MOARC
Missouri and Associated Rivers Coalition est. 1952

WATER®

Promoting Beneficial Use of Water & Land Related Resources

August 2019

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High Water Continues to Dominate the Region

As we move through the summer months high water levels in the Missouri River as well as mainstem and tributary reservoirs continue to dominate and impact the region. The spring flood event caused by heavy rainfall and runoff within many of the unregulated, unmanaged tributary rivers in Iowa, Nebraska, and Kansas resulting in major widespread flooding and damage in the basin. As the lower mainstem reservoirs and lower basin continued to receive frequent and intense rainfall events, releases of snow melt runoff from the upstream reservoirs added waters to an already flooded lower basin. Runoff from the 2019 events is reported as the third highest runoff event since 1993 (the highest runoff event recorded) and potentially could reach the second highest. The high waters pushed most non-federal levee systems and several federal levees to their limits resulting in over topping and levee breaches at over 100 locations between Sioux City, Iowa and Saint Louis, Missouri. Waters breaching levees flowed across agricultural lands within the river floodplain destroying crops, homes, buildings and livestock along with flooding communities and interrupting transportation as roadways, navigation on the river and railways were closed. Although the economic damage to the levee systems and the lands and communities flooded from levee failures has not been tallied, damages across the basin is expected to be in the hundreds of millions to over a billion dollars range in damage.

Levees damaged and breached during the March-April flooding event continue to be impacted as levee breaches have continued through June in some areas. The continued releases of 70,000 cfs (cubic feet per second) from Gavin's Point Dam has placed high water levels against lower basin levees for a long-time weakening levees and resulting in additional breaches even as lower basin water levels stabilize. Levee damage inspection teams from the local drainage districts and the Corps of Engineers have been unable to complete damage assessments due to the continued high-water levels in the river. Damages to the BSNP navigation structures and those Missouri River Recovery Project habitat projects (chutes and Interception, Rearing Complexes (IRCs)) within the lower basin are also unable to be assessed at this time. As with all flooding events there are indirect impacts to other businesses or industries, to a lesser extent water treatment facilities are impacted or potentially impacted as treatment and treatment costs increase due to releases of sewage and agricultural chemicals inadvertently released by flood waters. The closing of navigation on the Missouri River for an extended time period impacted what was expected to be a strong season for both downstream and upstream barge traffic. Midwest products that had been looking towards

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President's Message

First, I would like to congratulate the Kansas City's Levees Coalition for receiving the Economic Development Corporation's 2019 Special Recognition Cornerstone Award! This was a culmination of many years of efforts by MOARC and the Kansas City Industrial Council's (KCIC) efforts to advocate for flood risk management in KC. See page 6 of this newsletter for more details.

It's time for action! We have felt the record flooding across the Missouri River Basin over the past months including flooding of thousands of people and their lands, impacts to river operations for navigation, water intakes for power and water supply, the river ecosystem, even impacts to local recreation along the river. Although much of this flooding is due to runoff from unregulated streams (streams without reservoirs) that feed the Missouri River combined with releases from the mainstem reservoirs, there is a need to identify how we can change the status quo.

- **We are seeing action at the federal level** with our Congressional Delegation speaking out and developing legislation to address concerns of Missouri River flooding. Legislation is focused on changes to the Missouri River authorized purposes. For more on these actions, see Missouri River Authorized Purposes Legislative Proposals on page 7.
- **We are seeing action at the state level** with the Missouri, Nebraska and Iowa governors meeting to discuss flooding and management of the reservoirs. And with a follow-on action by Missouri Governor Mike Parson establishing the Flood Advisory Working Group to provide stakeholder input on flood recovery and management. MOARC is one of several stakeholder groups invited to participate in the Advisory Working Group. For more on this working group, see page 12.
- **We are seeing action at the local level** with engagement of local municipalities including the Unified Government of Wyandotte County and Kansas City, KS and Kansas City, MO, levee districts and other basin stakeholders engaging MOARC on flooding.

MOARC looks forward to working with federal, state and local partners to find solutions that allow us to manage the Missouri and Kansas River basins for the benefit of people, the environment and the economy. Thank you for your interest and membership in MOARC and join us in this call to action by sharing your voice with us.

Tom Poer P.E., PMP, ENV. SP
MOARC President
Associate Vice President, HNTB Corporation
(816) 527-2357 tpoer@hntb.com

MOARC Tours PortKC

Vice President of Multimodal Logistics for Port KC, Richard Grenville hosted the MOARC board for a tour of the Kansas City, MO port facility. Joining Richard on the tour were John Patrick, Frank Pogge, Dong Quach, Dave Combs and Tom Poer.

Port KC's mission is to grow the economy of Kansas City's port district through transportation, global commerce and development. The Port has a vision to be the premier port providing efficient, effective, and innovative transportation and development solutions to compete nationally and globally.

Upcoming Events

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MOARC is hosting several upcoming events for membership in our continued commitment to informing and educating our membership on issues and activities potentially affecting the region. See moarc.org for updates and additional details. Upcoming events over the next quarter.

MOARC/KCIC Fall Washington DC Visit

October 1-3, 2019, Washington DC

MOARC and KCIC members will conduct the 2019 Fall Washington DC visit to advocate for projects and programs affecting our region. Members will be in Washington, DC October 1-3 to meet with Congressional and Federal water resource agency offices. Budget needs will also be discussed regarding flood risk management and other water resource needs to protect lives and infrastructure and provide future economic and social development in Kansas and Missouri. The Fall visit is an opportunity for the combined interests and concerns of MOARC and KCIC to be presented to the congressional and agency offices and project and budget needs discussed as the 2020 civil works budget continues to move through congress and the 2021 federal budget is under development. The 3-day visit will include 16 congressional offices, Senate and House Appropriations and Authorizations committees, the Office of Management and Budget (OMB), the US Army Corps of Engineers. (Corps), the Office of the Assistant Secretary of the Army for Civil Works (ASA-CW, and the Federal Emergency Management Administration (FEMA). By sharing the local and regional impacts of Federal decision-making we help inform decision-makers of the issues and help guide decisions on water and related land resources. If you are interested in learning more, providing input or in joining us on the trip let us know. Contact our president, Tom Poer tpoer@hntb.com for more information.

Kansas City's Levees Celebration

October 8, 2019, Argentine or Armourdale Levee Unit, Kansas

The full federal funding of Kansas City's Levees is worthy of celebrating. MOARC is planning an event to celebrate the success of the region in getting Kansas City's Levees funded at full federal cost under the Bipartisan Budget Bill (Supplemental Budget Bill) of 2018. The event will bring the MOARC, KCIC, local stakeholders, bi-state community officials, Corps of Engineers and Congressional members and staff together to celebrate the historic opportunity to complete the flood damage reduction project, reduce flood risks to the region, and protect the $20+ billion in infrastructure investments.

Missouri River Recovery Implementation Committee Meeting

November 2019, Omaha, Nebraska

MOARC continues to be represented on the Missouri River Recovery Implementation Committee (MRRIC) by MOARC members. MRRIC will meet again in November at the Doubletree Hotel in downtown Omaha to address implementation and status of the Adaptive Management Plan, the status of the endangered species, proposed test releases from Ft Peck Dam, and construction activities for Interception Rearing Complexes (IRCs) and the activities and findings of the MRRP science program. Based on the Record of Decision signed in November of 2018 the implementation of the Adaptive Management Program and MRRICs oversight of the program has formally begun.

MOARC Annual Membership Meeting and Social

December 3, 2019 – Husch Blackwell LLP, Kansas City, Missouri

MOARC is holding its annual membership meeting and social at Husch Blackwell in Kansas City on December 3rd, 2019. The meeting will be to provide membership with information on the status of the organization and its successes in advocating protects for the Kansas vand Missouri region. The annual meeting is an opportunity for members and interested parties to hear about progress on the region's vwater resource projects as well as issues that need to be addressed. It is also an opportunity to network with industry and government representatives in a social setting. Please Save the Date and plan to join MOARC members on 3 December!

