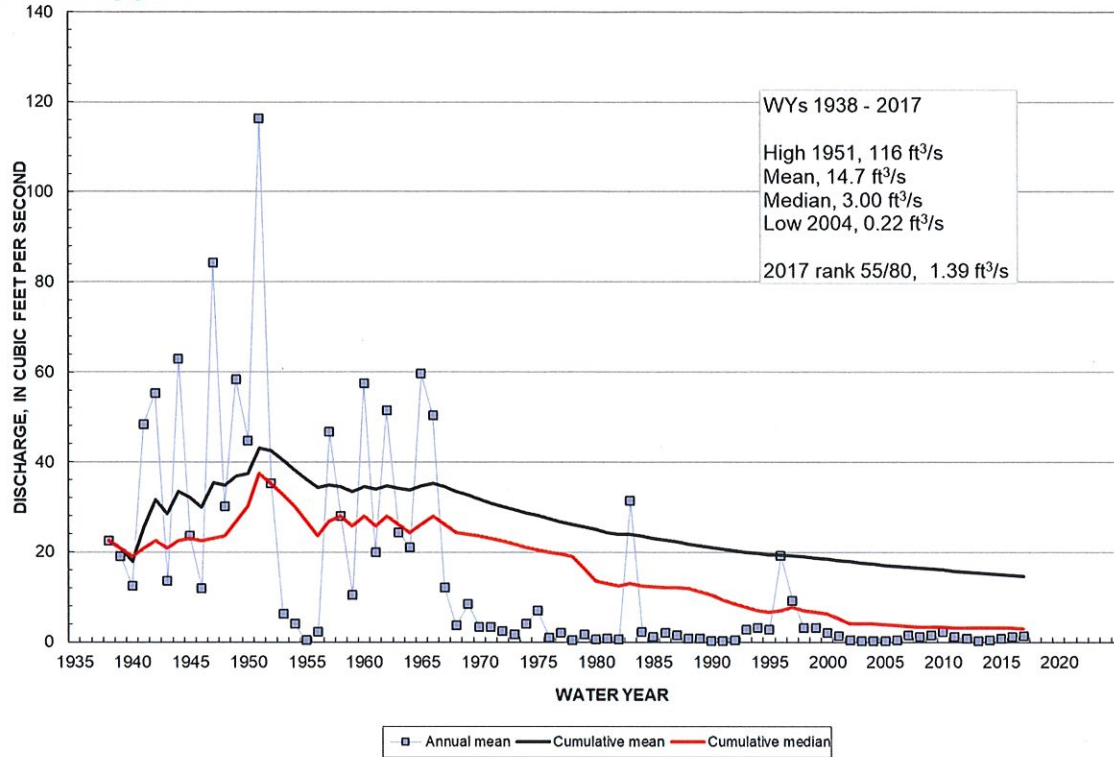


06844500 Republican River near Orleans, NE

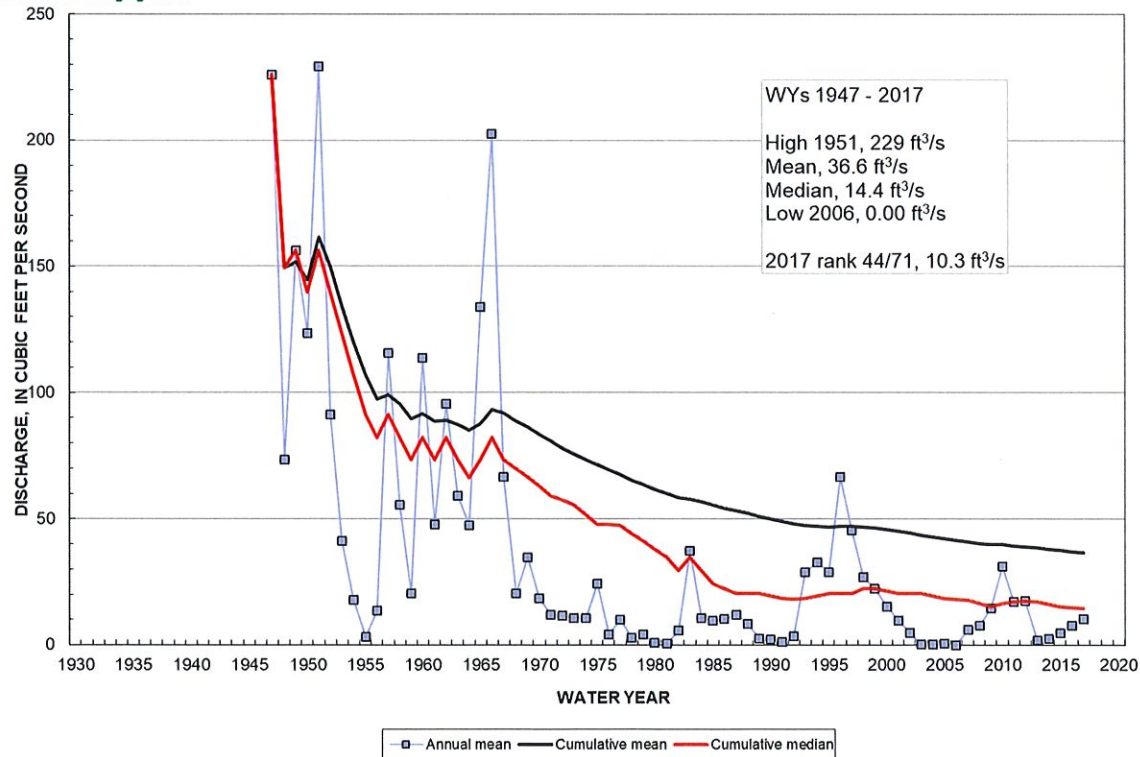




06847000 Beaver Creek near Beaver City, NE

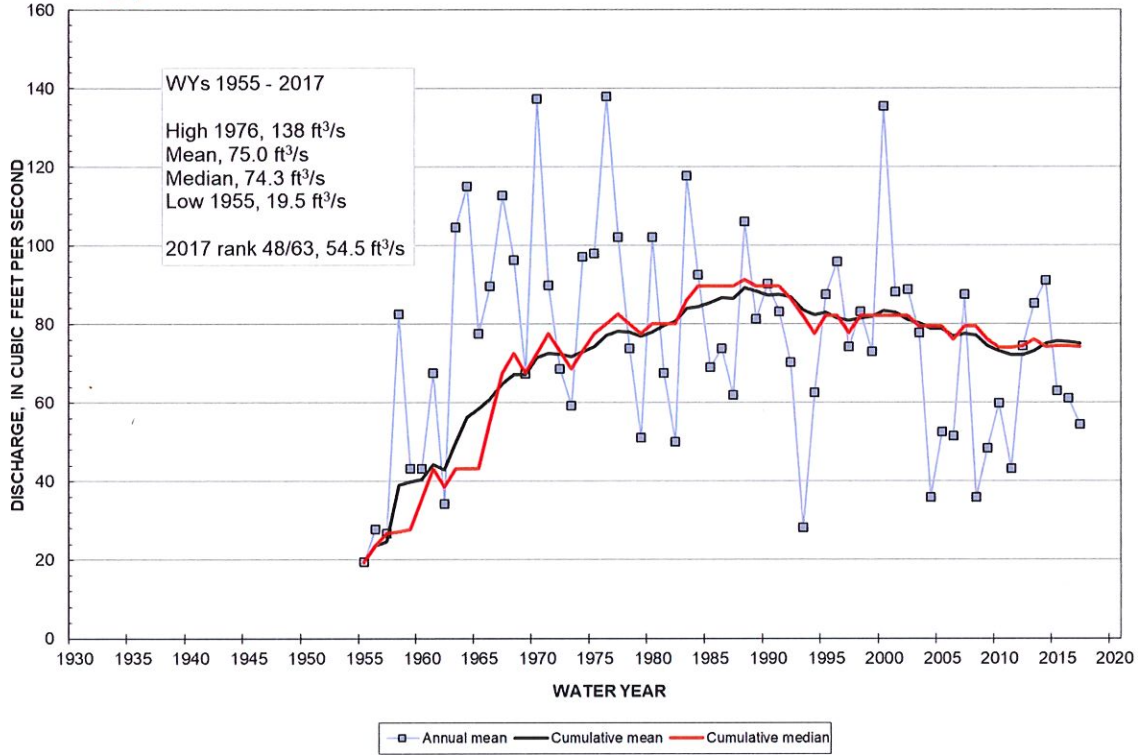


06847500 Sappa Creek near Stamford, NE

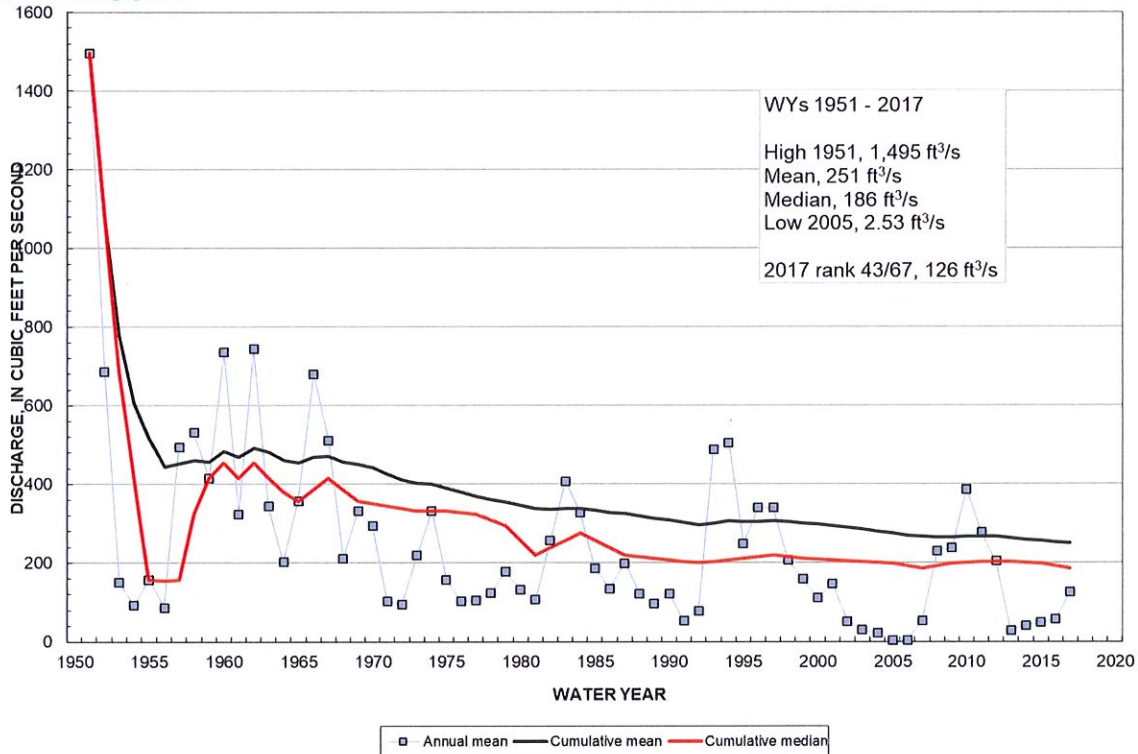




06852500 Courtland Canal at NE-KS State Line



06853020 Republican River at Guide Rock, NE



Engineering Committee Report Republican River Compact Administration

August 21, 2018

EXECUTIVE SUMMARY

The Engineering Committee (EC) met four times since the August 22, 2017, Republican River Compact Administration (RRCA) Annual Meeting. Over the past year, the EC completed these assignments: 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 2017 accounting; 4) assign responsibility among the States to collect certain accounting data; 5) continue work on documenting historical changes to the RRCA Accounting Procedures; 6) provide updates on the progress of new and ongoing management strategies for maintaining compact compliance; 7) develop and publish an administrative website that would be an informational page for the public; 8) continue work and provide updates on improving accounting tools developed by the Engineering Committee; 9) work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet; and 10) prepare the RRCA meeting reports for the following dates for approval by the RRCA at the 2018 annual meeting: November, 24, 2015, special meeting; August 24, 2016, annual meeting (CO); May 25, 2017, special meeting (CO); and August 22, 2017 annual meeting (CO).

Ongoing assignments include: 1) create a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures; 2) provide updates on the progress of new and ongoing management strategies for maintaining compact compliance; 3) work on maintaining and enhancing the RRCA public website; 4) continue work and provide future updates on improving accounting tools developed by the Engineering Committee; 5) work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet; and 6) summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.

The EC recommends discussion by the RRCA on the exchange of data and documentation and the modeling runs completed by Principia Mathematica for 2017, on the proposed 2017 accounting, on the status of the administrative website, on the documentation of Table 4a of the RRCA Accounting, and the recommended EC assignments for the following year.

Details of the various EC tasks are described further in the remainder of this report, including as attachments, the EC meeting notes.

Attachments 1-4: Minutes of the quarterly meetings of the EC

Attachment 5: Accounting Inputs and Accounting Tables from the RRCA Accounting for 2017 recommended by the EC for approval by the RRCA

COMMITTEE ASSIGNMENTS AND WORK ACTIVITIES RELATED TO THESE ASSIGNMENTS

1. Meet quarterly to review the tasks assigned to the committee.
 - a. The EC met November 16, 2017; February 15, 2018; May 10, 2018; and July 26, 2018. See Attachments 1-4 for minutes of these meetings.
 - b. The EC met August 13, 2018 to finalize the annual EC report for the 2018 RRCA annual meeting.
2. Exchange by April 15, 2018, 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, 2018, the states will exchange any updates to these data.
 - a. Nebraska posted its data on April 12, 2018 and provided an update on July 25, 2018.
 - b. Kansas posted its preliminary data on April 13, 2018, and made several updates to the data, declaring it final on July 6, 2018.
 - c. Colorado reported that its accounting data were posted April 13. Colorado provided its Crop Irrigation Requirement analysis on August 17.
3. Finalize the 2017 accounting and recommend it for approval by the RRCA.
 - a. Colorado, Kansas, and Nebraska accounting data for 2017 is final and the EC hereby recommends its approval by the RRCA.
 - b. The applicable summary accounting tables are presented in Attachment 5.
4. When possible, continue efforts to resolve concerns related to varying methods of estimating ground and surface water irrigation recharge and return flows within the Republican River Basin and related issues.
 - a. No progress was made on this assignment.
5. Continue work to assign responsibility for collecting specific fields of data collected for the annual data exchange by determining who has the best available data and assigning them the responsibility of populating those fields to avoid confusion between multiple datasets.
 - a. This task was completed as documented in the minutes of the November 16, 2017, EC meeting. EC members and staff developed a color-coded spreadsheet to clarify which state is responsible for providing what data, including data fields related to the Courtland Canal, to be used as part of the annual data exchange.
 - b. The spreadsheet is called "SWInputs.xls" and is available on the RRCA restricted website.
6. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures.

- a. A draft of this document has been developed and is currently being refined by Kansas after which the other states will review.
 - b. The EC recommends that this task continue.
7. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
 - a. Nebraska provided updates on the N-CORPE and Rock Creek augmentation projects, and on the status of the proposed Platte River diversion project.
 - b. Colorado provided updates on the operations of the Colorado Compact Compliance Pipeline project.
 - c. The EC recommends that this task continue.
8. Continue efforts to develop and publish an administrative website that would be an informational page for the public.
 - a. State staff have completed several parts of the website which is accessible to the public.
 - b. The EC, after consulting with their commissioners, has published to the website to the public on August 15.
 - c. The EC recommends that this task continue as a recurring assignment to maintain the website and provide regular updates to the EC.
9. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee.
 - a. The EC continues to use the website accounting tool and the accounting spreadsheet to compare results. The comparisons continue to be favorable.
 - b. The EC recommends that this task continue.
10. Work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet.
 - a. Kansas has proposed to return to a simplified version of Lovewell calculations for evaporation charged to the Republican River, and to Republican River water diversions to the district below Lovewell. The method was previously used in accountings 1995-2002.
 - b. The EC agrees that it is appropriate to use the results of the proposed method in Kansas's final 2017 accounting data submission.
 - c. Future use of Kansas's proposed method is still being reviewed and considered by Nebraska and Colorado.
 - d. The EC recommends this task continue.
11. Prepare the RRCA meeting reports for the following dates for approval by the RRCA at the 2018 annual meeting: August 24, 2016, annual meeting (CO); May 25, 2017, special meeting (CO), and 2017 annual meeting (CO).

- a. These reports have been finalized and approved by the EC and are hereby recommended for approval by the RRCA.
12. Summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.
- a. Kansas provided the EC with a proposal to document the status Table 4(a) on February 15, 2018.
 - b. The EC discussed the proposal at the May 10, 2018, and July 26, 2018, EC meetings. The states are still reviewing the proposal.
 - c. The EC recommends that this task continue and requests additional guidance from the RRCA.

ITEMS FOR RRCA DISCUSSION & ACTION

1. Data exchange and modeling results for 2017. The EC recommends the proposed 2017 accounting presented in Attachment 5 and in the spreadsheet titled “RRCA Accounting 2017 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. Modeling and data tasks to be assigned to Principia Mathematica for 2018. The EC recommends that Principia Mathematica continue to perform periodic model and accounting updates at the same level of service as in 2017.
3. During 2017-2018, at the direction of the RRCA, the EC continued work on the RRCA website. The website’s purpose is to provide public information – history of the compact and the administration, links to compact-related data and reports, state information, etc. The EC requests any additional comments and direction from the commissioners on the content that the RRCA wants published to the website
4. Discussion of the recommended EC assignments and other potential assignments for the next year and agreement on a final set of assignments. The EC presents the list of ten items in this report as recommended assignments to report on, at the 2019 annual meeting of the RRCA.
5. The EC seeks further guidance from the RRCA on the documentation of Table 4a.

RECOMMENDED ASSIGNMENTS FOR THE COMING YEAR

The Engineering Committee recommends that the Republican River Compact Administration assign the following tasks:

1. Meet quarterly to review the tasks assigned to the committee.
2. Exchange by April 15, 2019, 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, 2019, the states will exchange any updates to these data.

RRCA Engineering Committee Report for 2018


3. Finalize the 2018 accounting and recommend it for approval by the RRCA.
4. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the 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 future updates on improving accounting tools developed by the Engineering Committee.
8. Work on improving the Lovewell Ops worksheet.
9. Continue work to summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.
10. Prepare the 2018 RRCA annual meeting (KS) report.

The Engineering Committee Report and the exchanged data will be posted on the web at www.republicanrivercompact.org.

