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The Wild West of the Coast: The Need to Regulate Louisiana's Gulf Menhaden Fishery

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The Wild West of the Coast: The Need to Regulate Louisiana's Gulf Menhaden Fishery

Camille Webre^{*}

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INTRODUCTION

The regulation of small fish matters. Louisiana residents should care about one species of small fish in particular, known as menhaden. A recent massive fish kill brings the issues posed by Louisiana's menhaden fishery to light. On September 8, 2022, "[a] menhaden fishing boat overwhelmed by an unexpectedly big catch let loose a massive raft of dead fish off the coast of southwest Louisianaⁿ¹ The fishing boat released 900,000 dead fish into the water, which formed an enormous rotting mass.² Several charter boat captains found the fish kill to be damaging, especially because the charter boats "target the redfish and other species that depend on menhaden for food.ⁿ³ In response to the fish kill, Jason Adriance, a manager at the Louisiana Department of Wildlife and Fisheries (the Department), reportedly said, "A couple million extra is insignificant.ⁿ⁴ However, the menhaden fishery is Louisiana's largest but least regulated fishery;⁵ therefore, a couple million extra may prove to be significant. These little fish have an enormous impact on the state of Louisiana.

Louisiana's fragile coast remains inadequately regulated in regard to the menhaden fishery. Among the Gulf states, Louisiana is the only state without extensive regulations, which has resulted in irresponsible fishery management leading to harmful environmental events like massive fish

5. *Id*.

^{1.} Tristan Baurick, *Pogy Boat Dumps 900,000 Fish off Louisiana Coast, Raising the Ire of Anglers and Conservationists*, NOLA.COM (Sept. 16, 2022, 4:02 AM), https://www.nola.com/news/environment/article_b2b14a54-3538-11ed-89 0d-13c72dc8ad26.html [https://perma.cc/DMZ7-TVX2].

^{2.} *Id.*

^{3.} *Id*.

^{4.} *Id*.

kills. The environmental problems mentioned below illustrate why Louisiana needs to impose regulations. This issue is not extremely partisan. In fact, most Louisiana representatives and residents on both sides of the aisle support the idea of implementing regulations.⁶

Part I of this Comment provides background information on menhaden and the evolution of the menhaden fishery in the United States and Louisiana to identify the significance and large impacts of this fishery. In addition, Part I addresses where Louisiana derives its regulatory authority. Part II of this Comment then discusses the problems posed by the menhaden fishery in Louisiana. This fishery poses concerns such as the killing of non-targeted species; purse seine nets⁷ damaging the sea floor and shallow water habitats; localized depletion of menhaden; and placing a strain on recreational fishermen.⁸ Further, Part II discusses why Louisiana lawmakers and residents feel regulations are necessary. Finally, this part will identify specific advocacy groups pushing for regulations and their viewpoints on the fishery.

Part III of this Comment proposes solutions to the problems posed by the Louisiana menhaden fishery. In the past, Louisiana lawmakers and advocacy groups created and pushed for regulations; however, the Senate refused to pass these bills.⁹ Recently, the Louisiana Wildlife and Fisheries Commission (the Commission) imposed, with legislative oversight, "a coastwide buffer of [a quarter] mile from the established inside-outside line (the line that separates Louisiana's inshore waters from offshore

^{6.} Telephone Interview with David Cresson, CEO, Coastal Conservation Ass'n (Sept. 12, 2022).

^{7. &}quot;A purse seine is a large wall of netting deployed around an entire area or school of fish. The seine has floats along the top line with a lead line threaded through rings along the bottom. Once a school of fish is located, a skiff encircles the school with the net. The lead line is then pulled in, 'pursing' the net closed on the bottom, preventing fish from escaping by swimming downward. Purse seines can reach more than 6,500 ft (2,000 m) in length and 650 ft (200 m) in depth, varying in size according to the vessel, mesh size, and target species." *Fishing Gear: Purse Seines*, NOAA FISHERIES, https://www.fisheries.noaa.gov/national /bycatch/fishing-gear-purse-seines [https://perma.cc/TX63-3627] (last updated Feb. 12, 2019).

^{8.} Telephone Interview with David Cresson, *supra* note 6.

^{9.} See, e.g., Bob Vanasse, Restrictive Louisiana Menhaden Legislation Would Have Major Costs; New Report Details Fishery's Economic Value, ACCESSWIRE (Apr. 29, 2022, 2:50 PM), https://www.accesswire.com/699520/ Restrictive-Louisiana-Menhaden-Legislation-Would-Have-Major-Costs-New-R eport-Details-Fisherys-Economic-Value [https://perma.cc/SN9A-UT32] (last visited Feb. 19, 2024) (citing H.B. 535, 2021 Reg. Session (La. 2021) and H.B. 1033, 2022 Reg. Session (La. 2022)).

waters).^{"10} Other parts of the coastline, such as "the area from the eastern shore of Barataria Pass to the eastern end of Grand Terre Island ... require a [one]-mile buffer."¹¹ However, organizations like the Coastal Conservation Association (CCA) find these buffers "grossly inadequate to provide appropriate protection for [Louisiana's] shallow surface zone and the critical marine species that are found there."¹² Part III also addresses regulations imposed by other Gulf states such as Alabama, Florida, Mississippi, and Texas and weighs their likelihood of success in Louisiana. Next, Part III identifies specific counterarguments to these proposed solutions. Finally, this Part aims to resolve these counterarguments and determine Louisiana's best path forward.

I. BACKGROUND

A. Defining Menhaden and Their Importance

Menhaden, also known as pogies, are a type of fish that play a critical role in industrial and consumer products as well as the Gulf and Atlantic coastal ecosystems.¹³ "Menhaden are what is known as a keystone species, meaning their removal from the food chain would dramatically alter the health of the environment."¹⁴ There are two species of menhaden: (1) Atlantic menhaden spanning from Nova Scotia to Central Florida and (2) Gulf menhaden spanning from the Yucatan Peninsula to Tampa Bay.¹⁵ Physically, the two species differ slightly in size and body shape; however, the contribution of both species to the industrial, commercial, and ecological sectors is the same.¹⁶

The significance of the menhaden fishery spans back to the 19th century when people used menhaden oil in North America as fertilizer.¹⁷

^{10.} Toby Lapinski, *LWFC Amends Coastal Buffer Zones to Gulf Menhaden Harvest*, FISHINGWIRE (Jan. 11, 2022), https://thefishingwire.com/lwfc-amends-coastal-buffer-zones-to-gulf-menhaden-harvest/ [https://perma.cc/FN7D-DD7W].

^{11.} *Id*.

^{12.} CCA and LCBA Respond to 1/4 Mile Menhaden Buffer Zone, COASTAL CONSERVATION ASS'N LA. (Dec. 1, 2021, 5:02 PM), https://ccalouisiana.com/ news/cca-and-lcba-respond-to-1-4-mile-menhaden-buffer-zone/ [https://perma.c c/7RDQ-63ES].

^{13.} *Menhaden*, FLA. SPORT FISHING, https://floridasportfishing.com/men haden/ [https://perma.cc/B7UU-EQXS] (last updated June 6, 2023).

^{14.} *Id*.

^{15.} *Id*.

^{16.} *Id*.

^{17.} A Brief History of America's Menhaden Fishery, SAVING SEAFOOD, https://www.savingseafood.org/news/conservation-environment/a-brief-history-

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Over time, the use of menhaden oil evolved from fertilizer to "a lubricant and as an ingredient in various industrial and consumer products, such as paint and cosmetics."¹⁸ The commercial harvest of menhaden makes up a reduction fishery, "which reduces billions of menhaden into livestock feed, fish oil, fish meal, fertilizers, cosmetics, and other products."¹⁹

Additionally, these small, oily fish play a significant role in the marine food web and the marine ecosystem in general.²⁰ For example, menhaden are an essential food source for important sportfish species such as striped bass, bluefin tuna, redfish, speckled trout, and sharks.²¹ Large marine species like whales, dolphins, and seabirds also consume menhaden.²² In addition, menhaden "regulate water quality by filtering harmful nutrients as they feed."²³ The significance of the menhaden fishery is evident; however, discussion of the exact regulations to impose can stir controversy even though this issue is bipartisan.

B. The History of Louisiana's Menhaden Fishery

Louisiana's menhaden fishery solely focuses on Gulf menhaden, and evidence suggests that Louisiana is the largest source for this fishery in the United States.²⁴ In fact, "more than 70% of the entire Gulf of Mexico menhaden harvest occurs within [three] miles of the Louisiana coast (up from 54% in 1998)."²⁵ In 2020, data compiled by the National Oceanic and Atmospheric Administration (NOAA) revealed that the fishery caught 611.9 million pounds of menhaden and generated \$66.4 million in revenue in Louisiana alone.²⁶ Thus, the Louisiana menhaden fishery is valuable it provides jobs and revenue.

of-americas-menhaden-fishery/ [https://perma.cc/4S29-K7E7] (last visited Feb. 19, 2024).

^{18.} *Id*.

^{19.} *Tiny Fish, Mighty Purpose*, THEODORE ROOSEVELT CONSERVATION P'SHIP, https://www.trcp.org/menhaden-recovery/ [https://perma.cc/YL6X-KJH4] (last visited Feb. 19, 2024).

^{20.} Id.

^{21.} Id.

^{22.} Id.

^{23.} Id.

^{24.} See Pogie Concerns Unresolved, LA. SPORTSMAN (Aug. 19, 2022), https://www.louisianasportsman.com/fishing/inshore-fishing/pogie-concerns-un resolved/ [https://perma.cc/Y3VK-GHR3].

^{25.} Id.

^{26.} Baurick, *supra* note 1.

