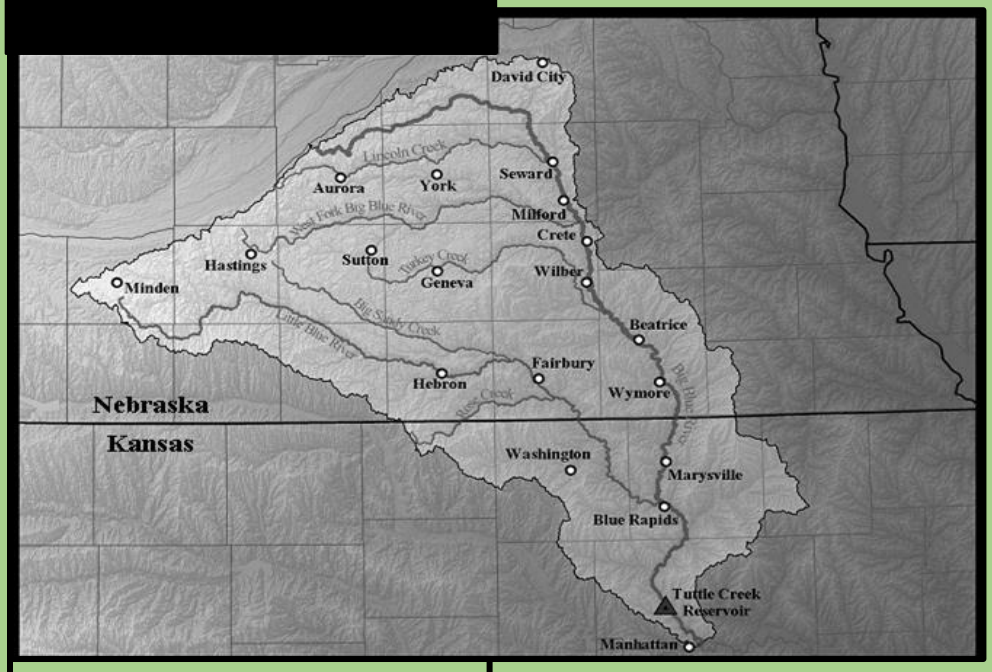
KANSAS-NEBRASKA
BIG BLUE RIVER COMPACT

FORTY SEVENTH
ANNUAL REPORT



FISCAL 2020

Manhattan, KS
May 13, 2020

KANSAS – NEBRASKA BIG BLUE RIVER

COMPACT ADMINISTRATION

May 13, 2021

The Honorable Joseph R. Biden, Jr.
President of the United States of America

The Honorable Laura Kelly
Governor of Kansas

The Honorable Pete Ricketts
Governor of Nebraska

Pursuant to Article VIII, Section 1 of the Rules and Regulations of the Kansas-Nebraska Big Blue River Compact Administration, I submit the Forty Seventh Annual Report. The report covers the activities of the Administration of the Compact for the Fiscal Year 2020 while I was the presiding Federal Chair.

Respectfully,

W. Don Nelson

W. Don Nelson

Federal Compact Chair

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Kansas
Department of Agriculture

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Topeka, KS 66612
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Mike Beam, Secretary

Laura Kelly, Governor

April 23, 2020

W. Don Nelson, Federal Chair
Kansas-Nebraska BBRCA
2430 S. Canterbury Lane
Lincoln, NE 68512

Jesse Bradley, Nebraska Commissioner
Kansas-Nebraska BBRCA
301 Centennial Mall South
Lincoln, NE 68509

Sharon Schwartz, Kansas Advisor
Kansas-Nebraska BBRCA
2051 20th Road
Washington, KS 66968

Larry Moore, Nebraska Advisor
Kansas-Nebraska BBRCA
2240 A Road
Ulysses, NE 68669

Dear Compact Members:

The 2020 annual meeting of the Kansas-Nebraska Big Blue River Compact Administration will be hosted by Kansas on Wednesday, May 13, 2020, at 9:30 a.m. The meeting will be held via a Zoom video conference call with screen sharing.

The Zoom meeting can be accessed over the internet with the following information:

https://kansasag.zoom.us
Meeting ID: 931 7497 2787
Password: 011970

A clickable link that will allow you to join the meeting directly is available on our website at:

https://www.agriculture.ks.gov/BBRC

A tentative agenda is enclosed with this meeting notice.

Sincerely,

Chris Beightel

Christopher W. Beightel
Kansas Commissioner

Enclosures or Attachments (1)

cc: Budget Committee – Amy Zoller, Chris Beightel
Legal Committee – Emily Rose, Kenneth Titus
Engineering Committee – Jeremy Gehle, Chris Beightel, Katie Tietsort
Water Quality Committee – Tom Stiles, Annette Kovar, Craig Romary, Dan Howell, Marty Link
NRD Managers – Kyle Hauschild, David Clabaugh, David Eigenberg, John Thorburn
Add'l – Jim Macy, Jason Lambrecht

Kansas-Nebraska Big Blue River Compact Administration
47th Annual Meeting

May 13, 2020
9:30 a.m.
Zoom Video Conference Call with Screen Sharing

AGENDA

1. Call to Order
2. Introductions and Announcements
3. Minutes and Report of the 46th Annual Meeting
4. Chair's Report
5. Kansas Report
    a. State Overview Report
    b. Topeka Field Office Report
6. Nebraska Report
    a. State Overview Report
    b. Water Administration Report
    c. Reports of the NRDs
7. Secretary's Report
8. Treasurer's and Budget Report
9. US Geological Survey Report
10. Legal Committee Report
11. Engineering Committee Report
12. Water Quality Committee Report
13. Compact Advisor Comments
14. Old Business
15. New Business
16. Committee Membership and Special Assignments
17. Adjournment

MINUTES OF THE 47th ANNUAL MEETING
OF THE
KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION

Call to Order

The Forty-Seventh Annual Meeting of the Kansas-Nebraska Big Blue River Compact Administration was held on May 13th, 2020 via a Zoom video conference call with concurrent YouTube livestream. Both the conference call and the livestream were open to the public.

The meeting was called to order at 9:30 AM CDT by W. Don Nelson, Federal Compact Chair. Mr. Nelson introduced himself and asked the Kansas and Nebraska Compact Commissioners to introduce the delegations from their states. Those who were to present reports to the Administration during the meeting were asked to introduce themselves before giving their presentations. Due to the nature of a public meeting conducted via conference call, Mr. Nelson did not attempt to have all those listening to the call introduce themselves.

Introductions

Those confirmed in attendance were:

W. Don Nelson	Compact Chair
Chris Beightel	Kansas Compact Commissioner; Acting Chief Engineer, Kansas Department of Agriculture, Division of Water Resources
Jesse Bradley	Nebraska Compact Commissioner; Interim Director, Nebraska Department of Natural Resources
Sharon Schwartz	Kansas Compact Advisor
Larry Moore	Nebraska Compact Advisor
Lizzie Hickman	Compact Secretary; Kansas Department of Agriculture, Division of Water Resources
Amy Zoller	Compact Treasurer; Nebraska Department of Natural Resources, Water Planning Division
Jeremy Gehle	Compact Engineering Committee Chair; Nebraska Department of Natural Resources, Water Administration Division Head
Kenneth Titus	Kansas Department of Agriculture, Chief Counsel
Katie Tietsort	Kansas Department of Agriculture, Division of Water Resources, Topeka Field Office Water Commissioner
Brittney Grother	Kansas Department of Agriculture, Office of the Secretary
Tom Stiles	Kansas Department of Health and Environment, Bureau of Water Director
Kyle Hauschild	Little Blue Natural Resources District, General Manager
Dave Clabaugh	Lower Big Blue Natural Resources District, General Manager
Marty Link	Nebraska Department of Environment and Energy, Water Quality Division
Emily Rose	Nebraska Department of Natural Resources, Legal Counsel
Jim Ostdiek	Nebraska Department of Natural Resources, Bridgeport Field Office Supervisor
Justin Hladik	Nebraska Department of Natural Resources, Lincoln Field Office Supervisor
Andy Pedley	Nebraska Department of Natural Resources, Water Planning Division
Carrie Wiese	Nebraska Department of Natural Resources, Water Planning Division
Dave Eigenberg	Upper Big Blue Natural Resources District, General Manager
John Miller	Upper Big Blue Natural Resources District, Director
Jack Wergin	Upper Big Blue Natural Resources District, Projects Department Manager

Crystal Houston	Upper Big Blue Natural Resources District, Public Relations Manager
Marie Krausnick	Upper Big Blue Natural Resources District, Water Department Manager
Jason Lambrecht	US Geological Survey, Nebraska Water Science Center, Assistant Director and Hydrologic Data Section Chief

Approval of the Minutes of the 46th Annual Meeting

Chris Beightel, Compact Secretary, reported that preparation of the minutes of the 46th Annual Meeting had been delegated to Lizzie Hickman. Mr. Beightel proposed that Ms. Hickman address this agenda item upon presenting the Secretary's Report later in the meeting. Don Nelson confirmed.

Chair's Report

Don Nelson briefly alluded to the ongoing COVID-19 pandemic as the reason that the meeting was being conducted via conference call. Mr. Nelson then noted his receipt of Chris Beightel's credentials, in writing, for the position of Kansas Compact Commissioner and requested that the Compact Secretary include those in the record of the meeting (Attachment A).

Kansas Report

State Overview Report

Chris Beightel, Kansas Compact Commissioner, began the Kansas report (Attachment B).

The Kansas Legislature was still in session at the time of the meeting, though they had not met for several weeks due to the COVID-19 pandemic. The legislative committees had just begun to resume meetings. In the past year, the Legislature considered several pieces of water legislation, but none that would significantly alter existing Kansas law. In line with the efforts of previous Legislatures to clarify statutory language regarding water management tools, minor changes were made to the Multi-Year Flex Account (MYFA) statute. As in most states, budget concerns loom large for the Legislature due to the economic impact of the COVID-19 pandemic. Kansas's Consensus Revenue Estimating Group estimates a 2020 revenue shortfall of $1.2 billion compared to revenue estimates made earlier in the year. The Group also predicted that the Kansas economy would not return to 2019 levels until 2022 at the earliest.

The Northwest Kansas Groundwater Management District No. 4 (GMD4) continues to be a model of local leadership. GMD4 helped develop the Local Enhanced Management Area (LEMA) tool, which allows a local Groundwater Management District (GMD) to request implementation of a specific water conservation plan within a defined area. So far, GMD4 contains the only two LEMAs in the state, and recent analyses by the Kansas Department of Agriculture, Division of Water Resources (DWR) show that implementation of these LEMAs has changed irrigator behavior and conserved significant amounts of water. The GMD4 Board of Directors has also recently directed their General Manager to develop a certified irrigator program like those in Texas and Colorado. Certified irrigator programs facilitate irrigator collaboration to share best practices and maximize the impact of irrigation management and conservation technologies, with end goals of conserving energy and water, building soil health, and enhancing long-term agricultural profitability.

The Board of Directors of the Western Kansas GMD No. 1 (GMD1) recently submitted a formal request to DWR to begin the process of establishing a LEMA within Wichita County. This process will include multiple public hearings. The proposed LEMA would reduce recent historical water use by at least 15%. The actual reduction could be as high as 21% depending on voluntary participation by holders of vested water rights. Water conservation is desperately needed in the region, where there is only about 20 ft of saturated thickness remaining in the Ogallala Aquifer. Due to the COVID-19 pandemic, the first required public hearing cannot be scheduled until it is possible to resume in-person meetings.

DWR continues to refine their understanding of the impact of different water management strategies by developing a rigorous and scientific performance evaluation method. Over the past several years, DWR has been developing a method that establishes a relationship between seasonal precipitation and irrigation water use, which is used to predict irrigator behavior during the implementation period of a water management tool. Those predictions are then compared to actual water use during management operations to determine whether historical behavior has changed. DWR observed that, within the Sheridan County 6 LEMA within GMD4, irrigators used 30% less water than their peers outside the LEMA, given the same climatic conditions. Evaluations of the first few years of implementation of the GMD4 District-Wide LEMA show similar trends of about a 30% reduction in water use.

DWR uses the same method to evaluate the MYFA tool, which is not a conservation tool. A water right owner who obtains a MYFA permit is assigned a 5-year allocation, during which period they may exceed the annual authorized quantity of their base water right in any given year, provided they do not exceed the total allocation over the 5-year period. DWR evaluated water used by MYFA permit holders to ensure that the tool was not causing an overall increase in water use. DWR found that overall water use had not increased and reported their findings to the Legislature in early 2020.

Kansas has also seen continued interest in the Water Conservation Area (WCA) tool. WCAs are consent agreements between one or more water right owners and the Chief Engineer of DWR which restrict water use in exchange for greater flexibility in the use of a suite of water rights. As of the week prior to the meeting, there were 53 approved WCA plans in the state, covering about 86,000 acres and with an estimated annual water use reduction of about 12,000 acre-feet. Though Kansas is encouraged by the adoption of this tool to date, much room for expansion remains.

There are 15 water technology farms in Kansas. Water technology farms are projects in which producers collaborate with industry and academia to test innovations in irrigation technology on real farms and demonstrate the potential benefits to other producers in the region. Kansas hopes to expand this program as well.

In short, Kansas is encouraged by the success of its water management tools and working to both increase their adoption and develop improved evaluation methods for them.

Mr. Beightel finished by noting changes to the Kansas delegation to the Administration. On February 29, 2020, Chief Engineer David Barfield retired after 35 years of state service, including 12 years as Chief Engineer and Kansas Compact Commissioner for the Administration. Later in the meeting, Kansas plans to propose a Resolution of the Administration honoring Mr. Barfield's service to the Compact. Following Mr. Barfield's retirement, Mr. Beightel was appointed Acting Chief Engineer and therefore will serve the Administration as the Kansas Compact Commissioner until a new Chief Engineer is named. Mr. Beightel currently serves as Compact Secretary and as a member of the Engineering and Budget Committees. At the appropriate point in the meeting, Mr. Beightel will nominate Lizzie Hickman as his replacement as Compact Secretary and member of the Engineering and Budget Committees.

Topeka Field Office Report

Katie Tietsort, Water Commissioner for the DWR Topeka, KS Field Office (TFO), continued the Kansas report (Attachment C). In calendar year 2019, the Big Blue and Little Blue River basins, and most of their tributary basins, received between 37.5 and 52.5 in of precipitation. The easternmost tributary basin, the Black Vermillion River basin, received up to 60 in. In 2019, the Compact area received 18 to 20 in more precipitation than normal. In 2020, through March 31, there have been 2 to 10 in of precipitation across the Compact area, with the western regions receiving 2 to 4 in and the eastern regions receiving 4 to 10 in. The northern regions of the Compact area have experienced dryer than normal conditions, while precipitation in the southern regions has been approximately normal. 2019 temperatures ranged from normal to about 2 °F cooler than normal. 2020 temperatures through March 31 have been about 3 °F

higher than normal. The Standardized Precipitation Index (SPI) for 2019 indicated significantly wetter than normal conditions, and the SPI for 2020 through March 31 indicates normal conditions.

2019 was a year of significant flooding in Kansas streams. Streamflow was higher than the historical median throughout 2019 at the US Geological Survey (USGS) gages that DWR monitors for Minimum Desirable Streamflows (MDS) on the Big Blue River at Marysville, KS and the Little Blue River near Barnes, KS. Streamflow was also higher than the historical median throughout 2019 at the USGS gages on the Big Blue River at Barneston, NE and the Little Blue River at Hollenberg, KS, which are monitored for Compact minimum target flows at the Kansas-Nebraska state line. Streamflow in the Big Blue and Little Blue Rivers will be covered in more detail in the USGS Report. In 2019 and as of May 13, 2020, neither the Big Blue nor the Little Blue River required water right administration to meet Kansas MDS criteria or Compact minimum target flows. In fact, no water right administration to meet MDS criteria occurred on any Kansas stream in 2019.

Water levels in some lower Kansas River basin reservoirs reached record elevations in 2019, and widespread flooding occurred. Kansas River basin reservoirs, including Tuttle Creek Reservoir, are managed to a control point on the Missouri River, the USGS gage at Waverly, Missouri. When streamflow at that gage exceeds 80,000 ft^3/s, releases from Kansas River basin reservoirs are decreased to the minimum. This management status was in effect for most of 2019, from the spring rain events until nearly the end of the year. The US Army Corps of Engineers (USACE) implemented a series of management deviations at the Waverly gage in May 2019, which allowed for larger releases from the Kansas River basin reservoirs than would have been allowed under the control manual. The deviations occurred in phases and ranged from 90,000 to 180,000 ft^3/s allowed at the Waverly gage. Under the deviations, which were not lifted until early 2020, Kansas River basin reservoirs could release water when water levels were within 20% of the top of flood storage. Two of the three major Kansas River basin reservoirs were thus able to lower their water levels below flood storage, but recent rainfall has caused water levels to begin rising again.

Kansas previously reported that the Lower Republican River Stakeholder Group was working to establish a Special District. The bylaws were instituted, and the Board of Directors was established, but no further progress has been made. Due to flooding in 2019 and the COVID-19 pandemic in 2020, the legislation necessary to establish a Special District has not yet been passed.

In 2019, DWR sent Notices of Non-Compliance (NONC) or NONC – Cease and Desist (NONC-CD) Orders to 11 water rights in eastern Kansas and 130 water rights statewide. None of these were in the Compact area. No NONC or NONC-CD Orders have been issued in 2020 so far. In 2019, TFO issued 16 civil penalty orders and cease and desist orders in eastern Kansas. 2 of these were civil penalties for overpumping issued within the Compact area, both for $5,000 to the same rural water district. Overpumping often occurs because water users do not fully understand the terms and conditions of their water rights. In 2019, DWR issued 206 civil penalties statewide.

Kansas previously reported that the Kansas Secretary of Agriculture had instituted a paper filing fee of $20 per water right for annual water use reports, which are required by law for all non-domestic water right owners. The filing fee is waived for water right owners who report their water use online. $39,567 in paper filing fees for 2018 water use reports was collected by DWR. So far, $29,340 has been collected for 2019 water use reports.

In 2018, DWR assessed 274 civil penalties statewide for a total of $1.446 million, of which $411,450 was collected. 2018 was a record year for both the number of penalties issued and the total fines collected. In fact, the total amount collected was greater than the combined amounts collected for the previous 14 years. In 2019, DWR assessed $400,000 in civil penalties. So far in 2020, $309,500 of those fines have been collected. The difference between fines assessed and fines collected is partly a result of settlement conferences between DWR and water right owners, who may submit additional information or

considerations regarding the penalties issued. In 2018, water right owners requested settlement conferences for 83% of the civil penalties issued by DWR (228 of 274). Conducting this many settlement conferences placed a large burden on DWR staff and the Kansas Department of Agriculture's (KDA) Legal Department, so 2019 penalties were initially assessed at post-settlement amounts. 91 civil penalties were assessed in 2019, and only 19 settlement conferences were conducted. 2019 water use reports are still being reviewed for overpumping and other violations, but it appears that no water rights within the Compact area will be issued penalties in 2020.

17 new water right applications were filed within the Compact area in 2019 (13 for appropriated water rights, 2 for temporary permits, and 2 for term permits). There has only been 1 new application filed so far in 2020, as a downturn in the agricultural economy has lessened the pace of new applications filed within the Compact area. 12 applications were approved in 2019, and 1 application (for a term permit) has been approved in 2020 so far. Statewide, 154 new applications for appropriated water rights were filed in 2019; 136 were approved, and 18 were dismissed. Term permits and temporary permits were also issued across the state in 2019.

The Lake Level Management Plans followed by Kansas in conjunction with the USACE have remained much the same, with the intent to manage reservoir storage for lake fishery support, fish recruitment, and endangered species protection. In 2019, these plans were overridden to manage reservoir levels for flood control. The plans are tentatively expected to resume in 2020 if reservoir levels continue to decrease.

In 2018, Kansas initiated the Kansas River Reservoirs Flood and Sediment Study through the Kansas Water Vision. The intent of the study is to determine and then implement the necessary actions to extend the life of reservoirs within the Kansas River basin. The Kansas Geological Survey (KGS) established a network of alluvial observation wells along the Kansas River, which have been added to the Kansas Index Well Program. Kansas anticipates gaining a wealth of valuable information about the Kansas River system from this study.

Kansas previously reported that TFO had begun an initiative to scan their original paper copies of water right files into DocuWare, the official state file archiving system. The original paper files are scanned into DocuWare, reviewed page by page for image quality and completeness, and then returned to the water right owner. As of May 12, 2020, TFO has scanned 50% of all active water right files within their area of responsibility (eastern Kansas). All TFO staff members have made significant contributions to the project. A temporary staff member who primarily scans files will complete their allotted hours in June 2020, and TFO hopes to hire a replacement to finish the project over the next 12 to 18 months.

Through their efforts to transition to paperless processing, TFO has developed electronic processes for almost all documents they produce (the exceptions are new and change application approvals, which are generated at KDA Headquarters). Most forms, notifications, reports, and other information submitted by water right owners and stakeholders are accepted electronically. Next, TFO plans to begin developing an electronic process for water right application submissions. These efforts have been rewarded during the COVID-19 pandemic, as TFO staff are able to work remotely in almost all cases, conducting business and assisting stakeholders as normal.

In March 2020, just as most TFO staff members were placed on administrative leave by the state due to the COVID-19 pandemic, TFO moved to a new office, though they have retained all existing phone numbers. The new TFO office shares a building with a US Department of Agriculture – Animal and Plant Health Inspection Service office. The KDA Laboratory also moved in early 2020 from Topeka, KS to a newly constructed building next to the KDA Headquarters building in Manhattan, KS.

Kansas Compact Advisor Comments

Sharon Schwartz, Kansas Compact Advisor, reported that she had spoken with the Chair of the Kansas Legislature's Agriculture and Natural Resources Committee. Following the 2019 flooding, there has been

an increased focus on water issues within that committee. The Chair called a special committee meeting to elaborate on state water resources concerns and their effects on both rural and urban Kansans, as many of the current committee members are from urban constituencies and had little previous experience with agricultural water resources issues. This special committee meeting assisted legislators in proposing targeted state budget items to address water issues, including watershed dam rehabilitation and streambank restoration. It is unknown how the economic impact of the COVID-19 pandemic will affect the realization of these proposals.

Ms. Schwartz, whose family farms along tributaries of the Little Blue River, reported that the 2019 flooding caused significant damage to croplands, streambanks, and ditches in the area, requiring extensive repairs.

