

Transitioning Indiana to an Equitable, Sustainable Food System

A Citizen Guide to Advocating for Farm Policies
that Protect the Environment and Health
of Rural Communities and Support Farmers
and Consumers, Not Giant Agribusinesses



A project by the Hoosier Environmental Council



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Transitioning Indiana to an Equitable, Sustainable Food System:

A Citizen Guide to Advocating for Farm Policies that Protect
the Environment and Health of Rural Communities and Support Farmers and
Consumers, Not Giant Agribusinesses

The goal of the Hoosier Environmental Council's *Equitable, Sustainable Food System* project is to grow the movement of informed and engaged citizens demanding common-sense reform of federal, state, and local laws that have allowed the meat industry's polluting factory farms to proliferate at the expense of our rural communities, independent farmers, and food safety. This Citizens' Guide was developed as part of this project to arm citizens with the information they need to be effective advocates for laws that: (1) protect the environment and human health from factory farm pollution; (2) restore property rights of rural citizens; (3) foster economic development opportunities around local and sustainably sourced food; and (4) provide a level playing-field for independent, family farmers who are environmental stewards and humanely care for their animals.

In addition to providing the most up-to-date information about the known, adverse effects of factory farming, this Guide details the current gaps in federal, state, and local laws that fail to hold the meat industry accountable. Specifically, the reader will understand how current laws allow irresponsible siting of factory farms, fail to limit their noxious and dangerous air pollution, strip impacted citizens of their property rights and ability to seek a remedy in court, and shield factory farms with special legal immunity. This Guide concludes with specific actions that citizens can take to effectively advocate for sensible farm laws and make informed food choices to help Indiana move away from an industrialized, monopolistic, and polluting food system to a sustainable, equitable, and humane one.

We hope you find the information helpful.

The HEC Team

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WHAT IS A FACTORY FARM?



Traditional farms are increasingly becoming obsolete, giving way to factory farms where livestock animals are raised in confinement at high stocking densities to produce the highest output at the lowest cost. Depending on their size, factory farms may also be called animal feeding operations (AFOs), confined feeding operations (CFOs), or concentrated animal feeding operations (CAFOs) for regulatory purposes. These terms are defined as follows:

I. Animal Feeding Operation (AFO)

Under federal and state law, **an AFO** is a facility that raises animals in confinement for 45 days or more during a 12-month period, and does not grow crops or other vegetation

during the normal growing season on more than 50% of the facility. The 45 days of animal confinement do not have to be consecutive, and the 12-month period need not correspond to the calendar year.¹ In addition, the existence of crop growth is evaluated during the season when the animals are confined. For example, a winter feedlot that grows crops only during the summer months when animals aren't confined, would still be considered an AFO because crops are not present when animals are in confinement. The number of animals is irrelevant to the question of whether a facility is an AFO and, **with few exceptions, AFOs are not subject to environmental regulations.**

II. Confined Feeding Operation (CFO)

In Indiana, a **CFO** is as an AFO that confines at least 300 cattle, 600 swine or sheep, 30,000 poultry, or 500 horses. **An AFO that is found to be violating water pollution control laws may be regulated as a CFO.**²

III. Concentrated Animal Feeding Operation (CAFO)

CAFOs are CFOs that confine a greater number of animals including at least: 700 mature dairy cows; 1,000 veal calves; 1,000 cattle other than mature dairy cows or veal calves; 2,500 swine when each weigh 55 pounds or more; 10,000 swine when each weigh less than 55 pounds; 500 horses; 10,000 sheep / lambs; 55,000 turkeys; 30,000 laying hens or broilers if the AFO uses a liquid manure handling system;³ 125,000 chickens (other than laying hens), if the AFO uses something besides a liquid manure handling system; 82,000 laying hens if the AFO uses something besides a liquid manure handling system; 5,000 ducks if the AFO uses a liquid manure handling system; OR 30,000 ducks if the AFO uses something besides a liquid manure handling system.⁴ As will be discussed, **CAFOs that are found to be discharging pollution to waterways may be regulated under the Clean Water Act (CWA).**

For purposes of this citizen guide the term **“factory farm”** is used to describe CFOs and CAFOs.

¹ 327 IAC 19-2-3.

² 327 IAC 19-2-7.

³ A liquid manure handling system used for laying hens typically involves a slotted barn floor and a gutter or a concrete storage pit below. Manure falls through the slotted floor into the gutter or pit and is then periodically pumped from these pits / gutters into to a larger outside storage “lagoon.”

⁴ 40 CFO 122.23.

Table 1: Minimum Number of Confined Animals to be Regulated as a CFO or CAFO

Livestock	CFO	CAFO
Mature dairy cows	300—699	700+
Calves	300—999	1,000+
All other cattle (heifers, steers)	300—999	1,000+
Swine (55 pounds or more)	600—2,499	2,500+
Swine (less than 55 pounds)	600—9,999	10,000+
Laying hens or broilers ⁵ with liquid manure system	30,000	30,000+
Laying hens without liquid manure system	30,000—81,999	82,000+
All other chickens without liquid manure system	30,000—124,999	125,000+

IV. Consolidation of the Meat Industry and the Rise of Factory Farms

Factory farms are vastly different than traditional livestock farms, which are typically small, independent operations that raise animals fed with crops grown onsite, and sold at local livestock markets.⁶ Conversely, factory farms are highly industrialized operations that rely on technology, antibiotics, and imported feed to confine thousands of animals in large, specialized facilities with the purpose of maximizing profit, speed, production, and market share for corporate conglomerates.⁷ Factory farms are able to cut costs by taking advantage of economies of scale and externalizing the true cost of industrial animal production onto the communities in which they operate. This corporate-driven industrial model of production has also undermined the economic viability of independent farmers who are unable to compete. Consequently, there are now roughly 25,000 factory farms that produce the vast majority (7.1 billion) of the 9.8 billion farm animals raised and slaughtered each year in the United States for food. Moreover, while the U.S. has lost nearly 300,000 of its small-scale family farms since 1997, we are producing nearly 2 billion more farm animals each year due to the meat industry's consolidation and expansion of factory farms. And this trend in factory farm proliferation is continuing at an alarming rate. Data from the most recent Agricultural Census shows that today there are 190 million more animals confined on factory farms than there was in 2012—a 14% increase in less than a decade. For instance, nearly 94% of all hogs sold in the U.S. are now produced on operations with more than 5,000 hogs, up from 87% in 2007, and 65% in 1997.⁸ Indiana is no exception. As presented in detail below, approximately 91% of all hogs sold in Indiana are now produced on factory farms with over 5,000 hogs, up from 79% in 2007, and 45% in 1997.

⁵ Chickens farmed for eggs are called laying hens or layers. Chickens farmed for meat are known as broilers.

⁶ William McBride & Nigel Key, Econ. Res. Serv., USDA, ERR-158, *U.S. Hog Production from 1992 to 2009: Technology, Restructuring, & Productivity Growth* 5 (2013).

⁷ *Id.* at 5, 17-21.

⁸ USDA, Census of Agriculture data from 1997 to the present.

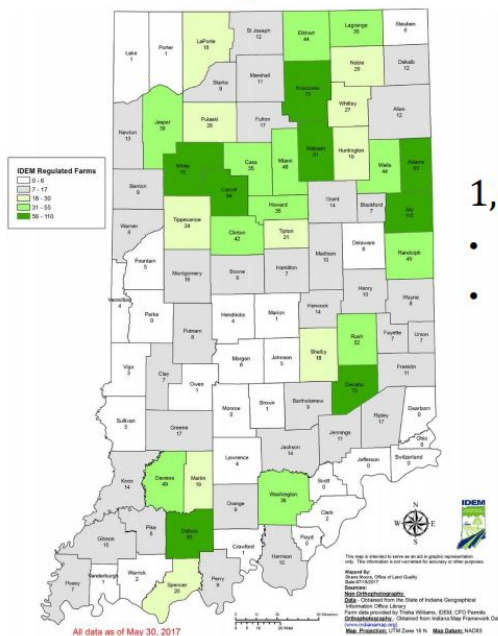
INDIANA'S FACTORY FARMS



Indiana's livestock inventory includes approximately 844,000 cows and calves, more than 4 million hogs and pigs, and roughly 40 million poultry birds.⁹ The vast majority of these animals are warehoused at Indiana's 1,800 or so factory farms.¹⁰ Indeed, Indiana ranks 2nd nationally for egg production with 26.4 million laying hens, 90% of which (24 million) are confined in just 25 factory farms. Indiana also leads the country in hog production, ranking sixth nationally with 11.3 million hogs sold annually, 91% of which (10.3 million) come from just 516 hog factories.¹¹

As indicated in the map below,¹² most of Indiana's factory farms are concentrated in the north-central region of the state with the highest concentrations in Carroll, Davies, Decatur, Dubois, Jay, Kosciusko, Wabash and White counties. Delaware County, with 8 factory farms (as compared to Carroll or Jay counties with 100+) still has an opportunity to protect its natural resources and citizens from the proliferation of factory farms.

IDEM Regulated Farms Per County



1,815 Total Farms:

- 1,019 CFO Sized Farms
- 796 CAFO Sized Farms

⁹ USDA, 2017 Census of Agriculture- Indiana State Data.

¹⁰ Indiana Department of Environmental Management, *2020 Annual Reports to the General Assembly* at 5 (reporting CFO/CAFO numbers as of June 30, 2020).

¹¹ USDA, 2017 Census of Agriculture- Indiana State Data.

¹² More recent numbers are available at IndianaMap Open Data Hub, which provides a searchable database of Indiana's permitted Confined Feeding Operations at https://gis-indianamap.opendata.arcgis.com/datasets/a87f87ba21134a5f834c4a8f45868789_0/data?geometry=-86.704%2C40.044%2C-84.090%2C40.411&page=2

ENVIRONMENT, HEALTH, AND COMMUNITY IMPACTS

I. Threats to Water Quality



Based on government data, we know that the leading source of water contamination in Indiana is *E. coli*, which indicates that animal waste is present in our water bodies.¹³ The presence of *E. coli* is due, in part, to releases of human waste from combined sewer overflows (CSOs), sanitary sewer overflows (SSOs) and failed septic systems, but most of the contamination is from the state's factory farms.¹⁴ This makes sense given that Indiana's livestock generate as much untreated urine and feces as that produced by 87 million people or 14 times the human population of Indiana.

It is well known that animal waste contains high levels of phosphorus and nitrogen as well as pathogens like *E. coli* and parasites, which is why human waste is treated. However, under current regulation, livestock waste does not have to be treated, is minimally controlled, and rarely monitored causing it to contaminate the water bodies it enters, which can happen in a variety of ways. When too much animal waste is applied to land, it can wash away with rain or melting snow and run off into a nearby waterway. Also, the massive amount of waste generated at a factory farm is typically stored in massive pits or "lagoons." When these structures leak, leach or overflow, the untreated animal waste can wash into nearby waterways or leach directly into the ground water.¹⁵ This is especially dangerous given that many rural Hoosiers rely on groundwater in untreated private wells for their primary source of drinking water. In addition, some drinking water utilities rely on surface water intakes or reservoirs to supply urban and suburban drinking water, so the risk is not limited to rural residents.

And this risk of contamination is not theoretical either. In 2009 a massive spill of 4.5 million gallons of untreated animal waste from a large hog CAFO contaminated the Mississinewa River and resulted in widespread fish kills and hundreds of thousands of dollars in clean up fees.¹⁶ Another example, in 2010, a hog producer in Randolph County land applied more than 232,000 gallons of untreated animal waste to a farm field adjacent to Beaver Creek. The field was never planted and after heavy rains, the manure was swept into Beaver Creek and finally to the Mississinewa River. This spill resulted in another fish kill of over 100,000 fish.¹⁷ In June of 2016, 30,000 gallons of dairy waste was dumped into the Little Flatrock River killing fish for 10 miles from Milroy to Greensburg forcing the Greensburg drinking water utility to close their surface water intake.¹⁸ And more recently in October of 2018, more than 3,100 fish were killed in the Salamonie River due to land application of hog waste on a field in Portland, Indiana.¹⁹

The effects of water contamination from animal waste are serious. When phosphorus in manure enters a water body in high-enough concentrations, it is known to cause eutrophication and toxic blue-green algae blooms, which kill fish and other aquatic life, and can be harmful to human health. In fact, the Indiana State Department of Health (ISDH)

¹³ IDEM, 2020 Indiana Integrated Water Monitoring and Assessment Report, Appendix A, Table 10 (indicating that *E. coli* continues to be the top cause of stream impairments in Indiana, effecting the recreational use of 24,001 miles of streams).

¹⁴ *Id.* at Table 11.

¹⁵ See e.g., Paul Ebner, *CAFOs and Public Health: Pathogens and Manure*, Purdue University Extension ID-356 at <https://www.extension.purdue.edu/extmedia/id/cafo/id-356.pdf>.

¹⁶ Seth Slabaugh, *Millions of Gallons of Hog Manure Spilled: State Officials Believe the Discharge Might Have Been Deliberate*, Muncie Star Press (May 12, 2009).

¹⁷ Seth Slabaugh, *200,000 Gallons of Manure Sprayed Before Randolph County Fish Kill*, Muncie Star-Press (September 13, 2010)

¹⁸ Greensburg Daily News, *IDEM: Fish Kill in Little Flatrock River Caused by Manure* (June 28, 2016).

¹⁹ Associated Press, *Indiana Cites 3 Hog Farms for Spills, Runoff, 2 Fish Kills* (Mar. 15, 2019).

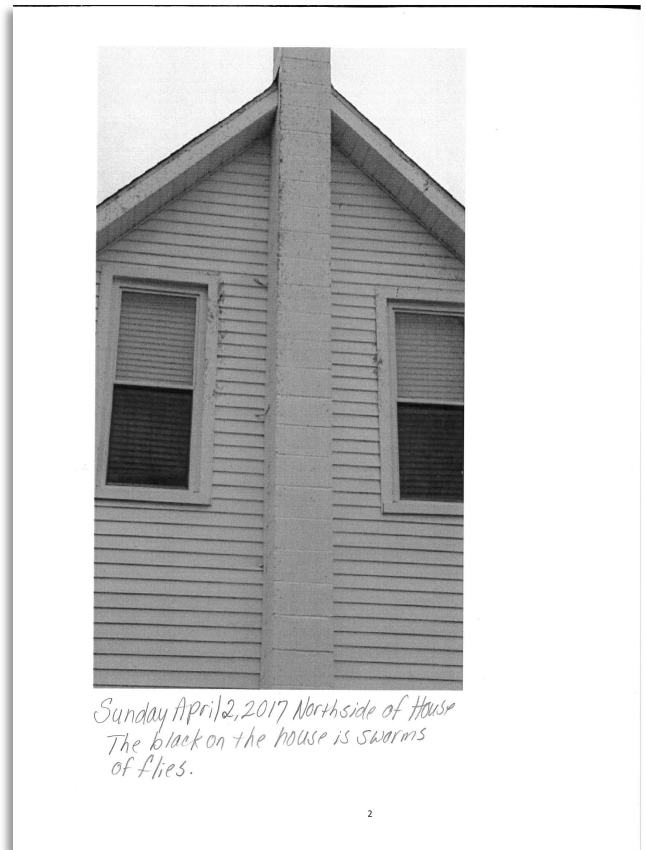
closes numerous beaches each summer due to high concentrations of blue-green algae, and generally cautions Hoosiers recreating on any of Indiana's lakes or reservoirs to avoid contact with visible algae or swallowing water while swimming.²⁰ This is because exposure to blue-green algae can lead to rashes, skin and eye irritation, nausea, stomachaches, and numbness in fingers and toes, and can also be very dangerous for pets.