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HIGH WATER

and depending on a stable navigation season driving improvement of the Missouri River navigation system had to reroute products to other transportation modes. For a time, those other transportation routes were also impacted creating interruptions in ground transport of goods and materials into and out of the Midwest affecting time and costs of those goods and materials. As the Missouri River was affected by the extraordinary rainfall and runoff, tributary reservoirs were required to limit or eliminate downstream releases (Kansas River and Osage River tributary reservoirs) creating flood conditions in the reservoirs and upstream of reservoirs until recently. Water levels in these reservoirs exceeded the flood exclusion zone and reached over 90% storage capacity at many reservoirs. Corps water management became more complex in balancing water levels and releases from both mainstem and tributary reservoirs to maintain the integrity of the dam as well as not create additional flood conditions downstream in the lower reaches of the river basins. High waters in these reservoirs impacted and continue to impact marina operators and adjacent land owners upstream. As the Missouri River levels began to stabilize in July, tributary releases were increased to begin evacuation of the tributary reservoirs to prepare of the 2020 runoff season. These reservoir releases have increased the opportunities to impact downstream interests and provides flows on top of those released from Gavin's Point and inflows from unregulated streams to the Missouri River. As a result, high flows continue within the lower Missouri River basin. The Corps expects the continued release of 70,000 cfs through the fall to prepare reservoir storage for the 2020 runoff season. These releases will continue to result in higher than normal water elevation in the lower Missouri River Basin. Opportunities for flood conditions and continued impact to lower basin levees remain high. Recovery and repair efforts by the states and the Corps will continue to be hampered in the immediate future under the current conditions.

Committee Corner

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MOARC committees provide key contributions to our membership. Subject Matter Committees inform and lead our efforts:

- Legislative Policy
- Flood Control & Risk Management
- Navigation, Shipping & Trade
- Water, Power & Permitting

Organization Support Committees bring value to our membership:

- Communications
- Membership
- Finance

Membership Committee

The MOARC membership drive continues as we are halfway through 2019. We want to thank those individuals, communities and organizations that have continued to their support to the organization. The membership drive continues as MOARC reaches out to those individuals and organizations who have shown interest in the advocacy work that we have conducted. The organization relies on memberships to meet the advocacy, outreach, and the funding of events through the year. The vitality of the organization will continue to build on its membership within the region and the input of those individual and organizations who are active participants in the region's water resource development The membership committee will be reaching out to those past and prospective members as a follow up to membership letters as we continue to expand our membership both geographically and in diversity. The diversity of our organization is our strength as we reach out to federal agencies and congressional offices in support of continuing and future water resource projects. For more information or to get involved, contact the Membership Committee Chair David Combs at: dlc69@me.com

Water, Power & Permitting Committee

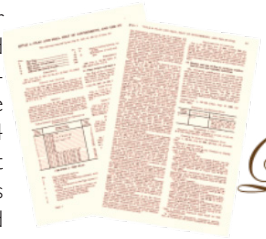
Committee Tracks Degredation

The Water, Power and Permitting Committee is reorganizing under a new committee chair as it seeks to become more functional in addressing issues affecting municipal and private water supply entities and power generation facilities on the Kansas and Missouri River systems. The committee is currently tracking the 2020 renewal of Missouri River dredging permits by the Corps of Engineers. The Section 404 review process for the renewal of the five-year permits to dredge sand and gravel from the Missouri River will begin in January of 2020. The Corps is requiring a Section 408 technical review of the impact of permitting on federal projects within and along the Missouri River utilizing the Missouri River Bed Degradation Study technical report completed in May 2017 as part of that review. Currently the Dredging industry is conducting an evaluation of the river bed to determine accretion or degradation of bed material in the river. The Corps permit evaluation and public review of the permits and any conditions that may be required will be conducted through 2020 with permits expected to be issued in December of 2020. The Committee will continue to follow the permitting process as it begins in 2020 and ensure the Bed Degradation technical report is included as part of the technical evaluation. For more information or to get involved, contact the Water, Power & Permitting Committee Chair Kevin Cavney at: kcaveny@waterone.org

Legislative Policy Committee

Water Supply Rulemaking Update

Water supply rules under modification and renewal by the Corps of Engineers through rule making are expected to be finalized this month (August 2019). The Secretary of the Army for Civil Works directed the Corps to review the water supply rules due to inconsistencies in water supply agreements, application of definitions, and methods for calculating water supply costs across the nation. Application of water supply rules and methodology in water supply cost estimating the Missouri River basin brought these inconsistencies to light. Through rule making the Corps proposed to update and clarify its policies governing the use of its reservoir projects for domestic, municipal and industrial water supply pursuant to Section 6 of the Flood Control Act of 1944 and the Water Supply Act of 1958 (WSA). The Corps has previously accepted public comment and has considered revisions based on comments since November 2017. Publication of final water supply rules were deferred to August 2019. For more information or to get involved, contact the Legislative Policy Committee Chair Matt Bond at: matt.bond@kcmo.org



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Legislative Policy

In the News

Governor Establishes Flood Advisory Working Group

Governor Mike Parson of Missouri established a Flood Advisory Working Group to provide stakeholder input on flood recovery and management. The Working Group is to provide input on flood recovery priorities and feedback on the state's current levee system with suggested changes to benefit the state and its citizens. In addition, the advisory group is to look at flood conveyance options on the major river systems in Missouri. Governor Parson established the advisory group on 18 July through Executive Order 19-14. MOARC is one of several stakeholder groups invited to participate in the Advisory Working Group. For additional details see Page 12 under this newsletter's Missouri River Matters.

Missouri Governor Mike Parson

Kansas City District Change of Command

The Kansas City District conducted a Change of Command on 19 July to transfer command of the US Army Corps of Engineers Kansas City District from Colonel Douglas Guttormsen to Colonel William Hannan. The Change of Command was performed by Brigadier General Pete Helminger, Commander of the Northwestern Division. The event is a military tradition that designates the transfer of but continuity of command within the US Army. The event was attended by representatives of MOARC and other regional water resource organizations.

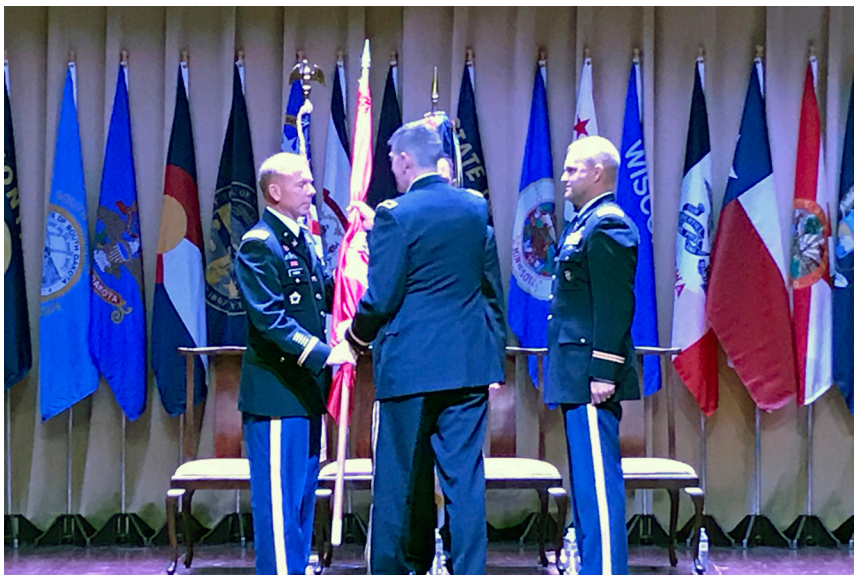
Colonel William Hannan is a native of Ohio and was commissioned in the U.S. Army Corps of Engineers in 1997 after graduating from Ohio State University.

Colonel Hannan just transitioned from serving as the Director of Academic Operations for the U.S. Army War College, Carlisle Barracks, Pennsylvania. Prior to this assignment he served as the Chief of Staff for the U.S. Army Engineer School and Battalion Commander of the 35th Engineer Battalion, both at Fort Leonard Wood, Missouri. He also served as the Chief of Engineer Engagements and Exercises for the Assistant Chief of Staff – Engineer, Headquarters, U.S. Army Pacific at Fort Shafter, Hawaii; Detachment Commander of the 565thForward Engineer Support Team – Advance, Honolulu District, U.S. Army Corps of the Engineers in Afghanistan and at Fort Shafter, Hawaii; the Battalion Operations and Executive Officer for the 5th Engineer Battalion in Iraq and at Fort Leonard Wood, Missouri; a Small Group Leader for the Engineer Captain Career Course at Fort Leonard Wood, Missouri; the Brigade Maintenance Officer, Assistant Operations Officer, and Headquarters Company Commander for the 18th Engineer Brigade in Afghanistan and at Campbell Barracks, Heidelberg, Germany; the Geo spatial Officer in the Office of the Deputy Chief of Staff – Engineer, Headquarters, US Army Europe at Campbell Barracks, Heidelberg, Germany; Aide de Camp for the Assistant Division Commander – Support, 82nd Airborne Division, and Assistant Brigade Engineer and Platoon Leader in the 307thEngineer Battalion, 82nd Airborne Division at Fort Bragg, North Carolina.

