Stemming the Tide of Pollution from CAFOs:

A Citizen Guide for Addressing Community Impacts from Indiana's Livestock Factories

Hoosier Environmental COUNCIL

All. Together. Now.

The goal of the Hoosier Environmental Council's *Stemming the Tide of Pollution from CAFOs* project is to help groups and individuals address the increasing threat to our environment and communities from the growing number and size of Indiana's factory farms otherwise known as concentrated animal feeding operations ("CAFOs") and confined feeding operations ("CFOs").

This Citizens' Guide was developed as part of the project to promote livestock production in Indiana that supports ecological, human and animal health, local sustainability, community viability and an informed and engaged citizenry. In addition to providing information about the adverse impacts of CAFOs on public health, the environment, and rural economies, this Guide discusses how to utilize federal, state, and local regulations to protect your community against the irresponsible siting of new CAFOs and ensure that existing CAFOs are following the law, how to become a more effective advocate in pushing for greater local and state protections, the role that your own food choices play in ensuring a healthy environment for all, among other topics.

We hope you find the information helpful.

The HEC Team

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WHAT IS A CAFO?

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 federal and state regulatory purposes. These terms are defined as follows:

I. Animal Feeding Operation

Under federal and state law, **an AFO is defined as** a livestock 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 growing 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 confined 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

In Indiana, **a CFO** is as an AFO that confines at least 300 cattle, 600 swine or sheep, 30,000 poultry, or 500 horses. In addition, **an AFO that violates Indiana's water pollution control laws will be considered a CFO,** subject to regulation and enforcement for the violation.[2]

III. Concentrated Animal Feeding Operation

CAFOs are CFOs that confine a greater threshold number of animals including: 700 mature dairy cows; 1,000 veal calves; 1,000 cattle other than mature dairy cows or veal calves (heifers, steers, etc.); 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 with demonstrated pollutant discharges to waterways are subject to federal regulation under the Clean Water Act (CWA)**.

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[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.

For purposes of this citizen guide the term "factory farms" is used to collectively describe AFOs, CFOs and CAFOs.

Table 1: Threshold Number of Animals in CFOs or CAFOs

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. How Many Factory Farms Are There?

The U.S. Department of Agriculture estimates that there are slightly more than one million farms with livestock in the United States. Roughly 450,000 of those are likely to be AFOs where animals are kept and raised in confinement. And, according to U.S. EPA, approximately 20,000 of those AFOs are the largest CAFOs.

Notably, since 2003 the total number of animals housed per CAFO has continued to grow because of expansion and consolidation of the livestock industry. Indeed, according to USDA Census Data, the number of "livestock units" on factory farms has increased from 23.7 million in 2002 to 28.5 million in 2012. A "livestock unit" is a way to measure different kinds of animals on the same scale based on their weight where one cow under 1,000 pounds is the equivalent of one animal unit. By comparison, one hog over 300 pounds is 0.4 animal units, and a laying hen is 0.033 animals units. That means that one cow is the equivalent of 2.5 hogs or 30 laying hens. Put another way, a factory farm with 1,000 cattle is the equivalent of a factory farm with 2,500 hogs or 30,000 chickens.[6]

[5] Chickens farmed for eggs are called laying hens or layers. Chickens farmed for meat are known as broilers.
[6] http://www.mda.state.mn.us/animals/feedlots/feedlot-dmt/animalunitcalcwksht.aspx

INDIANA'S FACTORY FARMS

Indiana's annual livestock sales/inventory include approximately 890,000 cows and calves, more than 10 million hogs and pigs, and more than 97 million poultry birds.[7] As the chart below indicates, the vast majority of these animals are warehoused at Indiana's 1,900 or so CFOs and CAFOs.[8] Indeed, Indiana ranks third nationally for egg production with 25.6 million laying hens – 25.2 million of which are at just 29 facilities each with the capacity to contain 100,000 birds or more.[9] We also lead the country in hog production, ranking fifth nationally with 10.5 million hogs sold annually, 9.3 million of which are raised on just 450 hog factories each permitted to confine in excess of 5,000 hogs.[10] Other top categories include pullets and turkeys for which we are the fourth and seventh largest producer in the country, respectively.

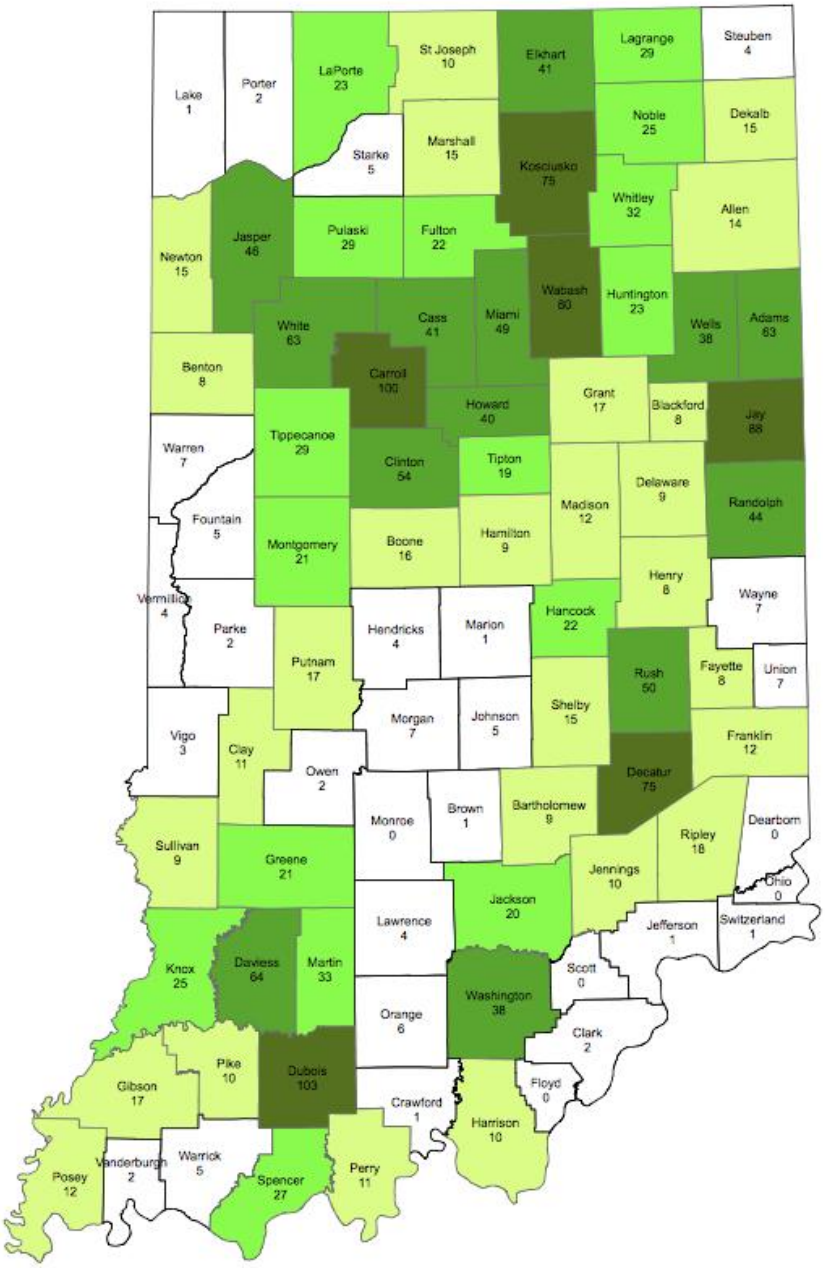
Table 3: Largest Production Categories in Indiana

Livestock	Number Sold Annually in Indiana	Number raised on CFOs in Indiana	U.S. Rank
Layers	25,587,222	25,222,887	3
Broilers	41,579,130	41,480,806	13
Hogs and Pigs	10,551,241	10,115,465	5
Pullets	16,769,407	16,689,094	4
Turkeys	13,642,595	13,189,839	7

As indicated in the following map and chart, most of Indiana's CAFOs and CFO's 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. **Newton County, with 13 CAFOs and CFOs[11] has relatively few factory farms as compared to other Indiana counties.** For this reason, Newton County has an opportunity to protect quality of life for its citizens by taking necessary action to prevent the further proliferation of factory farms in the County—that action should start with stopping the ill-conceived proposal to build the Natural Dairy Prairie CAFO in one of the most sensitive ecological areas of the state.