SIGNED BY


Ivan Franco
Engineering Committee Member for Colorado


Jennifer J. Schellpeper
Engineering Committee Member for Nebraska


Chris Beightel
Chair, Engineering Committee Member for Kansas

Meeting Notes for the
**QUARTERLY MEETING of the
 ENGINEERING COMMITTEE of the
 REPUBLICAN RIVER COMPACT ADMINISTRATION**
 16 November 2017, 2:00 PM CST
 Meeting was held telephonically

Attendees:

Chris Beightel, Kansas	Jennifer Schellpeper, Nebraska
Chelsea Erickson, Kansas	Brian Harmon, Nebraska
Ginger Pugh, Kansas	Kari Burgert, Nebraska
Hongsheng Cao, Kansas	Carol Flaute, Nebraska
Ivan Franco, Colorado	
Willem Schreüder, Principia Mathematica	

Agenda Items and Notes:

1. Introductions
2. Review/Modify Agenda
 - a. There was one modification to agenda item #4 changing “2018 accounting status” to “2017 accounting status”. No other modifications were identified.
3. Publication of RRCA Annual Reports
 - a. 2016 Reports (Colorado)
 - i. 24 November 2015 special meeting –Franco announced that this report is completed.
 - ii. 24 August 2016 Annual – Franco also announced that this report is 95% ready for review by the EC.
 - b. 2017 Reports (Colorado)
 - i. 25 May 2017 special meeting – This report is currently being reviewed by Colorado staff.
 - ii. Draft transcript for 2017 annual meeting- Comments from Kansas and Nebraska on the draft transcript are being processed by the court reporter.
4. Exchange by April 15, 2018, 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 15 July 2018, the states will exchange any updates to these data.
 - a. 2017 accounting status.

Attachment 1

- i. Schreüder reported that he had generated recent 2017 model runs and accounting using updated gage data, 2016 pumping data, and preliminary Federal canal data from USBR supplied by Burgert. The preliminary run for 2018 looks almost identical to the 2017 run. Schreüder will do another model run in early December.
 - ii. Beightel asked for an update on Nebraska's compact call year (CCY) status. Burgert replied that their team has met with NRDs and are currently forecasting 2018 to a CCY. She also mentioned that actual flows to-date past Guide Rock & Hardy showed improvement over estimated and that the early projection of 2017-2018 Compliance Period CCV (forecast) is about -14,000 acre-feet.
 - iii. Beightel asked if there was an update on the Colorado Compact Compliance Pipeline (CCP) amount pumped for 2017. Franco confirmed that the CCP volume remains at 11,500 acre-feet for 2017. Schreüder also replied that the project may deliver a bit more this year because the wells have been running at full capacity all year.
5. Finalize the 2017 accounting and recommend for approval by the RRCA.
 - a. 2017 accounting status –
 - i. Nothing to report yet.
 - ii. Beightel asked for general comments on the format of the Engineering Committee agenda to help streamline the meetings and reports.
6. When possible, continue efforts to resolve concerns related to varying methods of estimating Ground and Surface Water Irrigation Recharge and Return Flows.
 - a. Draft scope and needs document regarding changes in irrigation efficiency.
 - b. Beightel noted that the Kansas team has not focused on this issue yet, but still plans to move forward.
7. Continue work to assign responsibility for collecting specific fields of data collected for the annual data exchange by determining who has the best available data and assigning them the responsibility of populating those fields to avoid confusion between multiple datasets.
 - a. Beightel asked the EC for suggestions about completing this task.
 - b. Schreüder mentioned that the purpose of this task is to determine who is responsible for putting numbers into the spreadsheet fields, noting that everyone cross checks the numbers too.
 - c. Who provides the initial values? Schellpeper noted that right now the spreadsheet color coding says who will complete the specific fields. Schreüder also noted that the latest version added a column to be explicit as to where data comes from especially (based on Kari Burgert and Sam Perkins' work)

Attachment 1

- d. Franco felt that this task is now complete and noted that the assignment came up before color coding was in place and the current spreadsheet worked well last year.
 - e. Beightel concurred and suggested the EC is done with this task and it will continue as part of data exchange (item #4) only and this agenda item (#7) will not continue.
 - f. Schellpeper asked if the EC should document this agreed resolution.
 - i. Beightel offered to draft language for the EC report that the states agree on the color-coded report and then attach a copy of spreadsheet as a visual.
 - ii. Schellpeper noted that this documentation and an example of the color-coded spreadsheet would be helpful to transition through staff turnover.
 - iii. Franco concurred with attaching the current spreadsheet version to the EC annual report to the RRCA.
8. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures.
- a. Chelsea Erickson provided a brief status update on the draft document.
9. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
- a. Placeholder to discuss upcoming projects for compact compliance.
 - b. Kansas – nothing to report.
 - c. Nebraska – Schellpeper noted that there is currently no application for a permit for the Platte Diversion project. Beightel asked for a brief overview of the N-CORPE land issue and Schellpeper mentioned news stories about local landowners struggling over the land's tax status.
 - d. Colorado – Franco mentioned that the CCP is operating as planned. Beightel asked about hearing talk of expanding the wellfield. Schreüder noted that there is some consideration for expansion as originally planned, but no progress for new wells yet.
10. Continue efforts to develop and publish an administrative website that would be an informational page for the public. The commissioners authorized the Engineering Committee to develop the website by consensus.
- a. Erickson will send an email with links to each state's pages as they currently exist on the draft website.
 - b. To move this issue forward Kansas has asked each state for a detailed outline of their preferred state page content, preferably with details about the content by 8 December 2017.

Attachment 1

- c. Then Erickson will set up a call via email for the 15 December, 2017 to review the website design with the state representatives.
11. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee. Work product will remain an internal resource which can be distributed to interested parties upon request.
 - a. Beightel asked the committee what is to be done on this task?
 - b. Should the EC review Schreüder's online accounting description? Or develop any new tools for the group?
 - c. Schellpeper noted that this task is a reminder to touch base on the topic a few times a year.
12. Work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet.
 - a. Beightel noted that this spreadsheet is particularly complicated.
 - b. Last year's approved accounting used a number for Lovewell evaporation that was different than calculated in the spreadsheet. Beightel noted that this issue pointed to fact that spreadsheet was convoluted and needed improvement. Beightel agreed that Kansas staff will provide an updated draft of the spreadsheet for the committee to review in the first few months of 2018.
13. Summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.
 - a. Table 4A is the Sub-basin non-impairment test for CO. Beightel suggested putting language into the Accounting Procedures section that would describe the background of the resolution and why the table is now left blank.
 - b. While the 24 August 2016 resolution remains in effect, the table is not used as one of the measures of Colorado's compliance. If that resolution goes away, then the table will go back into effect.
 - c. Kansas staff will develop draft language for the EC to review, especially Nebraska concerns.
 - d. The EC will then provide the description to the Commissioners in advance of the annual meeting, so it can be decided how to finalize this assignment to their satisfaction.
14. Summary of Meeting Actions/Assignments
 - a. Item #3: Colorado annual reports are in progress and will be circulated by Franco when appropriate.
 - b. Item #7: The EC has completed this assignment. Beightel will document that agreement.
 - c. Item #8: Draft will be sent from Kansas staff to the EC for consideration.

Attachment 1

- d. Item #10: Erickson will contact NE and CO staff about the website content for their respective states.
- e. Item #11: the EC will continue to touch base in the future
- f. Item #12: Kansas staff will provide an updated draft of the Lovewell Ops worksheet to the EC group.
- g. Item #13: Beightel will draft language for the status of Table 4 (a). Upon review, that language will be presented to the Commissioners for recommended action.

15. Future Meeting Schedule

- a. 15 February 2018 2:00 PM CST. Call log in will be included on the future agenda.

16. Adjournment

- a. The EC meeting adjourned at 2:45 PM. Safe travels for the holidays.

Meeting Notes for the
**QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**
15 February 2018, 2:00 PM CST
Meeting was held telephonically

Attendees:

Chris Beightel, Kansas	Jennifer Schellpeper, Nebraska
Chelsea Erickson, Kansas	Brian Harmon, Nebraska
Sam Perkins, Kansas	Kari Burgert, Nebraska
Hongsheng Cao, Kansas	Carol Flaute, Nebraska
Ivan Franco, Colorado	
Willem Schreüder, Principia Mathematica	

Agenda Items and Notes:

1. Introductions
2. Review/Modify Agenda
 - a. No changes were suggested.
3. Approval of minutes from Nov 16, 2017.
 - a. All parties agreed the minutes were final for the November meeting. It was agreed that a vote of approval is not needed.
4. Publication of RRCA Annual Reports
 - a. 2016 Reports (Colorado)
 - i. 24 November 2015 special meeting – This report is completed.
 - ii. 24 August 2016 Annual – This report is currently being prepared by Colorado.
 - b. 2017 Reports (Colorado)
 - i. 25 May 2017 special meeting – This report is currently being prepared by Colorado.
 - ii. 2017 annual meeting- Final transcript was sent to KS and NE for review. The final report is currently being prepared by Colorado staff.
5. Exchange by April 15, 2018, 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 15 July 2018, the states will exchange any updates to these data.
 - a. 2017 accounting status.

