

IN THE SUPREME COURT OF IOWA

Docket No. 19-1644

IOWA CITIZENS FOR COMMUNITY IMPROVEMENT, a nonprofit corporation, and FOOD & WATER WATCH, a nonprofit corporation

Plaintiffs/Appellees, v.

STATE OF IOWA; DEPARTMENT OF NATURAL RESOURCES; BRUCE TRAUTMAN, in his official capacity as Acting Director of the Department of Natural Resources; ENVIRONMENTAL PROTECTION COMMISSION; MARY BOOTE, NANCY COUSER, LISA GOCHENOUR, REBECCA GUINN, HOWARD HILL, HAROLD HOMMES, RALPH LENTS, BOB SINCLAIR, JOE RIDING, in their official capacities as Commissioners of the Environmental Protection Commission; NATURAL RESOURCE COMMISSION; MARCUS BRANSTAD, RICHARD FRANCISO, LAURA HOMMEL, TOM PRICKETT, PHYLLI SREIMER, DENNIS SCHEMMEL, and MARGO UNDERWOOD, in their official capacities and Commissioners of the Natural Resource Commission; DEPARTMENT OF AGRICULTURAL AND LAND STEWARDSHIP; AND MICHAEL NAIG, in his official capacity as Secretary of Agriculture.

Defendants/Appellants.

**BRIEF AMICUS CURIAE OF GULF ORGANIZED FISHERIES IN
SOLIDARITY AND HOPE, INC. AND MISSISSIPPI
COMMERCIAL FISHERIES UNITED, INC.**

TABLE OF CONTENTS

TABLE OF AUTHORITIES 3

IDENTITY AND INTEREST OF AMICUS CURIAE 5

RULE 6.906(4)(D) STATEMENT OF AUTHORSHIP 7

ARGUMENT..... 7

I. The Federal Clean Water Act and the States Have Failed to Prevent Nutrient Pollution in the Mississippi River from Affecting Downstream Communities..... 7

II. The Coastal Communities Supporting This Cause Warrant Consideration and Protection..... 10

III. Agricultural Pollution Severely Harms the Coastal Waters of Louisiana and Mississippi..... 12

 A. Nutrient Pollution Causes Hypoxic or Dead Zones Downstream ... 12

 B. Nutrient Pollution Causes Harmful Algae Blooms Downstream 15

CONCLUSION 18

CERTIFICATE OF COMPLIANCE WITH TYPEFACE REQUIREMENTS AND TYPE-VOLUME LIMITATIONS 20

CERTIFICATE OF FILING AND SERVICE 20

TABLE OF AUTHORITIES

Cases

Pronsolino v. Nastri, 291 F.3d 1123, 1126-27 (9th Cir. 2002) 7

Other Authorities

Alexander, J.S., Wilson, R.C., and Green, W.R., 2012, *A brief history and summary of the effects of river engineering and dams on the Mississippi River system and delta: U.S. Geological Survey Circular 1375*, 43 p.28. 13

Harmful Algal Blooms and Hypoxia Comprehensive Research Plan and Action Strategy: An Interagency Report, National Science and Technology Council, February 2016 15

<https://wgno.com/2019/06/25/severe-algae-bloom-in-lake-pontchartrain-and-mississippi-coast/>(last visited January 20, 2020) 16

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<https://www.fox8live.com/2019/08/31/toxin-caused-by-algae-lake-pontchartrain-is-below-advisory-level/> 16

<https://www.knoe.com/content/news/Avoid-algae-on-Lake-Pontchartrain-health-department-says-511684311.html> (last visited January 20, 2020) 16

<https://www.mdeq.ms.gov/mdeq-issues-two-additional-beach-closures/> (last visited January 20, 2020)..... 17

<https://www.mvn.usace.army.mil/Missions/Mississippi-River-Flood-Control/Bonnet-Carré-Spillway-Overview/>(last visited January 20, 2020) 15

<https://www.noaa.gov/media-release/noaa-forecasts-very-large-dead-zone-for-gulf-of-mexico> 12

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Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, 2015 Report to Congress, Pt 1, p. 10 8