Nebraska Report

State Overview Report

Jesse Bradley, Nebraska Compact Commissioner, began the Nebraska report (Attachment D). Mr. Bradley began by thanking the Natural Resources Districts (NRDs) and other state and local agencies, as well as producers, who partner with the Nebraska Department of Natural Resources (DNR) in managing and protecting the water resources of the Big Blue and Little Blue River basins. Mr. Bradley also thanked DNR staff for the quick and seamless transition they made to telecommuting earlier in 2020 due to the COVID-19 pandemic.

2019 water supply was far above average across the state, including in the Big Blue and Little Blue River basins. 2019 also featured well above normal precipitation and record peak stage measurements at stream gages in the Compact area. This was the case across most of Nebraska, but especially within the Missouri River basin. Due to these conditions, no water right administration was necessary to meet Compact minimum target flows in 2019.

DNR and the NRDs continue to be committed to collaborative development and adoption of new Integrated Management Plans (IMPs). Significant milestones reached in 2019 include the adoption of the first basin-wide plan for the Republican River basin. The first 10-year planning increment for the Upper Platte River basin was completed. Transition to the second 10-year planning increment required years of stakeholder meetings, development of a modified basin-wide plan, and modifications to five individual NRD IMPs.

Planning efforts are also ongoing within the Big Blue and Little Blue River basins. Voluntary IMPs were adopted by the Little Blue NRD and the Tri-Basin NRD, which includes a portion of the Little Blue River basin. Development of a voluntary IMP is an important first step in improving communication and coordination between DNR, local NRDs, and producers, and establishes a holistic approach to water management. The process encourages data sharing and cooperation on the development of tools, models, and other resources necessary to proactively manage local water resources. Nebraska previously reported that, within the Upper Big Blue NRD, DNR conducted joint stakeholder meetings with the Nebraska Department of Environment and Energy (DEE), as DEE was developing a watershed water quality plan concurrently with DNR's development of an IMP. This collaboration successfully streamlined stakeholder communication regarding important and interconnected water management issues. DNR hopes to bring development of the Upper Big Blue IMP to completion later in 2020. Within the Lower Big Blue NRD, DNR is working to identify stakeholders before beginning the plan development process later in 2020. There are also many other ongoing water planning efforts across the state, as it is the focus of many of DNR's resources.

Nebraska has continued to expand their voluntary online water use reporting program. The program has now been implemented across the state and is particularly targeted at surface water users. Nebraska encourages water users across the state to voluntarily report their water use online each year; about 25%

participation is typical. However, water use reporting through this program is mandatory in specific regions of the state, such as the Republican River basin. DNR continues to encourage expanded use of this program so that the data collected can be used in their water planning efforts.

As in Kansas, the Nebraska Legislature was in session when the COVID-19 pandemic struck. The Legislature has 17 days remaining in their current session, which they can use to resume meeting at any time during calendar year 2020. It is anticipated that the Legislature will eventually resume, as there are some important items, including a mid-year budget adjustment, still to be adopted. Before the economic downturn due to the COVID-19 pandemic, there was legislative interest, due to the 2019 flooding, in developing targeted budget items for flood mitigation planning efforts across the state. Flood management was also the focus of proposed water-related legislation, including funding to continue advancing collaborative efforts with the other three lower Missouri River basin states and the USACE to make improvements to the Missouri River system, giving communities along the river relief from future flooding. Nebraska has not yet completed a full analysis of the potential impact of the COVID-19 pandemic on the state economy. Preliminary projections state that revenue from the second quarter of 2020 will be reduced by $300-400 million. Ongoing efforts by the federal government to provide financial assistance for states' COVID-19 responses make it difficult to anticipate what the final impacts to the Nebraska state budget will be, though a challenging financial situation is anticipated.

The Water Sustainability Fund (WSF) is a state of Nebraska fund used for a variety of projects, including flood control structures, aging infrastructure improvements, and water supply projects. The WSF has been used to fund projects in the Little Blue and Upper Big Blue NRDs. In 2019, the Nebraska Natural Resources Commission (NRC), which oversees and distributes the WSF, approved 10 applications for about $15 million. Attachment D contains a table of the specific WSF projects that have been approved and implemented in the four NRDs within the Big Blue and Little Blue River basins. The WSF is about to enter its next cycle, and there is about $8 million available for funded projects. Project applications are due in late July, and the NRC will make final allocation decisions by the end of 2020.

On February 28, 2020, Jeff Fassett, Director of DNR and Nebraska Compact Commissioner for the Administration, retired after over 4 years of service. Following Mr. Fassett's retirement, Mr. Bradley was appointed Interim Director of DNR and therefore will serve the Administration as the Nebraska Compact Commissioner until a new Director is named. DNR is currently advertising the open position in national publications and will establish a search committee to identify and evaluate potential candidates for interviews with the Governor of Nebraska. There is no identified timeline for this process, especially considering the ongoing COVID-19 pandemic, but DNR hopes to secure a replacement Director by the end of 2020.

Water Administration Report

Jeremy Gehle provided the Nebraska Water Administration report (Attachment E) for the Big Blue and Little Blue River basins. Both the Big Blue and Little Blue River basins received above average precipitation in 2019, and summer temperatures were moderate. As a result, no water rights within the Compact area were administered in 2019 to meet Compact minimum target flows, nor for any other reason. DNR staff conducted field inspections of all surface water rights, and many producers reported that they simply did not need to irrigate due to the timing and volume of precipitation. There has been less precipitation in 2020 so far. The May 7, 2020 US Drought Monitor indicated abnormally dry conditions beginning to develop along the southern border of Nebraska within the Compact area. Streamflow at the USGS gage on the Big Blue River at Barneston, NE is slightly below the long-term median. Streamflow at the USGS gage on the Little Blue River near Hollenberg, KS is slightly below the 25th percentile of the long-term median. Mr. Gehle finished by thanking Jim Ostdiek for his years of service as Supervisor of the DNR Lincoln Field Office. Mr. Ostdiek has moved to the position of Bridgeport Field Office Supervisor within the Platte River basin. Justin Hladik has been named to the position of Lincoln Field Office Supervisor and will oversee Nebraska compliance with the Compact.

Lower Big Blue Natural Resources District (NRD) Report

Dave Clabaugh presented the Lower Big Blue NRD (District) report (Attachment F). In 2019, the same abundant water supply which caused flooding also raised groundwater levels in monitoring wells across the District by about 3 ft. Groundwater levels consistently increased throughout 2019, including during the irrigation season, when groundwater levels usually decline. Water levels in many of the District's monitoring wells are above their 1982 baseline measurements.

The District continues monitoring and rehabilitating watershed dams within the District. The District previously reported on their installation, with DNR's approval, of Snap-Tite inserts inside principal spillways that are rusted or leaking. Installation of Snap-Tite inserts is about half the cost of conventional repairs, which require a dam breach, excavation, and spillway replacement. District staff have become quite proficient at Snap-Tite insert installation and assisted with an installation project in the Upper Big Blue NRD.

A watershed dam within the District had its hazard classification increased to high hazard. Dam upgrades to meet high hazard structure standards, including enlarging the principal and emergency spillways to convey higher flows, are nearing completion. The project is a collaborative effort of the District and the US Department of Agriculture, Natural Resources Conservation Service (NRCS).

The District has been working with the City of Wilber, NE to rehabilitate a small dam. The City is developing the surrounding area into a recreational park for hikers and fishers. The local high school is working with the District and the City to develop outdoor classrooms within the new park.

The District has applied for NRCS Watershed and Flood Prevention Operations Program funding in the Little Indian Creek watershed north of Beatrice, NE. The District hopes to install new structures or rehabilitate and repair existing structures within the watershed. The funding will enable the District to assess the status of existing structures and plan for the future of the watershed.

More details regarding the activities of the District can be found in Attachment F. Per the Nebraska State Report, the District is identifying stakeholders to begin the process of developing a voluntary IMP. It is unknown how the ongoing COVID-19 pandemic will affect the District's ability to hold stakeholder meetings. The District has begun conducting Board of Directors meetings via video conference call.

Little Blue Natural Resources District (NRD) Report

Kyle Hauschild provided the Little Blue NRD (District) report (Attachment G). Mr. Hauschild began by thanking DNR for their assistance with development of the District's IMP, which was adopted in July 2019. Following five years of development, the IMP has been approved by DNR, and will now be regularly updated by the District.

In 2019, groundwater levels rose an average of 1.6 ft District-wide, with localized increases of up to 3 ft. Groundwater levels are therefore well above the trigger level at which allocations or restrictions on well pumping are required (8 ft below baseline). Baseline water levels in the District were set in 1974. On average, across the District, groundwater levels are about 4.5 ft below baseline. This is a significant increase from early 2019, when groundwater levels were only a few tenths of a foot from the trigger level. All groundwater wells within the District are metered, enabling the District to track water use. 2019 average irrigation water use across the District was about 6 to 7 in/ac.

The District is working on stream restoration projects, including oxbow reconnections and weir repairs. A series of 5 weirs that were installed near Holstein, NE for in-stream groundwater recharge are undergoing repairs following storm damage. The repairs are funded by the NRCS Emergency Watershed Protection Program and should be completed within the next few months. Some oxbow reconnection projects are ongoing in the southern regions of the District and should also reach completion by mid-summer 2020.

Alluvial groundwater monitoring wells have been installed during these projects to evaluate their performance in increasing streamflow infiltration to groundwater.

The District is developing a hazard mitigation plan in conjunction with the Lower Big Blue NRD, which they hope to complete and implement within the next few months. When completed, it will cover the third-largest area of any such plan in the nation.

The District planned to conduct further vadose zone sampling in 2020, but warm winter temperatures prevented production of sufficient subsurface frost, making use of the drill rig hazardous to equipment and fields. The sampling has been delayed until 2021. The sampling is funded by a US Environmental Protection Agency (EPA) 319 Grant which includes an education component. The District hopes to establish cover crop demonstration fields at various locations across the District to educate producers on the water quality benefits that can be provided by certain cover crops.

Upper Big Blue Natural Resources District (NRD) Report

Dave Eigenberg thanked the Upper Big Blue NRD (District) staff and Directors who were in attendance, and then Marie Krausnick began the District report (Attachment H).

Well construction rates within the District have remained steady. In 2019, only 44 new wells and 11 replacement wells were constructed within the District. The total number of irrigation wells within the District has also remained steady, between 12,210 and 12,220 wells. As in the other NRDs, there was an increase in groundwater levels within the District in 2019, of 3.67 ft. As of spring 2020, groundwater levels are 8.78 ft above the allocation trigger level.

The number of certified acres within the District has also plateaued, although producers continue to develop new acreage. About 1,114 acres were developed in 2019. The 2019 average irrigation withdrawal was only 2.2 in/ac, which is the smallest annual amount District's period of record.

District rules allow for acres to be pooled by owners or operators, or by common wells. The District's next data management challenge will be to develop a system to manage these pools. Pools are currently only assigned once annually, so the District is looking into a way to maintain dynamic assignments. The District was awarded WSF funding to hire a contractor to assist in development of a tool to better track pools as owners and operators change and as assignments of wells to lands also change. The first project meeting was held in April 2020, and the District hopes to have the tool ready for use in fall 2020 when the District's water use reporting season begins. The tool will take the form of an online portal connected to the District's online water use reporting system. This will help producers understand how their individual water use relates to the total water use within their pool and facilitate larger-scale water management.

No new groundwater quality management zones entered Phase II management in 2019. Attachment H contains a map of the groundwater quality management zones within the District, which also shows the median groundwater nitrate concentration within each zone. Nitrate concentrations remained steady in 2019. 2020 groundwater quality sampling will begin in June. Arsenic, uranium, and selenium sampling from dedicated nested monitoring well sites continues. 2020 will be the third year that samples have been collected 5 times each year. The District will begin compiling the data and collaborating with the University of Nebraska on analysis and development of a sampling protocol, including a procedure for selecting monitoring wells based on well construction and geologic formation.

The District is also continuing their water quality sampling program in the Dakota Aquifer within the eastern regions of the District. The program has been ongoing for about 7 years.

Project GROW (Growing Rotational crops On Wellfield), a collaborative program between the District and the City of York, NE on the City's wellfield property, continues. Initial funding for the project was received from the National Association of Conservation Districts, and the project is currently funded by a

Source Water Protection Grant from DEE. The main goal of Project GROW is to improve drinking water quality and provide locally sourced produce, with demonstrations of crop rotation and soil health management practices on wellfield acres.

The District was approached by The Nature Conservancy in summer 2019 to collaborate on a privately funded cover crop interseeding project to begin in 2020. 11 producers throughout the District will explore various methods of interseeding cover crops during the growing season using several different mixes of cover crop seed. Time lapse photography will be used to capture the germination and development of cover crops. The District will also be collaborating with the Nature Conservancy on a privately funded project regarding soil health and sustainable agriculture.

The Nebraska Agricultural Water Management Demonstration Network continues to expand. More producers join the network every year, adopting Watermark sensors and capacitance probes.

In the past year, many poultry facilities have been constructed in the northeastern region of the District, in areas that the District Board of Directors has designated high-risk for groundwater. The construction of numerous poultry barns has challenged the District Board and staff as they seek to manage and monitor groundwater in the region and ensure that facility wells are fully metered.

Jack Wergin continued the District report (Attachment H). Construction on many conservation projects that are cost-share funded through the District's Land Treatment Project was delayed in 2018 due to wet conditions, so fewer applications were received in 2019. As the current projects are progressing well, more applications are expected in 2020.

Producer interest in the District's variable rate irrigation (VRI) program, which cost-share funds the installation of VRI equipment to improve water application efficiency, has waned due to the adequate volume of precipitation received in 2019, though the program will continue.

The District's Private Dams Program, which cost-share funds private landowners to reconstruct failed dams, continues. Two larger dam reconstruction projects that were scheduled for 2019 were delayed by wet conditions. Work on those projects is currently ongoing. Maintenance of aging dams is an issue of increasing importance within the District. Mr. Wergin thanked staff of the Lower Big Blue NRD for assisting with installation of a Snap-Tite insert.

Mr. Eigenberg finished the District report. Mr. Eigenberg noted that the District is working hard to protect its stakeholders and staff while still performing their duties during the COVID-19 pandemic.

Nebraska Compact Advisor Comments

Larry Moore, Nebraska Compact Advisor, commented that the working relationships and communication between the NRDs and various Nebraska state agencies have never been better.

The Upper Big Blue NRD Board of Directors, of which Mr. Moore is a member, had been nearly ready to come to a decision regarding nitrogen management, but that has been tabled until the Board is able to meet in person again. A large hurdle has been individual producers' beliefs that they are already doing all they can to manage nitrogen.

Mr. Moore thanked the staff of the Upper Big Blue NRD for maintaining a continuity of work during the COVID-19 pandemic.

Secretary's Report

Chris Beightel reported that he had delegated the duties of Secretary to Lizzie Hickman. Ms. Hickman presented the Minutes and Report of the 46th Annual Meeting.

A final draft of the 46th Annual Report has been completed and was provided electronically to the Compact Commissioners and Federal Chair. Staff from both Nebraska and Kansas have reviewed and approved the final draft. All that remains is for the Minutes and Report to be approved and signed by the Commissioners and Chair. Due to the current restrictions on in-person meetings, the signature page of the Minutes will be circulated between the Commissioners and Chair by mail.

Ms. Hickman offered the Minutes and Report of the 46th Annual Meeting for approval by the Administration. Mr. Beightel moved to approve the Minutes and Report. Jesse Bradley seconded the motion. Don Nelson called for a voice vote, and the Minutes and Report were unanimously approved.

Ms. Hickman then presented the Secretary's Report. She described the current process for creating the Minutes and Report and requested that those who had presented reports during the meeting provide her with electronic copies of their written reports, to be included as attachments to the 47th Annual Report. Electronic versions of Minutes and Reports from past Annual Meetings are available on KDA's Big Blue River Compact webpage, and print copies are available to members of the Administration upon request. Additionally, the written reports which had been presented during the meeting were also available in a table on KDA's Big Blue River Compact webpage.

Treasurer's Report and Budget

Amy Zoller, Compact Treasurer, presented the Treasurer's Report (Attachment I). Ms. Zoller began by presenting an overview of Compact income and expenses over Fiscal Year (FY) 2020. Income came from state assessments and interest. Expenses included USGS state line gages, groundwater monitoring wells in the Lower Big Blue NRD, and four years' worth of financial reviews. In FY 2020, financial reviews were ordered for FY 2015, 2016, 2018, and 2019 to meet that requirement of the Compact.

The Treasurer's Report (Attachment I) also included a proposed FY 2021 budget and projected FY 2022 budget based on past years' finances. Proposed budget expenses for FY 2021 added a 3% increase to typical expenses to account for potentially increased costs. Expenses for printing, postage, and miscellaneous expenses were included in the proposed budget, though they are not typically necessary. The same procedure was followed to develop the projected FY 2022 budget, which also included an expense for a biannual financial review of FY 2020 and 2021.

Ms. Zoller included the financial reviews of FY 2018 and 2019 in Attachment I.

Chris Beightel moved to accept the proposed FY 2021 budget as presented in the Treasurer's Report. Jesse Bradley seconded the motion. Don Nelson called for a voice vote, and the FY 2021 budget was unanimously approved.

US Geological Survey (USGS) Report

Jason Lambrecht presented the USGS report (Attachment J). Mr. Lambrecht began by discussing USGS operations within the Compact area. The USGS operates 6 stream gages on the Big Blue River and 5 on the Little Blue River. The gages near the state line which are used to monitor for Compact minimum target flows are the Big Blue River gage at Barneston, NE and the Little Blue River gage at Hollenberg, KS.

As reported by Kansas and Nebraska, streamflow was very high in 2019. The USGS finalized discharge records for water year (WY) 2019 (October 1, 2018 – September 30, 2019) by March 2020. Most discharge records for October 1, 2019 through March 1, 2020 have also been approved and can be viewed on the USGS National Water Information System webpage. In WY 2019, the USGS made 13 manual discharge measurements at the Barneston, NE gage and 11 at the Hollenberg, KS gage, which are used to compute the final discharge records. While 15 to 20 measurements are typically taken annually at each

gage, the steady high streamflow throughout WY 2019 resulted in fewer extreme high and low streamflow events to capture.

At the Barneston, NE gage on the Big Blue River, the mean discharge for WY 2019 was slightly over 2,500 ft^3/s, the second highest in the period of record. However, the maximum instantaneous discharge observed during WY 2019 was 25,700 ft^3/s, only the eighteenth highest in the period of record. At the Hollenberg, KS gage on the Little Blue River, the mean discharge for WY 2019 was about 1,400 ft^3/s, also the second highest in the period of record. The maximum instantaneous discharge observed during WY 2019 was 16,900 ft^3/s, the tenth highest in the period of record. The historical mean discharge at both gages increased over 20 ft^3/s after incorporating WY 2019 streamflow. Only the lowest streamflow observed at these gages during WY 2019 was near the historical means. Streamflow at both gages was below the historical means as of May 13, 2020 due to reduced precipitation.

Legal Committee Report

There was no report from the Compact Legal Committee, as they did not meet during the past year.

Engineering Committee Report

Jeremy Gehle, Compact Engineering Committee Chair, submitted the Engineering Committee Report (Attachment K). The Engineering Committee received no special assignments from the Administration over the past year, nor did they meet.

As previously stated, neither the Big Blue nor the Little Blue River failed to meet Compact minimum target flows between May 1 and September 30, 2019. Further details regarding state line flows at the USGS gages on the Big Blue River at Barneston, NE and the Little Blue River at Hollenbeck, KS can be found in Attachment K. Also included in Attachment K is static groundwater level data provided by the Lower Big Blue NRD. No new irrigation wells were drilled in Nebraska within the regulatory region of the Compact area, nor were any wells retired.

Water Quality Committee Report

There was no report from the Compact Water Quality Committee, as they did not meet during the past year.

Compact Advisor Comments

Sharon Schwartz asked the Upper Big Blue NRD whether they would be monitoring water quality in the area where poultry facilities are being constructed. Marie Krausnick reported that the Upper Big Blue NRD will continue monitoring water quality from a network of dedicated sites in the area. Additionally, permitted livestock facilities must install and regularly sample water quality monitoring wells. Larry Moore added that the establishment of such large facilities in an area with limited water resources and very slow groundwater recharge rates is already a concern for other local water users, though they do not yet know how the facilities' slow but steady withdrawals will impact local water resources.

Old Business

There was no old business to be addressed.

New Business

Chris Beightel offered a Resolution (Attachment L) in honor of David Barfield, who retired in February 2020 from both state service and his position on the Administration. Mr. Beightel read the proposed Resolution and moved that the Administration adopt the Resolution. Sharon Schwartz seconded the motion. Don Nelson called for a voice vote, and the Resolution was unanimously adopted.

Committee Membership and Special Assignments

Chris Beightel proposed that the distribution of Administration appointments between the states remain as it has been, with Kansas serving as the Secretary and Nebraska as the Treasurer and Engineering Committee Chair. Mr. Beightel proposed that Lizzie Hickman replace himself as Secretary and as a member of the Budget and Engineering Committees. Jesse Bradley reported that the Nebraska delegation did not wish to change any of their Administration appointments. Hearing no objections, Don Nelson confirmed Lizzie Hickman as Compact Secretary and Committee membership as follows:

Budget Committee – Amy Zoller (NE), Lizzie Hickman (KS)
Legal Committee – Emily Rose (NE), Kenneth Titus (KS)
Engineering Committee – Jeremy Gehle (NE), Katie Tietsort (KS), Lizzie Hickman (KS)
Water Quality Committee – Dan Howell (KS), Annette Kovar (NE), Marty Link (NE), Craig Romary (NE), Tom Stiles (KS)

No special assignments were given.

Adjournment

Don Nelson thanked the Kansas delegation for coordinating the Annual Meeting as a video conference call. He then adjourned the meeting.