Attachment 2

- i. Schreüder reported that he is waiting on 2017 final streamgage data, but had sent the states preliminary accounting. Schreüder anticipates sending a new update by mid-March with final 2017 data and preliminary 2018 data.
 - ii. Burgert reported that the U.S. Bureau of Reclamation sent canal and reservoir data to the states. Beightel mentioned that Kansas only received a PDF copy and would like to see the Excel Spreadsheet. Burgert offered to share those files with KS staff and Schreüder.
 - iii. Beightel reported that Kansas Bostwick projected to have 59,000 AF in Harlan County reservoir. Burgert mentioned that NE staff had not seen those numbers and Beightel offered to talk to the Bureau about who gets those reports.
6. Finalize the 2017 accounting and recommend for approval by the RRCA.
 - a. 2017 accounting status –
 - i. Nothing to report yet.
7. When possible, continue efforts to resolve concerns related to varying methods of estimating Ground and Surface Water Irrigation Recharge and Return Flows.
 - a. Draft scope and needs document regarding changes in irrigation efficiency.
 - b. Beightel noted that the Kansas team has not focused on this issue yet, but still plans to move forward.
8. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures.
 - a. Erickson provided a brief status update on the draft document.
9. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance (placeholder to discuss upcoming projects for compact compliance)
 - a. Kansas – nothing to report.
 - b. Nebraska – Flaute noted that there is still no application filed for a permit for the Platte Diversion project. She noted that the NRD purchased land required to build the project.
 - c. Colorado – Franco mentioned that the CCP is operating as planned. Schreüder reported that the CCP cut-off date is not known yet but expects the project to operate to the end of March 2018.
 - d. Schellpeper noted that the Nebraska NRDs were working with KBID on buying Warren Act water. Her question was what kind of credit might NE get for the

Attachment 2

Compact? Beightel mentioned that discussions are ongoing in KS about the topic. A draft contract is presently being reviewed.

10. Continue efforts to develop and publish an administrative website that would be an informational page for the public. The commissioners authorized the Engineering Committee to develop the website by consensus.
 - a. Erickson met with Franco and Harmon regarding edits to the RRCA website. They will work to finalize the website for public viewing.
11. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee. Work product will remain an internal resource which can be distributed to interested parties upon request.
 - a. Beightel noted that this task was related to discussions about the accounting format that Schreüder built for the RRCA. There may be future accounting tools developed to help distribute information, so keep this task as a reminder.
12. Work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet.
 - a. Perkins is working on a draft spreadsheet to send to CO & NE staff.
13. Summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.
 - a. Beightel sent a draft document to the EC on February 15, 2018. The states will react to the draft and provide feedback.
14. Summary of Meeting Actions/Assignments
 - a. Item #3: Colorado annual reports are in progress and will be circulated by Franco when appropriate.
 - b. Item #8: Draft will be sent from Kansas staff to the EC for consideration.
 - c. Item #9: KS reviewing Warren Act credit issue.
 - d. Item #10: Erickson will continue work on the RRCA website.
 - e. Item #12: Kansas staff will provide an updated draft of the Lovewell Ops worksheet to the EC group.
 - f. Item #13: The states will review Beightel's draft document sent February 15, 2018 and provide feedback.
15. Future Meeting Schedule
 - a. 10 May 2018 2:00 PM CST. Call log in will be included on the future agenda.
16. Adjournment
 - a. The EC meeting adjourned at 2:33 PM.

Meeting Notes for the
**QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**
10 May 2018, 2:00 PM CST
Meeting was held telephonically

Attendees:

Chris Beightel, Kansas
Chelsea Erickson, Kansas
Ginger Pugh, Kansas
Jennifer Schellpeper, Nebraska
Kari Burgert, Nebraska
Elise Jarrett, Nebraska
Ivan Franco, Colorado
Willem Schreüder, Principia Mathematica

Agenda Items and Notes:

1. Introductions
2. Review/Modify Agenda
 - a. No changes were suggested.
3. Approval of minutes from Feb 15th, 2018
 - a. All parties agreed the minutes were final for the February meeting.
4. Publication of RRCA Annual Reports
 - a. 2016 Reports (Colorado)
 - i. 24 November 2015 special meeting – This report is completed.
 - ii. 24 August 2016 Annual – Franco sent the final draft report to the other states and is now waiting for reviews. Schellpeper stated that Nebraska staff has started an internal review of the documents.
 - b. 2017 Reports (Colorado)
 - i. 25 May 2017 special meeting – Franco sent the final draft report to the other states and is now waiting for reviews. Erickson stated that Kansas staff is in the process of reviewing the documents.
 - ii. 2017 annual meeting- Franco sent the final draft report to the other states and is now waiting for reviews. Schellpeper stated that Nebraska staff has started an internal review of the documents.
5. Exchange by April 15, 2018, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required by that

Attachment 3

document, including all necessary documentation. By 15 July 2018, the states will exchange any updates to these data.

- a. 2017 accounting status.
 - i. Beightel noted that Kansas staff exchanged data and considered the data about 90% complete and will do a final update by late June. Nebraska staff asked specifically what was outstanding from the final data and Beightel explained that pumping records are still being reviewed for accuracy.
 - ii. Franco asked Schreüder for an update on the Colorado accounting status. Schreüder noted that all Colorado meter and diversion records are final for 2017, but there are a few outstanding items such as the CIR comparison and NCRC report to complete that data exchange. Beightel asked if there is an internal review of the Colorado data and Schreüder replied that Colorado Division 1 staff is the responsible party.
 - iii. Schellpeper noted that all Nebraska data was posted. Burgert is not expecting any further updates.
 - iv. Schreüder noted that November and December precipitation data is still preliminary, but does not expect significant changes to that data or diversion records. Schreüder expressed uncertainty on the finality of surface water inputs for the Courtland Canal, which has been problematic in the past.
6. Finalize the 2017 accounting and recommend for approval by the RRCA.
 - a. 2017 accounting status –
 - i. Nothing to report yet.
7. When possible, continue efforts to resolve concerns related to varying methods of estimating Ground and Surface Water Irrigation Recharge and Return Flows.
 - a. Draft scope and needs document regarding changes in irrigation efficiency.
 - b. Beightel noted that the Kansas team has not focused on this issue yet, but still plans to move forward.
8. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures.
 - a. Erickson provided a brief status update on the draft document and a goal to have a document to review by the next committee meeting.
9. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance (placeholder to discuss upcoming projects for compact compliance)
 - a. Beightel asked for an update on the Platte River Diversion project. Schellpeper replied that a petition was successfully filed and approved to move forward. The

Attachment 3

water permit was filed and is currently being reviewed. If the applicants have not provided everything required by statute, then there is a period of 60 days to remedy. If the permit is approved, then public notice is issued to seek public comments. Finally, there is a public hearing regarding the permit.

- b. Beightel asked for an update on the Colorado Compliance Pipeline. Schreüder replied that the CCP ran through the end of April and pumped 7000+ AF. Schreüder asked if Nebraska will still be water short and Schellpeper replied “yes”. Schreüder stated that the CCP will probably turn on again in October based on current projections unless there is additional streamflow. Schreüder stated that the CCP will probably be close to the max authorized 13,000 AF for 2018.
- c. Beightel mentioned the Kansas Lower Republican access district. With the opportunity for a more consistent water supply from NE, there is a chance for relief to Kansas water users that are affected by minimum desirable streamflow restrictions. However, forming such a district takes state legislation and possibly next year that legislation could be a reality. The district would then secure water through a Warren Act contract.

Schellpeper asked how water users apply to be part of such a district? Beightel noted that there are many interested parties, but coordination is still lacking on how to form the district itself. The water user will need a contract with the district, KBID and the Bureau possibly.

10. Continue efforts to develop and publish an administrative website that would be an informational page for the public. The commissioners authorized the Engineering Committee to develop the website by consensus.
 - a. Erickson sent recent changes to the website to Harmon and Franco for review. Franco stated that the reviewed pages looked good, but there are many more pages to review yet. Erickson suggested meeting every other week to finalize the website by the June committee meeting, so that the website can be available for promoting the August annual meeting. Franco agreed that such meetings would be helpful in bringing this task to a close. Erickson will send out a meeting notice to Harmon and Franco.
11. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee. Work product will remain an internal resource which can be distributed to interested parties upon request.
 - a. Beightel noted that this task was related to discussions about the accounting format that Schreüder built for the RRCA. There may be future accounting tools developed to help distribute information, so keep this task as a reminder.

Attachment 3

12. Work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet.
 - a. Perkins is working on a draft spreadsheet to send to CO & NE staff.
 - b. Schreüder noted that he was not certain the 2017 Lovewell Ops spreadsheet is correct and would like review by all parties to confirm the numbers. Beightel agreed that the spreadsheet numbers are a challenge to verify and will leave this issue on the agenda for further review.
13. Summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.
 - a. Beightel sent a draft document to the EC on February 15, 2018.
 - b. Schellpeper provided an email response to the Kansas draft and Beightel asked Schellpeper to elaborate. Schellpeper had reviewed the issue with Commissioner Fassett, who had made the original request and Fassett wanted details about both Kansas and Colorado positions that resulted in no values in Table 4 (a). Fassett was looking for a summary of the legal language that could be used in the future as a quick reference. Beightel said Kansas would review those documents and provide a draft to the other states.
14. Summary of Meeting Actions/Assignments
 - a. Item #4: Kansas and Nebraska staff will review the annual reports provided by Franco.
 - b. Item #5: Kansas will update the 2017 data exchange by late June. Colorado will share any accounting information as it becomes available, such as the CIR data.
 - c. Item #8: A draft document memorializing changes to the RRCA Accounting Procedures will be sent from Kansas staff to the EC for consideration.
 - d. Item #10: Erickson will continue work on the RRCA website with assistance from Harmon and Franco.
 - e. Item #12: Kansas staff will provide an updated draft of the Lovewell Ops worksheet to the EC group.
 - f. Item #13: Kansas will review legal language for the Table 4 (a) discussions and provide draft language to Colorado and Nebraska for review.
15. Final comments
 - a. Franco asked about the Kansas review of the Warren Act issue. Beightel commented that the issue was tentatively resolved by the Bureau pursuing a change from KBID's Warren Act water to project water. All parties are awaiting an amended MOA document from the Bureau.
 - b. Beightel mentioned that Kansas renewed the RRCA website domain name for 3 more years.
 - c. Beightel also mentioned that a final date and time was set now for the 2018 RRCA annual meeting on Aug 21st at KDA headquarters in Manhattan with the

Attachment 3

work session at 8:00 A.M, central time followed by the annual meeting at 10:00. Beightel anticipates having the EC report completed at least a week in advance of the annual meeting. Schellpeper commented that a final draft would be helpful by the July 26, 2018 EC meeting and Beightel agreed to provide a final draft by the week after the July EC meeting. Schellpeper suggested a conference call before the annual meeting to provide comments on the draft EC report and Beightel committed to providing a meeting notice.

