PURDUE UNIVERSITY EXTENSION

Thirty-seven Factors that could Affect CFO Siting in Indiana: Comparison of Counties

MARCH 2017







Paul Ebner, Associate Professor, Department of Animal Sciences Yingying Hong, Project Director, Department of Animal Sciences Tamara Ogle, Community Development Regional Educator Tanya Hall, Community Development Regional Educator Larry DeBoer, Professor, Department of Agricultural Economics

BACKGROUND

This report is part of ongoing research to better understand the efficacy and impact of land use regulations for confined feeding operations (CFOs) in Indiana counties. This particular report compiles data for 37 different factors the could affect CFO siting at the county level. These data are from the 2016 Inventory of Standards and the March 2017 Progress Report including data regarding violations. These reports can both be found here. Additional information on CFOs in general can be found here.

For each factor or measure, counties were separated based on percentiles and the percentiles were assigned colors. The resulting heat map creates a visual classing of the various factors both in the zoning ordinance and external to county regulation that may impact the siting of a CFO. For example, counties with higher animal densities (top 20%) will contain darkest blue boxes; counties with lowest animal densities (bottom 20%) will contain lightest blue boxes. In some cases, a county either has a standard or does not have the standard (e.g., planning and zoning). For "yes/no" types of variables, darkest blue boxes were assigned to "yes" and white boxes to "no". Data from the 2012 Agriculture Census (USDA) were obtained for animal densities. There are cases where the exact number of a given species in the county is not stated as it could identify individual farms. In those cases, an estimated range is given. If no animal numbers data are available, the color white is assigned. Below are some details on each of the 37 measurements as well as a key to the charts. Table 1 one shows all factors together. Tables 2 through 5 show further details about the factors in Table 1.

37 FACTORS

COUNTY DEMOGRAPHICS

The demographics columns (1 to 6) in Table 1 show the rural or urban nature of the county, and the importance of animal agriculture. Jay County, for example, has lightly colored boxes in the first four columns, indicating low population and housing density, a rural classification, a low percentage of nonfarm land. It has dark colored boxes for columns 5 and 6, indicating a large number of permitted farms and a large number of animals.

- **1. Population Density:** Population of county, as defined by 2015 population estimate by the Census Bureau divided by county's square miles.
- **2. Housing Density:** Quantity of housing units divided by number of square miles in the county.
- **3. Typology (rural, mixed, urban):** County type according to the Indiana County Classification System which takes into account population, density, population of largest city and identity. For more detail, see: https://www.extension.purdue.edu/extmedia/EC/EC-766-W.pdf
- 4. Non-farmland (%): Reflects the percentage of land in the county not devoted to farmland production.
- 5. No. of Permitted Farms: Number of CFOs or CAFOs in the county per IDEM as of 2015.

6. Est. Animal Density (AU): Calculated from animal numbers in 2012 Ag Census. 1 AU ~ 1000 pounds. Dairy cows = 1.4; beef cattle = 1.0; other cows = 0.6; pigs = 0.4; layers = 0.02; broiler = 0.01; ducks = 0.02.

SITING BASICS

The siting basics columns (7 to 10) show whether the county has planning and zoning, whether the zoning ordinance includes rules for CFO's, details about the CFO siting process, and whether the county uses a site scoring method. Fayette County, for example, shows dark boxes for zoning, a CFO ordinance and site scoring, and a lighter box for the siting process (indicating that it uses permitted use with additional provisions).

- 7. Planning and Zoning: Whether a county has adopted planning and zoning (Yes/No).
- **8. CFO Ordinance:** Whether a county with planning and zoning includes provision for CFOs in the zoning ordinance (Yes/No).
- 9. Siting Process: Level of process required in CFO siting as established in the zoning ordinance. We have assign numerical values (1 5) to each CFO ordinance based on the level of process required for siting approval (1= permitted use; 2 = permitted use with additional provisions; 3 = special exception; 4 = rezone [permitted use]; and 5 = rezone [special exception]).
- **10. Site scoring:** Site scoring systems awards points to an applicant based on management practices, site location, facility characteristics, and other criteria. A predetermined number of points must be scored in order for a permit to be issued (Yes/No).

BUFFERS

The buffers columns (11 to 16) show the distance in feet around protected land uses where CFO siting is not allowed. Blank boxes indicate no buffers. Darker boxes indicate bigger distances for more land uses. Tipton County, for example, has shaded boxes for all land uses, with buffers ranging from 1,320 feet to 5,280 feet.

- 11. Residences: Required distance (ft.) between CFO and nearest residence.
- 12. Municipalities: Required distance (ft.) between CFO and nearest municipality.
- 13. Religious Institutions: Required distance (ft.) between CFO and nearest religious institution.
- **14. Schools:** Required distance (ft.) between CFO and nearest school.
- **15. Recreational Areas:** Required distance (ft.) between CFO and nearest recreational area.
- **16. Businesses:** Required distance (ft.) between CFO and nearest business.