Earl D. Lewis Jr., Kansas Commissioner

Thomas E. Riley, P.E. Digitally signed by Thomas E. Riley, P.E. Date: 2021.06.27 11:15:07 -05'00'

Tom Riley, Nebraska Commissioner

W. Don Nelson, Compact Chair

Attachment A

1320 Research Park Drive
Manhattan, KS 66502
785-564-6700
www. agriculture.ks.gov

Kansas
Department of Agriculture

900 SW Jackson, Room 456
Topeka, KS 66612
785-296-3556

Mike Beam, Secretary

Laura Kelly, Governor

May 6, 2020

W. Don Nelson
Federal Chairman
Kansas-Nebraska Big Blue River Compact
2430 S. Canterbury Lane
Lincoln, Nebraska 68512

Re: Credentials for Christopher W. Beightel

Dear Mr. Nelson:

Please accept this letter as evidence that Christopher W. Beightel, P.E. was appointed as Acting Chief Engineer for the State of Kansas on March 2, 2020 and shall serve until such time as a permanent appointment is made for the position.

Mr. Beightel is duly authorized to exercise all powers granted to the chief engineer and likewise, is required to fulfill all duties placed upon the chief engineer. Such duties include serving as an ex-officio member of the Big Blue River Compact pursuant to K.S.A. 82a-529.

I trust Mr. Beightel will faithfully serve the State of Kansas and the compact administration as may be required.

Sincerely,

Michael M. Beam

Mike Beam

Attachment B

Report of the Kansas Commissioner

2020 Big Blue River Compact Meeting

May 13, 2020

Hosted by Kansas via remote conference due to the COVID 19 pandemic

Kansas Legislature:

The Kansas Legislature is still technically in session. Because of the COVID 19 pandemic, they have not met for several weeks, but have just recently begun to slowly reconvene as committees. This year, the Legislature considered several water-related topics. The past several Legislatures have worked to clarify and improve some of our most popular and effective water management tools. This year, some minor modifications were made to the multi-year flex account (MYFA) tool. Former Chair of the Kansas House of Representatives' Agriculture and Natural Resources Committee, Sharon Schwartz, who is also the Kansas advisory Member of the Compact Administration, will give a report on Legislative issues after my report.

As in most other states, because of the coronavirus pandemic, budget issues loom larger than ever this year. Kansas's budget was looking strong when the Legislature convened in January. Things have changed a bit since then. A recent projection by the state's Consensus Revenue Estimating Group forecasted that the economic fallout from the coronavirus will reduce the state budget by over $1.2 billion from what was forecasted just a few months ago. The group estimates that Kansas's economy will not return to 2019 levels until sometime after 2022.

Statewide Water Conservation:

Kansas's Northwest Groundwater Management District (GMD) #4 continues to be a model of local leadership. GMD #4 helped create the local enhanced management area (LEMA) tool and, so far, contains the only two LEMAs in the state. Recent analysis by the Kansas Department of Agriculture, Division of Water Resources (KDA-DWR) shows that both the Sheridan County 6 (SD-6) LEMA and the GMD #4 District-Wide LEMA are changing irrigators' behaviors and saving significant quantities of water. Recently, the GMD #4 board directed its manager to develop a master irrigator program similar to ones in Texas and Colorado, in which irrigator peers will share best practices to maximize irrigation management and conservation practices that work together to save water, conserve energy, build soil health and enhance farm profitability.

In Western Kansas GMD #1, the board recently submitted a formal request to begin a LEMA proceeding for Wichita County. Their proposed LEMA plan includes all appropriation rights and would save somewhere between 15%-21% of recent historical water use, depending on the level of voluntary participation by owners of vested water rights. This action is desperately needed in the area, where the saturated thickness of the aquifer has dwindled to around 20 feet. The LEMA process requires two hearings, which we have not yet been able to schedule because of the restriction on gatherings during the pandemic.

We continue developing and refining methods to determine if our water management tools (LEMAs, WCAs, MYFAs) are working as intended. The technique we have been developing for the last couple of years evaluates changes in irrigation behavior by establishing a relationship between seasonal precipitation and irrigation application, using that relationship to predict future behavior, and then observing whether implementing the management tool caused a change in behavior. Using this technique, we have observed that water use by irrigators in GMD #4's SD-6 LEMA was 30% less on average over 2013-2018 than the water use predicted over that time. Similarly, water use across the GMD #4 District-Wide LEMA, which started in 2018, was over 30% less than predicted (a savings of 120,000 acre-feet) in 2019 alone. This year, we also took our first comprehensive look at the MYFA since that tool's conservation requirement was removed in 2012. The MYFA tool allows a water right operator to manage their water over a 5-year period instead of year-by-year. Our evaluation was provided to the Legislature this year and showed that the MYFA has not expanded use.

We have also seen continued interest in and success from the water conservation area (WCA), a tool that allows a water right owner or a group of owners to enter into an agreement with the Chief Engineer of KDA-DWR to commit to a certain level of water conservation in exchange for flexibility in use of their water rights. As of last week, we have 53 WCAs covering over 86,000 acres with an estimated annual savings of about 12,000 acre-feet per year.

Kansas also has 15 water technology farms where industry, academia, and producers partner to test innovations in irrigation technology on real farms and provide invaluable real-world experience to show their neighbors and peers how to optimize the use of water to plan for a profitable but more sustainable future.

We are encouraged by the success of these management tools, and we are working hard to increase their adoption, improve our understanding of their performance, and increase their effectiveness.

Changes to the Kansas Delegation:

On February 29, 2020, Kansas Chief Engineer David Barfield retired after 35 years of state service including 12 years as Chief Engineer and ex officio Member of the Kansas-Nebraska Big Blue River Compact. Kansas will offer a resolution honoring Mr. Barfield's service to the Compact later in today's meeting.

On March 2, 2020, I was appointed Acting Chief Engineer and am honored to serve the Compact Administration as Kansas ex officio Member until a permanent appointment is made for the position.

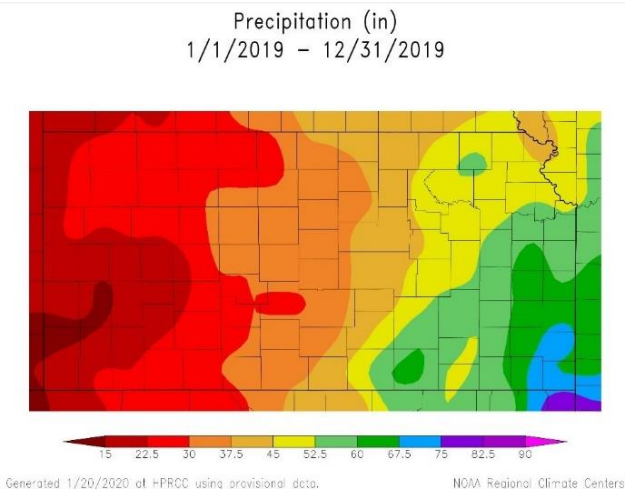
I currently serve as Secretary to the Administration. At the appropriate time in today's agenda, I will nominate Elizabeth Hickman of my staff to replace me in serving as Secretary to the Administration.

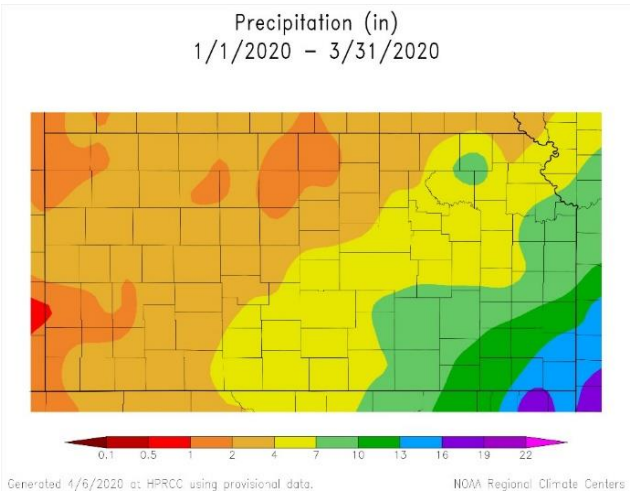
Attachment C

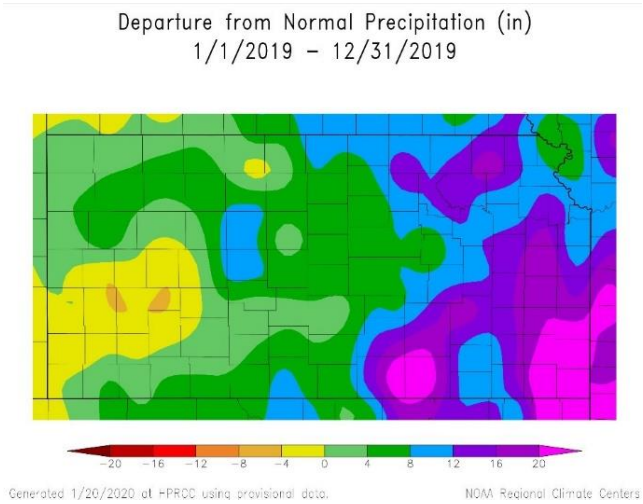
Kansas – Nebraska Big Blue River Compact Meeting 2020
Report by Kansas Department of Agriculture – Division of Water Resources
Topeka Field Office – Katherine A. Tietsort
May 13, 2020

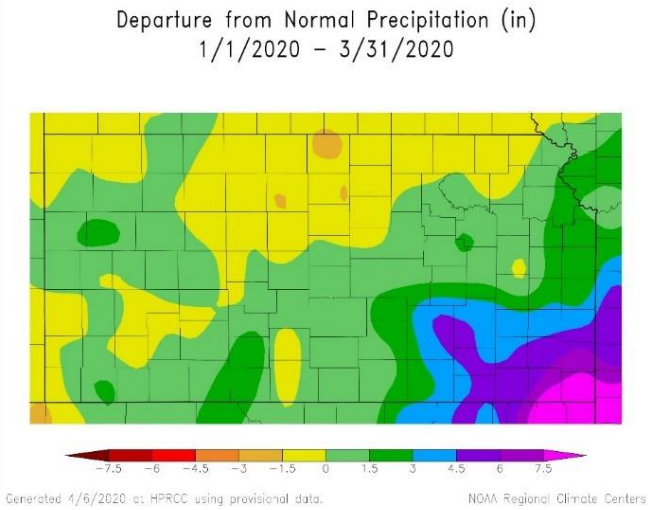
Climatic Conditions – Precipitation & Temperatures

The High Plains Regional Climate Center reported between 37.5 and 52.5 inches of precipitation for calendar year 2019 across the entire Big Blue and Little Blue River basin areas in Kansas, including most of their tributary basins, with just the far eastern Black Vermillion River basin receiving up to 60 inches. Precipitation was significantly above normal in 2019 and ranged from 8 to 20 inches greater than the normal precipitation. This year, the Basin has received 2 to 10 inches of precipitation, with Mill Creek receiving 2 to 4 inches so far this year. The Black Vermillion River received 4 to 10 inches through March 31, 2020. So far this year, we have seen slightly below normal conditions in the northern part of the Basin, with the far south portion receiving slightly above the normal precipitation this year.



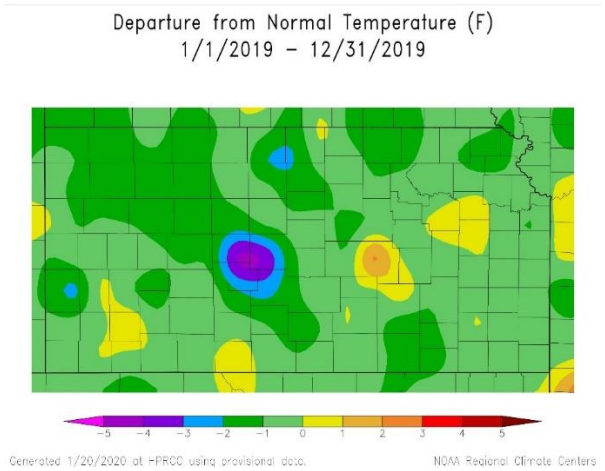


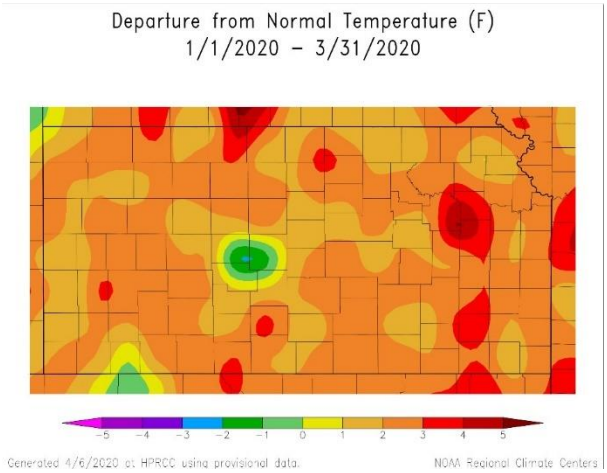


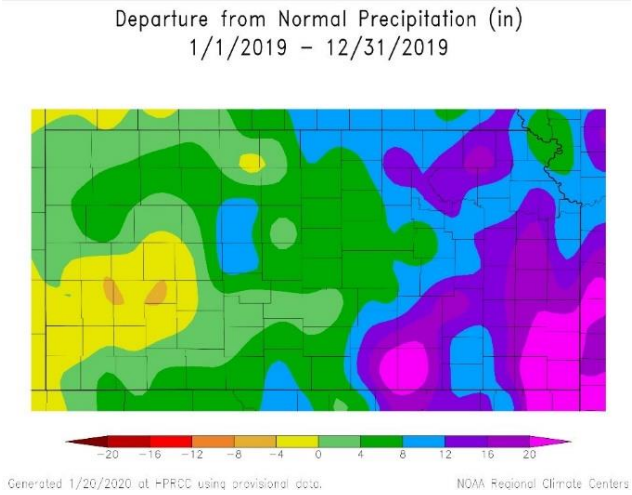


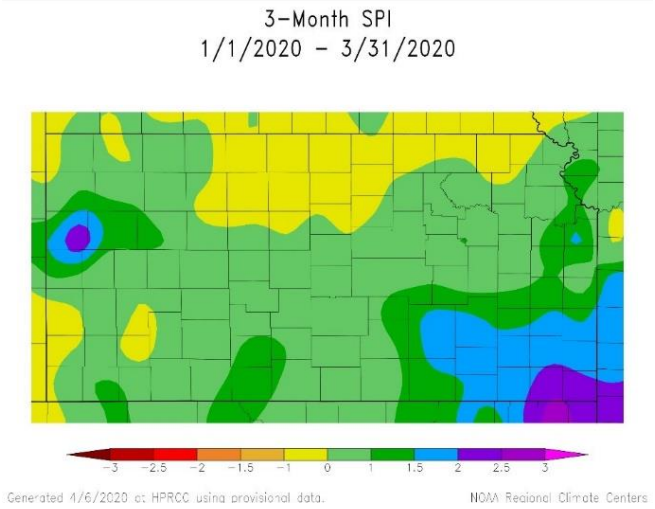
Temperatures for the calendar year 2019 remained generally normal to about 2 degrees cooler than normal in most of the Basin. So far this spring, temperatures have been trending slightly warmer, up to 3 degrees warmer than normal.

The Standardized Precipitation Index (SPI) (which is like the Palmer Drought Index (PDI) but considers only precipitation and not other factors) showed the wetter trend for 2019 and shows a more normal trend for this spring so far.









Streamflow and Administration within the Big Blue River Compact Basin

Statistics reflect 35 years of data at Marysville (Big Blue) and 61 years of data at Barnes (Little Blue).

The story of 2019 was really the flooding. Streamflow was higher than the median throughout the seasons in both locations for nearly the entire calendar year. Both locations returned to more normal flow values in 2020.

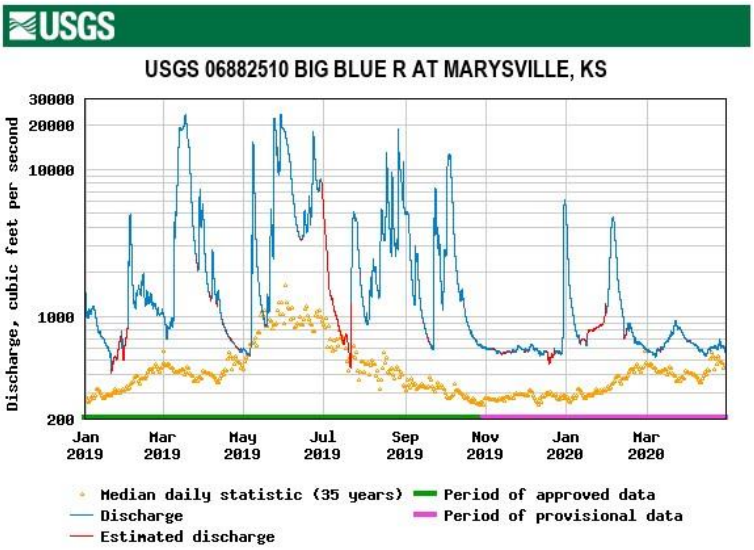
We did not trigger Minimum Desirable Streamflow (MDS) criteria within the Basin, and MDS administration of junior rights did not occur in either sub-basin in 2019, nor in 2020 to date.

Minimum Desirable Streamflow (cfs)

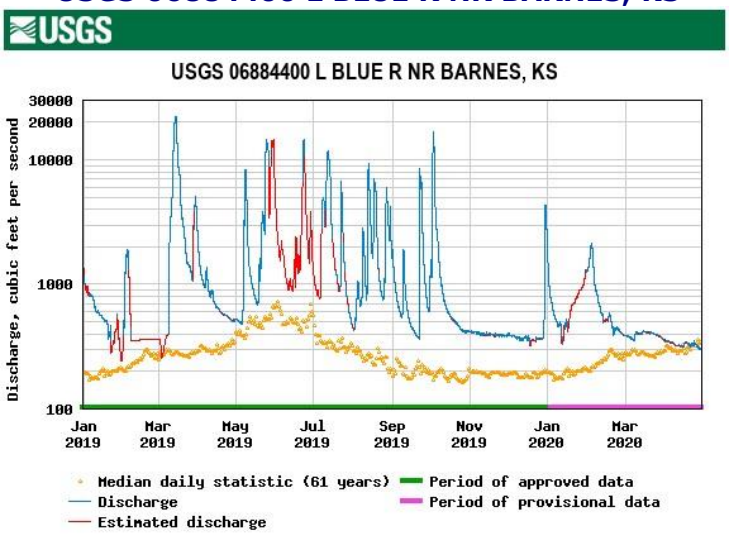
Watercourse	Month											
	J	F	M	A(a)	M(a)	J(a)	J	A	S	O	N	D
Big Blue												
Marysville	100	100	125	150	150(d)	150(d)	80	90	65	80	80	80
Little Blue												
Barnes	100	100	125	150	150(d)	150(d)	75	80	60	80	80	80

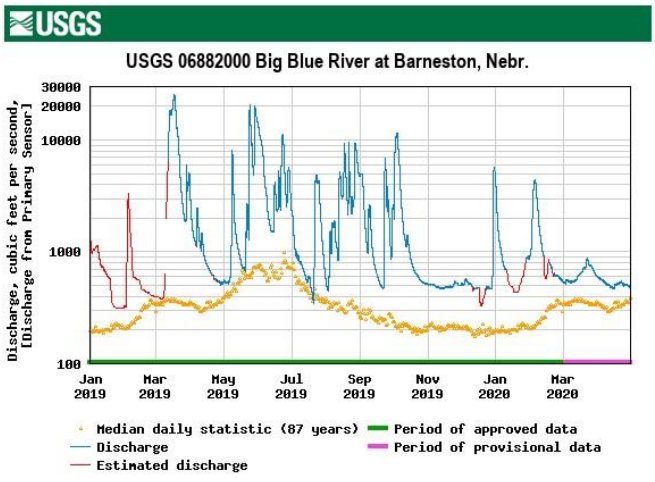
(d) Subject to the stateline flows contained in the Blue River Compact.

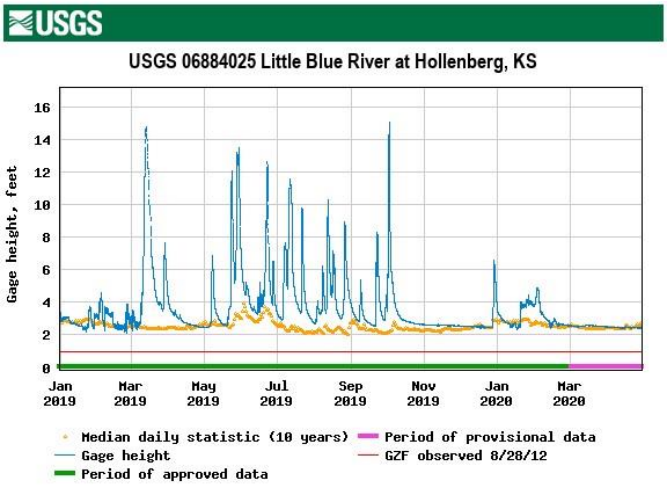
USGS 06882510 BIG BLUE R AT MARYSVILLE, KS



USGS 06884400 L BLUE R NR BARNES, KS







The compact gages at Barneston and Hollenberg reflected wetter conditions through most of the 2019 calendar year. For the period of 1/1/2020 through today, flows remained sufficient to avoid any administration in the Big Blue River, Little Blue River, Mill Creek, or Black Vermillion River basins, as stated above.

Administration Activities

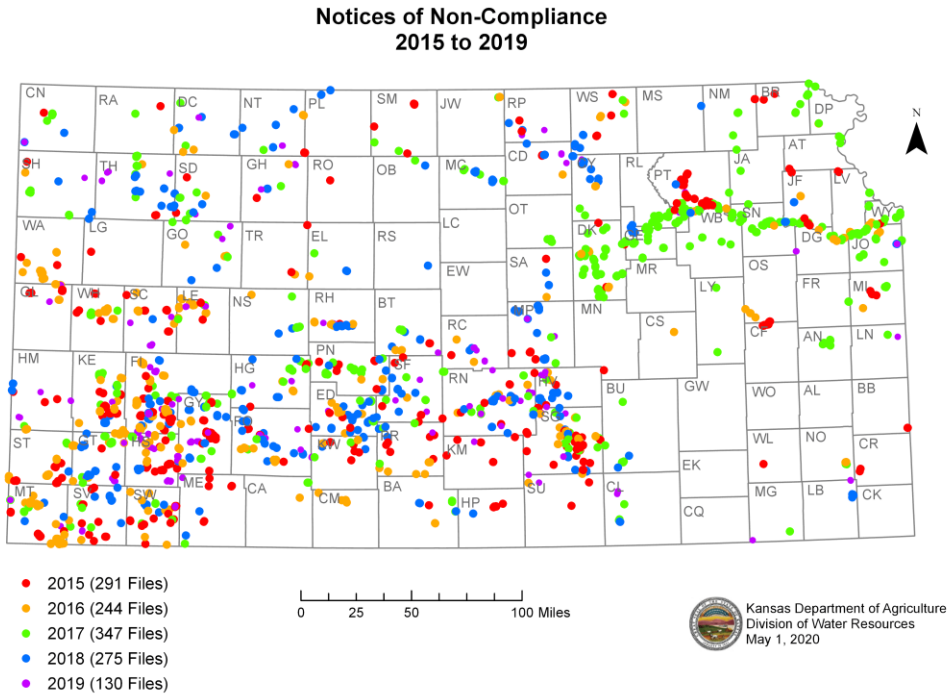
No administration occurred at all statewide in 2019, the first year in a long time.