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Murphy, J.C., Hirsch, R.M., and Sprague, L.A., 2013, Nitrate in the Mississippi River and its tributaries, 1980–2010 13

Scavia, et al 2017, Ensemble modeling informs hypoxia management in the Gulf of Mexico, PNAS 114:33, 8823-8828..... 8

The Economics of Dead Zones: Causes Impacts, Policy Challenges, and a Model for the Gulf of Mexico Hypoxic Zone, Rabotyagov, Kling, Gassman, Rabalais, and Turner, Review of Environmental Economics and Policy, Vol. 8, issue 1, 2014, pp. 58–79, at 60 12

U.S. Geological Survey Scientific Investigations Report 2013–5169, 31 p., <http://pubs.usgs.gov/sir/2013/5169/> 13

IDENTITY AND INTEREST OF AMICUS CURIAE

Gulf Organized Fisheries in Solidarity and Hope, Inc. (“GO FISH”) is a non-profit alliance of Louisiana’s leading commercial fishing industry advocacy groups. GO FISH was formed after the 2010 BP Oil Spill in the Gulf of Mexico, when fishermen recognized the need to speak with one voice on issues critical to the survival of Louisiana’s unique fishing culture, coast, and communities. The members include thousands of commercial fishermen, from and through the Louisiana Oystermen Association, Louisiana Shrimpers Association, the Louisiana United Crabbers Alliance, Association of Family Fishermen, Southeastern Asian Fisherfolks Association, and the United Commercial Fishermen, and others. The members of these organizations are a diverse group of fishers including descendants of the native people who fished these waters before European contact, historical immigrants like the Cajuns and Slavic people, as well as the most recent generation of Vietnamese immigrants.

Mississippi Commercial Fisheries United, Inc. (MSCFU) is a non-profit corporation dedicated to protecting the common interests of Mississippi’s commercial fishing industry. MSCFU is an advocate for sustainable fisheries and works through public advocacy and education to promote the local seafood industry. The organization has approximately 250

members, who are either commercial fishermen or are affiliated with the commercial fishing community. Its members include shrimpers, crabbers, oystermen, fin-fish fishermen and some recreational charter boat operators. MSCFU and its members have met with upstream farmers to learn about their challenges and the steps they are taking to try to curb nutrient pollution.

The fishers represented by these organizations spend their working lives on waters subject to the public trusts recognized by their home states of Louisiana and Mississippi. These fishers and their families are directly affected by nutrient pollution carried by the Mississippi River, some of which originates from the Raccoon River watershed. Nutrient pollution directly impacts their livelihood and ability to subsist from the seas, posing a foundational challenge to the transmission of their water based culture that has been preserved, until now, for centuries. GO FISH and MSCFU believe that Iowa Citizens for Community Improvement and Food and Water Watch are correct in their assessment of the legal issues in this appeal, but our primary interest in this amicus filing is to advise the Court that the issues at play here affect the lives and livelihoods of families far beyond the borders of the State of Iowa.

RULE 6.906(4)(D) STATEMENT OF AUTHORSHIP

The Amicus Curiae are represented by the undersigned counsel of the Waltzer Wiygul & Garside law firm. No party, party's counsel, or other person contributed money to fund the preparation or submission of this brief.

ARGUMENT

I. The Federal Clean Water Act and the States Have Failed to Prevent Nutrient Pollution in the Mississippi River from Affecting Downstream Communities.

The briefs filed by the State of Iowa and its supporting amici might lead an observer to believe that nutrient pollution in the Raccoon River watershed is solely a matter of concern to the State of Iowa and its citizens, and that any present harm caused by nutrient pollution is not significant enough to warrant any remedial action through the courts. The arguments suggest that additional study is needed to fully understand the details of nitrogen uptake and the granular cause and effect of fertilizer pouring into the river. These arguments implicitly assume that at some point innovative solutions will flow from those studies, and that agricultural operations will voluntarily institute these solutions. In the supporting amici's view, so surely will the river run clear in time that this Court must abstain from its constitutional duty to provide judicial review and a remedy for clear deprivation and harm that is happening today.