He holds Bachelor of Science in Civil Engineering from Ohio State University, a Master of Science in Engineering Management from Missouri University of Science and Technology, and a Master of Strategic Studies from the US Army War College. He is a certified Project Management Professional. He is also a graduate of the US Army Command and General Staff College, Combined Arms Staff Service School, Joint Engineer Operations Course, Explosive Ordnance Clearance Agent Course, Jump Master Course, Engineer Officer Advance Course and Engineer Officer Basic Course.

His awards and decorations include the Bronze Star Medal, Meritorious Service Medal, Army Commendation Medal, Army Achievement Medal, National Defense Service Medal, Armed Forces Expeditionary Medal, Afghanistan Campaign Medal, Iraqi Campaign Medal, Global War on Terror Service Medal, Overseas Service Ribbon, NATO Medal, Meritorious Unit Award, Combat Action Badge, Master Parachutist Badge, Sapper Tab, and Ranger Tab.

This is Colonel Hannan's first Command of a Corps of Engineers District and he is looking forward to working with the region as he steps into the civilian water resource development and management role along with a large military construction and hazardous waste environmental restoration program. Colonel Hannan has already taken the opportunity to meet and learn about the water resource development partners of the region as he met with MOARC (Tom Poer and Dave Combs) and KCIC (Scott Brown) on 11 July to learn about our organizations and the partnership role we play.



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MOARC Recognized in Economic Development Cornerstone Awards

MOARC and KCIC recieve the 2019 Special Recognition Cornerstone Award. MOARC along with the Kansas City Industrial Council (KCIC) has been recognized by the Kansas City Economic Development Corporation (EDC) for its advocacy role in the development of the Kansas City's Levees project. The Cornerstone Awards are presented annually to recognize companies and projects that have helped strengthen Kansas City, Missouri's economy. The Kansas City's Levees Coalition (MOARC and KCIC) is one of 21 companies and projects being recognized for their role in building the local economy. The Economic Development Corporation's mission is to attract and retain businesses domestically and internationally by serving as a resource and advocate in cultivating competitiveness of businesses locating or expanding to the City of Kansas City. To be nominated for the Cornerstone Awards, the nominee must align with the mission of the EDC which is ***"To drive economic development and create an environment in which businesses and residents prosper in Kansas City, Missouri."*** The Cornerstone Awards have been presented for more than 30 years with this being the first time MOARC has been recognized for its advocacy work for the region. The Kansas City Economic Development Corporation presented the Cornerstone Awards at its awards ceremony on 29 May in Kansas City. MOARC President, Tom Poer, and Executive Director, Dave Combs, attended the Awards representing MOARC. MOARC has been instrumental in working with the Corps of Engineers, local sponsors and with the Congressional offices to ensure the Kansas City Levees project as part of the Bipartisan Budget Bill of 2018 (Supplemental Bill) to address current and future flood risk management within Kansas City, Kansas and Missouri. Working with the Congressional offices and the Office of the Assistant Secretary of the Army for Civil Works, MOARC had the Kansas City's Levees project was also recognized as a single on-going construction project and became fully federally funded (100% federal dollars) under the Supplemental Bill bringing over $453 million to the region to complete the flood risk project. The Cornerstone Award recognized the efforts of MOARC and its advocacy partner, KCIC, in securing the funding to complete this important flood control project protecting over $20 billion in infrastructure investments. MOARC is extremely proud to be recognized for its role and efforts in the community as a Cornerstone Awards finalist.

Receiving the Cornerstone award for the Levee Coalition was Tom Poer, Dave Combs, Tom Roberts, Scott Brown, Susan Brown, and Bruce Holloway.

National Flood Insurance Program Reauthorization

Reauthorization of the National Flood Insurance Program (NFIP) moving forward. On a bipartisan basis the House Financial Services Committee advanced two flood insurance bills: the National Flood Insurance Program Administration Reform Act, which makes improvements to the program's appeals and litigation process; and H.R.3167, the National Flood Insurance Program Reauthorization Act, which reauthorizes the NFIP for five years and also includes a number of reforms to increase affordability, improve mapping, enhance mitigation, and modernize the NFIP. The NFIP has languished under temporary extensions since as congress struggled to address reauthorization. Since fiscal year 2017 alone, the National Flood Insurance Program has experienced 10 short-term extensions resulting in brief lapses during that time. In 1968, Congress created the National Flood Insurance Program (NFIP) to provide a means for property owners to protect themselves financially from flood events. The National Flood Insurance Program aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters and businesses and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance, specifically. Congress must periodically renew the NFIP's statutory authority to operate. On June 6, 2019, the President signed legislation passed by Congress that extends the National Flood Insurance Program's (NFIP's) authorization to September 30, 2019. Should the NFIP's authorization lapse, the Federal Emergency Management Agency (FEMA) would still have authority to ensure the payment of valid claims with available funds. However, FEMA would stop selling and renewing policies for millions of properties in communities across the nation. Nationwide, the National Association of Realtors estimates that a lapse might impact approximately 40,000 home sale closings per month. The level of damage from recent catastrophic storms just within the Missouri River basin makes it clear that FEMA needs a holistic plan to ready the nation for managing the cost of catastrophic flooding under the NFIP. The reauthorization of NFIP in the current congressional session is an opportunity for Congress to take steps to reduce the complexity of the program and strengthen the NFIP's financial framework so that the program can continue helping individuals and communities take the critical step of securing flood insurance. Flood insurance, whether purchased from the NFIP or through private carriers. is the best way for homeowners, renters, business, and communities to financially protect themselves from losses caused by floods. Congress must now reauthorize the NFIP by no later than **11:59 pm on September 30, 2019** or provide another short-term extension. ***MOARC and the local communities continue to track the legislation and advocate the reauthorization of this important program to the region and the nation.***

In the News

Corps of Engineers Section 7001 Annual Report on Future Studies and Projects

The Corps of Engineers (Corps) released its Section 7001 Annual Report for 2019 on 21 June. The report scheduled to be released at the first of February has been held from publication by the Administration until recently. The Future Water Resources Development Reports (Annual Report) to congress are important in that they identify projects to be included in future Water Resource Development Acts (WRDA). The report becomes part of the basis and criteria for both the House Transportation and Infrastructure and the Senate Environment and Public Works committees as they develop the 2020 WRDA.

This 2019 Report to Congress on Future Water Resources Development is in response to Section 7001 of the Water Resources Reform and Development Act (WRRDA) of 2014, which requires that the Secretary of the Army submit an annual report to Congress that identifies potential future water resources development studies and projects. The Annual Report is compiled based on completed feasibility reports recommending a water resources project for congressional authorization, proposed feasibility studies, and proposed modifications to authorized water resources development projects or studies. On April 20, 2018, the Corps published the annual Federal Register notice for proposals from non-Federal interests providing the public an opportunity to propose water resource projects to address regional development needs.

US Army Corps of Engineers Releases 7001 Annual Report

The Corps received 34 proposals from the public during the 120-day proposal window (deadline was August 20, 2018) and evaluated against the criteria outlined by congress and the Secretary of the Army. Included in the main report for potential authorization in the 2020 WRDA were the Lower Missouri River Basin and the Osage River Basin studies submitted by regional interests. These two proposals met all the criteria required under Section 7001. Additionally, in the report's Appendix were the Kansas River Basin study, the Little Blue River Integrated study, the Line Creek Aquatic Ecosystem Restoration project, and funding approval of the Upper Turkey Creek Flood Control Project's Pre-Construction Engineering and Design (PED). Projects reported in the Appendix did not meet all the criteria as each are already authorized and do not need WRDA 2020 authorization. Their listing in the Annual Report, however, does show the level of interest by the public to be funded through the Corps 2020 Work plan as it becomes developed. The report can be viewed at: https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll5/id/35439

Missouri River Authorized Purposes Legislative Proposals

As a result of the spring and early summer flood event and subsequent continued high waters across the lower Missouri River Basin, several congressional offices have introduced legislation to address concerns regarding the periodic flooding of the Missouri River and the impacts to those citizens and interests within the flood plain. Introduced legislation focuses on changes or reconfirmation of the authorized purposes of flood control, navigation, and fish and wildlife. Introduced legislative proposals are as follows:

Representative Sam Graves – Representative Graves (MO) introduced H.R. 2174 To remove fish and wildlife as an authorized purpose of the Missouri River Mainstem Reservoir System and to make flood control the highest priority of authorized purposes of the river system. In addition, the legislation would require revision of the Missouri River Mainstem Reservoir System Master Water Control Manual to affect the priority and deauthorization. The legislation proposed by Representative Graves can be found at: https://www.congress.gov/bill/116th-congress/house-bill/2174

Senator Josh Hawley – Senator Hawley (MO) has introduced two legislative initiatives to address water management and flood control on the Missouri River system; a Corps of Engineers Flood Control Civilian Advisory Council Act and the Missouri River Flood Control Prioritization Act.