[7] USDA, *2012 Census of Agriculture, Volume 1, Chapter 1: State Level Data—Indiana* (2012).
[8] Purdue University Extension, *County Regulation of Confined Feeding Operations in Indiana: An Overview,* (January 2016) (citing IDEM numbers from 2015).
[9] USDA, *2012 Census of Agriculture—Indiana State Data, Table 32. Poultry—Inventory and Number Sold: 2012 and 2007*.
[10] USDA, *2012 Census of Agriculture—Indiana State Data, Table 20. Hogs and Pigs Sales: 2012 and 2007*.
[11] According to IDEM data, this number is current as of May 30, 2017. The charts below are based on IDEM data from July, 2011.

Total Regulated Farms by County



0 25 50 100 Kilometers

0 15 30 60 Miles

N

W E

S

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Mapped By:
Shane Moore, Office of Land Quality
Date: 7/11/2011
Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Farm Data - As of July 1, 2011
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

IDEM

County Name	Total Number of Farms Regulated by IDEM	County Rank (Highest to Lowest)	Total Number of CAFOs	County Rank (Highest to Lowest)	Total Number of CFOs	County Rank (Highest to Lowest)	2007 Total Cropland Acres from Agricultural Statistics	County Rank (Highest to Lowest)	Land Application Acreage Required for Manure/Litter/Process Wastewater from Permitted/Approved Animals Based on a 150# Plant Available Nitrogen Rate	County Rank (Highest to Lowest)	% of Total County Cropland Acres Needed for Land Application of Manure/Litter/Process Wastewater	County Rank (Highest to Lowest)	Cumulative Animal Units (Based on Historical US EPA Animal Unit Definition)	County Rank (Highest to Lowest)
Adams	63	8	11	17	52	6	165,835	31	8,945	16	5.39	17	52,678	16
Allen	14	45	5	29	9	45	230,416	8	2,875	42	1.25	57	17,593	42
Bartholomew	9	55	2	56	7	51	148,255	43	957	67	0.65	73	5,560	67
Benton	8	59	4	41	4	62	262,575	5	4,658	28	1.77	45	17,764	41
Blackford	8	59	5	29	3	66	77,137	72	2,912	41	3.77	25	19,827	36
Boone	16	40	4	41	12	34	210,483	12	2,666	45	1.27	56	17,920	39
Brown	1	82	0	78	1	79	8,215	92	253	79	3.09	33	794	84
Carroll	100	2	41	2	59	3	178,177	26	20,874	4	11.72	5	132,428	2
Cass	41	15	13	15	28	15	208,479	14	7,223	19	3.46	28	40,683	18
Clark	2	77	0	78	2	71	61,027	78	202	82	0.33	81	1,225	82
Clay	11	49	2	56	9	45	134,068	50	1,574	55	1.17	61	9,654	56
Clinton	54	10	15	13	39	9	244,813	6	10,877	14	4.44	18	67,959	13
Crawford	1	82	1	66	0	85	17,136	88	300	77	1.75	46	1,728	78
Daviess	64	7	3	49	61	2	173,812	29	5,908	21	3.40	30	38,392	19
Dearborn	0	88	0	78	0	85	35,833	85	0	88	0.00	88	0	88
Decatur	75	5	21	7	54	5	183,719	23	11,377	13	6.19	12	71,272	10
DeKalb	15	41	4	41	11	39	135,150	49	2,844	44	2.10	38	14,560	44
Delaware	9	55	3	49	6	56	143,432	44	1,202	63	0.84	70	7,996	62
Dubois	103	1	21	7	82	1	135,172	48	22,850	2	16.90	1	127,768	4
Elkhart	41	15	3	49	38	10	141,649	45	4,431	29	3.13	32	27,384	28
Fayette	8	59	2	56	6	56	75,760	73	1,261	62	1.66	49	8,457	61
Floyd	0	88	0	78	0	85	13,785	90	0	88	0.00	88	0	88
Fountain	5	68	3	49	2	71	163,135	34	772	72	0.47	78	4,628	71
Franklin	12	46	0	78	12	34	85,367	70	976	66	1.14	62	6,198	66
Fulton	22	30	5	29	17	25	165,897	30	2,872	43	1.73	47	17,804	40
Gibson	17	37	6	26	11	39	209,283	13	3,816	35	1.82	43	20,163	35
Grant	17	37	5	29	12	34	191,061	19	3,011	39	1.58	50	18,424	38
Greene	21	32	4	41	17	25	119,099	59	3,882	34	3.26	31	24,164	31
Hamilton	9	55	1	66	8	47	114,304	61	814	69	0.71	72	5,556	68
Hancock	22	30	5	29	17	25	159,252	36	3,088	38	1.94	41	21,114	33
Harrison	10	51	2	56	8	47	99,095	67	1,483	57	1.50	51	8,460	60
Hendricks	4	72	2	56	2	71	157,591	38	734	73	0.47	79	4,792	70
Henry	8	59	5	29	3	66	157,458	39	3,276	36	2.08	39	17,494	43
Howard	40	17	5	29	35	11	151,611	42	4,255	30	2.81	34	29,895	26
Huntington	23	28	15	13	8	47	184,951	21	7,570	17	4.09	20	37,606	20
Jackson	20	34	13	15	7	51	165,499	32	14,234	9	8.60	8	75,425	9
Jasper	46	13	18	11	28	15	315,634	1	19,086	6	6.05	13	80,543	7
Jay	88	3	46	1	42	8	176,787	27	28,959	1	16.38	2	169,816	1
Jefferson	1	82	1	66	0	85	67,070	76	244	80	0.36	80	1,530	80
Jennings	10	51	6	26	4	62	105,121	65	6,539	20	6.22	10	35,192	21
Johnson	5	68	0	78	5	58	128,885	55	791	71	0.61	74	3,849	72
Knox	25	26	4	41	21	23	308,052	2	3,133	37	1.02	64	20,698	34
Kosciusko	75	5	29	5	46	7	218,735	9	20,579	5	9.41	7	115,924	5
LaGrange	29	22	5	29	24	21	127,142	56	4,829	24	3.80	24	23,824	32
Lake	1	82	0	78	1	79	121,424	57	114	85	0.09	86	756	85
LaPorte	23	28	6	26	17	25	231,890	7	3,929	33	1.69	48	18,752	37
Lawrence	4	72	1	66	3	66	68,084	74	800	70	1.17	60	5,264	69
Madison	12	46	4	41	8	47	204,074	15	2,420	48	1.19	59	11,185	52
Marion	1	82	1	66	0	85	14,233	89	200	83	1.40	54	1,381	81
Marshall	15	41	2	56	13	32	155,981	41	2,979	40	1.91	42	12,631	49
Martin	33	20	8	22	25	19	40,235	83	5,238	23	13.02	3	33,948	22
Miami	49	12	21	7	28	15	156,275	40	9,403	15	6.02	14	62,716	15
Monroe	0	88	0	78	0	85	27,096	86	0	88	0.00	88	0	88
Montgomery	21	32	8	22	13	32	271,147	4	4,814	26	1.78	44	30,446	24
Morgan	7	63	0	78	7	51	92,985	68	461	75	0.50	77	2,676	74
Newton	15	41	11	17	4	62	176,285	28	18,341	8	10.40	6	70,615	11
Noble	25	26	10	20	15	31	130,149	54	4,689	27	3.60	27	29,376	27
Ohio	0	88	0	78	0	85	10,208	91	0	88	0.00	88	0	88
Orange	6	67	4	41	2	71	58,813	79	2,596	46	4.41	19	14,450	45
Owen	2	77	0	78	2	71	53,510	81	146	84	0.27	83	977	83
Parke	2	77	0	78	2	71	131,647	52	105	86	0.08	87	605	86
Perry	11	49	1	66	10	44	35,963	84	1,436	58	3.99	22	7,867	63
Pike	10	51	3	49	7	51	58,813	79	1,351	61	2.30	37	8,716	59
Porter	2	77	1	66	1	79	106,059	64	237	81	0.22	85	1,593	79
Posey	12	46	1	66	11	39	186,790	20	1,571	56	0.84	69	10,422	55
Pulaski	29	22	11	17	18	24	213,257	10	12,463	11	5.84	15	67,359	14
Putnam	17	37	5	29	12	34	130,588	53	1,849	52	1.42	52	11,979	50
Randolph	44	14	32	4	12	34	210,531	11	12,116	12	5.76	16	76,164	8
Ripley	18	36	1	66	17	25	120,895	58	1,688	54	1.40	55	10,642	54
Rush	50	11	18	11	32	12	201,582	16	7,523	18	3.73	26	48,749	17
Scott	0	88	0	78	0	85	48,233	82	0	88	0.00	88	0	88
Shelby	15	41	4	41	11	39	193,981	18	2,020	51	1.04	63	12,810	48
Spencer	27	25	2	56	25	19	110,815	63	2,228	50	2.01	40	14,431	46
St. Joseph	10	51	5	29	5	58	163,596	33	2,308	49	1.41	53	14,278	47
Starke	5	68	2	56	3	66	132,761	51	987	65	0.74	71	6,658	65
Steuben	4	72	1	66	3	66	85,351	71	834	68	0.98	65	3,006	73
Sullivan	9	55	2	56	7	51	157,852	37	1,382	60	0.88	67	9,314	57
Switzerland	1	82	0	78	1	79	25,402	87	76	87	0.30	82	520	87
Tippecanoe	29	22	7	25	22	22	199,795	17	4,822	25	2.41	36	30,326	25
Tipton	19	35	8	22	11	39	159,400	35	4,154	31	2.61	35	25,674	30
Union	7	63	3	49	4	62	63,741	77	2,478	47	3.89	23	11,274	51
Vanderburgh	2	77	1	66	1	79	67,241	75	401	76	0.60	75	2,173	76
Vermillion	4	72	3	49	1	79	112,886	62	1,406	59	1.25	58	9,279	58
Vigo	3	76	1	66	2	71	103,045	66	274	78	0.27	84	1,891	77
Wabash	80	4	25	6	55	4	180,439	24	21,373	3	11.85	4	128,520	3
Warren	7	63	5	29	2	71	178,681	25	1,691	53	0.95	66	11,082	53
Warrick	5	68	0	78	5	58	88,934	69	501	74	0.56	76	2,549	75
Washington	38	18	9	21	29	14	137,866	47	5,547	22	4.02	21	31,961	23
Wayne	7	63	2	56	5	58	138,041	46	1,170	64	0.85	68	7,817	64
Wells	38	18	21	7	17	25	184,131	22	12,852	10	6.98	9	69,560	12
White	63	8	33	3	30	13	301,049	3	18,719	7	6.22	11	113,611	6
Whitley	32	21	5	29	27	18	118,326	60	4,097	32	3.46	29	26,280	29
State Total	1,966		628		1,338		12,716,037		434,922		3.42		2,497,021	