While GO FISH and MSCFU appreciate the effort of individual well-minded farmers who have made changes to improve water quality, the cause of our failure to adequately address nutrient pollution is clear: a lack of economic incentive to control non-point source nutrient pollution resulting from ineffective regulation at the federal and state level. The basic structure of the federal Clean Water Act is well understood and need not be repeated here. The key fact is that point sources like factories and publicly owned treatment works are regulated through a permit system, which may be administered by a state but must contain limits meeting minimum technological and other standards. Nonpoint sources, which are defined to include pollution runoff from agricultural activities, are not subject to the same rigorous permitting or minimum standards. The primary responsibility to control these nonpoint sources was left with the states. *E.g., Pronsolino v. Nastri*, 291 F.3d 1123, 1126-27 (9th Cir. 2002).

The decades-long history of lack of progress on agricultural nutrient pollution in the Mississippi River demonstrates the failure of this scheme. The mechanisms and effects of agricultural nutrient pollution in the Raccoon River and other Mississippi River watersheds, and their contribution to downstream impacts, have been studied by scientists for decades. While the precise impact of the Mississippi River nutrient load on downstream

resources in areas like the northern Gulf of Mexico is at a scale both unknown and unknowable, it is established fact that nutrient runoff pollution causes major harm to downstream ecosystems in a number of ways. Yet despite decades long programs to study, analyze and address the problem, nutrient loads in the Mississippi remain at the levels of thirty years ago.¹

In the case of the Mississippi River, the consequence of this failure on the part of the states is that a major portion of the costs imposed by nutrient runoff are imposed on citizens and resources downstream of the actual sources of pollution. The North Raccoon River basin is a prime example, having been measured by the United States Geological Survey as the fourth largest contributor of nitrogen and phosphorus pollution to the Mississippi. The fishing communities who appear before you are among those who bear the cost of pollution from the Raccoon River and others like it.

To date the Clean Water Act has left the frontline role in dealing with non-point agricultural runoff to States like Iowa. In equity and good conscience, GO FISH and MSCFU ask that this Court consider the

¹ *E.g.* Scavia, et al 2017, Ensemble modeling informs hypoxia management in the Gulf of Mexico, PNAS 114:33, 8823-8828; Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, 2015 Report to Congress, Pt 1, p. 10 (extending time to achieve nutrient goals from 2015 to 2035).

downstream impacts and equities in deciding the justiciability and public trust issues that are raised in this case.

II. The Coastal Communities Supporting This Cause Warrant Consideration and Protection.

The Mississippi River empties the third largest drainage basin in the world through a five million acre coastal plain, an immense network of wetlands, bayous and bays that support an incredibly dense food chain and historical proliferation of marine life, including hundreds of thousands of acres of oyster reefs. Indeed, the basins that surround the Mississippi River, the Barataria and Pontchartrain basins, are demonstrably the most productive estuaries in the continental United States. The entire country benefits from the harvest of fresh, wild-caught seafood. The coastal zone of the northern Gulf of Mexico contributes over one billion pounds annually of high quality oysters, blue crabs, shrimp and fish to the nation's diet and economy. Mississippi and Louisiana together represent over 30% of the nation's seafood supply.

And as surely as agriculture forms an inseparable part of the Iowan polity, economy, and culture, commercial fishing defines many of the small communities throughout coastal Louisiana and Mississippi. Fishing communities such as Dulac, Pointe Au Chien, Lafitte, Grand Isle, Buras, Shell Beach and Pascagoula contribute in an outsized way to the culture and

diversity of the United States. They are a gumbo of ethnicities and influences, including their Native American founders and Cajun, African, Caribbean, Cambodian, Creole, Slavic, Philipino, and Vietnamese followers. Many Gulf fishermen still speak the distinct and ancient Cajun French dialect as a first language or have unique musical and culinary traditions, as well as other cultural practices which developed organically in these remote locations, largely off the beaten path of mainstream culture.

Coastal fishing towns are the last harbors of an American historical exchange economy, where a box of crabs or a sack of oysters will fetch an outboard repair or a legal document prepared.² The gift of a fisherman's catch is not just provided as sustenance for families and friends, but as a means to firm familial and intercommunal bonds, and often to collectively raise funds for churches and those in need. The water is such a part of coastal culture, each year thousands of coastal residents buy commercial shrimping licenses and stop whatever job they are doing to return their boats to the water and fish under the full moons of the shrimp seasons for trade, consumption and giving.