Louisiana's first menhaden processing plant opened in Cameron Parish in 1941.²⁷ From 1946 to 1950, several other processing plants opened on the Calcasieu River and in Empire, Louisiana.²⁸ There are two menhaden-reduction firms in Louisiana waters: Omega Seafoods (Omega) and Daybrook Fisheries (Daybrook).²⁹ "Omega Protein is a division of Cooke Inc., a family-owned fishery company based in New Brunswick, Canada."³⁰ Cooke Inc. has seven manufacturing facilities across the U.S., Canada, and Europe.³¹ In addition, Cooke Inc. entered into a contract with Ocean Harvesters, "which owns 30 vessels which harvest menhaden, a fish abundantly found off the coasts of the Atlantic Ocean and Gulf of Mexico."³² Daybrook was incorporated in 1990 and "is a wholly owned subsidiary of the Oceana Group Ltd . . . which is headquartered in Cape Town, South Africa."³³ Today, Omega operates a plant in Abbeville, Louisiana, and Daybrook operates a plant in Plaquemine Parish in Empire, Louisiana.³⁴

The menhaden fishing season begins in mid-April and ends in mid-October.³⁵ The fishing process occurs by land, sea, and air.³⁶ The activities on land include fish processing and supplying, in addition to repairing the fishing vessels.³⁷ In the air, spotter planes locate schools of menhaden.³⁸

^{27.} Jack Styron, *The Gulf of Mexico Menhaden Fishery*, 26 GULF & CARIBBEAN FISHERIES INST. 3–5 (1974), https://aquadocs.org/bitstream/handle /1834/27888/gcfi_26-2.pdf?sequence=1&isAllowed=y [https://perma.cc/E24H-6TNH].

^{28.} Id.

^{29.} Doug Olander, *Getting Away With Murder*, SPORT FISHING MAG., Mar. 2020, at 96.

^{30.} *Gulf Menhaden Fishery Achieves MSC Certification*, OMEGA PROTEIN CORP., (Oct. 17, 2019), https://omegaprotein.com/gulf-menhaden-fishery-achieves-msc-certification/ [https://perma.cc/C4DK-RTYV].

^{31.} *Id*.

^{32.} *Id.*

^{33.} *Id*.

^{34.} Styron, supra note 27.

^{35.} *Id.*

^{36.} *Id*.

^{37.} Id.

^{38. &}quot;Finding a school of fish is one of the most difficult steps of this fishing technique and include: natural cues such as congregation of seabirds, ruffling of surface water and/or fast-moving groups of dolphins; helicopters scanning the water for natural cues from the air to direct boats toward schooling fish; using radar fish finders to help identify the exact location and size of a school." *Fishing Gear, supra* note 7; Styron, *supra* note 27.

In the sea, commercial fishermen catch the menhaden.³⁹ These fishermen

use purse seine nets to catch menhaden.⁴⁰

C. The Regulatory Authority of the Menhaden Fishery

This Comment mainly focuses on state regulations, specifically in Louisiana. The commercial fishery primarily catches menhaden in state waters rather than federal waters.⁴¹ States derive their power to regulate commercial fishing from the Federal Fishery Conservation and Management Act of 1976 (FCMA).⁴² The FCMA grants states the ability to "adopt and implement options for fisheries management affected by the [FCMA]."⁴³ Moreover, under the Submerged Lands Act, each Gulf state acquired three nautical miles of marine boundary, except for Florida and Texas, which acquired nine nautical mines.⁴⁴ Contrary to other Gulf states like Alabama, Florida, Mississippi, and Texas, Louisiana does not extensively regulate the menhaden fishery.⁴⁵

The Department and the Commission control and supervise aquatic life.⁴⁶ Louisiana Revised Statutes section 36:601(A) states that "[t]he control and supervision of the wildlife of the state, including all aquatic life, is vested in the Louisiana Wildlife and Fisheries Commission."⁴⁷ Louisiana Revised Statutes section 36:602(B) states:

The Department of Wildlife and Fisheries . . . shall control and supervise all wildlife of the state, including fish and all other

42. THOMAS J. SCHOENBAUM & MICHAEL W. WASCOM, LEGAL RAMIFICATIONS OF THE DISCUSSION AND IMPLEMENTATION OF REGULATORY OPTIONS FOR THE GULF OF MEXICO (U.S.) MENHADEN FISHERY 12 (Gulf States Marine Fisheries Comm'n, 1981).

^{39.} *Id.*

^{40.} *Id.*

^{41.} Emily Yehle, *Good News For the 'Most Important Fish' in the Sea*, E&E NEWS (Jan. 19, 2015, 12:39 PM), https://subscriber.politicopro.com/article/eenews/2015/01/19/good-news-for-the-most-important-fish-in-the-sea-100744 [https://per ma.cc/GNQ2-XDCH]. For Alabama, Florida, Louisiana, Mississippi, and Texas, state waters stretch to nine nautical miles, while federal waters begin after nine nautical miles until reaching international waters. *Nine Mile State Waters FAQs*, OUTDOOR ALA., https://www.outdooralabama.com/saltwater-fishing/nine-mile-state-waters-faqs [https://perma.cc/CZW3-FCXB] (last visited Feb. 26, 2024).

^{43.} *Id.*

^{44.} Id. at 13.

^{45.} *Id.* at 35.

^{46.} *Id*.

^{47.} LA. REV. STAT. § 36:601(A) (2013).

aquatic life, and shall execute the laws enacted for the control and supervision of programs relating the management, protection, conservation, and replenishment of wildlife, fish, and aquatic life in the state \dots .⁴⁸

Louisiana law vests the Department and the Commission with this authority, meaning that "the regulation of [menhaden] is accomplished by specific statutes" rather than the Department and the Commission creating the regulations themselves.⁴⁹ Therefore, "legislative action is needed in Louisiana before a coordinated management option can be adopted for the Gulf menhaden fishery."⁵⁰

"[T]o be effective, the option chosen to manage the Gulf menhaden fishery must be implemented under state law."⁵¹ Each Gulf state creates and implements their own "extensive body of fishing laws and regulations."⁵² When considering the implementation of menhaden management plans, two questions must be answered.⁵³ "First, does the appropriate fisheries management body have sufficient administrative discretion to adopt any of the options under consideration? Second, through what procedure would an option be adopted?"⁵⁴

1. Administrative Discretion

As previously mentioned, the Department and the Commission serve a regulatory role by enforcing state fish and wildlife laws and regulations.⁵⁵ Under Act 720 of 1975, the Executive Reorganization Act, the Louisiana Legislature created the Department.⁵⁶ Even though the Commission now serves a policy-making role rather than an administrative role, its makeup remains similar to its original makeup in 1952.⁵⁷ Seven members take on a leadership role within the Commission.⁵⁸ Six members serve for a six-year term, and one member serves a term

57. Id.

^{48.} Id. § 36:602(B) (1988).

^{49.} SCHOENBAUM & WASCOM, *supra* note 42, at 35.

^{50.} *Id.* at 36.

^{51.} *Id.* at 30.

^{52.} Id.

^{53.} Id.

^{54.} Id.

^{55.} Id. at 35.

^{56.} *Louisiana Wildlife and Fisheries Commission*, LA. DEP'T OF WILDLIFE & FISHERIES, https://www.wlf.louisiana.gov/page/commission [https://perma.cc/3L GP-TNNP] (last visited Feb. 16, 2024).

^{58.} Id.

concurrent with the Louisiana governor.⁵⁹ "Three members, from coastal parishes, represent the commercial fishing and fur industries. The other four, from the state at large, represent interests other than the commercial fishing and fur industries."⁶⁰ The Commission "is charged with the control and supervision of the wildlife of the state, including all aquatic life."⁶¹

Louisiana Revised Statutes section 56:322(C)(6) illustrates the lack of regulations imposed on the menhaden fishery.⁶² Regulations on purse seines, the nets used by the menhaden fishery, exist; however, each regulation specifically exempts menhaden and herring-like species.⁶³ Thus, there are no regulations on purse seines specific to menhaden. Part (C)(6)(c) provides a potential regulation stating, "possession of red drum or spotted sea trout on board any vessel on which a purse seine is also on board, within or without the waters of Louisiana, is prohibited."⁶⁴ If found in violation of this regulation, the fisherman "shall be fined [\$850] per each hundredweight of red drum or spotted sea trout which are confiscated and shall forfeit each purse seeing found on board at the time of confiscation."65 This regulation is conditional because the menhaden fishing boat must be in possession of non-targeted species; however, one of the issues caused by the menhaden fishery is its likelihood of catching non-targeted species.⁶⁶ Therefore, this statute is one way the Department or Commission can enforce the catching of only targeted species.

2. Applicable Procedures

"The procedure for adopting a management option for menhaden varies from state to state."⁶⁷ In Louisiana, the Commission serves "as a policy-making and budgetary control board, with no administrative function."⁶⁸ The Commission has meetings on the first Thursday of every month, and these meetings are open to the public either in-person or via online streaming.⁶⁹ "The Commission receives and reviews biological, socioeconomic, and other technical data and management

^{59.} *Id*.

^{60.} *Id*.

^{61.} *Id*.

^{62.} LA. REV. STAT. § 56:322(C)(6) (2011).

^{63.} *Id.*

^{64.} *Id.* § 56:322(C)(6)(c).

^{65.} *Id.*

^{66.} *Id*.

^{67.} SCHOENBAUM & WASCOM, supra note 42, at 37.

^{68.} Louisiana Wildlife and Fisheries Commission, supra note 56.

