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IN THE  
Supreme Court of Iowa

No. 19-1644

Iowa Citizens for Community Improvement, and Food & Water Watch,

*Plaintiffs-Appellees,*

vs.

State of Iowa, et al.,

*Defendants-Appellants.*

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**On Appeal from the Iowa District Court for Polk County  
The Honorable Robert B. Hanson**

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**FINAL BRIEF OF *AMICI CURIAE*  
IN SUPPORT OF PLAINTIFFS-APPELLEES**

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## **Identity and Interest of Amici Curiae**

Since 1915, the Iowa Farmers Union (IFU) has worked to strengthen the independent family farm through education, legislation, and cooperation, and to provide Iowans with sustainable production, safe food, a clean environment, and healthy communities. IFU is a grassroots member organization of family farmers and ranchers, advocates and consumers committed to promoting family agriculture in Iowa. Our farm families operate farms ranging from less than two acres to more than 2,000 acres, producing a diverse array of agricultural products, including corn, soybeans, small grains, livestock, dairy, fruits and vegetables, organic and specialty crops, and value-added agricultural goods. While we are a diverse organization, our family farmer members share a common commitment to acting as responsible stewards of the land and water resources entrusted to us by previous generations and caring for those resources on behalf of future generations of farm families.

Farm Aid was founded in 1985 to raise awareness about the loss of family farms and to raise funds to keep farm families on the land. Farm Aid works with local, regional, and national organizations to promote fair farm policies and grassroots organizing campaigns designed to defend and bolster family farm-centered agriculture. Since 1985, Farm Aid has rallied alongside farmers, testified before Congress, and organized the public around the threats that

corporate power poses to family farmers and the general public alike, including the rise of industrial livestock facilities that negatively impact family farm livelihoods, rural economies, public health and our natural resources. Through its national farmer hotline, Farm Aid also connects farmers to an extensive network of organizations across the country that help farmers find the resources they need to endure crisis, access new markets, transition to more sustainable and profitable farming practices, and survive natural disasters.

This Amici Curiae brief will discuss the efforts of Iowa family farmers to implement conservation and pollution control measures on their farms and how the State of Iowa's failure to ensure clean water has impacted these family farmers. Family farmers and rural residents of Iowa rely on clean water for their livelihoods and for the health of their families and their communities. Farmers and rural residents often bear unreasonable burdens in their efforts to ensure clean water. IFU and Farm Aid believe it is critical for the Supreme Court to hear a balanced view from family farmers and local residents about the impact of voluntary nutrient management strategies on family farmers, public health, and the environment.

**Rule 6.906(4)(d) Statement of Authorship**

Amici are represented by the undersigned counsel, who authored this brief in whole. No party, party's counsel, or other person contributed money to fund the preparation of this brief.

## **Introduction**

The State of Iowa (State or Iowa) has some of the richest soil on the planet and agriculture has always been a major part of its social, economic, and environmental fabric. Over time, the State's agricultural landscape has become highly influenced and dominated by multinational agribusiness interests and industrial models of food production. Since 1970, the State has lost forty percent of its farms due to concentration and vertical integration in the agricultural sector. Today, Iowa produces more corn than any other state in the nation, and its soybean yields are second only to Illinois. Much of this corn and soybeans is used to feed animals raised for food in large, intensive animal feeding operations (AFOs) domestically and abroad. Iowa is also the largest producer of both hogs and eggs in the country. Iowa's approximately 6,300 hog farms—raising 23.5 million pigs annually—and numerous chicken houses containing 67 million egg laying chickens discharge manure into the state's plentiful navigable waters. While Iowa still has many family-sized farms, factory sized farms discharge ten billion gallons of liquid manure to Iowa farm fields and ultimately to Iowa waterways every year.

The waterway that is the subject of this action—the Racoon River, a navigable waterway—feeds significant acreage of corn and soybean production. The Racoon River is the source of drinking water for 500,000 people. It is lined with state parks and has ample access for recreation. And the State of Iowa has

taken actions that have allowed substantial impairment of the Racoon River. The State has delegated control over the Racoon River to private parties – agricultural interests. The legislature recently affirmed a voluntary policy for nutrient pollution reduction—nitrogen and phosphorus—from agricultural nonpoint sources. This underfunded, voluntary policy has barely scratched the surface of what is needed across the state to reduce this pollution.