OTHER STANDARDS OR PROVISIONS

The other standards and provisions columns (17 to 31) indicate whether the county has other rules for CFO siting and operation. All these boxes are "yes-no," meaning they are shaded if the county has a particular kind of rule, and blank it the county does not have the rule. Adams County, for example, has six shaded boxes, showing that the county has rules about reciprocal buffers, an agricultural clause

notifying developers of nearby ag land use, a site plan requirement, and standards for manure application, manure storage and animal mortality. Adams does not require pre-application permits, minimum lot sizes, nor does it have any of the other standards.

- **17. Reciprocal Buffer:** Buffer distances (from an established CFO) required of new residential construction or uses in defined zoning districts (Yes/No).
- **18. Ag Clause:** Agriculture clauses, in general, notify potential developers in a given zoning district "that they may experience noise, dust, and odor associated with generally accepted farming practices" (ILRC 2014). Several Indiana county zoning ordinances contain such clauses in effort to minimize land use conflict in rural areas (Yes/No).
- **19. Pre-Application Permit:** Permit which protects a parcel's buffer zone from new buffered development for a period of time while the owner obtains all needed permits and plans (Yes/No).
- **20. Site Plan:** Development plan which contains specific siting information, any documents required by the zoning ordinance and verification the development satisfies all requirements (Yes/No).
- **21. Minimum Lot Size:** Minimum lot size required for CFO siting (Yes/No).
- **22. IDEM Permit:** IDEM permit required before siting (Yes/No)
- 23. Odor Control Standards: Standards regarding odor and odor abatement (Yes/No).
- 24. Manure Application Standards: Standards on how manure can be applied (Yes/No).
- 25. Manure Storage Standards: Standards on how manure can be stored (Yes/No).
- **26. Animal Mortality Standards:** Standards on how dead animals must be handled (Yes/No).
- **27. Transportation/Driveway Standards**: Standards related to transportation related to the CFO (Yes/No)
- 28. Well/Water standards: Standards regarding wells and/or water related to CFO (Yes/No).
- **29. Screening/Shelterbelt:** Standards regarding tree-lines or other types of screening surrounding the CFO (Yes/No).
- **30. Existing Violations:** Standards regarding applicant's previous environmental violations if any (Yes/No).

VIOLATIONS AND COMPLAINTS

Finally, the violations/complaints columns (31 to 37) show the numbers of violations or complaints about CFO's in each county. Darker boxes indicate more complaints. Blank boxes show counties with no complaints. St. Joseph County, for example, has darker shaded boxes for all of these columns, indicating a larger number of violations and/or complaints.

31. IDEM Enforcements: IDEM enforcements made to farms permitted as CFOs from 2011 – 2016 (including those permitted as CAFOs).

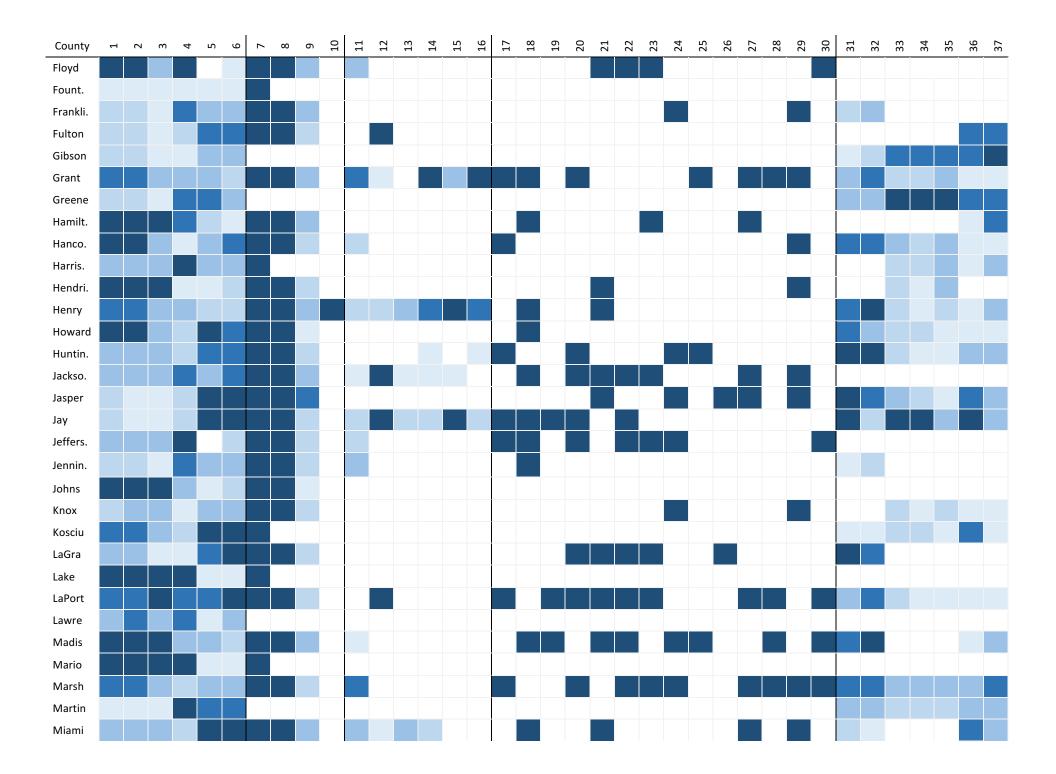
- **32. IDEM Enforcements/Farm:** IDEM enforcements per permitted farm in the county from 2011 2016 (total number of IDEM enforcements/total number of permitted farms).
- **33.OISC Inv. w. Violations:** Manure-related OISC investigations from 2013 2015 that resulted in violations.
- **34.** Total OISC Violations: Total OISC manure-related violations from 2013 2015.
- **35. Total OISC Violation/Farm:** Violations per permitted farm in the county from 2013 2015.
- **36. Anon/Res Complaints:** OISC manure related investigations stemming from an anonymous (anon) or resident (res) complaint from 2013 2015.
- **37. Anon/Res Complaints/Farm**: OISC manure related investigations stemming from an anonymous (anon) or resident (res) complaint per farm from 2013 2015.