Other health risks associated with animal waste-contaminated waters are equally serious. The numerous pathogens and parasites, such as fecal coliform (*E.coli*) and other forms of coliform bacteria found in manure are easily communicable to human populations. When these pathogens contaminate drinking water they can cause gastrointestinal illnesses, kidney damage or failure, and in extreme cases, death.²¹ Currently, 98% of impairments to Indiana's assessed stream miles is due to unsafe concentrations of pathogens.²² Some of those impaired streams are in Delaware County including segments of Mud Creek, Campbell Creek, Bosman Ditch, Rees Ditch, Studebaker Ditch, Packard Run, Hayden Ditch, Love Ditch, Holdren Ditch, Dodge Creek, No Name Creek, Bell Creek, Williams Creek, Buck Creek, York Prairie Creek, Gibson Ditch, Small Branch, and several segments of the Mississinewa River.²³

II. Quality of Life Concerns

We often hear from Hoosiers who live near factory farms that their traditional, rural way of life has been dramatically disrupted by the stench of thousands of animals. Some families who rely on well water for drinking water report that it smells like manure and is undrinkable. Several have reported that nearby streams often have a "murky" or "frothy" look and smell like animal waste. Some residents report that their homes are infested with flies and permeated by the horrific smell of rotting, dead animals. And, since factory farms render nearby homes substantially less valuable, families are effectively forced to live with these unbearable conditions.

An unfortunate example is the plight of Nancy Banta who lives in Hawcreek Township where most of Bartholomew County's CAFOs are located. One is a CAFO with 4,400 hogs that was built in 2014 within a half mile and upwind of Nancy's home. Since then she reports experiencing "instant headache, closure of the sinuses, taking away of the breath," on exposure to the CAFO's noxious emissions and smells.²⁴ Nancy also shared with us that her doctor visits have doubled since the CAFO became operational due to respiratory illness. And, as this photo of her home shows, it is now infested with flies.



²⁰ See ISDH's webpage on Blue-Green Algae at <http://www.in.gov/boah/2617.htm>; See also IDEM's webpage on Blue-Green Algae for the latest sampling and listing of recreational advisories and beach closures at <https://www.in.gov/idem/algae/2310.htm>.

²¹ See e.g., Bukholder, Libra, et. al., *Impacts of Waste from Concentrated Animal Feeding Operations on Water Quality*, Environ. Health Perspect. 115(2): 308-312 (Feb. 2007).

²² IDEM, 2020 Indiana Integrated Water Monitoring and Assessment Report, Appendix A, Tables 9 and 10.

²³ IDEM 303(d) Impaired Waters List (2020) available at <https://www.in.gov/idem/nps/2639.htm>.

²⁴ Mark Webber, *Hartsville hog farmer gets state approval to house 8,800 pigs*, The Republic (Apr. 12, 2017) (quoting Nancy Banta and describing the permitting and zoning history of the nearby Gelfius CAFO).

III. Air Quality and Human Health

The health threats from factory farms are largely due to the tremendous amount of “manure” they generate which, by regulatory definition can include: not only “liquid or solid animal excreta” but also livestock production wastes such as “excess drinking water, clean up water, contaminated livestock truck or trailer wash-water, milking parlor wastewater, egg wash-water, and silage leachate,” among other constituents.²⁵

Because these wastes are collected and stored in massive pits and lagoons that lack oxygen (known as anaerobic lagoons), the waste decomposes and putrefies quickly releasing dangerous gases including hydrogen sulfide, ammonia, particulate matter, endotoxin²⁶ and other harmful emissions.²⁷ For example, a Purdue University study of air emissions at a dairy CAFO in Indiana found ammonia emissions released at a rate of between 18 and 75 grams per day per cow.²⁸ In other words, an average-sized dairy CAFO with 1,400 cows will emit as much as 200 pounds of ammonia into the air every day. And, these gases are disbursed into the surrounding area where people live in a number of ways: (1) factory farms with waste pits underneath the confinement buildings typically have large ventilation fans that pull the gases out of the buildings and blow them into the outside air to protect the animals’ health; (2) factory farms with open air, football-field-size “lagoons” allow perpetual off-gassing to occur; (3) when the collected waste slurry is sprayed onto fields emissions are directly released; and (4) feedlots and confinement barns that are open-sided allow gases to escape.



The resulting stench from these gasses can be unbearable, but even more concerning are the serious health effects they can create. For instance, one of the most dangerous gasses produced, hydrogen sulfide, can be harmful even at low levels. It is a potent neurotoxin that can cause damage to the brain and nervous system. People exposed to concentrations of even 0.1-1 parts per million (ppm), display neurobehavioral dysfunction, including abnormal balance and delays in verbal recall. Its effects are irreversible and can also include skin rashes, seizures, comas, and even death.²⁹ Like hydrogen sulfide, ammonia is a noxious gas that poses serious health risks. Ammonia has an acrid, repellant odor at levels above 0.7 ppm. It causes eye irritation beginning at 4 ppm and irritation of the nose and throat above 25 ppm. Ammonia can also trigger asthma attacks in some asthmatics,³⁰ which is particularly concerning for children. A recent study confirmed that children with asthma had decreased measured lung function with increasing

²⁵ See Indiana’s CFO rule definition of “manure” at 327 IAC 19-2-25.

²⁶ Endotoxin is a component of Gram-negative bacteria that can stimulate inflammatory responses. When it is inhaled, it causes throat irritation and narrowing of the airways. See Heederik, D., et. al., *Health effects of airborne exposures from concentrated animal feeding operations*, *Environ. Health Perspect.* 115:298-302 (2007); see also S. Gibbs, et. al., *Isolation of Antibiotic-Resistant Bacteria From the Air Plume Downwind of a Swine Confined or Concentrated Animal Feeding Operation*, *Environ. Health Perspect.* 114:1032-1037 (2006).

²⁷ Claudia Copeland, *Air Quality Issues and Animal Agriculture: A Primer*, U.S. Congressional Research Service, RL32948 (Dec. 22, 2014); C. Hribar, *Understanding Concentrated Animal Feeding Operations and Their Impact on Communities* (2010); Iowa State University and University of Iowa College Study Group, *Concentrated Animal Feeding Operations Air Quality Study* (2002).

²⁸ Purdue University, *National Air Emissions Monitoring Study: Emissions Data From Two Free Stall Barns and a Milking Center at a Dairy Farm in Indiana-Site IN5B*, Final Report (2010).

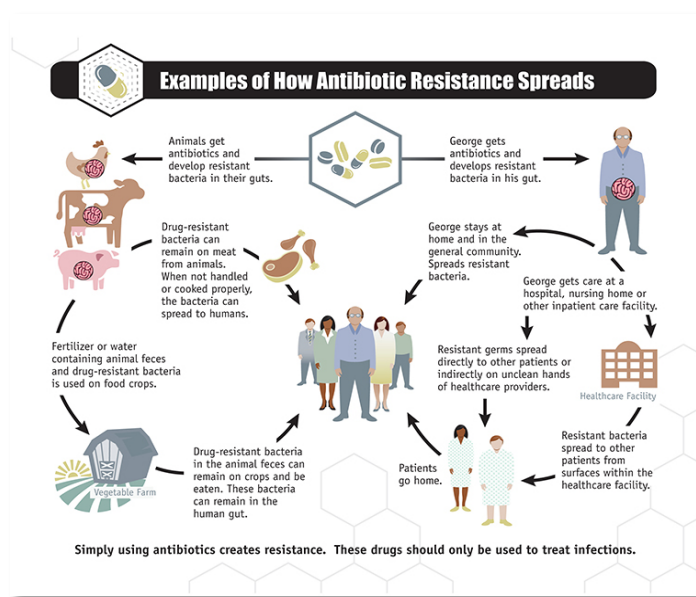
²⁹ Agency for Toxic Substance and Disease Registry, *ToxFaq: Hydrogen Sulfide* (2014); National Ag Safety Database, *Manure Gas Dangers Fact Sheet* (2002); KH Kilburn, *Evaluating Health Effects from Exposures to Hydrogen Sulfide: Central Nervous System Dysfunction*, *Environmental Epidemiology and Toxicology* (1999).

³⁰ Agency for Toxic Substance and Disease Registry, *ToxFaq: Ammonia*, (2014).

ammonia levels in the air.³¹ Consistent with that finding, an earlier 2006 study found that children who attended a school located 1/2 mile from a CAFO showed a prevalence of physician-diagnosed asthma in 19.7% of cases whereas only 7.3% of children exhibited asthma symptoms from the control school more than 10 miles away.³²

Other adverse human health effects from factory farm emissions are well documented. In addition to nausea, headache and vomiting, more than 30% of CAFO workers report serious respiratory problems.³³ One study found that Iowans living within a two-mile radius of a 4,000-hog CAFO reported more respiratory and other symptoms than a control group of Iowans not living near a CAFO.³⁴ Another study showed that people living near North Carolina hog CAFOs reported more confusion, tension, depression, and fatigue than did those not living nearby.³⁵ Due to these significant health threats, **the American Public Health Association recently enacted a new policy statement advising federal, state and local governments and public health agencies to impose a moratorium on all new and expanding CAFOs until public health concerns associated with CAFOs are addressed.**³⁶

IV. Antibiotic Resistant Disease



The Food and Drug Administration (FDA) confirmed that roughly 80% of antibiotics in the U.S. are used in livestock.³⁷ These drugs are fed to non-diseased animals to promote growth and ward off stress, disease, and health risks from living in unnatural, confined conditions.³⁸ This has contributed to antibiotic-resistant disease in humans,³⁹ such as Methicillin-Resistant Staphylococcus Aureus (MRSA), a pathogen responsible for taking more lives each year than AIDS.⁴⁰ Antibiotic resistant infections are problematic because they require multiple rounds of increasingly stronger antibiotics, which allow the infection to progress further than it might otherwise, leading to serious health consequences.

³¹ C. Loftus, et.al., *Ambient Ammonia Exposures in an Agricultural Community and Pediatric Asthma Morbidity*, *Epidemiology* 26:794-801 (2015).

³² J. Kline and S. Sigurdarson, *School Proximity to Concentrated Animal Feeding Operations and Prevalence of Asthma in Students*, Chest (2006).

³³ KJ Donham, *The Concentration of Swine Production: Effects on Swine Health, Productivity, Human Health and the Environment*, Veterinary Clinics of North America: Food Animal Practice (2000).

³⁴ KM Thu, et al., *A Control Study of the Physical and Mental Health of Residents Living Near a Large-Scale Swine Operation*, Journal of Agricultural Safety and Health (1997).

³⁵ S. Wing and S. Wolf, *Intensive Livestock Operations, Health and Quality of Life Among East North Carolina Residents*, Environmental Health Perspectives (2000).

³⁶ John Hopkins Center for a Livable Future, *Nation's Leading Public Health Organization Urges Halt to All New and Expanding CAFOs* (Nov. 18, 2019) at <https://clf.jhsph.edu/about-us/news/news-2019/nations-leading-public-health-organization-urges-halt-all-new-and-expanding>.

³⁷ FDA, *Antimicrobials Sold or Distributed for Use in Food Producing Animals* (Sept. 2014).

³⁸ M. Mellon, et. al., *Hogging It: Estimates of Antimicrobial Abuse in Livestock*, Union of Concerned Scientists (2001).

³⁹ CDC, National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) website at <https://www.cdc.gov/narms/faq.html>; M. Barza and S.L. Gorbach, *The Need to Improve Antimicrobial Use in Agriculture: Ecological and Human Health Consequences*, Clinical Infectious Diseases (2002).

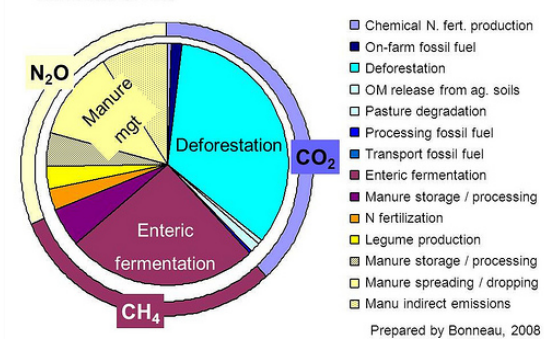
⁴⁰ University of Chicago Medicine, MRSA Research Center webpage at <http://mrsa-research-center.bsd.uchicago.edu>.

While the livestock industry asserts that there is not enough scientific evidence to ban sub-therapeutic uses of antibiotics in livestock, the CDC definitively confirms that:

Scientists around the world have provided strong evidence that antibiotic use in food animals can lead to resistant infections in humans. Studies have shown that: antibiotic use in food animals allows antibiotic-resistant bacteria to grow and crowd out the bacteria that do respond to antibiotics; resistant bacteria can contaminate food from the animals; and resistant bacteria in food can cause infections in humans.”⁴¹

In addition, the American Public Health Association, the American Medical Association, the American Academy of Pediatrics, the Infectious Disease Society of America, and the World Health Organization have all issued statements calling for restrictions on sub-therapeutic uses of antibiotics in livestock.⁴²

Livestock and GHG: 18% of global emissions



V. Climate Change

About 70 billion farm animals are raised annually worldwide, 10 billion in the U.S. alone, and **more than 6 million are killed for food every hour.**⁴³ These farm animals consume a lot of resources, produce a lot of waste and, as the United Nations Food and Agriculture Organization (FAO) concludes are “one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global” including climate change.⁴⁴ According to the FAO, livestock production is responsible for between 14.5% and 18% of global greenhouse gas emissions (GHGs), which is more than all of our

trucks, cars, planes, trains and other forms of transportation combined.⁴⁵ These emissions are due to deforestation to grow feed crops, which releases CO₂ and removes a carbon sink, animal slaughter and processing, livestock transport, and release of methane which has a global warming potential 86 times that of CO₂ on a 20-year time frame. According to the Intergovernmental Panel on Climate Change (IPCC), methane emissions from livestock production are projected to increase 80% by 2050 meaning that even without fossil fuel use, we will exceed the 565 gigatonnes CO₂e limit by 2030, all from raising animals for food.⁴⁶

VI. Animal Cruelty⁴⁷

The billions of animals raised and killed each year for meat, eggs, and milk are sentient, complex beings, and capable of feeling pain and frustration, joy, and excitement just like our dogs and cats. Yet, they are viewed by the meat

⁴¹ CDC, National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) website at <https://www.cdc.gov/narms/faq.html>;

⁴² Louis J. Kraus, M.D, Report of the Council on Science and Public Health, *Combating Antibiotic Resistance: An Update*, American Medical Association CSAPH Report 3-I-15 (2015); Landers & Cohen, et. al., *A Review of Antibiotic Use in Food Animals: Perspective, Policy and Potential*, Public Health Report 127(1):4-22, National Institutes of Health (Jan. 2012).