The Corps of Engineers Flood Control Civilian Advisory Council Act (S 1561) was introduced by Senator Hawley in the Senate. The legislation introduced seeks to establish a civilian advisory group to work with the Corps of Engineers' water management division to ensure stakeholder interests are taken in consideration in water management planning and actions on water storage and releases from the six upstream mainstem system reservoirs. The Council would make recommendations on how to prioritize flood control and navigation in the Missouri River Mainstem Reservoir System Master Water Control Manual. Membership would include two individuals from each of the seven basin states along with members from the agriculture and river commerce industries. Members will be recommended by the Senators of each state and appointed by the President. The legislative act introduced by Senator Hawley has been cosponsored by Senators Charles Grassley (IA), Joni Ernst (IA) and Deb Fisher (NE). Details of the legislation can be found at: https://www.congress.gov/bill/116th-congress/senate-bill1565?s=3&r=10

The Missouri River Flood Control Prioritization Act (S1571) was introduced by Senator Hawley in the Senate. The legislation introduced seeks to deauthorize fish and wildlife as an authorized purpose of the Missouri River, designate flood control as the highest priority and require revision of the Missouri River Mainstem Reservoir System Master Water Control Manual to affect the priority and deauthorization. The legislation proposed by Senator Hawley can be found at: https://www.congress.gov/bill/116th-congress/senate-bill/1571?s=2&r=9

Senator Roy Blunt - Senator Blunt cosponsored the Missouri River Flood Control Prioritization Act, legislation in the Senate that would require the US Army Corps of Engineers to remove fish and wildlife from the authorized purposes of the Missouri River Mainstem Reservoir System and make flood control the top priority. Senator Blunt has stated "The management of the Missouri River System has completely failed farmers, families, and communities that have repeatedly faced catastrophic flooding since it was implemented." The US Army Corps of Engineers needs to get its priorities straight, and that means putting flood control and navigation first. The river clearly hasn't been managed in a way that protects people and property, and this bill will change that. We need to move forward before Missourians are faced with another preventable disaster." Blunt has long been critical of the way the Missouri River System is managed. Following a March visit to survey flood damage in Atchison and Holt Counties, Senator Blunt called on the Corps to re-prioritize flood control and navigation in its river management.

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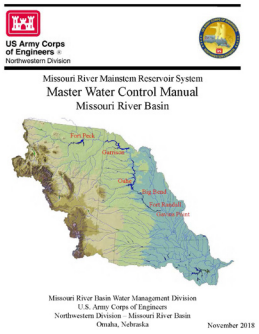
MOARC is currently tracking the legislation initiatives to prioritize flood control and navigation as primary purposes in the Missouri River. At this date, legislation to deauthorize fish and wildlife and prioritize flood control and navigation has not moved forward in the House or the Senate. Of the eight authorized purposes within the Missouri River mainstem system, flood control and navigation have been recognized as the priority purposes in the past and are supported by MOARC as primary purposes. The Corps of Engineers (COL Doug Guttormsen, retired) stated recently that Water Management has been and continues to prioritize management actions for flood control and support to navigation and reported that the Corps has managed ***exclusively*** for flood control since March of 2018 through the present and will continue through the fall of 2019. Al-



though MOARC continues to support flood control and navigation as primary purposes, we have concern regarding any legislative language that may require changes in the Missouri River water control Master Manual. It also should be noted that deauthorization of fish and wildlife as an authorized purpose will not eliminate or diminish requirements and activities of the Missouri River Recovery Program. Deauthorization of fish and wildlife does not impact the requirements for species evaluation and recovery under the Endangered Species Act.

2019 Emergency Supplemental Bill

In response to disaster relief needs across the nation, congress in a bipartisan approach developed a supplemental disaster relief bill, "Additional Supplemental Appropriations for Disaster Relief Act, 2019" to help recover from the various catastrophic disasters (hurricane damage, flooding across the nation, and wildfire damages in the west) that have struck the nation in the past three years. The legislation signed by the President on 6 June provides $19.1 billion for recovery. The Act includes $4.5 billion to the Department of Agriculture for agricultural-related losses, emergency timber restoration, farmland repair, and watershed recovery work to help farmers and ranchers. It also provides $3.3 billion for the Corps of Engineers to repair damages caused by natural disasters, to invest in new flood and storm damage reduction projects, and to make the nation more resilient to future natural disasters. The funds are provided to supplement and support recovery of levees under the PL 84-99 program. The bill also includes other critical funding, such as $1.6 billion to the Department of Transportation for the Federal Highway Administration's Emergency Relief Program as roadways and highways have been impacted by the multiple disasters the nation has sustained. The Act also provides funding to provide recovery of damages at Department of Defense installation and resources for wildfire suppression activities conducted by the United States Forest Service.

2020 Civil Works Budget Development

Water Infrastructure remains important to House Appropriators but continues to move slowly through Congress. The House of Representatives recently passed the fiscal year 2020 Energy and Water Development Appropriations Act on 19 June to fund infrastructure development for the US Army Corps of Engineers, Bureau of Reclamation and the Environmental Protection Agency. The House bill HR 2740 provides significant increases in water resource infrastructure development over the Administration's proposed budget and increases over the 2019 civil works budget. The bill includes funding for projects and programs in both the Corps' Civil Works program and EPA's clean water program and revolving funds program that support infrastructure development that are important to communities and industries of our region. The House has subsequently passed the Energy and Water Appropriations Bill to the Senate on 24 June for consideration. The bill has been read into the record at the Senate, but it is likely that the bill will not be passed in the near future due to the congressional recess through the month of August and that the Senate has many bills awaiting debate and approval over the fall. Once passed and signed by the President the Corps would develop its 2020 Work plan to address specific civil works projects funded in 2020 and provide funding for water infrastructure improvement through EPA. Movement and approval of this bill will be a key message for MOARC and KCIC during our Fall Washington DC visit (1-3 October 2019).

Missouri River Recovery Program Activites Update

The Missouri River Recovery Program (MRRP) continues in 2019 under the 20 November 2018 Record of Decision for the Missouri River Management Plan and Environmental Impact Statement. The 2019 program funding of $17.2 million will focus on management of Emergent Sandbar Habitat (ESH) to provide effective bird habitat, construction of Interception Rearing Complexes (IRC) to evaluate effectiveness of engineering shallow water interception habitat of the Pallid sturgeon, and continuation of the Integrated Science Program (ISP) to determine additional life history information and

evaluate effectiveness of recovery efforts for the three endangered species (Interior least tern, Piping plover, and Pallid sturgeon). Activities in 2019 under

the Biological Opinion and the Adaptive Management Program will allow the Corps to continue to operate its Missouri River projects for all their authorized purposes while complying with the Endangered Species Act and other federal laws. The Biological Opinion prepared by the US Fish and Wildlife Service developed as part Missouri River Management Plan and Environmental Impact Statement called for a flow test release of high flows from Fort Peck reservoir to determine the ability to attract, retain adult fish, and stimulate spawning of Pallid sturgeon within the upper basin of the Missouri River. The Corps has initiated the preparation of an Environmental Impact Statement (EIS) for implementing that test flow release from Fort Peck Dam. The draft EIS is scheduled for January 2020 with the final due in September 2020. The one-time test flow is to be implemented within the first nine years of the Adaptive Management Plan. MOARC will track the progress of the EIS and development of alternatives through 2019 and participate during the public comment process.

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In the News

MLDDA Delivers Flood Event Testimony

On July 10th the US House Transportation and Infrastructure Committee held a hearing on "Water Resource Development Acts: Status of Implementation and Assessing Future Needs". Tom Waters, President of the Missouri Levee and Drainage District Association (MLDDA) provided both written and oral testimony on Flood Future to the Committee. In his testimony Tom advised the Committee of the difficult year for people living and working along the Missouri River citing the extraordinary runoff from unregulated tributaries and flows released from the Missouri River mainstem reservoirs and the resulting major and long term flooding on the Missouri River from above Sioux City, Iowa to St Louis, Missouri and along several tributaries of the Missouri River.

Tom Waters, MLDDA President, provides testimony to the US House Transportation and Infrastructure Committee

His testimony to the Committee centered around three points:

1. Recent flooding and funding needs for levee repairs and flood recovery,
2. Desperately needed changes in the management and operations of the Missouri River Reservoir System, and
3. Long-term improvements to flood control infrastructure across the nation.

