

Testimony of  
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Senate Environment and Public Works Committee  
Hearing on  
“Oversight Hearing on the U.S. Army Corps of Engineers’ Civil Works Program”

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Chairman Barrasso, Ranking Member Carper and Members of the Committee, thank you for the opportunity to testify today on the U.S. Army Corps of Engineers' Civil Works Program. My name is Chip Kline and I have the honor of serving as Executive Assistant to Louisiana Governor John Bel Edwards for Coastal Activities and as Chairman of the Board for the State's Coastal Protection and Restoration Authority (CPRA).

CPRA is a first-in-the-nation state agency tasked with the development and implementation of a comprehensive plan to address coastal wetland loss, ecosystem restoration and hurricane protection. I have been asked to address the issues raised by the fluctuating funding levels made available by Congress to the Corps through the appropriations process, the effects of those variations in funding on the missions of the Corps, and to provide a state perspective. On behalf of the state of Louisiana, which serves as the frontline of protection for our nation's greatest energy resources, fisheries, ports, and trade activities, we urge Congress to meet the needs of the nation through full funding of the Corps. My message today is simple and it is one you heard last week from Rhode Island Senator Sheldon Whitehouse, "it is time for the federal government to wake up to what is going on in South Louisiana."

In 2018, Congress provided \$1.4 billion to the United States Army Corps of Engineers for disaster-related funding for projects and studies in Louisiana to address flooding.

Unfortunately, as is often the case, the need for these projects was identified years ago but only matched with the funding to construct them *after* our communities suffered the financial and life-disrupting challenges of a flood. I am sure many of you have similar stories in your states as I do in mine. We are grateful that Congress provided the funding, but this approach is

painful, costly, and unsustainable, and as a result, the federal Government needs to fundamentally change how it funds hurricane protection, flood control, and coastal restoration projects in this country.

Two of the projects funded through the Bi-Partisan Budget Act of 2018 are big ticket items with the ability to reduce flooding for tens of thousands of Louisianans: they are the Comite River Diversion and the West Shore Lake Pontchartrain Hurricane Storm Damage Risk Reduction Projects. The Comite Diversion had a signed Chief's Report in August of 1991. Unfortunately, the flood of record for the area occurred in 1983. This flood covered 357,000 acres across six parishes and inundated 5,300 homes and 200 businesses. Despite this hard lesson learned, the project only received the necessary funding for completion after historic flooding hit in August of 2016, flooding which caused at least \$3.8 billion in residential property damage.<sup>i</sup>

The West Shore Lake Pontchartrain project was also provided with construction funding in 2018. It received a Chief's Report in 2016, but Congress first authorized the study for the project in 1971. Over 60,000 residents in the project area have had little to no hurricane protection all this time and in 2012, Hurricane Isaac flooded 7,000 homes and submerged Interstate 10 for several days slowing emergency response and disrupting commerce.<sup>ii</sup>

Louisiana is a flood-prone state. We recognize this. Louisiana is also home to vitally important assets and resources that provide value not just to the Gulf Coast, but to the entire nation. The Mississippi River is the country's artery for trade and commerce of all kinds. From agricultural products in America's farm belt to the petrochemical products manufactured and

shipped across the globe, the Mississippi ties the country together economically and connects our harvests and products to international markets. The Gulf of Mexico is also our front porch. The Gulf is home to around 20% of our domestic oil supply and over 90% of the deepwater oil and gas activities are serviced out of Port Fourchon at the southern-most tip of Lafourche parish.<sup>iii</sup> On top of the resources themselves we also house and protect 125,000 miles of pipelines which carry tens of billions of crude oil to the rest of the nation.<sup>iv</sup> We are also the number 1 producer of shrimp, oysters, blue crabs, crawfish, and alligators.<sup>v</sup> The country needs Louisiana and needs to care about Louisiana.

With homes, lives, and assets like these at risk, the federal government must join with us in taking a smarter, more-proactive approach to flood risk. Louisiana has been proud to offer just such a tactic through our *Comprehensive Master Plan for a Sustainable Coast*, or Coastal Master Plan. Our Coastal Master Plan is a science-based framework for decision-making and project selection. It evaluates current and future risk and then selects the best investments to build community resilience by lowering coastal flood risk and building or maintaining the ecosystem of our coast. Our plan is resource constrained both by sediment availability (a necessary building block for coastal restoration) and by an ambitious but realistic level of funding of \$50 billion dollars. The 124 projects identified in the 2017 edition of the Coastal Master Plan, if fully implemented, can build or maintain 802 square miles of land and reduce expected annual damages from coastal flooding by \$150 billion by year fifty. Put another way, even if only considering the direct cost of damages caused by a disaster event, the projects identified in the Coastal Master Plan will pay for themselves three times over. Importantly, these estimates are extremely conservative because they do not consider the full costs of

disaster response and recovery nor do they measure the disruption to people and the economy. As an example, Hurricane Katrina in 2005 resulted in around \$161 billion in federal disaster spending (in 2017 dollars) and the majority of these funds were for emergency relief caused by an inadequate and incomplete hurricane protection system.

