Louisiana's Changing Outlook for Coastal Financing

2020 and Beyond

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November 2021

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Executive Summary

This report summarizes the findings of an analysis of the funding streams that support Louisiana's Coastal Master Plan projects. Given the massive economic and regulatory changes that have taken place since early 2020, new concerns have emerged that funding critical to the state's coastal investments could be negatively impacted. Since the start of 2020, in addition to the COVID-19 pandemic and multiple large hurricanes, there have been massive shifts in supply and demand for oil and gas that have also been accompanied by major changes to the U.S. regulatory environment. The report documents major sources of revenue, evaluates their underlying support, and assesses the potential impact that major disruptive events of 2020 and 2021 have had on these revenue sources. The report provides an overview of historical expenditures and highlights potential changes that may impact future revenue for coastal projects.

Key findings:

- Most sources for coastal funding were not greatly impacted by COVID-19. The outlook for some, such as CWPPRA, remained relatively steady even as underlying revenue sources that support the program changed during the pandemic. An uptick in excise taxes on purchases of fishing supplies and electronic outboard motors more than made up for losses from declines in gas tax revenue.

- A substantial amount of funding for coastal projects in Louisiana comes from oil and gas, which was negatively affected by lower oil prices and production. Onshore oil production, which supports state mineral revenue, saw the long-run decline accelerate during the pandemic-related economic slowdown while offshore production, which supports GOMESA revenues also experienced disruption due to the pandemic, multiple hurricanes and a more restrictive regulatory environment that has slowed the issuing of new leases.

- Deepwater Horizon is the largest source of funding for Louisiana coastal projects in the near term. While these sources were not impacted by COVID-19, Louisiana needs to continue to evaluate the long-term sustainability of funding for projects because of the fixed nature and limited time horizon of Deepwater Horizon related revenue sources.

- Louisiana has historically used a variety of other sources including state surplus, capital outlay dollars and hurricane recovery dollars for select coastal projects. These funding sources are uneven and make long-term planning challenging, yet fill critical gaps when funding is available. Despite several major storms in the past two years, no specific funding has yet emerged to support an expanded set of coastal projects.

- CPRA should improve reporting of revenues that fund coastal projects to more clearly indicate new dollars available to support the Coastal Master Plan each year and help stakeholders including the general public better understand the funding upon which this important work relies.

- While the near-term outlook for coastal funding remains relatively strong despite recent events, the long-term goals of the Coastal Master Plan will require additional funding and the state should continue to explore new and creative new ways to support coastal activities.

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Acknowledgements

This study was supported by funding from Restore or Retreat, Inc. The research summarized herein benefited greatly from insight provided by Janice Lansing at CPRA and Lori Bennet at the U.S. Fish and Wildlife Service. We gratefully acknowledge research assistance provided by Kathleen Blanco Public Policy Center staff members Raven Douglas, David Neef, and Jackson Voss, and student researchers Chris Cooper, Ann-Kathryn Dartez, Hailey Hoffman, and Matthew Holland.

Introduction

Louisiana's coastline provides important protections and benefits for residents in the state and beyond. The coastal ecosystem supports activities and services such as attenuation of hurricane damage,[1] mitigation of flooding and erosion,[2,3] adaptation to climate change, promoting recreation opportunities, and creation and support of important wildlife habitat. A healthy coast also contributes to economic development for the entire Gulf Coast. However, an accelerating trend of land loss against a backdrop of climate change threatens the sustainability of Louisiana's coast as place to live and work. Louisiana has a Coastal Master Plan that details the long-term steps needed to support the coast with an expected price tag of $50 billion over 50 years.[4] Half of the funding will be used for restoration and the other half for risk-reduction projects. The substantial investment that Louisiana plans to make over the next half century illustrates the importance of the coast and coastal ecosystems to Louisiana and highlights its vital role in Louisiana's economy.

Coastal projects have potential for a substantial return on investment. Recent research has documented significant financial savings from slowing land loss and reduced storm damage in Louisiana.[5] In addition, several states have undertaken studies to evaluate the return on investment (ROI) for coastal projects. A 2015 Florida study found a return of 5.4 for the state's investments in beach management and restoration from 2010-2013, meaning for every $1 invested the state saw a return of $5.40.[6] A Texas study of potential costs and benefits from coastal restoration and protection projects expects a cost-benefit ratio of 1.96 for projects in Galveston Bay and 2.74 for projects in South Padre Island.[7] In both Texas locations the benefit would outweigh the cost. Virginia looked more broadly at investments in state parks, natural areas, forests, and working lands and found a return of $4 for every $1 invested.[8] Especially given the high value commercial and industrial activities that rely on Louisiana's coast, these studies indicate the potential for a sizable return from investments in the state's Coastal Master Plan.

Investment in coastal infrastructure projects often involves creating or improving coastal infrastructure, such as levees or inland waterways. These projects have some of the highest job creation returns of any infrastructure investments.[9] According to a study by Heintz, Pollin, and Garrett-Peltier (2009), inland waterway and levee projects average to 23,784 jobs for each $1 billion investment.[9] This number is higher than for road and bridge projects, which average 18,894 total jobs for $1 billion invested.[9]

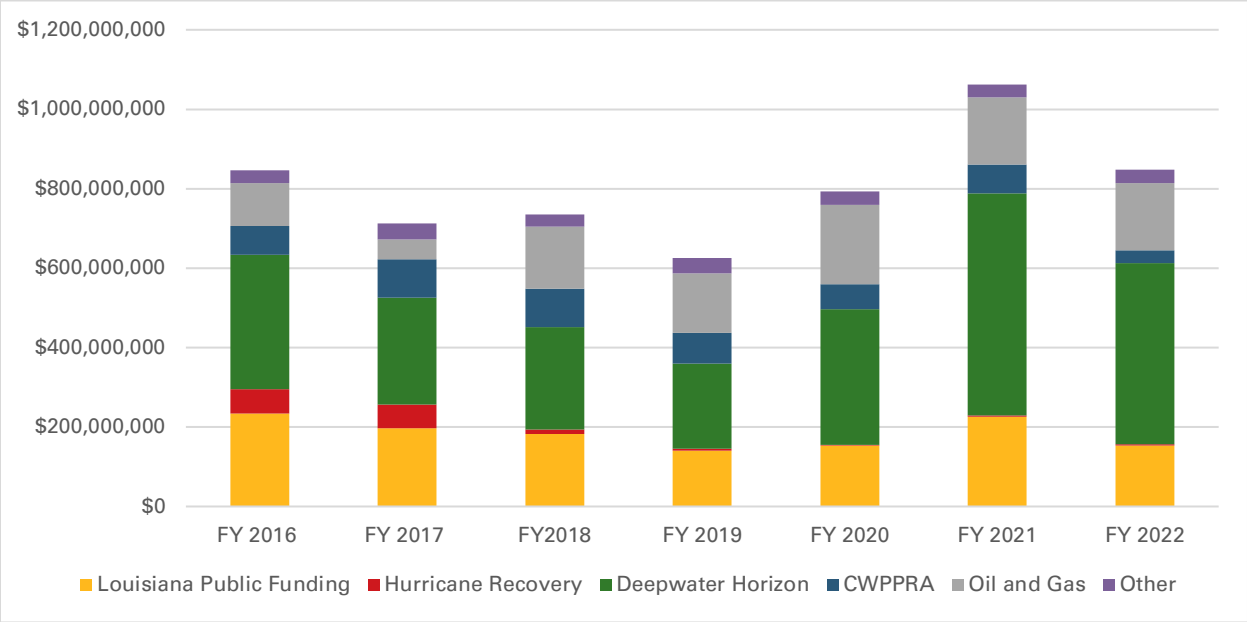
With so much at stake for Louisiana, it is important to sustain coastal investments and carefully manage the limited dollars available to support Louisiana's coastal program. As the COVID-19 pandemic prompted an unexpected and sudden economic downturn in March of 2020, questions arose about the effect the event would have on public finances including the specific revenue streams that support Louisiana's Coastal Master Plan. Understanding the funding mechanisms that support Louisiana's coast is important to guiding decisions about long-term investments in coastal priorities. This report provides an overview of the major funding sources Louisiana uses to support projects in the Coastal Master Plan and analysis of how the outlook has shifted for some of these revenue streams in light of recent events.

Louisiana's Annual Coastal Investments

To provide a high-level overview of funding for coastal restoration and protection activities, we rely on revenues presented in CPRA's Annual Plan. The Annual Plan focuses on planned expenditures and summarizes the revenue sources that would be used to support those expenditures. Because the figures represent planned spending, some funds can be counted in multiple years if actual expenditures do not fully exhaust dollars from one year and revenue

amounts are carried to the next. Rather than focusing on the revenue amounts reported in a particular year, these data are useful for assessing broad patterns in funding sources over time.

Figure 1 shows the major revenue sources supporting planned expenditures over the last several years. When looking back across recent years, these data show how the mix of revenue sources has changed over time. The biggest increase during this period is from sources associated with the Deepwater Horizon spill. Funding from sources related to mitigation declined as projects funded as a result of Hurricane Isaac wrapped up in fiscal year 2018. Oil and gas revenue sources have varied over the last seven years with changes to the formula for how Gulf Coast States receive funding from Outer Continental Shelf activities and due to a downturn in the oil and gas industry. Oil and gas related revenue jumped in 2018 when federal revenue sharing increased from Gulf of Mexico oil and gas activities. Oil and gas sources continue to provide significant, but varying levels of support for Louisiana's coastal projects.



Source: Blanco Center analysis of CPRA Annual Budgets

Figure 1. Major sources of revenue supporting CPRA's proposed annual budgets

When looking at planned expenditures, several revenue sources may appear flexible, but are not. While Louisiana has dedicated public funding toward coastal projects, either through oil and gas funds or from the general fund, much of this money is needed to secure federal funds from other programs. Many federal funding opportunities require Louisiana use state dollars as matching funds to draw down the federal funds, thus public funding is often tied to specific approved projects several years in advance. For a more direct assessment of state dollars dedicated to coastal projects that avoids the duplication inherent in these numbers when dollars are rolled from one year to the next, see data provided below in the sections related to state mineral revenues and other Louisiana public funding.

This review of CPRA Annual Plans also illustrates the challenges between the timing of revenue and expenditures that must be managed to effectively implement the Coastal Master Plan while best leveraging available resources. As noted previously, there is some funding that carries over, unspent, from year to year and is included again in the next year. For this reason, changes in revenue received due to economic fluctuations or legal and regulatory changes may not be visible in Annual Plan reporting for some time or may be obscured by carry over dollars reported in

previous years. Tracking revenues and expenditures closely also highlights the potential delays and lags that occur when funding coastal projects. Funding may be budgeted for one year but require matching funding that is not yet available, permits may take longer than expected, or other issues may arise causing unexpected delays.

Coastal Financing Revenue Analysis

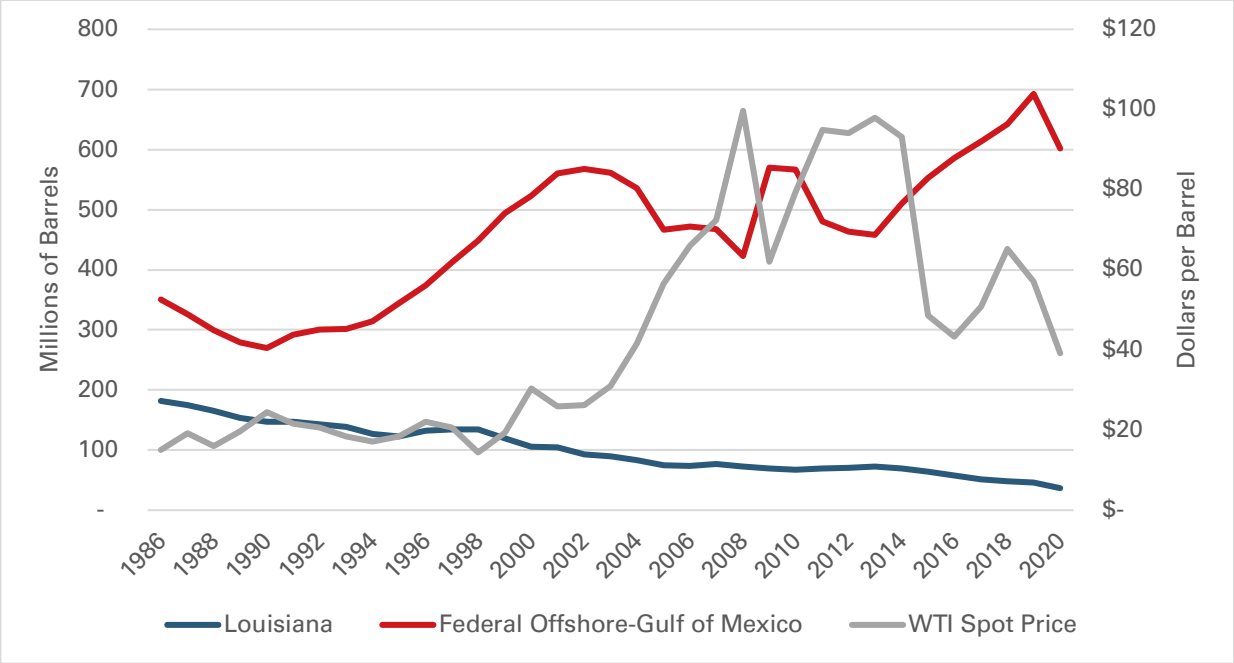
This section summarizes a detailed review of each revenue stream that Louisiana uses to finance the state's Coastal Master Plan. To illustrate major sources of funding and emphasize common themes, we group revenues into sources related to oil and gas, Deepwater Horizon, CWPPRA, hurricane recovery, and Louisiana public funding. Other miscellaneous or one-time funding sources are included together. After unpacking the mechanisms that determine how many dollars are available annually from each revenue stream, we group together those revenue streams likely to be significantly impacted by the COVID-19 pandemic and associated economic disruption as well as changes impacting oil and gas activities and other major disruptions since early 2020. Revenue streams with major impacts are discussed first, followed by a review of other revenue sources to illustrate their key features and clarify why many sources of revenue important to the Coastal Master Plan are not likely to change despite all of the disruptions and changes since early 2020.

Revenues Impacted by 2020 Events

Even before COVID-19 triggered a rapid and historic economic slowdown, the oil and gas industry had been struggling with sagging oil prices with Saudi Arabia and Russia flooding the market as part of a price war. Then, in the early days of the pandemic, stay at home orders and a massive shift to remote work further undercut demand for fuel. The general economic slowdown created widespread job losses raising concerns about public finances as a whole, but especially so for oil and gas-related revenues, which are important to coastal financing. Perhaps one silver lining was a boom in outdoor recreation that led to increased tax revenues that are tied to coastal projects. This section reviews each of the revenue streams expected to see major impacts from 2020 events.