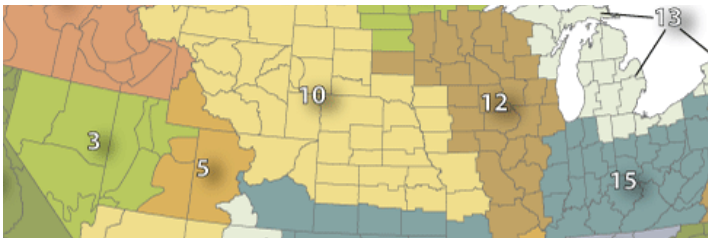
Tom laid out the impacts of the flood event on individuals, communities, businesses, and basin farmers and their crops, storage facilities, livestock and machinery. He also noted the impacts on transportation of products across the Midwest as roadways, railways, and river navigation were impacted by the flood event. Tom also discussed the aging levee system that was overwhelmed and noted the 100 plus levees breached or over topped during the spring event and subsequent high waters that have weakened downstream levees. He noted that the Corps Emergency Management Office estimates that the recovery and levee rehabilitation from this year's flood event will be the largest rehabilitation program in their district since the great flood of 1993. Tom advised the Committee that Congress must act quickly to fund levee repairs. The recovery from the most recent flood events prior to this year has been slow with some levees not fully repaired from flooding in 2015. He called for recovery from this year's event to be handled better. Tom expressed concerns regarding the current operations of the Missouri River reservoirs and called for flood control to be recognized as the number one priority for the management and operation of the Missouri River Reservoir System. He expressed his organization's and other basin constituency's significant concerns over the Missouri River Recovery Program's activities and that management of the river to meet the US Fish and Wildlife's Endangered Species Act (ESA) requirements has been prioritized over the flood control authorization. Tom advised the Committee that "The system must be used the way it was designed. It must be used for flood control."

Finally, Tom's testimony touched on the need for flood control infrastructure improvements nationally. He noted that the decline of our flood control infrastructure is not limited to the Missouri River and stated "The lack of emphasis on flood control over the past 20-plus years and the current inadequate infrastructure must be addressed as a national priority. Congress must act together to correct the problem." The Corps in recent testimony to the US Senate Committee on Environment and Public Works field hearing in Iowa that flooding occurs somewhere in the nation nearly every day and described the flooding occurring in multiple states along with those along the Missouri River. Tom advised the Committee that the long list of flooding locations serves to remind us the lack of attention to flood control infrastructure over the past several years is a national problem, which impacts nearly every corner of the country and that Congress should support prioritizing flood control infrastructure as money for infrastructure projects is appropriated.

At the end of the testimony Tom reminded the Committee that the Missouri River flood event is not over, and impacts continue to occur with each rainfall and high-water event. The full testimony provided to the Committee can be found at: https://transportation.house.gov/imo/media/doc/Waters%20Testimony%20(MO%20Levee%20and%20Drainage).pdf

Regional Water Resource Project Updates

MOARC has been a strong partner in advocating for water resource development within the region working diligently for improvement in flood control measures that protect lives and promote economic development in Kanas and Missouri. The region has had many successes in bringing projects to regional communities and into fruition as most on-going projects have received federal funding to complete design and construction. MOARC has been Fighting to Finish projects that have been decades in development. In its advocacy role MOARC has been a significant partner working with local sponsors, congressional offices, and the Corps of Engineers to secure funding and move regional flood control projects to completion. The status of on-going projects MOARC has been Fighting to Finish are as follows:



Topeka Levees – Construction of the levee and flood wall improvement project continues with the expectation of construction completion in 2020. Remaining work includes railroad gap closures and underseepage control wells. The total project cost is $29 million. The final construction contract has been awarded; construction continues with the project estimated as 71% complete.

St. Joseph Levees – Construction progress continues, on the left bank L-455 (St Joseph) and right bank R 471-460 (Air Guard, Airport, Wathena, KS) levee systems with activities organized into six contract actions. Construction on the left bank L-455 Gatewell (Contract #2a) is substantially complete as of December 2018. Contract 2b, the L-455 levee raise has been awarded in Sep 2018 and is in progress. A contract for the railroad gap closure on the L-455 unit ($3M) was awarded in December 2019. Contracts for levee raises in the south and north of the R 471-460 unit will be awarded in spring and summer of 2020, representing $45 million of the project cost. Design and real estate acquisition for these contracts continues in 2019. Construction placement to date is about $7 million. Total project cost including design, construction, real estate, and construction management is approximately $70 million. The project continues through construction and is approximately 20% completed.

Swope Park Industrial Area – The base construction contract for the project was awarded in June 2019 to Medvolt CS. The interior drainage pipe was completed in FY 2012. The Bank Stabilization and Levee A construction was completed in March 2018. Estimated construction completion for the project is Jan 2023. Total project cost is $35 million. The project continues through construction and is approximately 25% completed. Coordination with the city of Kansas City is still required to determine status and future plans for the flyover bridge, and how the project will be configured at the 75th St road closure.

Blue River/Dodson Industrial Park – The project is 74% physically complete as of July 2019. The flood wall from Hickman Mills Road to the U.S. Highway 71 overpass is complete. The Boone Creek levee is complete. A contract was awarded on 3 November 2017 to complete the final levee alignment and the project. Real estate certification received from sponsor for one remaining parcel near the landfill tie-in (east of 87th Street). Total project cost is $49 million.

Turkey Creek Basin – The remaining work on the project now is completion of the Missouri Interceptor to convey damaging Roanoke Road and 31st St storm drainage runoff safely underground to the Turkey Creek tunnel, including the interceptor outlet at the tunnel entrance and conveyance in the channel invert. Phase I is the dual 10'x9' box culvert outlet, and channel conveyance at the tunnel entrance. The cost is $15 million in contract awarded March 2016 to Phillips Hardy, Inc. The approximate 4,000 feet interceptor pipeline contract, Phase II, was awarded in Sep 2018 to Radmacher Brothers Excavating in the amount of $28.8 million. Phase I has been delayed a total of about 14 months, much of that due to flooding which has the project currently on temporary stop work. Project completion & final closeout will be in 2022, most construction completion should be substantially before that date if weather cooperates. Total project cost is $160 million. The project continues through construction and is approximately 75% completed.

Manhattan Levees – This a levee raise project at the confluence of the Big Blue and Kansas River in Manhattan, Kansas where virtually the entire downtown including major commercial and industrial areas are protected by the levee. After the 1993 flood the existing levee was found not to be able to pass the original design flow. A feasibility report was approved in 2015 and authorization provided in WRDA 2016 for a levee raise of up to 3.5 feet over a length of almost 3 miles. Project includes major improvements in underseepage berms and 29 new relief wells. The project is fully funded for design and construction, design has been initiated and continues through 2020-2021. Construction contract award is scheduled for 2021. Total project cost is $30 million. The project is estimated as 4% complete to date.

Kansas City's Levees – As a result of being fully funded under the 2018 Supplemental Bill, the Corps of Engineers has developed a dedicated project management team to address the design and construction at an accelerated schedule. The project was developed as a phased approach to move forward with design and construction; Phase 1 is nearly complete; Phase 2 involves substantial improvements to pump stations and levee raises within the Kansas levee units. Phase 1: All components previously completed except Argentine Unit. The Argentine Levee Unit is currently under design. Funding has been received to complete the project. Argentine Pump Station Replacement D/B Contract is tracking to be awarded in September 2019. Argentine Levee/Floodwall Raise design is underway and the design contract is scheduled to be awarded in FY20. Real Estate acquisition and railroad coordination will be extensive and is underway. Phase 2: The Design Agreement for Phase 2 design work on Armourdale and CID Levees was signed by the local sponsors on 11 December 2018 and design is in progress. Construction is anticipated to be initiated in 2020 and with a schedule for substantial completion in 2024. The project received full funding to complete construction of both Phase 1 and Phase 2 ($435 million) under the Supplemental Budget Bill of 2018 currently. Through extensive efforts of many partners, the project has been approved by the ASA-CW for full federal funding with no cost sharing of construction features as the project is considered as an on-going construction project under the 2018 Supplemental Bill. Total project cost upon completion of both phases is estimated to be $550 million.

Grand River Basin Feasibility Study – In the 7,900 square mile Grand River Basin northeast of Kansas City on Hwy 36, widespread straightening of streams in upper areas of the watersheds in the past have cause major instability of streams, resulting in massive sediment deposition, erosion, and log jams lower down. This has caused huge losses of pristine hab-

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In the News

Future Water Resource Opportunities Identified

Although the region has had many successes in moving water resource projects toward completion, local interests continue to identify water resource needs and opportunities to be addressed in the region.

> In its advocacy role, MOARC is working with regional interests to bring congressional offices and federal agencies together with local interests as partners in future water resource development.