² Indeed, as this brief is written, undersigned is nibbling on traditionally dried shrimp made and given by members of the Pointe Au Chien Indian community in Lafourche Parish, Louisiana.

It is difficult enough to be a fisherman. Fishermen already endure repeated dumping of cheap, pond-grown, foreign seafood into American markets, severe coastal land loss, and more intense and numerous tropical weather events. Nutrient pollution adds a great additional burden, as polluted river water entering the coastal waters from the Mississippi River cause massive harmful algae blooms and hypoxic bottom layer “dead zones” in the Gulf of Mexico and adjacent inshore and nearshore waters - areas no longer capable of supporting aquatic life.

The need for change is immediate. Oxygen-deprived hypoxic zones and toxic alga blooms will be exacerbated by near-term efforts to restore coastal Louisiana. Current plans include the construction of river diversions that will redirect massive amounts of polluted river water into the relatively shallow and still estuaries relied upon by commercial fishers. Put another way, within the decade, the pollution will literally move to the backyards of these fishing communities. The well-being of Iowans and non-Iowans alike, who together require and deserve reasonably clean rivers, renders this cause both ripe and justiciable.

III. Agricultural Pollution Severely Harms the Coastal Waters of Louisiana and Mississippi.

A. Nutrient Pollution Causes Hypoxic or Dead Zones Downstream

Nutrient pollution in the Mississippi River annually causes a hypoxic (low oxygen) area in the Gulf of Mexico, called a “dead zone”. The scientists who have spent their careers studying this phenomenon remarked on its name: “the rather alarming term dead zone is surprisingly appropriate: hypoxic regions exhibit oxygen levels that are too low to support many aquatic organisms including commercially desirable species.” The Gulf of Mexico’s dead zone most often reaches the size of entire states. In 2002 and 2019, for example, the dead zone was roughly the size of the state of Massachusetts.³

Nutrient over-enrichment is the main cause of these dead zones, and nutrient-fed hypoxia is now widely considered an important threat to the health of aquatic ecosystems. There is three times as much nitrogen and phosphorus being dispersed into the world’s oceans today as in preindustrial times.⁴ The National Research Council (2008) reported that about 90 percent of the nitrogen load reaching the Gulf of Mexico from the Mississippi River is from nonpoint sources, including about 60 percent from fertilizer and

³ <https://www.noaa.gov/media-release/noaa-forecasts-very-large-dead-zone-for-gulf-of-mexico>

⁴ The Economics of Dead Zones: Causes Impacts, Policy Challenges, and a Model for the Gulf of Mexico Hypoxic Zone, Rabotyagov, Kling, Gassman, Rabalais, and Turner, Review of Environmental Economics and Policy, Vol. 8, issue 1, 2014, pp. 58–79, at 60.

mineralized soil nitrogen.⁵ Corn and soybean cultivation is the largest contributor of nitrogen (52 percent), whereas phosphorus originates primarily from animal manure on pasture and rangelands (37 percent) followed by lands where corn and soybeans are grown (25 percent). The nitrate load to the Gulf approximately tripled from 1970 to 2000, with the greatest sources believed to be basins in southern Minnesota, Iowa, Illinois, Indiana, and Ohio that drain agricultural land.⁶

The Nutrient Task Force reports 51 % of the nitrate and 49% of the phosphorus delivered to the Gulf of Mexico from the Mississippi River is fertilizers and manure runoff.⁷ Some 29% of the nitrate pollution in the Mississippi River is estimated to come from watersheds in the state of Iowa. This percentage may actually be higher.⁸ Nutrient pollution levels in the Mississippi River are not showing significant progress towards the 45% reduction goals set by the Mississippi River Nutrient Task Force.⁹

⁵ The remaining 10 percent is from a mix of sources that include municipal and industrial point sources. See, Alexander, J.S., Wilson, R.C., and Green, W.R., 2012, *A brief history and summary of the effects of river engineering and dams on the Mississippi River system and delta: U.S. Geological Survey Circular 1375*, 43 p.28.