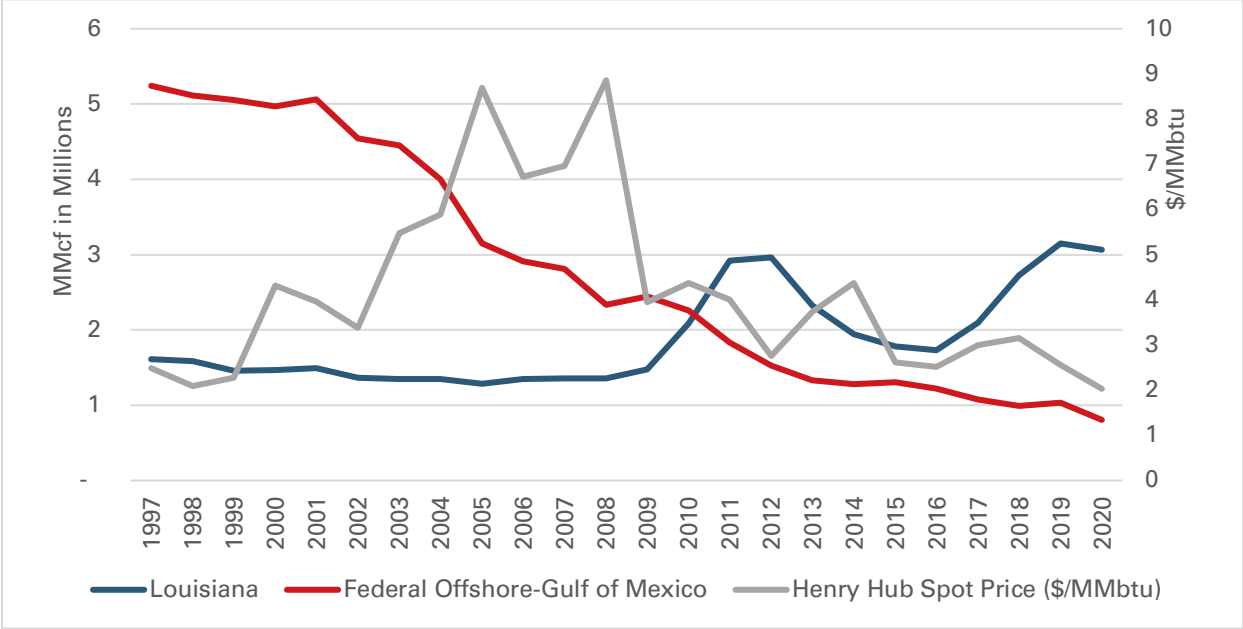
Oil and Gas Revenue

Louisiana receives revenues from oil and gas related activities through management of state leasing and production or revenue sharing from the federal government for oil and gas revenues tied to federal land and water and a portion of some of these dollars are dedicated to coastal protection and restoration in Louisiana. Louisiana's oil and gas exploration and production activities have gone through a long-term transformation shifting activities from more easily accessible resources on land to an increasing reliance on unconventional fracking of shale and offshore development in the Gulf of Mexico. As shown in Figure 2, the quantity of oil produced on land within Louisiana has declined steadily while production from federal waters in the Gulf of Mexico, which is supported largely by Louisiana-based activities, have generally grown over time and are much higher than state production. State natural gas production peaked in 1970 at 5.5 Million cubic feet (MMcf) and had dropped below 2 MMcf until recently when the Haynesville shale in northeastern Louisiana boomed in more recent years (Figure 3). Natural gas production in the Gulf of Mexico has also shown a gradual downward trend since 1997, the most recent year that consistent data are available from the U.S. Energy Information Administration (EIA). As the location and type of production has changed, so too have the specific revenue streams related to these activities.



Source: EIA[10,11]

Figure 2. Annual crude oil production in Louisiana and Gulf of Mexico and West Texas Intermediate (WTI) spot price per barrel



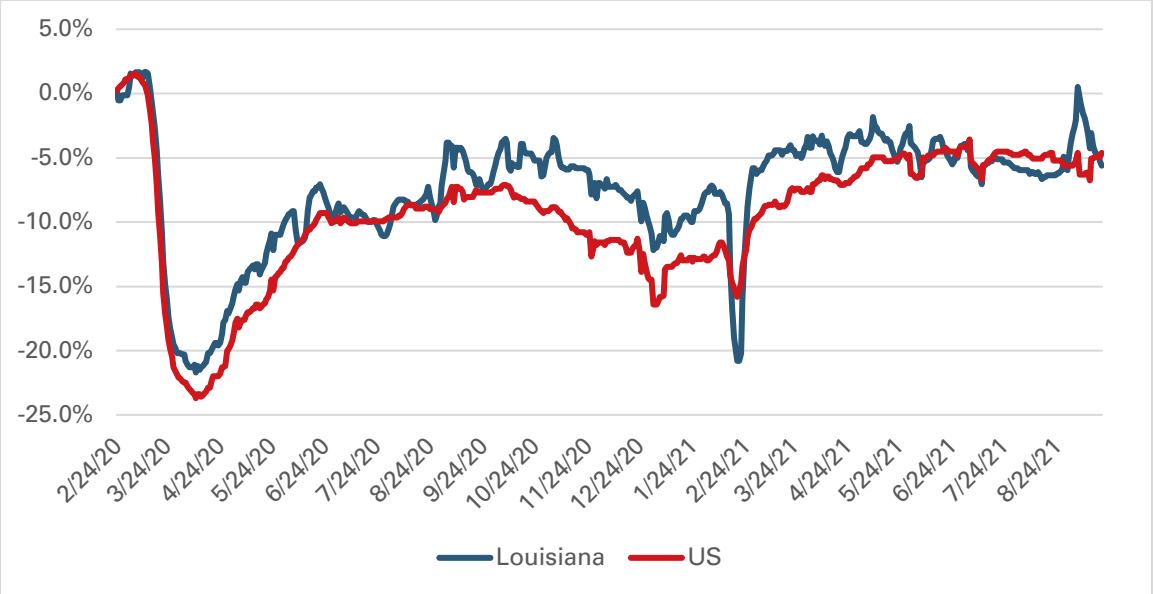
Source: Louisiana Department of Natural Resources, EIA[12–14]

Figure 3. Annual natural gas production in Louisiana and Gulf of Mexico and Henry Hub spot price per MMbtu

Louisiana collects severance taxes on oil and gas produced on private land and bonus payments, rentals and royalties related oil and gas development and production on state owned land and water with a small portion of these dollars dedicated to coastal protection and restoration. Similarly, the federal government collects bonus bids, rental payments and royalties related to oil

and gas development and production on federal land within Louisiana and in federal waters of the Gulf of Mexico with the U.S. Department of Interior overseeing distribution of the funding.[15] Louisiana dedicates federal Outer Continental Shelf revenues to coastal protection, which includes "conservation, coastal restoration, hurricane protection, and infrastructure directly impacted by coastal wetland losses."[16] While the specific revenue streams that support coastal financing are discussed in more detail below, general trends in these activities and common factors that have changed the outlook for oil and gas are discussed in this section.

Starting with price wars between Saudi Arabia and Russia in early 2020, the last year and a half has been a particularly challenging time for the oil and gas industry. As new oil supply was pumped into the global market and prices began to fall in early 2020, the COVID-19 pandemic led to a dramatic drop in travel and demand for fuel. Figure 4 shows time away from home in Louisiana and the US relative to pre-pandemic norms from Google Mobility. Not only did the dramatic slowdown in early 2020 contribute to a global oversupply of oil leading to further decreases in the price of oil, travel remains below pre-pandemic norms showing that demand for oil has still not fully recovered.



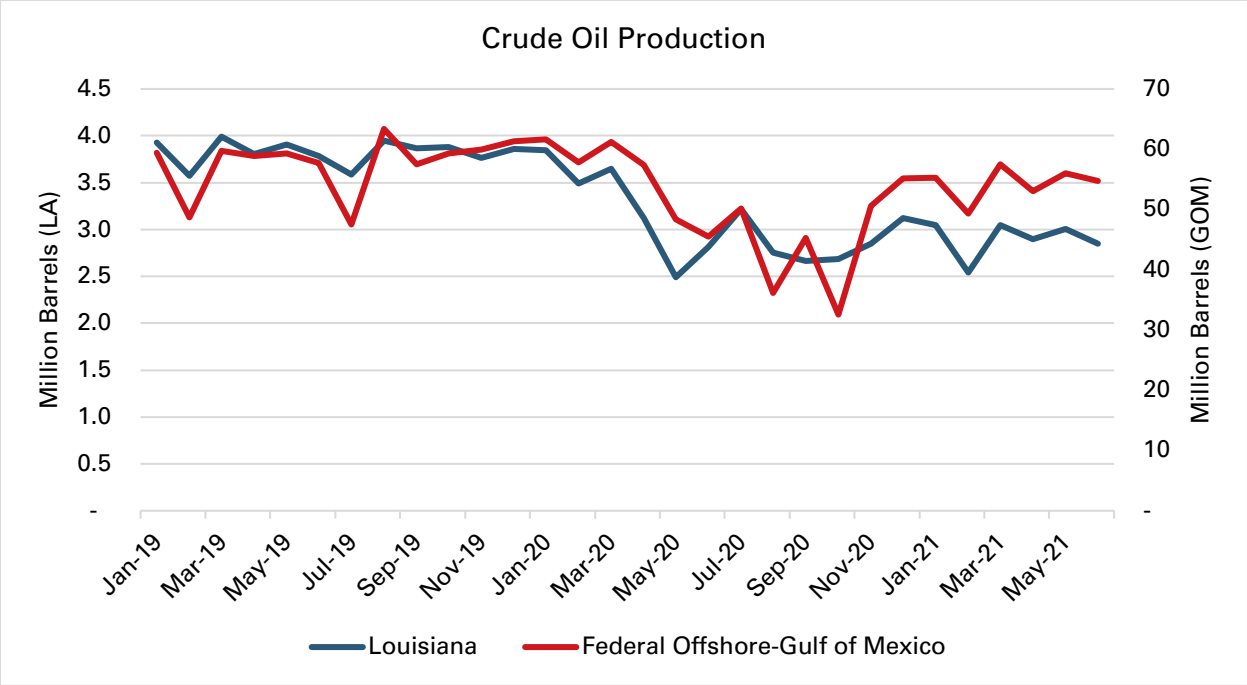
Source: Google Mobility[17]

Figure 4. Time away from home in Louisiana and the United States

The 2020 hurricane season was also disruptive with multiple named storms passing through the Gulf of Mexico disrupting production. Hurricane Laura is estimated to have reduced production by 14.4 million barrels, more than any storm since 2008.[18] Hurricanes Delta and Zeta both passed through the Gulf of Mexico shortly after Laura further complicating recovery and causing additional production shut-ins. Unfortunately, the 2021 hurricane season has also been disruptive with Hurricane Ida shutting in 95% of oil production and 94% of natural gas production in the Gulf of Mexico leading to an estimated reduction of 0.2 million barrels per day in August 2021 and 0.5 million barrels per day in September 2021 according to the EIA's Short-Term Energy Outlook.[19]

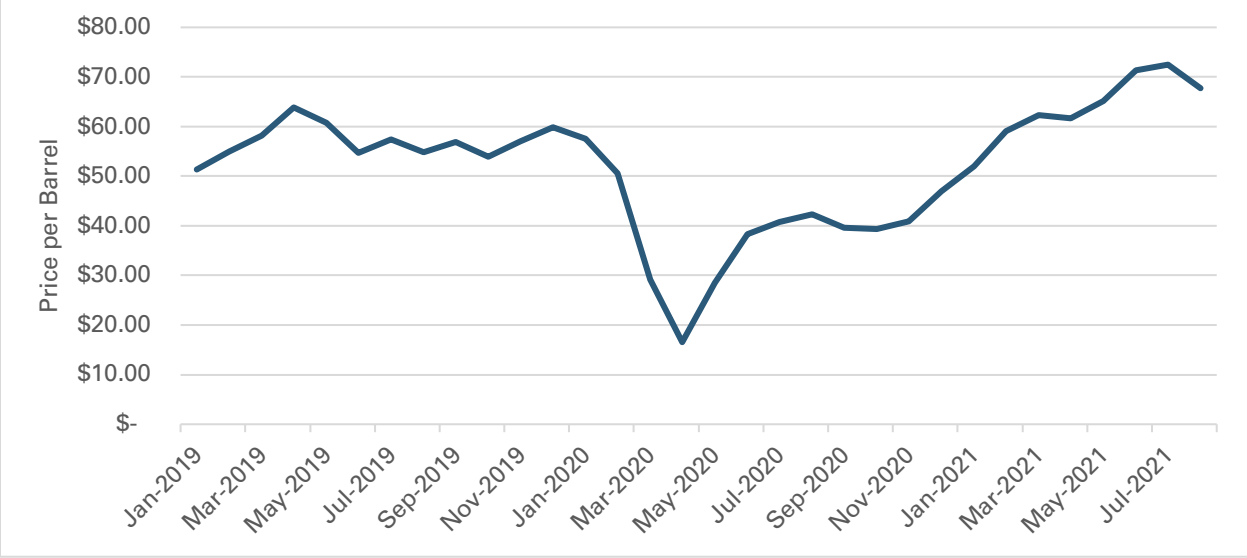
The cumulative effects of these disruptions can be seen in recent trends in crude oil and natural gas production (Figures 5 and 7). While oil production within Louisiana is much smaller than production from the Gulf of Mexico, a similar pattern can be seen in the initial drop in production following the price declines of early 2020. After that initial decline, production in the Gulf of Mexico

picked up in late 2020 and into early 2021 while state production continued to lag. From a severance tax and royalties perspective, the drop in production was compounded by falling prices in early 2020 though prices have rebounded considerably over the last year helping to buoy severance taxes and royalties in 2021 (Figure 6).



Source: EIA[10]

Figure 5. Monthly crude oil production in Louisiana and Gulf of Mexico

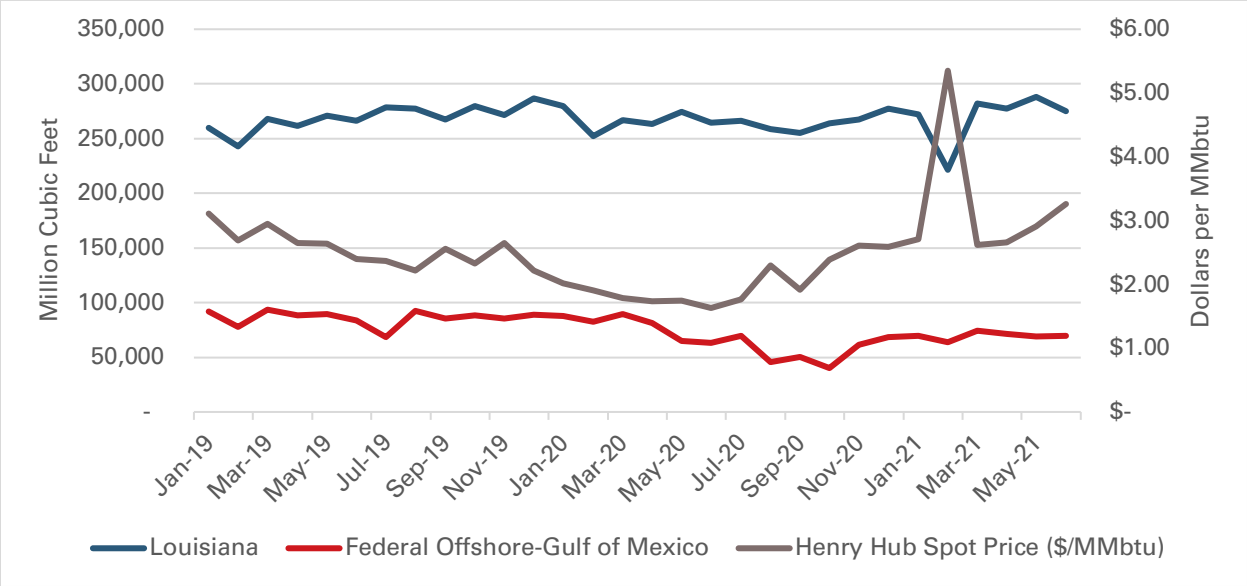


Source: EIA[11]

Figure 6. Monthly average price of WTI (dollars per barrel)

Natural gas production during this time has been much more stable. Both Louisiana production and natural gas from the Gulf of Mexico remained relatively flat with the only major change occurring in February 2021, which coincides with a major ice storm that shut in production and

disrupted transportation (Figure 7). Associated with that supply shock was a short-lived surge in natural gas prices, but prices dropped back below $3 per MMbtu the following month. More recently prices have crept upwards suggesting some potential upside in the near term that could drive more activity in the Haynesville shale.



Source: Louisiana Department of Natural Resources, EIA[12–14]

Figure 7. Monthly natural gas production in Louisiana and Gulf of Mexico and Henry Hub spot price per MMbtu

To further complicate the health, economic and environmental shocks impacting the industry in 2020 and 2021, changes in leasing for the Gulf of Mexico have slowed the typical cycle of new leasing activity, which immediately generates bonus bids and helps to sustain activities in future years. The disruptions in the oil and gas industry in early 2020 led to a delay of the second lease sale of 2020, which would have occurred in August 2020, but was delayed to November 2020. Subsequently, a presidential election brought a new regulatory regime with the election of President Biden. Shortly after entering office, President Biden issued an executive order on climate change that directed federal agencies to suspend the leasing program for development of oil and gas on federal lands and waters.[20] Since that executive order, a lease sale that would have been held in March 2021 was cancelled,[21] though a recent U.S. District Court ruling ordered the Department of Interior to resume the leasing program and a new lease sale has been announced for November 2021.

Gulf of Mexico Energy Security Act (GOMESA)

The Gulf of Mexico Energy Security Act (GOMESA) was passed in 2006 and put in place a process for sharing certain Outer Continental Shelf revenues with four states and their Coastal Political Subdivisions (CPSs). Louisiana, along with Texas, Mississippi, and Alabama are known as Gulf Producing States (GPSs) and under the law each state receives a portion of the GOMESA revenue. In Louisiana, 19 parishes are considered CPSs (Figure 8) and receive direct revenue disbursements from GOMESA.