⁴³ Dr. Richard Oppenlander, *Food Choice and Sustainability: Why Buying Local, Eating Less Meat, and Taking Baby Steps Won't Work*, Landon Street Press, Minneapolis, MN (2013).

⁴⁴ Koneswaran & Nierenberg, *Global Farm Animal Production and Global Warming: Impacting and Mitigating Climate Change*, Environ Health Perspect 116(5): 578-582 (May 2008).

⁴⁵ Stehfest, Bouwman, et.al., *Climate benefits of changing diet*, Climate Change 95:1-2 (July 2009).

⁴⁶ Gerber, Steinfeld, et. al., *Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities*, Food and Agriculture Organization of the United Nations (FAO) (2014).

⁴⁷ Except for specifically footnoted sources of data, the information in this section is drawn from the wealth of data and studies compiled by the Humane Society of the United States (HSUS) on the abuse of animals in the meat, egg, and dairy industries available at <https://www.humanesociety.org/farm-animal-welfare>.

industry as commodities and, as a result, suffer a myriad of assaults to their physical, mental, and emotional well-being. Unfortunately, there are no federal laws that protect farmed animals from this cruelty and the majority of states, including Indiana, exempt the industry's "accepted agricultural practices"—no matter how abusive—from the scope of their animal cruelty statutes. Simply put, the treatment of factory-farmed animals and the conditions in which they are raised, transported, and slaughtered are inhumane and cruel, yet legal.

For instance, birds raised for meat are confined by the tens of thousands in grower houses, which are artificially lit, force-ventilated, and completely barren except for long rows of feeders and drinkers. Due to selective breeding these birds grow unnaturally fast and large (typically in 47 days, although their lifespan is up to 8 years) causing gait defects, broken bones, and severe pain. Once they reach market weight, these birds are stuffed in crates for transport where they often suffer dislocated and broken hips, legs, and wings, as well as internal hemorrhages. Also, during their journey to slaughter, these birds—like other factory-farmed animals—are not given any food or water and are afforded little if any protection from extreme temperatures. At the slaughter plant, the birds are uncrated, dumped onto conveyors, and hung upside-down in shackles by their legs, as they pass through an electrified water bath before their throats are cut, usually by machine. Due to the rapid speed of slaughter lines (up to 8,400 chickens per hour), mistakes occur leaving some birds still conscious as they enter tanks of scalding water intended to loosen their feathers.



Chickens in the egg industry also suffer immensely, beginning right after hatching. Male chicks are considered useless "byproducts" because they are unable to lay eggs and are not bred for meat production. As such, millions of baby chicks each year are gassed, macerated, and sucked through a vacuum system, or thrown into garbage bins (as seen in the photo) where they are left to die from dehydration or asphyxiation.

In turn, female chicks are mutilated without any pain relief when the tips of their beaks are seared off with a hot blade to prevent them from pecking and engaging in other harmful behaviors that result from intensive confinement. For that matter, most egg-laying hens are confined in small, wire "battery cages" that are stacked several tiers high and extending down long warehouses. In these battery cages, hens are given less space than the area of a letter-sized sheet of paper in which to eat, sleep, lay eggs, and defecate. This makes it impossible for them to spread their wings or engage in natural behaviors such as dustbathing, foraging or nesting.



The more than 235 million pigs⁴⁸ slaughtered annually in the United States do not far much better. Sows (adult female pigs) are put through consecutive cycles of impregnation, giving birth, and nursing, all while intensively confined. Although pigs are intelligent and highly social animals, pregnant sows are kept in metal "gestation crates" that are so small that they are unable to even turn around. Right before giving birth, the sows are moved to equally restrictive "farrowing crates," designed to keep them from crushing their nursing piglets. However, the crates are so small, they can only stand up and lie down. Then, after the piglets are weaned, the cycle begins again for the mother pig who churns out an average 2.5 litters each year until she can no longer reproduce and is sent to slaughter.

Annually in the U.S., approximately 32 million cattle are raised for beef, 9.5 million cows for milk, and around 360,000 calves for veal.⁴⁹ Cows in the dairy industry endure endless cycles of artificial insemination, mechanized milking, and giving birth. Many are routinely given hormones to increase milk production. The amount of work done by an average

⁴⁸ USDA, 2017 Census of Agriculture.

⁴⁹ *Id.*

dairy cow during peak lactation is so immense it is comparable to a human jogging for six hours every day, almost year-round. Although cows can naturally live for more than 20 years, the average dairy cow is “spent” and sent to slaughter before she reaches the age of five. To continue producing milk, dairy cows must continuously give birth, but male calves are of no value to the dairy industry. Consequently, within the first few days of life, male calves are taken from their mothers and raised for veal where they are intensively confined and tethered in stalls so small they are unable to turn around for their entire 16-18 week lives before slaughter. These are just a few of the livestock industry’s incredibly cruel and inhumane practices that treat animals as commodities for profit instead of living, feeling creatures.

ECONOMIC IMPACTS

Factory farms are often promoted locally through claims that they will bring economic vitality to the area. However, research shows otherwise. Loss of jobs, depressed property values, loss of income for local businesses and overall disruption of local social and economic systems, pollution problems and negative impacts on quality of life often result when factory farms move into rural communities.⁵⁰

I. Do CAFOs Bring Jobs?

Instead of being independent entrepreneurs, many farmers are now “contract growers” for large corporations (i.e., Tyson, Smithfield, Cargill, JBS) that dictate all decisions including design of confinement buildings and equipment, genetics and reproduction, feeding, animal density, veterinary care, slaughter, processing, marketing, distribution, and virtually every other aspect of the livestock production process.

Rather than create jobs for the local economy, this system of vertical integration which focuses on maximizing corporate profits tends to reduce local jobs due in part to the highly mechanized nature of raising livestock in a factory-like setting. In fact, studies show that every CAFO worker replaces nearly three independent family farms.⁵¹ Furthermore, what jobs do exist on CAFOs typically come with low wages and undesirable working conditions, leaving them staffed by migrant workers who spend little money in the communities where they work.⁵²



Local businesses that support farming are also negatively affected by the growth of CAFOs. Communities with factory farms have higher rates of unemployment because corporations that control CAFO operations typically require their contract growers to buy feed and supplies through the corporation rather than local businesses. In fact, an Iowa study found that roughly 70% of smaller livestock operations bought feed locally, but only 43% of large-scale operations bought local feed.⁵³ In addition, the livestock raised on CAFOs are often slaughtered and processed at a facility owned by the corporation. This further degrades the local economy by taking business away from independent slaughterhouses, regional processing firms, local grain elevators, and local feed and farm equipment dealers that would

⁵⁰ Gomez & Zhang, *Impacts of Concentration in Hog Production on Economic Growth in Rural Illinois*, Illinois State University working paper presented to the American Agricultural Economics Association (July 2000).

⁵¹ J.E. Ikerd, *Economic Fallacies of Industrial Hog Production*, University of Missouri (2001).

⁵² *Id.*

⁵³ Food and Water Watch, *Factory Farm Nation: How America Turned It's Livestock Farms into Factories* (2012) available at <http://www.factoryfarmmap.org/wp-content/uploads/2010/11/FactoryFarmNation-web.pdf>.

otherwise be able to provide employment opportunities, invest money locally and create the economic “multiplier effect” that occurs when farmers buy their supplies locally and the money stays within the community.⁵⁴

II. Do CAFOs Generate Tax Revenue?

Not really. Instead, CAFOs place a burden on county governments. For starters, proximity to a CAFO can reduce the value of a home by as much as 88% depending on distance from the CAFO and prevailing winds.⁵⁵ Study after study show that degradation in air quality which impacts homeowners’ enjoyment and use of their property will have a measurable, direct, and statistically significant impact on property values.⁵⁶ One study found that “only landfills have a worse effect [than CAFOs] on adjacent property values” and that “a sewage treatment plant has a less depressing effect on nearby housing prices [than a CAFO].”⁵⁷ Even Indiana’s own Purdue University found in conducting a literature review that:

*Market prices for homes are expected to decline the closer the home is to the CAFO. A downwind home will realize a significantly larger decline in value relative to a home upwind that is the same distance from the CAFO. These potential inequities . . . indicate that communities and operators must choose to site CAFOs in a manner that either minimizes differential impacts on home values or compensates those individuals disproportionately impacted.*⁵⁸

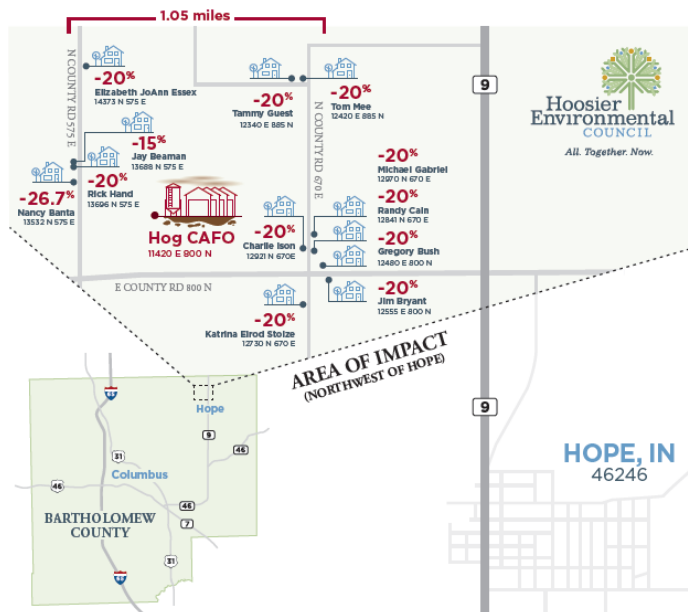
This loss in property value can affect tax assessments and therefore county tax revenues as seen recently in Bartholomew County, Indiana, where the county assessor granted property tax cuts for residents who suffered property value losses due to a newly built CAFO (see inset). In addition, CAFOs do not pay for the damage they cause to county roads and infrastructure -- or for the health costs, accidents, and environmental damage they cause. Instead, these are all financial drains that must be supported by the community’s tax revenue.

PROPERTY VALUE AND TAX REVENUE IMPACTS OF CAFOs

in Bartholomew County, Indiana

The negative impacts to property values that come with living in close proximity to a factory farm (concentrated animal feeding operations or CAFOs) are well-documented by numerous peer-reviewed scientific studies conducted over the last two decades. These instances of harm are not theoretical, in fact property devaluations of up to 88% have been documented. One tragic example of such impacts in the real world can be found in Bartholomew County just north of Columbus, Indiana and around the small town of Hope, Indiana where in 2014 a hog CAFO permitted to confine 4,400 hogs was built in an established rural residential area. Residents living nearby the facility report “instant headache, closure of the sinuses, and taking away of the breath” on exposure to the CAFO’s

noxious fumes. In the summer of 2017, neighbors to this ill-sited facility received small consolation when the Bartholomew County Assessor, recognizing the significant reduction in property values these CAFO neighbors faced, finalized property tax cuts between 15 and 26.7 percent for each neighbor who appealed. Factory farms are often promoted as tools for rural economic development but, as seen in Bartholomew County, when these industrial operations are allowed to be sited irresponsibly they can and do result in decreased tax revenues for local governments, in addition to the negative externalities they impose on the environment, infrastructure, and nearby property owners. The property tax cuts and corresponding proximity to the CAFO are graphically represented in this document.



⁵⁴ J.E. Ikerd, *The Inevitable Economic, Ecological, and Social Consequences of CAFOs*, University of Missouri (Mar. 2013).

⁵⁵ Hamed, Mubarek, et. al., *The Impacts of Animal Feeding Operations on Rural Land Values*, Univ. of Missouri-Columbia Community Policy Analysis Center Report R-99-02 (May 1999).

⁵⁶ See Kiel & Boyle, *Hedonic Studies of the Impact of Environmental Externalities*, *Journal of Real Estate Literature* 9-2, 117-144 (2001); see also D. Aiken, *Property Valuation May Be Reduced by Proximity of Livestock Operation*, *Cornhusker Economics*, *Dept. of Agricultural Economics*, University of Nebraska-Lincoln (May 2002) (finding odors from a CAFO with 5,200 sows diminished values of residential properties within ¾ mile by 30%); K. Milla, et. al., *Evaluating the Effect of Proximity to Hog Farms on Residential Property Values: a GIS-Based Hedonic Price Model Approach*, *URISA Journal*, 17(1):27-32 (2005).

⁵⁷ A. Ready, et. al., *The Impact of Open Space and Potential Local Disamenities on Residential Property Values in Berks County, Pennsylvania*, *American Journal of Agricultural Economics* 87:314-326 (May 2005).

⁵⁸ R. Keeney, *Community Impacts of CAFOs: Property Values*, *Purdue Extension*, Purdue University (2008).

III. Do CAFOs Increase Economic Development?

No. Studies indicate that the concentration of corporate control and industrialization of agriculture are associated with economic decline, both locally and regionally.⁵⁹ A study prepared by the Indiana Business Research Center touted the economic benefits of expanding livestock production in central Indiana -- a region covering 16 counties including Delaware County. This study, prepared at the request of the Indiana Soybean Alliance, a powerful agribusiness lobbying organization, estimates that every \$3.15 million in additional regional livestock sales would provide \$701,000 in new income and create 28 new jobs in the region.⁶⁰ As impressive as that may seem, when averaged over the 16 county region, these figures are less promising; namely, a \$3 million increase in livestock sales would provide merely \$43,812.50 in new income and create just under two (2) new jobs per county -- hardly, a windfall return on investment. Factor in the negative externalities that CAFOs impose on the environment, public health, quality of life, property values, and local roads and bridges and the industry's promise of economic development is an empty one.

On the other hand, investing in a clean healthy environment with open spaces and quality outdoor recreation amenities drives tourism, creates good-paying jobs, and provides enumerable economic development opportunities. In Indiana, outdoor recreation generates: \$15.7 Billion in consumer spending, 143,000 direct Indiana jobs, \$4.3 Billion in wages and salaries, and \$1.1 Billion in state and local tax revenue.⁶¹ Indeed, more direct jobs in Indiana depend on outdoor recreation (143,000) than on agriculture (108,000).⁶²

In Delaware County alone, tourism contributed \$228.7 million dollars to the County's economy in 2016.⁶³ Without a doubt, investing in a clean, healthy environment, and quality outdoor recreation amenities leads to improved health outcomes, boosts property values, attracts new businesses, and enhances quality of life for residents, while making any community -- rural or urban -- a more attractive place to live. Allowing more CAFOs to spoil the land, air and water quality with massive amounts of untreated animal waste -- more than the human population produces -- will predictably do just the opposite. And, allowing CAFOs to proliferate in Delaware County would directly undermine Delaware County's economic development goals set forth in "Vision 2021" including, most notably, the top two, "enriching quality of life" and "enhancing quality of place."⁶⁴



⁵⁹ John Ikerd, *The Economics of CAFOs & Sustainable Alternatives*, University of Missouri-Columbia (Oct. 2009).