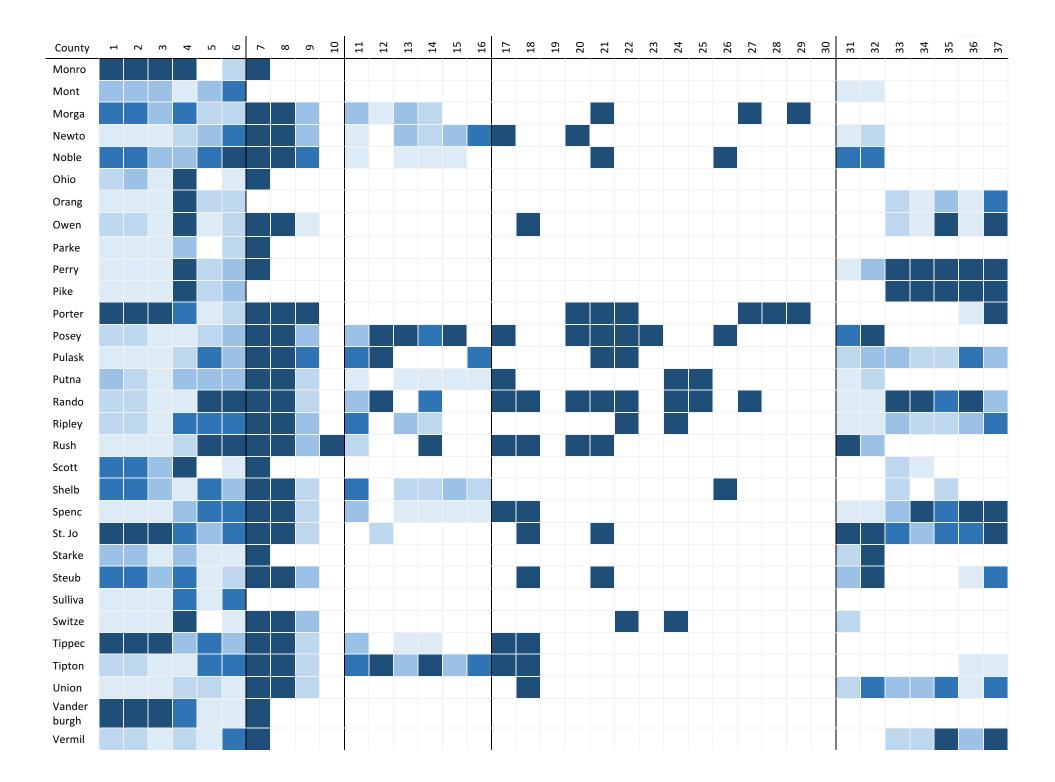
Key:

Color	Percentile
	Top 20%
	Top 40%
	Top 60%
	Bottom 40%
	Bottom 20%
	No standard or provision in this county
Other	
Green font	
in header	Yes/no standard (blue = yes)
D	no data
[x - y]	[low estimate, high estimate]
> x	X is the minimum number of animals

Table 1. 37 Factors that could Affect CFO Siting at the County Level in Indiana.