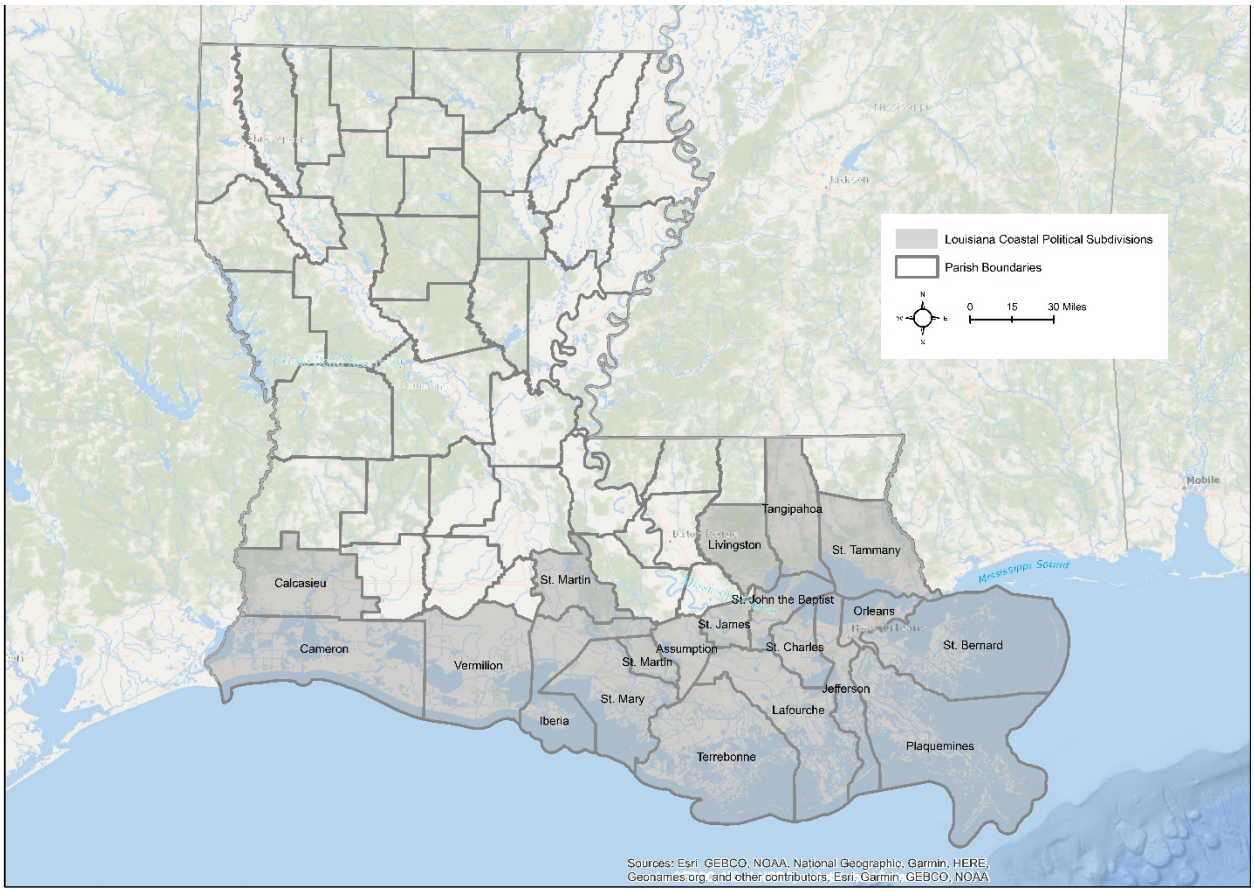


Figure 8. Louisiana Coastal Political Subdivision under GOMESA

Major features determining revenue from GOMESA

To explore for and produce oil or natural gas in federal waters, companies must secure a lease by paying a bonus bid to compete for the lease (among other requirements to secure a lease) and then paying rent up until the lease produces oil or gas, or the lease expires or is relinquished. When a lease begins producing oil or natural gas, the company pays royalties based on a percent of revenues or value associated with the natural resource. Qualified Outer Continental Shelf Revenue includes "all rental, royalties, bonus bids, and other sums due and payable to the United States from leases entered into on or after the date of enactment"[22] but excludes Outer Continental Shelf revenue regulated under Section 8(g) of the Outer Continental Shelf Lands Act (discussed below).[23]

GOMESA went into effect on December 20, 2006. Under the Act, the U.S. Treasury keeps 50% of revenue and disburses 37.5% to GPSs and their CPSs, and 12.5% to the Land and Water Conservation Fund (Figure 9). GOMESA revenue disbursement is subject to a cap of $500 million ($300 million for states, $75 million for CPSs, and $125 million for the Land and Water Conservation Fund).[24] To reach the $500 million cap, all revenue must reach $1 billion in total, since half of all revenue remains with the U.S. Treasury. In federal fiscal years 2020 and 2021 the revenue sharing cap was lifted to $650 million, but will return to the $500 million level for fiscal years 2022 through 2055.[25] In fiscal year 2056 the revenue sharing cap will be removed.

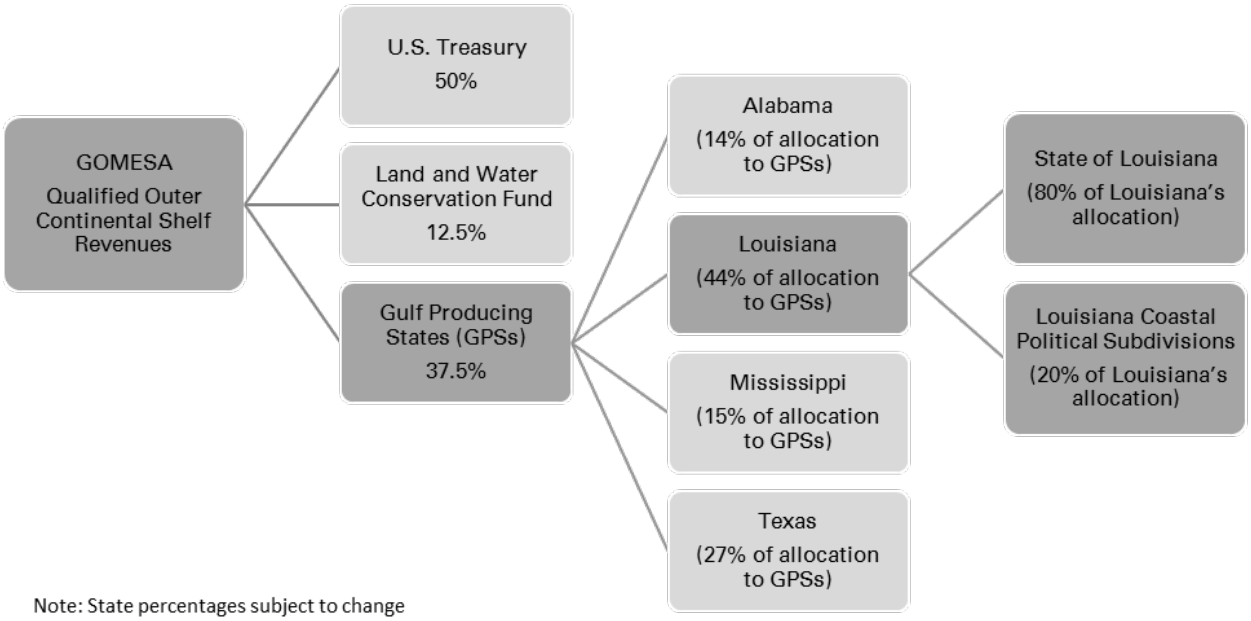
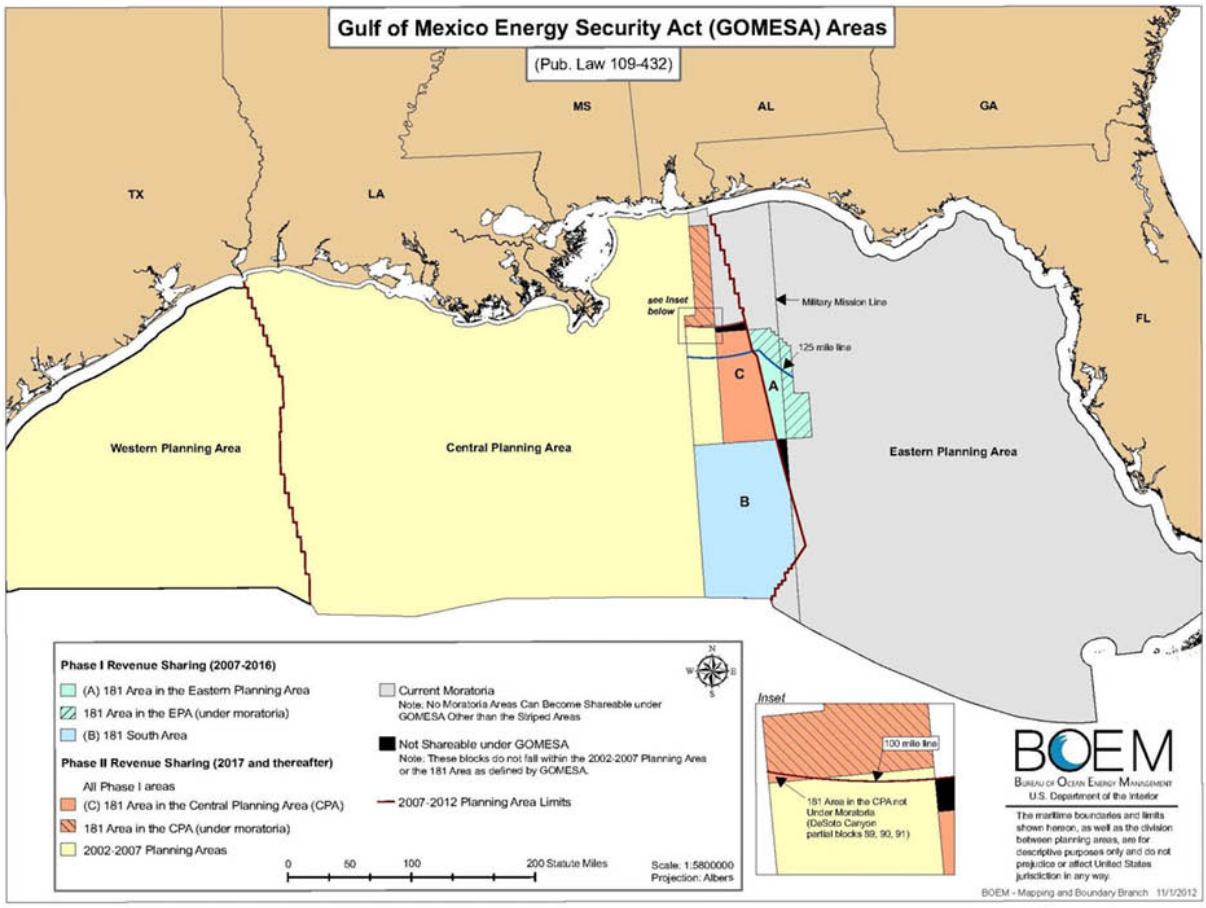


Figure 9. GOMESA funding allocation of qualified Outer Continental Shelf revenues.

The four GPSs share the funding with the amount each state receives based on a formula that takes into account location of lease sites and the distance to the nearest point on a GPS's coastline[22] (more details about allocation rules available in Barnes, Mason, and Terrell (2018)[24]). Each GPS is provided a minimum of 10% of the total amount available. Of all money that goes to each state, the CPSs within each state are required to share 20% of the state's total GOMESA revenues. Put another way, the GPSs receive 30% of the total GOMESA revenue and CPSs receive 7.5%. Since 2018, Louisiana has received 44% of the funding provided to GPSs.

Historical Revenues

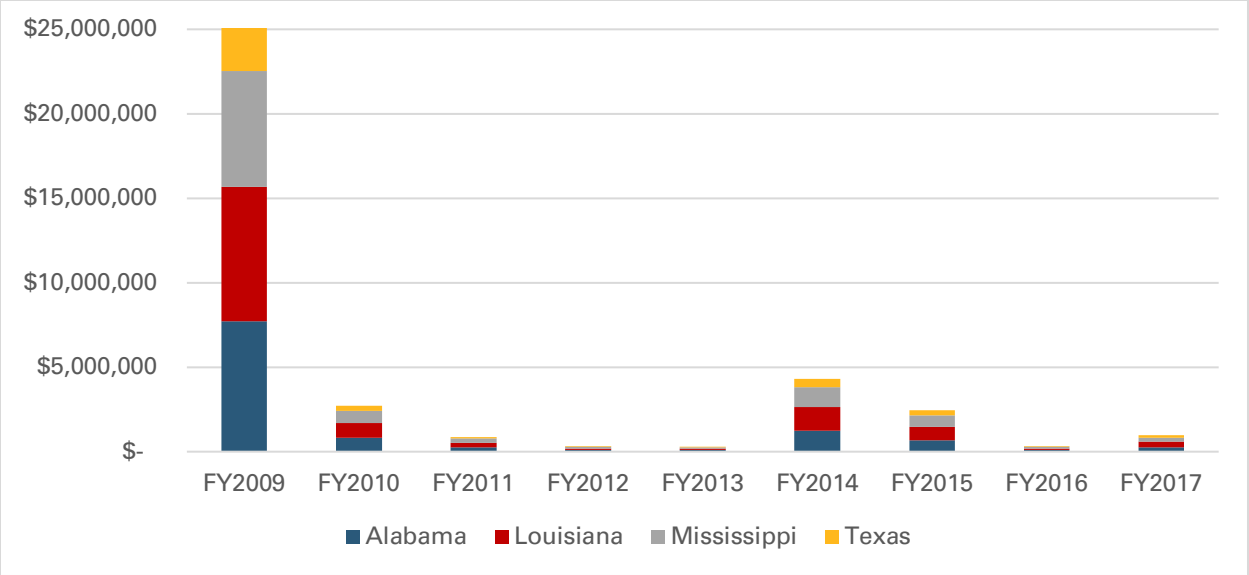
GOMESA revenue should be considered within two timeframes, Phase I (2007-2017) and Phase II (2017- 2055). During Phase I, qualified revenues were collected and shared from a relatively small portion of the Gulf of Mexico from leases in the "181 Area of the Eastern Planning Area" and the "181 South Area" (Figure 10). Phase II includes an expanded area that includes the remaining 181 Areas as well as the Western Planning Area and the Central Planning Area.



Source: U.S. Bureau of Ocean Energy Management[26]

Figure 10. Areas included in qualified revenue sharing for Phase I and II of GOMESA

New areas of the Gulf of Mexico were offered for oil and gas leasing with the enactment of GOMESA. About 2 million acres in the Central Gulf of Mexico were offered for lease in October 2007, 0.5 million acres in the Eastern Gulf were offered in March 2008, and 5.8 million acres in the Central Gulf were offered for lease in March 2009.[27] According to the U.S. Department of the Interior's Office of Natural Resources, disbursements to CPSs and GPSs are "made the year following receipt and subject to sequestration."[15] Additional delays for the first GOMESA disbursement were needed to allow for the complex calculations necessary to satisfy the revenue sharing rules, which meant that revenues collected in fiscal year 2007 were not shared until fiscal year 2009. Bonus bid revenue from fiscal year 2007 was higher than any year since 1974, adding to the higher disbursements when they were made in 2009.[24] New areas available for bid along with a longer time horizon (enactment of GOMESA in late 2006 through fiscal year 2008) meant that disbursements in fiscal year 2009 were much larger than subsequent years of Phase I (Figure 11).