16. Future Meeting Schedule

- a. 26 July 2018 2:00 PM central standard. Call log in will be included on the future agenda.

17. Adjournment

- a. The EC meeting adjourned at 2:38 p.m.

Meeting Notes for the
**QUARTERLY MEETING of the
ENGINEERING COMMITTEE of the
REPUBLICAN RIVER COMPACT ADMINISTRATION**
26 July 2018, 2:00 PM CST
Meeting was held telephonically

Attendees:

Chris Beightel, Kansas
Chelsea Erickson, Kansas
Ginger Pugh, Kansas
Sam Perkins, Kansas
Carol Myers Flaute, Nebraska
Kari Burgert, Nebraska
Ivan Franco, Colorado
Willem Schreüder, Principia Mathematica

Agenda Items and Notes:

1. Introductions
2. Review/Modify Agenda
 - Flaute suggested adding the RRCA agenda as a discussion topic for the EC meeting.
3. Approval of minutes from the 10 May 2018 meeting
 - All parties agreed the minutes were final for the May meeting.
4. Review and Update Progress on Engineering Committee Task List
 1. Publication of RRCA Annual Reports
 - 2016 Reports (Colorado)
 - 24 November 2015 special meeting – This report is completed.
 - 24 August 2016 Annual – The 2016 annual report has been reviewed by Nebraska and provided to Kansas for final review.
 - 2017 Reports (Colorado)
 - 25 May 2017 special meeting – The May 2017 special meeting report has been reviewed by Nebraska and provided to Kansas for final review.
 - 2017 annual meeting- The 2017 annual report has been reviewed by Nebraska and provided to Kansas for final review.
 2. Exchange by April 15, 2018, the information listed in Section V of the RRCA Accounting Procedures and Reporting Requirements, and other data required

Attachment 4

by that document, including all necessary documentation. By 15 July 2018, the states will exchange any updates to these data.

- 2017 accounting status.
 - Beightel noted that Kansas data exchange is final.
 - Burgert noted that Nebraska data exchange is final.
 - Schreüder noted that Colorado is waiting on finalizing CIR data, otherwise all other data has been exchanged and final. There was a precipitation issue with the Wray weather station, but it seems to have been resolved.
- 3. When possible, continue efforts to resolve concerns related to varying methods of estimating Ground and Surface Water Irrigation Recharge and Return Flows.
 - Draft scope and needs document regarding changes in irrigation efficiency.
 - Beightel noted that the Kansas team has not focused on this issue yet, but still plans to move forward.
- 4. Finalize the 2017 accounting and recommend for approval by the RRCA.
 - 2017 accounting status –
 - Except for the Colorado CIR data, all states agreed the 2017 accounting was final.
 - Burgert asked how the final 2017 accounting would be referenced in the Engineering Committee report. Beightel committed to researching past reports for accounting approval and will re-create the necessary documents for the 2017 accounting. The final Engineering Committee report draft will include those documents.
- 5. Continue work to assign responsibility for collecting specific fields of data collected for the annual data exchange by determining who has the best available data and assigning them the responsibility of populating those fields to avoid confusion between multiple datasets.
 - Schreüder noted that some fields for the Courtland Canal were updated, and now all the fields have been assigned to either the states or Principia Mathematica. The task can be considered complete.
- 6. Continue work on creating a document memorializing when RRCA Accounting Procedures have changed over the years and incorporate it into the Accounting Procedures.
 - Erickson provided a brief status update on the draft document. There has been no action taken since the last committee meeting.

Attachment 4

- Beightel will update draft EC report to state that this document is currently being revised by Kansas, after which the other states will review it
7. Provide updates on the progress of new and ongoing management strategies for maintaining compact compliance.
- Beightel asked for an update on the Platte River Diversion project. Flaute replied that there was nothing to report on the project at this time.
 - Beightel asked for an update on the Colorado Compliance Pipeline. Schreüder replied that the CCP pumped about 7,500 acre-feet and the plan is to review the upcoming 1 September 2018 forecast to determine how much will be pumped in October through December with the number likely to be an additional 6,000 acre-feet or so.
 - Burgert reported that Nebraska will try to have an early forecast for 2019 available at the RRCA annual meeting or 3-States meeting August 21 to help facilitate the October 1 decision on what Kansas will request for June 2019. Burgert asked whether there was anything more Kansas would expect to hear from Nebraska in August related to their upcoming request for June 2019 delivery. Beightel replied that the issue will be discussed at 3-States meetings in the coming months. Schreüder asked if Nebraska needed a 2019 model run for their early forecast. Burgert replied that a 2019 model run was not necessary at this time.
 - Schreuder plans to do the season's first forecast model run in late August or early September.
 - Beightel mentioned that Kansas has no further update on the Lower Republican Access District discussions.
8. Continue efforts to develop and publish an administrative website that would be an informational page for the public. The commissioners authorized the Engineering Committee to develop the website by consensus.
- Erickson sent recent changes to the website to Harmon and Franco for review.
 - The website team will meet 2 August 2018 to finalize edits to the site and then solicit the Commissioners' approval to proceed with taking the site live. The group will update the Engineering Committee at the upcoming 13 August 2018 meeting.
9. Continue work and provide future updates on improving accounting tools developed by the Engineering Committee. Work product will remain an internal resource which can be distributed to interested parties upon request.
- Beightel noted that this task was related to discussions about the accounting format that Schreüder built for the RRCA. There may be future accounting tools developed to help distribute information, so keep this task as a reminder.

Attachment 4

- Schreüder noted that he continues to use the two accounting tools (i.e., the website and the spreadsheet) to test against each other, and that this year's comparison came out very favorable.

10. Work on improving the understanding of/operation of the inputs to the accounting from the Lovewell Ops worksheet.

- Perkins sent a proposal to CO & NE staff via email on July 6th, 2018. The proposal detailed how inputs have been done in the past. Perkins also mentioned that one line of text was out of place and he will send an update.
- Franco and Beightel agreed that results for 2017 Lovewell Ops worksheet are agreed on, but that the committee needs to revisit the issue for 2018. Burgert committed to seeking input from Jennifer Schellpeper on this, and she will try to let the other states know Nebraska's position for 2017 and future years at the August 13 EC meeting.

11. Summarize and document the status of Table 4 (a) in the RRCA accounting procedures and recommend how said document should be memorialized.

- Beightel mentioned Kari Burgert's email request from July 17th for clarification of the issues with Table 4 (a). Beightel and Franco noted that their legal teams are currently reviewing this request. Flaute clarified that Nebraska does not think it is necessary to provide each state's specific numbers, nor to identify each state's individual interpretation, and that what Nebraska thinks it is important to document is which parts of Table 4 (a) Kansas and Colorado disagree about and which parts of the Accounting Procedures each disputed value relates to. Beightel mentioned that there is a footnote in the accounting as to why the table is not filled out. The 24 August 2016 RRCA resolution is the basis for not populating Table 4 (a).

5. Summary of Meeting Actions/Assignments

- Item #1: Kansas staff will review the annual reports provided by Franco, who will prepare the final reports for signature at the annual meeting.
- Item #2: Colorado will provide the CIR data as it becomes available.
- Item #3: Beightel will provide the 2017 accounting approval documents with the final Engineering Committee report for the next Engineering Committee meeting on August 13th.
- Item #5: Beightel will update the Engineering Committee report with the Courtland Canal fields assignments resolution.
- Item #6: A draft document memorializing changes to the RRCA Accounting Procedures will be sent from Kansas staff to the EC for consideration.
- Item #8: Erickson will continue work on the RRCA website with assistance from Harmon and Franco.
- Item #10: Kansas staff will provide an updated draft of the Lovewell Ops worksheet to the EC group.
- 24