⁶⁰ Indiana Business Research Center, *The Economic Impact of Animal Agriculture in Indiana*, Indiana University, Kelly School of Business, (March 2017) (prepared for the Indiana Soybean Alliance) available at <http://www.ibrc.indiana.edu/studies/Livestock-Report-2017.pdf>. And note: these figures refer to estimated benefits of expanding hog production in the central Indiana region.

⁶¹ Outdoor Industry Association, Indiana information at https://outdoorindustry.org/wp-content/uploads/2017/07/OIA_RecEcoState_IN.pdf.

⁶² *Id.* (citing to figures from the Indiana Economic Development Corporation).

⁶³ <http://www.munciejournal.com/2016/04/tourism-week/>.

⁶⁴ [http://www.muncie.com/Muncie/media/Muncie/Downloads/ED/Vision-2021-Plan-\(email\).pdf?ext=.pdf](http://www.muncie.com/Muncie/media/Muncie/Downloads/ED/Vision-2021-Plan-(email).pdf?ext=.pdf).

UNDERSTANDING THE LEGAL FRAMEWORK

I. State and Federal Environmental Regulations

The regulatory chart included as an Appendix to this Guide provides an easy reference to applicable federal and state environmental regulations, and what they do and do not address. Below is a more detailed summary of these rules demonstrating the many gaps in regulation that leave our air, land, waterways, and health unprotected from factory farms.



EPA Lacks Authority Under the Clean Water Act

A CAFO that discharges pollutants to waters of the U.S. is considered a "point source" and subject to permitting under the federal Clean Water Act (CWA).⁶⁵ However, in 2011, a federal appeals court decision largely gutted the U.S. EPA's authority to regulate CAFOs by vacating a provision that gave EPA (or state agency) the authority to determine whether a proposed new CAFO would discharge and require a CWA permit.⁶⁶ Now, the CAFO operator gets to make that determination. As a result, all of Indiana's CAFO operators have unsurprisingly decided their facilities do not require federal CWA permits.

Indiana's Confined Feeding Law Fails to Protect Public Health & Environment

Without EPA oversight, all of Indiana's factory farms—regardless of size—are subject only to the state's confined feeding laws.⁶⁷ The Indiana Department of Environmental Management (IDEM) implements these requirements, which are detailed in the agency's *Guidance Manual for Indiana's Confined Feeding Program* available for download at https://www.in.gov/idem/cfo/files/guidance_manual_cfo_program.pdf, and provide little protection for the environment and public health. The state's confined feeding rules (CFO Rule) require 180 days of waste storage—unlined "earthen" lagoons are perfectly acceptable. When the lagoons and pits are full, the CFO Rule allows waste to be sprayed or spread untreated on surrounding land subject to minimal setbacks from waterways and property lines. Although spreading waste on frozen or snow-covered ground is generally prohibited, there is an exception for "emergency situations," such as when a waste lagoon becomes full over the winter months.

Of particular concern, the CFO Rule allows CAFOs to be built in karst areas,⁶⁸ and located just 100 feet from on-site water wells and property lines, 300 feet from surface waters, drainage inlets, sinkholes and off-site water wells, 400 feet from homes and buildings, and 1,000 feet from a public water supply or intake structure. And as IDEM readily admits, the agency has no authority to regulate odors or air emissions from CAFOs, where CAFOs can locate, groundwater use, disease vectors (i.e., flies), or consider a CAFO's impact on property values.⁶⁹ Consequently, as long

⁶⁵ 40 CFR 122.23

⁶⁶ *Nat'l Pork Producers Council v. United States EPA*, 635 F.3d 738 (5th Cir. 2011).

⁶⁷ See Ind. Code § 13-18-10; 327 IAC 19; and 327 IAC 15-16.

⁶⁸ "Karst is a type of landscape where the dissolving of the bedrock has created sinkholes, sinking streams, caves, springs and other characteristic features. . . . Because of the porous (swiss cheese-like) nature of karst, water flows quickly through it and receives little filtration. Therefore, contaminants that enter a karst aquifer are rapidly transported creating water quality problems . . . 40% of groundwater used for drinking water comes from karst aquifers. [Therefore,] it is imperative for our health and safety to protect karst landscapes." National Park Service, *Caves and Karst*, at <https://www.nps.gov/subjects/caves/karst-landscapes.htm>.

⁶⁹ <https://www.in.gov/idem/cfo/2342.htm> (listing what "IDEM Does Not Regulate")

as a proposed new or expanding CAFO meets the CFO Rule's meager requirements, IDEM has no authority to deny a permit to protect surrounding neighbors from these impacts. For that matter, IDEM has not denied a single permit in the eight years since the CFO Rule was enacted in 2012.

Procedurally, when applying for a permit to build a new CAFO or expand an existing one, the CAFO owner need only make a "reasonable attempt" to provide notice to people living within a half-mile the CAFO's structures, which then triggers a 33-day public comment period. However, IDEM does not have to consider or respond to public comments received in its decision-making. Once permitted, the CFO Rule requires an IDEM inspection only once every five (5) years, and the CAFO's required operating records, including records identifying how much waste is applied, how often, and where, are kept by the CAFO operator and not made available to the public. Thus, Indiana's CFO Rule not only fails to adequately protect public health and the environment, it lacks any meaningful mechanism for transparency, public accountability, or enforcement.

Onsite "Composting" of Dead Farm Animals

The Indiana Board of Animal Health (BOAH) regulates the disposal of a CAFO's dead animals under 345 IAC 7-7. Authorized methods of disposal include, among others, onsite "composting," which is nothing more than stacking the dead animals and covering them with a mixture of soil and sawdust. The resulting leachate from decomposing animal carcasses can negatively impact surface water and groundwater. And if an animal dies of an infectious disease, pathogens and viruses may be present inside the carcass, thereby increasing risk of disease transmission.



The "Spill Rule" Applies Only to AFOs (Not Permitted CAFOs/CFOs)

The spill rule imposes reporting, containment, and response requirements to those responsible for spills of hazardous substances, petroleum, and "objectionable substances" that damage waters of the state.⁷⁰ "Objectionable substances" include livestock waste. For permitted CFOs/CAFOs, compliance with an approved "Emergency Response Plan" will constitute compliance with the spill rule. However, for unpermitted AFOs, the spill rule applies and requires immediate response using the most effective containment action possible, report of the spill to IDEM within 2 hours of discovery, and notification of neighbors and downstream water users. Moreover, a spill by an unpermitted AFO would likely be considered an unpermitted discharge subject to enforcement under the Clean Water Act and citizen suit provisions.⁷¹

No Limits on Factory Farm Air Pollution



Air emissions from factory farms usually come from three main sources: the ventilation stacks of the confinement buildings, outdoor waste lagoons, and from the manure spread on fields. In addition to extreme odors, factory farms release dangerous and toxic compounds into the air, such as hydrogen sulfide, ammonia, methane and volatile organic compounds. Despite numerous scientific studies conducted over decades showing that CAFOs generate noxious and dangerous air emissions that

⁷⁰ 327 IAC 2-6.1

⁷¹ Later Sections in this Guide provide a more detailed discussion of citizen suits.

threaten the health of neighbors,⁷² **CAFOs remain unregulated under federal or state clean air laws.**⁷³ Furthermore, while some counties in Indiana have established greater setback distances for factory farms from residences and community buildings and parks than what IDEM requires, research shows that odor plumes can travel well over 3 miles, depending on the atmospheric conditions.⁷⁴ In other words, there is a serious gap in environmental regulation of CAFOs at the federal, state, and local levels with respect to addressing the dangerous air emissions they produce.

In 2017, a federal court decision confirmed EPA's authority under the Emergency Planning and Community Right-to-Know Act ("EPCRA") to require large CAFOs that release in excess of 100 pounds of ammonia per day to report those hazardous releases to local and state emergency planning authorities in accordance with Section 304 of EPCRA.⁷⁵ Notably, the livestock industry had long known about this requirement and even prepared an EPCRA "Fact Sheet" as well as an "Ammonia Emissions Estimator Worksheet" for CAFO operators to use in determining whether they must report their emissions,⁷⁶ but vigorously fought having to comply. Unfortunately, the Trump Administration's EPA undermined this legal win by signing a final rule in 2019 that exempts CAFOs from having to report their hazardous emissions under EPCRA. Making matters worse, Congress passed the "Fair Agricultural Reporting Method Act (FARM Act)," which similarly exempts CAFOs from having to report their hazardous emissions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),⁷⁷ leaving rural communities completely in the dark as to what they are being exposed to.

II. Local Zoning and Land Use Law

Zoning law is the process of regulating land use within a town, city, or county. Indiana's zoning law follows traditional "Euclidean zoning" wherein land is divided into use districts that restrict where industrial, commercial, agricultural, residential, and other defined land uses are allowed. This style of zoning was upheld as constitutional in 1926 in the United States Supreme Court case of *Euclid v. Ambler Realty Company*,⁷⁸ under the states' police power for protection of the public health, safety, welfare, and morals,⁷⁸ notably not for the promotion or protection of special industry interests.

Under Indiana law, broad discretion is afforded to local governments to regulate land use within their jurisdictions (a principle known as "Home Rule") but all local land use and zoning decisions must be made in accordance with the statutory requirements set forth in Indiana Code § 36-7-4. There are four different organizational structures under which local governments may direct the planning and zoning of land in their jurisdictions. They include Area, Advisory, Metropolitan and Joint planning, with the majority of local governments falling within the "Area" and

⁷² See e.g., Wing, Horton, et. al., *Air pollution and odor in communities near industrial swine operations*, *Environ Health Perspect*, 116(10), 1362-1368 (2008); Wilson, S. M., & Serre, M. L., *Use of passive samplers to measure atmospheric ammonia levels in a high-density industrial hog farm area of eastern North Carolina*, *Atmospheric Environment*, 41(28), 6074-6086 (2007); Schiffman, Miller, et. al., *The effect of environmental odors emanating from commercial swine operations on the mood of nearby residents*, *Brain Research Bulletin*, 37(4), 369-375 (1995); Schiffman, Bennett, et. al., *Quantification of odors and odorants from swine operations in North Carolina*, *Agricultural and Forest Meteorology*, 108(3), 213-240 (2001); Herriges, Secchi, et. al., *Living with hogs in Iowa: The impact of livestock facilities on rural residential property values*, *Land Economics*, 81, 530-545 (2005).

⁷³ IDEM, *Confined Feeding Operations* (describing "What IDEM Does Not Regulate") at <http://www.in.gov/idem/landquality/2349.htm#idem-no-regulate>; see also, Hoover, *Can't You Smell That Smell? Clean Air Act Fixes For Factory Farm Pollution*, *Stanford Journal of Animal Law & Policy*, Vol. 6 (2013).

⁷⁴ C. Hribar, *Understanding Concentrated Animal Feeding Operations and Their Impact on Communities*, *National Association of Local Boards of Health*, p. 7 (2010).

⁷⁵ *Waterkeeper Alliance v. EPA*, No. 09-1017 (D.C. Cir. April 11, 2017) (upholding EPA's 2008 Final Rule at 73 Fed. Reg. 76948, 76952-53 under EPCRA, 42 U.S.C. § 1101 et. seq., 40 C.F.R. § 355.31(g)).

⁷⁶ The National Pork Producers Council prepared the *CERCLA-EPCRA Fact Sheet* (Jan. 14, 2009). The *Koelsch and Stowell Ammonia Emissions Estimator Worksheet* is available at https://www.kla.org/Media/KLA/Docs/epcra_ammonia_swine.pdf.

⁷⁷ <https://www.epa.gov/epcra/cercla-and-epcra-reporting-requirements-air-releases-hazardous-substances-animal-waste-farms>

⁷⁸ *Village of Euclid v. Ambler Realty Company*, 272 US 365 (1926).

"Advisory" planning structures. Unique among Indiana Counties, Delaware County follows the "Metropolitan" planning system with Muncie.

The Comprehensive Plan

Before a county can exercise its zoning authority, it must prepare and approve a comprehensive plan in accordance with Indiana Code requirements for the promotion of public health, safety, morals, convenience, order, or the general welfare and for the sake of efficiency and economy in the process of development.⁷⁹ The plan commission is charged with preparing the comprehensive plan which, "at a minimum must provide: 1) a statement of objectives for the future development of the jurisdiction; 2) a statement of policy for the land use development of the jurisdiction; and 3) a statement of policy for the development of public ways, public places, public lands, public structures, and public utilities."⁸⁰ In addition to these elements, the plan may also include "information, locations, extent, and character" of "[a]reas needing redevelopment and conservation; [a]ir, land, and water pollution; [l]and utilization, including agriculture, forests, and other uses; and [c]onservation of energy, water, soil, and agricultural and mineral resources" among other concerns."⁸¹ Other common names for a comprehensive plan include: Growth Policies Plan, Master Plan, and Community-wide Strategic Plan. As these names suggest, a comprehensive plan is not law but, rather, a collection of ideas, policies, strategies, designs, and guiding principles for the purpose of maintaining and improving the general health, safety, convenience, and welfare of a community's citizens. It is also the guiding policy for future development and land use within the county. Therefore, the zoning ordinance, amendments to the zoning ordinance, and all zoning decisions must "give consideration" and reasonable regard to" the comprehensive plan.⁸²

Zoning Ordinances

Any zoning ordinance adopted or amended by the legislative body (in Delaware County, the Board of Commissioners) must serve the purposes of: "securing adequate light, air, convenience of access, and safety from fire, flood, and other danger; lessening or avoiding congestion in public ways; promoting the public health, safety, comfort, morals, convenience, and general welfare; and otherwise accomplishing the purposes of [IC § 36-7-4]."⁸³ The ordinance may also regulate how real property is developed, maintained, and used including: requirements for site conditions; restrictions on development in areas prone to flooding; restrictions on the kind and intensity of uses; and performance standards for the emission of noises, gases, or particulate matter into the air or ground or across lot lines.⁸⁴ When a zoning ordinance is initially adopted, zone maps must also be prepared to indicate the districts into which the incorporated areas and unincorporated areas, if any, are divided and must follow the procedures for adoption set forth in IC. § 36-7-4-606.

It is important to know that plan commission members and county commissioners must follow the statutory procedures for amendment or change in zoning ordinances and failure to do so renders the ordinance void.⁸⁵ However, the motives of the legislative body, (county commissioners), in making decisions to re-zone or make zoning changes, are irrelevant to the question of whether such decisions are reasonable and relate to the public health, safety, morals or convenience of the general welfare.⁸⁶ That said, plan commission members and county commissioners are prohibited from participating in zoning decisions in which they have a conflict of interest.

⁷⁹ IC § 36-7-4-501.

⁸⁰ IC § 36-7-4-502.

⁸¹ IC § 36-7-4-503.

⁸² IC§ 36-7-4-504(a)(3); -601(d)(3); and -603; see also *Fifty Six LLC v. Metro. Dev. Comm'n*, 38 N.E.3d 726, 734-35 (Ind. Ct. App. 2015).