Louisiana's Coastal Master Plan is used every day to drive investments in flood protection and ecosystem restoration. Since 2007 it has directed the successful completion of 111 projects across all 20 of our coastal parishes. It has been our guide as we have grappled with how to restore the environment after the *Deepwater Horizon* oil spill and it is our playbook when other funding opportunities present themselves at the federal level. Our rigorously developed plan shows that Louisiana knows what investments it wants and needs to make in order to provide a more resilient coast for our people, economy, and environment for the next fifty years.

We work exceptionally hard to put different funding streams that are available to us to the service of our Coastal Master Plan, but even so, building even the most effective projects can be difficult without assistance from our partners in the federal government.

The single most effective flood control project identified in the Coastal Master Plan is the Morganza to the Gulf Hurricane Protection Project. Morganza to the Gulf protects 150,000 people across two parishes. It also encloses 1,700 acres of wetlands where we are experiencing some of the highest rates of wetland loss in the nation. This region is home to Port Fourchon which services over 90% of the oil and gas rigs in the Gulf of Mexico, LA Highway 1, a critical transportation corridor that gives the entire country access to infrastructure that provides 20%

of the nation's oil and gas. While not as large a population center as New Orleans, incremental storm damage in this region was found to be comparable in magnitude due to the high concentration of critical infrastructure for the state and the nation. Total replacement costs from an eastern storm to the Houma region were found in an economic study by LSU to reach \$4.9 billion by year 25 or \$8.1 billion by year 50.

Morganza to the Gulf has been supported by the State with over \$210 million in funding and by the locals with \$234 million in funding. It has not received a single dime for construction funding from the federal government. While I fully recognize that the decision to allocate funds must be made in a principled manner, I am suggesting that the federal government's track record of only finding value in constructing flood protection projects after a disaster strikes means that there is a flaw in your process. Money is spent to study a project to make sure it is a wise investment, which makes sense. But then the criteria used to evaluate value is so narrowly tailored that few projects make the grade. Louisiana is not waiting for disaster to strike and the federal government should not either.

We need the federal government to appreciate our proactive approach to coastal protection and restoration and we need the federal government to be the best partner it can be in this mission. I fully recognize that the Corps is among the most important agencies we depend on and I implore Congress to enable the Corps to do two things today: expand its vision for what its mission is and arm the Corps with the resources to carry out that mission.

Louisiana's Coastal Master Plan shows how to conceive and implement a holistic program that fully accounts for the needs of the ecosystem, flood protection, and a sustained

economy. Where smart planning can help maximize project benefits and bang-for-the-buck not just by evaluating risk before a disaster but also by designing suites of projects that work together to enhance coastal resilience. We strive to situate our ecosystem restoration and our protection projects in such a way as to create synergies and a more sustainable system overall. We believe that the Corps would also like to approach its three-part mission of flood protection, navigation, and ecosystem in a holistic manner but we need them to be funded in such a way as to allow for that.

Regarding ecosystem restoration, one of the fundamental causes of Louisiana's coastal land loss problem is a lack of sediment in our wetlands. Historically, natural flooding from the Mississippi and its distributaries provided regular influxes of new sediment to maintain wetland systems. For this reason, reconnecting the Mississippi River to the surrounding wetlands is one of the most important interventions proposed in our Coastal Master Plan. Two projects were built by the Corps in 1991 and 2001 that do just that on a small scale. The Caernarvon and Davis Pond fresh water diversions were constructed to help manage salinities and improve the ecosystem in their respective basins by drawing water from the Mississippi River and sending it into nearby wetlands. These projects have shown how even at relatively small flows and even without a focus on sediment capture, the Mississippi River can build land and sustain wetlands at a tremendous scale. The receiving areas at Caernarvon and Davis Pond are teeming with wildlife and flourishing ecologically compared to the shape they were in before the introduction of these projects. Because they create a permanent connection between the River and the wetlands through a fixed structure, rather than a dredge pipe that only brings sediment in during construction, these projects also represent long-term and extremely good investments.

But, they do need to be maintained and they do need to be operated to achieve the greatest possible benefits.

When the first Corps structure was completed at Caernarvon in 1991 the Corps was provided with about \$500,000 annually for operations and maintenance which adequately matched the project's needs. However, when Davis Pond, a more complex structure including guide levees and a pump station, was completed around ten years later no new funds were provided for operation and maintenance (O&M), and so \$500,000 is being provided for two structures that have a combined need of \$1.5 million in O&M annually. CPRA has been deferring project needs since 2017 to accommodate the lack of funding in the USACE's budget but funds are running low. CPRA is prepared to utilize its full budgeted 25% of the cost share for these diversions to maintain essential items, but federal funding is expected to run out in federal fiscal year 2019 with a projected deficit of \$449,373.

These important fresh water diversion projects also provide an example of how the Corps' mission as expressed through its authorizations can be too narrow and inflexible to meet the changing needs of an ecosystem. As I mentioned, Davis Pond and Caernarvon were built to manage salinities in their respective influence areas, but they have also proven themselves to be effective at building and sustaining wetlands. As the State continues to move forward with the implementation of much larger sediment diversions across the coast the eventual operation of those structures may curtail the need for the salinity-based operations of the fresh water diversions. The Corps needs to be able to recognize the multiple benefits a project can deliver.

