April 2, 2024

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Re: Lower Mississippi River Comprehensive Management Study

The Tulane Institute on Water Resources Law & Policy appreciates the opportunity to submit these comments on the public scoping phase of the Lower Mississippi River Comprehensive Management Study. The Institute recognizes the importance of this Study for the future management decisions along the Mississippi River. As water-related challenges continually arise with the changing climate, the rights and responsibilities that surround water management must have a renewed focus as the Mississippi River Commission embarks on this Study. The following comments highlight some of those pressing matters.

1. Water Availability

Congress outlined the main objectives for the LMR Comp Study in the Water Resources Development Act of 2020, listing hurricane protection and storm damage reduction, navigation, ecosystem restoration, water supply, hydropower, and recreation. All important, no doubt. Based on the recent public scoping meetings, the Study's project managers have indicated that the primary objectives are navigation, flood control, and environmental enhancement. Yet it is still unclear how water supply fits in with the study: water supply for whom? For what? For when? The LMR Study should address this.

Water supply cannot be relegated to a secondary priority or tiered off in a subsequent study. A sufficient water supply is a precursor to all other things, no matter how the "who," "when," and "what" questions are answered. Ongoing saltwater intrusion, compounded by continued sea level rise, show just how critical it is for the Army Corps to understand how much water is needed to keep the Gulf of Mexico from compromising the needs of those communities that rely on the lowermost end of the Mississippi River. To create a working understanding of the Lower River's water budget, the MRC must study and attempt to quantify public use, industrial use, existing rights and uses, and projected future needs.

a. Public Supply

If the compromised drinking water intakes in Plaquemines Parish and continued threats to greater New Orleans' water supply have not already prompted more comprehensive river

management considerations, this Study must be a vehicle to prioritize such issues. We appreciate the financial constraints and deadlines the MRC must abide by in undertaking the large task that is the LMR Study. Nevertheless, there are several items that should be included in such a study that has a directive to consider water supply.

Public water supply must be a primary consideration even if it is not the primary focus of this Study. This is a foundational principle of American water management, particularly where interstate waters are involved. The United States Supreme Court perhaps put it best in its ruling in *Connecticut v. Massachusetts* when it said "[d]rinking and other domestic purposes are the highest uses of water. An ample supply of wholesome water is essential."[1] This Study carries implications for industrial, agricultural, and public drinking water systems that will steer plans and programs for generations. If those uses, many of which are grounded in legal rights and mandates under state laws (discussed in more detail below), are not brought to the table, they cannot be balanced alongside the other main objectives of the study. It is vital to keep in mind that it is a river that many are planning for and not just narrow suite of uses. We deeply appreciate that the Corps will use its existing authorities as a lens to scope this Study and develop recommendations based on it, but to fail to embrace these other needs up front could lead to a Study that, regardless of how well intended and well conducted, is ultimately self-defeating.

We would also like to note that there is a fundamental inconsistency between the geographic scope of the Study and its goal of comprehensive management of the Lower Mississippi River. While we are sure you are more aware of this than anyone, the fate and future of the LMR is impossible to understand without understanding the systems that feed it – the Upper Mississippi River, Ohio River, and Missouri River, in particular. The limiting impacts of that constraint need to be noted and, where possible, planned around in order for the most holistic geographic scope, range of information, and array of authorities to be brought to bear on the Study. At the least, a basic understanding of how these systems contribute to and impact Lower Mississippi River flows must be incorporated into the Study.

b. Understanding Existing Industrial Uses and Future Demand

State officials and business leaders continue to make major decisions that will shape future uses of the river for decades to come. Manufacturing demands are changing to speed the energy transition, and new technological industries are experiencing an era of rapid growth. As artificial intelligence and other emerging fields continue to boom, the demand for water will also boom. A remarkable amount of water is needed for cooling at these facilities. For example, water used for cooling at data centers in West Des Moines accounted for six percent of water use in the district. There are additional data centers slated to be built in the area, as well as in

[1] Connecticut v Massachusetts, 282 U.S. 660, 673 (1931).

Cedar Rapids. It's not just Iowa. In Mississippi, state legislators recently approved an incentive package for Amazon Web Services to build two large data centers near Jackson.[2] Growing water demand will continue to pose challenges, not only in the communities where these centers operate, but also for larger watershed planning.

In addition to the tech industry, ExxonMobil has proposed constructing a lithium mine in Arkansas near the border with Louisiana and the Red River.[3] With mining comes intensive water demand. Unlike the issues associated with data centers, mining operations generate a lot of wastewater – and with it, a lot of polluted water. Demand for these minerals will continue to grow as the race to produce domestically grows.