^{69.} Id.

recommendations from the Department, gathers public input, and ultimately votes on which actions will best achieve long-term management goals."⁷⁰ Once given the authority, the Commission can set fishing seasons, quotas, daily take, and possession limits based upon biological data, and other regulations.⁷¹

II. ISSUES POSED BY LOUISIANA'S MENHADEN FISHERY

A. The Killing of Non-Targeted Species

Menhaden fishing vessels are catching non-targeted species such as redfish, dolphins, and pelicans.⁷² The killing of non-targeted species occurs when the fishing vessels use purse seine nets, which damage the seafloor and shallow water habitats.⁷³ The menhaden fishing vessels operate as commercial boats, but they were not always used in this manner.⁷⁴ Despite the fact that purse seine nets "are not equipped to drag the [sea] bottom," ⁷⁵ commercial fishermen today fish in extremely shallow waters.⁷⁶ In deeper waters, the non-targeted species are able to swim underneath the nets; however, in shallow waters, the non-targeted species cannot escape and die from suffocation.⁷⁷ Menhaden fishing vessels prefer shallow water because they can use the shoreline as a fence line, making it easier to capture the large schools of menhaden once they are identified by the spotter planes above.⁷⁸ Even though fishing in shallow waters is easier for the menhaden fishery, that justification is not sufficient to warrant the damage to the sea floor, shallow water habitats, and nontargeted species.

"During the week of September 11–September 15 [of 2023], Daybrook Fisheries and Omega Protein combined to dump a reported 850,000 menhaden and countless amounts of bycatch, including hundreds

^{70.} Id.

^{71.} *Id*.

^{72.} George Bond, *Louisiana is Taking All the Pogys*, GREATER NEW ORLEANS INTERFAITH CLIMATE COAL. (May 16, 2022), https://gnoicc.org/2022/05/16/louisiana-is-taking-all-the-pogys/ [https://perma.cc/5SXC-B5G5].

^{73.} Telephone Interview with Joseph Orgeron, Member, La. House of Representatives (Aug. 29, 2022).

^{74.} Id.

^{75.} Styron, *supra* note 27.

^{76.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{77.} Id.

^{78.} Id.

of bull reds," a non-target species.⁷⁹ "This [activity] occurred near Rutherford Beach and Holly Beach in Cameron Parish, in three separate incidents confirmed by [the Department]."⁸⁰ After this incident, two Louisiana Congressmen advocated for more action to be taken in the regulation of the Louisiana menhaden fishery.⁸¹ Senator Jeremy Stine stated, "I urge you to take action to ensure that our beaches and fisheries are protected from future incidents like this Allowing them to fish 1/4 mile off the beach, often in water less than 8 feet deep is not working."⁸² Additionally, Representative Troy Romero said, "It is very difficult for me to understand and explain to my constituents how we as a state can reduce the limits of recreational anglers in the name of protecting certain species, but allow the commercial industry to kill thousands of fish with no recourse."⁸³ These two Louisiana Congressmen are amongst the many advocates calling for change in how Louisiana regulates the menhaden fishery.

The killing of non-targeted species is not only occurring in Louisiana. On July 25, 2022, an Omega fishing vessel caught and attempted to release red drum; however, a large number of red drum died "due to a combination of net stress and water temperatures."⁸⁴ The dead fish washed ashore at Kiptopeke State Park in Cape Charles, Virginia, which caused the Virginia Marine Resources Commission to conduct an investigation into the incident.⁸⁵ However, according to the NOAA and Atlantic States Marine Fisheries Commission (ASMFC), "there is very little bycatch in the Menhaden fishery—less than one percent."⁸⁶ Following the Kiptopeke State Park incident, Omega came out with a statement asserting that

2024]

82. Id.

85. *Id.*

86. Omega Protein Spills Menhaden Haul, Large Red Drum Wash Ashore Dead, FLY LORDS MAG. (Aug. 15, 2022), https://flylordsmag.com/omega-pro tein-spills-menhaden-haul-large-red-drum-wash-ashore-dead/ [https://perma.cc/ TX86-TJ4G].

^{79.} Southwest Louisiana Legislators Stine, Romero Ask for Extended Menhaden Buffer, COASTAL CONSERVATION ASS'N LA. (Sept. 26, 2023, 9:05 AM), https://ccalouisiana.com/pogie-news/southwest-louisiana-legislators-stine-romero-ask-for-extended-menhaden-buffer/ [https://perma.cc/4LEJ-QQGM].

^{80.} Id.

^{81.} Id.

^{83.} Id.

^{84.} Large Numbers of Dead Menhaden Fish Washing up on Eastern Shore Beaches, WTKR, https://www.wtkr.com/news/large-numbers-of-dead-menhaden-fish-washing-up-on-eastern-shore-beaches [https://perma.cc/2FN2-BVY3] (last updated July 27, 2022, 1:35 PM).

"menhaden fisherman actively avoid game fish and other species."⁸⁷ Furthermore, the fishery's catch consists of less than 1% of non-targeted species, so bycatch is rare.⁸⁸ Even so, "there are no observers to monitor potential bycatch required "⁸⁹ Additionally, Omega is bound to encounter non-targeted species.⁹⁰ "[G]iven the sheer volume of this fishery, that can add up."⁹¹

B. Localized Depletion of Menhaden

Localized depletion means that "even though the overall stock of fish is healthy, intense fishing pressure in a particular region could significantly reduce abundance in that location and have adverse impacts on the local food web."⁹² Ninety percent of the entire Gulf menhaden fishery occurs off of Louisiana's coast.⁹³ Even though the menhaden fishery reportedly catches only 2% of the harvest, the majority of that is coming from a narrow strip of Louisiana's coast.⁹⁴

Overfishing, however, is not the main concern of those who support regulations because "[e]ven when their populations are sharply depleted, the fast-breeding fish is quick to recover, but the bigger animals that eat menhaden may go hungry, say sport fishing groups."⁹⁵ Even so, there is disagreement as to the amount of data available to support this argument.⁹⁶ When looking into the stomachs of other Gulf species, relatively few menhaden were found.⁹⁷ Thus, other Gulf species may benefit from reducing the amount of menhaden caught in the Gulf, but some scientists find that the reductions are "not enough to justify the economic impacts

^{87.} Omega Protein and Ocean Harvesters Statement on July 25 Fish Release, OMEGA PROTEIN (July 26, 2022), https://mailchi.mp/savingseafood/omega-pro tein-and-ocean-harvesters-statement-on-july-25-fish-release [https://perma.cc/5 DPX-GG6Y].

^{88.} Id.

^{89.} Omega Protein Spills Menhaden Haul, supra note 86.

^{90.} Id.

^{91.} Id.

^{92.} Charles Witek, *Dealing With Localized Depletion, Where and if It Exists*, MARINE FISH CONSERVATION NETWORK (Mar. 31, 2022), https://conservefish .org/2022/03/31/dealing-with-localized-depletion-where-and-if-it-exists/ [https:// perma.cc/U3FS-98XA].

^{93.} Telephone Interview with David Cresson, *supra* note 6.

^{94.} Id.

^{95.} Bond, *supra* note 72.

^{96.} Id.

^{97.} Id.

[of the menhaden fishery].^{''98} A NOAA scientist provides another perspective, noting "that most Gulf fish stomach studies were conducted during years of especially large-scale menhaden fishing. Fish might not have appeared to be eating much menhaden because the industry was already meeting so much of it. 'We are definitely underestimating the consumption of menhaden '''⁹⁹

In the northeast, the overfishing of Atlantic menhaden depleted the population of other species for years.¹⁰⁰ "[C]atch limits imposed nearly a decade ago have sparked a population rebound "¹⁰¹ The rationale behind these limits was "consider[ing] the needs of predators in the mathematical calculations and leav[ing] enough menhaden in the water both to reproduce for the menhaden themselves but also to feed the animals."¹⁰²

C. Strain on Recreational Fishermen

"Sports fishing advocates . . . argue their industry offers more to the economy while doing less harm to the environment."¹⁰³ Chris Macaluso, the marine fisheries director for the Theodore Roosevelt Conservation Partnership, said, "People spend a lot of money to do recreational fishing in Louisiana."¹⁰⁴ A report conducted in 2019 by the U.S. Department of Commerce revealed that "[t]he business of outfitting and guiding anglers supports at least 5,300 jobs in Louisiana and pumps about \$339 million into the state"¹⁰⁵ Additionally, the unintentional bycatch involving redfish is harmful to sport anglers by reducing their level of activity.¹⁰⁶

Macaluso stated that even though Omega reports the bycatch to be below 5% of their total catch, the menhaden fishery "is hauling in a billion pounds of fish from Louisiana waters, [and] the fraction of bycatch could amount to 50 million pounds of other species."¹⁰⁷ By operating in shallow

^{98.} Id.

^{99.} Id.

^{100.} Murray Carpenter, *Catch Limits Imposed on Menhaden Have Sparked a Population Rebound*, NPR (Oct. 12, 2021, 5:09 AM), https://www.npr.org/20 21/10/12/1045182646/catch-limits-imposed-on-menhaden-have-sparked-a-popul ation-rebound [https://perma.cc/A9BQ-JJ4D].

^{101.} *Id*.

^{102.} Id.

^{103.} Id.

^{104.} Id.