⁸³ IC § 36-7-4-601.

⁸⁴ *Id.*

⁸⁵ *Krimendahl v. Common Council of city of Noblesville*, 267 N.E.2d 547 (1971).

⁸⁶ *Penn v. Metropolitan Plan Commission of Marion County*, 228 N.E.2d 25 (1967).

County Board of Commissioners/Plan Commission Member Conflicts of Interest

I.C. § 36-7-4-223 prohibits "[a] member of a plan commission or a legislative body from:

- Participating as a member of the Plan Commission or legislative body in a hearing or decision of that commission or body concerning a zoning matter in which the member has a direct or indirect financial interest; (The commission or body shall enter in its records the fact that its member has such a disqualification.)
- Directly or personally representing another person in a hearing before that commission or body concerning a zoning matter; or
- Receiving any mileage or compensation for attendance at a meeting if the member is disqualified during any part of the meeting."

A "zoning matter" as referred to in I.C. § 36-7-4-223 does not include the preparation or adoption of a comprehensive plan.⁸⁷ However, proposals to amend the zoning ordinance and applications for DPUD's and zoning map changes are considered zoning matters for purposes of the conflict of interest prohibition. In determining whether to disqualify a member of a plan commission or legislative body for having a conflict of interest, Indiana courts are not limited to ascertaining whether the member actually exercised improper influence over other members or whether the prohibited interest actually affected the member's vote.⁸⁸ Rather, courts may find a conflict of interest upon consideration of "whether the situation is one reasonably calculated to weaken public confidence and undermine the public's sense of security for protection of individual rights in exercise of zoning authority."⁸⁹ When a biased plan commission member participates in a zoning decision, the decision may be vacated by the reviewing trial court.⁹⁰

Board of Zoning Appeals

A County's Board of Zoning Appeals is required to review, hear, and approve or deny all applications for variances from development standards (such as height, setback, or area) and variances of use.⁹¹ IC 36-7-4-918.2 also gives the board of zoning appeals **the power to approve or deny special exceptions, special uses, and conditional uses.** The procedure for obtaining a variance, special exception or conditional use is governed by several provisions set forth in I.C. § 36-7-4 including requirements for a public notice and hearing in accordance with IC § 36-7-4-920. Section 920 requires the BZA to: fix a "reasonable time" for the hearing; provide public notice to all interested parties at least ten (10) days prior to the hearing date; and allow plan commission staff and other persons to appear at the hearing and present evidence in support of or in opposition to the granting of the special exception.

Communications with any member of the BZA before the hearing "with intent to influence the member's action on the matter of the application for a variance or special exception is prohibited except that "[n]ot less than five (5) days before the hearing, plan commission staff may file "a written statement setting forth any facts or opinions relating to the matter" and the BZA may require any adverse party "to enter a written appearance specifying the party's name and address." If the written appearance is entered more than four (4) days before the hearing, the board may also require the petitioner to furnish each adverse party with a copy of the petition and a plot plan of the property involved.⁹²

⁸⁷ IC § 36-7-4-223(a).

⁸⁸ *Fail v. LaPorte County Bd. of Zoning Appeals*, 355 N.E.2d 455, 458 (Ind. App. 1976).

⁸⁹ *Id.*

⁹⁰ *Couch v. Hamilton County Bd. of Zoning Appeals*, 609 N.E.2d 39, 42 (Ind. App. 1993).

⁹¹ IC § 36-7-4-918.2.

⁹² IC § 36-7-4-920.

A BZA may grant special exceptions based only on “the terms of the zoning ordinance,” and “only in the classes of cases or in the particular situations specified in the zoning ordinance.” Ind. Code § 36-7-4-918.2. The BZA must issue written findings in support of its decision and those findings “must be tailored to address the specific facts presented” to the BZA and must include both “specific findings of fact and ultimate findings, or determinations.” *Riverside Meadows I, LLC v. City of Jeffersonville*, 72 N.E.3d 534, 540 (Ind. Ct. App. 2017). Furthermore, the “burden of demonstrating satisfaction of the relevant statutory criteria rests with the applicant.” *Wastewater One, LLC v. Floyd Cty. Bd. of Zoning Appeals*, 947 N.E.2d 1040, 1051 (Ind. Ct. App. 2011). To that end, a BZA may deny a special exception “on the grounds that the applicant has failed to carry its burden of proving compliance with the relevant statutory criteria regardless of whether remonstrators present evidence to negate the existence of the enumerated factors.” *Id.* Nevertheless, at least one court has held that a “self-serving statement” by the applicant that he meets the criteria is sufficient evidence. *House of Prayer Ministries v. Rush Cty. Bd. of Zoning Appeals*, 91 N.E.3d 1053, 1060 n.5 (Ind. Ct. App. 2018)

As discussed in detail below, Article XXXI, Section 2 of Delaware County Zoning Ordinance contains specific procedures governing the Delaware-Muncie Metropolitan Board of Zoning Appeals’ (BZA) consideration of special use applications, which have particular relevance to zoning requirements applicable to CAFOs and CFOs in Delaware County.

BZA Members - Conflict of Interest

As with a Plan Commission member, a BZA member “may not participate in a hearing or decision of [the BZA] concerning a zoning matter in which he [or she] has a direct or indirect financial interest.”⁹³ If a BZA member has such a conflict, the BZA “shall enter in its records: (1) the fact that a regular member has such a disqualification; and (2) the name of the alternate member, if any, who participates in the hearing or decision in place of the regular member.”⁹⁴ A reviewing trial court is not limited to ascertaining whether the member actually exercised improper influence over other members or whether the prohibited interest actually affected the member's vote.⁹⁵ Rather, the trial court may find a conflict of interest upon consideration of “whether the situation is one reasonably calculated to weaken public confidence and undermine the public's sense of security for protection of individual rights in exercise of zoning authority.”⁹⁶ If a conflicted BZA member participates in a hearing and decision on a special exception or condition use, the decision may be vacated by the reviewing trial court.⁹⁷

III. Delaware County’s Zoning Ordinance⁹⁸

In January of 2019, the Delaware County Zoning Ordinance was amended with specific requirements for CAFOs and CFOs as defined by federal and state regulations.⁹⁹ Under Article XII, Section 9, CAFOs/CFOs are allowed as either permitted uses or special uses in the “Farm Zone” depending on certain factors and subject to the requirements summarized below. The Ordinance’s definitions of **“Rural Agricultural Area”** and **“Rural Residential Area”** are key to understanding these zoning requirements:

⁹³ IC § 36-7-4-909 (emphasis added).

⁹⁴ *Id.*

⁹⁵ *Fail v. LaPorte County Bd. of Zoning Appeals*, 355 N.E.2d 455, 458 (Ind. App. 1976).

⁹⁶ *Id.*

⁹⁷ *Couch v. Hamilton County Bd. of Zoning Appeals*, 609 N.E.2d 39, 42 (Ind. App. 1993).

⁹⁸ The Delaware County Zoning Ordinance (hereinafter “the Zoning Ordinance”) is available online at https://www.co.delaware.in.us/egov/documents/1595866994_49737.pdf.

⁹⁹ Zoning Ordinance at pp. 167-168.

102. Rural Agricultural Area: Any area classified in the F Farming Zone where there are thirty-two (32) or fewer dwelling units in a circular area equal to a square mile as measured from the center point of the production area with a radius of 2,979 feet. Rural agriculture areas shall consist of two levels as follows: Level 1 shall be those areas with 16 or fewer dwelling units within the square mile area described herein; and Level 2 shall be those areas with 17 to 32 dwelling units within the square mile area described herein.

103. Rural Residential Area: Any area classified in the F Farming Zone where there are 33 or more dwelling units in a circular area equal to a square mile as measured from the center point of the production area with a radius of 2,979 feet.

Specifically, before applying to build a new CAFO/CFO or expand an existing one,¹⁰⁰ the developer must first consult with the Plan Commission Office to determine whether the operation will be in a rural agricultural or rural residential area. **If in a rural residential area**, a special use approval from the BZA must be obtained in accordance with XXXI, Sections 2 and 12 (discussed further below).

If in a rural agricultural area, the applicant must submit an application for a building and improvement location permit to the Building Commissioner/Zoning Administrator that includes among other information a site plan, the number and type of animals to be confined, the manure management and emergency spill response plans submitted to IDEM, an affidavit that the operator has no outstanding IDEM or EPA violations over the last five years, a performance bond for CAFOs with lagoon systems, stamped envelopes to all property owners within the required separation distances, and a map showing **compliance with the following setbacks**:

Article XII-A

	Residence (not on CFO/ CAFO site, not owned/ occupied by applicant)	Residence Zone	Developed Platted Subdivision (homes on more than 50% of lots)	Public/ Private School (not home or temporary school)	Corporate Limits of any City or Town	Public Use Recreation Area	Hospital, Institution for Human Care, Child Care Centers	Church/ Religious Institution
Level 1 Rural Ag Area	CFO - 500 CAFO – 1,000	1,320	1,320	5,280	< 5000 pop. - 2,640 >5000 pop. - 5,280	1,320	5,280	1,320
Level 2 Rural Ag Area	CFO - 660 CAFO – 1,320	1,320	1,320	5,280	<5000 pop. - 2,640 >5000 pop. - 5,280	1,320	5,280	1,320

¹⁰⁰ Definitions of “Existing CFO/CAFO” and “Expansion of an Existing CFO/CAFO” are found on p. 169 of the Zoning Ordinance.

E ENVIRONMENTAL SEPARATION REQUIREMENTS FOR SENSITIVE AREAS:

The production area of a Confined Feeding Operation and/ or a Concentrated Animal Feeding Operation shall maintain, at a minimum, the following separation distances, based on the waste management system:

ENVIRONMENTAL FEATURE/SENSITIVE AREAS	LAGOON SYSTEM	NON-LAGOON SYSTEM
Public Water Supply Wells, Rivers (White and Mississinewa) and Prairie Creek Reservoir	2 miles	1 mile
Surface Waters of the State, Regulated Open Drains (ditches, waterways, wetlands)	5,280 ft.	300 ft.
100 Year Floodplain	5,280 ft.	300 ft.
Drainage Inlets & Off-site Water Wells	1,320 ft.	300 ft.
On-site Water Wells	400 ft.	100 ft.
Regulated Drain Tiles	400 ft.	100 ft.

For purposes of this ordinance and the above setbacks, a lagoon shall mean an uncovered open-air liquid manure storage facility such as a pit, pond, tank or earthen berm containment area used to store or treat manure as defined in 327 IAC 19-2-25.

F SETBACKS:

The production area of a Confined Feeding Operation and/or a Concentrated Animal Feeding Operation shall maintain the following setbacks:

- 200' from any public road right-of-way, existing or proposed, whichever is greater.
- 400' from a side or rear property line.
- 1 mile from any other CAFO production area.

The County has developed a GIS Map purportedly delineating the three levels of restricted areas for CAFOs/CFOs.¹⁰¹ Unfortunately, the various levels are not specifically defined and use of the map is not straight-forward.

There are additional requirements for **CAFOs with 20,000 or more animal units**. An “animal unit (AU)” under the Ordinance is the animal equivalent of 1000 pounds of live weight where a dairy cow is 1.4 AU, a hog weighing over 55 pounds is 0.4 AU, and chickens with non-liquid manure systems are 0.01.¹⁰² Thus, **a CAFO with 20,000 or more animal units would be the same as a CAFO with at least 14,200 dairy cows, or 50,000 finishing hogs, or 2 million chickens**. If such a massive CAFO is proposed in a Level 1 Rural Agricultural Area, the setbacks for Level 2 apply, and if proposed in a Level 2 Rural Agricultural Area, the CAFO must obtain a special use approval from the BZA under the procedures in Article XXXI, Section 12 and are subject to the following setbacks:

1. Land Use Separation Distance Requirements: The production area of a Confined Feeding Operation and/or a Concentrated Animal Feeding Operation shall maintain, at a minimum, the following separation distances with all distances measured in feet:

Residence (not on CFO/ CAFO site, not owned/ occupied by applicant)	Residence Zone	Platted Subdivision	Public/ Private School (not home or temporary school)	Corporate Limits of any City or Town	Public Use Recreation Area	Hospital, Institution for Human Care, Child Care Centers	Church/ Religious Institution
CFO - 750 CAFO – 1,500	2,640	2,640	5,280	5,280	1,320	5,280	1,320

¹⁰¹ <https://delcogis.maps.arcgis.com/apps/View/index.html?appid=56c3e1663369405999ec81bb7fa59849>.

¹⁰² Zoning Ordinance p. 165 (listing the AU factors for other types of animals as well).

Also, **CAFOs with 20,000 or more animal units** must utilize odor abatement measures “with proven effectiveness” in addition to a shelterbelt that meets certain requirements. All CFO/CAFOs must have at least 360 days of waste storage (IDEM’s CFO Rules requires 180 days) and all are subject to annual inspections by the Plan Commission Office and Health Department to ensure compliance with the Zoning Ordinance.

The procedures set forth in **Article XXXI, Sections 2 and 12** must be followed **for CAFO/CFOs that require a special use approval from the BZA**. Among other things, these provisions require submission of the same application materials identified in Article XII, Section 9 to the BZA, which then forwards the application to the Plan Commission for “a thorough study and evaluation of the case” and written recommendation to the BZA. After the BZA receives the Plan Commission’s recommendation, it sets the matter for a public hearing with notice to all “interested parties.” The BZA “may compel the submission of any [additional] data deemed essential” to determining if the proposed special use is “compatible with surrounding areas” and the BZA may impose reasonable conditions and commitments on the development and operation of the proposed special use.

Notably, the BZA is “not bound to permit special uses per se” but must “carefully consider” the Plan Commission’s recommendation, “the prayer of persons aggrieved, the existing conditions on the premises and its surroundings” and ensure that the proposed special use meets the following standards:

1. The establishment, maintenance or operation of the special use will not be detrimental to or endanger the public health, safety, morals, convenience or general welfare.
2. The special use will not be injurious to the use and enjoyment of the other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.
3. The establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the zoning district.
4. Adequate utilities, drainage facilities, landscaping, buffering and other amenities will be provided and the site plan shall indicate that the lot area and access to the site are adequate for the use contemplated.
5. Adequate measures will be taken to provide ingress and egress designed so as to minimize traffic congestion in public streets.
6. The special use shall be permitted only if the public streets, drainage facilities and utilities are adequate to serve and accommodate the proposed development or that the applicant will provide improvements to enable such adequate service and accommodation based on the needs and impact of the proposed improvement.

POTENTIAL LEGAL REMEDIES



There are a variety of ways to use the law, the courts, and the legal system to protect your rights. However, the decision to take legal action must be made very carefully. Legal battles can be costly and require a high degree of commitment over a long period of time. The following section is not intended to be legal advice but merely some considerations and information you might find useful.

I. Hierarchy of Indiana Courts

Indiana has three primary levels of courts: 1) the trial courts (called Circuit and Superior Courts); 2) the intermediate appellate courts (the Indiana Court of Appeals); and 3) the Indiana Supreme Court.