As the Iowa District Court for Polk County correctly determined, this lawsuit should not be dismissed as it presents justiciable issues for the district court to review. Appellees challenge the constitutionality of the State’s codification of its voluntary pollution reduction program, a program that, as Amici describe below, is woefully inadequate to protect the State’s water from the devastating impacts of Iowa’s industry-dominated agricultural system. Appellee’s requested relief is necessary to preserve Iowa’s waterways for future generations.

Amici represent family farmers and land stewards who have an interest in protecting this State’s resources. The citizens of Iowa, many of whom are family farmers and rural residents, rely on clean water for their livelihoods and for the health of their families and communities. Large agricultural interests and corporate integrators are preventing the State from implementing measures that will protect the State’s waterways and Iowa’s natural resources for future generations. The

State cannot abdicate its duty to protect its water resources. Thus, Amici respectfully ask this court to deny the State of Iowa’s appeal.

## **Argument**

### **I. The State of Iowa Has Abdicated its Responsibility to Protect the State’s Water Resources.**

#### **A. The State of Iowa Has a Duty to Ensure Clean Water.**

The public trust doctrine was derived from the English common law doctrine that the British Crown held title to the bed or soil beneath tidal waters.<sup>1</sup> The doctrine stands for the proposition that the sovereign owns the waters and the beds below them in trust for the people. This principle predates English history. “As long ago as the Institutes of Justinian, running waters, like the air and sea, were *res communes*—things common to all and property of none.” *United States v. Gerlach Live Stock Co.*, 339 U.S. 725 (1950). This conception passed into the common law, *id.*, and ultimately into Iowa law, *State v. Sorensen*, 436 N.W.2d 358, 361 (Iowa 1989).

In Iowa, the public trust doctrine protects the public’s use of navigable waters. *Id.* (Iowa’s admission to the Union conditioned on preserving public use of navigable waters.). While the Iowa Cattleman’s Association Amici would have this

<sup>1</sup> Melissa Kwaterski Scanlan, Comment, *The Evolution of the Public Trust Doctrine and the Degradation of Trust Resources: Courts, Trustees and Political Power in Wisconsin*, 27 Ecology L. Q. 135, 140–41 (2000).

Court believe that the doctrine is rooted in navigation and should not apply to the myriad other public water uses, especially curbing the harmful impacts of industrial agriculture, this Court has described the public trust doctrine as creating rights in more than navigation. *See, e.g., State v. Pettijohn*, 899 N.W.2d 1, 35 (Iowa 2017) (“the ‘paramount’ right of Iowans to use state waterways for navigational and recreational purposes”) (citing *Witke v. State Conservation Commission*, 56 N.W.2d 582, 586 (Iowa 1953)). Thus, “the public possesses inviolable rights to certain natural resources,” *id.* (citing *Sorensen*, 436 N.W.2d at 361), and the State has a duty to protect those resources for all citizens and all uses.

**B. The State’s Water Resources Are Harmed by Industrial Agriculture.**

Industrial agricultural production—which is currently dependent on steady applications of synthetic nitrogen and phosphorus fertilizer or, in the case of AFOs, release nitrogen and phosphorous directly into the environment through manure applications—has taken a serious and devastating toll on the State’s waterways. (Petition at ¶ 17, App. at 10). As a result, the State of Iowa is experiencing a state-wide water crisis. Iowa has more than 750 impaired waterways, and these waterways are having a drastic effect on public health and recreational enjoyment of these resources.<sup>2</sup>

<sup>2</sup> Iowa Dep’t Natural Resources, Iowa’s Section 303(d) Impaired Waters Listings (2018), <https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Monitoring/Impaired-Waters>.

Iowa waterways are a source of drinking water, recreation, and food production. In 2015 the State of Iowa closed state beaches in record numbers because of the presence of toxic blue-green algae that makes the water unsafe.<sup>3</sup> Toxic blue-green algae, or cyanobacteria, blooms are created by high levels of nitrogen and phosphorus from agricultural operations. *Id.* Children, the elderly, and the infirm are especially vulnerable to the toxins created by blue-green algae.<sup>4</sup>

While a number of pollutants plague Iowa's water, nitrate is especially prevalent.<sup>5</sup> Nitrate pollution results from both the use of nitrogen-based fertilizers—nitrogen converts to nitrate in water—and AFOs across the state.<sup>6</sup> This pollution has been linked to certain cancers, some birth defects, and other diseases.