The Corps cannot expect to have a comprehensive understanding of available water and future supply without cooperative management and data sharing from the states. At the least, there would be immense value in establishing a process for cooperation with state water agencies to share data on surface water and groundwater withdrawals.[4] No (reliable) assumptions can be made without fully understanding the number of existing users and future plans for development. We also feel compelled to stress that, in the process of developing a "river budget," it is not just water availability that is a concern. The amount of sediment carried by the river is of key importance for uses in coastal projects. Without an understanding of a water budget and a sediment budget in the river, it is difficult to plan for any of its many uses.

c. Existing Legal Rights to Mississippi River Water

As water demand continues to increase in the Mississippi River Corridor, the Army Corps cannot afford to overlook existing water rights. In particular, there must be a working understanding of federal reserved water rights for Native American tribes, as well as riparian rights of property owners through the MR&T.

When Congress reserves land for a particular purpose, it also impliedly reserves sufficient water to fulfill the purpose of the reservation.[5] There are at least twenty-nine federally recognized tribes that reside in the ten states of the Mississippi River Corridor, many of which reside on reservations in close proximity to the main stem, and several more in proximity to the waters in the MR&T that feed the main stem.[6] Tribes in the Eastern United

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[2] Emily Wagster Pettus, *Mississippi Legislators Approve Incentives for 2 Large Data Centers by Amazon Web Services*, AP NEWS (Jan. 25, 2024), https://apnews.com/article/mississippi-data-centers-a143ba6970a4e1ff401f5463f2cd80a8.

[3] ExxonMobil Corp. News Release, *ExxonMobil Drilling First Lithium Well in Arkansas, Aims to be A Leading Supplier for Electric Vehicles by 2030*, (Nov. 13, 2023), https://corporate.exxonmobil.com/news/news-releases/2023/1113_exxonmobil-drilling-first-lithium-well-in-arkansas.

[4] Not all states in the LMR have permitting regimes to quantify water use. The Corps should work with those states that do not regulate withdrawals to better understand existing and projected future demands.

[5] Winters v. United States, 207 U.S. 564 (1908).

[6] Bureau of Indian Affairs Tract Viewer, *Mapped Lands in Indian Country*, https://biamaps.geoplatform.gov/biatracts/ (accessed Apr. 2, 2024).

States have not yet asserted federal reserved rights, as has been seen in the Western United States. However, worsening drought along with increasing demands are creating the conditions which would raise that necessity. The MRC should keep the water needs, indeed rights, of tribes at the forefront of its planning process. Furthermore, federal reserved rights do not just apply to federally Native American tribes. They extend to all congressional reservations of land, which also include National Wildlife Refuges. Just earlier this year, the U.S. Fish and Wildlife Service asserted federal reserved water rights with respect to water levels in the Okefenokee National Refuge.[7] It is likely these legal issues will increasingly arise in the coming years as water resources in the Mississippi River system become more strained in the changing climate. The MRC should view this study as an opportunity to incorporate these considerations into its project and programmatic recommendation process.

There are also long-established, legally protected uses by riparian landowners throughout the Study area. Riparianism, the foundation for water law in the Eastern United States, shapes state water management and allocation and impacts the cost and planning of MR&T work. Though there is little federal oversight in state riparian regimes, the MRC must have a comprehensive understanding of existing riparian rights and established uses in the varied state water law regimes.

Next, the Corps must be aware of the legal implications of sea level rise and tidally influenced waters on federal jurisdiction and public rights in the Study's area. For example, as tidal influence expands, it will carry with an expansion of admiralty jurisdiction and the reach of such laws as the Clean Water Act and the Rivers and Harbors Act of 1899 since tidal areas are deemed navigable by law.[8]

2. Water Quality Concerns

Beyond a basic demand for sufficient water to meet needs for public use and to support navigation, a certain quality of water must be maintained to ensure successful implementation of other Army Corps missions and objectives for this Study. Water quality is increasingly a boundary condition in how we design and operate flood control and environmental enhancement projects. In particular, there are ecological concerns of polluted water in river management, particularly with respect to diversions. Poor quality of water used for projects can expose projects to liability under related federal or state law. These pollution concerns could prompt changes to operating protocols for flood control projects, as evidenced by legal challenges relating to the aftermath of the 2019 openings of the Bonnet Carré Spillway alleging

[7] Russ Bynum, *Mining Company Can't Tap Water Needed for Okefenokee Wildlife Refuge, U.S. Says*, PBS (Mar. 4, 2024), https://www.pbs.org/newshour/nation/mining-company-cant-tap-water-needed-for-okefenokee-wildlife-refuge-u-s-says.

[8] *See* The Propeller Genesee Chief, 53 U.S. 443, 455 (1851) (expanding admiralty jurisdiction beyond tidal waters to waters that are navigable in fact. Prior to that, admiralty jurisdiction was confined to waters subject to the ebb and flow of the tide—which included the Mississippi River at New Orleans.). Peyroux v. Howard, 32 U.S. 324 (1833).

the Army Corps violated its duties under the Marine Mammal Protection Act.[9] Other recent lawsuits challenging water projects, specifically the Mid-Barataria Sediment Diversion in Plaquemines Parish, raise similar concerns under the National Environmental Policy Act and Endangered Species Act.[10] Growing concerns over water quality will continue to shape public perception and concern over diversions and emergency flood control operations.