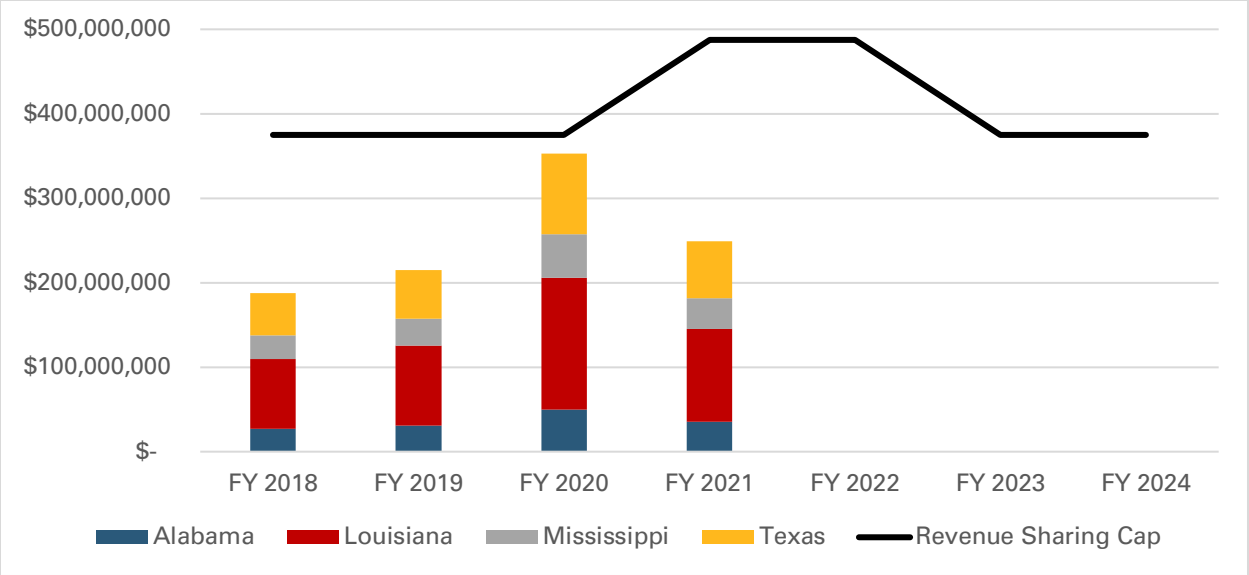
Source: U.S. Department of the Interior.[28] Illustrating year of disbursement, not year of collection.

Figure 11. Phase I GOMESA revenue for Gulf Producing States and their Coastal Political Subdivisions

In Phase II, the definition of qualified revenues was expanded to include a larger area. Gulf of Mexico leases in the 181 area created after December 2006 and leases from 2002-2007 in the Gulf of Mexico Planning area were included in qualified revenues (see Figure 10). This larger zone of qualified revenues in Phase II has led to much greater disbursements to GPSs and their CPSs (Figure 12). The average disbursement to Louisiana and its CPSs during Phase I was $1.3 million ($498,700 excluding FY 2009). During Phase II, the average jumped to $110.8 million.

During Phase II, the revenue sharing cap on GOMESA disbursements is $375 million for GSPs and CSPs with the exception of two years, fiscal years 2020 and 2021. During these two years the revenue sharing cap expands to $650 million for qualified groups (GPSs, CPSs, and the Land and Water Conservation Fund) as a result of the Tax Cuts and Jobs Act of 2017.[25] This cap applies to revenues collected during the fiscal year, which are shared with states in the subsequent year. For the four qualified Gulf of Mexico states and their CPSs, this temporary increase means moving the revenue sharing cap from $375 million to $487.5 million. The cap will return to the $375 million level for revenue collected in federal fiscal years 2022 through 2055. Disbursements during Phase II have far exceeded the Phase I distributions, but have not yet hit the revenue sharing cap.

Following Article VI, Section 10.2, Louisiana uses GOMESA funding to support projects in the Coastal Master Plan, including ones that support "conservation, coastal restoration, hurricane protection, and infrastructure directly impacted by coastal wetland losses."[16] However, Louisiana's CPSs are not required to spend GOMESA dollars on Coastal Master Plan projects alone. GOMESA disbursements can be used for coastal protection (including restoration, hurricane protection, and infrastructure), mitigation of damage to natural resources and wildlife, implementation of the Coastal Master Plan, mitigation of impact of OCS activities, or administration and planning costs.[22] The 19 parishes included as CPSs under GOMESA have received an average of $872,000 to $1.6 million during Phase II (Table 1).



Source: U.S. Department of the Interior.[28] Illustrating year of disbursement, not year of collection.

Figure 12. Phase II GOMESA revenue for Gulf Producing States and their Coastal Political Subdivisions

Table 1. Phase II disbursements to parishes identified as Coastal Political Subdivisions under GOMESA

Parish	2018	2019	2020	2021
Assumption	$553,603	$624,302	$1,034,103	$730,415
Calcasieu	$862,675	$1,006,346	$1,638,989	$1,157,927
Cameron	$1,090,581	$1,294,394	$2,092,861	$1,479,017
Iberia	$871,009	$993,922	$1,636,191	$1,156,003
Jefferson	$1,378,261	$1,571,308	$2,583,809	$1,824,146
Lafourche	$865,541	$980,198	$1,619,485	$1,143,535
Livingston	$694,064	$783,550	$1,295,216	$914,542
Orleans	$1,146,480	$1,299,392	$2,141,905	$1,512,051
Plaquemines	$1,623,361	$1,856,691	$3,049,637	$2,149,994
St. Bernard	$781,611	$892,387	$1,468,662	$1,035,622
St. Charles	$594,152	$666,344	$1,105,910	$780,781
St. James	$517,254	$582,116	$964,995	$681,467
St. John the Baptist	$559,531	$629,068	$1,042,878	$736,370
St. Martin	$616,853	$704,744	$1,160,081	$819,457
St. Mary	$719,952	$833,307	$1,364,113	$963,785
St. Tammany	$912,549	$1,030,784	$1,702,329	$1,201,628
Tangipahoa	$669,884	$752,644	$1,246,809	$880,267
Terrebonne	$1,260,427	$1,450,356	$2,377,137	$1,678,917
Vermilion	$850,143	$993,785	$1,618,587	$1,143,827
Total	**$16,567,931**	**$18,945,638**	**$31,143,694**	**$21,989,751**

Source: U.S. Department of the Interior[28]

Changing Outlook

A significant portion of qualified revenues shared under GOMESA are generated by bonus bids from lease sales as well as the royalty payments from ongoing production. Due to the timing of lease sales, the most immediate effects of the disruptions of 2020 on GOMESA were caused by the drop in prices and production, which directly reduce royalty payments. That decline in royalties is evident in the lower revenues collected in FY 2020, which were shared with gulf coast states in 2021.

While production at individual leases may have experienced different trends, gulf-wide production was only 4 percent lower in federal Fiscal Year 2020 when compared to 2019 thanks to strong production in the early part of FY20. Recent production data shows that year-to-date production for Fiscal Year 2021 remains well below the same months of the prior two fiscal years, lagging more than 10 percent behind pre-pandemic levels of activity. In federal FY 2020, average prices were nearly 25 percent below the average for federal FY 2019 though prices have rebounded and averaged nearly the same level in federal FY 2021 as in federal FY 2019. However, the net effect of prices and production volumes suggests that royalties will remain low for FY 2021 revenues, though they should come in higher than FY 2020 levels. Because production has not yet recovered to pre-pandemic levels, royalties generated in FY 2022 may continue to lag pre-2020 levels.

In addition to the effects of prices and production, delays in leasing in 2020 and 2021 can also be expected to reduce dollars shared through GOMESA in the near term in addition to potentially reducing revenues in future years. Due to the timing of lease sales, which typically occur in August and March, the dollars shared in a given fiscal year typically come from the prior year's August lease sale and the current fiscal year March lease sale. This is because bids require review and acceptance before the lease is secured and dollars are made available. The time for review and acceptance of bids from the August lease sale typically pushes most of those dollars into the next fiscal year. Therefore, bonus bids for Fiscal Year 2020 GOMESA revenues were essentially tied to lease sale 253 (August 2019) and lease sale 254 (March 2020).

While the March 2020 lease sale was not delayed, increasing concerns about the market outlook including low prices and the early stages of the pandemic may have lowered bonus bids. Total bonus bids in the three years prior had averaged $175 million per lease sale while the March 2020 lease sale generated $86 million in bonus bids. Without knowing what bonus bids would have been at that March 2020 lease sale without those concerns, a comparison to the prior year shows that lower bonus bids certainly contributed to the decline in GOMESA revenue from Fiscal Year 2019 to Fiscal Year 2020 (which are shared with states in the subsequent fiscal year as previously explained). Lease sales 251 and 252 generated total bonus bids of $407 million while lease sales 253 and 254 generated total bonus bids of $241 million.

Looking at Fiscal Year 2021 revenues, which will be shared in Fiscal Year 2022, the delays in leasing, which pushed lease sale 256 from March 2021 to November 2021, means that there will be only one lease sale contributing bonus bids to GOMESA revenue sharing. Lease sale 256 (November 2020) generated approximately $112 million in bonus bids, far less than what has been typical in recent years, or even the dollars generated in Fiscal Year 2020.

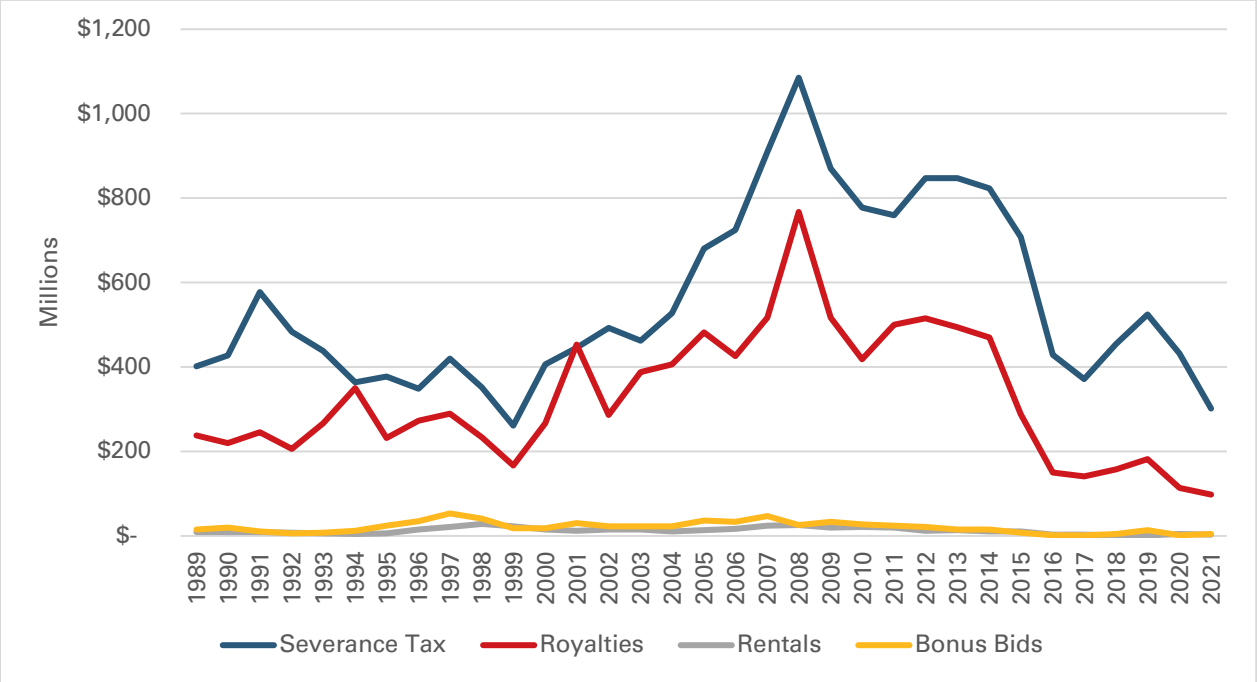
Delays in leasing will depress GOMESA revenues in 2022 and slow the growth of qualified revenues, or the portion of all Gulf of Mexico revenues that are shared through GOMESA in future years. Given the number of leases already under development that will qualify for revenue sharing under GOMESA, it is still likely that this revenue stream will return to higher levels fairly quickly and hit or exceed the revenue sharing gap within the next several years. However, emerging

federal policies aimed at accelerating the transition away from oil and gas could potentially disrupt future development and affect this stream of revenues.

It should also be noted that there have been ongoing efforts to amend revenue sharing rules including proposals by members of Louisiana's congressional delegation to increase revenue sharing with Gulf Producing States. Should those rules change, estimates of revenues tied to development of oil and gas in the Gulf of Mexico could change significantly.

Coastal Protection and Restoration Fund (State Mineral Revenue)

State mineral funding for coastal restoration is dependent on continued on-shore and off-shore investment and extraction within the State of Louisiana, so understanding the underlying foundation for this funding source can help policy makers evaluate the potential scope of future funding. Mineral revenue stems from severance taxes from minerals extracted from private lands within the state as well as from leasing and royalties related to minerals extracted from Louisiana public lands. State mineral revenue has historically played a major role in Louisiana's budget, but its influence has declined in recent years as the state has diversified its revenue sources and production related to oil and gas has declined.



Source: Louisiana Revenue Estimating Conference

Figure 13. State Mineral Revenues

For natural resources extracted on private land, Louisiana imposes a severance tax. The natural resources included in the severance tax are oil, gas, timber, sulphur, salt, coal, ores, marble, stone, sand, shells, and lignite. Of the items included in the severance tax, oil and gas make up over 96% (oil accounts for 62.8% and gas accounts for 33.7%) of the average total severance tax collected in Louisiana over the last 5 years.[29] The severance tax rate for crude oil is 12.5% for most wells (with low volume wells receiving a discounted rate).[30] For natural gas, the severance tax is based on the volume of natural gas with the rate tied to inflation, which is currently set at $0.091 per MCF.[31] It should be noted that a significant portion of natural gas production in recent years comes from

horizontal wells (i.e. production using hydrofracking or "fracking"), which are eligible for a full severance tax exemption for as much as the first two years of production.[32]

Louisiana manages leasing of state lands and waters, which generate bonus bids, rental payments, and royalties. There are seven categories of state leases: offshore, inland, Louisiana Department of Wildlife and Fisheries area/state owned, school indemnity lands (Section 16), tax adjudicated lands, vacant state lands, and White Lake. Each type of lease category has specific restrictions and special requirements.[33] The State Mineral and Energy Board publishes the tracts (5,000 acres or less in size) it will offer for mineral lease not more than 60 days prior to the date of opening bids.[34] Interested parties can then bid on a tract and offer a lease term, royalty rate, and rental payment. The Mineral and Energy Board chooses the most advantageous bid. If the lease becomes productive, the lease owner pays royalties, or a share of the value of resources extracted from state lands and waters.

There is flexibility in how a bidder structures the length, royalties, and rental of the bid. All categories, with the exception of offshore leases, have a three-year primary term limit for new leases. New off-shore leases have a five-year primary term limit.[33] The minimum royalty in a lease for oil and gas minerals is "one-eighth of the oil and gas produced and saved" on a state agency tract or one-sixth if executed by or on behalf of a school board.[35] However, according to the Department of Natural Resources, Louisiana has not accepted the minimum royalty "in a long time."[33] A 2013 report on active mineral leases found that Louisiana has leases which date back to 1920. Older leases have a royalty rate closer to the minimum (average of 13.0% for leases from 1920-1935), whereas newer leases (2000-2012) have an average royalty rate of 23.3%.[36] Negotiated royalty rates occur in Arkansas and Mississippi. A fixed royalty rate is set by state governments for mineral leases in Texas, Oklahoma, Wyoming, and by the federal government for offshore wells in federal waters.[36]

Bidders are required to include a cash payment with the bid. Half of the cash payment is considered a bonus and half is rental for the first year of the lease.[33] An annual rent that is greater than or equal to half of the cash payment is required for leases longer than one year.

Revenue dedicated to the Coastal Protection and Restoration Fund

The Coastal Protection and Restoration Fund receives only a small amount of Louisiana's severance, royalty, and leasing revenue. Louisiana dedicates some revenue from severance taxes, royalty payments, bonus payments, and rentals related to minerals though statute 49:214.5.4 to the Coastal Protection and Restoration Fund (CPRF) through Article VII, Section 10.2 of the Louisiana Constitution.[37,38] If state-level mineral revenues are available after paying the required state bonds, parish portions, and necessary deposits to the Louisiana Education Quality Trust Fund, a minimum of $5 million annually is deposited in the CPRF. In addition, the CPRF receives 2% of mineral revenues beyond the $5 million base allocation and other allocations described above. After subtracting the allocations described above, if mineral revenues exceed $600 million, the CPRF receives additional dollars above that threshold up to $10 million. If mineral revenues exceed $650 million, the CPRF receives a second round of additional dollars above the $650 million threshold up to $10 million. However, the 2% allocation is adjusted by the amount of revenue received from exceeding the $600 million and $650 million thresholds.