<sup>3</sup> Donelle Eller, *Toxic Algae Closing Iowa Beaches*, Des Moines Register, Aug. 14, 2015, <https://www.desmoinesregister.com/story/money/agriculture/2015/08/14/blue-green-algae-bloom/31737075/>.

<sup>4</sup> U.S. Environmental Protection Agency, *Frequently Asked Questions*, [https://www.epa.gov/sites/production/files/2016-11/documents/harmful\\_algal\\_blooms\\_and\\_cyanotoxins\\_frequently\\_asked\\_questions.pdf](https://www.epa.gov/sites/production/files/2016-11/documents/harmful_algal_blooms_and_cyanotoxins_frequently_asked_questions.pdf).

<sup>5</sup> Clay Masters, *Iowa's Nasty Water War*, Politico Magazine, Jan. 21, 2016, <https://www.politico.com/magazine/story/2016/01/iowas-nasty-water-war-21355>.

<sup>6</sup> Mark B. Weldon & Keri C. Hornbuckle, *Concentrated Animal Feeding Operations, Row Crops, and their Relationship to Nitrate in Eastern Iowa*, 40 *Env. Sci. Tech.* 3168 (2006).

*See Infra* Section III.B. According to a state report, nitrates exceeded federal limits in eleven of the state's public water supplies in 2015.<sup>7</sup> In 2018, the number was only slightly lower, at nine.<sup>8</sup> Nitrate pollution not only threatens the health of people who drink the water, it exponentially increases algae and bacteria in water, sucking the oxygen out of the water and suffocating the aquatic life therein.<sup>9</sup> The result is a diminished water resource for those living in the state of Iowa, and a dead zone in the Gulf of Mexico of unfathomable proportions.<sup>10</sup>

Approximately 220,000 to 290,000 people across the state of Iowa are on private wells, a significant number of which are contaminated with nitrates.<sup>11</sup> A University of Iowa study of 475 of these wells across the state found that forty-nine percent tested for nitrates, with twelve percent of those above the federal

<sup>7</sup> Iowa Dept. Natural Resources, Iowa Public Drinking Water Program Annual Compliance Report (2015), <http://publications.iowa.gov/22708/1/2015SAR.pdf>.

<sup>8</sup> Iowa Dept. Natural Resources, Iowa Public Drinking Water Program Annual Compliance Report (2018), <http://publications.iowa.gov/30432/1/SAR2018.pdf>.

<sup>9</sup> U.S. Environmental Protection Agency, Water Monitoring and Assessment: 5.7 Nitrates, <https://archive.epa.gov/water/archive/web/html/vms57.html>.

<sup>10</sup> Chris Jones, *Iowa is Hemorrhaging Nitrogen*, [https://www.iihr.uiowa.edu/cjones/iowa-is-hemorrhaging-nitrogen/?doing\\_wp\\_cron=1579375759.9787049293518066406250](https://www.iihr.uiowa.edu/cjones/iowa-is-hemorrhaging-nitrogen/?doing_wp_cron=1579375759.9787049293518066406250).

<sup>11</sup> Environmental Working Group and Iowa Environmental Council, *Iowa's Private Wells Contaminated by Nitrate and Bacteria* (Apr. 2019), [https://www.ewg.org/interactive-maps/2019\\_iowa\\_wells/](https://www.ewg.org/interactive-maps/2019_iowa_wells/).

safety standards.<sup>12</sup> Other studies have shown that between 2002 and 2017, unsafe levels of nitrate were found in thousands of wells across Iowa.<sup>13</sup> Farms are among the main source of the contamination, especially in rural areas of the state. State records show 800 manure spills from AFOs between 1996 and 2012.<sup>14</sup> The manure is high in nitrogen. *Id.* “Almost three-fourths of private wells polluted by these contaminants were in rural counties.”<sup>15</sup>

Nitrate is not the only threat to drinking water polluted by agricultural runoff. When it rains, the runoff from poorly protected farm fields carries phosphorous fertilizer and organic matter like manure, mud, and crop residues into streams. Phosphorous triggers blooms of algae, which multiply the amount of organic matter in the stream.<sup>16</sup>

<sup>12</sup> Center for Health Effects of Environmental Contamination, *Iowa Statewide Rural Well Water Survey Phase 2*, University of Iowa (Aug. 2009), <https://cheec.uiowa.edu/sites/cheec.uiowa.edu/files/field/research/SWRL2%20results.pdf>

<sup>13</sup> Environmental Working Group and Iowa Environmental Council, *supra* note 11.