^{105.} *Id.*

^{106.} *Id.*

^{107.} Id.

waters, menhaden fishing vessels may cause damage to the reef habitats that provide homes to other species such as speckled trout, redfish, and oysters.¹⁰⁸ Thus, recreational anglers may be limited in what they can catch because the reef habitats are popular spots for them.¹⁰⁹ "In 2020, Louisiana generated \$11.90 million in fishing licenses alone. Sportsmen and women from across the country travel to Louisiana to experience its world class fisheries."¹¹⁰

D. Complaints Against Omega Protein and Daybrook Fisheries

1. Omega Protein

In January 2019, Omega Protein agreed "to pay \$1 million to resolve allegations they misrepresented compliance with environmental laws to obtain a federal loan."¹¹¹ This settlement stems from allegations made in March 2010 "that Omega violated the False Claims Act . . . when it certified to the Department of Commerce that it was complying with federal environmental laws to obtain a \$10 million loan."¹¹² Soon after those allegations surfaced, Omega certified it was knowingly violating the Clean Water Act (CWA).¹¹³ In *United States v. Omega Protein Inc.*, Omega "pled guilty to violations of the CWA between May 2008 and December 2010, by unlawfully discharging pollutants into U.S. waters and, between April 2009 and September 2010, by unlawfully discharging a harmful quantity of oil into U.S. waters."¹¹⁴

Additionally, there was a civil case captioned *United States ex rel. Harrison v. Omega Protein Corp. and Omega Protein*, which involved a former employee of Omega, Keland Harrison, bringing a lawsuit under the qui tam provision of the False Claims Act.¹¹⁵ Harrison received \$200,000

^{108.} Pogie Concerns Unresolved, supra note 24.

^{109.} Id.

^{110.} Mark Lance, *Louisiana – Pushing the Pogie Boats off the Beach*, CONG. SPORTSMEN'S FOUND. (May 17, 2021), https://congressionalsportsmen.org/news/ louisiana-pushing-the-pogie-boats-off-the-beach/ [https://perma.cc/QFW9-7THW].

^{111.} Omega Protein Companies Agree to Pay \$1 Million to Resolve Allegations They Misrepresented Compliance With Environmental Laws to Obtain a Federal Loan, U.S. DEP'T OF JUST. (Jan. 28, 2019), https://www.justice.gov/opa/pr/omega-protein-companies-agree-pay-1-million-resolve-allega tions-they-misrepresented [https://perma.cc/G8AV-3JKT].

^{112.} *Id.*

^{113.} Id.

^{114.} *Id*.

^{115.} Id.

of the settlement proceeds.¹¹⁶ It is important to note that because of the settlement, there was no determination of liability.¹¹⁷ Besides the admittance of guilt in the criminal case, the other claims only involved allegations.¹¹⁸

2. Daybrook Fisheries

In the spring of 2022, Karen Davis, the former safety and environmental manager at Daybrook Fisheries' plant in Empire, Louisiana, filed a lawsuit against Daybrook "after she repeatedly reported environmental hazards to the plant's managers and company executives between 2019 and 2021."¹¹⁹ Davis's reports specifically alleged that the plant "has willfully polluted waterways and failed to take basic precautions to avoid leaks and spills."¹²⁰ "Davis . . . filed her lawsuit under [Louisiana's] environmental whistleblower statute, which protects employees from retaliation for reporting environmental violations."¹²¹ In addition, Davis claimed Daybrook managers "ignored her warnings about wastewater leaks, overflows and spills and faulty or inadequate equipment over the past three years."¹²²

Wilma Subra, an environmental scientist with the Louisiana Environmental Action Network, commented after Davis's lawsuit that she was not surprised by the allegations against Daybrook.¹²³ Subra emphasized that these hazards are problematic because "[1]arge amounts of fish waste can trigger explosions of algae and bacteria, which contain toxins that are harmful to marine life and humans. Algae blooms quickly die, and decomposing algae spurs the growth of bacteria, which consumes both the algae and much of the dissolved oxygen in the water."¹²⁴ These

^{116.} *Id*.

^{117.} *Id.*

^{118.} Id.

^{119.} Tristan Baurick, *This Processing Plant Dumps Smelly Fish Waste into Waterways. An Employee Was Fired After Raising Concerns*, NOLA.COM (Mar. 14, 2022, 9:28 AM), https://www.nola.com/news/environment/article_eb257e1e-a09b-11ec-b72d-175d01f3d31c.amp.html [https://perma.cc/5TLC-VEKL].

^{120.} Id.

^{121.} *Id.*

^{122.} *Id.*

^{123.} *Id.*

^{124.} Id.

"dead-zones" occur when the water is depleted of oxygen.¹²⁵ The largest dead-zone spans 6,300 square miles along the Louisiana coast.¹²⁶

The allegations do not end with Davis's lawsuit. In 2012, a Daybrook fishing vessel spilled about 50,000 dead menhaden spanning two square miles of Breton Sound while on its way to the plant.¹²⁷ This 2012 spill put the United States Coast Guard on notice.¹²⁸ In 2018, "a Daybrook wastewater pipe broke and spread a 'silvery sheen' across a section of the Mississippi."¹²⁹ This 2018 incident was also recorded by the United States Coast Guard.¹³⁰

III. SOLUTIONS

A. Current Louisiana Regulations

1. 2021 Quarter Mile Buffer

In 2021, the Commission "adopted a Notice of Intent (NOI) to add coastal buffer zones to Gulf menhaden harvest regulations."¹³¹ The regulation "implement[s] a coastwide buffer from the established insideoutside line (the line that separates Louisiana's inshore waters from offshore waters) of a quarter mile, including the waters of Breton and Chandeleur Sounds, with certain exceptions."¹³² The exceptions include the area beginning at the eastern shore of Belle Pass to the eastern shore of Caminada Pass, the area from the eastern shore of Caminada Pass to the eastern shore of Barataria Pass to the eastern shore of Barataria Pass to the eastern shore of the eastern shore of Barataria Pass to the eastern end of Grand Terre Island.¹³³ These exceptional areas require more than a quarter mile buffer, spanning one to three miles.¹³⁴

The Coastal Conservation Association (CCA) of Louisiana criticized these coastal buffer zones for several reasons. David Cresson, the

131. Leslie Davis, *LWFC Adopts Notice of Intent to Add Coastal Buffer Zones to Gulf Menhaden Harvest Regulations*, LA. FISHERIES FORWARD (Oct. 11, 2021), https://www.lafisheriesforward.org/lwfc-adopts-notice-of-intent-to-add-coastal-bu ffer-zones-to-gulf-menhaden-harvest-regulations/ [https://perma.cc/8YRP-3VN6].

^{125.} Id.

^{126.} Id.

^{127.} Id.

^{128.} Id.

^{129.} Id.

^{130.} *Id*.

^{132.} *Id.*

^{133.} *Id.*

^{134.} Id.

Executive Director of CCA Louisiana, made a statement in January 2022 saying, "[the Department] and the commission received hundreds of comments expressing concerns about the insufficient [quarter] mile buffer distance and the negative impacts that menhaden harvest has on other coastal species. Those concerns were clearly disregarded in the virtual setting of the most recent commission meeting."¹³⁵ Despite these critiques on the buffer zone, the Commission passed the [quarter] mile buffer zone on October 7, 2021, on a 4-3 vote.¹³⁶ "Commissioners voted in favor of a Notice of Intent keeping the quarter mile buffer zone and added an amendment removing the buffer zone outside the 'Double Rig Line' within Breton Sound and Chandeleur Sound."¹³⁷

The menhaden fishery proposed the quarter mile buffer zone regulation; therefore, some question subsists as to whether the regulation is "an effort to avoid legitimate conservation measures and mitigate 'user conflict"¹³⁸ User conflicts involve conflicts between private recreational and charter boat anglers and the commercial menhaden fishery.¹³⁹ Even so, the buffer zone faced little opposition from Governor John Bel Edward's administration.¹⁴⁰ Data illustrated that menhaden are not overfished, and the bycatch of redfish and speckled trout is minimal.¹⁴¹

While some agree that the buffer zone is a step in the right direction, a quarter mile may not be enough.¹⁴² Since this regulation is new, only time will tell. However, a recent incident in July of 2023 illustrates how the Commission has precedingly enforced this new rule.¹⁴³ The Commission cited and fined a Daybrook menhaden ship captain "for fishing within a restricted buffer zone off Terrebonne Parish near

136. Id.

^{135.} Don Shoopman, *CCA-Louisiana Criticizes LWFC Following Latest Decision on a Pogie Buffer Zone*, DAILY IBERIAN (Jan. 16, 2022), thedailyiberian.com/sports/cca-louisiana-criticizes-lwfc-following-latest-decision-on-a-pogie-buffer-zone/article_a684c67e-769e-11ec-b8b0-1b4604ee1d2c.html [https://perma.cc/V4U7-CJPF].

^{137.} Id.

^{138.} Id.

^{139.} Id.

^{140.} Id.

^{141.} Id.

^{142.} *Id.*

^{143.} Tristan Baurick, *Menhaden Ship Captain Cited for Violating New Fishing Restrictions on Louisiana Coast*, NOLA.COM (July 24, 2023), https://www.no la.com/news/environment/menhaden-ship-cited-for-fishing-in-new-coastal-buffe r-zone/article_3278719a-2a70-11ee-b337-d7cb315db2bc.html [https://perma.cc /ZXF9-GMDX].

Vermillion Bay... the first citation under new rules."¹⁴⁴ The captain was fined up to \$350 and suspended for two weeks without pay for catching approximately 87,000 pounds of menhaden in the buffer zone, "potentially triggering civil restitution totaling more than \$9,500."¹⁴⁵ This recent enforcement is promising for Louisiana; however, as previously mentioned, a massive fish kill occurred off the Louisiana coast in September 2022.¹⁴⁶ Thus, the problems within the menhaden industry are still prevalent, and this quarter mile buffer may not adequately eradicate all issues posed.

In 2021, CCA Louisiana conducted a poll amongst nine coastal parishes, including Cameron, Iberia, Jefferson, Lafourche, Orleans, Plaquemines, St. Mary, Terrebonne and Vermilion to determine the public's thoughts on a coastal buffer and regulations in general.¹⁴⁷ CCA Louisiana conducted this poll before the House Committee—considered H.B. 535—to gauge the amount of public support.¹⁴⁸ The poll found the following:

84% of respondents say that Louisiana's beaches and shorelines should be protected from potential damage from large industrial menhaden fishing boats. 87% [of] respondents say the government should examine the impact of industrial fishing on the food supply for local wildlife. 89% support limits on industrial fishing in state waters. 93% support management of industrial fishing that does not negatively affect commercial fishing jobs.¹⁴⁹

It is important to remember that this poll was conducted before the Commission implemented the quarter mile buffer. The areas most likely to be affected by the menhaden fishery are Louisiana's coastal communities. Therefore, another poll showing coastal communities' response to this new buffer and the want for any additional regulations is needed to understand how these communities feel about and respond to such regulations.