In fact, particularly in eastern Kansas and within these basins, it was the opposite case. Record reservoir elevations occurred in the lower Kansas Basin projects and widespread flooding occurred in areas. The Kansas River Basin reservoirs are managed to the control point on the Missouri River at the USGS gage at Waverly, Missouri. When flows are greater than 80,000 cfs at that gage, reservoir releases in Kansas are lowered to minimum release. This occurred during most of 2019 and a series of deviations were put in place starting in May at the Waverly gage allowing for releases from Kansas River reservoirs that would not have been allowed under the control manual. The deviation flow values at Waverly ranged from 90,000 cfs to 180,000 cfs in various Phases and allowed releases when the reservoir elevations were in the upper 20% of the pool. The deviation stayed in place until 2020. We did get to normal pool in 2 of the 3 reservoirs but are now seeing pool levels climb again.

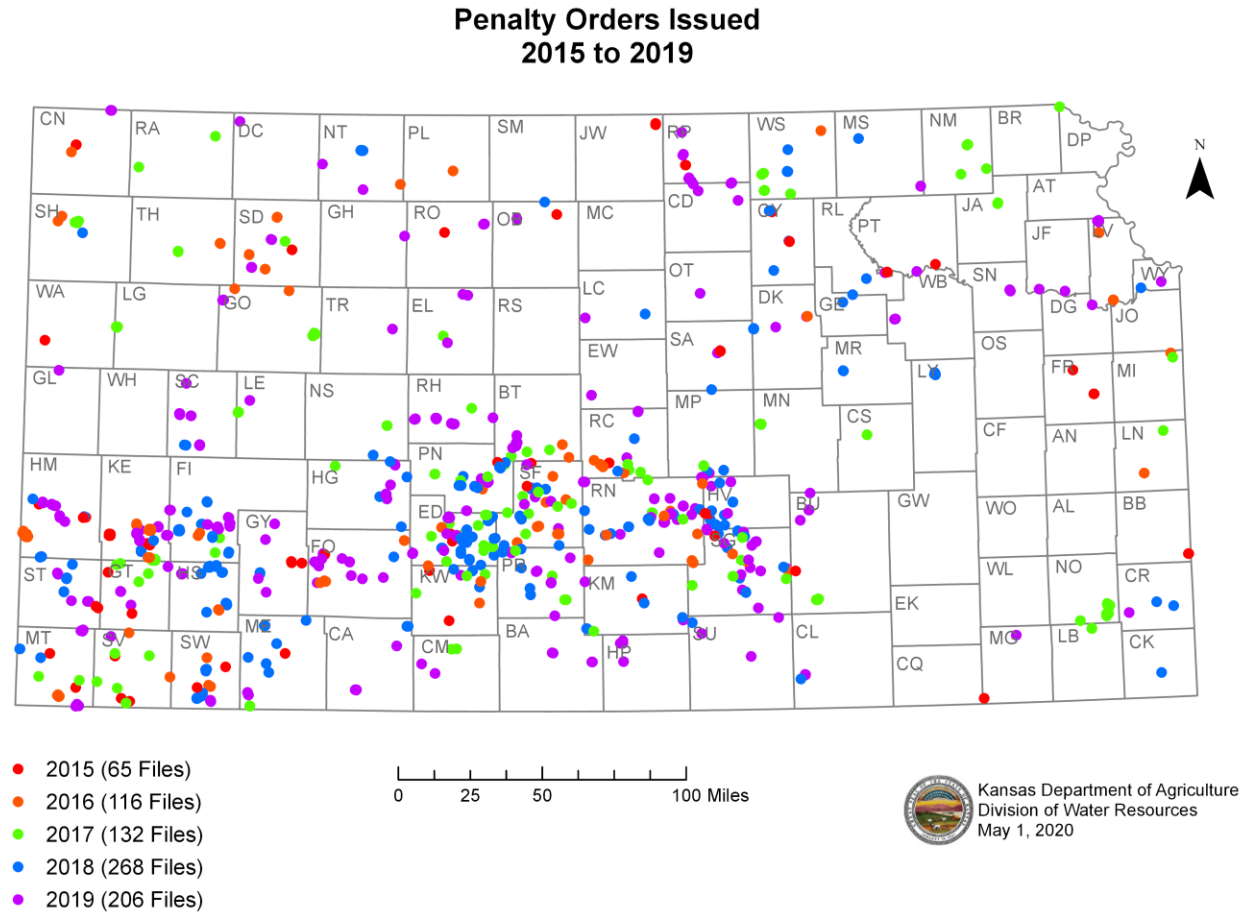
Previously, we reported on the Lower Republican River Stakeholder group working to establish a Special District. The bylaws were instituted, and the Board was put in place, but further progress has not been made. With significant flooding last year and recent COVID-19 issues that have largely been focused upon, the necessary legislation has not been put in place to authorize the District.

Compliance & Enforcement Activities

In 2019, the Division sent "*Notice of Non-Compliance/Cease & Desist Notice*" (NONC or NONC-CD) on 11 files in Eastern Kansas and 130 files state-wide. None of these were within the BBRC. In 2019, the Topeka Field Office issued 16 penalty orders and cease and desist orders. Of these, two (2) were in the BBRC. Both were civil penalties issued for overpumping, for $5000 each; to the same rural water district. State-wide, DWR issued 206 penalties.



So far for 2020, no NONC's, NONC-CD's or penalty orders have been issued in the BBRC area.



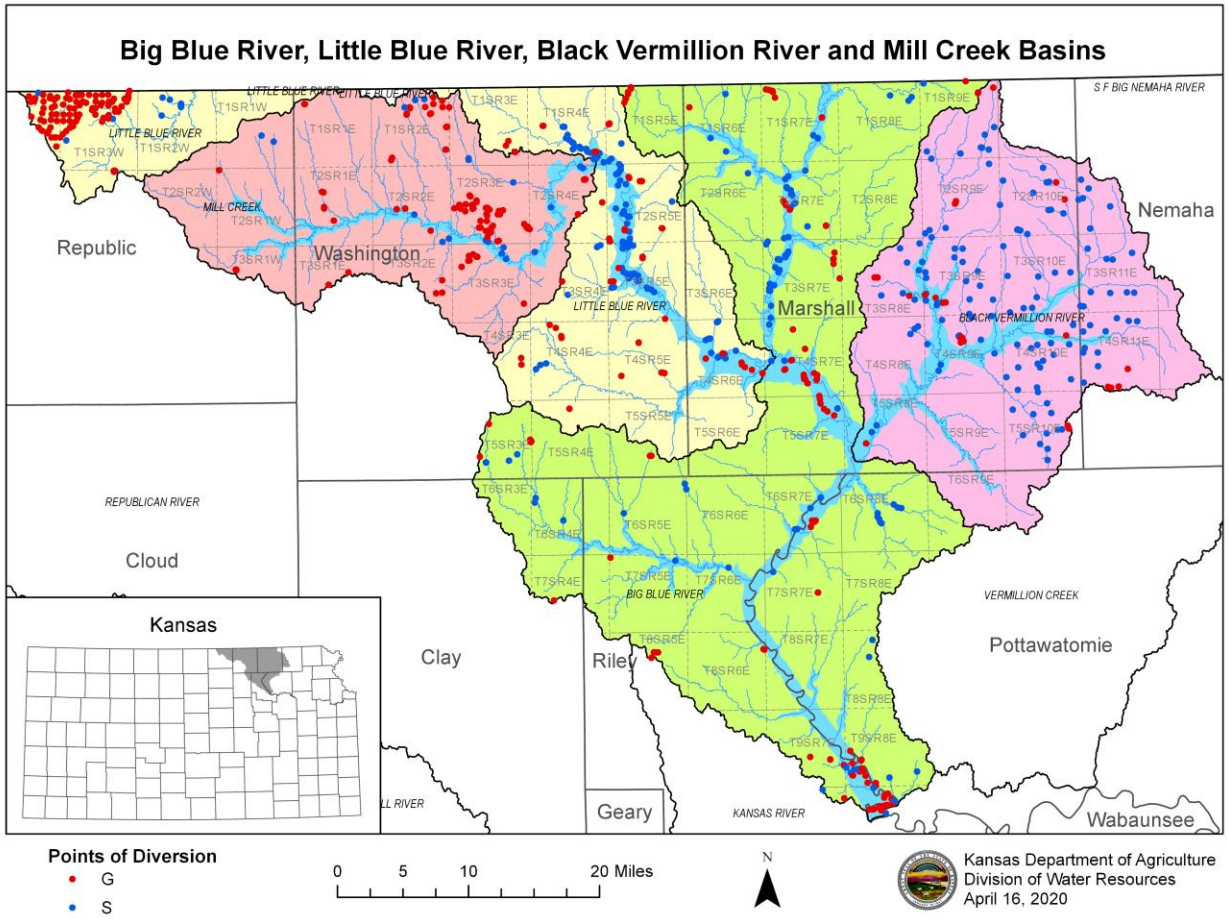
We reported last year that the Secretary of the Department of Agriculture instituted a paper filing fee of $20 per file for the required annual water use report; the fee was waived for those who filed online. KDA-DWR has collected a total of $39,567.00 in paper filing fees for for those who opted to file by paper and not use the online reporting system for the 2018 reports. So far in 2020, KDA-DWR has collected a total of $29,340.00 in paper fees for the 2019 reports.

KDA-DWR assessed a total of 274 civil penalties of $1,446,750.00 for the 2018 calendar year. The total received for the 2019 fiscal year was $411,450.00. The 2018 calendar year was a record year for the most penalties issued and the highest number of fines ever collected, and the total fine amount was greater than the toal fines assessed in the previous 14 years combined. KDA-DWR assessed a total of $400,000.00 in civil penalties for the 2019 calendar year. The total collected so far in penalties from the 2019 penalties assessed is $309,500.00. We allowed more settlement conferences in 2018; 228 of the 274 penalties went to conference, which is 83% of the total. We assessed fines at the settlement value in 2019 and had just 19 settlement conferences out of the 91 penalty orders, or 20%. We are all just reviewing our lists for 2019 use.

New Development

In 2019, KDA-DWR received 17 new applications (13 appropriations, 2 temporary, 2 term) for the BBRC basin. This number is the same as the 17 applications received in 2018 (14 appropriations, 2 temporary, 1 domestic) for the BBRC basin. For 2020 thus far, we have received 1 new application request for the BBRC basin (1 term).

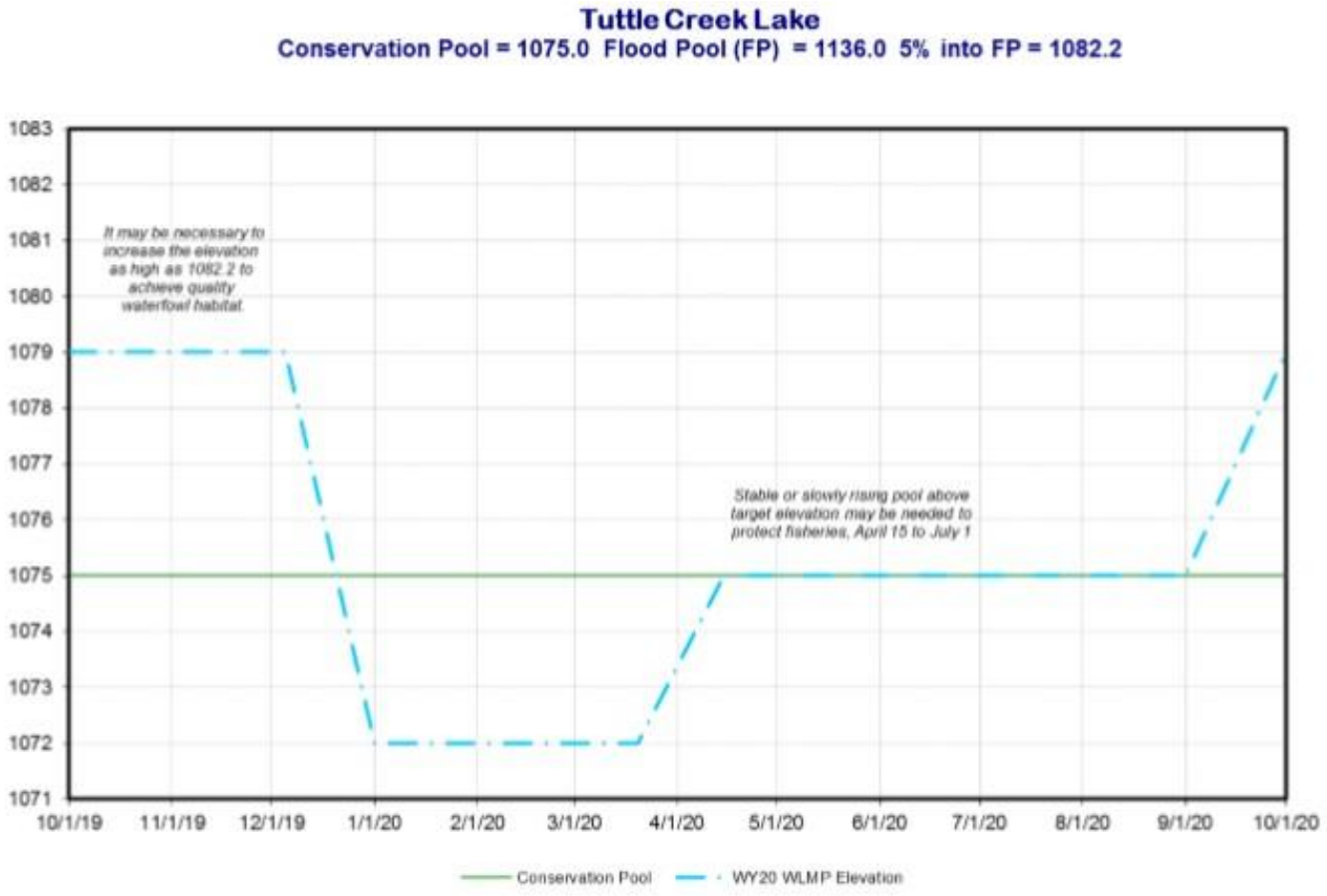
In 2019, KDA-DWR approved 12 applications (9 appropriations, 2 temporary, 2 term) for the BBRC basin. This number is lower than the 18 applications approved in 2018 (16 appropriations, 2 temporary) for the BBRC basin. For 2020 thus far, we have approved 1 application for the BBRC basin (1 term).



Statewide in 2019, 154 regular appropriations were processed, with 136 approved and 18 dismissed. There were 238 Term Permits filed with 234 approved and 4 dismissed. Finally, 428 temporary permits were filed and approved. Appropriation permits are generally required for long term uses. Term Permits cover projects that run 6 months or longer, but that do not go on indefinitely, and temporary permits are restricted to 4 million gallons and 6 months duration.

Tuttle Creek Reservoir

Lake Level Management plans were approved in fall of 2019. The plan again represents the identical plan submitted and approved over the last number of years now. The focus continues to be support of spawning fish and wildlife habitat. It has been noted that holding water above the multipurpose pool during the spawning and nursery periods has improved recruitment of some fish into the lake fishery. Additionally, storage of water in the flood control pool in late spring has been required due to the presence of threatened and endangered terns and plovers nesting on the Kansas River sandbars downstream from Tuttle Creek Lake.

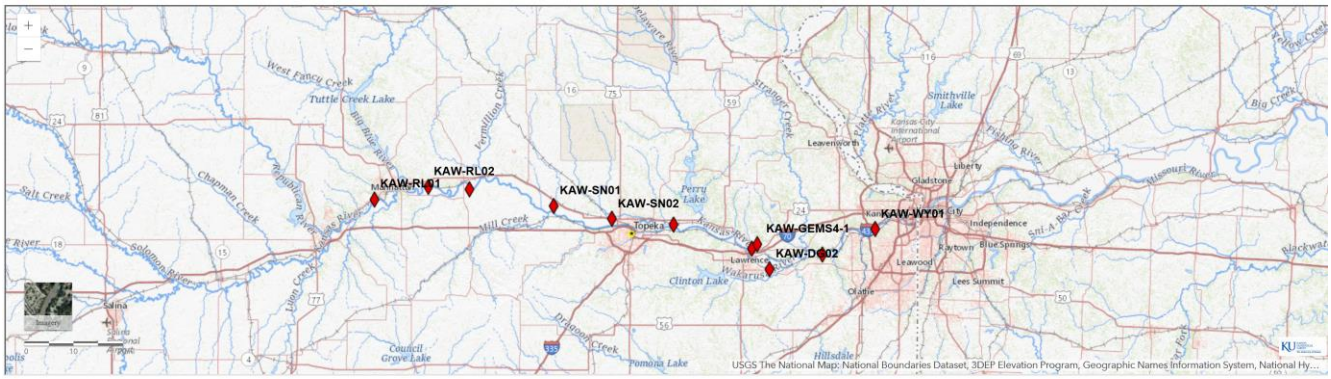


	Time	Elevation	Comment
TUTTLE CREEK LAKE	Oct 1 – Dec 5	1079-1082.2	Attract migrating waterfowl, achieve quality habitat
	Dec 5- Jan 1	1072	Reduce ice damage potential and provide water storage, then hold through Mar 20
	Mar 20 – Apr 15	1075	Rise to reach top of conservation pool and enhance boating then hold through Sep 1
	Apr 15 – July 1	1082.2 max	Evacuate flood water to enhance crappie population. Protect tern and plover nests on the Kansas River
	July 1 – Sep 1	1075	Maintain conservation pool to re-vegetate shoreline
	Sep 1 – Sep 30	1079	Rise to inundate wetland habitat and attract migrating waterfowl

Kansas River Basin Study

A significant study was initiated under the Water Vision in 2018 in the Kansas River Basin called the Kansas River Reservoirs Flood and Sediment Study. The goal of this study is to determine what actions are needed in the basin to extend the life of the reservoirs. The plan is to determine and then take steps to reduce flood risk and increase infrastructure benefits, improve sediment management, mitigate drought, improve water supply availability, restore essential ecosystems, and enhance water quality and recreation. Initially, the Kansas Geological Survey established a network of alluvial observation wells along the river. The wells are operated under the Kansas Index Well Program to provide continuously recorded water levels of the aquifer year-round.

Kansas River Index Well Network—Interactive Map



Kansas Geological Survey
Updated Oct. 10, 2018
Comments to webadmin@kgs.ku.edu
The URL is http://www.kgs.ku.edu/Hydro/KansasRiver/map.html

Other Topics

In 2019, the Topeka Field Office initiated an effort to begin scanning all our hard copy paper water right files in to the Docuware system, the official state archival system. We scan the files, page by page, index them into the Docuware system, quality control by reviewing every single page, one by one, for image clarity, completeness, etc., then provide the file back to the owner. The TFO is closing in on 50% of all our active files scanned, about 2500 of the ~4800 files in the territory. This has been a big initiative that all staff have worked on. We are hoping that we will be able to get another temporary staff member to help when the current scanning employee finishes all the allowed hours per position, so that we can finish this effort off over the next 12 to 18 months.

As part of the effort to go paperless, the TFO also pioneered an electronic process for all documentation, including field work documentation. All the documents we produce in our office, except for approvals of applications and changes, are processed electronically at this time. Additionally, we regularly accept most required forms, routine notifications, and monthly reporting electronically from most of our customers. We are working to implement an electronic application filing process next for new applications and change applications.

We were rewarded by these efforts during the restrictions of the COVID-19 pandemic. Our staff is working largely and, in many cases, entirely, from home, but with all newer files that have work to be done scanned, it has been business as usual for us.

The Topeka Field office moved locations in Topeka in March. The KDA Agricultural Lab moved into a new building adjacent to the headquarters building in Manhattan, Kansas, so we also left Forbes Field. The Topeka Field Office, now a group of 16 water specialists including the Commissioner and her staff, the Floodplain Unit, a structures engineer, and a watershed specialist are now located at 1131 SW Winding Road, Suite 400, Topeka, Kansas 66615. All our telephone numbers stayed the same. The building we are in also houses USDA- APHIS.

Attachment D

Nebraska State Report
Big Blue River Compact Annual Meeting
May 13, 2020

Welcome

I would like to extend thanks to the Kansas Department of Agriculture for hosting the Big Blue River Compact annual meeting this year, and for making accommodations to hold the meeting by video conferencing due to the COVID-19 situation. I would also like to thank all of the natural resources districts, partnering state and local agencies, and producers who continue to work to protect the water resources of the Blue River basins.

I would also likely to extend a thank you to the staff in the Department for quickly adapting operations to primarily being conducted via telecommuting. In mid-March the Department activated a continuity-of-business plan to keep team members and the public safe during the current pandemic. While all of our offices remain open, team members who can work remotely are doing so at this time. Field office operations have continued largely un-impacted to date and are expected to continue in a normal capacity going forward.

Water Supply Conditions

The 2019 water supply conditions were well above average over much of the state and the Big Blue and the Little Blue River Basins were no exceptions. The precipitation across the Blue River basins was generally at or above 150 percent of average for the year. As a result, there were no calls for surface water administration, and all stateline targets pertaining to the Blue River Compact were met throughout 2019. Additionally, the Blue River near Seward like so many other streams and rivers in Nebraska during 2019 reached a record peak stage. The new record stage of 24.11' occurred on March 14, 2019 surpassing its previous record high of 22.83' on June 16, 1967.

Overview of Statewide Water Planning

The Water Planning Division continues to make advances in integrated management planning in partnership with all twenty-three NRDs across Nebraska. Significant achievements in 2019 included adoption of a new voluntary IMP for the Little Blue NRD, adoption of the first Republican River Basin-wide plan, and initiation of the second ten-year increment of planning in the Upper Platte River Basin, which required completion of an updated basin-wide plan and five individual integrated management plans. In addition, the Water Planning Division worked with five NRDs on voluntary IMP development in the Niobrara, Blues, and Nemaha river basins, which when complete, will result in all NRDs in the state having completed at least one iteration of integrated management planning.