To illustrate the allocation rule, consider hypothetical mineral revenues of $651 after required allocations for state bonds, parish portions, and necessary deposits to the Louisiana Education Quality Trust Fund. The CPRF would receive a total of $17.9 million based as described below. The

initial $5 million minimum deposit. The CPRF would be allocated the first $10 million above the $600 million threshold and $1 million for revenues above $650 million. The 2% allocation for revenues above $5 million (or 2% of $646 million) would be $12.9 million, but is adjusted downward by the amounts from exceeding the $600 million and $650 million, or a total reduction of $11 million. Consequently, the 2% allocation is reduced to $1.9 million. Combining the $5 million base allocation with the two exceedance allocations totaling $11 million and the adjusted 2% allocation of $1.9 million produces a total allocation of $17.9 million. In the last 10 years, the fund has received a range of $13-$30 million annually.

Changing Outlook

As discussed above, COVID-19 led to reduced demand for oil and gas, causing prices to fall and putting additional downward pressure on production. While state oil production has followed a long run downward trend, low prices following the onset of the pandemic may have further accelerated that decline. More directly, low oil prices reduce severance taxes paid and royalties. The price for a barrel of regional benchmark West Texas Intermediate oil dropped from an average of $57.51 in state FY 2019 to $46.72 in FY 2020 thanks to low prices in the last four months of the fiscal year. In state FY 2021, prices recovered gradually averaging $51.81, but recovering to levels consistent with pre-2020 prices by the end of the state FY 2021.

Natural gas production has remained relatively flat through the events of 2020 and 2021 and with prices rising in recent months there could be some potential upside for mineral revenues. However, as noted previously revenues from oil production make up a large majority of all mineral revenues so the potential upside from natural gas may not drive aggregate trends.

The net effect of these changes was to reduce the allocation to the CPRF in state FYs 2020 ($14.8 million) and 2021 ($12.2 million) relative to state FY 2019 ($24.4 million). While prices have recovered to a level in line with state FY 2019, lagging oil production in particular may continue to depress mineral revenues in the near term. In addition to these short-term challenges and the broader long-term considerations outlined in the general discussion of oil and gas, there is also a potential upside opportunity for state mineral revenue in particular. New opportunities and advances in technology have led to lower on-shore costs for new development than for creation of new off-shore wells.[39] In addition, rising natural gas prices and the growth of LNG exports may help to support higher levels of natural gas production for quite some time.

Coastal Wetland Planning, Protection, and Restoration Act

The Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) provides another recurring funding stream for coastal projects that many feared would be impacted by the 2020 pandemic and subsequent economic downturn. CWPPRA revenue is tied to fuel taxes and revenues from some fishing and boating-related expenditures, all of which were impacted to some extent by recent events. Dedicated funding for CWPPRA initially stemmed from the 1990 Omnibus Budget Reconciliation Act of 1990 Public Law 101-508, Title IX, Section 11211 and has been renewed and updated several times since 1990.[40] CWPPRA's funding passes through the Sport Fish Restoration and Boating Trust Fund (SFRBTF).[41] The specific funding for the SFRBTF comes from several sources (Figure 14).

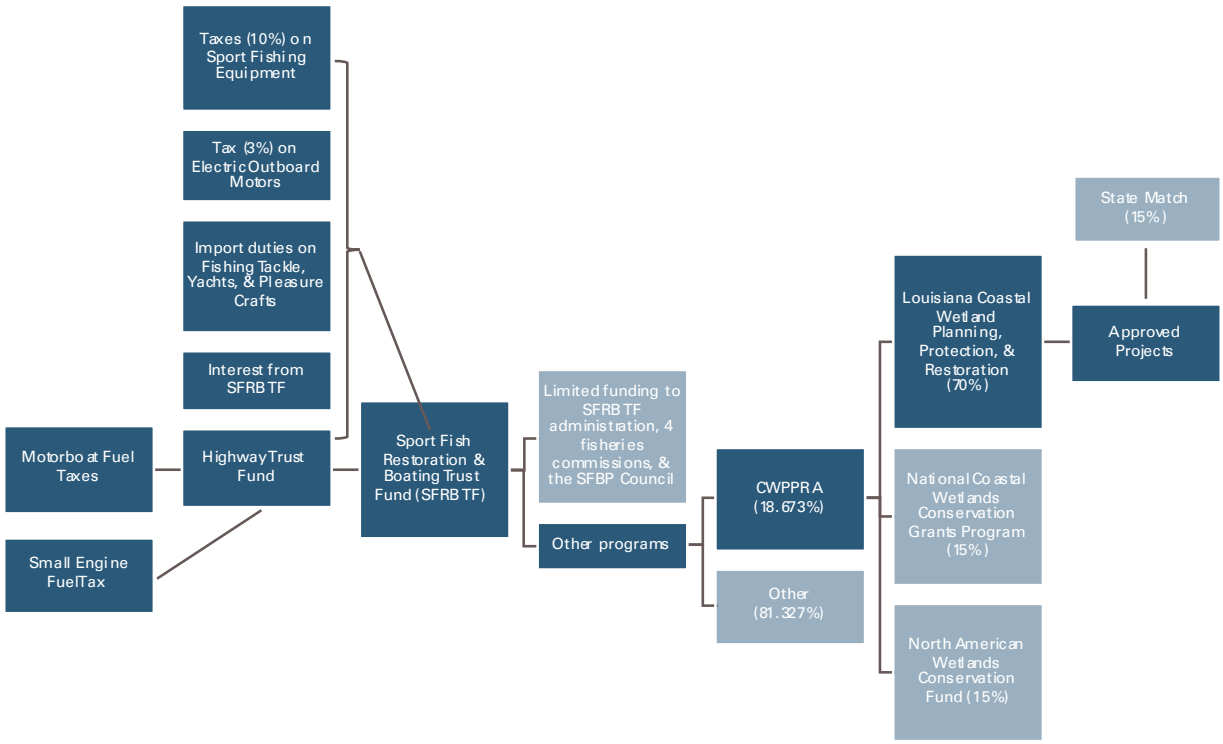


Figure 14. Overview of CWPPRA funding

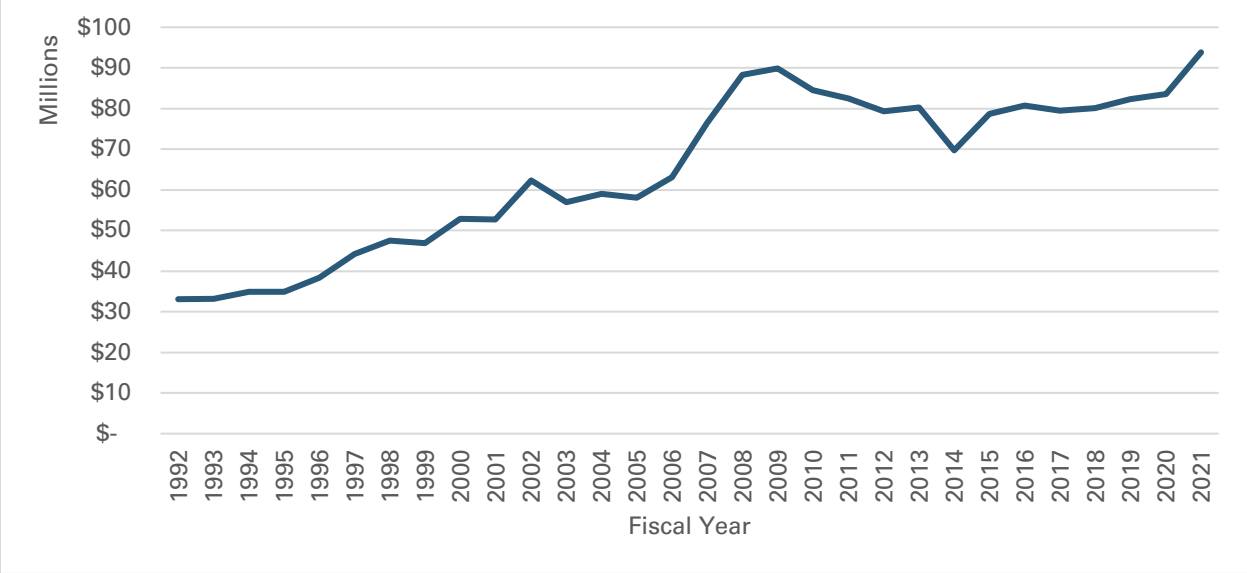
Understanding how CWPPRA receives its funding requires an overview of the revenue sources that are dedicated to support it. The direct funding flows from the SFRBTF, but several sources support the SFRBTF. The SFRBTF includes a dedication from the federal Highway Trust Fund. Using a formula from 1986, the U.S. Treasury estimates how much of the fuel tax is tied to the sale of motorboat fuel.[42–44] While discussions of this component often summarize what percent of overall fuel taxes the motorboat component makes up (just over 1%), no direct data are collected on motorboat fuel sales and the formula used to estimate the figure is based on the number of registered vessels, which has been relatively stable over time.[45] The first $1 million annually of the motorboat fuel sales goes to the Land and Water Trust Fund with any remaining funding going to the SFRBTF. The Highway Trust Fund also passes taxes attributed to small-engine fuel purchases for non-business outdoor power equipment to the SFRBTF.[42,46,47] As with motorboat fuel, there is no direct data collected on fuel consumption for small-engine fuel purchases so the U.S. Treasury estimates this revenue stream based on historical data and trends over time influenced by the presidential administration's macroeconomic forecast with the amount increased by a small fixed percent every year.[45] In 2019 the Highway Trust Fund transferred $438 million to the SFRBTF from these two dedications.[48] Annual transfers from the Highway Trust Fund are approved through October 1, 2022.[42] Although renewal of the appropriation has happened multiple times since 1990 and is likely to be reauthorized, Louisiana's congressional delegation should to continue to be aware of this item. The SFRBTF also receives funding from taxes on sport fishing equipment. This source includes a 10% tax on fishing rods and poles ($10 max) and a 3% tax on tackle boxes and electric outboard motors.[49] Finally, any interest from the SFRBTF is rolled back into the fund.

After administrative costs, limited funding for four state/regional fishing commissions ($800,000 total annually), and limited funding for the Sport Fish and Boating Partnership Council ($200,000 annually), 18.673% of the remaining SFRBTF funding goes to coastal restoration across the United

States, with 70% of those coastal restoration dollars dedicated to Louisiana's coastal restoration program, 15% dedicated to the National Coastal Wetlands Conservation Grants Program, and 15% dedicated to the North American Wetlands Conservation Fund. The National Coastal Wetlands Conservation Grants Program provides grants to any coastal state, except Louisiana, for coastal restoration projects. The North American Wetlands Conservation Fund provides funding for any state to carry out wetland conservation projects.

The CWPPRA Task Force manages the CWPPRA program. The Task Force consists of representatives from the Louisiana Governor's Office and five federal agencies, including the U.S. Environmental Protection Agency, the U.S. Department of the Interior's Fish and Wildlife Service, the U.S. Department of Agriculture's Natural Resources Conservation Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the U.S. Army Corps of Engineers.[50] Projects approved by the Louisiana Coastal Master Plan can be chosen for funding through CWPPRA using an 85% federal and 15% non-federal cost share.

During the last 10 years (federal fiscal years 2012-2021) the appropriation for Louisiana coastal restoration under CWPPRA has averaged $80.8 million with a range from $69.7 to $93.8 million. For federal fiscal year 2021, the Louisiana program received $93.8 million in federal funding. Figure 15 illustrates the annual appropriation for Louisiana's costal wetland restoration program since 1992. The appropriations include $5 million for Task Force related planning including preliminary project assessments, site-specific inventories, engineering, preliminary site design, and other work to evaluate the feasibility of coastal wetland restoration projects.[51] The balance is put toward the construction program. Since 1992, the program has received appropriations totaling over $1.9 billion which includes $150 million for planning and $1.8 billion for construction of coastal restoration projects.[52]

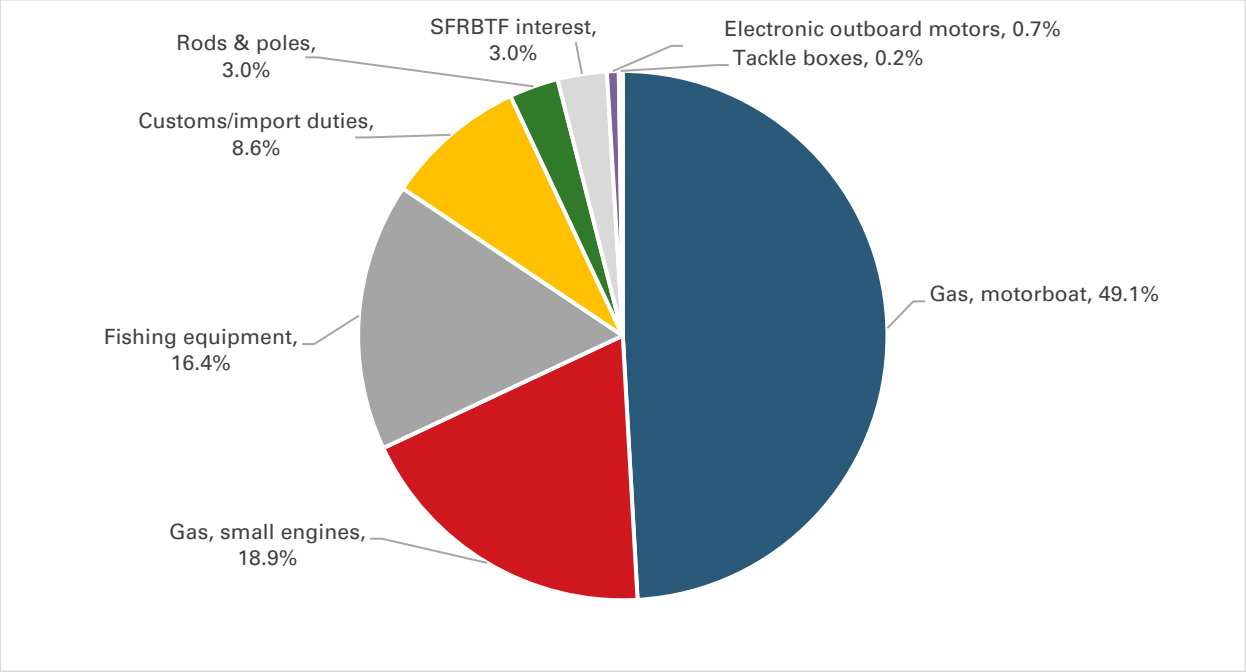


Source: U.S. Army Corps of Engineers[52]

Figure 15. Annual funding for Louisiana's coastal restoration program under CWPPRA

Understanding the historic revenues for CWPPRA requires examining the revenue from each of the underlying sources that feed into the SFRBTF. Over the last seven years, gas taxes have made up the largest portion of the SFRBTF's revenue followed by fishing gear and customs/import duties (Figure 16). Motorboat gas taxes and small engine gas taxes jointly average about 68% of the

revenues for the SFRBTF. Taxes on fishing gear, including fishing equipment, rods, poles, and tackle boxes, account for almost 20% of the average annual revenue for the trust fund.