Funding also limits the Corps when it comes to their more prominent navigation and flood control missions. The most significant example of where Corps funding levels directly impact Louisiana's coastal protection and restoration is with the soon-to-be-completed Greater New Orleans Hurricane Storm Damage Risk Reduction System, or HSDRRS.

Congress mandated the Corps to begin paying 65% of the costs of operating and maintaining the Inner Harbor Navigation Canal, Gulf Intracoastal Waterway West Closure Complex, and Harvey Canal sector gates, all crucial and costly elements of the HSDRRS but has not been appropriated funds to actually meet those obligations. The Corps has also recently begun General Reevaluation Reports to examine future levee lifts and other maintenance needs of the HSDRRS. These are just two examples of opportunities for the federal government to support the longevity of existing investments that have worked and also lift some of the burden from the local entities who, without federal assistance, would be left entirely on their own to fund the O&M of this incredibly important flood protection system.

While we strongly support the Corps and encourage Congress to enable them to perform their mission, a holistic approach must be taken to address resilience needs of Louisiana's coast. After Hurricane Katrina the federal government invested \$14.5 billion in HSDRRS, to complete the portions of the Corps project that had not been completed prior to the storm and repair the portions that catastrophically failed as a result of the storm. Louisiana was obligated to pay for those portions of the system that were upgraded to meet the 100-year protection standards required by the National Flood Insurance Program (NFIP) at a 65 federal/35 state cost share. In 2009 the State entered into a Deferred Payment Agreement with

the Corps to commence payback upon completion of the system and extend payments over 30 years. Louisiana's portion of the original costs to upgrade HSDRRS components for NFIP certification were estimated to be \$1.155 billion, but due to eight years of construction delays by the Corps and calculating the 30 year payback period, the state will ultimately pay \$3.189 billion which amounts to annual payments of close to \$106 million a year for 30 years.

We understand that the state has a responsibility to pay its share of improvements to this system, but a 62% cost increase due to delays and accruing interest is not in the best interest of the citizens of the state. What is more, the investments that instead could be made through Louisiana's Master Plan will protect the very system the federal government has invested so heavily in.

Together the Corps and Louisiana's Coastal Program can accomplish great things and be a model for the nation in terms of state and federal cooperation and in terms of a holistic, systems approach to coastal resilience. But both partners must be up to the task and given the resources to carry their part of the load. Congress and the Corps have got to find a way to fund flood protection projects before disaster strikes. To broaden the way the Corps calculates project benefits or, perhaps Congress should consider bringing back earmarks specific for hurricane protection, flood protection, and coastal restoration projects, so that proactive investments in flood risk mitigation can preempt the need for vastly larger investments in emergency response and disaster recovery.

I want to close my testimony by posing a question. Can we recognize good things when they are happening? Louisiana has looked out 50 years across a range of possible scenarios of

environmental change. We know that without action our state could add an additional 4,000 square miles of land loss on top of the 2,000 square miles we have already lost since 1930. Without action, expected annual damages from flooding could increase tenfold in fifty years. We have taken on the inherent uncertainty involved in planning and discerned a prudent way forward in our Coastal Master Plan. In this plan, Louisiana has combined ecosystem restoration and coastal flood risk reduction into a unified approach that could save \$150 billion in avoided damages after 50 years. We have committed to a science-driven process for selecting projects that is also vetted by the public. Our plan has received unanimous, bi-partisan approval in the Legislature and has garnered support from across the environmental, business, and academic communities. We are now marshalling every resource that becomes available to buying down our risk and enhancing the natural system by implementing the projects in this plan. I believe we should be the model for smart, holistic, and proactive investments that can build resilience. For us to be successful we must have a strong relationship with the United States Army Corps of Engineers and we must have the buy-in and support of the federal government as well. After all, the projects in our plan are good investments for the nation and for the people of Louisiana.

With smarter federal funding as I have mentioned in the form of full funding for the Corps and project completion funds made available earlier before disasters occur, we can leverage these investments and make the projects produce much higher benefits for the nation. As a state, we know how to partner and to make federal investments produce better results. We are ready, willing and able to help our federal partners. We appreciate the support of this committee as we implement our Master Plan and continue to partner with the Corps to further enhance the safety and sustainability of our coast.

Thank you for the opportunity to speak to the committee today. I would be happy to answer any questions you may have.

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<sup>i</sup> <https://www.mvn.usace.army.mil/About/Projects/Comite-River-Diversion/>

<sup>ii</sup> <https://www.mvn.usace.army.mil/About/Projects/West-Shore-Lake-Pontchartrain/>

<sup>iii</sup> <http://portfourchon.com/seaport/port-facts/>

<sup>iv</sup> [Economic Evaluation of Coastal Land Loss in Louisiana](#). December, 2015.

<sup>v</sup> Coastal Protection and Restoration Authority of Louisiana. 2017. Louisiana's Comprehensive Master Plan for a Sustainable Coast. Coastal Protection and Restoration Authority of Louisiana. Baton Rouge, LA.