Trial Courts. Each of Indiana's 92 Counties has a Circuit Court and at least one Superior Court that typically have overlapping jurisdiction. Both may review and have "original jurisdiction" to review land use, zoning and administrative decisions.

Court of Appeals. After a trial court has reached its decision in a case, the parties to the dispute may appeal it to the Court of Appeals. Judges at this level usually limit their review to matters of law and fact arising from the trial court record. Appellate decisions are final unless the Indiana Supreme Court grants further review.

Supreme Court. To challenge a Court of Appeals' decision, a party must ask the Indiana Supreme court to take the case by filing a "petition to transfer." The Court's five justices have discretion to accept or reject the case. If they decline transfer, the litigation is ended. If they accept transfer, the Court of Appeals decision is automatically vacated.

II. Judicial Review

Generally, a person aggrieved by a local land use decision has a right to challenge that decision by seeking a court's review. To determine what, if any, appeal rights exist, the person must first identify the type of land use decision at issue (e.g. re-zoning, variance, special exception, etc...). The type of land use decision at issue often determines the process to be followed and the rules to be applied by a court during the review.

I.C. § 36-7-4-1600 et. seq. allows **persons who are aggrieved or adversely affected** by a final zoning decision of a BZA, plan commission or legislative body to file with the **appropriate court within the judicial district** where the land affected by the zoning decision is located, a **verified petition** setting forth specific grounds why the person is prejudiced by the decision and why the decision is illegal. The petition for judicial review must be filed with the court **within thirty (30) days** after the date of the decision of the BZA, plan commission, or legislative body. It is important to note that **IC § 36-7-4-1608** imposes strict notice requirements in filing one of these petitions that if not followed will result in dismissal of the petition.

A person must be "**aggrieved or adversely affected**" by a zoning decision in order to have standing to seek judicial review of that decision.¹⁰³ A person has standing if he experienced "a substantial grievance, a denial of some personal or property right, or the imposition of a burden or obligation" due to the zoning decision¹⁰⁴ In addition, Ind. Code §

¹⁰³ IC § 36-7-4-1603 sets for the "standing" requirements for seeking judicial review. *See also Bagnall v. Town of Beverly Shores*, 726 N.E.2d 782, 786 (Ind.2000).

¹⁰⁴ *Id.*

36-7-4-1603 requires a person to demonstrate that he "participated in the board hearing that led to the decision, either by appearing at the hearing in person, by agent, or by attorney and presenting relevant evidence; or by filing with the board a written statement setting forth any facts or opinions relating to the decision." As held by the Indiana Appellate Court in *Benton County Remonstrators v. Board of Zoning Appeals of Benton County*,¹⁰⁵ adjacent landowners can validly claim to be aggrieved parties. However, in the case of a proposed CAFO, nearby property owners who are not adjacent have standing if they can demonstrate that the value of their property will decrease if the CAFO is constructed.¹⁰⁶

Finally, it is important to note that when a trial court is asked to review a BZA decision, the court may only examine the Board's decision to determine if it was incorrect as a matter of law.¹⁰⁷ The trial court's review is **not a trial *de novo***, meaning it may not substitute its decision for that of the board absent a showing of illegality.¹⁰⁸ Consequently, if there is sufficient evidence to support the board's decision which is otherwise legal, it must be upheld.

III. Declaratory Judgment

Under the Uniform Declaratory Judgments Act, **any person whose rights, status, or other legal relations are affected** by a statute or ordinance may have determined any question or construction or validity arising under the statute or ordinance, and obtain a declaration of rights, status, or other legal relations thereunder.¹⁰⁹ **A person is so "affected"** by the challenged ordinance or statute only if the person has a "substantial present interest in the relief sought, such as there must exist not merely a theoretical question or controversy but a real or actual controversy, or at least the ripening seeds of such a controversy, and that a question has arisen affecting such right which ought to be decided in order to safeguard such right."¹¹⁰

As a general rule, a declaratory judgment suit to challenge an ordinance may be allowed where it is clearly or patently illegal, where a waste of public funds is present or imminent, where the action is taken without jurisdiction over the subject matter, or where there is an unmistakable abuse of discretion.¹¹¹ Upon filing such an action, "all persons" who have or claim any interest that would be affected by the declaration must be made parties to the action.¹¹² In addition, if the validity of an ordinance is at issue, the local government body must be made a party. Finally, if the statute or ordinance is alleged to be unconstitutional, the Attorney General of Indiana must be served and be entitled to be heard.¹¹³

IV. Action for Mandate

Many of the foregoing statutory and ordinance provisions impose non-discretionary duties on the state or local government body. Use of the words "shall" and "must" when describing the required actions or duties of a government body in a statute, regulation or zoning ordinance indicate that such activities or duties are likely mandatory or non-discretionary in nature and, therefore, must be performed by the government body.

When a government body does not perform a mandatory duty, an action for mandate may be filed with the trial court to force the government body to perform the required action. Specifically, IC § 34-27-3-1 allows an action for mandate

¹⁰⁵ 905 N.E.2d 1090, 1097-1098 (Ind.App., 2009).

¹⁰⁶ *Sexton v. Jackson County Bd. of Zoning Appeals*, 884 N.E.2d 889 (Ind.App.2008)

¹⁰⁷ *Metropolitan Bd. of Zoning Appeals, Div. II, Marion County v. Gunn*, 477 N.E.2d 289, 294 (Ind.App. 1985)

¹⁰⁸ *Id.*

¹⁰⁹ IC § 34-14-1, *et. seq*

¹¹⁰ *Stokes v. City of Mishawaka*, 441 N.E.2d 24, 27 (Ind.App.1982)

¹¹¹ *Montagano v. City of Elkhart*, 271 N.E.2d 475 (Ind.App. 1971)

¹¹² IC § 34-14-1-11

¹¹³ *Id.*

to be prosecuted "against any inferior tribunal, corporation, public or corporate officer, or person to compel the performance of any: (1) **act that the law specifically requires**; or (2) duty resulting from any office, trust, or station."

An action for mandate is "an extraordinary remedy of an equitable nature and is generally viewed with disfavor" by Indiana courts. Accordingly, mandamus will be granted only where the petitioner establishes a **clear and unquestioned right to relief** and that the government body has **failed to perform a clear, absolute, and imperative duty imposed by law**. Mandamus should not be used to establish a right or to define and impose a duty as with actions for declaratory judgment.¹¹⁴

When bringing such an action, the complaint and summons should be filed in the circuit or superior court, in the manner that other civil actions are filed. The complaint should identify the action as an "Action for Mandate" and all standing requirements apply.

V. Citizen Enforcement of Environmental Laws

Section 505(a)(1) of the Clean Water Act (CWA) authorizes any person or persons having an interest which is or may be **adversely affected** to commence a civil action on his own behalf to enforce the Act or to enforce certain requirements promulgated pursuant to the Act including NPDES permit limits and conditions.¹¹⁵ Because the NPDES program is part of the CWA, it is subject to this federal citizen suit provision as well as the Indiana citizen suit provision set forth in I.C. § 13-30-1, *et. seq.*

Notwithstanding the foregoing federal and state citizen suit provisions, under Indiana's permit program, if a CFO has a valid permit approval under Indiana regulation, a violation of the permit's operational requirements, or land application of manure requirements, **may not be subject to an enforcement action** under IC 13-30-1 (citizen suit) or IC 13-14-2-6 (agency enforcement) if the violation: (1) has not caused a discharge to waters of the state; or a release of manure that has crossed a property boundary; (2) is corrected immediately or within a reasonable time frame as specified in a written notification of the violation by an IDEM representative; (3) is not the same type of violation as a violation that occurred within the previous five (5) years; and (4) is not one of multiple concurrent violations that represent a threat to the environment.

As with most citizen enforcement provisions under major environmental statutes, the CWA has detailed notice and service requirements.¹¹⁶ Notably, among other requirements, a citizen suit cannot be filed "**prior to sixty days** after the plaintiff has given **notice** of the alleged violation to the EPA Administrator, the EPA Region V Administrator, the Indiana Attorney General, the Commissioner of IDEM and the alleged violator."¹¹⁷ Following the sixty day notice period, if EPA or IDEM has commenced and is "diligently prosecuting a civil or criminal action" in federal or state court to require compliance, any citizen may not file a citizen suit but may intervene in the agency's enforcement action "as a matter of right."¹¹⁸

In addition to the CWA citizen suit provision, a 2015 federal court case in Washington opened the door for possibly holding CAFOs accountable under the Resource Conservation and Recovery Act (RCRA) citizen suit provision.¹¹⁹ RCRA was enacted to govern the treatment, storage, and disposal of solid and hazardous waste nationwide, to minimize the present and future threat to human health and the environment. 42 U.S.C. § 6902(b). The RCRA citizen suit claims in the case were based on two of the statutes' provisions, which prohibit

¹¹⁴ *Perry v. Ballew*, 873 N.E.2d 1068 (Ind. App. 2007)

¹¹⁵ 33 U.S.C. § 1365; 40 C.F.R. § 135.1

¹¹⁶ 40 C.F.R. §§ 135.1, 135.2 and 135.3

¹¹⁷ 33 U.S.C. § 1365

¹¹⁸ *Id.*

¹¹⁹ *CARE v. Cow Palace Dairy, et. al.*, 13-CV-3016-TOR (E.D. Wa. 2015).

open dumping and preclude persons from causing or contributing to the creation of an imminent and substantial endangerment to human health and the environment.

To establish "open dumping," a plaintiff must show "disposal of solid waste" (including discharge, leaking, placing, etc. of solid or hazardous waste onto land or water so that it or its constituents may enter the environment, including groundwater) in an "open dump," (meaning a site that is not a sanitary landfill that meets RCRA criteria for solid waste). Under EPA criteria for practices that may violate the open dumping ban, a facility cannot contaminate underground drinking water beyond the "solid waste boundary" with substances that exceed the maximum contaminant level (MCL), which for nitrates is 10 mg/L. The court held that because the CAFO at issue was not a qualified landfill, the plaintiffs could prevail if they could show that solid waste was managed or disposed at the CAFO in a manner that contaminated underground drinking water sources beyond the solid waste boundary.

VI. Lawsuits for Damages Barred by Indiana's Right to Farm Act

Under Indiana law, a nuisance is defined as that which is "injurious to health, indecent, offensive to the senses, or an obstruction to the free use of property so as essentially to interfere with the comfortable enjoyment of life or property."¹²⁰ Indiana law also provides that a lawsuit to abate or enjoin a nuisance may be brought by any person whose property is injuriously affected or personal enjoyment is lessened by the nuisance.¹²¹ A trial court may award injunctive relief to enjoin or abate the nuisance and may award damages proximately caused by the nuisance.¹²² Unfortunately, these court remedies have been eliminated for people suffering from the adverse effects of CAFOs by **Indiana's Right to Farm Act (RTFA)**.¹²³

Like other states' RTFA's, Indiana's statute was initially intended to protect existing farms from urban sprawl by barring unjustified nuisance suits by newcomers who **"moved to the nuisance."**¹²⁴ However, due to successful lobbying by the powerful meat industry, these laws have been amended to shield newly built factory farms from nuisance lawsuits brought by neighbors who were there first.¹²⁵ Such is the case in Indiana where the RTFA was amended in 2005 to redefine what it means for an agricultural operation to undergo a "significant change" that would otherwise remove the RTFA's protection.

Now, under the amended law, a significant change no longer includes a change in the size, type, or ownership of an agricultural operation, no matter how extreme, offensive, or damaging that change might be.¹²⁶ That means a change from growing crops to warehousing 8,000 hogs in a CAFO is no longer deemed "significant," regardless of the harm caused to existing neighbors. Instead, neighbors who purchased their homes in rural areas decades before CAFOs even existed or the RTFA was enacted are now deemed to have **"moved to the potential future nuisance"** and, therefore, retroactively lose their vested property rights when a CAFO is built next door. *Himsel v. Himsel*, 122 N.E.3d 935, 944 (Ind. Ct. App. 2019) (emphasis added). Unfortunately, the Indiana Court of Appeals recently took this a step further and concluded that **the RTFA bars not only nuisance claims by existing neighbors, but negligence and trespass claims too.** *Himsel*, 122 N.E.3d at 943-945.

¹²⁰ Ind. Code § 32-30-6-6

¹²¹ Ind. Code § 32-30-6-7

¹²² Ind. Code § 32-30-6-8

¹²³ Ind. Code § 32-30-6-9

¹²⁴ See J. Hand, *Right-to-Farm Laws: Breaking New Ground in the Preservation of Farmland*, 45 U. PITT. L. REV. 289, 290–93 (1984).

¹²⁵ See Leah Douglas, *Big Ag is Pushing Laws to Restrict Neighbors' Ability to Sue Farms*, NPR (Apr. 12, 2019), <https://www.npr.org/sections/thesalt/2019/04/12/712227537/bigag-is-pushing-laws-to-restrict-neighbors-ability-to-sue-farms>; L. Ashwood, et al., *Property Rights & Rural Justice: A Study of U.S. Right-to-Farm Laws*, 67 J. RURAL STUDIES 120, 127 (2019).

¹²⁶ Ind. Code § 32-30-6-9(d)(1).

By way of background, **nuisance law** protects the right to reasonably use property without interference. *See Indiana Motorcycle Ass’n v. Hudson*, 399 N.E.2d 775, 778 (Ind. App. 1980). In turn, **trespass** protects the right to exclusively possess property. *Indiana Michigan Power Co. v. Runge*, 717 N.E.2d 216, 227 (Ind. App. 1999). In contrast, liability in **negligence** depends not on the kind of harm caused, but whether reasonable care was used, *South E. Ind. Natural Gas Co. v. Ingram*, 617 N.E.2d 943, 953 (Ind. App. 1993), which is why Indiana courts have long recognized that a lawful business can still be held liable for causing a nuisance. *Bonewitz v. Parker*, 912 N.E.2d 378, 382 (Ind. App. 2009). Each if these claims—nuisance, trespass, and negligence—is a distinct cause of action, and analyzed separately even when they arise from the same facts. *See, e.g., KB Home Indiana Inc. v. Rockville TBD Corp.*, 928 N.E.2d 297, 304–09 (Ind. App. 2010) Nevertheless, the appeals court in *Himsel* held that **the RTFA bars each of these claims for people harmed by a CAFO.**

Specifically, although the RTFA expressly states that its protections do “not apply if a nuisance results from the negligent operation of an agricultural or industrial operation or its appurtenances,”¹²⁷ the appeals court concluded that **the decision to locate a CAFO on vacant cropland next to long-established homes—no matter how unreasonable and knowingly harmful that decision is—“cannot constitute negligent operation under the RTFA.”** *Himsel*, 122 N.E.3d at 945. Instead, the only way to demonstrate negligence is to show that the CAFO is not compliant with applicable regulations, and that non-compliance must be the cause of the nuisance. *Id.* at 944–45. The serious problem with this is that a CAFO’s regulatory compliance does *nothing* to alleviate the nuisance harm caused to neighbors by a CAFO’s noxious odors and air emissions.