All Information Based on Currently Approved CFOs and Permitted CAFOs as of July 1, 2011

ENVIRONMENTAL, PUBLIC 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.[12] 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. 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.

Although 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 (animal) waste is treated, under current law, livestock waste does not have to be treated, is minimally controlled, and rarely monitored causing it to contaminate the water bodies it enters and that 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. 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, the 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.[13] 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.[14] More recently, 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.[15]

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) 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

[12] IDEM 2016 Water Assessment Report (indicating that 81% of assessed stream miles are impaired with *E.coli*).

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

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

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

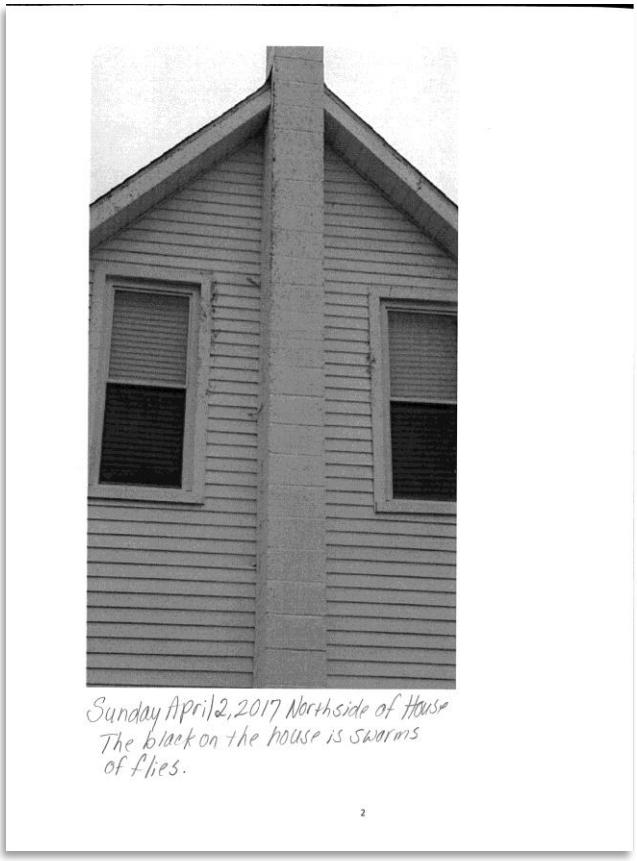
while swimming.[16] This is because exposure to blue-green algae can lead to rashes, skin and eye irritation, nausea, stomachaches, and numbness in fingers and toes, and can also be very dangerous for pets.

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. Currently, 81% of assessed stream miles in Indiana are polluted with unsafe concentrations of pathogens.

One of those pathogen-contaminated streams—Montgomery Ditch—is in Newton County as well as several streams impaired with excess nutrients including Chizum Ditch, Montgomery Ditch, Morrison Ditch and Thompson Ditch.[17]

III. Quality of Life Concerns

We often hear from Hoosiers who live in communities with high numbers of factory farms, that their traditional, rural way of life has been dramatically disrupted by the stench of thousands of animals housed nearby. Some families who rely on well water as their primary source of 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, close proximity to a factory farm also renders many homes uninhabitable, and substantially less valuable, thereby effectively forcing families to live with these unbearable conditions.



An unfortunate example, is the plight of Nancy Banta who lives in Hawcreek Township – the community where all but one of Bartholomew County's CAFOs are located. In June 2014, IDEM and the Bartholomew County BZA approved another one – this time, a CAFO with 4,400 hogs built 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.[18] Nancy also shared with us that her doctor visits have doubled since the CAFO became operational due to respiratory illness. And, as the above photo of her home shows, it is now infested with flies.

[16] *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 listing "Recreation Advisories" for nine (9) Indiana lakes as of July 20, 2017.

[17] IDEM 303(d) Impaired Waters List (2016) available at http://in.gov/idem/nps/2647.htm.

[18] 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.[19]

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. As the wastes decompose, dangerous gases including hydrogen sulfide, ammonia, particulate matter, endotoxin[20] and other harmful emissions are released.[21] 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.[22] In other words, an average-sized diary 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.[23]

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,[24] which is particularly concerning for children. A recent study

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[19] *See* Indiana's CFO rule definition of "manure" at 327 IAC 19-2-25.

[20] 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,* Environmental Health Perspectives 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,* Environmental Health Perspectives 114:1032-1037 (2006).

[21] 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).

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

[23] Agency for Toxic Substance and Disease Registry, *ToxFaqs: 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).

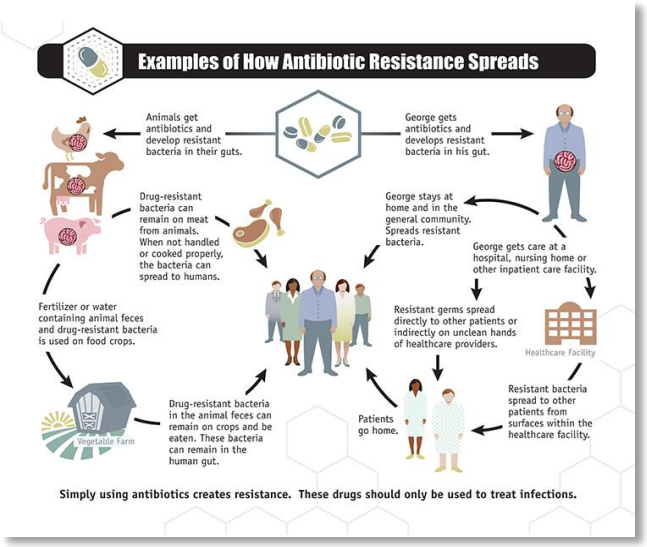
[24] Agency for Toxic Substance and Disease Registry, *ToxFaqs: Ammonia,* (2014).

confirmed that children with asthma had decreased lung function with increasing ammonia levels in the air.[25] 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.[26]

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.[27] 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.[28] Another study showed that people living near North Carolina hog CAFOs reported more confusion, tension, depression, and fatigue than did those not living nearby.[29]

IV. Antibiotic Resistant Disease

In 2011 the Food and Drug Administration reported that approximately 80% of antibiotics in the U.S. are sold for use in producing livestock.[30] These antimicrobial drugs are fed to non-diseased livestock to promote growth and ward off stress, disease, and health risks to animals living in unnatural, confined conditions.[31] As demonstrated by the info-graphic to the left, prepared by the Centers for Disease Control & Prevention, this prophylactic use of antibiotics in livestock has contributed to the evolution and increase of antibiotic-resistant bacteria in humans.[32]



In fact, some infections now resist multiple antibiotics; one example, Methicillin-Resistant Staphylococcus Aureus (MRSA), is a pathogen responsible for taking more lives each year than AIDS.[33] 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. While the livestock industry asserts that there is not enough scientific evidence to ban this use of antibiotics, 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

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

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

[27] 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).