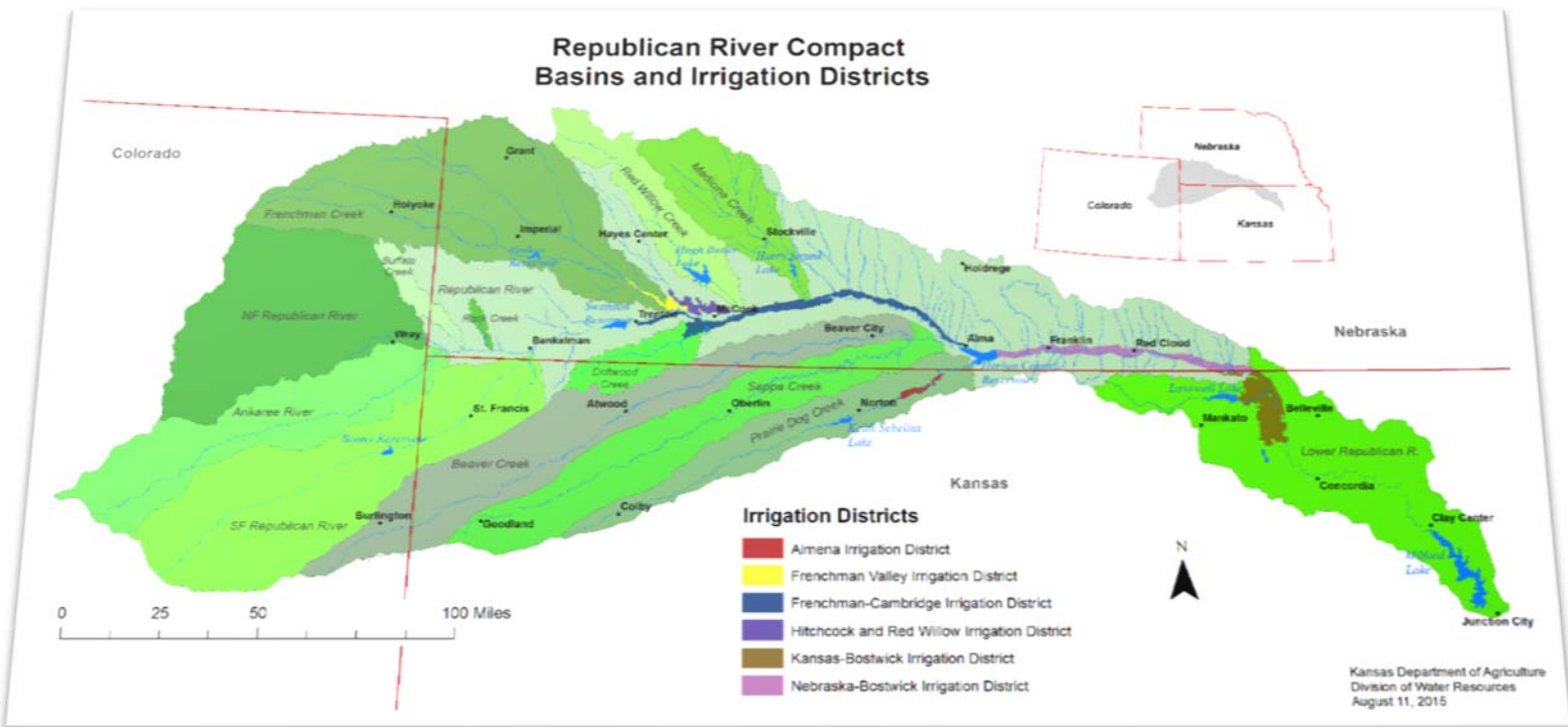
Attachment 4

- Item #11: Kansas and Colorado will provide draft language related to the Table 4 (a) discussions to Nebraska for review.
6. Future Meetings
- Beightel reminded everyone that there will be an EC report review/finalization call on 13 August 2018 9:00 AM central standard using the same call information as this meeting.
 - RRCA Annual Meeting Agenda
 - Flaute mentioned that Nebraska proposes adding an agenda item for Bureau to make a presentation at the annual meeting about the MOA between Kansas Bostwick and Nebraska Bostwick districts. Beightel will add this to the agenda.
 - Erickson mentioned that the public is interested in the status of Bonny Reservoir. Beightel will follow up with the Commissioners to see whether they would want to include this topic.

7. Adjournment

The EC meeting adjourned at 2:51 p.m.

Republican River Compact Accounting Inputs and Tables Summarized for Accounting Year 2017



August 21, 2018

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ACCOUNTING INPUTS

Calendar Year		2017
Groundwater Data		
North Fork Subbasin	GW CBCU Colorado	16,906
	GW CBCU Kansas	0
	GW CBCU Nebraska	1,174
Arikaree Subbasin	GW CBCU Colorado	2,102
	GW CBCU Kansas	157
	GW CBCU Nebraska	77
Buffalo Subbasin	GW CBCU Colorado	502
	GW CBCU Kansas	0
	GW CBCU Nebraska	3,544
Rock Subbasin	GW CBCU Colorado	112
	GW CBCU Kansas	0
	GW CBCU Nebraska	5,064
South Fork Subbasin	GW CBCU Colorado	13,537
	GW CBCU Kansas	4,637
	GW CBCU Nebraska	699
Frenchman Subbasin	GW CBCU Colorado	1,218
	GW CBCU Kansas	0
	GW CBCU Nebraska	79,918
Driftwood Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	891
Red Willow Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	8,247
Medicine Creek Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	0
	GW CBCU Nebraska	20,695
Beaver Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	6,391
	GW CBCU Nebraska	4,451
Sappa Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	2,305
	GW CBCU Nebraska	2,183
Prairie Dog Subbasin	GW CBCU Colorado	0
	GW CBCU Kansas	7,551
	GW CBCU Nebraska	0
Mainstem Subbasin	GW CBCU Colorado	(3,316)
	GW CBCU Kansas Above Guide Rock	(26)
	GW CBCU Kansas Below Guide Rock	53
	GW CBCU Nebraska Above Guide Rock	64,732
	GW CBCU Nebraska Below Guide Rock	2,546

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	37
Medicine Creek Subbasin	Imported Water Nebraska	10,337
Beaver Subbasin	Imported Water Nebraska	0
Sappa Subbasin	Imported Water Nebraska	62
Prairie Dog Subbasin	Imported Water Nebraska	0
Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	9,015
	Imported Water Nebraska Below Guide Rock	(12)
	Total	19,439

Calendar Year		2017
SW Pumping Data		
North Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	406
	SW Diversions - Irrigation - Small Pumps - Colorado	26
	SW Diversions - M&I - Colorado	0
Arikaree Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	20
	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
Buffalo Subbasin	SW Diversions - M&I - Nebraska	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 - Nebraska	400
Rock Subbasin	SW Diversions - Irrigation - Small Pumps - Nebraska	2
	SW Diversions - M&I - Nebraska	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
South Fork Subbasin	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Nebraska	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	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	0
Frenchman Subbasin	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
Driftwood Subbasin	SW Diversions - M&I - Nebraska	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	0
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	0
Red Willow Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
	SW Diversions - Irrigation - Small Pumps - Nebraska	49
	SW Diversions - M&I - Nebraska	0
Medicine Creek Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Above Gage	0
	SW Diversions - Irrigation - Small Pumps - Nebraska - Above Gage	58
	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	56
	SW Diversions - M&I - Nebraska - Below Gage	0

Calendar Year		2017
Beaver 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	11
	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	412
	SW Diversions - M&I - Kansas	369
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	97
	SW Diversions - M&I - Nebraska - Below Gage	0
Mainstem Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
	SW Diversions - Irrigation - Small Pumps - Kansas	969
	SW Diversions - M&I - Kansas	0
	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	2,268
	SW Diversions - Irrigation - Small Pumps - Nebraska	1,688
	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	1,261
SW Diversions - M&I - Nebraska - Below Guide Rock	0	

Non-Federal SW Consumptive Use

% Non-Federal Canal Diversion Consumed	60%
% Small Surface Water Pumps Consumed	75%
% Municipal And Industrial SW Consumed	50%

Calendar Year		2017
Non-Federal Reservoir Evaporation Data		
North Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	38
Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Kansas	11
	Non-Federal Reservoir Evaporation - Nebraska	0
Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Nebraska	7
Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	98
South Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	14
	Non-Federal Reservoir Evaporation - Kansas	96
	Non-Federal Reservoir Evaporation - Nebraska	0
Frenchman Subbasin	Non-Federal Reservoir Evaporation - Nebraska	43
Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	9
	Non-Federal Reservoir Evaporation - Nebraska	0
Red Willow Subbasin	Non-Federal Reservoir Evaporation - Nebraska	215
Medicine Creek Subbasin	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	258
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	2
Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
	Non-Federal Reservoir Evaporation - Kansas	213
	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	84
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	228
	Non-Federal Reservoir Evaporation - Nebraska - Above Gage	37
	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	2
Prairie Dog Subbasin	Non-Federal Reservoir Evaporation - Kansas	227
	Non-Federal Reservoir Evaporation - Nebraska	10
Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	70
	Non-Federal Reservoir Evaporation - Nebraska - Above Guide Rock Gage - Whole Basin Value:	917
	Non-Federal Reservoir Evaporation - Nebraska - Below Guide Rock Gage - Whole Basin Value:	93
Stream Gage Data		
North Fork Subbasin	North Fork Republican River At Colorado-Nebraska State Line	26,046
Arikaree Subbasin	Arikaree River At Haigler	646
Buffalo Subbasin	Buffalo Creek Near Haigler	1,282
Rock Subbasin	Rock Creek At Parks	8,686
South Fork Subbasin	South Fork Republican River Near Benkelman	2,385
Frenchman Subbasin	Frenchman Creek At Culbertson	27,490
Driftwood Subbasin	Driftwood Creek Near McCook	2,392
Red Willow Subbasin	Red Willow Creek Near Red Willow	4,346
Medicine Creek Subbasin	Medicine Creek Below Harry Strunk	41,207
Beaver Subbasin	Beaver Creek Near Beaver City	1,082
Sappa Subbasin	Sappa Creek Near Stamford	8,238
Prairie Dog Subbasin	Prairie Dog Creek Near Woodruff	2,181
Mainstem Subbasin	Republican River At Guide Rock	94,437
	Republican River Near Hardy	127,121
Hardy Gage Data		
Mainstem Subbasin	USGS Gage 06853500 Republican River Near Hardy, NE	
	January	11,315
	February	6,369
	March	6,420
	April	6,933
	May	33,286
	June	11,956
	July	24,712
	August	5,874
	September	3,532
	October	8,752
	November	2,399
	December	5,575
	ANNUAL	127,121