Integrated Water Management in the Blue River Basins

Integrated management planning in the Little Blue and Big Blue River Basins has continued to progress since our last Compact meeting.

Little Blue River Basin Planning

In the Little Blue River Basin, both voluntary IMPs for the Little Blue NRD and Tri-Basin NRD were adopted and became effective in August 2019 and mid-April 2020, respectively. While no formal basin plan exist, the NRDs and the Department did coordinate IMP development as much as possible between the NRDs. These efforts included having joint NRD and Department meetings to guide IMP development, Board members and/or staff attending the neighboring NRD's stakeholder meetings, and holding two joint (both NRDs) stakeholder meetings as a part of plan development.

The Department views the Little Blue Basin IMPs as an important first step in improved coordination and communication between NRDs and the state, leading to more holistic water management across the basin. Both IMPs have action items to promote data sharing, cooperative development of data and tools, and collaborative research/studies. Furthermore, both IMPs specify that annual meetings will be held with all four Blue Basin NRDs to share and compare data and evaluate management actions across the basins.

Big Blue River Basin Planning

IMP development also has continued to progress in the Upper Big Blue River Basin. As we reported last year, the IMP process for the Upper Big Blue NRD is unique as it is the first time that the Department, the Nebraska Department of Energy and Environment and a NRD have coordinated development of both a water quality plan and water quantity plan simultaneously. This was essentially accomplished by holding a collaborative public participation process to concurrently develop goals and objectives for both a 319 water quality plan and a voluntary IMP.

In 2019, the public participation process for the Upper Big Blue NRD plans concluded with an open house held in April to share information about the joint water quality and water quantity planning process and answer questions from the public. The open house was well attended by thirty-plus members of the public, and resulted in additional feedback via written comment cards submitted by several attendees. Voluntary IMP writing, a public hearing process and adoption of the Upper Big Blue NRD plan are subsequent steps slated for 2020.

Progress was also made on voluntary IMP development for the Lower Big Blue NRD. NRD and Department staff planned the public participation process and identified stakeholders. The Department and NRD are planning to have three to four stakeholder meetings over a period of one year. The first stakeholder meeting was planned for March 2020, but has been postponed due to the current COVID-19 situation.

Voluntary Water Use Reporting

To compliment integrated management planning activities, the Department continues to expand the use of our voluntary online water use-reporting tool that is currently being used by water users throughout the State of Nebraska. We continue to be pleased with these response rates, which

shows interest from the community in collaborative monitoring of surface water use. The Department will continue requesting this data across the State moving forward and incorporating this information into future planning efforts.

Legislative Updates

The 2020 legislative session was scheduled to conclude in April but adjourned early with 17 days remaining due the COVID-19 situation. The legislature will likely reconvene some time before Dec. 31, 2020 to conclude business. Important business remaining includes adoption of mid-biennial budget adjustments. Full budget impacts of COVID-19 have not been identified as the duration of closures and impacts of federal stimulus dollars will need to be weighed.

Water Sustainability Funds

The Nebraska Water Sustainability Fund, established in 2014, accepted its fifth round of applications in July 2019. The Department reviewed all of the applications and moved fifteen forward to the Nebraska Natural Resources Commission. The Commission approved ten of those applications, which resulted in over $15.3 million dollars of new funding for water sustainability projects and studies in 2019.

The sixth round of applications for the Water Sustainability Fund must be submitted between July 16 and July 31, 2020. The Commission is anticipating that over $8 million will be available for new applications.

Projects currently underway in the Blue River basins include; three groundwater recharge projects underway in the Little Blue NRD, support for a major project for Nitrate and Uranium mitigation in the City of Hastings, and last year's addition of the Upper Big Blue NRD's project for the development of water use allocation software system. Our written report provides a table that summarizes the Water Sustainability Fund projects located within the Blue River Basins and dollars that have been awarded.

Table 1. Summary of Water Sustainability Fund projects in the Blue River Basin

Water Sustainability Fund Projects in the Little Blue and Big Blue River Basins					
Year Funded	*Project Score*	*Project Number*	*Applicant*	*Project Title*	*Funded Amount*
2015	47	4117	City of Hastings (Utilities)	Aquifer Storage and Restoration Nitrate and Uranium Control Project, Hastings, Nebraska	$4,410,000
2016	42	4146	Little Blue NRD	Instream Weir Stabilization/Recharge Pilot Project	$100,979
2016	42	4147	Little Blue NRD	Low-head Embankment Stabilization/Recharge Pilot Project	$100,153
2017	44	5197	Little Blue NRD	LBNRD Oxbow Reconnections for Groundwater Recharge	$389,820
2019	47	5241	Upper Big Blue NRD	UBBNRD Allocation Software	$105,000

Current Opening for Director Position

With the retirement of Director Jeff Fassett from the Department on February 28, 2020 the agency is currently seeking to fill the director position. The search for a replacement is currently ongoing and a recruitment committee is assisting with identification of potential candidates.

Conclusion

I would once again like to thank Kansas for continuing the partnership to work together to proactively manage waters the Blue River Basins. I will now turn it over to Jeremy Gehle who will give a report on Nebraska water administration, which will be followed by the NRD reports.

Attachment E

2020 Big Blue River Compact Administration Report

2019 Water Administration Activities in Nebraska

The Little and Big Blue River Basins received above average precipitation for 2019. Precipitation conditions in 2019 showed an increase from 2018. No surface water administration occurred this year.

Little Blue Administration

The Little Blue's headwaters are located near Minden with the river exiting the state south of Fairbury. The basin encompasses approximately 2,700 square miles in all or parts of 10 counties. It contains 246 irrigation permits and 138 storage rights.

The flow at Hollenberg exceeded the target through the entire administration period.

Big Blue Administration

The headwaters of the Big Blue River are located in Hamilton County, north of Aurora. At its farthest western extent, the Basin's headwaters extend northwest of Hastings. The Big Blue River exits the state south of Barneston and continues until it reaches its junction with the Kansas River. The Basin encompasses 4,450 square miles in all or parts of 15 counties and contains 814 surface water irrigation permits and 364 storage permits.

The flow at Barneston exceeded the target through the entire administration period.

Concluding Thoughts

In general, the basins received above average rainfall and experienced average summer temperatures. NeDNR issued no closing notices for Compact compliance in 2019. Department staff did visit each surface water appropriation in 2019, and observed that many appropriators simply didn't need to irrigate due to the timely precipitation.

Attachment F

Lower Big Blue
Natural Resources District

Established in 1972 for the Development and Conservation of Soil and Water Resources

Lower Big Blue NRD 2020 Annual Report to the Blue River Compact Annual Meeting May 13, 2020

A year that has seen historic flooding in many parts of the State of Nebraska, has proved to be good news for our groundwater levels. Static water levels have shown a dramatic rise this year. The Spring 2020 water levels have increased by 2.94 feet from the Spring of 2019. The difference from Fall of 2019 to the Spring of 2020 is an increase of 1.70 feet. Many wells are currently above their baseline levels of 1982.

The Watershed Capital of Nebraska continues its work on rehabilitating existing flood control structures and preforming ongoing maintenance projects.

The LBBNRD finally received permitting approval to begin the rehabilitation of Cub Creek 12A. With the accomplishment of major watershed improvements, LBBNRD will now focus on improving the reservoir water quality conditions. This project includes reservoir deepening, installation of jetties, the creation of wetlands, and shoreline stabilization.

Little Indian 15A is a rehabilitation project, which began last year and is nearing completion. The hazard classification was changed to a high hazard which meant the emergency spillway needed to be widened and a larger principal spillway pipe needed to be installed.

The Wilber #1 dam rehabilitation project was recently completed. This project is located in the town of Wilber and involved upgrades to the structure. The lake was dredged and a new principle spillway was installed. The town of Wilber has developed walking trails, shelters, fishing dock and restrooms. Located near the High School, future plans include development of an outdoor classroom.

The LBB NRD continues to use principal spillway tube inserts, which allow for repair of rusted and leaking corrugated metal pipe. The inserts do not need excavation of the dam and are therefore much more economical to use. This past year the LBB NRD assisted the UBB NRD in the installation of an insert, in addition to two of our own.

A National Water Quality Area Initiative (NWQI) was approved last year in the Lower Turkey Creek drainage. Water quality impairments to be addressed are E. Coli, Atrazine and nitrates. A watershed assessment is currently in progress. Strategies to resolve water quality problems will be coordinated with NRCS and a producer advisory council.

NRD has submitted a Watershed and Flood Protection Operations (WFPO) Plan to the NRCS for the Little Indian Watershed, which is located North of Beatrice along highway 77. This project began as a pilot project in 1954 and contains 15 dams and 34 grade stabilization structures. The study will look at structural and non-structural alternatives for flood mitigation and recreation.

The Lower Big Blue NRD is in the early stages of a Voluntary Integrated Management Plan with the NDNR. A stakeholder group is currently being formed. The joint agency plan will provide a framework to manage hydrologically connected surface water and groundwater.

The Lower Big Blue NRD, in collaboration with three other NRDs and NDNR, continue work on the Blue Basin Groundwater Model Study.

805 Dorsey • P.O. Box 826 • Beatrice, Nebraska 68310-0826 • Phone 402-228-3402 • Fax 402-223-4441 • www.lbbnrd.net

Attachment G

Little Blue Natural Resources District
100 East 6th #100 • Davenport, NE 68335 • (402) 364-2145
lbnrd@littlebluenrd.org • https://littlebluenrd.org

Little Blue NRD 2020 Blue River Compact Report
Kyle Hauschild, General Manager
May 13, 2020

It has been another good year for the static water levels in the Little Blue NRD. 2019 fall water levels were up .82 feet district wide. We also had above average precipitation in 2019 which led to less groundwater irrigation. 2020 spring water levels showed the highest rise on record, 1.60 feet district wide. This rise is obviously good news, because a increase in ground water levels is always good, but with the rise it moves the district away from the point of stays on wells and allocations. Currently water levels are roughly -4.5 feet, "zero" was given to the water level in 1974 which was the first-year levels were taken. The trigger point for allocations was set to 1 foot below the 2016 water level making it -8 below the 1974 level. With the increase in the static water levels stays and allocations will not be imposed in the foreseeable future.

The district is also trying to finish up some recharge projects that were in construction last year but were damaged from the bomb cyclone. The projects consist of instream weirs, or reconnection of oxbows. The goal of these projects is to promote groundwater recharge by storing water either in steam or in the oxbow for an extended amount of time to allow water to infiltrate. We had to work through NRCS to get funding through EWPA to help with the rebuild/reconstruction of these projects. The damage was significant and repairs were needed so the projects would function correctly. We plan to have these repairs completed by the end of the summer.

We were also planning on doing a second-round vadose zone sampling with the use of 319 grants this past winter. Crews were unable to get the drill rigs onsite because of the fear of getting stuck or damaging the fields. Since we didn't have long stretches of cold weather over the winter there was not enough frost in the ground to feel comfortable enough to complete the field work. Along with the field sampling we planned to set up some field demo days to show ways to reduce nitrogen loss with the use of cover crops. We had to delay the demo day work due to the outbreak of COVID-19, we hope to resume this project in 2021.

The last large project that the district has been working and continues to work on is find a new water source for the Little Blue Rural Water District. The current water system that provides our rural water district with water finding themselves with a rising nitrate levels. Another issue with the current water source is that the water district is limited to 200 gal/min, the issue with the limited water amount is that we have potential users that would like to connect to the water district, but with the limitation there is not enough water to provide them service. We are currently working with USDA on funding, and with Miller and Associates to design a connection from the existing system to the new water source.

Last but not least, the Little Blue NRD adopted the Voluntary Integrated Management Plan. The board voted and accepted the IMP July 2019.

This concludes the Little Blue report.

Attachment H

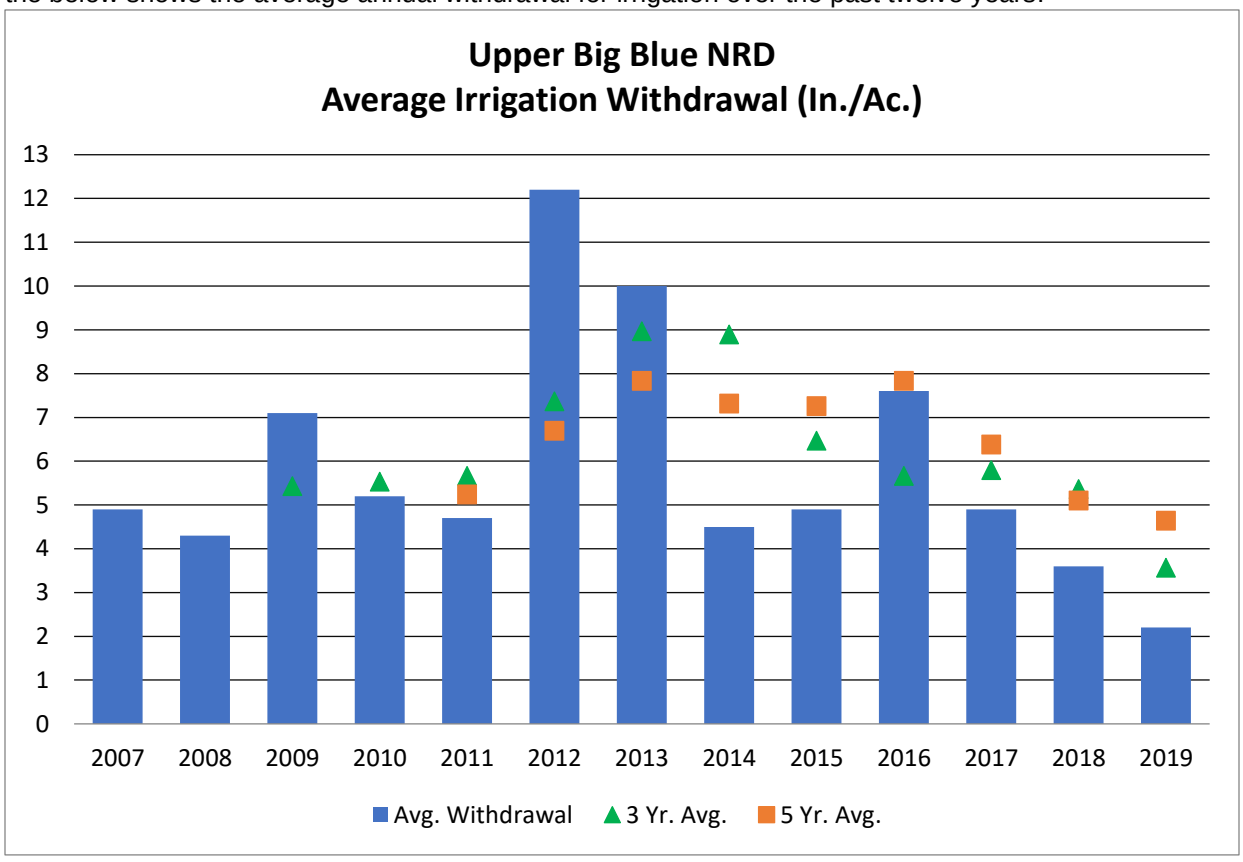
Blue River Compact (BBRC) Annual Meeting
Blue River Compact Report - Upper Big Blue NRD (UBBNRD)
Marie Krausnick, Water Department Manager
Jack Wergin, Projects Department Manager
May 13, 2020

Well Drilling Activities
Fifty-five permits were issued for irrigation wells (44 new & 11 replacements) during the 2019 calendar year. In January 2020, there were 12,212 irrigation wells in the District.

Groundwater Level Changes
The average groundwater level change for the District from spring 2019 to spring 2020 was a rise of 3.67 feet. The spring 2020 groundwater level is 8.78 feet above the District's allocation trigger level.

Certified Irrigated Acres
Mandatory reporting of irrigated acres and other water uses began in 2006. As of January 1, 2020, there were 1,240,476 groundwater irrigated acres certified by the NRD. This represents an increase of 1,114 acres since January 1, 2019.

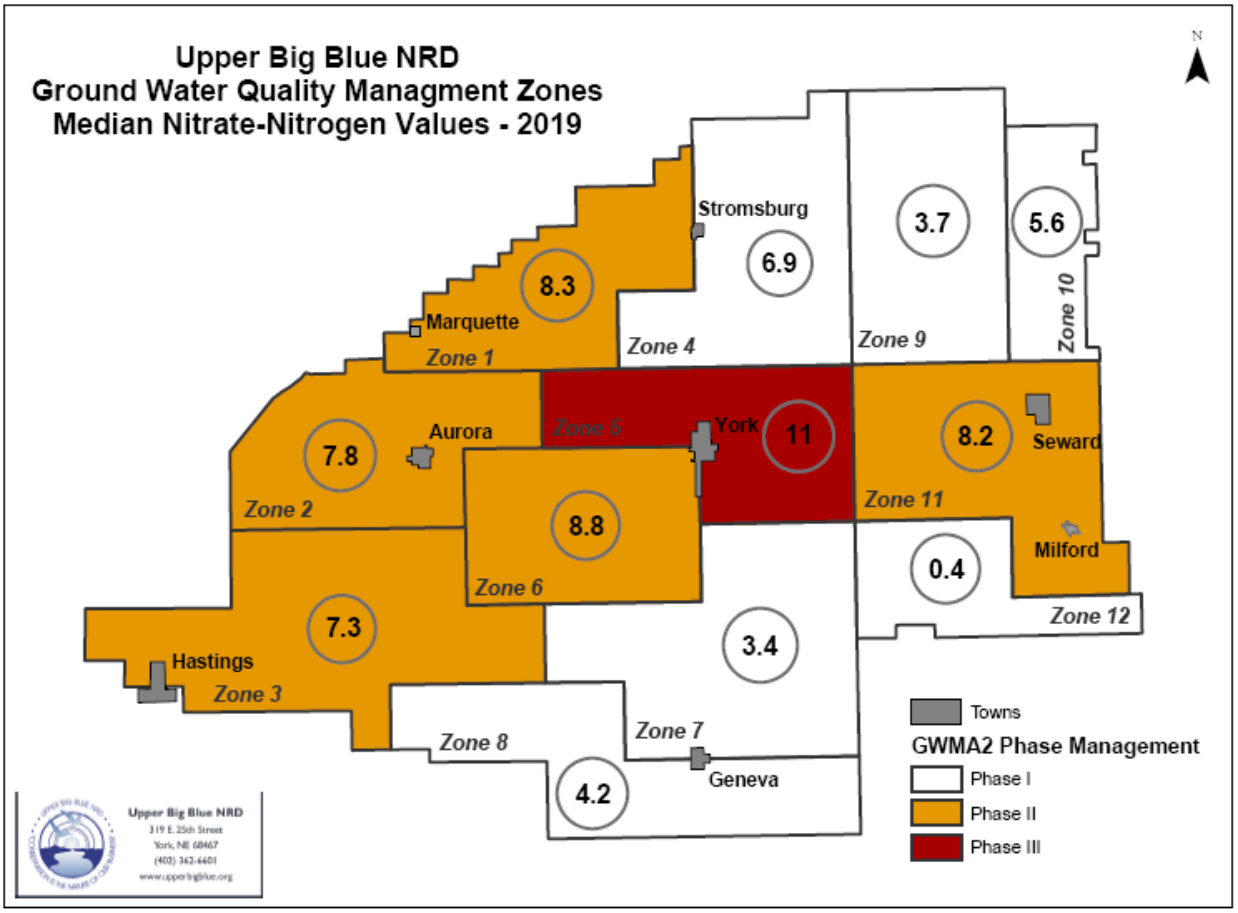
Groundwater Withdrawal
Mandatory reporting of groundwater withdrawal began in 2007. 2019 was the 12th year that groundwater withdrawal reports were required in the District. Metering became mandatory on all wells effective January 1, 2016. Staff has inventoried all flowmeter installations and are now conducting routine inspections as needed. The average groundwater withdrawal for irrigation in 2019 was 2.2 inches per acre. The graph to the below shows the average annual withdrawal for irrigation over the past twelve years.



Groundwater Quality

Nitrate

The District is divided into twelve management zones for groundwater quality management. The primary groundwater quality management concern is nitrate. Five zones are currently designated Phase II Management Area and one (Zone 5) is designated a Phase III Management Area. Phase II & III Management Areas requires farm operators to attend a training session on best management practices related to fertilizer and irrigation management. It also requires deep soil sampling, irrigation scheduling and annual BMP reports. Farm operators in phase II & III must schedule irrigation using soil moisture sensors in at least one field. In a Phase III Management Zone anhydrous ammonia fertilizer applied from November 1st through February 29th must include a nitrification inhibitor. The timing of application of nitrogen fertilizers is restricted District wide. There are currently over 1,000 farm operators in the District required to attend nitrogen management training. The District is also working with the City of Hastings and the Little Blue NRD on a special water quality management area to address nitrate contamination in the Hastings Wellhead Protection Area.



Arsenic, Selenium and Uranium

Natural groundwater contaminants such as arsenic, selenium and uranium occur in many areas. These chemicals are associated with sediments in the aquifer as well as the unsaturated zone above the aquifer. Recent groundwater quality investigations near Hastings, Nebraska as well as other parts of the mid-west indicate that these naturally occurring contaminants may be released into the groundwater as a result of increased agriculture chemical contamination such as nitrate. The District is working with the University of Nebraska to develop a monitoring program for arsenic, selenium and uranium.

Dakota Aquifer

In 2016 the District started a water sampling program for the Dakota aquifer. The Dakota is used in the eastern part of the District for domestic wells where other sources are very limited. High commodity prices and drought conditions in 2012 and 2013 prompted construction of irrigation wells in the Dakota. Concerns have been raised over the impact that Dakota aquifer irrigation wells may have on the domestic groundwater supply. The quality of water in the Dakota can be "hit and miss" as to suitability for domestic and irrigation uses. It is unclear to what degree further development of the aquifer could impact water quality or domestic supplies to existing wells.

Project Grow

Project GROW is a collaborative demonstration project between the City of York and the UBBNRD. It focuses on three areas of interest: a soil health demonstration, an awareness of the importance of pollinator habitat and a community garden for the citizens of York. The District is farming 140 acres of the City wellfield with a rotation of cover crops to promote soil health. This is the third growing season of the project. The District received initial funding from the NACD. A second round of funding from a Nebraska Department of Environment and Energy Source Water Protection Grant provides financial assistance to continue educational efforts surrounding Project GROW.