[28] 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).

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

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

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

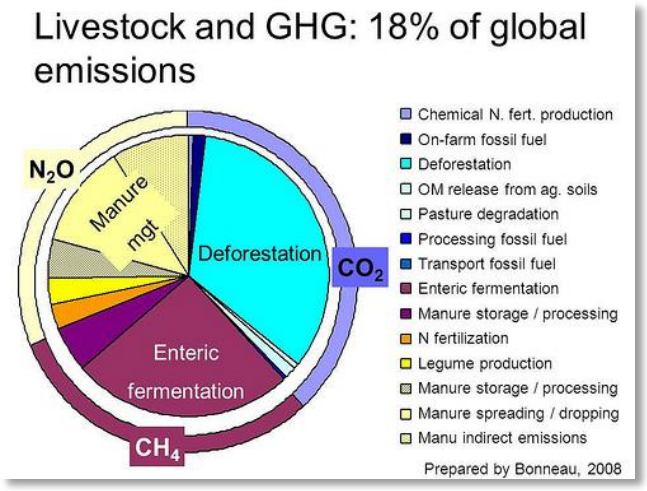
[32] CDC, National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) website at https://www.cdc.gov/narms/faq.html; M. Barza and S.L. Gorbach, *The Need to Improve Antimicrobial Use in Agriculture: Ecological and Human Health Consequences,* Clinical Infectious Diseases (2002).

[33] University of Chicago Medicine, MRSA Research Center webpage at http://mrsa-research-center.bsd.uchicago.edu.

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."[34]

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.[35]

V. Climate Change



About 70 Billion farm animals are raised annually worldwide, more than 10 Billion in the U.S. alone, and **more than 6 million are killed for food every hour**.[36] Not surprisingly, these 70 Billion 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.[37]

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.[38] These emissions are due to deforestation to grow feed crops, which releases CO2 and removes a carbon sink, fossil fuel use in feed crop cultivation, animal slaughter and processing, livestock transportation, and release of methane which has a global warming potential 86 times that of CO2 on a 20-year time frame. And, 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.[39]

V. The Proposed Natural Prairie Dairy CAFO

A Texas-based company, Natural Prairie Indiana Farmland Holdings, LLC wants to build an "organic" CAFO with 4,350 dairy cows in three production buildings in Newton County at County Road 400 West and 400 North in Lake Village. Based on the company's estimates, its cows will generate more than 26 million gallons of urine, feces and contaminated wastewater every year. That's the same amount of excrement produced by a city with 715,000 people.

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

[35] 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).

[36] 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).

[37] Koneswaran & Nierenberg, *Global Farm Animal Production and Global Warming: Impacting and Mitigating Climate Change,* Environmental Health Perspectives 116(5): 578-582 (May 2008).

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

[39] 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).

Put another way, the CAFO will produce 50 times more excrement than that produced by the human population of Newton County (14,000 people). Of critical concern is Natural Prairie's changing story about how this waste will be handled. When seeking zoning approval from the Newton County BZA last year, the company said it would be using "innovative technology" known as "Trident" to remove nutrients from manure before it is land applied to nearby fields. More recently, the company has claimed it will be using a different "innovative technology" known as the "OMNI processor" to remove nutrients and bacteria from the waste before land application. Yet, when Natural Prairie applied for its IDEM permit, the plans submitted contained no mention of using any "innovative technology." Rather, the company proposed (and received IDEM approval) to build a massive, outdoor waste lagoon nearly 3 times the size of a football field to collect and store the waste until it is spread, untreated on 2,600 acres of nearby land. Natural Prairie's shifting stories is particularly concerning because the proposed CAFO site is within the former Beaver Lake bed and shallow, unconfined aquifer on which area residents rely for their drinking water. Also concerning, the CAFO site is immediately next to the Kankakee Sands bison habitat and near the Willow Slough Fish and Wildlife area, several tributaries of the Kankakee River and area schools.

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.[40]

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.[41] Furthermore, what jobs do exist on CAFOs typically come with low wages and undesirable working conditions, leaving them staffed by itinerant workers who spend little money in the communities where they work.[42]

[40] 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).
[41] J.E. Ikerd, *Economic Fallacies of Industrial Hog Production,* University of Missouri (2001).
[42] *Id.*

A good example is the rise of CAFOs in the "organic" market—including the Natural Prairie Dairy CAFOs in Texas—which are squeezing out the truly organic, small family farms that cannot compete.[43]

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.[44] 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 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.[45]

II. Do CAFOs Generate Tax Revenue?

Not really. Instead, CAFOs place a burden on local governments. For starters, proximity to a CAFO can reduce home value by as much as 88% depending on distance from the CAFO and prevailing winds.[46] Study after study show that degradation in air quality which impacts enjoyment and use of property will have a measurable, direct, and statistically significant impact on property values.[47] 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]."[48] Even Indiana's own Purdue University found that:

> Market prices for homes are expected to decline the closer the home is 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.[49]

This loss in property value can affect tax assessments and therefore tax revenues. **Indeed, thirteen residents in Bartholomew County received an average 20% reduction in their property taxes due to the county assessor's determination that their homes were substantially devalued due to a nearby 4,000 head hog CAFO.**[50] **Similarly, an appraisal of two families' homes in Hendricks County found property value loss of more than**

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[43] Rick Barrett, *Wisconsin's Small Organic Dairies Squeezed by Texas Mega Farms,* Milwaukee Journal Sentinel republished in USA Today (March 24, 2018) at https://www.usatoday.com/story/money/business/2018/03/24/wisconsins-small-organic-dairies-squeezed-texas-mega-farms/455330002/

[44] 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.

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

[46] 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).

[47] *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).

[48] 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).

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

[50] Annie Ropeik, *Bartholomew County Neighbor Wins Property Tax Cuts,* NPR Radio, WBAA (July 31, 2017) at http://wbaa.org/post/bartholomew-county-cafo-neighbors-win-property-tax-cuts#stream/0.

50% due to an 8,000 hog CAFO built less than a half-mile away.[51] 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 which are financial drains on the community's tax revenue.

III. Do CAFOs Increase Economic Development?

No. Studies indicate that CAFOs are associated with local and regional economic decline.[52] A recent study prepared by the Indiana Business Research Center ("IBRC") touted the economic benefits of expanding livestock production in Indiana. This study, prepared at the request of the Indiana Soybean Alliance, a powerful agribusiness lobbying organization, estimates that a new dairy CAFO with 1,000 cattle built in the northwest region of the State—**a region encompassing Newton County**—would generate $7.6 million in sales, $1.2 million in regional income and create 36 jobs.[53] As impressive as that may seem at first glance, when averaged over the 9 county region, these figures paint a less impressive picture; namely, the new dairy CAFO would provide merely $135,000 in new income and create just four (4) 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 quite simply 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 annually 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.[54] **Indeed, more direct jobs in Indiana depend on outdoor recreation (143,000) than on agriculture (108,000).**[55]

And, outdoor recreation goes hand in hand with tourism—Indiana's 9th largest industry based on employment, and growing rapidly.[56] In 2016 alone: Indiana welcomed nearly 79 million visitors, an increase of 1.7 million visitors since 2015; total tourism spending surpassed $12 billion, a 5.7% increase from 2015; **tourism contributed nearly $11 billion to Indiana's GDP and supported more than 240,000 jobs—more than twice as many jobs as agriculture**; and visitors contributed more than $1.6 billion in tax revenue to state and local governments.[57]

In fact, a recent report on the economic benefits of outdoor recreation prepared by the Indiana Department of Natural Resources[58] concludes that:

- hiking is the most popular outdoor recreation activity among Indiana residents;
- participation in outdoor recreation is expected to increase 70% to 113% by 2060;
- parks tend to increase the value and sale price of homes and property nearby;
- the amount of local tax dollars required to operate and service recreation areas are less than for other types of land use;

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[51] *See* Market Valuation Analysis of Nick Tillema at https://www.hecweb.org/wp-content/uploads/2015/10/Nick-Tillema-Affidavit-Report-CV.pdf.