Calendar Year		2017
Reservoir Data		
South Fork Subbasin	Bonny Reservoir Evaporation	0
	Bonny Reservoir Change In Storage	0
Frenchman Subbasin	Enders Reservoir Evaporation	1,263
	Enders Reservoir Change In Storage	(1,669)
Red Willow Subbasin	Hugh Butler Lake Evaporation	2,068
	Hugh Butler Lake Change In Storage	957
Medicine Creek Subbasin	Harry Strunk Lake Evaporation	2,513
	Harry Strunk Lake Change In Storage	(5,538)
Prairie Dog Subbasin	Keith Sebelius Lake Evaporation	2,203
	Keith Sebelius Lake Change In Storage	340
Mainstem Subbasin	Swanson Lake Evaporation	3,382
	Swanson Lake Change In Storage	5,370
	Harlan County Evaporation Subject to Nebraska/Kansas Split	8,753
	Harlan County Evaporation Charged to Kansas	2,011
	Harlan County Change In Storage	30,044
	Lovewell Reservoir Ev charged to the Republican River	2,595

Canal Data			
North Fork Subbasin	Haigler Canal Diversions - Colorado	0	
	Haigler Canal Diversions - Nebraska	4,732	
	Haigler Canal Diversions	4,732	
South Fork Subbasin	Hale Ditch Diversions	716	
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	16,692	
	Meeker-Driftwood Canal % Return Flow	66.4%	
Red Willow Subbasin	Red Willow Canal Diversions	0	
	Red Willow Canal % Return Flow	100%	
Prairie Dog Subbasin	Almena Canal Diversions	771	
	Almena Canal % Return Flow	60.6%	
Mainstem Subbasin	Bartley Canal Diversion	7,437	
	Bartley Canal % Return Flow	65%	
	Cambridge Canal Diversion	25,406	
	Cambridge Canal % Return Flow	63.1%	
	Naponee Canal Diversion	954	
	Naponee Canal % Return Flow	68%	
	Franklin Canal Diversion	17,134	
	Franklin Canal % Return Flow	64%	
	Franklin Pump Canal Diversions	798	
	Franklin Pump Canal % Return Flow	52%	
	Superior Canal Diversions	7,493	
	Superior Canal % Return Flow	65%	
		Courtland Canal Diversions At Headgate	62,438
		Diversions to Nebraska Courtland	471
		Nebraska Courtland % Return Flow	27%
		Courtland Canal, Loss in NE assigned to upper Courtland KS	3,484
		Courtland Canal, Loss in NE assigned to delivery to Lovewell	5,903
		Courtland Canal At Kansas-Nebraska State Line	52,599
		Courtland Canal Diversions to the Upper Courtland District	24,094
		Courtland Canal Above Lovewell % Return Flow	58.4%
		Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	3,866
		Courtland Canal Deliveries To Lovewell Reservoir	28,120
		Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	25,525
		Courtland Canal Below Lovewell % Return Flow	42.0%
		To allocate Harlan County evaporation:	
		Kansas Bostwick Diversions During Irrigation Season (actual, or 3-year average)	38,785
		Nebraska Bostwick Diversions During Irrigation Season (actual or 3-year average)	26,807

ACCOUNTING TABLES

2017 Basin	Virgin Water Supply	Computed Water Supply	Allocations				Computed Beneficial Consumptive Use		
			Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	37,830	37,830	8,470	0	9,310	20,050	17,210	0	4,010
Arikaree	3,010	3,010	2,360	150	510	(10)	2,110	170	80
Buffalo	5,570	5,570	0	0	1,840	3,730	500	0	3,790
Rock	9,390	9,390	0	0	3,760	5,630	110	0	5,160
South Fork	21,800	21,800	9,680	8,760	310	3,050	13,980	4,730	700
Frenchman	108,260	109,930	0	0	58,920	51,010	1,220	0	81,220
Driftwood	630	630	0	40	100	490	0	10	890
Red Willow	15,840	14,880	0	0	2,860	12,020	0	0	8,710
Medicine	37,740	43,280	0	0	3,940	39,340	0	0	21,040
Beaver	12,230	12,230	2,450	4,750	4,970	60	0	6,610	4,540
Sappa	11,840	11,840	0	4,870	4,870	2,100	0	2,530	2,220
Prairie Dog	13,300	12,960	0	5,920	980	6,060	0	10,780	80
Main Stem	193,030	155,380	0	79,400	75,980	0	(3,320)	37,210	109,700
Total All Basins	470,470	438,730	22,960	103,890	168,350	143,530	31,810	62,040	242,140
Main Stem Including Unallocated		298,910	0	152,740	146,170				
Total	470,470	438,730	22,960	177,230	238,540	0	31,810	62,040	242,140

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

	Col. 1	Col. 2	Col. 3	Col. 4
				Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit and CORWS Credit Col 1 – (Col 2- Col 3)
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit and CORWS	
2013	18,690	28,640	0	(9,950)
2014	21,900	32,100	7,448	(2,752)
2015	24,760	33,780	10,760	1,740
2016	25,190	33,930	10,130	1,390
2017	22,960	31,810	11,330	2,480
Avg 2013-2017	22,700	32,050	7,930	(1,420)

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

	Col. 1	Col. 2	Col. 3	Col. 4
				Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit Col 1 – (Col 2- Col 3)
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit	
2013	137,140	60,920	NA	76,220
2014	102,760	60,060	NA	42,700
2015	163,420	50,890	NA	112,530
2016	156,760	51,320	NA	105,440
2017	177,230	62,040	NA	115,190
Avg 2013-2017	147,460	57,050	NA	90,420

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

	Col. 1	Col. 2	Col. 3	Col. 4
				Difference between Allocation and the Computed Beneficial Consumptive Use offset by Imported Water Supply Credit and NERWS Credit Col 1 – (Col 2- Col 3)
Year	Allocation	Computed Beneficial Consumptive	Imported Water Supply Credit and NERWS	
2013	200,480	216,850	28,229	11,859
2014	168,970	206,010	75,136	38,096
2015	223,860	243,530	36,171	16,501
2016	217,880	256,120	61,816	23,576
2017	238,540	242,140	39,439	35,839
Avg 2013-2017	209,950	232,930	48,160	25,170

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.

2017

	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

2017

	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	124	(10)	106	N/A	220	202	18
South Fork	9,152	3,184	0	N/A	12,336	5,968	6,368
Driftwood	66	734	0	N/A	800	10	790
Beaver	3,640	54	1,878	N/A	5,572	5,270	302
Sappa	2,362	1,020	0	N/A	3,382	728	2,654
Prairie Dog	4,176	4,266	0	N/A	8,442	7,054	1,388

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 Ill.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)
2013	Yes	18,690	1,054	17,636	28,640	0	(11,004)
2014	Yes	21,900	1,228	20,672	32,100	7,448	(3,980)
2015	Yes	24,760	1,406	23,354	33,780	10,760	334
2016	Yes	25,190	1,650	23,540	33,930	10,130	(260)
2017	No	22,960	0	22,960	31,810	11,330	2,480
Avg 2013-2017	Yes	22,700	1,070	21,630	32,050	7,930	(2,490)

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

Water Short Year (WSY) Pursuant to Ill.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

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

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
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)
2015	20,320	4,640	1,088	26,048	18,730	N/A	7,318
2016	23,100	5,529	1,247	29,876	21,750	N/A	8,126
2017	24,490	6,004	1,380	31,874	24,830	N/A	7,044
Avg 2016-2017	23,795	5,767	1,313	30,875	23,290	N/A	7,585

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)
2015	223,860	33,485	190,375	1,042	243,530	2,941	240,590	36,195	(12,977)
2016	217,880	12,878	205,002	1,193	256,120	2,758	253,362	61,841	14,675
2017	238,540	11,539	227,001	1,320	242,140	3,585	238,555	39,466	29,232
Avg 2016-2017	228,210	12,210	216,000	1,260	249,130	3,170	245,960	50,650	21,950

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

Year	Allocation				Computed Beneficial Consumptive Use			Imported Water	Difference Between Allocation
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)
2014	168,970	6,305	162,665	631	206,010	2,335	203,675	75,161	34,782
2015	223,860	33,485	190,375	1,042	243,530	2,941	240,590	36,195	(12,977)
2016	217,880	12,878	205,002	1,193	256,120	2,758	253,362	61,841	14,675
2017	238,540	11,539	227,001	1,320	242,140	3,585	238,555	39,466	29,232
Avg 2015-2017	226,760	19,300	207,460	1,190	247,260	3,090	244,170	45,830	10,310

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

Year	Allocation			Computed Beneficial Consumptive Use	Water Supply Credit and AWS	Allocation - (CBCU - IWS- AWS)
	Sub-Basin Total	Share of Unallocated Supply	Total			
2015	86,920	67,609	154,529	132,710	29,223	51,042
2016	89,960	71,096	161,056	136,720	52,742	77,078
2017	92,370	70,186	162,556	132,440	30,481	60,597
Avg 2016-2017	91,165	70,641	161,806	134,580	41,612	68,837