<sup>14</sup> Brian Bienkowski, *As Hog Farms Grow in Size and Number, So Do Iowa Water Problems*, Environmental Health News (2017) <https://www.ehn.org/water-pollution-hog-farming-2504466831.html>.

<sup>15</sup> Environmental Working Group and Iowa Environmental Council, *supra* note 11.

<sup>16</sup> Soren Rundquist, *Case Study: Iowa Cities Struggle to Keep Farm Pollution Out of Tap Water*, Jan. 11, 2018, <https://www.ewg.org/research/case-study-iowa-cities-struggle-keep-farm-pollution-out-tap-water>.

Wells and other groundwater sources are fed by surface water. Water that infiltrates the earth's surface, like water runoff from farms, seeps downward into extensive layers of porous soil and rock called aquifers. "Nitrate from fertilizer and animal manure and bacteria from manure applied to farm fields seep through soil or run off poorly protected fields to contaminate drinking water."<sup>17</sup> Therefore, protection of the surface water, including mandatory restrictions on nutrient loads from agricultural operations, will have a direct and beneficial impact on the public.

**C. The State of Iowa Has Failed in Its Duty to Protect Water Resources.**

The State of Iowa has failed in its duty to protect the public trust water resources for the benefit of its citizens. At the heart of this litigation is the State's underfunded, exclusively voluntary approach to reducing nutrient loads in the State's surface waters. In 2013, the State of Iowa—specifically, the Department of Agriculture and Land Stewardship, the Department of Natural Resources, and Iowa State University, adopted the Iowa Nutrient Reduction Strategy (INRS) in an effort to reduce nitrogen and phosphorus loads. (Petition at ¶ 59, App. at 18-19). The Strategy calls for a forty-five percent reduction in both nitrogen and phosphorus through voluntary, incentive-based programs for agricultural nonpoint sources. *Id.* In 2018, the Iowa state legislature passed Senate File 512, making the INRS the State's official policy for agricultural nutrients. Iowa Code § 455B.177(3).

<sup>17</sup> Environmental Working Group and Iowa Environmental Council, *supra* note 11.

The INRS is a dismal failure, with no deadlines, no rules, no enforcement, and a lack of funding. The Iowa Environmental Council recently conducted an analysis of the voluntary implementation rates of conservation practices between 2013-2017, as reported in the two most recent Nutrient Reduction Strategy Annual Progress Reports.<sup>18</sup> The analysis reveals that participation in voluntary nutrient reduction practices is not nearly robust enough to address the scope of the problem.

*Id.* In fact, most practices have seen flat or significant declines in implementation rates. *Id.* Since 2013:

- The increase in the rate of cover crop implementation has slowed drastically. At the current rate of implementation, it will be 2110 by the time the state reaches the INRS goal of 12.6 million acres of cover crops.
- The rate of acres treated by wetlands was increasing prior to 2013 but dropped significantly and has slowed each year since INRS adoption. At the current rate of implementation, it will take 913 years to reach the NRS goal for acres treated by wetlands.
- Bioreactor construction has remained flat since 2011. At the current rate of implementation, it will take more than 30,000 years to treat the number of acres set forth as a goal by the INRS.

*Id.* It is simply unrealistic to pretend that underfunded, voluntary measures are enough for the state to obtain its goals in a reasonable timeframe. At the current

<sup>18</sup> Iowa Environmental Council, *The Slow Reality of the Nutrient Reduction Strategy*, 2019, <https://www.iaenvironment.org/webres/File/NRS%20Summary%20Report.pdf>

rate of implementation, it will take hundreds or thousands of years for the State to meet its goals. *Id.*

According to the Department of Natural Resources, nitrates may continue to leach because of legacy nitrogen stored in the soil and continued rates of fertilizer application.<sup>19</sup> One study of a row crop field that had been restored to prairie found that groundwater nitrate concentrations reduced at a snail's pace of approximately 0.6 mg/l per year.<sup>20</sup>