⁶ Id.

⁷ Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, 2017 Report to Congress, Pt 2, p. 25.

⁸ Jones, et al, (2018) Iowa Stream Nitrate and Gulf of Mexico. PLoS One 13(4):e0195930.

⁹ Murphy, J.C., Hirsch, R.M., and Sprague, L.A., 2013, Nitrate in the Mississippi River and its tributaries, 1980–2010—An update: U.S. Geological Survey Scientific Investigations Report 2013–5169, 31 p., <http://pubs.usgs.gov/sir/2013/5169/>.

The dead zone referenced in the preceding section generally forms off the coast of Louisiana to the west of the mouth of the Mississippi River, because prevailing currents carry the nutrient laden river water to the west. Swimming fish, crabs, and shrimp must escape or succumb to the low oxygen concentrations; other, less mobile organisms eventually suffocate and die.¹⁰ The dead zone off the coast of Louisiana is believed to cost untold millions of dollars in fisheries losses annually.

B. Nutrient Pollution Causes Harmful Algae Blooms Downstream

Another downstream effect involves the creation of large harmful algae blooms (“HAB”), also caused by nutrient pollution. HABs and hypoxia are often linked. HABs are created by a small subset of naturally occurring microscopic or larger, plant-like cyanobacteria or algal species. Under certain conditions, they can form large masses, or “blooms.” Some species of HABs are toxic to animals, including humans. Ultimately the blooms are digested by more bacteria, which consumes dissolved oxygen contained in the water. When the rate of oxygen consumption in aquatic environments exceeds resupply, oxygen concentrations can quickly decline

¹⁰ See fn.6, at 30.

to levels insufficient to sustain most animal life, producing fish kills and hypoxic conditions.¹¹

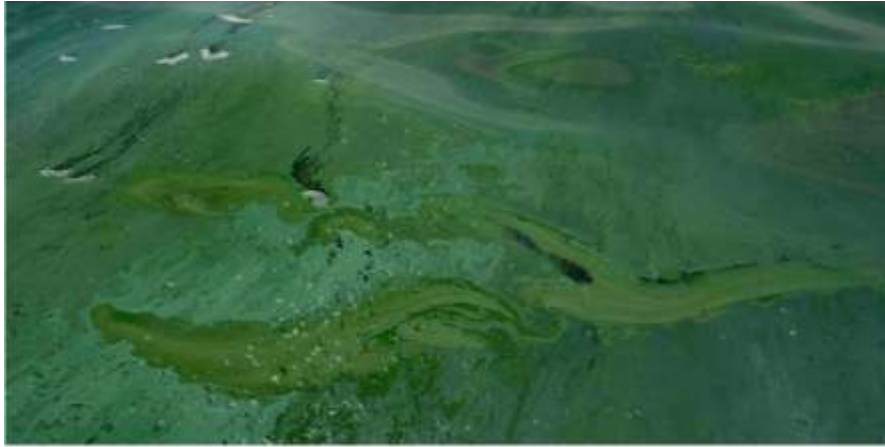
One of the elements of the Mississippi River and Tributaries Project, the grand scheme administered by the U.S. Army Corps of Engineers to control flooding on the Mississippi, is the Bonnet Carré Spillway. This two mile spillway can divert up to 250,000 cubic feet per second of Mississippi River water directly into Lake Pontchartrain and ultimately into the Mississippi Sound.¹²

In recent years, the Bonnet Carré Spillway has been opened much more frequently as a consequence of increased flooding on the Mississippi. In its first seventy years of existence, this part of the Mississippi River and Tributaries Project was opened a total of eight times. Since 2008, the Bonnet Carré has been opened six times. In 2018 and 2019, the spillway opened in consecutive years for the first time. In 2019 the spillway, again for the first time, opened twice in a single year, for a total of 123 days – almost twice as long as any previous opening. Diversion of polluted Mississippi River water continued into the late summer period for the first time. As a result, in July

¹¹ Harmful Algal Blooms and Hypoxia Comprehensive Research Plan and Action Strategy: An Interagency Report, National Science and Technology Council, February 2016.