ATTACHMENTS

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 6: Computing Water Supplies and Consumptive Use Above Guide Rock

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
2013	105,610	44,745	24,835	70,402	6,161	5,048	3,679	8,727	3,000	673	3,673	11,183	14,855	90,755	44,379	46,376	7,264	7,591
2014	57,010	50,362	35,041	59,654	0	5,278	0	5,278	2,335	515	2,850	10,043	12,893	44,117	21,573	22,544	6,305	6,588
2015	141,780	104,931	29,772	57,452	6,571	5,792	4,414	10,206	2,941	582	3,523	64,953	68,476	73,304	35,846	37,459	33,485	34,991
2016	116,190	80,515	47,639	44,129	6,308	5,619	4,259	9,877	2,758	578	3,336	22,999	26,335	89,855	43,939	45,916	12,878	13,457
2017	155,380	127,121	94,437	44,129	7,493	8,574	4,877	13,451	3,585	780	4,365	19,233	23,598	131,782	64,442	67,341	11,539	12,058

COURTLAND CANAL					
	2013	2014	2015	2016	2017
Return Flow From Courtland Canal To Republican River Above Lovewell From Kansas	975	813	764	563	789
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	4,073	4,465	5,027	5,055	7,785
Courtland Canal Diversions At Headgate	70,402	59,654	57,452	44,129	62,438
Courtland Canal At Kansas-Nebraska State Line	65,021	54,209	50,960	37,548	52,599
NE Courtland Canal CBCU (includes transportation loss)	414	0	361	416	345
Superior Canal CBCU	2,482	0	2,157	2,049	2,616

NEBRASKA					
	2013	2014	2015	2016	2017
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	850	476	786	655	1,261
SW Diversions - M&I - Nebraska - Below Guide Rock	0	0	0	0	0
SW Non-Federal Reservoir Evaporation - Below Guide Rock	50	67	14	34	93
SW Return - Irrigation	213	119	197	164	315
SW Return - M&I	0	0	0	0	0
GW CBCU Nebraska Below Guide Rock	2,312	1,911	2,337	2,233	2,546

KANSAS					
	2013	2014	2015	2016	2017
SW CBCU - Irrigation - Small Pumps	582	484	554	535	727
SW CBCU - M&I	0	0	0	0	0
GW CBCU Kansas Below Guide Rock	91	31	28	43	53

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	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	30%	0	0	92%	0	100.0%
Meeker - Driftwood	16,692	1,585	15,107	5,024	10,083	30%	1,507	11,590	82%	11,089	66.4%
	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	7,437	509	6,928	2,425	4,503	30%	728	5,231	82%	4,798	64.5%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Cambridge	25,406	2,561	22,845	9,152	13,693	30%	2,746	16,439	82%	16,041	63.1%
	0	0	0	0	0	30%	0	0	92%	0	100.0%
Naponee	954	118	836	287	549	35%	100	649	82%	651	68.2%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Franklin	17,134	1,182	15,952	6,244	9,708	35%	2,185	11,893	82%	10,935	63.8%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Franklin Pump	798	44	754	462	292	35%	162	454	82%	416	52.1%
	0	0	0	0	0	35%	0	0	92%	0	100.0%
Almena	771	0	771	288	483	30%	86	569	82%	467	60.6%
Superior	7,493	316	7,177	2,340	4,837	31%	725	5,562	82%	4,877	65.1%
	0	0	0	0	0	31%	0	0	92%	0	100.0%
Nebraska Courtland	471	0	471	412	59	23%	95	154	82%	126	26.8%
Courtland Canal Above Lovewell (KS)	24,094	1,787	22,307	9,530	12,777	23%	2,192	14,969	82%	14,061	58.4%
Courtland Canal Below Lovewell	38,000	3,147	34,853	24,996	9,857	23%	5,749	15,606	82%	15,944	42.0%

Attachment 8

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

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	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

- 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)					
	2013	2014	2015	2016	2017
January	1,926	1,704	1,390	5,429	11,315
February	1,829	4,733	2,093	6,532	6,369
March	1,993	4,560	2,027	6,415	6,420
April	4,479	1,638	2,364	6,625	6,933
May	8,376	2,138	34,054	13,501	33,286
June	3,215	5,818	36,781	5,901	11,956
July	2,648	5,726	7,906	4,844	24,712
August	9,386	6,893	7,712	6,153	5,874
September	3,588	4,491	2,180	9,868	3,532
October	2,523	4,717	1,690	5,278	8,752
November	3,771	4,167	1,944	5,286	2,399
December	1,012	3,779	4,790	4,685	5,575
ANNUAL	44,746	50,364	104,931	80,515	127,122
Over 400K	0	0	0	0	0

5-month Consecutive Period Flows (acre-feet)					
	2013	2014	2015	2016	2017
Jan-May	18,603	14,773	41,928	38,501	64,322
Feb-Jun	19,892	18,887	77,319	38,973	64,964
Mar-Jul	20,711	19,880	83,132	37,285	83,307
Apr-Aug	28,104	22,213	88,817	37,023	82,760
May-Sep	27,213	25,066	88,633	40,266	79,359
Jun-Oct	21,360	27,645	56,269	32,043	54,825
Jul-Nov	21,916	25,994	21,432	31,428	45,268
Aug-Dec	20,280	24,047	18,316	31,269	26,132

2-month Consecutive Period Flows (acre-feet)					
	2013	2014	2015	2016	2017
Jan-Feb	3,755	6,437	3,483	11,960	17,683
Feb-Mar	3,822	9,293	4,120	12,946	12,789
Mar-Apr	6,472	6,198	4,391	13,039	13,353
Apr-May	12,855	3,776	36,418	20,126	40,219
May-Jun	11,591	7,956	70,835	19,402	45,242
Jun-Jul	5,863	11,544	44,687	10,744	36,668
Jul-Aug	12,034	12,619	15,618	10,996	30,586
Aug-Sep	12,974	11,384	9,892	16,020	9,406
Sep-Oct	6,111	9,208	3,870	15,146	12,283
Oct-Nov	6,294	8,884	3,634	10,564	11,151
Nov-Dec	4,783	7,946	6,734	9,971	7,974

Final Sub-basin Flood Flows					
	2013	2014	2015	2016	2017
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	0	0	0	0	0
Prairie Dog Flood Flow	0	0	0	0	0
Mainstem Flood Flow	0	0	0	0	0

Sub-basin Flows Above Attachment 1 Flood Flow Thresholds					
	2013	2014	2015	2016	2017
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	0	0	0	0	0
Prairie Dog	0	0	0	0	0
Sub-basin Sum	0	0	0	0	0

5-month Consecutive Period Test					
	2013	2014	2015	2016	2017
Jan-May	0	0	0	0	0
Feb-Jun	0	0	0	0	0
Mar-Jul	0	0	0	0	0
Apr-Aug	0	0	0	0	0
May-Sep	0	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	0	0	0	0	0

2-month Consecutive Period Test					
	2013	2014	2015	2016	2017
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	0	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	0	0	0	0	0

Combined Test					
	2013	2014	2015	2016	2017
FINAL TOTAL	0	0	0	0	0

STATE OF KANSAS



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GOVERNOR JEFF COLYER, M.D.

August 8, 2018

Mr. Jeff Fassett, Director
Nebraska Department of Natural Resources
P.O. Box 94676
Lincoln, Nebraska 68509-4676

Subject: Objection to Application A-19594, Option #1

Dear Director Fassett:

The state of Kansas objects to the Interbasin Transfer from the Platte River to the Republican River Basin. Application A-19594 was filed with the Department of Natural Resources on April 4, 2018 by the Central Nebraska Public Power and Irrigation District (CNPPID) and the Platte Republican Diversion Interlocal Agreement Partners. While the application states that no Adverse Impacts exist, the transfer will provide a pathway for invasive species of fish to enter the Republican River Basin where currently, no evidence of these species exists.

According to the Nebraska Department of Game and Parks, Asian carp (bighead and silver carp) have been documented over the past several years in the upper sections of the Loup, Platte and Elkhorn rivers. Numerous adults were sampled in 2017 in the Elkhorn and an overwintering population of both silver and bighead were documented in Turkey Creek (near Kearney, NE) which is a tributary of the Platte River which is the first documentation of an overwintering population in this area. The Department has also documented the existence of Asian Carp at the J2 return.

Asian carp have decimated sportfish populations and pose safety hazards to river and reservoir recreationalists in many parts of the United States, most recently at Barkley and Kentucky Lakes in Kentucky. Harlan County Reservoir would be impacted by the presence of these species as well as Lovewell and Milford Reservoirs in Kansas, and eventually, the upper Kansas River. Not only will species have a detrimental environmental effect on the Republican and Kansas River systems, but will have profound economic impact to the state of Kansas and local economies surrounding the reservoirs. The Kansas Republican River Compact Administration team has collaborated with the state of Nebraska to develop strategies providing greater water certainty for our water users and we support water supply strategies to insure compliance with the Compact. However, the invasive species implications to the Republican River resulting from the Platte River transfer proposal prohibit Kansas from supporting its' permit approval. For these reasons, I recommend that Application A-19594 be denied.

Sincerely,

A blue ink signature of Jeff Colyer, M.D., Governor of Kansas.

Jeff Colyer, M.D.
Governor