The large, corporate agricultural interests that joined the Iowa Cattleman's Association Amici brief, state that "experimentation is essential to improvement." Iowa Cattleman's Association Amici Brief 29. They suggest that costs and other variables impact the options and they beg flexibility to test newly emerging options. *Id.* Flexibility, however, is how the State got here in the first place. And while Amici and environmental groups agree that the nonpoint regulatory scheme

<sup>19</sup> Iowa Department of Natural Resources, *Report Highlights Progress and Long-Term Challenges of Iowa Stream Nutrient Monitoring* (Dec. 22, 2016), <https://www.iowadnr.gov/About-DNR/DNR-News-Releases/ArticleID/1104/Report-highlights-progress-and-long-term-challenges-of-Iowa-stream-nutrient-monitoring>.

<sup>20</sup> Keith E. Schilling & Peter J. Jacobson, *Groundwater Conditions Under a Reconstructed Prairie Chronosequence*, *Agriculture Ecosystems & Environment* 135(1-2):81-89 (2010), [https://www.researchgate.net/publication/229251980\\_Groundwater\\_conditions\\_under\\_a\\_reconstructed\\_prairie\\_chronosequence](https://www.researchgate.net/publication/229251980_Groundwater_conditions_under_a_reconstructed_prairie_chronosequence).

must be flexible and properly tailored, it cannot be optional.<sup>21</sup> Corporate agribusiness can provide no reasonable argument as to why such experimentation cannot co-exist with mandatory measures to reduce nutrient loads.

Adding insult to injury, the State has underfunded the agencies and positions that are critical to implementing the INRS and overseeing AFOs. Iowa's legislature is moving backwards in its efforts to fund the INRS: in 2017, for example, it forced a 1.2-million-dollar budget reduction on the state Department of Natural Resources. In response, the state Department of Natural Resource eliminated the Bureau of Forestry and eight other positions, including the AFO coordinator.<sup>22</sup> The agricultural industry continues to grow, but the state is not increasing its efforts to manage this growth or the resulting pollution.

It is the State's duty to protect the public's water resources. While the general assembly found and declared that it is in the "interest of the people of Iowa to assess and reduce nutrients in surface waters over time," the INRS allows for pollution to go unabated. As a result of the Legislature's failure to meaningfully

<sup>21</sup> Iowa Environmental Council, *supra* note 18 at 4.

<sup>22</sup> Brian Bienkowski, *supra* note 14.

act, the nutrient load leaving Iowa bound for the Gulf of Mexico is increasing, not going down.<sup>23</sup> The State's attempt to delegate this duty is failing.

## **II. Farmers Are Caught in an Unjust System That Is Directly or Indirectly Controlled by Large Agribusinesses.**

Much of this country's agricultural production is controlled by large agribusinesses, and Iowa's agricultural sector is no exception.<sup>24</sup> Agriculture in the United States suffers from abnormally high levels of concentration, meaning that just a handful of corporations control nearly all food production, processing, and distribution.<sup>25</sup> While most sectors of the U.S. economy have concentration ratios around forty percent, every sector in agriculture is well above these levels. *Id.* Economists believe this threatens competition, creates market abuses, and harms "ecology, rural communities, and their environment."<sup>26</sup>

<sup>23</sup> Christopher S. Jones, et al., *Iowa Stream Nitrate and the Gulf of Mexico*, Plos One (Apr. 12, 2018), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0195930>.

<sup>24</sup> Since 1970, Iowa has lost 40 percent of its farms. United States Department of Agriculture, National Agriculture Statistics Service (NASS), <https://www.nass.usda.gov>.

<sup>25</sup> Hendrickson, M. & Heffernan, W.D., *Concentration of Agricultural Markets. Columbia, MO, Department of Rural Sociology*, University of Missouri (April 2007), <http://www.foodcircles.missouri.edu/07contable.pdf>.

<sup>26</sup> Mary K. Hendrickson, et al., *Power, Food, and Agriculture: Implications for Farmers, Consumers, and Communities* (Nov. 2017), [https://www.researchgate.net/publication/320837077\\_Power\\_Food\\_and\\_Agriculture\\_Implications\\_for\\_Farmers\\_Consumers\\_and\\_Communities](https://www.researchgate.net/publication/320837077_Power_Food_and_Agriculture_Implications_for_Farmers_Consumers_and_Communities).