The Nature Conservancy Cover Crop Interseeding Project

The UBBNRD was in early discussions with the University of Nebraska Extension (UNL Extension) on a possible cover crop interseeding demonstration when the District was approached by The Nature Conservancy to partner on a project demonstrating soil health/sustainable agriculture practices. The Nature Conservancy came on board with the District and UNL Extension to begin demonstrating the use of interseeded cover crops to improve soil organic matter, increase water infiltration, provide weed suppression, and to improve overall soil health. In 2020, eleven producers are participating in this demonstration. This is a three-year project with a possible two-year extension.

Nebraska Agricultural Water Management Demonstration Network

This program encourages producers to improve irrigation scheduling using Etgages and Watermark sensors to determine crop water needs. The Etgage simulates crop water use through evaporation through a ceramic and green canvas membrane. Watermark sensors are used to measure soil moisture in a nearby field to confirm the ETgage's accuracy. This program began in the UBBNRD in 2005 with a collaborative effort with the University of Nebraska Extension and 18 collaborators. The program is now being implemented in several NRDs and with over 2,000 collaborators. The District sells this equipment to irrigators at a reduced cost to encourage adoption of irrigation scheduling practices.

Soil and Water Conservation Cost-share Assistance

Through the District's Land Treatment Program, the District funded 31 soil and water conservation projects with a total cost share of $123,389.24 in FY2019. Funded projects included terraces, sediment control basins, waterways, pasture plantings, and tree plantings for windbreaks & enhancing wildlife. Funding sources for the Land Treatment Program included $71,667.20 from the Nebraska Soil and Water Conservation Program and $51,722.04 from local NRD property tax revenues. This was an approximate 35% decrease in projects from FY2018, primarily due to the weather conditions. Projects have increased in FY2020.

Nebraska Buffer Strip Program

Through the Nebraska Department of Agriculture, the District administers the Nebraska Buffer Strip Program. This program provides cost share funds for landowners to establish vegetative buffer strips along shorelines of wetlands, streams, and lakes. Funding comes from a fee assessed on all pesticides registered for use in Nebraska. In FY19 the District administered 21 buffer strip contracts which provided a total cost share of $24,155.45.

Variable Rate Irrigation Pilot Program
The District began a Variable Rate Irrigation Pilot Program in 2017. With over 10,000 center pivots the District believes that VRI can have a significant impact water use efficiency and may provide water savings. In FY2019 the District funded 6 VRI projects with a total District contribution of $16,296.52. Though the first 3 years of this program the District has funded 15 VRI projects with a total cost share of $41,637.51 (average cost share of $2,775.83). These 15 VRI systems are speed control, with funding provided for panel upgrades, EC mapping, variable frequency drives, and prescriptions.

Private Dams Program
Through District's Private Dams Program, the District provides planning, design, and financial assistance for the construction or reconstruction of dams located on private property. In FY2019 the District provided cost share assistance for 2 dams with a total $18,307.95 of District funds. Construction of 2 larger dams were delayed and will be completed in FY2020. Through the first three years of the program, the District has provided assistance for 13 dams with an average cost share of $18,000 per dam.

Wetlands Grazing - Rawhide Portable Corral
The Rainwater Basin Joint Venture purchased three Rawhide Portable Corrals through a grant from the Nebraska Environmental Trust. These corrals will be available for use free charge for cattle producers that graze wetlands. The three corrals will be housed at the Upper Big Blue NRD, the Little Blue NRD, and the Tri-Basin NRD. Controlled grazing of these wetlands provides a more natural way to manage the ecosystem by providing more diverse plant communities and reducing the use chemical treatments or other mechanical methods to manage these areas. The Upper Big Blue NRD received the corral in late August and it was loaned out the day after it arrived. Two local cattle producers used the corral at four wetland grazing sites during the last week of August. The Upper Big Blue NRD is planning on hosting a field day later this fall to demonstrate the use of the corral.

Divots in the Pivots
The District received a Regional Conservation Partnership Program (RCPP) grant through NRCS. Divots in the Pivots provides a variety of cost-share assistance to landowners with wetlands in the Rainwater Basin to conserve that wetland while improving profitability of the farming operation. VRI, fencing, livestock watering and conservation easements are few of the many options available. The Rainwater Basin Joint Venture is the major partner in this effort. Currently, there are three cooperators in this program. One in each of the Little Blue NRD, Tri-Basin NRD and Upper Big Blue NRD.

Groundwater Modeling
The District, in cooperation with the Lower Big Blue, Little Blue, Tri-Basin NRDs and the Department of Natural Resources are partnering in the development of a transient Blue Basin Groundwater Model that can not only answer the question of interconnection between surface and groundwater, but other management questions NRDs ask when reviewing their groundwater management plans. These efforts are well underway and final product delivery is slated for December 2020.

Wellhead Protection Planning
The District continues to assist communities to develop Wellhead Protection Area (WHP Area) Plans. The District also assists communities with implementation of some plan components. These include water sample collection and analysis from rural wells and soil samples collected from the unsaturated zone for nitrates.

Water Quality Management Plan

The Water Quality Management Plan (WQMP) has been accepted by Environmental Protection Agency (EPA). Two Priority Areas were defined in the plan: Recharge Lake impairment for Mercury and Beaver Creek for E. Coli and Atrazine. Once the plan is accepted by the UBBNRD Board of Directors, District staff will begin Phase I of the Water Quality Management Planning process by forming a stakeholder group comprised of landowners and other interests from both the Recharge Lake and Beaver Creek watersheds. This stakeholder group will identify conservation practices that landowners/operators would be willing to implement to address the impairments in both priority areas. Phase II of the planning effort will utilize recommendations and feedback from the stakeholder group to develop a more robust program to get conservation practices on the ground in both priority areas. The District hopes to secure 319 funding for both the Phase I (Stakeholder involvement) and Phase II (Conservation practice implementation projects).

Voluntary Integrated Management Planning

The stakeholder group formed for the WQMP also provided recommendations for the District's Voluntary Integrated Management Plan (VIMP). The VIMP will look at the relationship between ground and surface water uses in the District. The District is working with the Nebraska Department of Natural Resources to develop the VIMP. Current efforts include working on a basin groundwater model that will provide updated information on hydrologically connected areas.

Visit our Website

You can learn all about the District's programs and activities at www.upperbigblue.org.

Attachment I

REPORT OF THE TREASURER TO THE
KANSAS-NEBRASKA BLUE RIVER COMPACT ADMINISTRATION
May 13, 2020

1. Current Year Overview (Attachment A)
   a. Our beginning balance for FY2019-2020 was $27,854.18. Since that time, we have had income from the State Assessments and interest which total $19,074.31.
   b. Our expenses thus far have been $16,138.00 for USGS Stateline gages, $680.00 for the Lower Big Blue NRD observation wells, and $3,800.00 for Accounting Reviews that covered FY2015, FY2016, FY2018 and FY2019.
   c. The balance today is $26,240.49.
   d. Our estimated end-of-year balance is $26,265.49; which includes projected interest income for May and June 2020. We do not expect to have any more expenditures this fiscal year.

2. Budget Analysis of FY2017 to FY2022 (Attachment B)
   a. The first three columns show the actual expenditures and income for FY2017, FY2018 and FY2019. The average ending year balance for this timeframe was roughly $26,000.00.
   b. The FY2020 budget is divided into two columns to show actual expenditures and income to date, and estimated expenditures and income through the remainder of the fiscal year. Of note, we did have an increased expenditure for our Accounting Reviews. As we discussed at our meeting last year, we processed four Accounting Reviews this fiscal year in order to catch-up on our reviews. This resulted in an expense of $3,800.00, or $950.00 for each Review.
   c. The column highlighted in yellow is the proposed budget for FY2021. We continue to add roughly 3 percent to Stateline gages and Observation wells expenditures to allow for increased costs. We also continue to include line items for postage and printing costs. There is no line item for an Accounting Review in FY2021 as we conduct these every other year.
   d. The final column shows the projected budget for FY2022. Again, we have allowed for a 3 percent increase for Stateline Gages and Observation Wells. Our Accounting Review line item of $1900.00 would cover both FY2020 and FY2021, and also allows for a 3 percent increase in costs. According to our projection, our balance would be $26,765.49 at the close of FY2022.

3. Accounting Review documents (Attachment C).
   a. We have included the documents from the FY2018 and FY2019 Accounting Reviews as attachment C.

ATTACHMENT A: Current Year Overview

May 13, 2020

BEGINNING BALANCE: July 1, 2019		**$ 27,854.18**
INCOME: as of May 13, 2020		
State Assessments	$ 19,000.00	
Interest Income	$ 74.31	
TOTAL INCOME		$ 19,074.31
EXPENSES: as of May 13, 2020		
USGS - Stateline Gages	$ 16,198.00	
Printing Annual Report	$ -	
Lower Big Blue Natural Resources District - Observation Wells	$ 680.00	
Dana Cole - Accounting Review FY15, FY16, FY18, FY19	$ 3,800.00	
TOTAL EXPENSES		$ 20,678.00
BALANCE ON HAND:		**$ 26,250.49**
ESTIMATED EXPENDITURES THROUGH JUNE 30, 2020		
USGS - Stateline Gages	$ -	
Dana Cole - Review	$ -	
Printing Annual Report	$ -	
Postage and Office Supplies	$ -	
Miscellaneous	$ -	
TOTAL ESTIMATED ADDITIONAL EXPENDITURES		$ -
ESTIMATED INCOME THOUGH JUNE 30, 2020		
Interest Income		$ 15.00
ESTIMATED BALANCE AS OF JUNE 30, 2020		**$ 26,265.49**

ATTACHMENT B: Big Blue River Compact Budget Analysis, FY2017 to FY2022							
	FY 2017	FY 2018	FY 2019	FY 2020		FY 2021	FY 2022
	Actual 7/1/16 to 6/30/17	Actual 7/1/17 to 6/30/18	Actual 7/1/18 to 6/30/19	Actual 7/1/19 to 5/13/2020	Estimated 5/14/20 to 6/30/20	Proposed 7/1/20 to 6/30/21	Projected 7/1/21 to 6/30/22
EXPENDITURES							
Operations							
USGS - Stateline Gages	$ 15,790.00	$ 15,925.00	$ 16,039.00	$ 16,198.00	$ -	$ 16,500.00	$ 17,000.00
LBBNRD - Observation Wells	$ 680.00	$ 680.00	$ 680.00	$ 680.00	$ -	$ 700.00	$ 700.00
Water Quality Committee	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Report - Printing	$ -	$ -	$ -		$ -	$ 200.00	$ 200.00
Financial Review	$ -	$ -	$ 950.00	$ 3,800.00	$ -	$ -	$ 1,900.00
Postage and Office Supplies	$ -	$ -	$ -	$ -	$ -	$ 100.00	$ 100.00
Miscellaneous Expenses	$ -	$ -	$ -	$ -	$ -	$ 100.00	$ 100.00
Total Expenses	$ 16,470.00	$ 16,605.00	$ 17,669.00	$ 20,678.00	$ -	$ 17,600.00	$ 20,000.00
INCOME & CARRY OVER							
Assessments (Both States)	$ 19,000.00	$ 19,000.00	$ 19,000.00	$ 19,000.00	$ -	$ 19,000.00	$ 19,000.00
Interest earned	$ 38.96	$ 52.14	$ 100.85	$ 74.31	$ 15.00	$ 50.00	$ 50.00
Carry Over from Prior Year	$ 21,406.23	$ 23,975.19	$ 26,422.33	$ 27,854.18	$ -	$ 26,265.49	$ 27,715.49
Total Income and Carry Over	$ 40,445.19	$ 43,027.33	$ 45,523.18	$ 46,928.49	$ 15.00	$ 45,315.49	$ 46,765.49
Ending Balance	$ 23,975.19	$ 26,422.33	$ 27,854.18	$ 26,250.49	$ 26,265.49	$ 27,715.49	$ 26,765.49

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION

FINANCIAL STATEMENTS

INDEPENDENT ACCOUNTANTS' REVIEW REPORT

JUNE 30, 2018

DANA F. COLE & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

DANA F. COLE
& COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

INDEPENDENT ACCOUNTANTS' REVIEW REPORT

To the Board of Directors
Kansas-Nebraska Big Blue River Compact Administration
Lincoln, Nebraska

We have reviewed the accompanying cash basis financial statement of Kansas-Nebraska Big Blue River Compact Administration (a nonprofit organization), which comprise the statement of cash receipts and disbursements for the year ended June 30, 2018, and the related notes to the financial statement. A review includes primarily applying analytical procedures to management's financial data and making inquiries of management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of this financial statement in accordance with the cash basis of accounting; this includes determining that the cash basis of accounting is an acceptable basis for the preparation of financial statements in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement whether due to fraud or error.

Accountant's Responsibility

Our responsibility is to conduct the review engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the financial statements for them to be in accordance with the cash basis of accounting. We believe that the results of our procedures provide a reasonable basis for our conclusion.

Accountant's Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statement in order for it to be in accordance with the cash basis of accounting.

Basis of Accounting

We draw attention to Note 1 of the financial statements, which describes the basis of accounting. The financial statements are prepared in accordance with the cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our conclusion is not modified with respect to this matter.

Supplementary Information

The accompanying supplementary information included in statement of cash receipts and disbursement - compared to budget is presented for purposes of additional analysis and is not a required part of the basic financial statement. Such information is the responsibility of management and was derived from, and relates directly to, the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the review procedures applied in our review of the basic financial statement. We are not aware of any material modifications that should be made to the supplementary information. We have not audited the supplementary information and do not express an opinion on such information.

Dana J Cole + Company, LLP

Lincoln, Nebraska
January 6, 2020

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
YEAR ENDED JUNE 30, 2018

RECEIPTS	
Kansas contribution	9,500
Nebraska contribution	9,500
Interest	52
Total receipts	19,052
DISBURSEMENTS	
Surface and ground water investigations	16,605
INCREASE IN CASH	2,447
CASH, beginning of year	23,975
CASH, end of year	26,422

See accompanying notes to financial statements.

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
NOTES TO FINANCIAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Nature of Activities

The Kansas-Nebraska Big Blue River Compact Administration is an interstate administrative agency established, upon adoption of rules and regulations pursuant to Article III (3,4) of the Kansas-Nebraska Big Blue River Compact on April 24, 1973, to administer the Compact.

The Administration is incorporated as an organization exempt from income tax under Code Section 501(c)(3) of the Internal Revenue Code.

Basis of Presentation

The financial statement of the Administration has been prepared on the cash receipts and disbursements basis method of accounting. Therefore, investments, receivables and payables, long-lived assets, accrued income and expenses, and amortization and depreciation, which may be material in amount, are not presented. This financial statement is not intended to present the financial position, results of operations, or cash flows in conformity with accounting principles generally accepted in the United States of America.

Function

The major function of the Administration is to establish "such stream-gauging stations, ground water observation wells, and other data collection facilities as are necessary for administrating the Compact."

The purpose of the Compact is to:

a. Promote interstate comity between the state of Kansas and Nebraska.
b. To achieve equitable apportionment of the waters of the Big Blue River Basin between the two states and to promote orderly development thereof.
c. To encourage continuation of the active pollution-abatement programs of the waters of the Big Blue River Basin.

NOTE 2. SUBSEQUENT EVENTS

In preparing the financial statements, the Administration has evaluated events and transactions for potential recognition or disclosure through January 6, 2020, the date the financial statements were available to be issued.

SUPPLEMENTAL INFORMATION

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS - COMPARED TO BUDGET
YEAR ENDED JUNE 30, 2018

	Budget	Actual	Variance Favorable (Unfavorable)
RECEIPTS			
Kansas contribution	9,500	9,500	
Nebraska contribution	9,500	9,500	
Interest	35	52	17
Total receipts	19,035	19,052	17
DISBURSEMENTS			
Surface and ground water investigations	18,200	16,605	1,595
Auditing and accounting services	870		870
Printing annual report	450		450
Postage and supplies	100		100
Miscellaneous	100		100
Total disbursements	19,720	16,605	3,115
EXCESS (DEFICIENCY) OF RECEIPTS OVER DISBURSEMENTS	(685)	2,447	3,132

See accompanying notes to financial statements.

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION

FINANCIAL STATEMENTS

INDEPENDENT ACCOUNTANTS' REVIEW REPORT

JUNE 30, 2019

DANA F. COLE & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

DANA F. COLE
& COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

INDEPENDENT ACCOUNTANTS' REVIEW REPORT

To the Board of Directors
Kansas-Nebraska Big Blue River Compact Administration
Lincoln, Nebraska

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Management is responsible for the preparation and fair presentation of this financial statement in accordance with the cash basis of accounting; this includes determining that the cash basis of accounting is an acceptable basis for the preparation of financial statements in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement whether due to fraud or error.

Accountant's Responsibility

Our responsibility is to conduct the review engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the financial statements for them to be in accordance with the cash basis of accounting. We believe that the results of our procedures provide a reasonable basis for our conclusion.

Accountant's Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statement in order for it to be in accordance with the cash basis of accounting.

Basis of Accounting

We draw attention to Note 1 of the financial statements, which describes the basis of accounting. The financial statements are prepared in accordance with the cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our conclusion is not modified with respect to this matter.

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
YEAR ENDED JUNE 30, 2019

RECEIPTS	
Kansas contribution	9,500
Nebraska contribution	9,500
Interest	133
Total receipts	19,133
DISBURSEMENTS	
Surface and ground water investigations	16,719
Auditing and accounting services	950
Total disbursements	17,669
INCREASE IN CASH	1,464
CASH, beginning of year	26,422
CASH, end of year	27,886

See accompanying notes to financial statements.

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
NOTES TO FINANCIAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Nature of Activities

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Basis of Presentation

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Function

The major function of the Administration is to establish "such stream-gauging stations, ground water observation wells, and other data collection facilities as are necessary for administrating the Compact."

The purpose of the Compact is to:

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c. To encourage continuation of the active pollution-abatement programs of the waters of the Big Blue River Basin.

NOTE 2. SUBSEQUENT EVENTS

In preparing the financial statements, the Administration has evaluated events and transactions for potential recognition or disclosure through January 6, 2020, the date the financial statements were available to be issued.

SUPPLEMENTAL INFORMATION

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS - COMPARED TO BUDGET
YEAR ENDED JUNE 30, 2019

	Budget	Actual	Variance Favorable (Unfavorable)
RECEIPTS			
Kansas contribution	9,500	9,500	
Nebraska contribution	9,500	9,500	
Interest	50	133	83
Total receipts	19,050	19,133	83
DISBURSEMENTS			
Surface and ground water investigations	18,700	16,719	1,981
Auditing and accounting services	900	950	(50)
Printing annual report	200		200
Postage and supplies	100		100
Miscellaneous	100		100
Total disbursements	20,000	17,669	2,331
EXCESS (DEFICIENCY) OF RECEIPTS OVER DISBURSEMENTS	(950)	1,464	2,414

See accompanying notes to financial statements.

Attachment J

KANSAS-NEBRASKA BIG BLUE RIVER COMPACT REPORT
U.S. Geological Survey—Water Year 2019

The U.S. Geological Survey (USGS) continues to operate two streamflow gaging stations for the Compact Administration—Big Blue River at Barneston, NE (06882000), and Little Blue River at Hollenberg, KS (06884025). An electronic data logger (EDL) at each station automatically records streamflow stage every 15 minutes. Every hour, these instantaneous values are transmitted via satellite to USGS offices, where they are used to compute preliminary values of instantaneous and daily discharge that are immediately posted to the USGS National Water Information System (NWIS) website (addresses shown below). Before the data are finalized, updates and revisions are made as needed, based on a series of quality checks and reviews. Finalized values of daily discharge and daily gage height, along with associated summary statistics are published annually on a site-by-site basis on the NWIS web page (address shown below).

During water year (WY) 2019 (October 1, 2018 to September 30, 2019), periodic visits were made to the stations to maintain and calibrate the sensing and recording equipment, make discharge measurements, and download the data directly from the EDLs, as a backup to the satellite-telemetered data. The discharge measurements were used to determine shifts from the stage-discharge relations (rating curves) that were then used to convert stage values to corresponding values of discharge.

For each of the State delegations and the Compact chairman, copies of the WY 2019 published data (manuscript; discharge daily values; statistics tables; and discharge hydrograph) from the NWIS web page are attached for each station. These water-year summaries (PDF files) are available online within the NWIS site page for each of the streamgages, along with data for other streamgages for the Nation. Also attached are plots of the annual mean discharges for the periods of record, and plots of the daily discharges for WY 2019 compared to those for the median daily statistic for each day of the year.

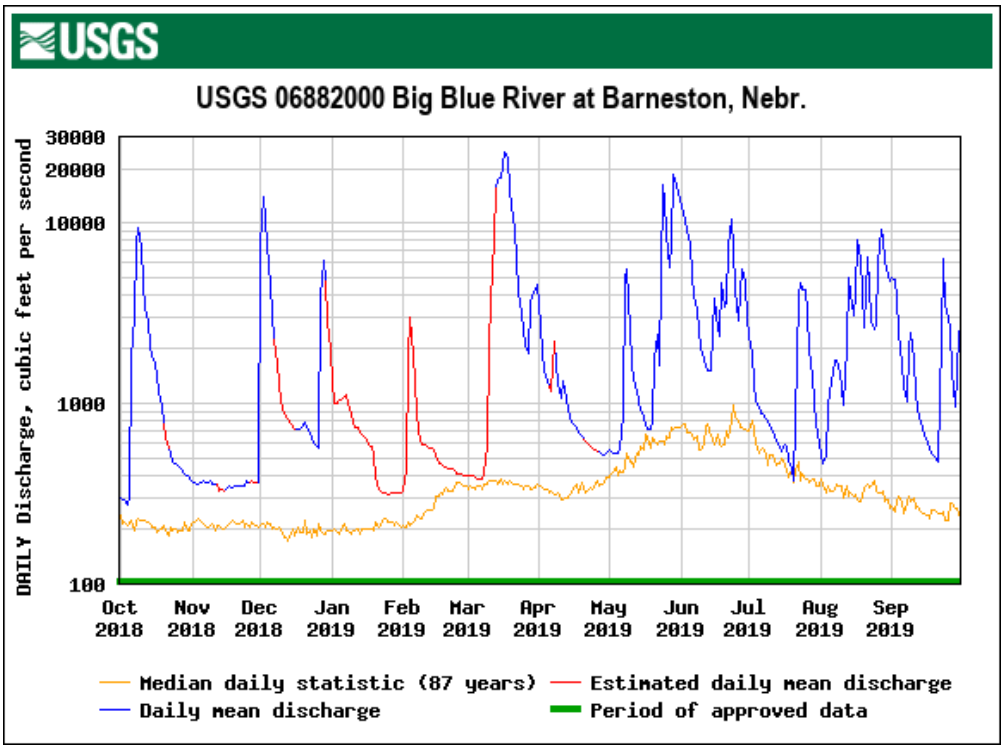
Current (real-time) and historical data on surface water, groundwater, and water quality for the Nation can be accessed and downloaded via the Water Resources of the United States website (https://www2.usgs.gov/water/) or from the Nebraska Water Science Center website (https://www.usgs.gov/centers/ne-water). All unit values of discharge data and all daily values of discharge can be accessed using the NWIS web, as well as all unit values and daily values of gage height since October 2007.