As we look toward 2020 and beyond, there are water resource projects underway that need funding to move them to construction and completion as well as potential flood and navigation studies in the lower Missouri River basin.

On-going projects that will need continued support include the **Upper Turkey Creek Flood Control Project** in Merriam, Kansas an upstream basin of the Kansas City metropolitan area, the **Grand River Basin Ecosystem Restoration Project** in northwest Missouri as it moves to study completion and the Kansas River Flood Risk and Sediment Feasibility Study. The importance of the projects and the interests of the regional sponsors are supported by MOARC. The Upper Turkey Creek project was authorized 2016 but has not been funded to move forward into Pre-construction Engineering and Design (PED) to date. MOARC continues to advocate for the inclusion of funding ($910,000) int the Corps 2020 Work plan budget in order to fund design to completion. The Grand River Basin Ecosystem feasibility is funded to study completion in 2020 and will need support from MOARC for design funding in the Corps FY21 budget. **The Kansas River Basin feasibility study** has been initiated as a watershed project and funded at $1.5 million. Although funded at a high level, additional funds of $750,000 will be required in out years to complete this geographically challenging multipurpose study.

In addition to the on-going projects, the region has identified additional needs to address flood control, ecosystem restoration and navigation issues impacting people, infrastructure, commerce and resources in Missouri and Kansas. The navigation industry using the Missouri River for shipping of goods and materials to international markets has identified the need for improvement of navigation structures and river management. A proposed **Lower Missouri River Basin Navigation Study** to relook at the reliability and effectiveness of the Bank Stabilization and Navigation Project (BSNP) to provide navigation from Sioux City, Iowa to the mouth. The project would look at opportunities for improved navigation to provide a more reliable and sustained navigation season to attract increased traffic upstream as well as increased movement of goods from across the Midwest to coastal ports for international markets. The State of Missouri has requested an ecosystem restoration project within the **Osage River Basin** to address the continued erosion and loss of riparian habitat and ecosystem corridors along the Osage River in central Missouri. Fluctuating flow releases from upstream reservoirs have resulted in the loss of lands and those ecosystem habitats that protected local land conservation.

The City of Kansas City, Missouri and the Corps of Engineers have been concerned about the increased urbanization of this once rural area and the impact of flash flooding conditions within the Little Blue River draining the eastern basin of the metropolitan area. Multiple cities within and along the Little Blue River are experiencing flooding of residence and infrastructure as development increases in the basin. A **Little Blue River Basin flood control project** has been proposed and is gaining interest among communities and businesses within the basin. The proposed project would be a multipurpose study looking at addressing flood control in the urban watershed along with water quality and ecosystem restoration in the basin.

To move from an identified concern or need to a viable project, a new start approval by the Corps of Engineers along with funding from congress and the Corps is required. Funding and new start needs for these proposed water resource projects will be addressed by MOARC during its Fall Washington DC visit (1-3 October) as part of the 2020 Corps Work plan or be identified as part of the FY21 budget submission. During that visit, MOARC will continue to present regional project needs and funding requirements to the congressional offices, Appropriations Committees, and the Corps of Engineers as the 2020 Corps' Civil Works Work plan continues to be developed. Advocacy in motion presents the needs, Advocacy pushes for prioritization, Advocacy identifies and requests the funding, and finally persistent Advocacy results in success. MOARC will continue its primary role of an advocate for viable water resource projects that protect lives, provide economic viability and environmental resource protection within the region.

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REGIONAL PROJECTS UPDATE

itat, farmland, and ongoing damage to vital infrastructure. In the Lower Grand watershed, there are major facilities and large areas of high value, pristine habitat being damaged including the Missouri Department of Natural Resources' Pershing State Park, the Missouri Department of Conservation's Fountain Grove and Yellow Creek Conservation Areas, and USFWS Swan Lake National Wildlife Refuge. The study has formulated effective measures to protect Pershing State Park and surrounding areas with a large sediment detention area and other measures to protect and improve habitat benefits to Fountain Grove, Yellow Creek and Swan Lake. Measures developed by the Corps and its study team also include stream restoration in the upper watershed to address the source of sedimentation. The project will also protect valuable farmland, infrastructure, and high value recreation areas along the Grand River Basin in Missouri. The selected alternative (Tentatively Selected Plan) recommended by the study team was approved by the Corps of Engineers on 22 July. Study completion is scheduled for late 2020.

Kansas River Flood Risk & Sediment Feasibility Study – The Kansas River watershed study was funded as a major New Start in 2019 and has been initiated. The signatory partners on the feasibility agreement are Kansas Water Office (KWO) and the Kansas Department of Wildlife, Parks & Tourism (KDWP&T). This is in the watershed study framework and will result in a recommended plan for flood risk reduction, sediment management and reduction in Corps reservoirs, and other multipurpose benefits in the system and downstream. The study is anticipated to take up to 5 years, however implementation steps and action measures will be recommended and/or implemented as opportunities are identified. The watershed approach will provide recommendations for follow-on feasibility studies to formulate and authorize construction of specific projects identified during the study. Study cost is $3 million; cost sharing is 75% federal and 25% state partners. The USGS, NRCS and other state and federal agencies will be included as study partners. Study scoping and outreach planning is currently in progress, with outreach and communication being an important component.

Levee Recovery Status

The Missouri River levee system sustained significant damage during the 2019 flood event with over 100 levees in the lower basin below Gavin's Point damaged though over topping and/or breaching of levees. Most levees above Kansas City were over topped or breached during the March – April rainfall and runoff flows from unregulated tributary tributaries into and below Lewis and Clark Lake/Gavin's Point Dam. Periodic flooding and high-water releases through the present have resulted in damages to additional levees downstream of Kansas City to Saint Louis. Although damage assessments are on-going and incomplete due to continued high water, damages are expected to range from loss of grass cover on levees to levees erosion to full-blown breaches with some levees systems having multiple breaches.

Repairs have begun on several upstream levees that sustained significant damages in Iowa and Nebraska. Omaha has recently closed a critical upstream breach on the Hamburg levee allowing an opportunity to begin repair on additional downstream breaches on the levee system. Omaha is completing damage assessments Project Implementation Reports (PIRs) on the other 20+ levees within their AOR (area of responsibility) Within Kansas City District, damage assessments and PIRs continue to be conducted and prepared for the 64 downstream levees damaged. High water levels in the AOR have prevented full assessments of the damages. The Kansas City District expects nearly 90 requests for assistance from levee districts as damages are identified and reported to the Corps of Engineers. To date the Corps' Northwestern Division has approved eight PIRs for repairs. Repair and recovery of the levee system is projected to be the largest rehabilitation program since the 1993 flood event.

Recovery of the levee system will require significant funding from congress and time to repair damages. The system has levees that have not been repaired from damages sustained during the flood event in 2015. In recent testimony to the House Committee on Transportation and Infrastructure, Tom Waters, President of MLDDA, called on congress to recognize the significant level of damage to the levee system and to expedite funding for repairs of levees under the PL 84-99 program. MOARC supports the need to expedite repairs of the levees damaged during the flood event in order to prepare for the next flood event. We will carry the message for additional supplemental funding for the PL 84-99 program and recovery of levees within the system to address future flood events.

MOARC to Participate on Missouri River Flood Advisory Working Group

Missouri Governor, Mike Parson, establishes Flood Advisory Working Group calling for stakeholder involvement, including a representative from MOARC. With recognition of this year's record-level flooding, the over topping or breaching of 100 levees, and devastating impacts to Missouri communities, Governor Parson signed Executive Order (E.O.) 19-14 on July 18th establishing the Flood Advisory Working Group to provide input on the state's short-, medium-, and long-term flood recovery priorities and feedback on the state's current levee system with suggested changes to benefit the state and its citizens. The Advisory Group is to identify areas where flood risk attention is needed and inform allocation of funding as Missouri recovers from 2019 flooding. The scope of the Advisory Group includes reviewing needs within the major river basins of the State of Missouri affected by previous and recent flood events. Beyond addressing repairs to levees, the Advisory Group is to explore options to improve conveyance of floodwater through the state's major river systems. Per the E.O. the composition of the Flood Advisory Working Group will consist of the following:

- The Director of the Department of Natural Resources
- The Director of the Department of Agriculture
- The Director of the Department of Economic Development
- The Director of the State Emergency Management Agency
- The Director of the Department of Transportation
- A representative from the Missouri Levee and Drainage District Association, selected by the Association
- A representative from Missouri Farm Bureau, selected by Farm Bureau
- A representative from the Missouri Com Growers Association, selected by the Association
- A representative from the Missouri Soybean Association, selected by the Association
- A representative from the Coalition to Protect the Missouri River, selected by the Coalition
- ***A representative from the Missouri and Associated Rivers Coalition, selected by the Coalition***
- Two members from county or municipal governments representing local government interests
- Two members representing agri-businesses or the agriculture industry, and
- Other members as the Governor may appoint