Concentration is particularly high in corn and soybean production, as well as animal production. The top four companies share eighty percent of all corn production, seventy percent of soybean production, and sixty-six percent of hog production.<sup>27</sup> Concentration creates razor-thin profit margins forcing farmers to grow bigger, produce more, or stop farming all together.<sup>28</sup> This unchecked power distorts markets and leaves family farmers vulnerable to abuse and unfair practices.

The livestock sector also suffers from vertical integration, where contract livestock production has replaced independent, family farms. This results in contracts between contract growers (former farmers) and vertically integrated companies that control everything from the breeding stock to the finished product.

An integrator is a company that “owns all downstream physical assets (such as a packing-processing facility) plus inputs for upstream production, including feed, medicine, and breeding stock.”<sup>29</sup> The grower is responsible for growing an animal to the integrator’s specifications. *Id.* Contract growers must find financing

<sup>27</sup> Hendrickson, M. & Heffernan, W.D., *supra* note 25; *see also* Pew, *How Corporate Control Squeezes Out Small Farms* (July 18, 2012), <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2012/07/18/how-corporate-control-squeezes-out-small-farms>.

<sup>28</sup> Mary K. Hendrickson, et al., *supra* note 26.

<sup>29</sup> Jeffrey J. Reimer, Vertical Integration in the Pork Industry, *Amer. J. Agric. Econ.* 88(1) 240 (Feb. 2006).

to build and update production facilities to a particular integrator's specification.<sup>30</sup> This can leave a farmer in significant debt and highly dependent on their integrators.

In 2018, the Small Business Administration's (SBA) Office of Inspector General concluded that integrators have comprehensive control over growers. The Inspector General reviewed the SBA's "7(a) Loans" to poultry farmers guaranteeing billions of dollars in loans for independent businesses.<sup>31</sup> SBA's Inspector General found poultry companies "exercised ... comprehensive control over the growers ... through a series of contractual restrictions, management agreements, oversight inspections, and market controls." *Id.* Therefore, poultry growers had essentially no ability to "operate their business independent of integrator mandates." *Id.* Accordingly, poultry growers did not meet SBA's loan eligibility requirements because they were not independent operators, driving these growers into further debt.

<sup>30</sup> R. Brent Ross and Peter J. Narry, Contract Hog Production: A Case Study of Financial Arrangements, *J. of ASFMRA* 17-22 (2005).

<sup>31</sup> See U.S. Small Bus. Admin. Off. of Inspector General, Evaluation Report: Evaluation of SBA 7(a) Loans Made to Poultry Farmers, Report No. 18-13 (Mar. 6, 2018), <https://www.sba.gov/sites/default/files/oig/SBA-OIG-Report-18-13.pdf>; Smithfield Foods, 2013 Integrated Report 17 (2013), [http://admin.csrwire.com/system/report\\_pdfs/1332/original/smithfield-integratedreport2013\\_11\\_.pdf](http://admin.csrwire.com/system/report_pdfs/1332/original/smithfield-integratedreport2013_11_.pdf).

Agricultural concentration and the corporate control over individual farms have intensified the impacts of the agricultural sector to Iowa's waterways. Integrators dictate the growers' practices. They are not invested in the community or the land. Large corporate interests are not invested in a sustainable farming future. This is why the voluntary, underfunded approach to the INRS will not work.

The overall implementation rates of the INRS show that many if not operators have chosen not to participate. The voluntary, or optional, approach allows corporate agribusiness to choose whether or not to comply based on whether or not it suits their bottom line. *See Iowa Cattleman's Association Amici Brief 30.* The Iowa Cattleman's Amici claim that mandatory controls will disparately impact some Iowa farmers by increasing expenses and decreasing production, pushing farmers out of business. Yet consolidation, not regulation, has been shown to push farmers out of business. "The agriculture industry has consolidated to the point where family farmers, independent producers, and other smaller market participants do not have equal access to fair and competitive markets."<sup>32</sup> Now that the vast majority of farming in Iowa is in the hands of corporate agribusiness and not family farmers, these businesses are using the plight

<sup>32</sup> Pew, *supra* note 27.

of small farmers as a shield to avoid regulations that would protect Iowans' water resources. *See* Iowa Cattleman's Association Amici Brief 30.