148. *Id.*

149. Id.

^{144.} Id.

^{145.} *Id.*

^{146.} Baurick, supra note 1.

^{147.} Coastal Communities Overwhelmingly Support Regulation of Industrial Pogie Fishing in the Louisiana Surf Zone, BUSINESSWIRE (May 10, 2021, 10:00 AM), https://www.businesswire.com/news/home/20210510005450/en/Coastal-Communities-Overwhelmingly-Support-Regulation-of-Industrial-Pogie-Fishing-in-the-Louisiana-Surf-Zone [https://perma.cc/JUY7-EV55].

2. Act 759

Senator Bob Hensgens introduced Senate Bill (S.B.) 447, now designated as Act No. 759, on April 5, 2022.¹⁵⁰ After the House and Senate passed S.B. 447, Governor Edwards signed the bill into law on June 18, 2022.¹⁵¹ Act 759 became effective on August 1, 2022 and began impacting the fishery in May 2023.¹⁵² Act 759 provides for commercial menhaden harvest reporting.¹⁵³

In May 2023, Louisiana Revised Statutes section 56:325.5(A) began requiring monthly reporting, which includes the vessel's location, the estimated volume of harvest, and the length of the menhaden based on a sample of the harvest.¹⁵⁴ The Department receives these monthly reports.¹⁵⁵ On February 10, 2024, Louisiana Revised Statutes section 56:325.5(B) began requiring the Department to "annually report to the Senate Committee on Natural Resources and the House Committee on Natural Resources and Environment the commercial menhaden harvest from the prior year based upon the aggregated data from the monthly reports."

Act 759 attempts to create some accountability on the part of the menhaden fishery by requiring vessels to keep track of their catch and report back to the Department and then ultimately the Senate and House committees.¹⁵⁷ While Act 759 is a step in the right direction, it will not solve all of the problems caused by the menhaden fishery.¹⁵⁸ For example, this Act does not require menhaden fishing vessels to remain a certain distance from the shoreline.¹⁵⁹ As previously stated, fishing in shallow waters is the source of a lot of the problems posed by the menhaden fishery.¹⁶⁰ Act 759 just recently came into effect; therefore, time will reveal the true impacts this Act has on Louisiana.

160. Id.

^{150.} S.B. 447, 2022 Leg., Reg. Sess. (La. 2022).

^{151.} *Id.*

^{152.} *Id.*

^{153.} *Id.*

^{154.} *Id*.

^{155.} Id.

^{156.} *Id*.

^{157.} Id.

^{158.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{159.} *Id.*

1. House Bill (H.B.) 535

H.B. 535 moved to the House floor after the Louisiana House Natural Resources and Environment Committee approved the bill by a 10-4 vote on May 12, 2021.¹⁶¹ Representative Joseph Orgeron authored and introduced H.B. 535 during the 2021 regular session.¹⁶² The proposed law set out to accomplish four objectives: (1) create an exclusion zone that extends from the coastal boundary between Texas and Louisiana to the coastal boundary between Mississippi and Louisiana, extending one half mile seaward from land where the taking of menhaden is prohibited; (2) prevent the use of vessels and any equipment used for the specific purpose of taking menhaden in the exclusion zone; (3) provide four additions and modifications to the exclusion zone; and (4) clarify that the exclusion zone applicable to the Chandeleur Islands may not interfere with any federally designated sanctuary, preserved, or protected waters.¹⁶³

Several organizations, such as the Congressional Sportsmen's Foundation (CSF), expressed their support of H.B. 535.¹⁶⁴ "On May 10, [2021], ... CSF submitted a letter in support of H.B. 535, citing concerns with bycatch of important game fish species and impacts to the shallow water substrate."¹⁶⁵ The CSF expressed the importance of persevering the recreational fishery and stated that H.B. 535 helps maintain Louisiana's appeal as a "Sportsman's Paradise."¹⁶⁶

In contrast, members of the Menhaden Fisheries Coalition (MFC) presented strong opposition to H.B. 535.¹⁶⁷ The MFC is an organization comprised of menhaden fishermen, related businesses, and supporting industries.¹⁶⁸ The MFC advocates on behalf of the menhaden industry by

168. Id.

^{161.} Louisiana House Committee Approves H.B. 535, Common-Sense Regulation of Pogie Fishing, COASTAL CONSERVATION ASS'N LA. (May 17, 2021, 4:30 PM), https://ccalouisiana.com/pogie-news/louisiana-house-committee-approves-h-b-535-common-sense-regulation-of-pogie-fishing/ [https://perma.cc/CU4Y-MZ9W]; Lance, *supra* note 110.

^{162.} H.B. 535, 2021 Reg. Sess. (La. 2021).

^{163.} *Id*.

^{164.} Lance, *supra* note 110.

^{165.} *Id.*

^{166.} *Id*.

^{167.} *Gulf Menhaden Harvesters Oppose Legislation That Threatens Louisiana Jobs*, ACCESSWIRE (May 26, 2021, 3:30 PM), https://www.accesswire.com/64 9307/Gulf-Menhaden-Harvesters-Oppose-Legislation-That-Threatens-Louisiana -Jobs [https://perma.cc/62HC-S6FW].

conducting media and public outreach to ensure the public is aware of the importance of this industry.¹⁶⁹ "Approximately [20%] of all Gulf menhaden landings are currently made within the proposed half mile exclusion zone."¹⁷⁰ Therefore, the removal of these areas "could cost the fishery an estimated \$50 million in annual revenue and threaten an estimated 440 direct and indirect jobs in Louisiana."¹⁷¹ The MFC worries about permanent closure of some Gulf menhaden operations if the loss is too great.¹⁷²

The MFC and Omega assert that H.B. 535 "targets a sustainable, responsible fishery."¹⁷³ In fact, the Marine Stewardship Council (MSC) certified the Gulf menhaden fishery as "sustainable" in 2019.¹⁷⁴ The MSC viewed the fishery as having "a minimal environmental footprint on the ecosystem and an effective management system that respects local, national and international laws."¹⁷⁵ Furthermore, the MFC emphasized that H.B. 535 "targets blue collar men and women whose livelihoods depend on the Gulf menhaden fishery" because stringent regulations could force menhaden operations to cease.¹⁷⁶ "Ben Landry, Omega Protein's director of public affairs, thinks additional regulation isn't 'biologically necessary,' and that it places undue burden on an industry already navigating natural burdens such as tropical storms and hurricanes."¹⁷⁷

The Louisiana House of Representatives voted on H.B. 535 on May 19, 2021.¹⁷⁸ Out of the 98 representatives present that day, 68 voted yay and 30 voted nay.¹⁷⁹ The Louisiana Senate voted on H.B. 535 on June 7, 2021. Out of the 38 senators present that day, 35 voted yay and three voted nay.¹⁸⁰ "The Senate amended the buffer to an industry-supported quarter mile. Orgeron and the House rejected that on June 8, throwing the bill into a conference committee to resolve differences between the two chambers,

179. *Id*.

^{169.} Id.

^{170.} *Id*.

^{171.} *Id*.

^{172.} Id.

^{173.} Id.

^{174.} *Id*.

^{175.} *Id*.

^{176.} *Id*.

^{177.} Halle Parker, *Big Debate over Tiny Fish Goes Unresolved as Louisiana Pogy Legislation Dies*, NOLA.COM (June 16, 2021), https://www.nola.com/news/environment/article_e9e4c64c-cea3-11eb-9018-3ff4dc568329.html [https://per ma.cc/Z49V-PK6S].

^{178.} H.B. 1033, 2022 Leg., Reg. Sess. (La. 2022).

^{180.} Id.

but the legislative session ended two days later without a report from the committee."¹⁸¹ Therefore, H.B. 535 died in committee negotiations.¹⁸²

2. House Bill (H.B.) 1033

H.B. 1033 moved to the House floor after the House Natural Resources and Environment Committee approved the bill by a 9-3 vote in the spring of 2022.¹⁸³ Representative Joseph Orgeron was the primary author of H.B. 1033, which was introduced in the 2022 regular session.¹⁸⁴ H.B. 1033 had ten co-authors, illustrating that more representatives are taking an active role in passing regulations.¹⁸⁵ Representative Orgeron viewed H.B. 1033 as somewhat of a compromise, which may provide some reasoning as to why the bill received more support than H.B. 535.¹⁸⁶ In sum, H.B. 1033 created a cap on the amount of menhaden fishing vessels were allowed to capture.¹⁸⁷ The authors of this bill created the cap by looking at the fishery's total amount of menhaden taken in 2018, the industry's most profitable year.¹⁸⁸ Within H.B. 1033, Louisiana Revised Statutes section 56:324 sets the cap on menhaden at no more than 260,000 metric tons, or 573 million pounds, on an annual basis.¹⁸⁹ Revised Statutes section 56:324(A) incorporates some type of buffer zone by stating that:

(1) A maximum of [520,000] metric tons or [115] million pounds can be caught, or no more than [2,650] individual sets shall be made within one mile off the shore within a calendar year. (2) A maximum of [104,000] metric tons or [229] million pounds can be caught, no more than [5,250] individual sets shall be made

^{181.} Parker, *supra* note 177.