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

[53] Indiana Business Research Center, *The Economic Impact of Animal Agriculture in Indiana,* Indiana University, Kelly School of Business, p. 15 (March 2017) (prepared for the Indiana Soybean Alliance) available at http://www.ibrc.indiana.edu/studies/Livestock-Report-2017.pdf.

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

[55] *Id.* (citing to figures from the Indiana Economic Development Corporation).

[56] Indiana Office of Tourism Development, *The 2016 Contribution of Travel & Tourism to the Indiana Economy* at http://www.visitindianatourism.com/sites/default/files/documents/Indiana%20EIS%202016-web%20version.pdf.

[57] *Id.*

[58] IDNR, Indiana Statewide Outdoor Recreation Plan 2016-2020 at https://www.in.gov/dnr/outdoor/files/or-scorp-intro.pdf.

- The total state acreage of Indiana is 23,307,520. Of that, 938,662.30 acres is designated for outdoor recreation meaning Indiana has only 4.03% of its land area available for public outdoor recreation;
- Newton County has more than 22,000 of those available outdoor recreation acres or 2.3% of the state total.

Given the unique fish and wildlife and other natural areas in Newton County, these statistics make clear that Newton County should promote and protect its outdoor recreation land as a viable economic development tool. Doing so will improve health, boost property values, attract new businesses, and enhance quality of life for Newton County residents. Allowing a massive dairy CAFO to spoil those natural areas with massive amounts of untreated animal waste – more than the human population of the County produces -- will predictably do just the opposite.

UNDERSTANDING THE LEGAL FRAMEWORK

I. State and Federal Environmental Regulations

Water Quality Protection

AFOs that meet the definition of CAFO under federal regulations are considered "point sources" and subject to permitting requirements of the Clean Water Act's National Pollution Discharge Elimination System (NPDES).[59] In Indiana, the Indiana Department of Environmental Management ("IDEM") has authority to implement and enforce the federal NPDES permitting programs including those requirements applicable to CAFO's.

Generally, under EPA regulation, a CAFO is defined to include any AFO that confines more than a specified number of animals or, regardless of the animal threshold, is designated a "significant contributor of pollutants" to waters of the U.S. by the NPDES permitting authority.[60] However, a livestock operation that does not qualify as an AFO, such as a pasture or rangeland operation without confinement areas, may not be designated as a CAFO, even if it is a significant contributor of pollution. Such an operation would instead be considered part of the large, unregulated universe of non-point source pollution from agriculture.

Further limiting the number of AFOs that are designated as CAFOs, a federal appeals court vacated the provision requiring CAFOs that "propose to discharge" to apply for NPDES permits. Consequently, only discharging CAFOs can now be required to apply for an NPDES permit. Consequently, IDEM updated its CAFO rule which was adopted by Indiana's Water Pollution Control Board on November 9, 2011. The new rule removes the requirement that any CAFO that "proposes to discharge" pollutants into waters of the state – but does not actually discharge – obtain an NPDES permit. As a result, all of Indiana's CAFOs—which are the largest factory farms by animal number—have since left the federal NPDES program and entered Indiana's less protective CFO program.

Indiana's CFO rule was updated and became effective on July 1, 2012.[61] IDEM's *Guidance Manual for Indiana's Confined Feeding Program* is available for download at http://www.in.gov/idem/4994.htm and details the rule's requirements. In summary, IDEM's CFO rule contains nutrient-based application limits but not pathogen/*E.Coli* based application

[59] 40 CFR 122.23
[60] *Id.*
[61] *See* IC § 13-18-10, 327 IAC 19 and 327 IAC 15-16

limits, prohibitions against manure application in the winter months or on frozen/snow covered ground, and a "bad character" provision requiring permit applicants to disclose certain, past environmental violations. However, CAFOs previously permitted under the federal NPDES program with only 120 days of manure storage capacity (as opposed to the required 180 days) can apply for a variance and land apply during the winter months and in "emergency situations." Also, manure storage structures can be built in karst terrain and located 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 adjacent homes and buildings, and 1,000 feet from a public water supply or intake structure.

Finally, a CFO/CAFO operator seeking approval for a new operation or to expand an existing operation under the new CFO rule must only make a "reasonable attempt" to provide notice to those living within a half-mile of any proposed manure structure or livestock/poultry production structures which then triggers a 33-day public comment period. A public meeting (not a hearing) about the proposed structures *may* be held at the discretion of IDEM. After the public comment period ends, IDEM must approve the application as long as it meets the Rule's minimal requirements which are not aimed at limiting air emissions or protecting property values. And, ensuring that a permitted CAFO/CFO is complying with the CFRO Rule can be challenging because all required operating records are kept by the CFO owner and are not available to the public. Thus, in essence, the CFO Rule lacks any meaningful mechanism for transparency, public accountability, or enforcement.

IDEM's decision to approve a CFO or CAFO is subject to administrative review under the **Administrative Orders and Procedures Act (AOPA).**[62] Under Indiana Code § 13-15-6-1 a **"person aggrieved"** by IDEM's decision has "not later than fifteen (15) days after being served with notice" (of the decision) by IDEM to file an Administrative Review Petition with the Office of Environmental Adjudication. An example of such a Petition is available on HEC's webpage detailing the administrative appeal we recently brought challenging IDEM's ill-advised decision to allow a massive dairy CAFO with more than 4,300 cattle in the former Beaver Lakebed, near the Kankakee River, over a surficial aquifer relied on by area residents for drinking water, and next to the Kankakee Sands Bison habitat. The Petition and more information about that case is available here: https://www.hecweb.org/about/legal-defense-fund/protecting-mississinewa-river-watershed-and-muncie-residents-from-massive-hog-cafo/

The "Spill Rule"

The spill rule[63] imposes reporting, containment and response requirements to those responsible for spills of hazardous substances, petroleum, and "objectionable substances" that damage waters of the state. "Objectionable substances" include livestock waste. For permitted CAFOs/CFOs, 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, such a spill by an unpermitted AFO would likely be considered an unpermitted discharge subject to citizen enforcement under the Clean Water Act and Indiana's citizen suit provision. A CAFO/CFO's failure to comply with an approved Emergency Response Plan may also be enforceable under citizen suit provisions.[64]

A Serious Gap in Environmental Regulation: CAFO Air Pollution

Air emissions from factory farms usually come from one of three main sources: the ventilation stacks of the barns, manure lagoons, and from the manure spread on fields. In addition to odor, gasses from factory farms release dangerous and toxic compounds into the air, such as hydrogen sulfide, ammonia, methane and volatile organic

[62] IC § 4-21.5-3-7
[63] 327 IAC 2-6.1
[64] Later Sections in this Guide provide a more detailed discussion of citizen suits.

compounds. And despite the significant data from numerous scientific and industry-funded studies conducted over decades showing that hog CAFOs generate noxious odors and produce dangerous air emissions that threaten the health of people who live nearby,[65] **agriculture is exempt under the Clean Air Act** from having to comply with air quality standards and IDEM's CFO rule also lacks any regulatory limits on air pollution from CAFOs.[66] Furthermore, IDEM Rule imposes a mere 400-foot setback from residences (structure to structure, not from the property line), despite research showing that odor plumes can travel well over 3 miles, depending on the atmospheric conditions. In other words, there is a serious gap in environmental regulation of CAFOs with respect to addressing the dangerous air emissions they produce.

One hopeful development on this front is a federal court decision which 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.[67] Notably, the livestock industry has 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.[68] Unfortunately, due to industry pressure, Congress is considering several bills that will further degrade the already meager protections for communities against CAFO pollution, including a roll-back of the EPCRA reporting requirement.[69]

II. 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 will be allowed. This style of zoning was upheld as constitutional in 1926 in the United State Supreme Court case of *Village of Euclid v. Ambler Realty Company*[70] under the states' police power for protection of the public health, safety, welfare, and morals.