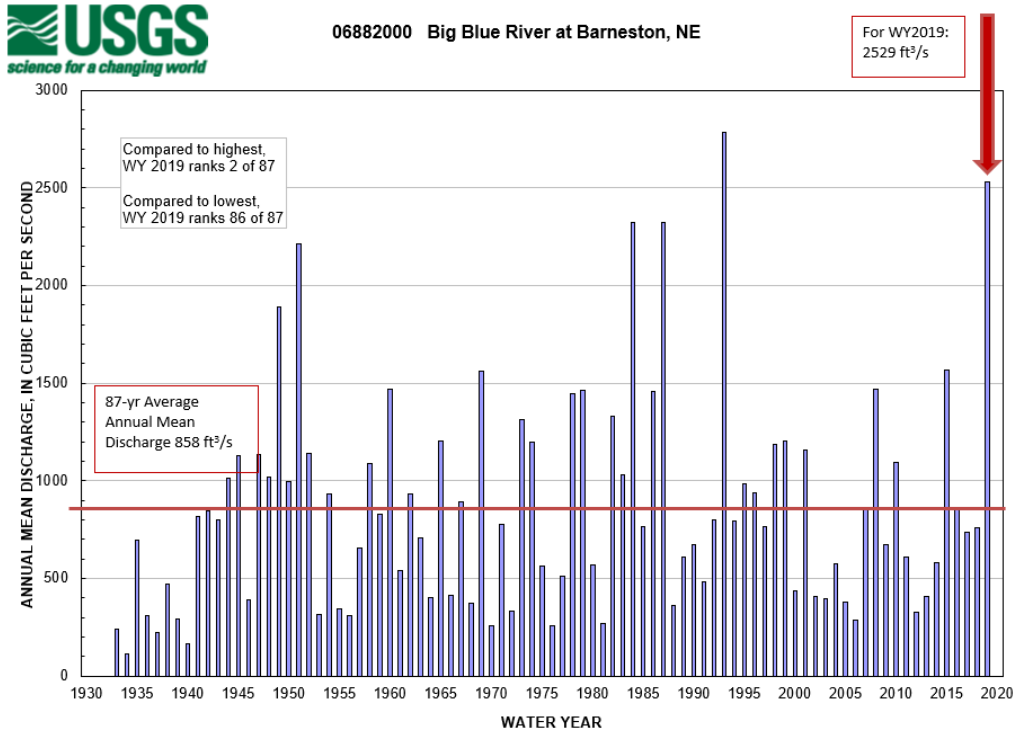
Jason Lambrecht
Assistant Director, Hydrologic Data Section Chief

U.S. Geological Survey, Nebraska Water Science Center
5231 S. 19th St., Lincoln, NE 68512-1271
(jmlambre@usgs.gov)
402-328-4124 (office), 402-416-2363 (mobile)

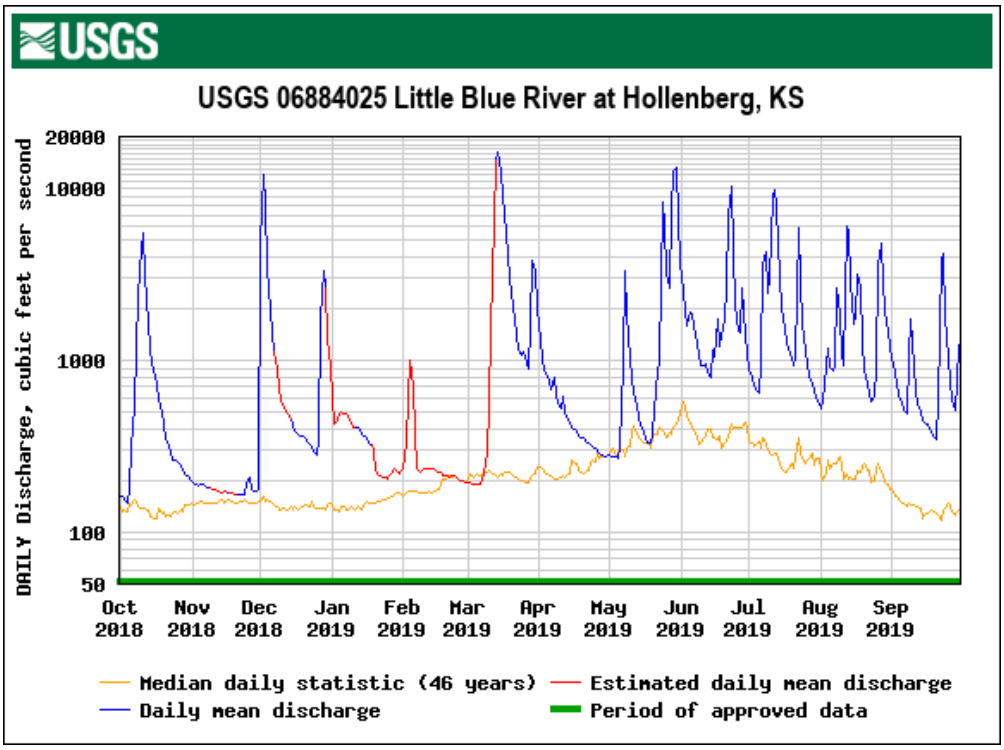
May 13, 2020

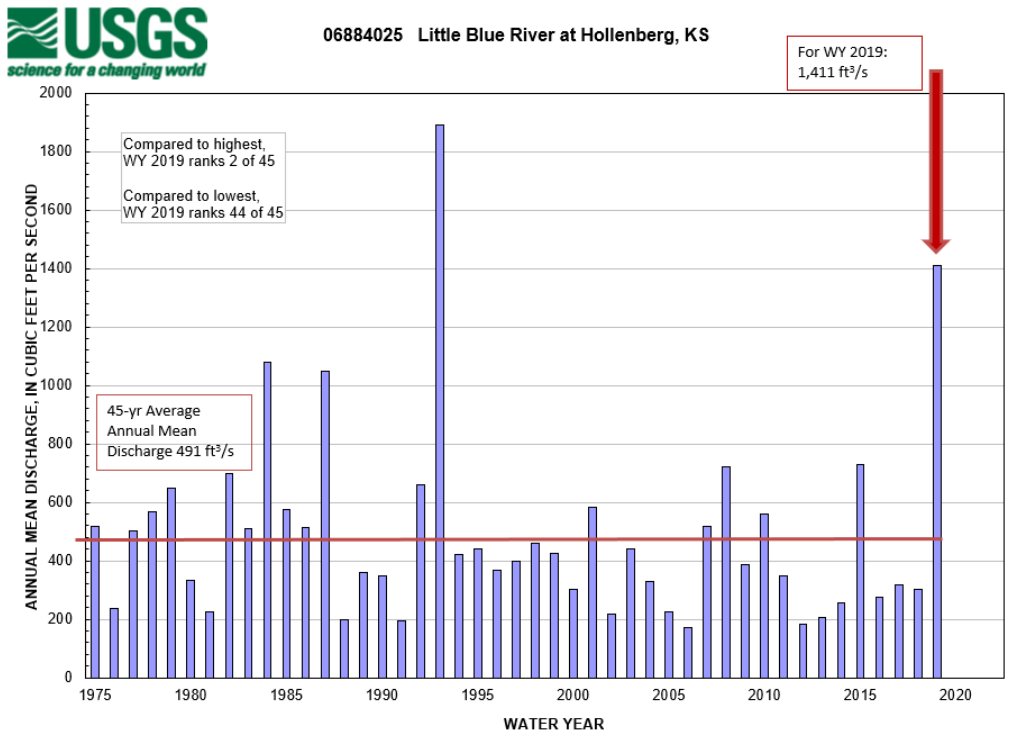
For station **06882000 Big Blue River at Barneston**, 13 discharge (and stage) measurements, ranging from 337 ft^3/s (4.48 ft stage, during period of backwater from ice) to 23,200 ft^3/s (24.23 ft stage), and 3 inspections were made during WY 2019. The annual mean discharge of 2,529 ft^3/s was 3.3 times more than that of the WY 2018 mean of 756 ft^3/s; and 2.9 times higher than the new historical mean of 858 ft^3/s for WYs 1933–2019 (87 years of record). The maximum and minimum daily discharges were 24,800 ft^3/s on March 17, 2019 (peak of record daily was 50,000 ft^3/s on June 9, 1941); and 276 ft^3/s on October 4, 2018.





For station **06884025 Little Blue River at Hollenberg**, 11 discharge (and stage) measurements, ranging from 166 ft³/s (2.11 ft stage) to 12,600 ft³/s (12.96 ft stage), and two inspections were made during WY 2019. The annual mean discharge of 1,411 ft³/s was 4.7 times more than that of the WY 2018 mean of 301.5 ft³/s; and 2.9 times higher than the new historical mean of 491 ft³/s for WYs 1975–2019 (45 years of record). The maximum and minimum daily discharges were 16,200 ft³/s on March 14, 2019 (peak of record daily was 39,300 ft³/s on July 26, 1992); and 147 ft³/s on October 4, 2018.





USGS Water-Year Summary 2019

06882000 Big Blue River at Barneston, Nebr.

LOCATION - Lat 40°02'41", long 96°35'14" referenced to North American Datum of 1983, in NE 1/4 NW 1/4 sec.24, T.1 N., R.7 E., Gage County, NE, Hydrologic Unit 10270202, on right bank just downstream of bridge on State Highway 8, 0.6 mi southwest of Barneston, 1.3 mi upstream from Plum Creek, and 4.3 mi upstream from Nebraska-Kansas State line.

DRAINAGE AREA - 4,447 mi² of which 77 mi² probably is noncontributing.

REVISIONS HISTORY - WSP 896: 1932, 1935. WSP 1919: Drainage area.

SURFACE-WATER RECORDS

PERIOD OF RECORD - May 1932 to current year.

GAGE - Water-stage recorder with satellite telemetry. Datum of gage is 1,162.20 ft above sea level. Prior to June 9, 1941, water-stage recorder at site 0.3 mi downstream at datum 1.56 ft higher. June 9 to Nov. 17, 1941, non-recording gage, and Nov. 18, 1941 to Sept. 30, 1979, water-stage recorder at site 0.7 mi upstream at datum 2.0 ft higher.

REMARKS - Accuracy of records for water years prior to 2014 are noted in the individual Annual Data Reports for those water years. For water years 2014 onward, records fair to good except for estimated daily discharges, which are poor, unless otherwise noted.

EXTREMES FOR PERIOD OF RECORD - Maximum peak flow, 57,700 ft³/s, June 9, 1941, gage height, 34.30 ft, at site datum then in use.

U.S. Department of the Interior
U.S. Geological Survey

Suggested citation: U.S. Geological Survey, 2020, National Water Information System data available on the World Wide Web (USGS Water Data for the Nation), accessed [May 8, 2020], https://nwis.waterdata.usgs.gov/nwis/wys_rpt?dv_ts_ids=&93783&adr_begin_date=2018-10-01&adr_end_date=2019-09-30&site_no=06882000&agency_cd=USGS

DISCHARGE, CUBIC FEET PER SECOND
YEAR 2018-10-01 to 2019-09-30
DAILY MEAN VALUES
[e, Value has been estimated.]

Day	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019
1	298	372	7,650	e1,310	e325	e401	2,700	548	13,200	2,330	515	4,950
2	295	363	14,000	e1,010	e435	e400	1,890	539	11,200	1,890	465	4,900
3	291	357	10,400	e997	e1,790	e394	1,520	535	10,200	1,300	501	3,860
4	276	353	7,560	e1,050	e3,020	e387	1,340	529	9,020	1,020	953	2,450
5	304	366	4,580	e1,050	e1,860	e382	1,240	526	7,550	955	1,170	1,650
6	1,820	372	3,070	e1,100	e1,340	e382	e1,160	559	5,170	876	1,480	1,240
7	3,000	364	2,260	e1,120	e867	e384	2,190	856	3,890	885	1,720	1,030
8	7,500	363	e1,660	e1,000	e616	e406	1,670	5,000	3,350	815	1,750	2,030
9	9,470	370	e1,280	e883	e591	e595	1,260	5,520	2,510	797	1,470	2,450
10	7,370	360	e1,030	e786	e590	e2,050	1,080	2,580	2,010	755	1,180	1,720
11	4,680	360	e884	e737	e581	e3,710	1,320	1,650	1,790	700	970	1,150
12	3,370	353	e841	e732	e571	e8,040	1,190	1,350	1,600	656	2,070	921
13	2,780	e326	e816	e694	e568	15,500	927	1,160	1,520	615	5,010	790
14	2,080	e333	e769	e676	e550	17,400	831	1,020	1,520	562	3,980	715
15	1,860	327	e731	e647	e501	17,700	781	919	2,530	545	3,080	656
16	1,670	334	719	e619	e465	20,600	749	832	3,810	592	4,080	602
17	1,400	348	716	e596	e459	24,800	720	755	2,580	581	7,970	560
18	1,170	339	714	e581	e455	22,400	686	719	2,350	485	6,370	527
19	953	340	744	e521	e445	15,300	655	714	4,610	430	4,080	502
20	776	345	779	e393	e436	12,500	629	808	3,390	373	2,620	488
21	e651	345	743	e337	e431	9,240	e614	1,760	3,550	798	6,440	475
22	570	347	686	e323	e432	6,220	e585	2,430	7,550	3,880	4,470	2,280
23	514	348	638	e318	e422	4,150	574	1,620	10,400	4,650	2,840	6,300
24	476	349	600	e316	e410	3,150	564	16,300	7,160	4,250	2,560	3,490
25	461	370	576	e315	e404	2,490	e548	13,300	4,240	4,270	2,740	3,010
26	451	362	566	e315	e403	2,090	541	8,640	2,870	3,120	5,930	2,570
27	433	e370	3,910	e317	e401	1,900	536	5,720	4,060	1,980	9,120	1,480
28	420	e368	6,150	e317	e401	3,520	518	7,790	5,580	1,390	7,970	963
29	410	366	4,800	e317		4,000	523	18,700	4,640	1,020	6,180	1,450
30	398	366	e2,820	e316		4,280	525	16,200	2,920	776	5,100	2,510
31	381		e1,970	e321		4,540		14,700		610	4,780	
Total	56,530	10,640	84,660	20,010	19,770	209,300	30,070	134,300	146,800	43,910	109,600	57,720
Mean	1,823	355	2,731	646	706	6,752	1,002	4,332	4,892	1,416	3,534	1,923
Max	9470	372	14000	1310	3020	24800	2700	18700	13200	4650	9120	6300
Min	276	326	566	315	325	382	518	526	1520	373	465	475
Ac-ft	112,100	21,100	167,900	39,700	39,210	415,200	59,640	266,300	291,100	87,090	217,300	114,500

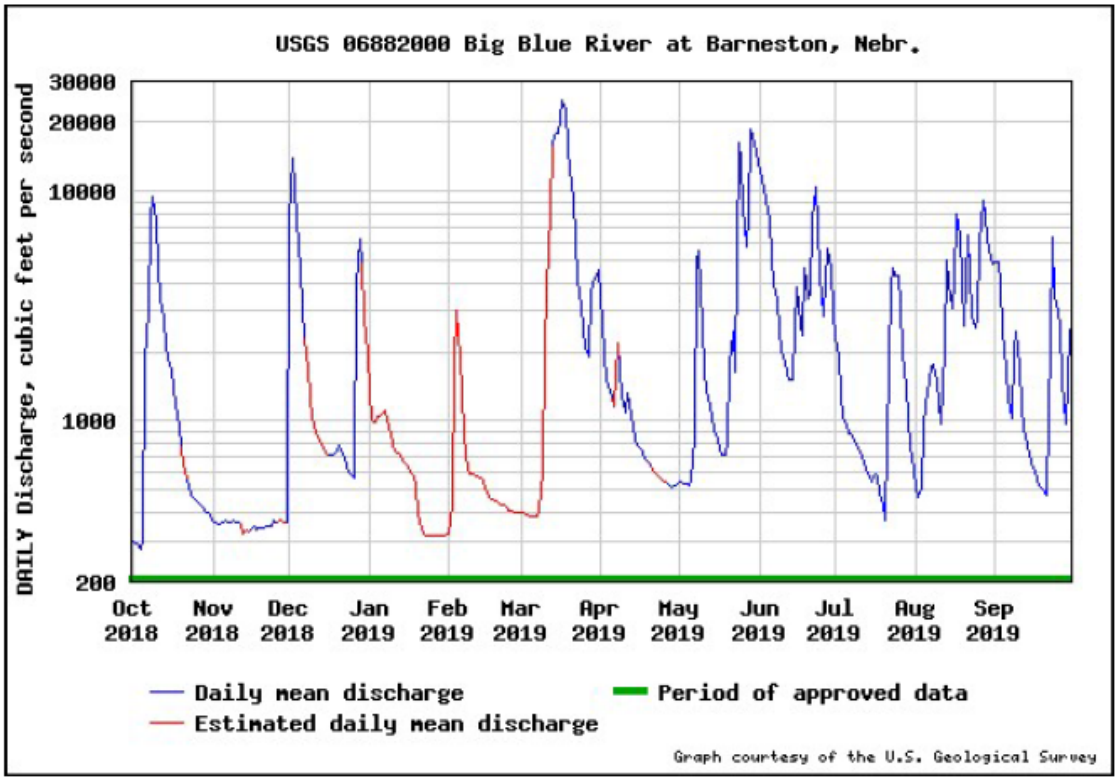
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2019, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	573	307	282	297	591	1,276	813	1,413	2,092	1,231	705	709
Max	7,451	1,526	2,731	1,596	2,876	10,560	5,280	5,207	10,460	12,270	5,227	3,420
(WY)	(1974)	(1999)	(2019)	(1973)	(1984)	(1979)	(1984)	(1995)	(1951)	(1993)	(1954)	(1989)
Min	61.5	77.5	87.4	67.6	116	137	132	96.0	69.3	30.7	21.1	50.6
(WY)	(1941)	(1937)	(1977)	(1937)	(1940)	(1968)	(1934)	(1934)	(1934)	(1934)	(1934)	(1939)

SUMMARY STATISTICS

	Water Year 2019		Water Years 1933 - 2019	
Annual total	923,200			
Annual mean	2,529		858.2	
Highest annual mean			2,781	1993
Lowest annual mean			115.0	1934
Highest daily mean	24,800	Mar 17	50,000	Jun 09, 1941
Lowest daily mean	276.0	Oct 04	1.00	Nov 30, 1945
Annual 7-day minimum	316.1	Jan 24	15.1	Aug 03, 1934
Maximum peak flow			57,700	Jun 09, 1941
Maximum peak stage			34.30[a]	Jun 09, 1941
Annual runoff (cfsm)	0.569		0.193	
Annual runoff (inches)	7.72		2.62	
10 percent exceeds	6,398		1,760	
50 percent exceeds	953.0		283.0	
90 percent exceeds	363.0		109.0	

[a] Gage height at different site and(or) datum



USGS Water-Year Summary 2019

06884025 Little Blue River at Hollenberg, KS

LOCATION - Lat 39°58'49", long 97°00'17" referenced to North American Datum of 1983, in NE 1/4 SW 1/4 sec.8, T.1 S., R.4 E., Washington County, KS, Hydrologic Unit 10270207, on right bank just downstream from bridge on county road, 0.6 mi west of Hollenberg, 1.8 mi downstream from Nebraska-Kansas State line, and at mile 43.1.

DRAINAGE AREA - 2,752 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD - March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE - Water-stage recorder with satellite telemetry. Datum of gage is 1,216.10 ft above sea level.

REMARKS - Accuracy of records for water years prior to 2014 are noted in the individual Annual Data Reports for those water years. For water years 2014 onward, records good except for estimated daily discharges, which are poor, unless otherwise noted. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR NE-73.

EXTREMES OUTSIDE PERIOD OF RECORD - A gage height of 23.07 ft, present datum, from floodmark, discharge not determined, occurred October 12, 1973.

EXTREMES FOR PERIOD OF RECORD -

Maximum peak flow, 59,200 ft³/s, May 7, 2015, gage height, 22.97 ft, site and datum then in use.

U.S. Department of the Interior
U.S. Geological Survey

Suggested citation: U.S. Geological Survey, 2020, National Water Information System data available on the World Wide Web (USGS Water Data for the Nation), accessed [May 8, 2020], https://nwis.waterdata.usgs.gov/nwis/wys_rpt?dv_ts_ids=&93795&adr_begin_date=2018-10-01&adr_end_date=2019-09-30&site_no=06884025&agency_cd=USGS

DISCHARGE, CUBIC FEET PER SECOND
YEAR 2018-10-01 to 2019-09-30
DAILY MEAN VALUES
[e, Value has been estimated.]