The Director of the Missouri Department of Natural Resources and Director of the Department of Agriculture will chair the Flood Advisory Working Group, which is expected to submit an initial report to the Governor with findings and suggestions by the end of 2019, and a final report by mid-2020. To view the Press Release or full Executive Order (E.O. 19-14) visit:
:
https://governor.mo.gov/press-releases/archive/governor-parson-signs-executive-order-establish-flood-recovery-advisory
https://www.sos.mo.gov/library/reference/orders/2019/eo14

MOARC has been an advocate for flood control within the lower Missouri River Basin for decades and has been a strong partner in improving flood risk management across Kansas and Missouri. We are extremely pleased to be recognized by the Missouri Governor's office as an important component in evaluating the flood recovery needs for the State of Missouri and developing future flood conveyance opportunities to protect citizens, communities and businesses along the Missouri River and its tributaries. We look forward to participating in the Advisory Group and working with other interested organizations along the Missouri and Mississippi Rivers. In the coming weeks, MOARC will be nominating a representative for appointment to the Flood Advisory Working Group and looking forward to the Governor or Chairs of the Advisory Group to convene the initial meeting.

Your MOARC Board

MOARC leadership is composed of an Executive Committee and a 14-Member Board that guides the direction and messaging of the organization. Board members are volunteers from regional businesses and local governmental organizations who have interests in water resources and water resource development to shape and enhance the social and economic vitality of the region. These individuals provide personal time within the region advocating for projects and travel to Washington DC to meet with congressional offices and federal agencies to ensure the advocacy for water resource development meets the needs of the region. This Quarterly Newsletter provides the opportunity to introduce seven members of the Board. The remaining Board members will be introduced in subsequent Quarterly Newsletters.

At this time, we would like to introduce the following Board members:

Stephen Dailey, P.E. – MOARC Vice President/Executive Committee Member

Steve Dailey is the General Manager of the Fairfax Drainage District (FDD) serving in that role for the last 27 years. The FDD protects the Fairfax Industrial District which is the oldest planned industrial park in the United States. It is home to several major industrial manufacturing facilities and employees over 10,000 workers. The FDD flood control works is comprised of over 5 miles of earthen levee and concrete floodwall, 127 levee relief wells and 13 high capacity pumping stations along the right bank of the Missouri River upstream of the confluence of the Kansas River. Prior to his role in management of the FDD, Steve worked as for Layne-Western Company as a district engineer and as District Manager from 1978 to 1992.

Steve has served on the MOARC Board of Directors since 2006 including the last 10 years on the Executive Committee and as MOARC Vice-President. He has also served on the Fairfax Industrial Association Board Executive Board of Directors since 1995. He is looking forward to retirement in the not too distant future so he can spend more time with his wife of 40 years and his 21 grandchildren.

Karin M. Jacoby, P.E., Esq. – MOARC Treasurer/Executive Committee Member

Karin Jacoby is an attorney and a partner with Husch Blackwell, LLP in Kansas City, MO. She began her water resources career as a design engineer with a St. Louis based consulting firm. After nearly a decade, she transitioned to the public sector and for 14 years provided direction and oversight to Kansas City, Missouri's waterways program. During that time, she returned to school and in 1999 earned a Master's degree in Public Administration, followed in 2006 by her juris doctorate and license to practice law.

In 2013 Karin joined the Levee and Flood Protection practice at Husch Blackwell, a Missouri-based transaction and litigation law firm having a national presence in 18 U.S. cities. Karin counsels clients on water law matters, including all aspects of flood protection: policy analysis and development; planning through design, financing and construction; regulatory requirements and permitting; ongoing responsibilities related to operations and maintenance; and more.

Karin's contributions to better water resources management include 16 years as Executive Director of MOARC (Missouri and Associated Rivers Coalition), and three times a member of the National Waterways Conference board. She is the current Vice-President of the Mississippi Valley Flood Control Association (MVFCA) Engineering Committee and a member of the National Association of Flood and Stormwater Management Agencies (NAFSMA) Advisory Board. Karin served on the National Committee on Levee Safety as a local/regional representative and on the National Academy of Sciences levee committee tasked with assessing the treatment of levees in FEMA's National Flood Insurance Program.

Karin's personal experiences, engineering expertise and legal acumen, along with her work in the private, public and non-profit sectors, combine to provide her a comprehensive and informed perspective on management of water and related land resources, especially in the area of levees, flood protection, mitigation, stormwater and floodplain management. Karin continues to provide MOARC's Executive Committee and Board members with direction and guidance on the myriad of water resource issues within the Missouri River Basin.

Karin enjoys traveling, especially sailing. Her personal hobbies include fishing, camping and canoeing, where she is often accompanied by her Chocolate Lab, Ruby.

Richard Grenville – Director and Navigation Chair

Richard Greenville is the Vice President of Multimodal Logistics for Port KC in Kansas City, MO with an extensive career in the maritime industry bringing a wide experience and innovation to the transportation/logistics field. His corporate career of over thirty-five years includes many aspects of marine and terrestrial transportation in international and domestic arenas. A native of London England, Richard graduated in 1970 from the Naval Training school "Arethusa" in Kent England. Richard attended King Edward VII nautical College (University of London) and Plymouth Polytechnic (Exeter University) earning his DOT Second Mates Certificate FG.

Richard has been a member of MOARC for 4 years and currently serves as the Board Chair of Navigation and Trade advising MOARC on Navigation, Shipping and Trade issues within the Missouri River basin.

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Your MOARC Board

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Jeff Fisher – Director and Flood Control & Risk Management Chair

Jeff Fisher is the Executive Director of Public Works for the Unified Government of Wyandotte County & Kansas City, KS. Jeff has been with the Unified Government for three years overseeing all water related public works activities and infrastructure supporting Wyandotte County. He has experience in the private sector, 3 years with URS Corporation (AECOM), and with the public sector with over 13 years as Director of Public Works for three cities across Missouri and Kansas. In his roles in water resource and water infrastructure he has led two agencies to APWA Accreditation. Jeff holds a Bachelor of Science in Geological Engineering from University of Missouri-Rolla and served four years in the US Navy.

Jeff is a recent member of MOARC and currently serves as the Board Chair on Flood Control and Risk Management advising MOARC on on-going and future flood control projects and initiatives within the Missouri River basin.

Matt Bond, P.E. – Director and Legislative Policy Chair

Matt Bond is Chief Engineering Officer for KC Water Engineering Business Unit, which supports the Water, Wastewater and Stormwater Utilities. Matt oversees the implementation of the KC Water CIP program which is in excess of $200 million annually. Matt has over 35 years of experience in water utility management and consulting, and has specialized expertise in asset management, collaborative project delivery, wastewater treatment, and biosolids management. Matt was President of the Water Environment Federation in 2011-2. Matt has Bachelor's and Master's Degree in Civil Engineering from the University of Missouri and is a licensed professional engineer. Matt has been a MOARC member for two years and currently serves as the Board Chair on Legislative policy issues advising MOARC on current and proposed water related legislation affecting MOARC membership and economic development within the Missouri River basin.

Tom Kimes, P.E., ENV SP, – Director, At-Large

Tom Kimes is a civil engineer who graduated from UMKC in 1987. He has spent equal periods in his career working for governmental agencies and private consultants. He worked on many of Kansas City's notable proj-

ects including the Brush Creek Flood Control Project, the Liberty Memorial World War I Museum, the Kansas City Streetcar, the Turkey Creek Flood Control Channel, and the Blue River Channel Modifications project in which he served as designer-of-record for the last two channel segments. Tom currently serves as the Manager for Stormwater Engineering for KC Water.

Tom taught as an adjunct at UMKC for Senior Civil Design from 2002-2014 and co-authored several academic articles about the art and science of teaching engineering. He has served on the UMKC Alumni Association for the School of Computing and Engineering, on which he served two terms as President. Tom's passion for rivers is evident in his commitment to the sports of kayaking, canoeing, and rowing. He is a US Rowing certified Level 2 Coach and serves as the President of the Kansas City Rowing Club.

Tom first became involved in MOARC in 1999 when he made his first trip to Washington, DC to advocate for flood control projects and has been an active member for over 10 years. Tom has served as the committee chair for MOARC's Flood Control Committee in the past and currently serves as an At-Large Board Member.