In Indiana, zoning and land use law is codified in Title 36 (Local Government), Article 7(Planning & Development), Chapter 4 (Local Planning & Zoning) of the Indiana Code. 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.

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[65] *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).

[66] 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).

[67] *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)).

[68] The National Pork Producers Council prepared the *CERCLA-EPCRA Fact Sheet* (Jan. 14, 2009). The fact sheet and the *Koelsch and Stowell Ammonia Emissions Estimator Worksheet* are available online at http://www.nppc.org/wp-content/uploads/Swine-EPCRA-Letter-Report-Worksheet.pdf and at http://articles.extension.org/pages/28452/epcra-reporting:-what-is-it-and-does-it-apply-to-animal-feeding-operations.

[69] http://thehill.com/opinion/energy-environment/379971-congress-just-gave-big-agriculture-the-pollution-green-light.

[70] 272 US 365 (1926).

In Indiana 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 "Advisory" planning structures. Both Carroll and Tippecanoe counties follow the "Area" planning system. As of November 1, 2011, seven counties in Indiana had not formed plan commissions including Clay, Crawford, Dubois, Gibson, Lawrence, Orange and Sullivan.

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.[71] 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."[72] 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."[73]

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.[74]

Zoning Ordinances

Any zoning ordinance adopted by the legislative body (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]."[75] 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.[76] 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.

Adopting/Amending Zoning Ordinances

IC. § 36-7-4-602 governs the process for adopting or amending the text of ordinances and making changes to a zoning map as follows:

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[71] IC § 36-7-4-501.
[72] IC § 36-7-4-502.
[73] IC § 36-7-4-503.
[74] 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).
[75] IC § 36-7-4-601.
[76] *Id.*

To adopt an ordinance, the Plan Commission first initiates the proposal which must be consistent with: the comprehensive plan, current conditions and the character of current structures and uses, the most desirable use for which the land in each district is adapted, the conservation of property values throughout the jurisdiction, and responsible development and growth.[77] Then, the Plan Commission must give public notice and hold a public hearing in accordance with Ind. Code § 36-7-4-604. The Plan Commission must certify the proposal with a favorable recommendation to the County Commissioners.[78] The Board of Commissioners then adopts, rejects or amends the proposal at the first regular meeting of the Board of Commissioners held after plan commission certification or may decide to further consider the proposal in which case it can be scheduled for further hearing, after providing public notice under IC §5-14-1.5-5, at any regular or special meeting of the Board of Commissioners within 90 days after certification. In any event, the Board of Commissioners shall vote on the proposal within 90 days of plan commission certification.[79] The Plan Commission's recommendation must be made publicly available for at least 10 days before any scheduled hearing.[80] If the proposal is adopted, the Plan Commission must print and publish the ordinance under section 610.

To amend an ordinance: IC 36-7-4-602 creates the procedure that applies to a proposal to amend or partially repeal the text (but not the zone maps) of the ordinance. In order to amend the Ordinance, the Board of County Commissioners, Common Council, or the County Plan Commission may initiate a proposal to amend or partially repeal the text according to the procedures of IC 36-7-4-602(b) and the adopted Plan Commission Rules and Procedures. However, if the Board of County Commissioners or the Common Council initiates the proposal, it must first be referred to the Commission for consideration and recommendation before any final action is taken by the County Commissioners.[81] On receiving or initiating the proposal, the Plan Commission shall hold a public hearing in accordance with IC. § 36-7-4-604. Within ten (10) business days after the Plan Commission determines its recommendation (if any), it must certify the proposal in accordance with IC. § 36-7-4-605. The legislative body shall then vote on the proposal within ninety (90) days after the Plan Commission certifies the proposal.

If the proposal receives a favorable recommendation from the Plan Commission, the County Commissioners may adopt, reject, or amend the proposal after giving public notice under IC 5-14-1.5-5 of its intent to consider the proposal at a public meeting. If they adopt (as certified) the proposal, it takes effect as other ordinances. If the County Commissioners fail to act on the proposal within ninety (90) days after certification by the Plan Commission, the proposal takes effect as if it had been adopted (as certified) ninety (90) days after certification. If the legislative body rejects or amends the proposal, it shall be returned to the plan commission for its consideration, with a written statement of the reasons for the rejection or amendment. The Plan Commission has forty-five (45) days in which to consider the rejection or amendment and report to the legislative body in accordance with IC. § 36-7-4-607.

If the proposal receives either an unfavorable recommendation or no recommendation from the Plan Commission, the County Commissioners may adopt, reject, or amend the proposal. However, they must first give public notice under IC 5-14-1.5-5 of the intention to consider the proposal at that meeting. If the County Commissioners adopt (as certified) the proposal, the ordinance takes effect. If the County Commissioners reject the proposal or fail to act on it within ninety (90) days after certification, it is defeated.

Amending Zoning Maps: The Board of County Commissioners, Common Council, the County Plan Commission, or at least 50% of the affected property owners may initiate a petition to change the Official Zoning Map according to the procedures of IC 36-7-4-602(c), the adopted Plan Commission Rules and Procedures, and the requirements of the County Ordinance. Each Plan Commission and legislative body shall have exclusive authority for zoning map

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[77] IC § 36-7-4-603.
[78] IC § 36-7-4-605(1).
[79] IC § 36-7-4-606(b)(1).
[80] IC § 36-7-4-606(d).
[81] IC § 36-7-4-602(b)(1).

amendments within their respective jurisdictions. The procedures for plan commission certification, public notice, and the County Commissioners' consideration must be in accordance with Ind. Code §§ 36-7-4-603, 604, 605, 608 and 610.[82]

It is important to know that plan commissions and county commissioners must follow the statutory procedures for amendment or change in zoning ordinances and failure to do so renders the ordinance void.[83] However, the motives of a 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.[84]

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.[85] 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.[86] 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.[87]" When a biased plan commission member participates in a zoning decision, the decision may be vacated by the reviewing trial court.[88]

Board of Zoning Appeals – Variances and Special Exceptions

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.[89] 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.

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[82] IC § 36-7-4-608.
[83] *Krimendahl v. Common Council of city of Noblesville*, 267 N.E.2d 547 (1971).
[84] *Penn v. Metropolitan Plan Commission of Marion County*, 228 N.E.2d 25 (1967).
[85] IC § 36-7-4-223(a).
[86] *Fail v. LaPorte County Bd. of Zoning Appeals*, 355 N.E.2d 455, 458 (Ind. App. 1976).
[87] *Id.*
[88] *Couch v. Hamilton County Bd. of Zoning Appeals*, 609 N.E.2d 39, 42 (Ind. App. 1993).
[89] IC § 36-7-4-918.2.

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 or variance. Before granting a variance, the BZA must make certain written findings that, among others, the variance "will not be injurious to the public health, safety, morals and general welfare of the community."[90] A special exception/use must be approved or denied in accordance with the express and specific terms of the zoning ordinance.[91]

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]

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. Newton County's Zoning Requirements for CAFOs/CFOs

In Newton County, CAFOs and CFOs are allowed in the Agriculture District only by Special Exception subject to the requirements for public notice and hearing discussed above and those set forth in Sections 5.00 and 5.20 of the Newton County Zoning Ordinance.[98] In particular, the BZA must make written findings that, among other things, the proposed CAFO/CFO will "substantially serve the public convenience and welfare and will not be injurious to the appropriate use of neighboring property."[99] Furthermore, Newton County has a unique zoning provision that allows the BZA, upon receiving a citizen complaint, to review and rescind any special exception granted to a CAFO/CFO if the CAFO is found to be violating the law, endangering public health or safety, contrary to the public

[90] IC § 36-7-4-918.4
[91] IC § 36-7-4-918.2
[92] IC § 36-7-4-920.
[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] Available online at http://www.newtoncounty.in.gov/egov/documents/10632c94_a41a_ab6f_30d7_f58cd797306f.pdf.
[99] Newton Zoning Ordinance Sections 5.00, 5.10 and 5.20.

welfare, or injurious to the appropriate use of neighboring property.[100] On behalf of several Newton County citizens, HEC filed such complaint with the BZA seeking rescission of the special exception issued to Natural Prairie.[101]

UNDERSTANDING YOUR LEGAL RIGHTS

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" over land use and zoning 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 whether or not to accept 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 of the decision. In order 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 other legislative body.