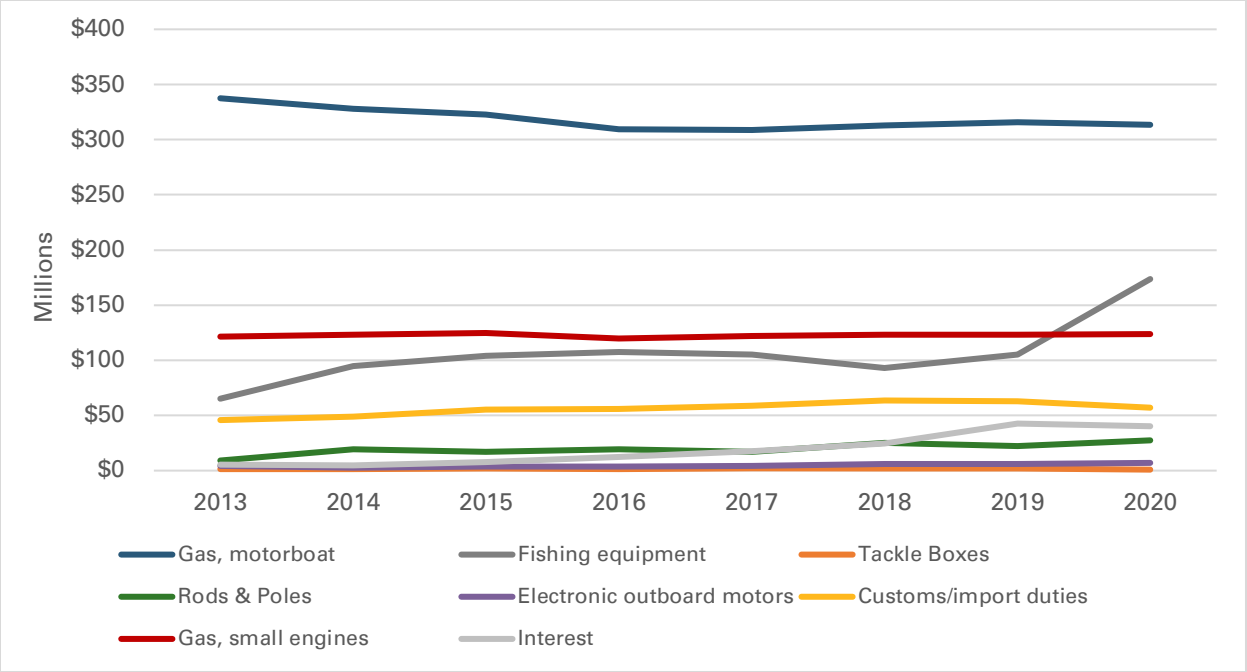


Source: U.S. Bureau of Fiscal Service[53]

Figure 16. Average annual contributions from revenue sources for the Sport Fish Restoration and Boating Trust Fund from 2013-2020

Changing Outlook

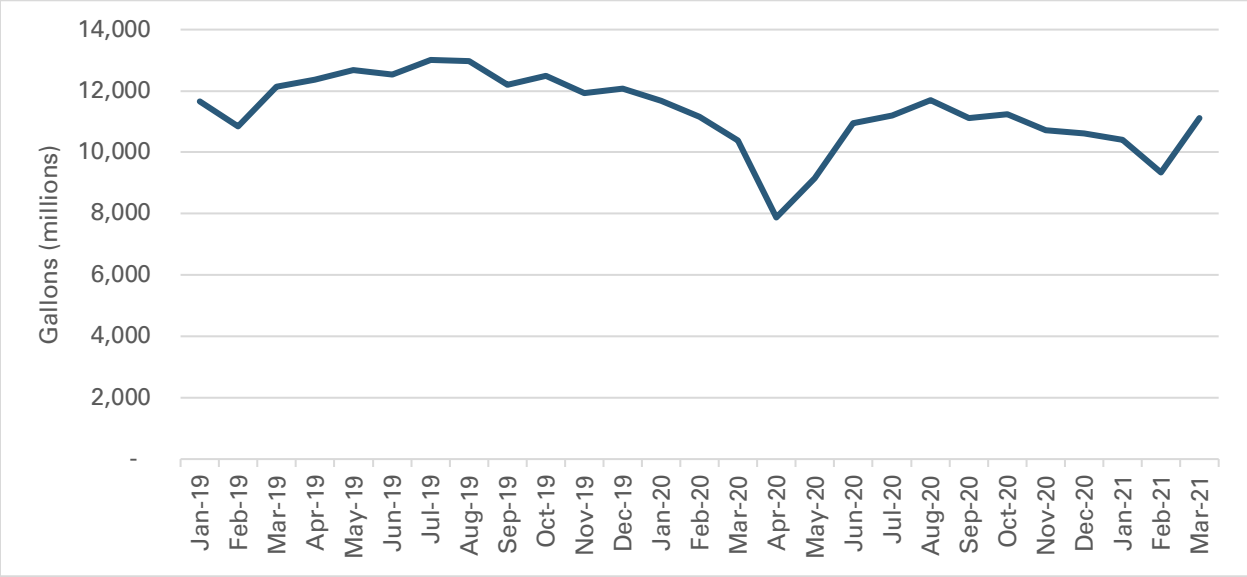
The revenue sources that support the SFRTF had been stable without much change prior to 2020 (Figure 17). Intuitively, many of these revenue streams are tied to behaviors that were heavily impacted by the COVID-19 pandemic, or that could be expected to change during an economic downturn. As data have come in, we can see that several of these revenue streams did change in 2020 (Figure 17).



Source: U.S. Bureau of Fiscal Service[53]

Figure 17. Sport Fish Restoration and Boating Trust Fund annual revenue 2013-2020

At a national scale, gas tax revenue declined relative to pre-pandemic norms. During 2020, gas consumption declined 12.9% from January – December 2020 as compared to 2019 (Figure 18). Comparing March 2019 to March 2020, gas consumption declined 16.8%. Fuel consumption overall has not yet fully returned to 2019 levels. In March 2021, gas consumption continued to lag March 2020 by 9.2%. Changes in driving habits and trends that occurred during 2020 may influence long-term gas tax revenues if elevated levels of remote work continue.



Source: Federal Highway Administration[54]

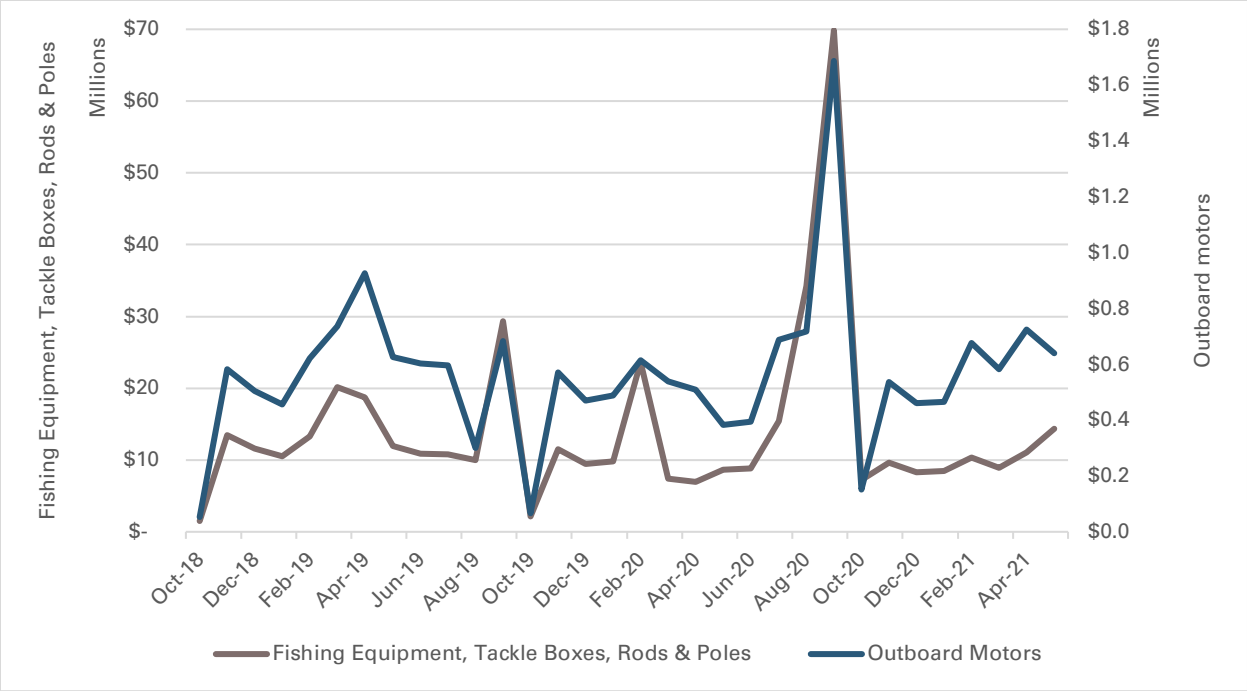
Figure 18. U.S. Gross Volume for Monthly Gasoline/Gasohol Consumption Reported by States

However, this decrease did not translate to similar trends in the monthly reports on the SFRBTF. There is a lag in data reporting as the Federal Highway Administration (FHWA) evaluates, processes, and analyzes state reported usage. Moreover, the SFRBTF allocation does not appear to be substantially influenced by minor changes in gas tax revenue. As describe above, the U.S. Treasury formula for motorboat fuel taxes is based on number of registered vessels as provided by the U.S. Coast Guard rather than calculating directly as a portion of total collected gasoline taxes.[45] Monthly receipts from the SFRBTF illustrate how that methodology resulted in a limited change in 2020 when compared to overall fuel tax changes.[55] Funding from motorboat gasoline taxes decreased by 3.6% ($11.6 million) from March 2019-Feburary 2020 compared to March 2020-February 2021. While beneficial to fund revenues during this time, this also illustrates the limitations of the current methodology given that the outdoor recreation increased significantly during this time that could potentially have led to increases in this revenue stream despite the overall decrease in travel and fuel taxes.

In contrast to the change in motorboat fuel taxes, funding from small engine gasoline taxes increased by 6.2% ($8.5 million) during the same period. Similar to the motorboat gasoline tax, the small engine gasoline tax is funded based on a formula that takes into account the U.S. Treasury's macroeconomic forecast, rather than relying on gas tax receipts alone.[45] The unexpected increase in this revenue stream coinciding with period of depressed economic activity illustrates a weak relationship between economic activity and estimated sales in the U.S. Treasury's methodology. This could be attributable in part to delays between real world changes and updates to the forecast and model, which could mean a future decrease in this revenue stream. It is also true that some categories of consumer spending remained strong despite the overall economic slowdown so perhaps the model is benchmarked to a more specific forecast of economic activity. The limited information available about the U.S. Treasury's calculations also illustrates the need for greater transparency in the methodology used by the U.S. Treasury for estimating small engine gasoline taxes.

It should also be noted that the fixed nature of the federal gas tax itself, which was last increased in 1993, is not structured in a way that will sustain similar levels of program activities over time.[56] The Institute for Tax and Economic Policy estimates that the purchasing power of the gas tax has declined 72% since 1993 based on improved fuel efficiency and construction cost inflation with those general effects having a similar impact on the value of these funds to the SFRBTF.[56]

The annual data in Figure 17 show that taxes on fishing equipment and rods and poles increased in 2020. Monthly data presented in Figure 19 illustrate how recreation changes during COVID-19 impacted revenue for the SFRBTF. When the pandemic led to cancelled vacations and a dramatic shift to outdoor activities in the summer of 2020, excise taxes on fishing gear, especially fishing equipment, more than doubled compared to previous summers. These purchases are likely one-time purchases and could lead to a lull in future years as many of these purchases can be used for years and the spending spree of 2020 may have in part reflected an acceleration of replacement purchases that would have occurred in future years. However, the increased revenue illustrates that during the COVID-19 pandemic people were purchasing fishing equipment as they relied on outdoor hobbies. To the extent that this trend may have attracted new people to these outdoor activities, there could be a lasting effect of elevated revenues from this source. Evaluation of excise taxes from purchases on fishing gear during the 2021 summer as soon as the data become available may provide insight into the longevity of these behavioral changes. Taxes from fishing gear in April 2021 are trending higher than April 2019, suggesting that some behavioral changes may continue or that summer recreation decisions were influenced prior to vaccine availability.



Source: U.S. Bureau of Fiscal Service[55]

Figure 19. Monthly excise tax revenue for selected categories of the Sport Fish Restoration and Boating Trust Fund

The uptick in excise taxes on purchases of fishing equipment, rods and poles, and electronic outboard motors, which collectively was $88 million higher than the baseline average made up for changes to the gas tax which had a more nuanced change. The motorboat gas tax revenue decreased $5.5 million while the small engine gas tax revenue increased by $1.3 million. Although from 2009-2019 gas taxes on motorboats and small engines averaged 70% of the inputs to the SFRBTF, in 2020 that percentage dropped to 59% (Table 2). In contrast, excise taxes on fishing equipment, rods and poles, electronic outboard motors collectively averaged only 19% of the support for the fund from 2013-2019. In 2020, that percentage increased to 28%.

Table 2. Sport Fish Restoration and Boating Trust Fund revenue categories: 2020 compared to the average for 2013-2019

	2013-2019	2020
Customs/import duties	$55,859,655	$57,110,888
Electronic outboard motors	$4,352,111	$7,008,506
Fishing equipment	$96,578,023	$173,656,129
Gas, motorboat	$319,247,571	$313,749,000
Gas, small engines	$122,469,000	$123,751,000
Interest	$16,548,455	$40,050,440
Rods & Poles	$18,374,969	$27,440,549
Tackle Boxes	$1,661,064	$889,372
Total	**$635,090,847**	**$743,655,884**

Source: U.S. Bureau of Fiscal Service[53]

Long term relatively stable trend plus risk of sequestration. The impact from 2020 was not significant on CWPPRA as additional purchases of fishing gear supported the underlying SFRBTF that funds CWPPRA and made up for minor losses from gas tax revenue. Nonetheless, over the long-term, potential for changes to gasoline consumption may impact CWPPRA's funding levels. Additionally, CWPPRA is a congressional program, and the funding continuity is not guaranteed without continued congressional authorization. Although the program has received congressional approval through several funding cycles, changes in federal priorities may impact this program's long-term support for Louisiana's coast.

Revenues Not Impacted by 2020 Events

In addition to those revenues discussed above, there are several sources of revenue that were not expected to be impacted by changing economic or finance-related conditions, including some that will provide a large portion of funding for coastal projects in the near term. In general, these revenue streams are fixed, or tied to activities that are not correlated with economic events, or otherwise impacted by the events of 2020 and 2021. Each of these revenue streams was reviewed in detail to document the mechanisms that determine Louisiana funding to ensure a thorough review of all sources of revenue used to support coastal projects and confirm that there would be no reason to expect recent event to have changed the outlook for the sources discussed below.

Deepwater Horizon Sources

The Gulf of Mexico experienced its largest spill to date from the April 2010 Deepwater Horizon explosion and subsequent oil release. The Consent Decree for the Deepwater Horizon addresses civil penalties brought up by the U.S. Department of Justice and the five Gulf States for Clean Water Act violations and addresses future litigation of natural resource damages as well as economic damages to Gulf States and their local governments.[57] The Consent Decree covers Clean Water Act civil penalties ($5.5 billion), natural resource damages ($8.1 billion, which includes the $1 billion committed to early restoration), unknown future damages ($700 million), and other claims ($600 million). In tandem with the federal Consent Decree BP also agreed to a related agreement with the Gulf States for economic damages ($4.9 billion to Gulf States and $1 billion to local governments).[57]

In addition to the Clean Water Act civil penalties and the natural resource damage assessments covered in the Consent Decree, there are additional agreements which address other aspects of the Deepwater Horizon incident. As a result of the damage to Louisiana's coast, economy, wildlife, and fisheries, Louisiana receives funding from six revenue streams which relate to the Deepwater Horizon oil spill (see Figure 20). These Deepwater Horizon funds are fixed and generally not expected to change as a result of the pandemic, economic fluctuations, or other major policy and regulatory changes between 2020 and the writing of this report. However, Deepwater Horizon-related funding is a primary source of revenue for coastal projects and is summarized below to highlight the key features determining the dollars Louisiana will receive through these sources.