^{182.} Tristan Baurick, *Pogy Bill Would Put the First-Ever Limits on Louisiana's Biggest Catch*, NOLA.COM (Apr. 22, 2022), https://www.nola .com/news/environment/article_1b2dc3a6-c0da-11ec-8f95-5fcfd0e38d26.html [https://perma.cc/P7LM-4HH9].

^{183.} George Bond, *Limits on Pogies, Louisiana's Biggest Catch!*, GREATER NEW ORLEANS INTERFAITH CLIMATE COAL. (Apr. 23, 2022), https://gnoicc.org/2022/04/23/limits-on-pogies-louisianas-biggest-catch/ [https://perma.cc/ZB2Q-CFGT].

^{184.} H.B. 1033, 2022 Leg., Reg. Sess. (La. 2022).

^{185.} Pogie Bill Passes House in Louisiana, THEODORE ROOSEVELT CONSERVATION P'SHIP (Apr. 29, 2022), https://www.trcp.org/2022/04/29/pogie-bill-passes-house/ [https://perma.cc/85WM-GJP3].

^{186.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{187.} *Id.*

^{188.} *Id*.

^{189.} H.B. 1033, 2022 Leg., Reg. Sess. (La. 2022).

Additionally, Louisiana Revised Statutes section 56:324(D) implements a daily reporting scheme requiring menhaden fishing vessels to report the vessel's location and certain measurements of the menhaden caught.¹⁹¹ Section D of this revised statute resembles Act 759, which implemented monthly reporting requirements for vessels.

H.B. 1033 "could improve the health of the Gulf of Mexico but cripple the economies of some coastal communities."¹⁹² Officials within the menhaden fishery say that H.B. 1033 "could force the closure of the state's two menhaden processing plants, putting hundreds of people out of work in areas with few other job prospects."¹⁹³ The Empire plant in Plaquemines Parish processes approximately 40% of the Gulf's menhaden catch.¹⁹⁴ Representative Mark Cormier says that Plaquemines cannot suffer the loss of the Daybrook plant because "[t]he parish has lost three large oil industry employers in recent years—most recently the Phillips 66 Alliance Refinery, which had 470 employees and almost as many contractors."¹⁹⁵ The Daybrook plant employs about 300 workers; therefore, this plant may qualify as Plaquemines' largest private employer.¹⁹⁶

However, these jobs come with a price. "The [Daybrook] plant has pollution problems that parish health officials and environmental groups have been raising alarms about for decades."¹⁹⁷ The lawsuits mentioned previously provide evidence of the lack of oversight within these plants and the detrimental impacts resulting from plants like the one in Plaquemines.¹⁹⁸ Additionally, "Omega's Abbeville plant has been the source of odor complaints from as far away as New Iberia, about 20 miles east."¹⁹⁹ Omega has also been involved in legal quarrels over the past few years, specifically with a \$1 million fine in 2017 for dumping polluted waters into the Vermilion River.²⁰⁰

- 192. Baurick, supra note 182.
- 193. Bond, supra note 183.
- 194. Id.
- 195. Id.
- 196. Id.
- 197. Id.
- 198. Id.
- 199. *Id*.
- 200. Id.

^{190.} Id.

^{191.} Id.

On April 27, 2022, the Louisiana House of Representatives voted on H.B. 1033.²⁰¹ Out of the 97 representatives present that day, 75 voted yay and 22 voted nay.²⁰² However, Bob Hensgens, Chairman of the Senate Natural Resources Committee, motioned to involuntarily defer²⁰³ H.B. 1033.²⁰⁴ "An involuntarily deferred instrument may be rescheduled for a committee hearing . . . only by the vote of two-thirds of the committee members present and voting. During a session, the indefinite postponement of a bill usually means that the bill is dead for that legislative session."²⁰⁵ The committee vote of 4-3 essentially killed H.B. 1033.²⁰⁶

3. 2023 Proposal for One Mile Buffer

In the fall of 2023, the Commission "approved a Notice of Intent (NOI) creating a one-mile coastwide menhaden harvest buffer, with a special three-mile buffer in areas of Cameron Parish."²⁰⁷ The one-mile buffer stretches along the entire Louisiana coast, whereas the three-mile buffer reaches "from the area between Holly Beach and Rutherford Beach in western Louisiana."²⁰⁸ The NOI extended the quarter mile buffer zones while maintaining the three-mile buffer at Grand Isle.²⁰⁹ Additionally, the NOI "establishes reporting requirements for any menhaden or bycatch that is unintentionally or intentionally released into the environment and provides penalties and restitution associated with failure to comply."²¹⁰ Before this proposed regulation can become official and permanent, the proposal must go through a period of public comment and "pass through

^{201.} H.B. 1033, 2022 Leg., Reg. Sess. (La. 2022).

^{202.} Id.

^{203.} A legislative instrument is involuntarily deferred when so ordered by a vote of a majority of the committee members present and voting, notwithstanding the request of the author or member handling it to report the instrument. Telephone Interview with Joseph Orgeron, *supra* note 73.

^{204.} Id.

^{205.} Legislative Glossary, LA. STATE LEGISLATURE, https://www.legis.la.gov/ Legis/Glossary.aspx [https://perma.cc/B4RS-DPAZ] (last visited Feb. 17, 2024).

^{206.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{207.} WLF Commission Approves NOI for One Mile Pogie Buffer, COASTAL CONSERVATION ASS'N LA. (Oct. 6, 2023, 2:10 PM), https://ccalouisiana.com/pogie-news/wlf-commission-approves-noi-for-one-mile-pogie-buffer/ [https://pe rma.cc/C4JH-XKFB].

^{208.} Id.

^{209.} Id.

^{210.} Id.

state House and Senate Natural Resources Committee review before being finalized in early 2024."²¹¹

Many people view these new proposed buffer zones as a significant step towards protecting Louisiana's environment and fragile coastlines. David Cresson, executive director and CEO of CCA Louisiana, commented, "We thank the Louisiana Wildlife and Fisheries Commission for taking this positive step towards protecting our fragile coastlines and the fish and wildlife that live there."²¹² Additionally, Richard Fischer, executive director for the Louisiana Charter Boat Association, stated, "The hundreds of small business owners that make up the Louisiana Charter Boat Association applaud the Louisiana Department of Wildlife and Fisheries for recommending stronger menhaden regulations . . . While more work remains . . . today's vote was a monumental step in the right direction."²¹³ Time will tell as to whether this proposed regulation will officially be adopted and implemented in Louisiana.

C. Other Gulf States' Regulations on the Menhaden Fishery

1. Alabama

An assessment of Alabama's Gulf menhaden fishery and regulations is useful to determine whether it could be beneficial for Louisiana to look to Alabama law when implementing regulations on Louisiana's own menhaden fishery. The Gulf menhaden in Alabama are located in Chickasaw Creek, a western tributary to the Mobile Delta, and in several tributaries to the lower Tombigbee River.²¹⁴ Alabama Administrative Code section 220-3-.32 deals with menhaden taken by purse seine.²¹⁵

Alabama's Code states that "it shall be unlawful to use purse seines for the taking or attempting to take fishes of other than those of the families Clupeidae (menhaden and herrings) and Engraulidae (anchovies) in the

^{211.} Louisiana Issues Proposed Regulations to Protect Redfish, Conserve Nearshore Habitat from Industrial Menhaden Fishery Impacts, COASTAL CONSERVATION ASS'N LA. (Oct. 12, 2023, 1:10 PM), https://ccalouisiana.com /pogie-news/louisiana-issues-proposed-regulations-to-protect-redfish/ [https://pe rma.cc/KCU5-FDSM].

^{212.} Id.

^{213.} Id.

^{214.} *Gulf Menhaden*, ALA. DEP'T OF CONSERVATION & NAT. RES., https://www.outdooralabama.com/other-species/gulf-menhaden [https://perma.cc/935E-ZKNG] (last visited Feb. 17, 2024).

^{215.} ALA. ADMIN. CODE r. 220-3-.32 (2022).

territorial waters of this State "²¹⁶ The Alabama Code does allow a 5% incidental bycatch of non-targeted species, excluding game fish.²¹⁷ Under Section 220-3-.32:

[i]t shall be unlawful for any person, firm or corporation to take or attempt to take menhaden by purse seine except as follows: (a) The starting date for the commercial menhaden season in the territorial waters of Alabama shall be the third Monday in April and the closing date shall be November 1 of each year (both dates inclusive). (b) The taking of menhaden by purse seine shall be permitted only in those waters of the Gulf of Mexico described below: Mississippi Sound South and west of a line extending from the eastern tip of the South Rigolets...Westward to the chartered position of Bayou LaBatre Channel marker "19", then running due south to its intersection with Dauphin Island, except those waters lying within one (1) mile of the shoreline of Dauphin Island shall be closed. The Gulf of Mexico for a distance of three (3) miles, except those waters lying within one (1) mile of the Gulf Beaches shall be closed.²¹⁸

In sum, Alabama's menhaden regulations are strict where they allow for a 5% bycatch of non-targeted species and limit the areas where menhaden fishing is allowed.²¹⁹ The limitations on areas to catch menhaden are very specific to Alabama; therefore, it will not be beneficial for Louisiana to look closely at Alabama's regulation in this respect. However, similar to Alabama, the Louisiana Legislature has the opportunity to establish stricter buffer zones under the Commission's 2023 NOI. Even so, a more advantageous solution might come from another Gulf state and/or looking to Louisiana's specific needs and problems.