¹² <https://www.mvn.usace.army.mil/Missions/Mississippi-River-Flood-Control/Bonnet-Carré-Spillway-Overview/>(last visited January 20, 2020).

2019, large blooms of cyanobacteria, also known as toxic blue green algae, were documented in Lake Pontchartrain and the Mississippi Sound.¹³ One such bloom in Lake Pontchartrain is shown on the below.¹⁴



In Lake Pontchartrain the algae outbreaks lasted for months. In June 2019 The Louisiana Department of Health issued an advisory against water contact or harvesting and eating fish in the areas affected by the bloom.¹⁵

Fishing piers and beaches were closed to the public.¹⁶

The appearance of these Harmful Algal Blooms (HABs) in the Mississippi Sound was even more alarming in that it had no known precedent. The Mississippi Department of Environmental Quality closed

¹³ <https://wgno.com/2019/06/25/severe-algae-bloom-in-lake-pontchartrain-and-mississippi-coast/> (last visited January 20, 2020).

¹⁴ <https://www.fox8live.com/2019/08/31/toxin-caused-by-algae-lake-pontchartrain-is-below-advisory-level/>.

¹⁵ <https://www.knoe.com/content/news/Avoid-algae-on-Lake-Pontchartrain-health-department-says-511684311.html> (last visited January 20, 2020).

¹⁶ https://www.nola.com/news/communities/st_tammany/article_eab591d2-9908-11e9-8e99-ab8abf74cc9d.html (last visited January 202, 2020).

adjacent waters to contact and advised against consumption of any seafood from affected waters.¹⁷ The advisory against consumption of seafood from areas with algal blooms was widely reported.¹⁸ Mississippi fishers found that seafood, even from offshore areas unaffected by river water, was stigmatized. Fishers also reported an absence of marine life in the areas of the algae blooms.¹⁹ Fisheries losses in Mississippi were not caused solely by the nutrient load in Mississippi River water, but the algae blooms and seafood advisories caused a significant impact to their livelihood.

Mississippi fishers also saw their neighbors in tourism dependent businesses suffer. Hotels, motels, and related businesses, many of them small family owned enterprises, lost millions of dollars. The ripple effects of these losses extend to the service workers who clean rooms, man desks, and do the hundred other jobs that support a tourism economy.

CONCLUSION

The members of GO FISH and MSCFU share values and goals with the citizens of Iowa and the farm families of the Raccoon River watershed. Commercial fishers and farmers want to support their families and

¹⁷ <https://www.mdeq.ms.gov/mdeq-issues-two-additional-beach-closures/> (last visited January 20, 2020).

¹⁸ <https://www.clarionledger.com/story/news/2019/06/25/toxic-blue-green-algae-mississippi-beaches-seafood-fishing-safety-what-you-need-to-know/1546658001/> (last visited January 20, 2020).

¹⁹ *Id.*

communities, and carry on their work of feeding others. Commercial fishers respect the work ethic and contributions of the citizens of Iowa and appreciate those who have adopted changes to improve water quality. There is no gainsaying the fact, however, that pollution in the Mississippi River, a significant part of it from agricultural practices along the Raccoon River, threatens the ability of Gulf fishers to protect these values and reach these goals. Voluntary efforts make too little change and are too slow. The State of Iowa must be required to act to protect the future use of its rivers, and to reduce harm to others, by setting standards that assure real and measurable results.

DATED: January 21, 2020

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**Pending pro hac vice applications*

CERTIFICATE OF COMPLIANCE WITH TYPEFACE REQUIREMENTS
AND TYPE-VOLUME LIMITATIONS

1. This brief complies with the typeface requirements and type-volume limitation of Iowa Rs. App. P. 6.903 (1)(d) and 6.903 (1)(g)(1) or (2)
2. This brief has been prepared in a proportionally spaced typeface using Times New Roman in 14 point font and contains 3158 words, excluding the parts of the brief exempted by Iowa R. App. P. 6.903 (1)(g)(1).

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CERTIFICATE OF FILING AND SERVICE

I hereby certify that on the 21st Day of January, 2020 that I electronically filed the foregoing document with the Clerk of the Iowa Supreme Court by using the Iowa Judicial Branch electronic filing system.

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