As discussed previously, CAFOs are wholly unregulated under federal and state clean air laws. As such, neither the U.S. EPA nor IDEM has the regulatory authority to restrict or limit the dangerous and extremely noxious airborne chemical compounds that CAFOs produce. That means, so long as a CAFO with 8,000 hogs operates pursuant to the very regulations that allow it to confine 8,000 hogs, produce millions of gallons of feces, urine, and other animal wastes each year, and blow the resulting stench and waste particles onto neighboring homes, such a harmful CAFO is not, as a matter of law, being negligently operated under the RTFA. This outcome should be of critical concern to state lawmakers and citizens because Indiana’s 1,800 confined feeding operations have no limits on their air emissions; have no restrictions on their size or number of animals; and can be located within 400 feet of an existing homes, 100 feet from property lines, and just 300 feet from our lakes, rivers, streams, and wetlands, regardless of the amount of dangerous waste and emissions produced.

The appellate court also held that **existing neighbors have no right to bring a trespass claim for the otherwise “unlawful physical intrusion” of a CAFO’s noxious emissions into their properties and homes;** the reason, according to the court, is that allowing such claims would effectively “side step” the legislative intent of RTFA to protect farmers. *Id.* at 945. Of course, the defendants in the *Himsel* case were not “farmers” and their CAFO was not a farm. Indeed, the 16,000+ hogs that are “finished” every year at that CAFO are shipped for slaughter, processing, and sale to Tyson, JBS, Smithfield, and other transnational corporations that control 90% of meat production worldwide, and utilize monopolistic practices that effectively eliminate any notion of fair competition for actual farmers.¹²⁸

Finally, even though the appellate court concluded that the RTFA bars any remedy for an ongoing physical invasion that causes untenable living conditions, the court held that the RTFA is not an unconstitutional taking of the neighbors’ property rights. *Id.* at 946–948. In so doing, the court acknowledged that the plaintiffs in *Himsel* have suffered substantial property value losses—49.5% and 60%, respectively—and that their “property rights are clearly

¹²⁷ *Id.*

¹²⁸ *See* Huffman, Maxwell, et. al., *Consolidation, Globalization, and the American Family Farm*, Organization for Competitive Markets (Aug. 2017) at <https://competitivemarkets.com/wp-content/uploads/2017/08/Consolidation-Globalization-and-the-American-Family-Farm.pdf>; Shefali Sharma, *Mighty Giants: Leaders of the Global Meat Complex*, Institute for Agriculture & Trade Policy (Apr. 10, 2018) at <https://www.iatp.org/blog/leaders-global-meat-complex>.

affected” due to the CAFO. *Id.* at 947. Even so, the court concluded that no taking has occurred because the plaintiffs have “not been deprived of all or substantially all economic or productive use of their properties” and the RTFA is “reasonably related to the promotion of the common good.” *Id.* at 947-948.



As the plaintiffs, represented by HEC, argued in their Cert Petition to the U.S. Supreme Court, the appeals court decision in *Himsel* is at odds with long-standing Supreme Court jurisprudence confirming that when a law “requires an owner to suffer a permanent physical invasion of her property—however minor—it must provide just compensation,” because the right of exclusive possession is “perhaps the most fundamental of all property interests.” *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005) (citing *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 433 (1982)). Indeed, the ancient rights of neighbors to be free from neighborly invasion, whether the kind of invasion that interferes with exclusive possession (trespass) or

the kind that interferes with use and enjoyment (nuisance), have always been a key part of the “bundle of rights” that make up “property.” *Loretto*, 458 U.S. at 433. Accordingly, the government’s power to spirit away any one of these fundamental property rights without just compensation is extremely limited. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 536–37 (2005). Unfortunately, that is exactly what the Indiana legislature has done with the RTFA and the U.S. Supreme Court has declined to intervene.

The Supreme Court’s decision not to review Indiana’s RTFA ends a costly, and incredibly stressful five-year legal battle that neighbors of a polluting factory farm were forced to bring because federal, state, and local government agencies were unable or unwilling to help. And, because the Indiana Appeals Court ruling in their case now stands, the legal system is a dead end for them too. For that matter, without the assistance of HEC’s non-profit legal aid, these low-income families would not have been able to even access the courts in the first place.¹²⁹ Such an unjust outcome underscores how insidious of a law the RTFA is. It eliminates any possibility that CAFOs in Indiana will be held liable for fouling the air, upending people’s lives, and trampling on the property rights of our fellow citizens in rural communities.

Unbelievably, that outcome is not enough for the meat industry—it wants to make it even harder for citizens who dare ask a court for help by pushing state lawmakers to pass legislation to “hold organizations like HEC financially responsible for lawsuits that target farmers.”^[130] Such legislation is aimed solely at scaring non-profits away from providing legal aid to help communities fight back. As discussed below, **we must call on state lawmakers to reject this unfair and incredibly perverse effort and urge them, instead, to restore the property rights of rural Hoosiers and pass common sense environmental protections to prevent Indiana’s countryside from becoming a dumping ground for the meat industry.**

¹²⁹ See *Citizens Lack Affordable Legal Services. HEC is Addressing Indiana’s Environmental Justice Gap* at <https://www.hecweb.org/technical-legal-assistance/>.

¹³⁰ Samantha Horton, *After Supreme Court Rejects Hearing Right to Farm Case, Both Sides Look to Policy Changes*, *WFYI* (Oct. 12, 2020) (quoting defense counsel Chris Braun) at <https://www.wfyi.org/news/articles/after-supreme-court-rejects-hearing-right-to-farm-case-both-sides-look-to-policy-changes>.

THERE ARE SOLUTIONS - TAKE ACTION

I. Demand Common Sense State Regulatory Reform

Given the significant gaps in environmental regulation of factory farms—gaps that are threatening public health, the environment, quality of life and economic development in our communities—it is imperative that we demand our state lawmakers to pass legislation that will:

- Give IDEM authority to deny a permit to build or expand a CFO/CAFO to protect human health and the environment from the operation's air emissions (IDEM has no such authority now);
- Impose greater setbacks (at least a mile) from residences, schools, businesses, churches, parks and other public places (for all CFO/CAFO structures and land application activities) or if such a setback is not possible, require the developer to fairly compensate impacted property owners;
- Impose greater setbacks from lakes, streams, wetlands, and other environmentally sensitive areas (for all CFO/CAFO structures and land application activities);
- Prohibit construction or expansion of CFO/CAFOs in karst areas and flood plains (as is allowed now);
- Set air pollution limits for CFO/CAFOs to restrict their dangerous emissions of hydrogen sulfide, ammonia, amines, volatile fatty acids and other odorous compounds;
- Require use of BMPs to control erosion and runoff (vegetative buffers, etc...) from production and land application sites;
- Include a public nuisance provision that would allow IDEM to revoke a CFO/CAFO permit if the operation becomes a public health or environmental threat or a nuisance to its neighbors;
- Require disclosure of all persons/entities in control of a CFO/CAFO including the integrator, and owner of the animals along with full disclosure of their environmental track records;
- Impose the same public notice and commenting requirements for CFO/CAFO permits as is required under the CWA (which would require IDEM to actually consider and respond to public comments in its decision making on whether to issue a permit).



II. Advocate for an RTFA Amendment that Restores Property Rights of Rural Citizens

Given the Indiana Court of Appeals' recent ruling that the RTFA retroactively strips the property rights of rural Hoosiers when a polluting factory farm moves in next door and prevents them from obtaining any relief in court, we must demand our state lawmakers amend the RTFA to:

- repeal the “significant change” provision and make clear that a decision to turn vacant cropland into a polluting factory farm that creates untenable living conditions for existing neighbors is a significant change that removes the RTFA's immunity protections;

- make clear that CAFO developers must use reasonable care in deciding where to build their factory farms such that irresponsibly siting a factory farm in a place that the developer knows will cause harm to existing neighbors (i.e., too close and upwind) is negligence that will remove the RTFA's immunity protection;
- reject any attorney fee-shifting-type legislation aimed at scaring citizens and/or their attorneys (legal aid or otherwise) from seeking relief in court when a polluting factory farm causes harm.

Everything you need to know to get actively involved in this effort is available through HEC's BillWatch page at <https://www.hecweb.org/bill-watch-2021/>. The 2021 legislative session will begin on January 4, 2021. When it begins, HEC will spotlight important bills and calls-to-action on this page. For real time updates, make sure to follow us on Facebook (www.facebook.com/hecweb) and Twitter (https://twitter.com/HEC_ED). **To find your state legislators go to <http://iga.in.gov/legislative/find-legislators/>**

III. Push Congress to Enact the “Farm System Reform Act”

In 2019, U.S. Senator Cory Booker introduced legislation called the “Farm System Reform Act” to revitalize independent family farm agriculture and ensure a level playing field for all farmers and ranchers. Senate co-sponsors of the bill Sen. Elizabeth Warren, Sen. Bernie Sanders and Sen. Edward Markey. In the House of Representatives, the bill was introduced by Rep. Ro Khanna. The proposed legislation is supported by more than 300 sustainable farming groups, animal welfare, environmental and public health organizations (including HEC and Indiana Farmers' Union).¹³¹ Also promising, a recent survey by the Johns Hopkins Center for a Livable Future found that a majority of registered voters support greater oversight of factory farms.¹³² The Farm System Reform Act would do just that by, among other things:

- strengthening the Packers & Stockyards Act (anti-trust law) to crack down on the monopolistic practices of multi-national meatpackers and corporate integrators;
- placing an immediate moratorium on new and expanding large CAFOs, and phasing out by 2040 the largest CAFOs as defined by EPA;
- holding corporate integrators responsible for pollution and other harm caused by CAFOs;
- providing a voluntary buyout for farmers who want to transition out of operating a CAFO;
- Restoring mandatory country-of-origin labeling requirements for beef and pork and expanding the requirements to dairy products;
- Prohibiting the USDA from labeling foreign imported meat products as “Product of USA.”

Read the full text of the bill here: <https://www.congress.gov/bill/116th-congress/senate-bill/3221/text>

Locate your U.S. senators' contact information here:

https://www.senate.gov/general/contact_information/senators_cfm

Find your U.S. representatives' website and contact information here:

<https://www.house.gov/representatives>

Sign an on-line petition in support of the bill here: <https://www.foodandwaterwatch.org/campaign/ban-factory-farms>

¹³¹ https://www.foodandwaterwatch.org/sites/default/files/fsra_sign-on_final_copy.pdf

¹³² <https://clf.jhsph.edu/about-us/news/news-2019/survey-majority-voters-surveyed-support-greater-oversight-industrial-animal>

IV. Support Local, Independent Farmers



Indiana has always been a key center of agriculture for the country. As a leading agricultural state, it is time for us to look for a sustainable solution that nourishes everyone over the long term—the farmer, local residents, consumers, and the earth. **The answer: moving away from a commodity-based system and returning to a local food system.**

The local food system is one of the fastest growing, most promising markets in agriculture today and is based on one central idea: when food is grown, processed, and sold locally, it is better for farmers, better for communities, better for the environment, and – in both taste and nutrition—better for people. This is not new. In the early 1900s, almost all agricultural systems were local systems, but with innovations in technology over the 20th century, most of the local facilities, transportation, delivery systems and marketing connections have disappeared. Much of what remains is designed for agricultural scales well beyond the needs of local food.

A Local Food System Offers Fresher, Tastier, and More Nutritious Food

For consumers, local food is an opportunity to eat fresher, tastier food. Indeed, market studies indicate that a primary reason people buy local food is because it tastes better and is fresher than food bought at a grocery store. That's because food at the grocery store routinely travels from Florida, California, Mexico and overseas—on average, 1,500 miles from farm to plate.¹³³ When food travels that far, it can spend days or weeks in transit and, therefore, must be bred for shelf life and durability and/or treated with chemicals and preservatives. This not only reduces taste and freshness but has led to declines in nutrition value.¹³⁴

In contrast, food bought from a farmers' market, CSA, or co-op may be as fresh as this morning, eliminating the need for chemicals and preservatives. Because foods begin to lose nutritional value at the moment of harvest, fresher local foods retain more nutritional value and the farmer producing it has greater flexibility in selecting more flavorful, and often more nutritional, breeds and varieties.

A Local Food System Supports Local Farmers and the Local Economy

Aside from taste and freshness, another top reason consumers cite for buying local food is to support local farmers. In 2002, farmers earned their lowest real net cash income since 1940.¹³⁵ Indeed, nearly 90% of farm households rely on off-farm income just to get



¹³³ Iowa State University Extension, *Using Organic Agriculture and Sustainable Crops and Livestock in the Local Food System*, (Nov. 2005) available at <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2005-11-using-organic-agriculture-and-sustainable-crops-and-livestock-local-food-system.pdf>.

¹³⁴ *Id.* at 4 (indicating that foods cultivated for longer shelf life and higher yields are less nutritious than many traditional breeds and varieties).

¹³⁵ *Id.* (citing USDA, Farm income and balance sheet statistics in constant U.S. dollars, 1929-2002. Economic Research Service. <http://www.ers.usda.gov/data/farmincome/finfidmu.htm>).

by while corporate agribusiness profits have nearly doubled since 1990.¹³⁶ By choosing to buy local, consumers "vote with their dollars" for a food system that aligns with their values such as family farms, community, a vibrant local economy, and sustainability. In doing so, consumers help both local farmers and the local economy.

Studies suggest that roughly one-third of consumers will pay a 5-20% premium for locally grown vegetables and meats, indicating the potential profitability of a local food system.¹³⁷ Combined with more labor-intense practices, a local food system can generate many times the net return per acre as common commodity crops.¹³⁸ Moreover, data indicates that only 20% of the average consumer food dollar (in a commodity system) contributes toward the farm value of the food.¹³⁹ However, a local food system features direct farmer-to-consumer marketing meaning it is possible for the farmer to capture more of the consumer food dollar while still offering a competitive price.

Local food purchases also have the effect of bolstering the local economy. A Minnesota study revealed that, in a region with over \$866 million in sales of farm products in a given year, as much as \$800 million of that did not stay in the region due to non-local consumer food purchases and non-local farm input purchases.¹⁴⁰ Even if a local food system could capture as little as 1% of that loss, that would be \$8 million that stays in the region to support local farms, communities, and towns. The same study estimates that local food dollars cycle 2.3 times through the local economy, while dollars spent at large industrial farms only cycle 1.9 times.

A Local Food System Builds Lasting Relationships Among Farmers, Processors, Retailers, and Consumers which Strengthens the Social Fabric of a Community

In addition to the economic benefits, many social benefits are realized in a community with a robust local food system. Key among these are the relationships that local food systems build—relationships that connect people, establish lasting business ties and create a sense of place and identity. When shoppers know the farm that produces their food, when they know a chef, a nutritionist, a city official, and neighbors who buy locally, they feel a stronger connection and greater pride in place. Not surprisingly, communities with a strong sense of place can—through farmers' markets, local festivals, and local character—develop attractive and profitable agri-tourism possibilities. **For example, Delaware County has at least two Farmers' Markets—the Minnetrista Market and the Yorktown Market—that connect local consumers to local farmers every Saturday from May to September.¹⁴¹ And, small farm co-ops and buying clubs such as Purple Porch Co-Op,¹⁴² Homestead Heritage,¹⁴³ Seven Sons Meat Company,¹⁴⁴ Tyner Pond Farms¹⁴⁵ and others connect local farmers to local consumers year-round.** Finally, a local food system boosts food security defined as the "ability of all people to obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice."¹⁴⁶

¹³⁶ *Id.*

¹³⁷ Leopold Center for Sustainable Agriculture, *Eco-label Value Assessment: Consumer and Food Business Perceptions of Local Foods* (2003) available at <http://www.leopold.iastate.edu/pubs/staff/ecolabels/index.htm>.