“Requiring basic standards of care to reduce nutrient pollution would level the playing field among agricultural producers.”<sup>33</sup> Basic standards of care encompass diverse practices that all Iowa farmers can implement. For example, grassed waterways, saturated buffers on tilled land, no-till farming practices, and cover crops will significantly increase protections for the Racoon River watershed. *Id.* “Currently, landowners who wish to do the right thing and properly manage their nitrogen and phosphorus are at a complete disadvantage to those that prioritize production over pollution and literally send their costs of pollution downstream.” *Id.*

All agribusiness in the state should be required to shoulder the cost of nutrient reduction. “A system of requirements and incentives for all producers would more equally distribute the costs and benefits of pollution control.” *Id.* Mandatory implementation of nutrient reduction strategies should be coupled with incentive programs to assist farmers with meeting these requirements, so that no Iowa farmer is disparately impacted by conservation. If the State mandates and

<sup>33</sup> Iowa Environmental Council, *supra* note 16.

fully funds clean water efforts, the disparity between farmers would not exist, and all farmers would be required to meet a minimum standard of care for the land.

### **III. Farmers and Rural Residents Rely on Clean Water for Their Livelihoods and for the Health of Their Families and Communities.**

A clean and abundant water supply is critical to farmers' land stewardship efforts and essential to the continued viability of Iowa's family farms. Many Iowa farmers practice good stewardship of their land. They use their own money to build wetlands and ponds in order to create habitat and sequester rainwater. They plant buffers along streams to prevent runoff from contaminating waterways. These farmers see land as more than a commodity; they understand that clean water is necessary for their livelihoods. Responsible farmers use their knowledge and their skill to prevent harm to the waterways in order to preserve these resources for future generations and protect the health of their communities.

#### **A. Clean Water is Necessary for Farmers' Livelihoods.**

Water is critical to sustaining life and for improving rural livelihoods. The farmers who live and work in rural communities know that the proper conservation of water is critical to their business, their families, and their communities. If a farmer allows nitrogen and phosphorous runoff to harm his neighbors' water, then that hurts his neighbors' livelihood as well. But it goes beyond that. Properly managed crops act as filters to keep manure and nutrients from reaching surface water sources like the Racoon River. It is axiomatic to farmers that too much

nitrogen and phosphorus can cause surface waters to become overloaded with nutrients.

One Iowa farmer told the U.S. Environmental Protection Agency that “the water from my land flows into the Racoon River that flows into the Des Moines River that makes [its] way to the Mississippi River.”<sup>34</sup> To him, it was clear that “what we do in the relative isolation of rural Rippey (population 290) impacts the lives of surrounding communities, including the Des Moines area (population 570,000) and beyond.” *Id.* This farmer is not being noble. He knows that bad water management will impact his livelihood and provide an uncertain future for his business:

For more than 20 years, we’ve been no-till farmers. We don’t dig up and turn over the topsoil with plows. We leave vegetable matter and the remnants of corn and soybean plants in the field after harvesting. That helps stabilize our soils, slows down any runoff and lessens the need for adding manufactured fertilizers that can make trouble for others farther downstream.

We also use cover crops, leave buffers for streams and wetlands and test our soil so that we don’t use more nitrogen than we need. We are buying less fertilizer than ever before. In many cases, we have been able to cut our application from 240 pounds of nitrogen per acre to about 150 pounds while still producing 200 bushels of corn an acre. Of course, sometimes droughts and bad weather trump everything we do on the ground. But overall, these methods applied across 1,800 acres give us substantial monetary savings.

<sup>34</sup> U.S. Environmental Protection Agency, *Farmer Story: Clean Water is Key to My Family’s Farming Future*, <https://www.epa.gov/nutrientpollution/farmer-story-clean-water-key-my-familys-farming-future>.

When decaying vegetation naturally fertilizes the soil, it means we make fewer trips to the fields to add nitrogen, and no-till farming eliminates hundreds of hours of plowing. That cuts our fuel consumption in half and allows more time to attend to other parts of the business.

Farming has some deeply entrenched traditions, and no-till farming can be a tough sell to those who haven't witnessed the results. But when our fields hold out longer than others in the area during a drought, folks start to notice.