[100] Newton Zoning Ordinance Section 5.20(4) and (5).
[101] For more information, contact HEC Staff Attorney Kim Ferraro at kferraro@hecweb.org.

It is important to note that **IC § 36-7-4-1608** imposes stringent notice requirements in filing one of these petitions that if not strictly followed will result in dismissal of the petition.

A **person must be "aggrieved or adversely affected"** by a BZA decision in order to have standing to seek judicial review of that decision.[102] Traditionally, standing was demonstrated by a person showing that he experienced "a substantial grievance, a denial of some personal or property right, or the imposition of a burden or obligation."[103] However, this is no longer sufficient under IC § 36-7-4-1603 which now requires a person to also 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,*[104] **adjacent landowners** can validly claim to be aggrieved parties. However, in the case of a proposed CAFO, **neighboring property owners** who can demonstrate that the **value of their property will decrease** if the CAFO is constructed, regardless of whether their property is adjacent to the proposed CAFO, may be able to demonstrate standing,[105] as long as they also meet the rigid requirements of IC § 36-7-4-1603.

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.[106] 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.[107] Consequently, if there is sufficient evidence to support the board's decision which is otherwise legal, it must be upheld.

An example of a Petition for Judicial Review can be found on HEC's webpage for its ongoing litigation in *House of Prayer v. Rush County Board of Zoning Appeals* at http://www.hecweb.org/about/legal-defense-fund/fighting-to-protect-christian-youth-camp-from-construction-of-massive-dairy-cafo/

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.[108] **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."[109]

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.[110] Upon filing such an action, "all persons" who

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[102] 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).
[103] *Id.*
[104] 905 N.E.2d 1090, 1097-1098 (Ind.App., 2009).
[105] *Sexton v. Jackson County Bd. of Zoning Appeals,* 884 N.E.2d 889 (Ind.App.2008)
[106] *Metropolitan Bd. of Zoning Appeals, Div. II, Marion County v. Gunn,* 477 N.E.2d 289, 294 (Ind.App. 1985)
[107] *Id.*
[108] IC § 34-14-1, *et. seq*
[109] *Stokes v. City of Mishawaka,* 441 N.E.2d 24, 27 (Ind.App.1982)
[110] *Montagano v. City of Elkhart*, 271 N.E.2d 475 (Ind.App. 1971)

have or claim any interest that would be affected by the declaration must be made parties to the action.[111] 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.[112]

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 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.[113]

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.[114] 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.

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[111] IC § 34-14-1-11
[112] *Id.*
[113] *Perry v. Ballew,* 873 N.E.2d 1068 (Ind. App. 2007)
[114] 33 U.S.C. § 1365; 40 C.F.R. § 135.1

As with most citizen enforcement provisions under major environmental statutes, the CWA has detailed notice and service requirements.[115] 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.[116] 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."[117]

In addition to the CWA citizen suit provision, a recent federal court case in Washington opened the door for possibly holding CAFOs accountable under the Resource Conservation and Recovery Act (RCRA) citizen suit provision.[118] 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 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. Nuisance Actions

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."[119] 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.[120] A trial court may award injunctive relief to enjoin or abate the nuisance and may award damages proximately caused by the nuisance.[121]

Unfortunately, as it applies to agricultural operations including CAFO's, Indiana's nuisance law is tempered by **Indiana's Right to Farm Act (RTFA)**[122] which provides that:

> An agricultural or industrial operation or any of its appurtenances **is not and does not become a nuisance**, private or public, by any changed conditions in the vicinity of the locality after the agricultural or industrial operation, as the case may be, has been in operation continuously on the locality for more than one (1) year if the following conditions exist:

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[115] 40 C.F.R. §§ 135.1, 135.2 and 135.3
[116] 33 U.S.C. § 1365
[117] *Id.*
[118] *CARE v. Cow Palace Dairy, et. al.,* 13-CV-3016-TOR (E.D. Wa. 2015).
[119] IC § 32-30-6-6
[120] IC § 32-30-6-7
[121] IC § 32-30-6-8
[122] IC § 32-30-6-9

(1) **There is no significant change in the type of operation.** A significant change in the type of agricultural operation does not include: the conversion from one type of agricultural operation to another type of agricultural operation; a change in the ownership or size of the agricultural operation; the enrollment; or reduction or cessation of participation of the agricultural operation in a government program; or the adoption of new technology by the agricultural operation.

(2) **The operation would not have been a nuisance at the time the agricultural operation began on that locality.**

However, the RTFA **"does not apply if a nuisance results from the negligent operation** of an agricultural or industrial operation or its appurtenances."[123] But, even a negligently operated CAFO may enjoy the protections of the RTFA if the negligent operation or activity is not the proximate cause of the nuisance.[124] In other words, it is not enough that the CAFO is operated in a negligent manner, the negligence must also be the cause of the complained of nuisance conditions to avoid application of the RTFA.

HEC is currently pursuing litigation on behalf of two long-time families in rural Hendricks County whose lives and properties were devastated when an 8,000 head hog CAFO was built nearby and upwind. In that litigation we are challenging the constitutionality of the RTFA as well as a new "right to farm" law passed in 2014 requiring courts to construe Indiana law in favor of CAFOs. To learn more about this case and download the initial Complaint go to: http://www.hecweb.org/about/legal-defense-fund/hendricks-county-industrial-livestock-lawsuit/

VII. Actions for Trespass

Indiana defines trespass as "the doing of an unlawful act or of a lawful act in an unlawful manner to the injury of another's person or property."[125] The intent required for the tort of trespass is not intent to commit the tort of trespass, but simply the intent to commit the act that results in the trespass. Liability may be found even where the trespasser was not aware that he committed the tort of trespass.[126]

The plaintiff in an action for trespass to real property must prove that the plaintiff was in possession of the land; and that the defendant had no right to enter the land. Unauthorized entry onto the land of another will constitute trespass. **Where a defendant does not trespass in person but projects something onto the land of another, this will constitute trespass as well.** The plaintiff bears the burden of proof as to the elements of trespass; and every trespass is presumed to result in a legal injury that allows the plaintiff to be awarded at least nominal damages. Compensatory damages may be awarded for actual injury.[127]

THERE ARE SOLUTIONS - TAKE ACTION

I. Advocate for Improved State Regulation of CAFOs/CFOs

[123] *Id.*
[124] *Lindsey v. DeGroot,* 898 N.E.2d 1251, 1260 (Ind.App.,2009)
[125] 23 INPRAC § 3:29
[126] *Id.*
[127] *Id.*

Given the significant gaps in regulation and legal protections for 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 elected lawmakers to pass legislation that will:

- Give IDEM authority to deny a permit to build or expand a CFO if the new or expanded CFO would harm human health or the environment (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 structures and land application activities) or if such a setback is not possible, require the CAFO developer to fairly compensate impacted property owners;

- Impose greater setbacks from lakes, streams, wetlands, and other environmentally sensitive areas (for all CFO structures and land application activities);

- Prohibit construction or expansion of CFOs in karst areas and flood plains (as is allowed now);

- Set air pollution limits for CFOs to restrict their 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 permit if the CFO becomes a public health or environmental threat or a nuisance to its neighbors;

- Require disclosure of all persons/entities in control of a CFO including the integrator, owner of the CFO and land application sites and their officers, directors and senior management officials;

- Require full disclosure of the environmental track records of all owner/operators of CFOs;

- Impose the same public notice and commenting requirements for CFO permits as is required under the CWA and CAA for other industries (which would require IDEM to actually consider and respond to public comments in its decision making on whether to issue a permit);

- Amend Indiana's Right to Farm Act to remove the provision that provides that a corn field turned CAFO is not a significant change in an agricultural operation to remove right to farm legal immunity.

Such legislation drafted by HEC was introduced in the 2018 session with bipartisan support.[128] Unfortunately, the bill didn't make it out of committee so we'll have to try again this session. For the bill to pass, however, we need broad, statewide support. Everything you need to know to get involved in this effort is available through HEC's BillWatch page at https://www.hecweb.org/bill-watch-2018/ and by signing up to receive our newsletter and action alerts at http://www.hecweb.org/get-involved/e-news/.

[128] https://www.hecweb.org/wp-content/uploads/2017/12/Brief-Policy-Paper-in-Support-of-HB-1369.pdf.