I able 1			Den					ting			8	<u> </u>	Buff		.c, .						her S	Stand	dards	s and	Prov	visio	ns				,	/iola	tion	s/Coi	mpla	ints	—
		,					٥.	8																										,			
County	1. Population Density	2. Housing Density	3. Typology (rural, mixed, urban)	4. Non-farmland (%)	5. No. of Permitted Farms	6. Est. Animal Density (AU)	7. Planning and Zoning	8. CFO Ordinance	9. Siting Process	10. Site scoring	11. Residences	12. Municipalities	13. Religious Institutions	14. Schools	15. Recreational Areas	16. Businesses	17. Reciprocal Buffer	18. Ag Clause	19. Pre-Application Permit	20. Site Plan	21. Minimum Lot Size	22. IDEM Permit	23. Odor Control Standards	24. Manure Application	25. Manure Storage Standards	26. Animal Mortality Standards	27. Transportation/Driveway	28. Well/Water standards	29. Screening/Shelterbelt	30. Existing Violations	31. IDEM Enforcements	32. IDEM Enforcements/Farm	33.OISC Inv. w. Violations	34. Total OISC Violations	35. Total OISC Violation/Farm	36. Anon/Res Complaints	37. Anon/Res Complaints/Farm
Adams																																					
Allen																																					
Barth.																																					
Bento.																																					
Blackf.																																					
Boone																																					
Brown																																					
Carroll																																					
Cass																																					
Clark																																					
Clay																																					
Clinton																														ļ							
Crawf.																																					
Davie.																																					
Dearb.																																					
Decat.																																					
DeKalb																																					
Delaw.																														Į							
Dubois																																					
Elkhart																														Ī							
Fayette																																					





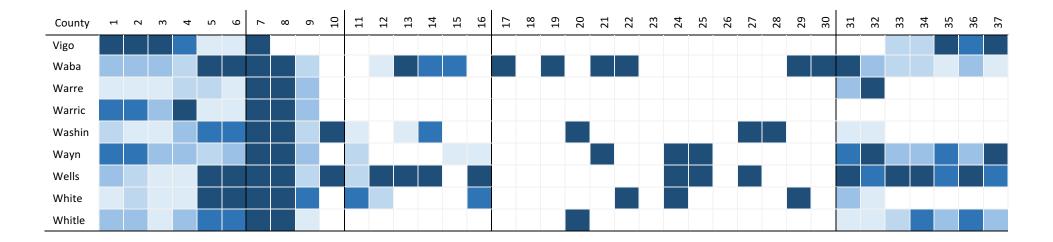


Table 2. Factors that could Affect CFO Siting in Indiana: County Demographics.

			Typology			
			(rural,	Non-		Animal
County	Population	Housing	rural/mixed,	farmland	Permitted	Unit Estimation
County Adams	Density 102.6	Density 38.4	urban) Rural/Mixed	(%) 3.1	Farms 62	96,140
Allen	556.7	232.2	Urban	35.6	13	26,520
Bartholomew	197.1	81.4	Rural/Mixed	34.1	10	8,590
Benton	21.4	9.7	Rural	2.3	9	4,557
Blackford	75.1	36.5	Rural	16.7	7	14,162
Boone	146.4	55.3	Rural/Mixed	18.1	9	11,660
Brown	48.0	26.8	Rural	92.7	1	1,534
Carroll	53.5	25.4	Rural	14.3	94	106,344
Cass	93.3	39.9	Rural/Mixed	24.1	35	22,665
Clark	306.4	128.7	Urban	67.1	2	6,556
Clay	74.3	32.7	Rural	28.8	8	3,497
Clinton	80.9	32.7	Rural/Mixed	13.8	42	73,086
Crawford	34.9	17.9	Rural	76.3	1	5,062
Daviess	76.2	29.0	Rural/Mixed	18.1	49	63,929
Dearborn	162.3	66.1	Rural/Mixed	71.0	0	4,263
Decatur	71.2	30.0	Rural/Mixed	21.8	71	65,188
DeKalb	116.8	48.3	Rural/Mixed	30.7	12	14,132
Delaware	298.6	133.3	Urban	30.7	6	2,972
Dubois	99.1	40.7	Rural/Mixed	36.0	89	88,785
Elkhart	436.1	167.7	Urban	41.7	41	84,945
Fayette	109.1	50.5	Rural/Mixed	43.1	7	3,815
Floyd	515.0	216.5	Rural/Mixed		0	
Fountain	42.1	19.8	Rural	77.3 15.3	4	1,848 3,618
Franklin						
Fulton	59.7	24.8	Rural	49.2	13	14,276
Gibson	55.6 69.3	26.3	Rural Rural	20.1 14.1	17	19,000
Grant	165.6	30.0	Rural/Mixed	30.8	13 12	12,301
Greene	60.3	73.4 27.9	Rural		18	8,516
Hamilton	767.6	27.9	Urban	47.8 48.1	8	17,833
Hancock	235.2	92.3	Rural/Mixed	15.3	15	4,376
Harrison	81.1		Rural/Mixed	56.5	11	18,866
Hendricks		34.1	Urban	16.1	4	15,478
	383.5	138.1				8,052
Henry	125.0	54.1	Rural/Mixed	29.6	9	11,185
Howard	283.2	131.7	Rural/Mixed	23.1	38	30,005
Huntington	95.9	41.4	Rural/Mixed	22.9	19	28,049
Jackson	85.8	35.8	Rural/Mixed	43.6	15	34,896
Jasper	59.8	23.6	Rural	21.0	40	54,185
Jay	55.2	24.0	Rural	28.5	96	137,570
Jefferson	90.1	39.6	Rural/Mixed	58.7	0	6,416