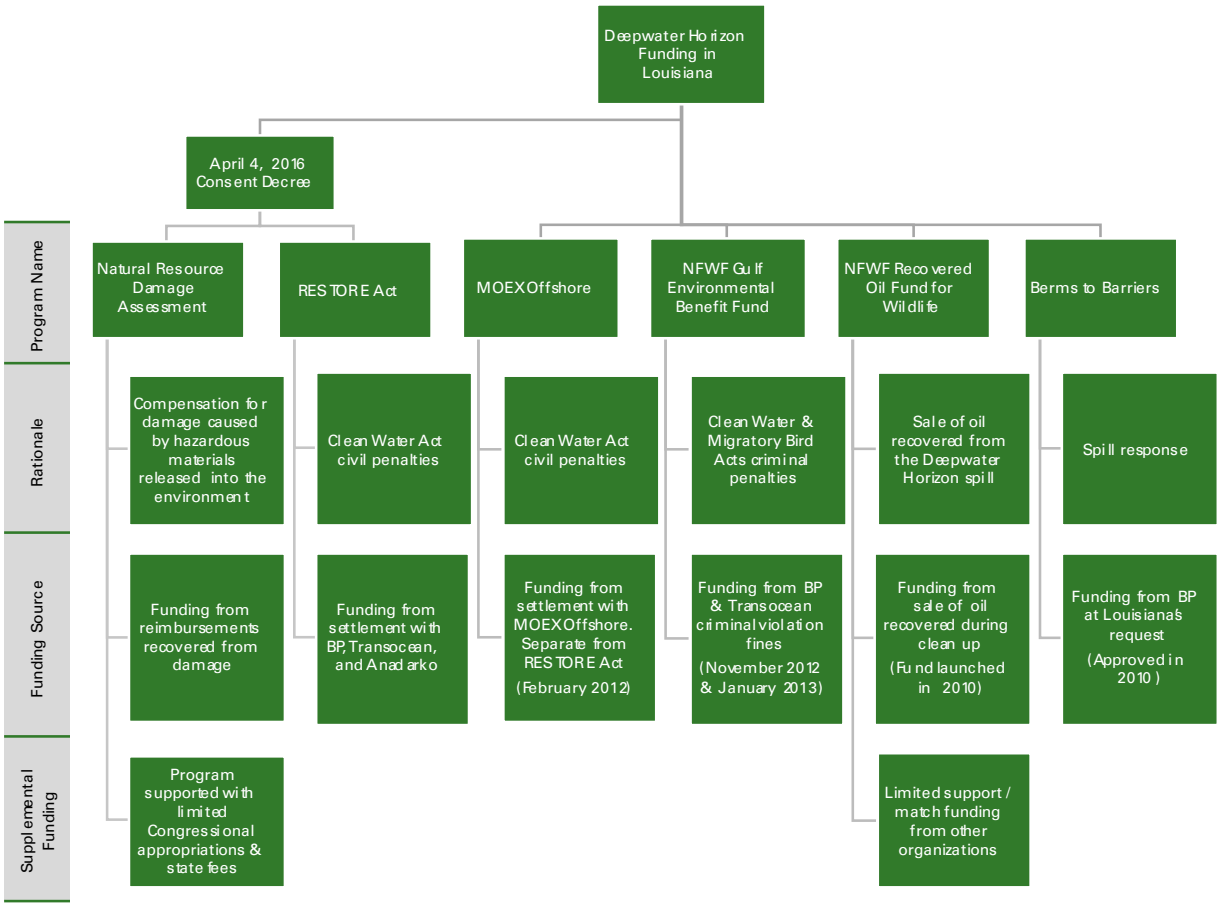


Figure 20. Louisiana coastal financing related to the 2010 Deepwater Horizon oil spill

Four of the six funding areas related to Deepwater Horizon have revenue dedicated specifically to activities in Louisiana and will provide ongoing funding for several years, depending on the funding purpose. These four areas include the Natural Resource Damage Assessment (NRDA), the Resources and Ecosystems Sustainability, Tourist, Opportunities and Revived Economies of the Gulf Coast States Act (RESTORE Act), the MOEX Offshore Settlement, and the National Fish and Wildlife Foundation's (NFWF) Gulf Environmental Benefit Fund. The fifth program, NFWF's Recovered Oil Fund for Wildlife, does not have dedicated funding for Louisiana, but provides competitive funding for projects across the Gulf of Mexico. The last program, Berms to Barriers, was targeted at immediate action during spill response. This funding recently ended, but the state continues to support related projects using other revenue.

Natural Resource Damage Assessment

A Natural Resource Damage Assessment (NRDA) is a process through which federal and state governments seek compensation for damage caused to natural resources due to hazardous materials released into the environment.[58,59] Using the NRDA process, federal and state governments worked with responsible parties to identify compensation for damage caused to natural resources by the Deepwater Horizon incident. The process determined the financial liability of BP and other entities for rehabilitating, repairing, or restoring ecosystems, wildlife habitat, and human uses impacted by the spill.[60]

The funding resulting from the Deepwater Horizon NRDA is managed by trustees of the program, which include federal and state agencies. For Louisiana these trustees include the Louisiana Coastal Protection and Restoration Authority; Louisiana Oil Spill Coordinator's Office; the departments of Environmental Quality, Wildlife and Fishers, and Natural Resources; as well as the U.S. departments of the Interior and Agriculture, the National Oceanic and Atmospheric Administration, and the Environmental Protection Agency. Each of these agencies are represented on the Louisiana Trustee Implementation Group, which approves projects in the state using NRDA funds.

Louisiana will receive $5 billion for coastal restoration projects paid out over 15 years related to the Deepwater Horizon NRDA (Table 3). The NRDA funding will be allocated to projects according to specific goal areas and consistent with the Louisiana Coastal Master Plan. As of May 2021, almost $1.4 billion has been dedicated to projects in Louisiana. Prior to the Deepwater Horizon NRDA agreement, BP voluntarily agreed to pay $1 billion for early restoration across the Gulf of Mexico.[61] The final NRDA amount include the early restoration funding in the total.

Table 3. Deepwater Horizon NRDA: Restoration Goals & Allocation of Louisiana Restoration Area Funds

Goal	Funding	Funding Committed as of 5/2021	Funding Remaining
Restore and Conserve Habitat			
Wetlands, Coastal, & Nearshore Habitats	$4,009,062,700		
Habitat Projects on Fed. Managed Lands	$50,000,000		
Early Restoration (through Phase IV)	$259,625,700		
Subtotal	*$4,318,688,400*	$ 1,100,000,000	$ 3,218,688,400
Restore Water Quality			
Nutrient Reduction (nonpoint source)	$20,000,000	$ 9,700,000	$ 10,300,000
Replenish and Protect Living Coastal and Marine Resources			
Sea Turtles	$10,000,000	$ -	$ 10,000,000
Submerged Aquatic Vegetation	$22,000,000	$ -	$ 22,000,000
Marine Mammals	$50,000,000	$ 3,600,000	$ 46,400,000
Birds & Early Restoration Bird projects	$220,437,300	$ 115,600,000	$ 104,837,300
Oysters & Early Restoration Oysters	$40,874,300	$40,874,300	$ -
Provide & Enhance Recreational Opportunities			
Provide & Enhance Rec. Opportunities	$38,000,000	$ 38,000,000	$ -
Early Restoration of Recreational Loss	$22,000,000	$ 22,000,000	$ -
Monitoring, Adaptive Management, Administrative Oversight			
Monitoring & Adaptive Management	$225,000,000	$ 19,700,000	$ 205,300,000
Admin. Oversight & Comp. Planning	$33,000,000	$ 9,000,000	$ 24,000,000
Total	**$5,000,000,000**	**$ 1,358,474,300**	**$ 3,641,525,700**

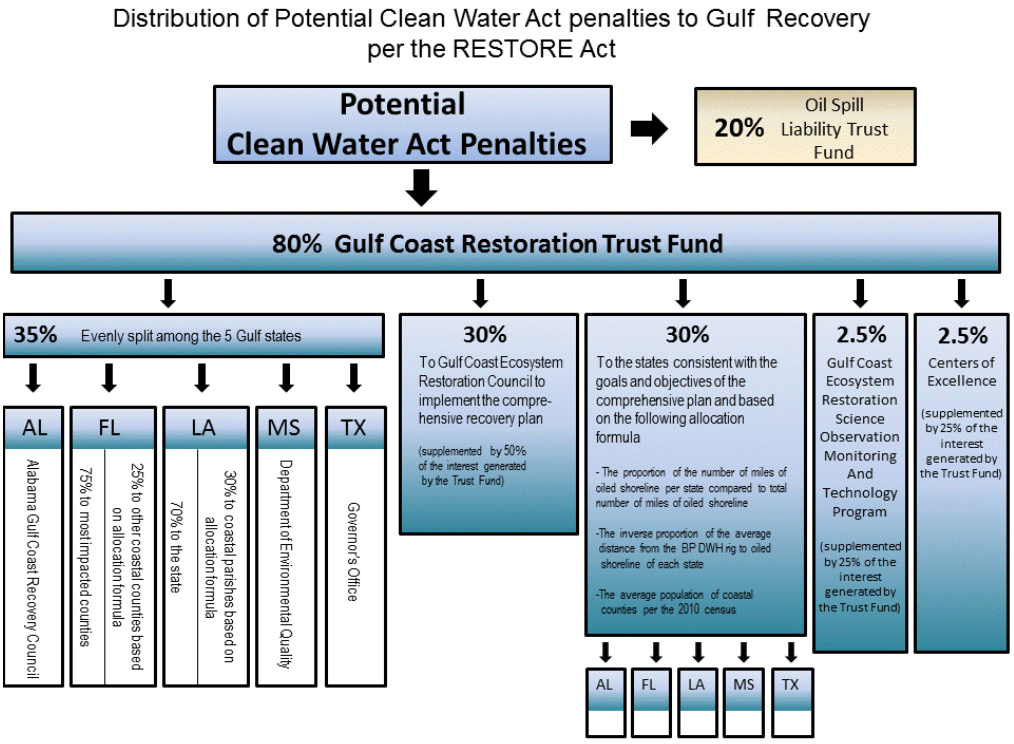
Source: Adapted from NOAA[62]

Since NRDA funding is based on reimbursements through the Deepwater Horizon settlement, dollar amounts are not expected to change as a result of the COVID-19 pandemic and ensuing

economic disruptions, or the recent downturn in the oil and gas industry. Nonetheless, the NRDA funding is limited and will end when funding is allocated. Slightly more than $3.6 billion remain available for projects in Louisiana.

RESTORE Act

Established by the Resources and Ecosystems Sustainability, Tourist, Opportunities and Revived Economies of the Gulf Coast States Act (RESTORE Act), the Gulf Coast Ecosystem Restoration Council manages the civil and administrative penalties from the 2010 Deepwater Horizon spill. The Clean Water Act penalties account for $6.659 billion based on settlements with BP, Transocean Deepwater Inc., and Anadarko Petroleum Corporation.[63] Under the Consent Decree, the $6.659 billion includes, "$1 billion (plus interest) in civil penalties from Transocean Deepwater Inc. and related entities for violating the Clean Water Act in relation to their conduct in the Deepwater Horizon oil spill; $159.5 million from a civil fine paid by Anadarko Petroleum Corporation; and $5.5 billion (plus interest) from BP Exploration and Production, Inc. (BP) for a Clean Water Act civil penalty."[64] These penalties are allocated to the five areas within the Gulf Coast Restoration Trust Fund after 20% is directed to the Oil Spill Liability Trust Fund (Figure 21).



Source: U.S. Department of the Interior[65]

Figure 21. Distribution of Clean Water Act penalties under the RESTORE Act agreement

Louisiana receives funding from all five areas including, (1) Direct Component; (2) Comprehensive Plan / Council-Selected Projects Component; (3) Spill Impact Component; (4) Monitoring and Observation Component (through the NOAA RESTORE Science Program); and (5) Centers of Excellence Research (Table 4). The U.S. Treasury estimates that over the 15 year payment period, Louisiana can expect to receive approximately $260.4 million for the Direct Component, $551.5 million under the Spill Impact Component, and $26.6 million for the Centers of Excellence Component.[66] Louisiana has and will continue to receive additional funding on a project-specific

basis through the Council-Selected Restoration Component and the Observation & Monitoring Component.

Table 4. Projects funded in Louisiana through the Gulf Coast Restoration Trust Fund in or partially in Louisiana

Component	LA Only	Multi-State (including LA)	Total Funding
1: Direct	$37,352,283		$37,352,283
2: Comprehensive Plan / Council Selected Restoration	$52,310,493	$19,767,383	$72,077,876
3: Spill Impact	$101,146,683		$101,146,683
4: NOAA RESTORE Act Science Program (Observation & Monitoring)	$2,366,960	$1,892,106	$4,259,066
5: Centers of Excellence Research Grant Program	$3,262,840		$3,262,840

Source: Adapted from the Gulf of Mexico Alliance's Deepwater Horizon Project Tracker (2/3/21 update). Funding not yet dedicated to a specific project not included.[67]

Direct Component

The five Gulf of Mexico states each receive an equal portion of the direct component. In Louisiana, 70% of the funding through the Direct Component will go CPRA and 30% will be directed to 20 coastal parishes.[68] The following parishes are eligible to receive funding: Ascension, Assumption, Calcasieu, Cameron, Iberia, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and Vermilion (Table 5). In 2017, Louisiana received approval for their Direct Component Multi-year plan which details how the $260 million available to the state will be spent.[69] A 2021 amendment to the plan updated the project spending plan and increased the budget $261 million, reflecting interest.[70]

Table 5. Percentage of the parish portion of the Direct Component allocated to Louisiana parishes

Ascension	2.43%	St. Bernard	9.67%
Assumption	0.93%	St. Charles	1.36%
Calcasieu	5.07%	St. James	0.76%
Cameron	2.10%	St. John the Baptist	1.12%
Iberia	2.55%	St. Martin	2.07%
Jefferson	11.95%	St. Mary	1.80%
Lafourche	7.87%	St. Tammany	5.53%
Livingston	3.33%	Tangipahoa	3.40%
Orleans	7.13%	Terrebonne	9.91%
Plaquemines	18.00%	Vermilion	3.03%

Source: U.S. Department of the Treasury[71]

Comprehensive Plan / Council-Selected Restoration Component

The Gulf Coast Restoration Trust Fund allocates 30% of the total funding to activities associated with the Comprehensive Plan, which includes projects across all the Gulf Coast region. In addition, half of the interest generated by the Trust Fund is allocated to supporting projects that fall within this funding component. The RESTORE Council chooses the projects supported by this funding

stream.[72] Eight projects located in Louisiana have been funded by this source ($52.3 million). Six additional projects with multi-state locations, including Louisiana, have also been funded ($19.8 million).[67]

Spill Impact Component

States receive funding from the Spill Impact Component based on the impact of the Deepwater Horizon spill on their state. The Gulf Coast Ecosystem Trust Fund places 30% of the fund revenue in the Spill Impact Component. Louisiana expects to receive 34.59% of these funds or approximately $554.5 million.[73] CPRA will dedicate $100 million of the Spill Impact Component to eligible parish matching activities that that are approved under Louisiana's RESTORE Plan and chosen through a process that includes extensive outreach with all eligible parishes.[74] Six projects using $20 million from the Spill Component and $1.28 million in matching funds have been identified.[74]

NOAA RESTORE Act Science Program (Observation and Monitoring Component)

The RESTORE Act Science Program is tasked with carrying out "research, observation, and monitoring to support, to the maximum extent practicable, the long-term sustainability of the ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter-fishing industry in the Gulf of Mexico."[75] NOAA funds projects within the priority areas of the program using the 2.5% dedication, plus interest, from the RESTORE Act. Louisiana has received funding for two projects wholly based within the state for a total of $2.4 million and participated in two projects with a combined budget of $1.9 million that cross multiple states, including Louisiana.[67]

Centers of Excellence Component

In 2014, CPRA named The Water Institute of the Gulf as the state's Center of Excellence (COE). The mission of the COE is to support research relevant to implementation of the Coastal Master Plan. The COE makes sub-awards for competitive research grants to universities in Louisiana. Louisiana received two awards to support administration of the COE program, $4.2 million in 2015 and $3.2 million in 2020.[76] The Water Institute of the Gulf provided about $3 million in sub-grants for research through its first request for proposals. The second request for proposals will fund approximately $2.3 million in research.[77]

MOEX Offshore Settlement

A part owner (10%) in the lease for the Macondo Well, MOEX Offshore agreed in February 2012 to settle its civil Clean Water Act penalties for the Deepwater Horizon spill. In its agreement, MOEX Offshore agreed to pay penalties for violations of Section 311 of the Clean Water Act that occurred during the Deepwater Horizon explosion and subsequent oil spill. The MOEX agreement is separate from the Consent Decree that that addresses civil Clean Water Act penalties for BP, Transocean, and Anadarko.

The MOEX Offshore settlement included a one-time $70 million civil penalty of which Louisiana received $6.75 million. The company also agreed to spend an additional $20 million for land acquisition and habitat protection. Properties acquired through this funding stream are transferred to appropriate state or non-profit entities in Louisiana, Texas, Mississippi, and Florida.[78]

The one-time MOEX funding is declining as Louisiana uses the funding for projects, but its impact has not been impacted by changes from COVID-19. According to data from the Deepwater Horizon Project Tracker, Louisiana's Coastal Protection and Restoration Authority is involved in three projects using MOEX funding.[67] Two projects with a combined budget of $5.9 million are funded through the MOEX Clean Water Act Penalties. An additional project is funded as a MOEX

Supplemental Environmental Project with a budget of $6.7 million. The Deepwater Horizon Project Tracker identified 14 total projects, with combined budgets of $30.5 million, underway using MOEX funding across the Gulf of Mexico.

National Fish and Wildlife Federation Gulf Environmental Benefit Fund

Criminal fines stemming from violations of the Clean Water and Migratory Bird Treaty Acts amounted to more than half of the fines from the Deepwater Horizon incident. The National Fish and Wildlife Federation (NFWF) administers $2.455 billion, over half of the total $4 billion fines,[79] for "acquiring, restoring, preserving and conserving – in consultation with appropriate state and other resource managers – the marine and coastal environments, ecosystems and bird and wildlife habitat in the Gulf of Mexico and bordering states harmed by the Deepwater Horizon oil spill."[80] The National Fish and Wildlife Federation manages these fines through the Gulf Environmental Benefit Fund.