¹³⁸ *Id.*

¹³⁹ Elitzak, Howard, *Food Marketing Costs: a 1990's Retrospective*, Economic Research Service, Food Review 23 (2003) available at <http://www.ers.usda.gov/publications/foodreview/septdec00/FRsept00e.pdf>.

¹⁴⁰ Meter, Ken, *Finding Food in Farm Country*, Crossroads Research Center (2001) available at www.crcwords.org/ff/pdf.

¹⁴¹ <http://minnetrista.net/home/things-to-do/events-calendar/farmers-market-minnetrista/>; <https://www.visitmuncie.org/farmers-market-at-yorktown/>.

¹⁴² 123 Hill Street, South Bend IN -- offers online ordering with deliveries of milk, produce, eggs and meat when available.

¹⁴³ 5254 North 500 East, Kokomo IN 46901 -- a CSA which offers chicken, eggs, turkey, pork and dairy products including milk, butter, yogurt and kefir.

¹⁴⁴ 15718 Aboite Road, Roanoke IN 46783 -- has several buying clubs in Indiana and the Chicago area and offers beef, chicken, turkeys, pork with deliveries to these locations several times a year.

¹⁴⁵ <https://tynerpondfarm.com>

¹⁴⁶ Community Food Security Coalition, *What is Food Security?* (2005) available at http://www.foodsecurity.org/views_cfs.faq.html.

A Local Food System is Better for the Environment

A clear environmental benefit from a local food system is the markedly reduced use of fossil fuels for transport. Foods produced in a commodity system that travel across the country (or across oceans) before landing in a grocery store aisle, require significantly more fossil fuels to transport them than to grow them. Indeed, one study found that switching to a local food system would save 79-94% of the carbon dioxide emissions from food transport versus purchasing non-locally sourced foods.¹⁴⁷ In addition, a local food system is typically correlated with organic and sustainable practices aimed to provide cleaner water, soil conservation, odor reduction, and less pesticide and fertilizer use, wildlife diversity, and respect for neighbors who live nearby.

V. Ultimately It's Up to You



We've all learned about ways to reduce our own environmental footprints by making a variety of lifestyle changes such as: following the "three R's" – i.e., reduce, reuse, recycle, driving hybrid or electric cars, using public transportation, walking or biking when possible, installing renewable energy systems on our homes, installing energy efficient appliances, using energy efficient LED light bulbs, taking less and shorter showers with low flow shower heads, not watering our lawns, using collected rainwater in rain barrels if we have to water, insulating our homes, shopping at locally owned businesses, and making environmentally responsible investments. **But we rarely hear about the tremendous environmental impact that our food choices** have despite the fact that raising animals for food accounts for 18% of global GHGs, 80% of worldwide land use, 30% of global fresh water consumption, and is the leading cause of species extinction, ocean dead zones, water pollution, and habitat destruction.¹⁴⁸ Fortunately, that appears to be changing.

Every five years, the federal government publishes updated advice on what Americans should eat (think of the food pyramid). These dietary guidelines are based on recommendations from a panel of expert scientists who sit on the Dietary Guidelines Advisory Committee (DGAC).¹⁴⁹ This expert panel issued its latest recommendations in a February 2015 report, which includes the common sense idea that our "food print" matters; that we as a nation ought to be making food choices for environmental as well as personal health reasons. For the first time, the DGAC's recommendations explicitly highlight the intersection between our dietary decisions and the impact of those decisions on the health of our environment--in other words, on our planet's ability to continue to provide us with the food we need to stay healthy for generations to come.¹⁵⁰ Of particular significance, the DGAC found that plant-based diets are not only consistently related with "positive health outcomes" including reduced risk of obesity, cardiovascular

¹⁴⁷ Pirog, et. al., *Food, Fuel and Freeways: an Iowa Perspective on How Far Food Travels, Fuel Usage, and Greenhouse Gas Emissions*, Leopold Center for Sustainable Agriculture (2001).

¹⁴⁸ Cowspiracy: the Sustainability Secret, *The Facts* (providing citation and links to peer-reviewed scientific studies, government and other credible sources) available at <http://www.cowspiracy.com/facts/>.

¹⁴⁹ <https://health.gov/dietaryguidelines/committee/>

¹⁵⁰ Office of Disease Prevention and Health Promotion, *2015-2020 Dietary Guidelines for Americans* (Feb. 2015) available at <https://health.gov/dietaryguidelines/2015-scientific-report/>

disease, cancer and other diseases but also has less environmental impact in terms of GHG emissions, land use, water use and energy use, compared to the average American diet that is high in animal-based foods.¹⁵¹

Indeed, of all the foods we eat, our meat, poultry and dairy products are by far the most resource-intensive and environmentally damaging to produce. 56% of fresh water consumption in the U.S. is attributed to livestock production¹⁵² as compared to our private home water usage -- i.e., drinking water, doing dishes, taking showers, watering lawns -- which accounts for a mere 5% of U.S. water consumption.¹⁵³ Similarly, nearly half of all land in the contiguous U.S. is directly or indirectly devoted to animal agriculture,¹⁵⁴ which makes sense given that it requires 2-5 acres to raise just one cow.¹⁵⁵ And notably, even though we currently grow enough food to feed 10 billion people,¹⁵⁶ 50% of food grown worldwide goes to feed livestock.¹⁵⁷ This staggering inefficient use of resources is particularly disturbing from a humanitarian perspective given that 82% of starving children live in countries where food is grown to feed livestock that are eaten by people in western countries.¹⁵⁸ And, **15 times more protein can be produced on a given area of land by growing plants for direct human consumption rather than feeding it to livestock.**

To put the extraordinary impact our food choices have into perspective, consider that it takes only 1/6th of an acre to feed a vegan for a year, about half an acre to feed a vegetarian, but three acres to feed the average American meat-eater.¹⁵⁹ Furthermore, meat-eaters produce about twice as many dietary-related greenhouse gas emissions as vegans and vegetarians. People who eat 3.5 ounces of meat per day—about the size of a deck of playing cards—generate 15.8 pounds of carbon-dioxide equivalent (CO₂e), whereas vegetarians and vegans are responsible for 8.4 pounds and 6.4 pounds of CO₂e, respectively.¹⁶⁰ **Compared to the average meat-eater, a person who eats a plant-based diet saves 1,100 gallons of water, 45 pounds of grain, 30 square feet of forested land, 20 pounds of CO₂ equivalent, and one animal's life every day.**¹⁶¹

The answer is clear. The world population is expected to grow from 7.2 billion today to 9.6 billion by 2050.¹⁶² Although we are currently growing enough food to feed 10 billion people, most of that food is going to feed livestock. At current rates of meat consumption, we will need the resources of several more planets to feed the world in 2050, yet we only have one. **The choice is yours—consider reducing your meat consumption and adopting a more plant-based diet.**

¹⁵¹ *Id.* at Executive Report

¹⁵² M. Jacobson, *Six Arguments for a Greener Diet: How a More Plant-Based Diet Could Save Your Health and the Environment*, Ch. 4, Center for Science in the Public Interest (2006).

¹⁵³ *Id.*

¹⁵⁴ C. Glaser, et. al., *Costs and Consequences: the Real Price of Livestock Grazing on America's Public Lands*, Center for Biological Diversity (Jan. 2015).

¹⁵⁵ McBride & Mathews, *The Diverse Structure and Organization of U.S. Beef Cow-Calf Farms*, USDA: Economic Research Service 73 (March 2011).

¹⁵⁶ E. Holt-Gimenez, *We Already Grow Enough Food for 10 Billion . . . and Still Can't End Hunger*, Common Dreams: Breaking News and Views for the Progressive Community (May 2012).

¹⁵⁷ UN, Food and Agriculture Organization, *Protein Sources for the Animal Feed Industry, Executive Summary: Feed Supply*

¹⁵⁸ UN, Food and Agricultural Organization, *Global livestock production systems* (2011); UNICEF, *Improving Child Nutrition: The Achievable Imperative for Global Progress* (Apr. 2013).

¹⁵⁹ Gordan, et. al., *Land, Irrigation Water, Greenhouse Gas, reactive Nitrogen Burdens of Meat, Eggs and Dairy Production in the United States*, Proceedings of the National Academies of Sciences 111:33 (June 2014)

¹⁶⁰ *Id.*

¹⁶¹ Cowspiracy: the Sustainability Secret, *The Facts* (providing citation and links to peer-reviewed scientific and government studies and other credible sources) available at <http://www.cowspiracy.com/facts/>

¹⁶² United Nations, Dept. of Economic and Social Affairs, *World population projected to reach 9.6 billion by 2050* (2013) at <http://www.un.org/en/development/desa/news/population/un-report-world-population-projected-to-reach-9-6-billion-by-2050.html>.

STATE/FEDERAL REGULATION OF LIVESTOCK OPERATIONS IN INDIANA

Category of operation	<u>Animal Feeding Operation</u> (Confined animals but fewer than CFO threshold)	<u>Confined Feeding Operation</u> (At least 300 cattle, 600 swine or sheep, 30,000 poultry or 500 horses in confinement)	<u>Concentrated Animal Feeding Operation</u> (At least 700 dairy cows, 1,000 veal calves, 1,000 cattle, 2,500 swine, 10,000 sheep/lambs, 55,000 turkeys, 82,000 hens, 125,000 broilers, 5,000 ducks in confinement)
Number operating in Indiana	-Unknown #	~ 1,300	~ 690 (3 subject to federal law)
Odors	Not regulated	Not regulated	Not regulated
Air Pollutants (hydrogen sulfide, ammonia, particulate matter)	Not regulated	Not regulated	Not regulated
Rodents/Flies	Not regulated	Not regulated	Not regulated
Groundwater contamination (pathogens / nitrates)	Not regulated unless from manure spill	State regulated if from manure storage structures or production areas, but not from farm field run-off*	State regulated if from manure storage structures or production areas, but not from farm field run off. Federally regulated facilities must comply with NPDES permits which may have groundwater monitoring requirements.*
Groundwater use	Not regulated	Not regulated	Not regulated
Surface water contamination (pathogens / nutrients / sediments)	Not regulated unless from manure spill	State regulated if from manure storage structures or production areas, but not from farm field run-off*	State regulated if from manure storage structures or production areas, but not from farm field run-off. Federally regulated facilities must comply with manure management and storm-water management plans.*
Where a livestock operation can locate	Not regulated	Not regulated	Not regulated
Truck traffic	Not regulated	Not regulated	Not regulated
Property values	Not regulated	Not regulated	Not regulated

* For more detail, see HEC chart on Federal and State Regulation of Discharges From Indiana Livestock Operations

FEDERAL AND STATE REGULATION OF DISCHARGES **FROM INDIANA LIVESTOCK OPERATIONS**

	Animal Feeding Operations	Confined Feeding Operations	Concentrated Animal Feeding Operations
Type of permit	IDEM permit not required	Must obtain State “CFO Approval” from IDEM	CAFOs that discharge must obtain a federal NPDES permit; CAFOs that don’t discharge may obtain either an NPDES permit or a “CFO Approval” from IDEM [†] (327 IAC 15-16-1)
Public notice of permit application for new facility or expansion	IDEM permit not required.	Must make “reasonable effort” to notify landowners within ½ mile of facility. Notice in newspaper not required (327 IAC 19-8-7).	Must notify all “potentially affected persons” and all adjoining landowners. Also, public notice in local newspaper required. (40 CFR 122.23)
Public participation in permit application process	IDEM permit not required	33-day public comment period; public “informational meeting” may be held at IDEM discretion; no requirement for IDEM to respond to comments. (327 IAC 19-8-7)	30-day (or longer, if necessary) public comment period. Public hearing may be held and IDEM must consider and respond to comments. (40 CFR 124.11 – 124.17)
Groundwater monitoring	No requirements	GWM may be required at IDEM discretion. If required, CFO owner/operator conducts sampling and reports only if statistically significant increase over background levels. (327 IAC 19-10-1)	Same as CFO rule.
Stormwater management	No requirements	“Good housekeeping” BMPs for storm water management and erosion/sediment control. (327 IAC 19-11-2)	Must meet storm water requirements in 40 CFR 122.23(e) and 40 CFR 122.42(e)(1) through 40 CFR 122.42(e)(2).
Manure storage structures – capacity & design requirements	None	180-day storage capacity and 2 feet freeboard required; must be designed to prevent surface water discharge; owner / operator inspection once a week (327 IAC 19-12-4; 327 IAC 19-13-1).	Same as CFO rule. However, existing CAFOs with 120-day capacity (per prior rule) can obtain variance.
Site restrictions for manure storage structures	None	Cannot be built in floodways or over mines. Can be built in karst terrain, 100-year flood plains and soil types expected to have a seasonal high water table. (327 IAC 19-12-2)	Same as CFO rule.

[†] Of the 690 CAFOs in Indiana, all but 3 are deemed not to have discharges and have elected to be subject to the State’s “CFO Approval” requirements – none elected to stay in the federal NPDES program.

Setbacks for manure storage structures	None	1,000 ft. - public wells and intake structures; 300 ft. - surface water, drainage inlets, sinkholes, off-site wells; 100 ft. - on-site wells, property lines, public roads; 400 ft. - off-site residences and public buildings. (327 IAC 19-12-3)	Same as CFO rule.
Land application of manure	No requirements	Land must be owned/controlled by owner/operator (327 IAC 19-14-2); Application rates for P and N; No application on saturated, frozen or snow covered ground except in emergency situations or “case-by-case” basis with approval from IDEM (327 IAC 19-14-4); application setbacks in accordance with Ind. NRCS conservation practice standard 633 (327 IAC 19-14-6).	Must develop and follow a nutrient management plan that is enforceable and subject to public notice and comment requirements. (40 CFR 122.42(e))
Emergency Response	Must comply with “Spill Rule” (327 IAC 2-6.1)	Owner/operator must develop an Emergency Response Plan. Spill must be reported within 2 hours of discovery. (327 IAC 19-13-4). Spill from field run-off or land application done in accordance with rule is not a violation. (327 IAC 19-14-4)	Same as CFO rule.
Disposal of dead animals	May bury on premises at a depth of 4 feet, compost, or store until pick-up by licensed disposal service. (345 IAC 7-7-3)	Must comply with 345 IAC 7-7 and ensure dead animals or liquids from dead animals do not come in contact with ground and surface waters. (IDEM: 327 IAC 19-7-6)	Same as CFO rule.
Enforcement	State only	State only	State and Federal



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