County	Population Density	Housing Density	Typology (rural, mixed, urban)	Non- farmland (%)	Permitted Farms	Animal Unit Estimation
Jennings	74.4	32.0	Rural	48.8	11	16,844
Johnson	460.4	178.5	Urban	29.5	5	6,236
Knox	73.5	32.9	Rural/Mixed	0.3	16	16,467
Kosciusko	147.8	69.8	Rural/Mixed	25.1	74	54,579
LaGrange	101.2	37.3	Rural	16.0	33	99,347
Lake	982.5	418.9	Urban	58.3	1	1,538
LaPorte	186.3	81.1	Urban	40.5	19	82,350
Lawrence	101.8	46.7	Rural/Mixed	53.1	4	11,936
Madison	287.8	130.3	Urban	29.1	10	7,576
Marion	2,357.4	1054.9	Urban	92.1	1	252
Marshall	106.2	44.7	Rural/Mixed	27.3	12	18,617
Martin	30.4	14.2	Rural	70.9	22	22,425
Miami	96.2	41.2	Rural/Mixed	26.7	47	51,204
Monroe	363.3	150.2	Urban	79.1	0	4,766
Montgomery	75.6	32.7	Rural/Mixed	11.1	16	30,038
Morgan	172.5	68.8	Rural/Mixed	46.9	6	5,178
Newton	35.2	15.0	Rural	25.9	14	23,376
Noble	115.9	48.9	Rural/Mixed	31.0	24	59,613
Ohio	70.1	32.3	Rural	61.1	0	2,340
Orange	49.3	22.9	Rural	61.5	8	8,966
Owen	54.4	26.0	Rural	61.3	1	5,695
Parke	38.8	18.1	Rural	38.0	0	7,914
Perry	51.0	22.2	Rural	72.9	9	14,214
Pike	37.8	17.2	Rural	62.6	8	13,969
Porter	399.6	158.6	Urban	55.0	1	6,557
Posey	62.4	27.5	Rural	12.7	7	17,465
Pulaski	29.9	13.9	Rural	22.0	27	17,460
Putnam	78.3	30.6	Rural	35.7	10	16,842
Randolph	56.1	25.9	Rural	16.7	45	79,816
Ripley	63.8	26.9	Rural	41.7	17	20,557
Rush	41.4	18.3	Rural	20.5	49	62,410
Scott	124.5	54.8	Rural/Mixed	57.8	0	1,683
Shelby	108.4	46.4	Rural/Mixed	11.4	17	15,300
Spencer	52.4	22.4	Rural	32.9	21	27,074
St. Joseph	584.5	251.0	Urban	48.1	11	35,268
Starke	74.6	35.4	Rural	32.5	4	1,413
Steuben	111.1	62.7	Rural/Mixed	47.1	5	7,630
Sullivan	47.1	19.9	Rural	40.5	5	20,498
Switzerland	47.4	22.6	Rural	64.2	0	3,963
Tippecanoe	366.3	143.5	Urban	31.2	26	18,818

			Typology (<i>rural,</i>	Non-		Animal
	Population	Housing	mixed,	farmland	Permitted	Unit
County	Density	Density	urban)	(%)	Farms	Estimation
Tipton	59.2	26.8	Rural	12.9	18	29,650
Union	44.9	20.0	Rural	27.8	7	3,279
Vanderburgh	779.5	355.6	Urban	48.8	1	3,507
Vermillion	61.1	29.1	Rural	28.0	4	18,889
Vigo	268.2	114.3	Urban	54.5	3	1,393
Wabash	78.2	34.2	Rural/Mixed	25.1	77	67,659
Warren	22.9	10.1	Rural	24.6	6	3,479
Warrick	158.9	63.3	Rural/Mixed	59.5	2	4,287
Washington	54.3	23.7	Rural	39.3	37	46,740
Wayne	168.4	77.6	Rural/Mixed	39.4	8	15,953
Wells	75.7	31.7	Rural	15.0	42	55,326
White	48.4	25.6	Rural	10.9	65	87,628
Whitley	99.5	42.6	Rural	34.8	30	22,587