2. Florida

Similarly, this Comment examines Florida's Gulf menhaden fishery and considers the regulations implemented to determine whether they might pose helpful solutions for Louisiana. Gulf menhaden in Florida are

- 216. Id.
- 217. Id.
- 218. Id.
- 219. Id.

considered an "unregulated" species.²²⁰ This classification does not mean no regulations are imposed, however.²²¹ For unregulated species, the default bag limit is two fish or 100 pounds per person or per day, whichever is more.²²² "For smaller fish like white grunt, the limit is 100 pounds regardless of the number of fish it takes to reach that total weight."²²³ Menhaden most likely fall under this small fish rule because the rule provides the southern stingray as the larger fish example, and menhaden are not near the size of the southern stingray.²²⁴ Additionally, there are gear requirements for unregulated species in Florida.²²⁵ Legal gear includes hooks and lines, spears, gigs, haul seines and cast nets.²²⁶ Illegal gear includes chemicals, explosives, electricity, bang sticks, fish traps, and others.²²⁷ Florida Statute section 379.361 provides licensing requirements, which includes license on purse seines.²²⁸

The harshest regulation imposed by Florida law "outlaw[s] commercial entanglement nets of more than 500 square feet in state waters."²²⁹ Florida voters approved this constitutional amendment in November 1994, which implemented this net ban across state waters.²³⁰ Purse seines, the nets used by the menhaden fishery, "can reach more than 6,500 ft (2,000m) in length and 650 ft (200m) in depth, varying in size according to the vessel, mesh size, and target species."²³¹ Therefore, the State's net ban includes purse seines, meaning the Gulf menhaden fishery is essentially banned in Florida state waters.²³²

^{220.} Telephone Interview with Jacob Espittia, Biological Scientist, Fla. Fish and Wildlife Conservation Comm'n, Div. of Marine Fisheries Mgmt. (Sept. 8, 2022).

^{221. &}quot;Unregulated" Species, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/fishing/saltwater/recreational/unregulated/ [https://perma.cc/G M7S-HZ76] (last visited Feb. 17, 2024).

^{222.} Id.

^{223.} Id.

^{224.} Id.

^{225.} Id.

^{226.} Id.

^{227.} Id.

^{228.} FLA. STAT. § 379.361 (2012).

^{229.} Id.

^{230.} *Id.*

^{231.} Fishing Gear, supra note 7.

^{232.} Tristan Baurick, "*They're Taking Everything*": Banned in Other States, Pogy Ships Catch All They Want in Louisiana, NOLA.COM (May 16, 2022, 4:15AM), https://www.nola.com/news/environment/article_e5e151d6-d2e5-11ec -b93b-d36274b6c562.html [https://perma.cc/L6JQ-8F8V].

After considering Florida's regulations on the Gulf menhaden fishery, Louisiana should not look to Florida when implementing more adequate regulations. However, it is important to emphasize that the solution is not eliminating the fishery but rather finding ways to make Louisiana prosper while also protecting the state's environment. The goal of regulations in Louisiana should not be to eradicate the menhaden fishery because it brings in revenue and jobs for the state. Instead, the Louisiana Legislature should implement regulations that will maintain the prosperous fishery while also protecting the environment. From the way regulations have progressed, the Louisiana Legislature would likely not pass strict regulations like Florida.

3. Mississippi

Next, this Comment looks to Mississippi's Gulf menhaden fishery and considers the regulations implemented to determine whether they are compatible for adoption in Louisiana. Mississippi wanted to implement a harvest cap to combat similar issues Louisiana faces with the menhaden fishery.²³³ Specifically, Omega Protein failed to follow Mississippi fishing regulations by catching redfish in the bycatch, and fish kills of menhaden and other species.²³⁴ The negative impacts on Mississippi's coastal areas persuaded the state to take action by implementing regulations on the menhaden fishery. The Mississippi Gulf menhaden fishing season begins on the third Monday of April and closes on November 1 each year.²³⁵ In Mississippi, the traditional method of taking is with purse seines:²³⁶

Purse seines for taking [m]enhaden may not be used in any bay, river or bayou, nor within one mile of the shorelines of Jackson, Hancock or Harrison counties. Purse seines may not be used to catch in excess of 5 percent by weight, in any single set of the net, any of the following species: bluefish, cobia (ling or lemonfish), dolphin, jack crevalle, king mackerel, and spotted seatrout (speckled trout).²³⁷

^{233.} *Menhaden Harvest Cap Proposed for Mississippi Waters*, SPORT FISHING MAG. (Dec. 16, 2019), https://www.sportfishingmag.com/story/news/menhaden-harvest-cap-proposed-state-waters/ [https://perma.cc/MQK6-UP9W].

^{234.} Id.

^{235.} *Menhaden*, MISS. SALTWATER FISHING, https://www.eregulations.com /mississippi/fishing/saltwater/menhaden [https://perma.cc/9AWN-D4KU] (last visited Feb. 15, 2024).

^{236.} Id.

^{237.} Id.

A fishing vessel using purse seines cannot have more than 10% by weight of the total catch of any of the previously listed species.²³⁸ In Mississippi, no purse seine vessel can have any red drum on board.²³⁹ Mississippi law further states:

[a]ny unlawful act under this Part committed by any person, firm, or corporation shall be deemed a violation of the provisions of this Part and shall constitute a misdemeanor and upon conviction, said person shall be punished in accordance with Miss. Code. Ann. § 49-15-63, as amended, unless a penalty is specifically provided elsewhere in the Mississippi Code of 1972, as amended.²⁴⁰

In sum, Mississippi law implements a menhaden fishing season, a onemile buffer zone, and a limit on how many non-targeted species are allowed on board a menhaden fishing vessel.²⁴¹ After considering Mississippi's laws surrounding the menhaden fishery, it would be beneficial for Louisiana to look to Mississippi when creating more adequate regulations in Louisiana. However, instead of a quarter mile buffer zone, Louisiana should implement the buffer zones established under the Commission's 2023 NOI because the two smaller boats released by the large vessel to cast the nets are not causing many problems in the shallow waters.²⁴² The large vessels and use of purse seine nets are causing issues in Louisiana because the vessels are too large, and the nets are too deep.²⁴³ In addition, Mississippi's limit on how many non-targeted fish are allowed on board aims to limit the amount of non-targeted species being caught and killed.²⁴⁴ The capturing and killing of non-targeted species is an issue in Louisiana, and imposing this harsh restriction points to a solution and encourages the fishing vessels to be more responsible in the process of catching menhaden. Thus, Louisiana lawmakers should look to Mississippi's laws surrounding menhaden to reduce the issues posed by the fishery.

^{238.} Id.

^{239.} Id.

^{240.} *Title 22 – Mississippi Department of Marine Resources*, https://dmr.ms .gov/wp-content/uploads/2019/07/title-22-part-03.pdf [https://perma.cc/NMS3-F757] (last visited Feb. 15, 2024).

^{241.} Menhaden, supra note 235.

^{242.} Telephone Interview with Joseph Orgeron, supra note 73.

^{243.} Id.

^{244.} Menhaden, supra note 235.

4. Texas

Finally, this Comment analyzes Texas's Gulf menhaden fishery and the regulations imposed to determine whether it could be beneficial for Louisiana to look to Texas law when implementing regulations on Louisiana's menhaden fishery. In Texas between 1999 and 2003, menhaden fishing vessels harvested approximately 50 million pounds of Gulf menhaden from Texas state waters.²⁴⁵ This amount of menhaden was estimated to be worth \$3.5 million, and it is important to note that Louisiana plants processed these menhaden.²⁴⁶ "The Texas Parks & Wildlife Department works in conjunction with the Gulf States Marine Fisheries Commission (GSMFC), an interstate organization, in promoting cooperative management of migratory fish species along the Gulf of Mexico."247 The GSMFC serves in an advisory and coordination role to the gulf menhaden fishery.²⁴⁸ In 1977, the GSMFC and its Menhaden Advisory Committee created and implemented a regional gulf menhaden fishery management plan, which was revised multiple times in 1983, 1988, and 1995.249 31 Texas Administrative Code section 57.995 became effective on June 27, 2010, and provides regulations on the menhaden fishery.²⁵⁰ Texas's Administrative Code states:

(a) The commercial purse seine season for menhaden...is open beginning on the third Monday in April and will continue until whichever of the following first occurs: (1) the annual landings limit for the season has been reached; or (2) the first day in November. (b) The starting point (baseline) for calculating the annual landings limit for 2009 is 31,500,000 pounds. In 2010 and subsequent years, the baseline shall be adjusted upwards in the amount by which the actual catch in the previous season fell short of 31,150,000 pounds. In the event the actual catch in a season exceeds 31,500,000 pounds, a downward adjustment shall be made in the following season in the amount by which the baseline was exceeded in the previous season. (c) Annual landings may exceed the amount established or calculated in subsection (b) of

^{245.} Jerry Mambretti, *Texas Gulf of Mexico Menhaden Fishery*, TEX. PARKS & WILDLIFE DEP'T https://tpwd.texas.gov/fishboat/fish/didyouknow/coastal/men haden.phtml [https://perma.cc/K7ST-V4PV] (last visited Feb. 16, 2024).

^{246.} Id.

^{247.} Id.

^{248.} Id.

^{249.} Id.

^{250. 31} Tex. Admin. Code § 57.995 (2022).

this section by up to 10%. (d) Landings will be tracked using the Captain Daily Fishing Reports or another tracking mechanism specified by TPWD.²⁵¹

In sum, section 57.995 establishes a menhaden fishing season, a cap on the amount of menhaden, and a daily fishing report or some other type of tracking mechanism.²⁵² This Texas regulation may be accepted in Louisiana; however, the regulation is tailored to Texas's Gulf menhaden fishery. Specifically, the authors of section 57.995 looked to data gathered in 2009 and 2010 that related to Texas.²⁵³ Even so, the Louisiana Legislature has already passed laws enacting a reporting mechanism and fishing season, and the Senate committee opposed H.B. 1033 which aimed to impose a cap on menhaden. Thus, it would not be beneficial for Louisiana to look to section 57.995 of Texas's Administrative Code.