According to the plea agreements with BP (2012)[81] and Transocean (2013),[82] 50% of the Gulf Environmental Benefit Fund will support projects in Louisiana.[79] The state expects to receive approximately $1.272 billion for projects that address restoration of barrier islands or river diversion projects along the Mississippi and Atchafalaya Rivers in accordance with the Coastal Master Plan and the Louisiana Coastal Area Mississippi River Hydrodynamic and Delta Management Study.[83] Projects are chosen for funding through a process that includes input and oversight by NFWF, CPRA, the U.S. Fish and Wildlife Service (FWS), and the National Oceanic and Atmospheric Administration (NOAA). Over $606 million has been awarded for 13 projects in Louisiana.[67]

National Fish and Wildlife Federation Recovered Oil Fund for Wildlife

BP's share of net revenue from the sale of oil recovered from the Deepwater Horizon spill provided the initial funding for the Recovered Oil Fund for Wildlife. The goal of this fund is to support species "most at risk from the Gulf oil spill, notably shorebirds, waterfowl, marsh birds, oysters, fin fish and sea turtles."[84] The fund has supported over $22 million in projects across the Gulf of Mexico. Partners such as Walmart, FedEx, Southern Company's Power of Flight Conservation Fund, Shell Oil Company's Shell Marine Habitat Program, and ConocoPhillips' SPIRIT of Conservation Program have contributed to the fund or to projects supported by the fund.

As of 2021, the Recovered Oil Fund for Wildlife has supported five projects within Louisiana ($2.1 million) and nine projects that span multiple states in the Gulf of Mexico, including Louisiana ($5.5 million) since 2010.[67] Grants are funded on a competitive basis; no funding is tagged for individual states. Federal, state, and conservation partners collaborate to choose the projects.

Berm to Barriers

In an effort to reduce the potential damages from oil spilled during the Deepwater Horizon spill, berms of sand were created along Louisiana's coastline. The plan included construction of a western and eastern barrier berm on the seaward side of existing barrier islands and inlets to protect, but not alter the function of the islands.[85] The western barrier berm was constructed at Shell, Pelican and Scofield Island and the eastern at the Chandeleur Islands.[86] BP funded construction of approximately 16 miles of berm between 2010-2016 at a cost of about $328 million.[67,87] Louisiana continues to build on the berms initially built as a response to the Deepwater Horizon through projects funded by other sources.

Funding Outlook

Deepwater Horizon funding has provided Louisiana with a unique opportunity to restore, protect, and preserve the coast. The funds resulting from Deepwater Horizon source are fixed and not expected to be influence as result of the pandemic, economic fluctuations, or other major policy and regulatory changes that occurred in 2020. Nonetheless, several of the Deepwater Horizon funding sources are ending or have fixed deadlines for funding. The support from the Deepwater Horizon NRDA, RESTORE, and Gulf Environmental Benefit funding streams will end after as BP's 15-year payment horizon reaches completion. The NWFW Recovered Oil Fund has obtained additional matching funding from other sources, but the grants are competitive and not allocated by state. The Berms to Barriers initiative has been completed. Most funding from the MOEX Settlement is dedicated or already spent on specific projects. Collectively these sources have had a generational impact on Louisiana's coast, yet the limited time frame leaves future coastal funding in question.

Natural Resource Damage Assessments (Not including Deepwater Horizon)

The NRDA process determines the financial liability of corporations or other entities for rehabilitating, repairing, or restoring ecosystems, wildlife habitat, and human uses impacted by oil spills, hazardous waste sites, or a grounded ship.[60] The NRDA Restoration Program is mainly funded through reimbursements recovered in settlements with major polluters, but also receives limited funding through congressional appropriations.[88] The Louisiana Oil Spill Coordinator's Office manages NRDA settlements for Louisiana. While the Deepwater Horizon Consent Decree resulted in the largest NRDA settlement to date, NOAA identifies 16 NRDAs in Louisiana that are active, under review, awaiting finalization, or with restoration in progress.[89] Projects supported by NRDA dollars must have a nexus to the particular spill impacts for each NRDA, but many of these align or overlap with Coastal Master Plan projects. CPRA receives funding from the Louisiana Oil Spill Coordinator's Office for NRDA settlements. Since agreement on the damages caused by a hazardous material release can take years, the funding from NRDAs is uneven and unpredictable.

Funding Outlook

The pandemic and economic disruptions of 2020 and 2021 did not impact the NRDA process since the program is funded through reimbursements from settlements with polluting entities. There were major hurricanes in 2020 and 2021, which did cause a number of oil spills. Not every spill results in a Natural Resource Damage Assessment, but at least one spill resulting from Hurricane Laura was large enough to warrant initiating the NRDA process.[90] However, recently-initiated NRDAs are unlikely to provide revenues for coastal projects beyond what has been typical in recent years from NRDAs other than the Deepwater Horizon NRDA.

Hurricane Recovery Funding

CPRA has historically received funding related to mitigation in the wake of large flooding or hurricane events. In the last seven years, projects related to Hurricane Isaac, Gustav, and Ike reached completion. During 2012, Hurricane Isaac impacted a large portion of Louisiana, with residents in 26 parishes eligible for individual assistance and 55 parish governments eligible for public assistance.[91] CPRA projects related to Hurricane Isaac, include repairs to beaches and dunes.

Residents in 54 parishes were eligible for individual assistance due to Hurricane Gustav or Ike (2008) and all parish governments were eligible for public assistance.[92,93] In response to Hurricanes Gustav and Ike the state received $1.06 billion for recovery, including funding for flood mitigation and infrastructure.[94] While most funding went to projects identified and implemented by the 19

coastal parishes, the Louisiana Office of Community Development's Disaster Recovery Unit (OCD-DRU) received $27.4 million for state coastal protection and restoration projects as part of a Community Development Block Grant from the U.S. Department of Housing and Urban Development.[94]

Funding Outlook

The one-time opportunities from hurricane recovery related funding were not impacted by COVID-19. These funding sources are ephemeral and related to specific weather events or declared disasters. The 2020 and 2021 hurricane seasons illustrate Louisiana will continue to be impacted by hurricanes and strong storms. However, the state cannot budget federal disaster recovery funding into its long-term plans for sustainable coastal funding. Recovery from Hurricanes Laura, Delta, and Zeta (2020) continue to lag and the events of the 2021 hurricane season, such as Hurricane Ida, continue to impact communities across Louisiana. Federal funding to address the impact of these hurricanes was recently passed by Congress, but it is not clear how this funding will impact Louisiana's coast.

Louisiana Public Funding Sources

In addition to state mineral revenues, which were discussed earlier, there are a number of other state revenue sources that have been used to support coastal projects in recent years. One-time state surplus dollars and capital outlay funds have been used as well as interagency transfers to support specific projects. While the events of 2020 and 2021 did not directly influence these funds, the general health and management of the state budget and degree of political support to fund coastal projects can certainly influence these revenue streams from year-to-year.

State Surplus Funds

In years where the state budget ends a fiscal year with budget surplus, coastal projects often benefit from the excess money in the state budget. The Louisiana Constitution limits the use of budget surplus dollars to the Coastal Protection and Restoration Fund, Budget Stabilization Fund, early repayment of bonds, paying down unfunded accrued liability of the public retirement systems, capital outlay projects, or highway construction (must also use federal matching dollars). After several years of budget deficits, or small surpluses, Louisiana ended Fiscal Year 2018 with a sizeable budget surplus and dedicated $55 million to the Coastal Protection and Restoration Fund in Fiscal Year 2019. The following year, Louisiana had yet another budget surplus and dedicated $62.5 million to the fund. However, there have been many years with little or no surplus to allocate as well as a wide array of competing interests for those dollars.

With the onset of the COVID-19 pandemic, there were widespread concerns about the state budget and its potential consequences for coastal funding. Despite initial concerns of a sharp downturn in revenues, the Revenue Estimating Conference lowered the Fiscal Year 2020 budget forecast by only 3 percent. Fortunately, state revenues proved to be fairly resilient despite the economic slowdown thanks in part to a flood of federal stimulus and emergency programs that covered some state agency costs as staff shifted effort to manage federally-funded pandemic response and recovery. Fiscal Year 2020 ended less than 1 percent below the pre-pandemic benchmark, which led to a budget surplus relative to the revised Revenue Estimating Conference forecast.

This experience illustrates the importance of considering a budget surplus as a distinct factor that is not entirely driven by increases or decreases in revenue. A surplus is the result of revenues coming in higher than forecast and the degree of optimism or caution by the Revenue Estimating Conference can have a more systematic effect on the recurrence and size of the state surplus. In

recent years, it has been clear that the Revenue Estimating Conference has taken a cautious approach when projecting revenues making the state more likely than not to end the year with a surplus. While unexpected drops in revenue throughout the year can undermine a high quality forecast, meetings throughout the year can also help the state revise expectations and maintain a forecast that is in line with lower revenues.

Funding Outlook

While the forecast for Fiscal Year 2021 was initially dropped to 8 percent below a pre-pandemic baseline, a quick if partial recovery led to an upward revision that was only about 5 percent below that baseline. Strong tax collections later in the year suggest there may be a sizeable surplus relative to that forecast offering yet another opportunity for Louisiana to direct state dollars for investments in coastal projects. Moving forward, it is reasonable to expect the Revenue Estimating Conference to select forecasts that might offer some planning cushion to the state, which more often than not would be expected to produce budget surpluses rather than deficits. However, continued pressure to use those dollars for other high priority eligible uses make this revenue stream inherently unpredictable and variable.

General Obligation Bonds

Louisiana uses the capital outlay process to appropriate funding for coastal projects through general obligation bonds. The capital outlay process provides an uneven funding stream since projects are funded based on the state budget outlook and competing capital outlay priorities. Using general obligation bonds, the state can leverage funding to pay for approved projects over a longer period than what is available in any given year. At the state level, debt is constitutionally constrained to limit net state tax supported debt at 6% or less of the official forecast adopted by the Revenue Estimating Committee.[95] The net state tax supported debt includes projects by the Department of Transportation and Development (DOTD), CPRA, Facility Planning and Control, and others.

According to CPRA staff, the agency has used general obligation bond funding to support segments of larger systems, such as pieces of the "Morganza to the Gulf" project.[97] The Morganza to the Gulf of Mexico Hurricane Protection Project aims to reduce flood and hurricane risk in the Houma area. The original project plan included 72 miles of levees, 13 navigable floodgates, 13 water control structures, and the HNC lock complex with adjoining navigable floodgates and a dam closure.[98] The large scale with distinct projects provides an opportunity to slice it into annually funded pieces. Although bonds have made up a significant portion of the funding for Morganza to the Gulf, some sections, such as the lock on the HNC are funded through RESTORE. Using capital outlay in tandem with other funding provides the state with the opportunity to leverage multiple funding sources to build systems of protection.

Some projects that will ultimately not use state revenue need to go through the capital outlay process to establish a cash line of credit. There are limits on the amount of cash lines of credit that the State Bond Commission can authorize each year and projects must be reauthorized annually. Over the last five years CPRA has received $50.85 million in new general obligation bonds (Table 6).

Table 6: New general obligation bonds received by CPRA

Fiscal Year	New General Obligation Bonds*	
2018	$	-
2019	$	2,000,000
2020	$	11,000,000
2021	$	32,850,000
2022	$	5,000,000

Source: CPRA[96]

*Note: does not include the Atchafalaya Basin program since DNR received the direct appropriation from the Bond Commission

Funding Outlook

Funding projects using the capital outlay process provides the ability for Louisiana to direct its general fund at specific coastal projects. However, this targeted approach leaves the Coastal Master Plan vulnerable to shifts in priorities and budget. The uneven funding of the capital outlay process makes it more challenging to address the long-term needs of Louisiana's coast.

Interagency Transfers and Local Government Match Funding

CPRA has agreements with several Louisiana government agencies for services or projects. The Department of Transportation and Development (DOTD) has a reoccurring annual interagency transfer to CPRA of $4 million annually. This annual transfer reflects salaries for 43 staff members who moved from DOTD to CPRA when Louisiana consolidated coastal activities, including flood protection, into one agency.[75] Since 2018, the Louisiana Department of Wildlife and Fisheries has had an annual $1 million interagency transfer to CPRA associated with the South Pass Bird Island Enhancement.

CPRA also receives one-time funding from state agencies and local governments for projects that align with their interests. At a state level, the Louisiana Department of Natural Resources (LDNR) has provided match funding for mitigation projects. Parish-level funding has stemmed from levee districts and parish governments. This is often a local match or contribution for a larger flood protection project in their region. The project-specific funding provides critical support to help an individual project reach completion, but it does not provide a long-term opportunity as a reoccurring funding source.

CPRA receives support from project billing associated with specific projects. According to CPRA's Fiscal Year 2021 Annual Plan, project billing represents "salary and other work-in-kind reimbursements" for work done on funded CPRA projects.[99] Over the last seven years, project billing has represented an average of $22.4 million in expected annual revenue.

Funding Outlook

Interagency transfers, local funding, and project billing were largely unaffected by COVID-19 and other recent events. The interagency transfers will continue unaffected by 2020. The other funding sources in this section are project-dependent and will follow the individual project.

Other Funding Sources

There are a few other sources of funding referred to in the CPRA Annual Plans that do not fit neatly into any of the categories discussed above. CPRA Trust Fund "Carried Forward" funding relates to funding that is waiting for a projected to begin. Most of this funding is encumbered for a specific project. If that project is awaiting a permit or other necessary approvals before being spent, the

funding waits in the CPR Trust until it receives the necessary approval.[97] This is not a new funding stream. Other one-time or limited funding projects are also included in other funding sources. These sources include grants from the Gulf of Mexico Alliance Gulf Star Grant, National Academy of Science Research Practice Grant, and Bureau of Ocean Management. The funding related to these individual programs is dedicated to a specific project.

Funding Outlook

The funding carried over in the CPRA Trust Fund and the other one-time projects were not affected by recent events.

Conclusions

Funding for Louisiana's coast has largely weathered the COVID-19 downturn. Aside from revenues tied to oil and gas, most of the funding sources that support coastal projects are stable and were not impacted by the initial COVID-19 downturn and have mostly recovered since then. Lower oil prices, pandemic-related disruptions, a drop in demand, and a changing regulatory environment, all contributed to a drop in oil and gas revenue streams and many of these factors will continue pose challenges for the industry for some time. CWPPRA had a mix of impacts as people made different decisions while businesses and schools were closed. Purchases of fishing equipment and small boat motors expanded during the summer of 2020, with a small percentage of each purchase going to the fund that provides the underlying support for CWPPRA. Other expected impacts during COVID-19, such as potentially large decreases in federal gas tax collections from reduced driving, resulted in minimal impact for Louisiana due to the formulas used in calculating motorboat and small engine fuel taxes.

Deepwater Horizon funding sources provide significant and stable funding for coastal projects, but also have a sunset for when their support will end. While Deepwater Horizon sources will support coastal projects for many years, steps must be taken to evaluate what coastal funding looks like post-Deepwater Horizon. The state has several other funding sources that provide important, but sporadic and inconsistent support including the use of state surplus and capital outlay funds as well as hurricane recovery funding and NRDA dollars. These funding sources have provided impactful investments in key projects, but cannot be counted on as a long-term solution to annually meeting the state's needs for coastal investment.

Moving forward, the ongoing challenges facing the oil and gas industry in the Gulf of Mexico are likely to have a longer-term impact on coastal funding streams. Congressional changes to disbursement rules for GOMESA could provide substantial support for Louisiana and other Gulf Coast states to help offset the consequences to coastal financing of slowing future development in the Gulf of Mexico. When looking more broadly at the revenues the state relies on to fund coastal projects, it is also clear that CPRA can do more to improve reporting of new revenues received by source in the Annual Plan alongside revenues that will be used to support specific projects. Greater transparency and improved communication will help legislators and other stakeholders better understand the funding that supports the Coastal Master Plan.

More generally, Louisiana must be open to analyzing new opportunities and research that may set the stage for future funding. For example, the Gulf Coast's massive energy infrastructure and workforce make it competitive in efforts to develop new energy sources. But it will require a targeted strategy that aligns public and private support to develop these opportunities and create ways to harness future uses of Louisiana's coast to reinvest in coastal restoration and protection. The coast has a significant impact on how Louisianians live and work and generates widespread

benefits across the United States. Louisiana must continue develop new ways to measure and communicate those benefits to help sustain local, state, and national support to sustain and grow the revenues needed to protect and restore Louisiana's coast.

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