Nutrient runoff, PFAS contamination, and other agricultural and industrial pollution persist in the Mississippi River corridor. Though the Corps does not have the authority to regulate water pollution in the river, it must consider the impacts of water pollution on human and natural communities and ecosystems that may be impacted by the operation of authorized navigation, flood control and ecosystem enhancement projects. If these types of pollution and their major sources are not addressed throughout planning in the MR&T, use of the river in flood management and environmental enhancement projects could be further compromised and vulnerable to legal challenge. If anything, the agency must be considering procedural changes to meet growing concerns of water quality for public projects as they impact related ecosystems and communities. It will be crucial for the MRC and its districts to continue to work with stakeholders as it takes on more large-scale water management projects.

Finally, as the MRC begins the important but challenging work of studying groundwater usage and its impacts on the Lower Mississippi River, it will need to understand the water quality implications. There is the potential for groundwater pollution to move into surface water, which could compromise the usability of the river. Surface water pollution can also spread to vital groundwater sources, compromising their important use. Alongside concerns of groundwater depletion in the Midwest, there is broadening concern of the contamination impacts of groundwater rise, particularly in coastal regions.[11] Along the main stem in particular, ongoing issues with saltwater intrusion continue to threaten water quality in Baton Rouge's Southern Hills Aquifer.[12] The numerous opportunities and issues surrounding groundwater should be accounted for at the onset of this Study.

3. Accounting for Changes in Federal Environmental Law

The changing landscape in federal environmental law in the United States must be addressed as we embark upon this long-anticipated LMR Study to understand and address emerging challenges along the Mississippi River. The impacts of the recent United States

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[9] Complaint, Harrison Co. v. U.S. Army Corps of Engineers, (S.D. Miss. 2024), *available at* https://bloximages.newyork1.vip.townnews.com/nola.com/content/tncms/assets/v3/editorial/1/4c/14c10a1e-b97b-11ee-a71e-fb68aab9e061/65aef5c87be98.pdf.pdf.

[10] Complaint, Jurisich Oysters, LLC v. U.S. Army Corps of Engineers, (E.D. La. 2024), *available at* https://www.earthisland.org/assets/immp/midBaratariaSedimentComplaint.pdf.

[11] Julia Kane et. al., *Rising Groundwater Levels are Threatening Clean Air and Water Across the Country*, GRIST (Mar. 29, 2023), https://grist.org/cities/what-it-means-groundwater-is-rising/.

[12] David J. Mitchell, *Baton Rouge Drinking Water has its Own Problem With Salt Intrusion*, THE ADVOCATE (Oct. 2, 2023), https://www.theadvocate.com/baton_rouge/news/salt-continues-slow-contamination-of-baton-rouge-fresh-water/article_3765ecfe-5f0a-11ee-ae5d-5330359c4f23.html.

Supreme Court decision in *Sackett v. Environmental Protection Agency* severely restrict the Corps' jurisdiction over wetlands and streams under the Clean Water Act, which will undoubtedly impact development patterns in the Mississippi River's floodplains. The majority's decision indicates that the presence of levees and other man-made infrastructure would preclude jurisdiction over such wetlands.[13] If one can now build up to the levee, how will that impact maintenance and project work? What are the flood risk implications? These questions are critical to address, especially considering their direct impact on storm damage reduction and flood risk, the first purpose listed in this Study's congressional authorization.

Recent changes to the National Environmental Policy Act warrant consideration. Last year, Congress passed amendments to the NEPA review process that limit various aspects of the review.[14] If the recent lawsuits arising out of diversions and spillway openings are any indication, now is not the time to lessen environmental scrutiny. As such, the Corps should ensure that present and future reviews consider the maximum suite of environmental considerations allowed by law. Moreover, the Army Corps' own approaches to planning projects are changing, as exemplified by their pending updates to their Agency Specific Procedures. While those may not be in force at the moment, they likely will be soon, and it should be made clear if and how such changes will impact the Study and other ongoing investigations.

Conclusion

The opportunity presented by the Lower Mississippi River Comprehensive Management Study cannot be understated. It will give MRC the foundation to guide future work along the Mississippi River and its tributaries. Though there is a seemingly endless number of important considerations that cannot all be addressed in this first study, it is crucial that the urgent considerations of water supply are incorporated into its basic assumptions. If LMR Project Management would like any assistance with these matters throughout the Study's duration, we at the Institute are happy to help. Thank you for the opportunity to share these comments.

Sincerely,

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[13] Sackett v. Env't Prot. Agency, 598 U.S. 651, 726 (2023) (Kavanaugh, J., concurring).
[14] *See* Council on Env't Quality, *Amendments to NEPA from the Fiscal Responsibility Act of 2023*, https://ceq.doe.gov/laws-regulations/fra.html (last visited Apr. 1, 2024).