D. Interstate Management Plan

Some researchers suggest that an interstate management plan may be more beneficial than separate management plans for each Gulf state.²⁵⁴ *To this point*, Thomas J. Schoenbaum and Michael W. Wascom wrote a journal article discussing the legal ramifications and regulatory options for the Gulf menhaden fishery.²⁵⁵ Under an united management plan, the Gulf states would "adopt an interstate, coordinated management system for each stock which is carried out by the individual state authorities within state boundaries."²⁵⁶ The two avenues to create this interstate management plan are through voluntary implementation or binding implementation; however, researchers find both avenues unattainable.²⁵⁷

Binding implementation is time-consuming and difficult to achieve because each Gulf state authority would have to adopt and implement this management agreement.²⁵⁸ Realistically, the binding implementation relies solely upon each state's good faith, which is subject to change at any moment.²⁵⁹ Additionally, a formal interstate agreement probably requires congressional consent because under Article I, Section 10 of the United

^{251.} Id.

^{252.} Id.

^{253.} Id.

^{254.} SCHOENBAUM & WASCOM, supra note 42, at 39.

^{255.} Id.

^{256.} Id.

^{257.} *Id.* at 39–40.

^{258.} Id. at 40.

^{259.} Id.

States Constitution, "[n]o State shall, without the consent of Congress enter into any agreement or compact with another State, or with a foreign power."²⁶⁰ Obtaining congressional consent presents additional challenges because the process can be time-consuming and very difficult.²⁶¹ Furthermore, the authority to enter into this interstate agreement must exist within each Gulf state, and currently, Mississippi is the only Gulf state with the authority to enter into an interstate agreement for management of the menhaden fishery.²⁶² Mississippi's reciprocal agreement statute states that "[t]he Commission of Wildlife Conservation is authorized to 'enter into advantageous interstate and intrastate agreements with proper officials, which agreement directly and indirectly result in the protection, propagation, and conservation of seafood in Mississippi "263 On the other hand, Louisiana does not have authority to allow the state to enter into general management reciprocal agreements. Rather, Louisiana is only allowed "to enter into 'reciprocal fishing license agreements' with any other state."264 Therefore, a binding implementation of a coordinated management plan among the Gulf states is unlikely.

Because of the difficulties posed by the binding implementation, researchers suggest that an informal interstate agreement voluntarily implemented by each state has a higher likelihood of success. This route requires each state to possess the willingness to enter into an agreement; however, given Louisiana's hesitation to implement extensive regulations on the menhaden fishery, Louisiana may resist a voluntary agreement. Even though Schoenbaum and Wascom found the voluntary implementation a more likely route, there is no guarantee Louisiana or other Gulf states would automatically be on board. Furthermore, the other Gulf states already have regulations in place; thus, other Gulf states may not want to disturb their settled law.

E. Louisiana's Best Path Forward

After analyzing the solutions imposed by other Gulf states and proposed by scholars, there are several steps Louisiana should take in passing adequate regulations on the menhaden fishery. First, CCA Louisiana should conduct another poll amongst the coastal parishes previously polled in 2021 and all other parishes, because this is a state-

^{260.} Id.

^{261.} Id. at 42.

^{262.} Id.

^{263.} Id. (quoting MISS. CODE ANN. § 49-15-15(i) (2020)).

^{264.} Id. (quoting LA. REV. STAT. § 56:671).

wide issue. ²⁶⁵ Polling proved successful for Texas when the authors of Administrative Code section 57.995 used information gathered from 2009 and 2010 to draft the regulation.²⁶⁶ While it is significant to receive feedback from the coastal communities affected the most by the menhaden fishery and these regulations, recreational fishermen come from all over Louisiana. CCA Louisiana conducted the 2021 poll before the implementation of the quarter mile buffer, introduction of H.B. 1033, and NOI for the one-mile buffer. Before passing regulations, legislators must know what will best serve the public. Therefore, a more diverse and updated poll showing that the public supports regulations will encourage legislators in opposition to reconsider their position.

Second, although looking to Mississippi's menhaden regulations may be helpful, Louisiana legislators should look to Louisiana data when crafting legislation. For example, when deciding a cap amount on menhaden, legislators should look to menhaden take amounts in Louisiana waters. The authors of H.B. 1033 tailored the proposed law to data specific to Louisiana. Even though H.B. 1033 was involuntarily deferred by the Senate committee, legislators should continue to reference data specific to Louisiana in future legislation.

Third, Louisiana legislators should pass proposed regulatory changes in the Commission's approved 2023 NOI, which includes the one-mile buffer and special three-mile buffer, similar to Alabama's regulations. The problems caused by the menhaden fishery mainly stem from the use of purse seine nets and large fishing vessels in shallow water.²⁶⁷ The close proximity of the larger vessels destroys shallow water habitats, scars the seafloor, increases the likelihood for the capturing and killing of nontargeted species, and deters recreational fishermen.²⁶⁸ While a cap on the amount of menhaden caught may prove to be beneficial, the main problems stem from the use of purse seine nets in shallow waters. The purpose of this proposed solution is not to eliminate the menhaden fishery, costing Louisiana revenue and jobs; instead, this solution aims to keep the menhaden fishery intact while also protecting Louisiana's environment. Legislators and organizations like Louisiana CCA should conduct research analyzing whether implementing a higher buffer zone will eradicate the menhaden fishery in Louisiana. Research proving that a higher buffer zone will not eradicate the fishery will immensely strengthen the argument

^{265.} The parishes previously polled included Cameron, Iberia, Jefferson, Lafourche, Orleans, Plaquemines, St. Mary, Terrebonne, and Vermilion. *Coastal Communities, supra* note 147.

^{266. 31} TEX. ADMIN. CODE § 57.995 (2022).

^{267.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{268.} Id.

favoring regulations and likely lead to an increase in support. However, as mentioned previously, only time will tell whether these proposed regulatory changes will be implemented in Louisiana in 2024.

While legislation is likely the most effective solution, a memorandum of understanding (MoU) is another potential solution. Recently, the state of Virginia executed a MoU with a company related to Omega Protein.²⁶⁹ "Ocean Harvesters, the largest participant in Virginian's menhaden fishery and a long-term supplier to Cooke subsidiary Omega Protein, recently signed a [MoU] with [the] government of Virginia agreeing to put limits on menhaden fishing in the Chesapeake Bay."270 This MoU limits when and where Ocean Harvesters can fish.²⁷¹ While a MoU seems like an ideal solution, organizations like the Theodore Roosevelt Conservation Partnership (TRCP) have shown how a MoU is not a practical and effective solution to the problems posed by the menhaden fishery.²⁷² The TRCP based its opinions "on a collective initial assessment by a coalition of sportfishing and conservation groups."273 Even though the MoU sets out when and where purse seiners can fish, the MoU does not establish a buffer zone in the northern part of the Bay, create enforceable regulations of the fishery, or prevent massive net spills adjacent to populous areas of the Bay shoreline.²⁷⁴ Mike Leonard, the vice president of government affairs for the American Sportfishing Association, is most concerned with the enforceability of a MoU.²⁷⁵ Louisiana Representative Joseph Orgeron, an author on the failed menhaden legislation, is also skeptical of a MoU being a potential solution because of the lack of enforceability.²⁷⁶ Representative Orgeron is hesitant to work with Omega and Daybrook on something that will not actually change the problems.²⁷⁷ Therefore, Louisiana should not

^{269.} Chris Chase, *Ocean Harvesters, Virginia Sign Agreement Limiting Menhaden Fishing*, SEAFOODSOURCE (Apr. 21, 2023), https://www.seafood source.com/news/supply-trade/ocean-harvesters-virginia-sign-agreement-limitin g-menhaden-fishing [https://perma.cc/D4KZ-KAYZ].

^{270.} Id.

^{271.} Id.

^{272.} Jaclyn Higgins, *Menhaden Agreement Between Omega Protein and Virginia Falls Short*, THEODORE ROOSEVELT CONSERVATION P'SHIP (Apr. 25, 2023), https://www.trcp.org/2023/04/25/menhaden-agreement-omega-protein-virginia-falls-short/ [https://perma.cc/TH8P-P2AC].

^{273.} Id.

^{274.} Id.

^{275.} Id.

^{276.} Telephone Interview with Joseph Orgeron, *supra* note 73.

^{277.} Id.

look to a MoU as a solution because it is not as effective or binding as legislation.

Finally, a change in Louisiana leadership may provide a legislative clean slate, consisting of new perspectives open to the idea of imposing regulations on the menhaden fishery.²⁷⁸ As of January 2024, Louisiana has a new Governor, Speaker of the House, Speaker President, and Chairmans of congressional committees. These newly elected politicians might change the dynamic and viewpoint on menhaden regulations.²⁷⁹ Representative Orgeron is hopeful about the impending election; however, only time will tell if Louisiana politicians will change their tune on menhaden regulations.

IV. CONCLUSION

The aim of this Comment is to inform, shed light on the issues posed by Louisiana's menhaden fishery, and provide a variety of solutions the legislature can consider when crafting future regulations. The ultimate purpose of this Comment is not to advocate for the elimination of the menhaden fishery, but rather to suggest beneficial solutions that reduce, and hopefully eliminate, the harmful environmental problems associated with the fishery.

Ultimately, the menhaden fishery, while a crucial asset to Louisiana's economy and employment, is harming the state's fragile coastline, shallow water habitats, and recreational fishermen.²⁸⁰ Louisiana's best path forward is twofold: (1) to conduct an updated poll illustrating the public's opinions on imposing regulations and (2) to pass the regulatory changes proposed in the 2023 NOI. The poll and buffer zones are adequate first steps for Louisiana to take in protecting its environment and maintaining its status as "Sportsman's Paradise."

278. Id.

280. Id.

^{279.} Id.