Kevin Caveny, P.E. – Director and Water, Power and Permitting Chair

Kevin Caveny has over 35 years of experience in the water industry. Kevin is currently operations manager for WaterOne and holds a Class 4 water operator's license in the state of Kansas. Prior to WaterOne Kevin held various roles with American Water in Illinois and Missouri including Director of Business Development, Director of Customer Service, Finance Manager and District Manager. Kevin has a Bachelor of Science in Engineering from Southern Illinois University at Edwardsville and an MBA from Bradley University. Kevin has been a MOARC member for over two years, including as an At-Large Board member and currently serves as the Board Chair on Water, Power and Permitting.

Partner Perspective

Melissa Sieben

Melissa Sieben started with the Unified Government in 2015, by early 2016 she was involved in MOARC as a representative from the City/County government upon the request of the departing County Engineer, Bill Heatherman. She quickly understood the value of that MOARC was providing in its work to protect the multiple uses of the Missouri and associated rivers, like the Kansas River. She traveled to Washington DC to lobby the Federal Delegation and federal agency offices on the importance of funding the Kansas River levee raises. She has also actively engaged her new Public Works Director, who now serves on the MOARC Board, Jeff Fisher. Her interest in seeing the work move forward on the Kansas River was critical, and she sought to foster a relationship with Kaw Valley Drainage District (KVDD) that was necessary to ensure the project could move forward. She also worked to form a partnership with KVDD and the City of Kansas City, MO. Once these entities were linked and talking to each other, the best news happened… The Disaster Recovery Act of 2018, which Sieben and her MOARC and KCIC colleagues fought for was fully federally funded. However, Sieben's work with MOARC did not stop with the announcement of the $453 million dollars, she continued engagement with MOARC to clarify the legislation and to sort through a variety of challenges in the language to the such of moving this project in a 5-year time from 2019-2024. She worked closely with MOARC to address challenges related to getting the project up and running, such as ensuring the dollars that were allocated could be used to support all three levee units, Argentine, Armourdale and CID. She contacted Senator Moran's office routinely until assurances were made that the dollars could flow freely between the two projects that were seen as one on a local level but funded separately at the Federal level. Melissa serves as an Assistant County Administrator and works directly with the Public Works Department on a variety of projects, including her work on Kansas River levee raise coordination.

Missouri River Basin Factoids - Did You Know?

- ***Did you know?*** It is believed that the Missouri River formed about 30 million years ago, but because over time, it changes its course, the current course of the Missouri is estimated at 115,000 years old.
- ***Did you know?*** The Missouri River is the longest river in North America and is approximately 2,341 miles long.
- ***Did you know?*** The Missouri River drainage area is approximately 529,000 square miles, one-sixth of the entire United States and the basin is home to about 10 million people from 28 Native American tribes, 10 states, and a small part of Canada.
- ***Did you know?*** The name 'Missouri' is derived from the Missouri tribe name, meaning 'people with wooden canoes', and the Missouri River has the nickname "Big Muddy," because of the large amount of sediment that it carries.
- ***Did you know?*** There are approximately 150 fish species in the Missouri River, and about 300 species of birds live in the Missouri River's region.
- ***Did you know?*** The upper basin lakes store more water in the Corps reservoirs than the remaining impoundments in the country. Upper basin lakes store more than 72 million acre-feet of water.
- ***Did you know?*** The mission of the Missouri and Associated Rivers Coalition (MOARC) is to promote conservation and beneficial use of land and water resources.
- ***Did you know?*** MOARC was created in 1952 by a group of individuals desiring better water management following the disastrous 1951 flood. Today, membership consists of organizations, associations, companies, governmental units and individuals interested in sound flood control programs and supporting conservation of land-water resources. You too can be a member, go to www.moarc.org for information and an application.

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Agency Updates

Missouri River System Water Management Update

WATER®, a MOARC publication and a registered trademark, is the newsletter of the Missouri and Associated Rivers Coalition (MOARC). WATER® provides timely updates on matters of importance to the MOARC membership and stakeholders.

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Missouri and Associated Rivers Coalition EST. 1952

MOARC Association
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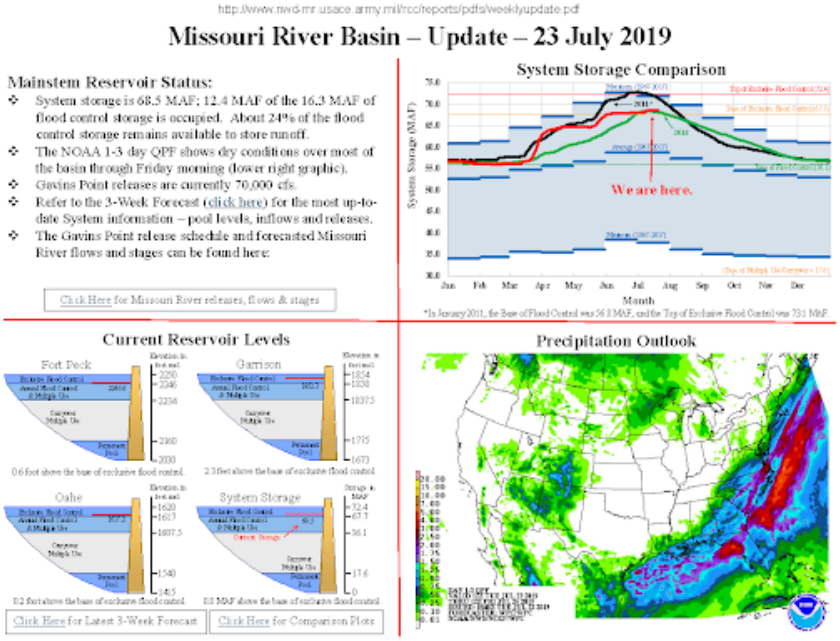
Gavin's Point releases to remain above average for the summer and fall. Even as the flows across the lower basin of the Missouri River are more stable or declining through the end of July, the Missouri River system continues to be dominated by high inflows into the mainstem reservoirs, flows released from upstream dams, and continued periodic rainfall runoff across the upper and lower basin. System storage is currently at 68.5 MAF; 12.4 MAF of the 16.3 MAF of flood control storage is occupied providing approximately 24% of the flood control storage available to store runoff. Upstream reservoir waters are at or into the exclusive flood control zone (lower left graphic) and has slightly reduced available storage over the last few weeks (upper right graphic). System storage normally peaks in early July but has extended into mid-July at this point. The Corps of Engineers (Corps) reported that mountain snowpack has melted and inflows into Fort Peck and Garrison are beginning to recede. The National Weather Service has forecasted precipitation over the next two weeks as lower than normal over the basin reducing potential inflows to the System. Gavin's Point releases are currently remain at 70,000 cfs and are expected to continue into the fall.



Much-above average runoff in the upper Missouri River basin (above Sioux City, Iowa) extended into June following widespread and heavy rainfall in South Dakota and Nebraska. Additionally, widespread and heavy rainfall in the lower basin, particularly in Kansas, has resulted in high tributary and Missouri River flows downstream of the six main stem reservoirs on the Missouri River. June runoff in the upper basin was 8.7 million-acre feet (MAF), which is 159 percent of average. The average June runoff is 5.4 MAF. The 2019 upper basin runoff forecast is reported as 49.9 million acre-feet (MAF). If realized, this runoff total would be the second highest runoff in 121 years of record-keeping, only surpassed by 2011 (61.0 MAF) and exceeding the 49.0 MAF observed in 1997. Upper basin runoff in 2018 was 42.1 MAF; third highest level reported to date. The level of runoff from 2018 into 2019 have resulted in the region having to address high water and flood conditions since March of 2018; with the Corps operating for flood conditions over the last 17 months.

As a result of the high reservoir levels and the above-average runoff to date, releases from all System projects will be above average for the next several months, and possibly as late as November, to ensure evacuation of all stored flood waters. Flows within the lower basin will continue to remain high and subject to localized rainfall events. Flood conditions remain throughout the lower basin with Missouri River water levels continuing to impact levees throughout the lower basin. MOARC continues to monitor river conditions as reservoir releases continue at high levels and frequent rainfall events impact runoff within the lower basin. See Missouri River current and previous weekly updates, and more river info from USACE.

Future Newsletter Focus Area

Quarterly Newsletters are to be a venue to report on specific project changes, information of interest to the membership and specific areas of interest or action items membership needs to be aware of. In addition to project updates and what's in the news over the Quarter, the Fall Quarterly Newsletter (October) will provide a report to the status of recovery from the continued high-water event that has carried through the summer. In addition, the newsletter will provide updates regional water resource projects, progress on the 2020 civil works budget, and the outputs from MOARC's Strategy Planning Workshop. Please look forward to the October Newsletter and send items you think would be of interest to the membership to MOARC at info@moarc.org

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