II. 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.[129] 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.[130]

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.[131] Indeed, nearly 90% of farm households rely on off-farm income just to get

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[129] 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.

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

[131] *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.[132] By choosing to buy local, consumers "vote with their dollars" for a food system that aligns with their values -- values such as family farms, community, 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.[133] Combined with more labor-intense practices, a local food system can generate many times the net return per acre as common commodity crops.[134] Moreover, data indicates that only 20% of the average consumer food dollar (in a commodity system) contributes toward the farm value of the food.[135] 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.[136] 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 agritourism possibilities. For example, there are local farmers' markets, small farm co-ops and buying clubs such as Purple Porch Co-Op,[137] Homestead Heritage,[138] Seven Sons Meat Company,[139] Tyner Pond Farms[140] 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."[141]

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[132] *Id.*

[133] 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.

[134] *Id.*

[135] 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.

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

[137] 123 Hill Street, South Bend IN -- offers online ordering with deliveries of milk, produce, eggs and meat when available.

[138] 5254 North 500 East, Kokomo IN 46901 -- a CSA which offers chicken, eggs, turkey, pork and dairy products including milk, butter, yogurt and kefir.

[139] 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.

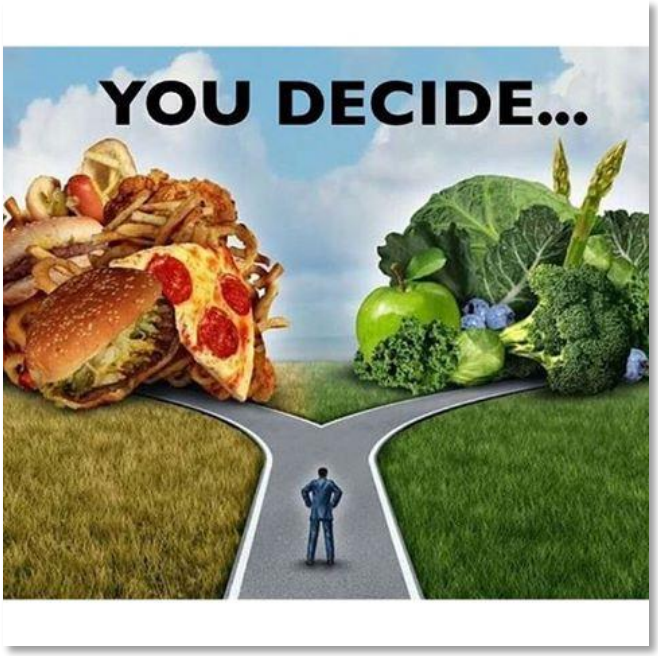
[140] https://tynerpondfarm.com

[141] 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.[142] 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.

III. 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.[143] 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).[144] 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.[145] Of particular significance, the DGAC found that vegetarian diets are not only consistently related with "positive health outcomes" including reduced risk of obesity, cardiovascular disease,

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[142] 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).

[143] 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/.

[144] https://health.gov/dietaryguidelines/committee/

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

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.[146]

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 production[147] 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.[148] Similarly, nearly half of all land in the contiguous U.S. is directly or indirectly devoted to animal agriculture,[149] which makes sense given that it requires 2-5 acres to raise just one cow.[150] And notably, even though we currently grow enough food to feed 10 billion people,[151] 50% of food grown worldwide goes to feed livestock.[152] 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.[153] And, fifteen (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 cows.

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.[154] 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.[155] 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.[156]

The answer is clear. The world population is expected to grow from 7.2 billion today to 9.6 billion by 2050.[157] 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.

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[146] *Id.* at Executive Report

[147] 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).

[148] *Id.*

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

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

[151] 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).

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

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

[154] 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)

[155] *Id.*

[156] 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/

[157] 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>.

SOURCES OF INFORMATION

To be effective in communicating with decision-makers, you will need to understand details about proposed and existing industrial livestock facilities of concern, all rules, regulations and laws that apply, as well as relevant economic, social, geographic, and environmental data. The laws and policies of state and local government will also play an integral role in promoting a local food system. The following resources will help you get started.

I. Local Sources and Authorities

- Land Title/Recorder of Deeds Offices
- Municipal / County / Regional Government Offices including:
  - Planning Departments
  - Plan Commissions
  - Zoning Boards
  - Health Departments
  - Soil & Water Conservation Districts
- Economic Development Offices

Make sure to find any local rules and ordinances about land use planning, zoning, health, manure management, and natural resource management and/or protection. Also, request all public records maintained by these offices regarding the facility at issue including permits, applications for permits, zoning/planning approvals, inspection reports, violation notices, appeals, and the like. To that end, the **Newton County Zoning Ordinance is available at:** http://www.newtoncounty.in.gov/egov/documents/10632c94_a41a_ab6f_30d7_f58cd797306f.pdf

II. State Sources and Authorities

State Laws and Administrative Regulations

- Confined Feeding Control Law - Ind. Code 13-18-10
- Confined Feeding Operation Rule - 327 IAC[158] 19
- Concentrated Animal Feeding Operation Rule - 327 IAC 15-16
- Manure Transport and Handling - 327 IAC 19-13-3
- Spill Rule - 327 IAC 2-6.1
- Satellite Manure Storage Structure Rule – 327 IAC 20
- Open Dumping – Ind. Code 13-30-2-1, Ind. Code 36-9-30-35, and 329 IAC 10

Indiana Department of Environmental Management (IDEM)

- **IDEM's Guidance Manual for Indiana's Confined Feeding Program**
  Provides a plain language description of many of the laws and regulations listed above. Available at http://www.in.gov/idem/4994.htm.

[158] The Indiana Administrative Code (IAC) contains all state administrative *regulations* currently in force. In contrast, the Indiana Code (IC) contains all state *laws* currently in force.

- **IDEM's Virtual File Cabinet (VFC)**
  Contains a searchable database of public records on permitted facilities including permit applications, inspection reports, violation notices, and other documents. Available at http://www.in.gov/idem/6551.htm

Additional State Authorities

- **Indiana Office of the State Chemist**
  Fertilizer Applicator Certification Rule - 355 IAC 7-1-1 (applies to application of 4,000+ gallons of manure from a CFO to land in Indiana)
  http://www.isco.purdue.edu/fertilizer/index_fert.htm

- **Indiana Board of Animal Health**
  Disposal of Dead Animals Law - Ind. Code 15-17-11 and 345 IAC 7-7
  http://www.in.gov/boah/

- **Indiana Department of Natural Resources**
  Indiana's liability law - Ind. Code 14-22-10-6 (allows for restitution for any release of pollutants which results in the death of wild animals)
  http://www.in.gov/dnr/

- **Indiana Department of Agriculture**
  Provides technical assistance to farmers to assess soil and water resource problems, develop conservation management plans, and identify appropriate conservation practices, and supervises installation and maintenance of conservation practices. The ISDA also provides a directory of Indiana agritourism and farmers' markets.
  http://www.in.gov/isda/
  http://www.in.gov/apps/ISDA_FarmersMarket/

- **Purdue University Extension**
  Provides information and expertise in agriculture, natural resources, and economic and community development. A particularly useful resource is the Extension's ***Indiana Agritourism Resource Guide*** which provides a list of available resources by county of organizations and agencies that offer technical or financial assistance to persons wanting to start a new agribusiness.
  http://www.extension.purdue.edu/extbusiness/stories/IN_Resource_Guide_2007.pdf

III. Federal Sources and Authorities

Federal Laws and Administrative Regulations

- Clean Water Act—Section 502
- Concentrated Animal Feeding Operation Rule – 40 CFR 122.23
- Emergency Planning and Community Right to Know Act, CAFO Reporting Requirements, 42 U.S.C. § 110 1 et. seq. ("EPCRA"). 40 C.F.R. § 355.31(g).
- Resource Conservation and Recovery Act, Open Dumping Prohibition and Imminent and Substantial Endangerment provisions - 42 U.S.C. § 6945(a) and 6972(a)(1)(B).

Additional Federal Authorities

- **Environmental Protection Agency (EPA) Region V**
  Technical Manual for CAFOs available at http://cfpub.epa.gov/npdes/afo/info.cfm

- **U.S. Department of Agriculture**
  http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/

- **U.S. Geological Survey**
  http://water.usgs.gov/owq/

- **U.S. Centers for Disease Control**
  http://www.cdc.gov/nceh/ehs/Topics/CAFO.htm