Table 3. Factors that could Affect CFO Siting in Indiana: Animal Densities

	Dairy Cows	Beef Cattle	Other Cows	Total Pigs	Layers	Broilers	Turkeys	Ducks	Animal Unit Estimation	
County	٥	<u> </u>	0	Ĕ		<u> </u>	F	٥	ďü	Animal Unit Notes
Adams	8,841	954	20,906	109,912	893,885	36,995	74	402,548	96,140	
Allen	2,031	1,641	12,442	34,093	46,508	D	168	D	26,520	does not include broilers, ducks
Bartholomew	583	1,745	1,983	12,030	1,209	143	35	31	8,590	
Benton	>1022	[537-755]	2,509	>2152	217	0	13	D	4,557	does not include ducks
Blackford	0	601	956	32,452	296	7	9	D	14,162	does not include ducks
Boone	482	1,126	2,254	21,208	1,106	103	D	33	11,660	does not include turkeys
Brown	>500	[366-424]	637	[25-49]	388	D	0	30	1,534	does not include broilers
Carroll	58	1,109	4,602	255,898	[128-1,570]	140	8	D	106,344	does not include ducks
Cass	>710	[2,008-2,206]	3,478	43,388	1,132	D	19	D	22,665	does not include broilers, ducks
Clark	197	3,783	2,248	280	[20,084-51,764]	D	D	65	6,556	does not include broilers, turkeys
Clay	321	1,463	1,513	>1634	1,124	D	D	40	3,497	does not include broilers, turkeys
Clinton	[50-99]	[630-728]	895	174,185	>100,390	D	D	18	73,086	does not include broilers, turkeys
Crawford	[120-248]	[2,503-2,802]	1,812	>2002	1,052	258	24	58	5,062	does not include broilers, turkeys
Daviess	1,920	2,886	9,375	71,451	6,024	4,093	1,199,381	22	63,929	
Dearborn	296	2,420	2,170	261	1,006	99	0	34	4,263	
Decatur	[127-254]	[1,791-1,987]	6,919	146,696	629	280	D	0	65,188	does not include turkeys
DeKalb	1,222	760	13,440	8,933	1,179	D	45	D	14,132	does not include broilers, ducks
Delaware	[246-452]	732	996	>2453	1,377	D	16	22	2,972	does not include broilers
Dubois	1,956	7,497	10,667	89,493	>400,521	580	1,416,749	48	88,785	
Elkhart	17,762	1,655	36,523	49,953	165,071	1,322,173	274	1,148,982	84,945	
Fayette	[107-206]	[1,531-1,864]	1,385	>2033	772	255	D	0	3,815	does not include turkeys
Floyd	0	1,016	681	>1036	429	D	0	D	1,848	does not include broilers, ducks
Fountain	50	2,217	1,409	>1152	1,045	351	17	8	3,618	•

	Dairy Cows	Beef Cattle	Other Cows	otal Pigs	ayers	Broilers	Turkeys	Ducks	Animal Unit Estimation	
County Franklin				<u> </u>	_					Animal Unit Notes
Fulton	737 2,798	4,378 1,488	5,308 4,469	14,122 27,229	1,426 870	D 291	28 89	158 D	14,276 19,000	does not include broilers does not include ducks
Gibson	1,992	1,193	2,998	16,244	1,106	66	D	D	12,301	does not include turkey, ducks
Grant	>500	[567-616]	600	17,067	663	D	D	D	8,516	does not include broilers, turkeys, ducks
Greene	265	5,953	5,110	>2,366	2,307	D	372,505	12	17,833	does not include broilers
Hamilton	7	[797-944]	1,792	5,806	1,065	110	69	41	4,376	3030 1101 1110 1110 1110 1110 1110 1110
Hancock	8	968	573	43,675	1,480	499	84	1,834	18,866	
Harrison	297	7,592	11,575	>1,190	2,316	D	D	153	15,478	does not include broilers, turkeys
Hendricks	101	1,624	1,558	13,316	1,086	308	D	47	8,052	does not include turkeys
Henry	3,390	2,101	5,616	>2,376	892	D	D	0	11,185	does not include broilers, turkeys, ducks
Howard	479	492	1,969	69,036	1,788	36	522	D	30,005	does not include ducks
Huntington	3,307	819	3,863	39,393	225,836	836	D	26	28,049	does not include turkeys
Jackson	1,359	3,239	6,274	45,200	[180,685-395402]	54	58	10	34,896	
Jasper	21,248	1,433	19,084	28,853	579	D	22	46	54,185	does not include broilers
Jay	1,894	960	8,140	166,217	2,751,524	238	294,704	83,021	137,570	
Jefferson	424	3,542	2,933	>1,222	1,193	468	159	8	6,416	
Jennings	168	2,859	3,269	24,435	>100,543	165	21	58	16,844	
Johnson	>552	[1,457-1,753]	2,835	4,975	887	90	D	36	6,236	does not include turkeys
Knox	[150-298]	[1,604-1,703]	1,574	25,550	378	D	158,750	0	16,467	does not include broilers
Kosciusko	3,940	2,068	16,472	74,272	>210,525	D	383	159,242	54,579	
LaGrange	14,412	2,604	58,895	27,951	370,765	1,651,507	325	305,580	99,347	
Lake	434	505	555	175	691	0	D	428	1,538	does not include turkeys
LaPorte	6,044	1,282	8,134	169,248	1,045	216	122	59	82,350	
Lawrence	250	7,824	6,191	68	926	D	D	104	11,936	does not include broilers, turkeys
Madison	>542	[1,297-1,477]	1,654	10,810	802	114	58	260	7,576	
Marion	0	169	127	6	214	D	0	D	252	does not include broilers, ducks
Marshall	7,057	2,187	7,576	3,797	2,789	1,942	213	20,320	18,617	
Martin	[60-109]	[1,870-2,254]	1,891	23,108	[50,233-10,2213]	424	379,592	0	22,425	
Miami	1,647	1,315	5,758	110,251	1,154	251	114	26	51,204	