Clean water, less manufactured fertilizer, and better profits all tend to be persuasive. And it's good to know that I can work to ensure my grandchildren's future by following my own family's tradition instilled by my dad.

*Id.*

Amici's members and supporters agree. Clean water will only benefit Iowa farmers in the long run, which is why they support mandatory nutrient management strategies in Iowa that include adequately funded incentives.

#### **B. Clean Water is Necessary to Protect Public Health.**

Amici are also keenly aware that clean water is necessary to protect public health and the communities in which they live and serve. The over-application of manure and nutrients to cropland can increase the risk that these nutrients' flow to the surface water, eventually impacting public health.<sup>35</sup> Research from Iowa and around the world has associated a number of human health problems, including

<sup>35</sup> USDA Economic Research Service, Manure Management, <https://www.ers.usda.gov/topics/farm-practices-management/crop-livestock-practices/manure-management/>.

birth defects and cancers, with elevated levels of nitrate in drinking water.<sup>36</sup> As stated above, many residents rely on private wells that are often go untested. These people may be at a greater risk of nitrate and other pollutants.

Food safety is also another significant concern—foodborne illness is a significant public health crisis and a largely preventable one.<sup>37</sup> CDC estimates that each year, one in six Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases.<sup>38</sup> Manure is partially to blame. Manure works its way into streams, which are used to irrigate crops. If the manure contains pathogens, then these pathogens are circulated through the environment creating risks for the consumer.

Increasing the number of AFOs in Iowa, or expanding the capacity of already existing facilities, will exacerbate this problem. Iowa’s livestock industry already produces close to 380 billion pounds of manure annually. This extreme

<sup>36</sup> Mary H. Ward, *Too Much of a Good thing? Nitrate from Nitrogen Fertilizers and Cancer: President’s Cancer Panel*, 24 *Reviews of Environmental Health*, 357 (Oct. 21, 2008), <http://www.ncbi.nlm.nih.gov/pubmed/20384045>; Peter Weyer, *Source Water Quality in Iowa: Drinking Water and Health. Presentation at Iowa’s Drinking Water: Could Flint Happen Here?* (June 17, 2016).

<sup>37</sup> U.S. Food & Drug Admin., FDA Food Safety Modernization Act (FSMA), <https://www.fda.gov/food/guidanceregulation/fsma/> (last updated Sept. 17, 2018).

<sup>38</sup> Ctrs. For Disease Control & Prevention, *Estimates of Foodborne Illness in the United States*, <https://www.cdc.gov/foodborneburden/index.html>.

volume of manure is not used beneficially to raise crops—instead, it is disposed of on fields where it continues to pollute nearby air and waterways.

Without mandatory nutrient management strategies, Iowa’s communities and farmers will continue to be at risk. Water quality regulation has not been carefully or thoughtfully crafted by the legislative and executive branches to protect Iowa water quality and the health and welfare of Iowa communities. As the evidence plainly shows, it will take centuries for the optional nutrient management strategies to repair the State’s waterways. The public trust resource that is Iowa’s waterways is suffering. Iowa farmers and communities can only benefit from Appellee’s requested relief.

### **Conclusion**

The State of Iowa has failed to preserve and protect Iowa’s navigable waters. The district court rightly identified justiciable questions under the Iowa Constitution and at common law. These questions must be reviewed by the Court to protect Iowa’s citizens’ procedural due process rights and preserve the public trust resource for current and future generations of farmers and communities in Iowa. Without review, these Iowa citizens will continue to suffer needlessly at the hands of corporate interests with little or no investment in the preservation of Iowa’s natural resources.

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## Certificate of Compliance

This brief complies with the typeface requirements and word-volume limitation of Iowa Rs. App. P. 6.06(4) and Iowa Rs. App. 9.903(1)(d) and 6.903(1)(g).

Specifically, this brief uses a proportionally spaced typeface in Times New Roman font of 14-point size. This brief contains 5003 words, excluding the parts of the brief exempted in Iowa R. App. P. 6.903(1)(g)(1).

Executed on January 31, 2020, at Waterloo, Iowa.

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## Certificate of Service

I hereby certify that on January 31, 2020, I electronically filed this document with the Supreme Court Clerk using the EDMS System, which will serve it on the appropriate parties electronically.

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