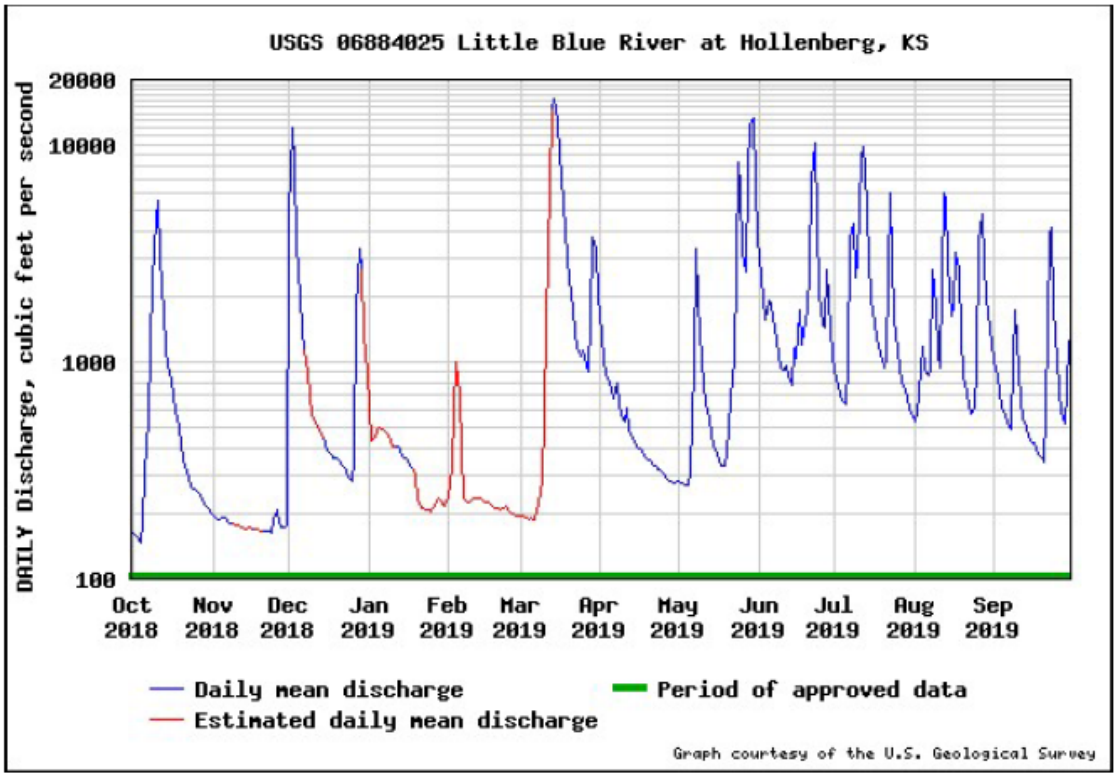
Day	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019
1	163	198	4,790	e599	e233	e196	1,330	280	3,660	897	528	1,020
2	160	191	12,000	e430	e327	e196	1,020	276	2,520	787	579	850
3	155	189	7,980	e447	e600	e192	878	274	1,940	710	924	724
4	147	186	3,460	e484	e995	e189	807	273	1,580	671	1,170	629
5	183	191	1,970	e499	e711	e190	738	270	1,920	642	916	564
6	307	190	1,410	e486	e380	e189	672	312	1,840	951	868	517
7	538	184	1,130	e484	e234	e202	800	954	1,590	3,660	928	487
8	1,180	181	e891	e468	e224	e219	634	3,340	1,260	4,300	2,650	1,050
9	2,370	180	e693	e436	e226	e288	568	1,880	1,060	2,430	1,820	1,740
10	4,490	e177	e580	e410	e235	e558	530	1,020	936	2,930	1,060	906
11	5,560	e176	e524	404	e236	e1,520	610	776	929	8,870	943	660
12	3,090	e173	e495	404	e233	e6,510	492	648	965	9,770	6,030	554
13	1,670	e172	e484	390	e234	14,400	445	541	845	7,870	5,690	495
14	1,150	e171	453	371	e232	16,200	423	465	790	3,030	2,810	451
15	961	e174	416	361	e227	12,700	410	417	1,150	1,980	1,620	433
16	817	174	392	345	e224	8,980	400	378	1,050	1,510	1,760	426
17	711	168	374	330	e221	7,020	384	343	1,730	1,270	3,180	401
18	592	e169	360	322	e215	4,080	366	333	1,190	1,180	2,650	377
19	498	e169	359	e292	e211	2,960	352	333	1,380	1,030	1,300	358
20	414	167	352	e228	e213	2,440	352	375	1,740	933	869	346
21	351	167	337	e214	e210	1,750	339	509	2,650	1,050	717	574
22	315	166	324	e213	e213	1,380	332	870	6,990	5,960	628	3,870
23	287	165	312	e208	e215	1,160	322	974	10,300	2,920	572	4,150
24	264	164	295	e208	e207	1,070	317	8,340	4,310	1,610	613	1,760
25	261	189	284	e204	e201	1,130	306	6,250	2,100	1,140	916	1,030
26	257	210	346	e213	e198	1,050	297	3,200	1,480	926	3,580	743
27	244	179	1,770	e224	e197	894	286	2,630	1,450	814	4,770	589
28	229	173	3,350	e234	e196	1,580	280	7,350	2,660	731	2,820	518
29	219	172	2,650	e228		3,770	278	12,500	1,410	673	1,970	742
30	213	177	e1,340	e217		3,300	275	13,200	1,060	604	1,440	1,240
31	204		e906	e226		2,000		6,700		555	1,190	
Total	28,000	5,342	51,030	10,580	8,048	98,310	15,240	76,010	64,490	72,400	57,509	28,199
Mean	903	178	1,646	341	287	3,171	508	2,452	2,150	2,336	1,855	940
Max	5560	210	12000	599	995	16200	1330	13200	10300	9770	6030	4150
Min	147	164	284	204	196	189	275	270	790	555	528	346
Ac-ft	55,540	10,600	101,200	20,980	15,960	195,000	30,230	150,800	127,900	143,600	114,100	55,940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2019, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	329	211	200	180	285	656	451	859	982	801	487	375
Max	2,163	1,113	1,646	577	1,059	3,816	2,379	2,638	4,654	9,014	2,572	1,696
(WY)	(1987)	(1997)	(2019)	(1984)	(1993)	(1993)	(1987)	(2015)	(2015)	(1993)	(1985)	(2018)
Min	45.3	81.1	87.2	74.0	89.1	118	117	103	151	68.1	51.5	32.0
(WY)	(1992)	(1992)	(2013)	(2018)	(2018)	(1981)	(2018)	(2018)	(1981)	(2013)	(2012)	(1991)

SUMMARY STATISTICS

	Water Year 2019		Water Years 1974 - 2019	
Annual total	515,200			
Annual mean	1,411		490.9	
Highest annual mean			1,891	1993
Lowest annual mean			172.9	2006
Highest daily mean	16,200	Mar 14	39,300	Jul 26, 1992
Lowest daily mean	147.0	Oct 04	24.2	Sep 12, 2012
Annual 7-day minimum	166.7	Nov 18	26.0	Sep 06, 2012
Maximum peak flow			59,200	May 07, 2015
Maximum peak stage			23.07	Oct 12, 1973
Annual runoff (cfsm)	0.513		0.177	
Annual runoff (inches)	6.96		2.41	
10 percent exceeds	3,394		816.0	
50 percent exceeds	572.0		190.0	
90 percent exceeds	191.6		96.0	



Water Year 2019 Discharge Measurements

06882000	1470	10/9/2018 10:35	Yes	nds/mja	USGS	8330	14.72	Fair	Clear
06882000	1471	10/22/2018 10:28	Yes	bhi	USGS	586	4.63	Fair	Clear
06882000	1472	11/29/2018 15:05	Yes	LWN	USGS	358	4.12	Fair	Clear
06882000	1473	2/1/2019 10:59	Yes	bhi/kek	USGS	337	4.48	Poor	IceCover
06882000	1474	3/12/2019 12:43	Yes	bhi/jtc	USGS	7720	12.53	Fair	Clear
06882000	1475	3/14/2019 13:43	Yes	MJA/MJ	USGS	18100	21.07	Good	Clear
06882000	1476	3/18/2019 11:16	Yes	gsn/jk	USGS	23200	24.23	Fair	Clear
06882000	1477	3/25/2019 13:55	Yes	bhi	USGS	2440	7.86	Fair	Clear
06882000	1478	4/22/2019 12:35	Yes	KEK	USGS	585	4.72	Fair	Clear
06882000	1479	6/6/2019 11:07	Yes	bhi	USGS	5040	11.25	Fair	Clear
06882000	1480	7/26/2019 9:50	Yes	bhi	USGS	3200	9.00	Fair	Clear
06882000	1481	9/4/2019 13:40	Yes	bhi	USGS	2290	7.62	Fair	Clear
06882000	1482	10/2/2019 12:05	Yes	bhi/jtc	USGS	7430	13.44	Fair	Clear
06884025	587	10/11/2018 11:18	Yes	bhi/jtc	USGS	5650	8.58	Fair	Clear
06884025	588	10/22/2018 12:24	Yes	bhi	USGS	326	2.52	Fair	Clear
06884025	589	11/29/2018 11:42	Yes	LWN	USGS	166	2.11	Fair	IceShore
06884025	590	2/1/2019 13:36	Yes	bhi/kek	USGS	230	3.22	Poor	IceCover
06884025	591	4/4/2019 11:41	Yes	bhi	USGS	815	3.47	Fair	Clear
06884025	592	5/2/2019 12:44	Yes	KEK	USGS	269	2.48	Fair	Clear
06884025	593	6/4/2019 13:02	Yes	bhi/kek	USGS	1510	4.51	Fair	Clear
06884025	594	6/19/2019 10:45	Yes	KEK	USGS	1340	4.05	Fair	DebrisModerate
06884025	595	7/12/2019 12:08	Yes	bhi/kek	USGS	9730	11.51	Fair	Clear
06884025	596	8/23/2019 11:45	Yes	bhi	USGS	567	3.02	Fair	Clear
06884025	597	10/2/2019 13:49	Yes	bhi/jtc	USGS	12600	12.96	Fair	Clear

Attachment K

REPORT OF THE ENGINEERING COMMITTEE
TO THE
KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION

May 13, 2020

The engineering committee was not given any special assignments from the Compact Administration and did not meet during the past year. The United States Geological Survey (USGS) and the Lower Big Blue Natural Resources District (LBBNRD) provided the 2019 data for this report.

Review of Streamflow Data

The Compact sets forth the following streamflow targets at the stateline gaging stations:

	Big Blue River	Little Blue River
May	45 cfs	45 cfs
June	45 cfs	45 cfs
July	80 cfs	75 cfs
August	90 cfs	80 cfs
September	65 cfs	60 cfs

During the May through September time period of the 2019 water year (October 1, 2018 through September 30, 2019) there were no shortages for Compact target flows. The mean daily streamflow at the Barneston gage on the Big Blue River (Exhibit A) and the Hollenberg gage (Exhibit B) exceeded target flows throughout the year.

Real-time and historical data for these gaging stations can be found at the following websites:
Big Blue River – http://waterdata.usgs.gov/ne/nwis/uv/?site_no=06882000
Little Blue River – http://waterdata.usgs.gov/ne/nwis/uv/?site_no=06884025

Review of Groundwater Data

The Lower Big Blue Natural Resources District provided the groundwater levels (Exhibit C) for the Big Blue Basin near Beatrice.

Review of Wells in the Regulatory Reaches

Exhibit D is a listing of the active irrigation wells within the regulatory reaches. There were no new wells drilled in the Big Blue River regulatory area and no new wells drilled in the Little Blue River regulatory area during this reporting period.

Respectively Submitted,

Jeremy F. Gehle, Chair
Nebraska

Chris Beightel, P.E.
Kansas

Water-Data Report 2019

06882000 Big Blue River at Barneston, Nebr. -- Continued

SUMMARY STATISTICS

	Water Year 2019		Water Years 1933 - 2019	
Annual total	923,200			
Annual mean	2,529		858.2	
Highest annual mean			2,781	1993
Lowest annual mean			115.0	1934
Highest daily mean	24,800	Mar 17	50,000	Jun 09, 1941
Lowest daily mean	276.0	Oct 04	1.00	Nov 30, 1945
Annual 7-day minimum	316.1	Jan 24	15.1	Aug 03, 1934
Maximum peak flow			57,700	Jun 09, 1941
Maximum peak stage			34.30[a]	Jun 09, 1941
Annual runoff (cfsm)	0.569		0.193	
Annual runoff (inches)	7.72		2.62	
10 percent exceeds	6,398		1,760	
50 percent exceeds	953.0		283.0	
90 percent exceeds	363.0		109.0	

[a] Gage height at different site and(or) datum

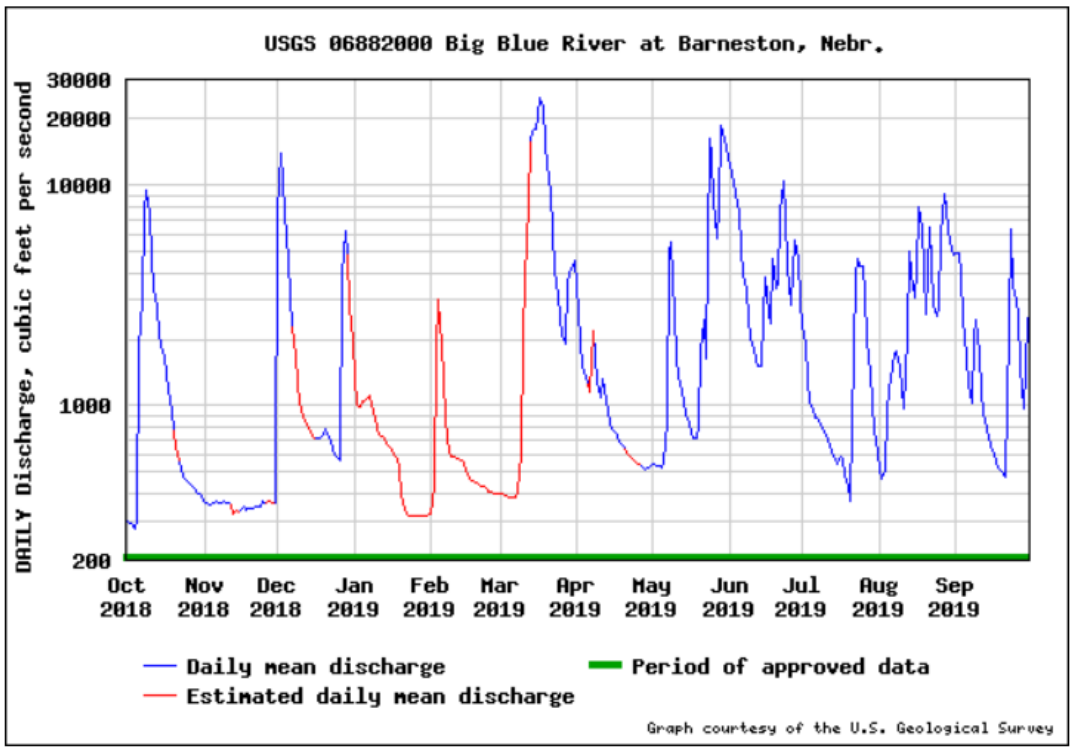


Exhibit A

Water-Data Report 2019

06884025 Little Blue River at Hollenberg, KS -- Continued

SUMMARY STATISTICS

	Water Year 2019		Water Years 1974 - 2019	
Annual total	515,200			
Annual mean	1,411		490.9	
Highest annual mean			1,891	1993
Lowest annual mean			172.9	2006
Highest daily mean	16,200	Mar 14	39,300	Jul 26, 1992
Lowest daily mean	147.0	Oct 04	24.2	Sep 12, 2012
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Maximum peak flow			59,200	May 07, 2015
Maximum peak stage			23.07	Oct 12, 1973
Annual runoff (cfsm)	0.513		0.177	
Annual runoff (inches)	6.96		2.41	
10 percent exceeds	3,394		816.0	
50 percent exceeds	572.0		190.0	
90 percent exceeds	191.6		96.0	

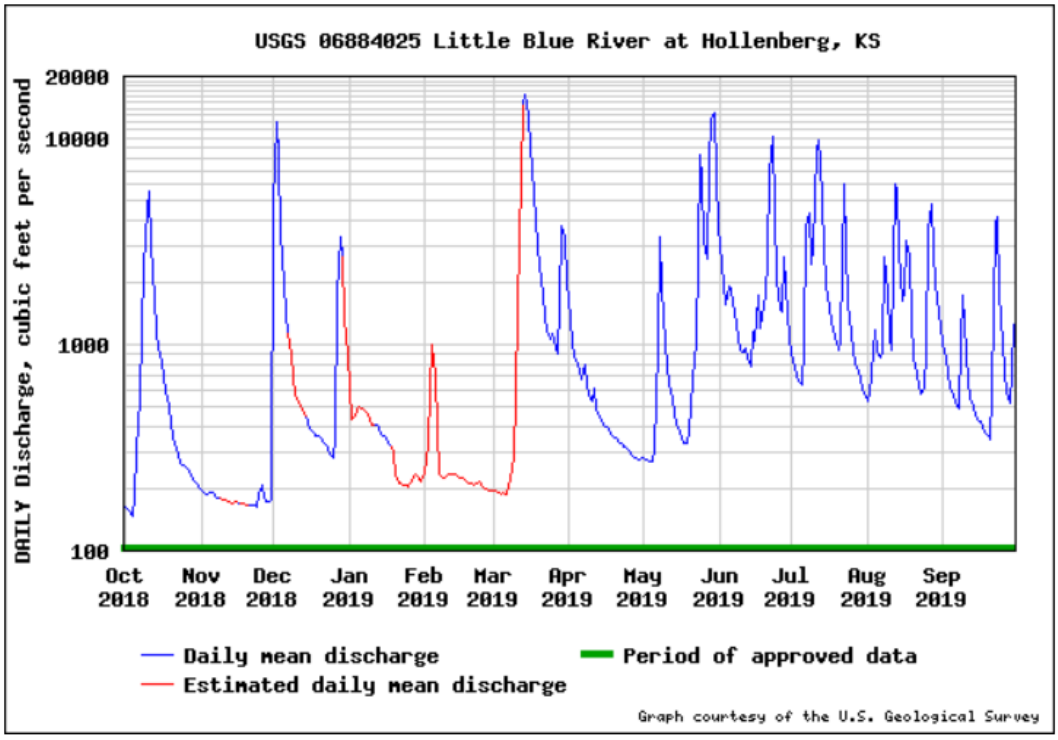

Exhibit B

BIG BLUE RIVER COMPACT STATIC WATER LEVELS 2019

LEGAL	SECT	SITE	TYPE	Spring 2019	Fall 2019
4N-5E	2	AAAA	OW	91.5	91.89
4N-5E	2	DDAA	IW	15.64	16.36
4N-5E	4	BBBC	IW	18.27	18.09
4N-5E	9	CBCC	IW	72.57	70.54
4N-5E	10	DDAA	IW	22.77	24.72
4N-5E	11	DACA	IW	13.64	15.18
4N-5E	14	ABBB	IW	8.18	10.80
4N-5E	25	AACD	IW	16.91	15.42
5N-4E	12	ABBA	IW	15.66	16.89
5N-4E	13	BADD	IW	9.12	11.85
5N-4E	23	BABB	IW	13.69	14.27
5N-4E	24	AACD	IW	13.23	14.90
5N-5E	7	CADD	IW	58.63	59.64
5N-5E	20	BCCD	IW	16.52	17.01
5N-5E	21	DDBB	IW	60.69	52.78
5N-5E	29	CBBB	IW	12.29	12.44
5N-5E	33	AADD	IW	16.75	15.48

OW - OBSERVATION WELLS IW - IRRIGATION WELLS

Exhibit C

Big Blue River Regulatory Area Wells					
Registration Number	Location T-R-S	Completion Date	Depth (FT)	Registration Pumping Capacity (GPM)	Filing Date
G-036485	4N-5E-11BC	3/28/1972	82	750	4/24/1972
G-038314	4N-5E-2DD	1/16/1973	188	1,300	1/29/1973
G-047820	4N-5E-12BB	11/1/1975	117	1,200	12/4/1975
G-050086	5N-5E-33AD	5/26/1976	123	800	6/9/1976
G-054047	4N-5E-24BB	3/1/1976	84	800	1/6/1977
G-054260	4N-5E-14AA	6/1/1974	70	800	1/14/1977
G-054261	4N-5E-14AB	5/2/1970	70	800	1/14/1977
G-056152	4N-5E-4BB	4/14/1977	91	1,000	5/11/1977
G-059128	5N-5E-29AA	4/25/1977	60	400	1/4/1978
G-059727	5N-5E-33CB	4/19/1978	91	1,200	4/20/1978
G-081769	4N-5E-13CD	4/22/1994	65	250	6/24/1994
G-100788	5N-5E-29AB	3/19/1999	65	500	6/2/1999
G-110669	4N-5E-13CC	7/12/1995	64	375	6/29/2001
G-110847	4N-5E-3DA	5/4/1979	82	800	7/2/2001
G-110849	5N-5E-29DD	4/30/1983	102	800	7/2/2001
G-151969	5N-5E-33BB	12/11/2008	112	800	1/20/2009
G-155061	4N-5E-10BB	12/4/2009	98	800	1/27/2010
G-166637	5N-5E-33BC	03/20/2013	120	1,200	3/28/2013

Little Blue River Regulatory Area Wells					
Registration Number	Location T-R-S	Completion Date	Depth (FT)	Registration Pumping Capacity (GPM)	Filing Date
G-058158	2N-2E-16AD	8/15/1977	29	650	9/6/1977

Exhibit D

Attachment L

RESOLUTION OF THE KANSAS-NEBRASKA BIG BLUE RIVER COMPACT ADMINISTRATION
HONORING
DAVID W. BARFIELD

WHEREAS, David W. Barfield served as ex officio representative of the State of Kansas on the Kansas-Nebraska Big Blue River Compact Administration from 2007 to 2019; and

WHEREAS, Mr. Barfield has retired from his position as Kansas Chief Engineer and from the Kansas-Nebraska Big Blue River Compact Administration; and

WHEREAS, Mr. Barfield did faithfully and diligently serve the Compact Administration as the Representative of the State of Kansas providing excellent representation, constructive insights and a positive and collaborative attitude;

NOW THEREFORE, BE IT RESOLVED, that the Kansas-Nebraska Big Blue River Compact Administration does hereby acknowledge and express its appreciation for the contributions of David W. Barfield to this Administration and extends to him the best wishes for continued good health and happiness in all his future endeavors; and

BE IT FURTHER RESOLVED, that this resolution be entered into the records of the 2020 Annual Compact Administration Meeting Minutes and the 2020 Annual Report and that the compact secretary be instructed to send a copy of the annual report to Mr. Barfield.

Entered this 13th day of May 2020, at the Annual Meeting of the Kansas-Nebraska Big Blue River Compact Administration.