County	Dairy Cows	Beef Cattle	Other Cows	Total Pigs	Layers	Broilers	Turkeys	Ducks	Animal Unit Estimation	Animal Unit Notes
Monroe	[20-49]	[2,835-3,134]	2,346	223	3,192	D	33	97	4,766	does not include broilers
Montgomery	[50-99]	[1,843-2,041]	2,609	65,598	2,560	50	D	98	30,038	does not include turkeys
Morgan	113	2,518	2,025	3,152	1,171	37	28	79	5,178	
Newton	>500	788	2,282	46,291	>100,114	D	D	D	23,376	does not include broilers, turkeys, ducks
Noble	4,249	1,610	12,191	93,660	[61,227-128,857]	270,589	69	99,565	59,613	does include broilers
Ohio	[120-248]	[1,162-1,472]	842	[1, 24]	264	D	34	11	2,340	does not include broilers, turkeys
Orange	60	3,745	3,480	>2,489	[50,385-10,2608]	D	D	58	8,966	does not include turkeys
Owen	[107-205]	[2,387-3,346]	2,412	>1,445	1,603	384	D	33	5,695	
Parke	2,071	2,016	4,574	327	4,328	3,001	166	194	7,914	
Perry	432	3,892	2,612	20,322	1,041	D	D	18	14,214	does not include broilers, turkeys
Pike	0	1,157	680	22,086	373	0	178,000	131	13,969	
Porter	839	957	3,111	6,340	759	294	132	105	6,557	
Posey	746	547	786	38,471	605	D	D	54	17,465	does not include broilers, turkeys
Pulaski	>1120	[597-754]	3,158	28,099	>100,015	320	D	D	17,460	does not include turkeys, ducks
Putnam	364	3,816	2,588	27,282	2,369	24	107	63	16,842	
Randolph	2,095	1,955	3,210	177,605	1,157	197	96,570	170	79,816	
Ripley	571	4,114	4,437	32,351	1,780	313	D	108	20,557	does not include turkeys
Rush	1,225	2,610	11,102	128,505	924	376	D	D	62,410	does not include turkeys, ducks
St. Joseph	1,726	817	2,674	24,034	[40,550-104,041]	707	82	249	1,683	
Scott	[1, 9]	[806-1,192]	756	39	453	15	D	0	15,300	does not include turkeys
Shelby	588	1,117	1,775	30,687	954	D	14	50	27,074	does not include broilers
Spencer	427	5,505	4,811	33,368	[3,380-11,967]	D	224,900	D	35,268	does not include broiler, ducks
Starke	[102-217]	[340-438]	976	163	884	223	10	D	1,413	does not include ducks
Steuben	1,682	1,274	5,907	>1,095	877	160	D	D	7,630	does not include turkeys, ducks
Sullivan	[1-9]	[1,389-1,920]	1,201	40,475	720	0	82,002	D	20,498	does not include ducks
Switzerland	324	2,280	1,321	[546-1,045]	886	72	16	0	3,963	
Tippecanoe	[226-525]	[2,198-2,895]	1,812	35,072	3,097	164	325	73	18,818	
Tipton	[100-199]	[305-461]	942	65,854	>100,173	62	D	0	29,650	does not include turkeys
Union	[40-98]	[1,191-1,487]	1,390	>2,037	309	0	0	0	3,279	

County	Dairy Cows	Beef Cattle	Other Cows	Total Pigs	Layers	Broilers	Turkeys	Ducks	Animal Unit Estimation	Animal Unit Notes
Vanderburgh	88	256	321	2,326	>100,172	58	D	17	3,507	does not include turkey
Vermillion	0	1,621	1,605	40,736	496	0	7	18	18,889	
Vigo	58	835	642	189	785	D	D	9	1,393	does not include broilers, turkeys
Wabash	2,015	1,228	9,231	140,149	>100,534	D	16	31	67,659	does not include broilers
Warren	[201-508]	[1325-1645]	1,192	>1,002	298	21	40	D	3,479	does not include ducks
Warrick	[22-67]	[1170-1568]	1,414	4,420	442	D	D	D	4,287	does not include broilers, turkeys, ducks
Washington	843	7,625	7,261	10,540	146,238	2,272,684	185,512	42	46,740	
Wayne	2,710	2,630	5,671	15,073	4,327	828	94	10	15,953	
Wells	3,025	261	4,192	103,160	352,378	297	D	D	55,326	does not include turkeys, ducks
White	339	2,005	5,632	199,411	>100,032	408	14	14	87,628	
Whitley	821	753	2,733	44,164	[20,660-54,529]	547	70	14,074	22,587	

Table 4. Factors that could Affect CFO Siting in Indiana:

Buffer Requirements in Addition to any IDEM Requirements¹

Buffer Requirements (ft.) Municipalities Recreational Areas Religious Institutions Residences² **Businesses** County Adams 600 1,000 1,000 Allen 1,320 1,320 1,320 1,320 1,320 Bartholomew Benton 500 500 Blackford 750 Boone 1,320 Brown 1,500 Carroll 800 3,960 1,500 1,500 Cass 1,320 2,640 1,320 1,320 1,320 1,320 Clark Clay 5,280 1,320 5,280 Clinton 1,320 1,320 1,320 Crawford **Daviess** Dearborn Decatur DeKalb Delaware Dubois Elkhart **Fayette** 1,620 5,280 5,280 5,280 5,280 Floyd 1,000 Fountain Franklin **Fulton** 5,280 Gibson 1,320 10,560 Grant 5,280 1,320 1,320 Greene Hamilton

Hancock

750

	ž	oali	sr ions		iona	ses
County	Residences*	Municipalities	Religious Institutions	Schools	Recreationa Areas	Businesses
Harrison		_		<u> </u>	_ `	_
Hendricks						
Henry	800	2,640	1,320	2,640	2,640	1,320
Howard						
Huntington				1,000		1,000
Jackson	500	5,280	1,000	1,000	1,000	
lasper						
lay	750	5,280	1,250	1,250	5,280	1,250
Jefferson	660					
Jennings	1,000					
Johnson						
Knox						
Kosciusko						
.aGrange						
_ake						
.aPorte		5,280				
awrence						
Madison	500					
Marion						
Marshall	1,320					
<i>M</i> artin						
⁄liami	1,000	1,320	1,320	1,320		
Monroe						
Montgomery						
Morgan	1,000	1,320	1,320	1,320		
Newton	500		1,320	1,320	1,320	1,320
Noble	500		1,000	1,000	1,000	
Ohio						
Orange						
Owen						
Parke						
Perry						
Pike						
Porter						

County	Residences*	Municipalities	Religious Institutions	Schools	Recreational Areas	Businesses
Posey	1,000	5,280	2,640	2,640	2,640	
Pulaski	1,320	5,280				1,320
Putnam	500		1,000	1,000	1,000	1,000
Randolph	870	5,280		2,640		
Ripley	1,320		1,320	1,320		
Rush	750			5,280		
Scott						
Shelby	1,300		1,300	1,300	1,300	1,200
Spencer	900		900	900	900	900
St. Joseph		2,640				
Starke						
Steuben						
Sullivan						
Switzerland						
Tippecanoe	1,000		1,000	1,000		
Tipton	1,320	5,280	1,320	5,280	1,320	1,320
Union						
Vanderburgh						
Vermillion						
Vigo						
Wabash		1,600	1,600	2,640	1,600	
Warren						
Warrick						
Washington	600		750	3,960		
Wayne	660				660	660
Wells	800	5,280	2,640	5,280		2,640
White	1,320	5,280				1,320
Whitley						

¹These uses are defined the local ordinance. In many cases, the buffers may have exceptions or specific qualifications. Please see the county factsheets for footnotes on individual buffers.

²IDEM requires a 400ft. setback from nearest residence.

Table 5. Factors that could Affect CFO Siting in Indiana: Violations

County	Permitted Farms	IDEM Enforcements	IDEM Enforcements/Farm	OISC Investigations w. Violations	Total OISC Violations	OISC Violations/farm	Anon/Res Complaints	Anon/Res Complaints/Farm
Adams	62	5	0.08	2	4	0.06	4	0.06
Allen	13	1	0.08	5	8	0.62	3	0.23
Bartholomew	10	0	0.00	0	0	0.00	0	0.00
Benton	9	0	0.00	0	0	0.00	0	0.00
Blackford	7	0	0.00	1	3	0.43	1	0.14
Boone	9	0	0.00	1	3	0.33	1	0.11
Brown	1	0	0.00	0	0	0.00	0	0.00
Carroll	94	8	0.09	2	3	0.03	0	0.00
Cass	35	0	0.00	1	1	0.03	1	0.03
Clark	2	0	0.00	2	8	4.00	1	0.50
Clay	8	6	0.75	0	0	0.00	0	0.00
Clinton	42	5	0.12	1	1	0.02	1	0.02
Crawford	1	0	0.00	1	2	2.00	1	1.00
Daviess	49	11	0.22	4	6	0.12	2	0.04
Dearborn	0	0	0.00	0	0	0.00	0	0.00
Decatur	71	7	0.10	3	4	0.06	0	0.00
DeKalb	12	5	0.42	3	6	0.50	3	0.25
Delaware	6	0	0.00	1	1	0.17	1	0.17
Dubois	89	2	0.02	9	9	0.10	8	0.09
Elkhart	41	3	0.07	1	1	0.02	1	0.02
Fayette	7	0	0.00	1	1	0.14	0	0.00
Floyd	0	0	0.00	0	0	0.00	0	0.00
Fountain	4	0	0.00	0	0	0.00	0	0.00
Franklin	13	2	0.15	0	0	0.00	0	0.00
Fulton	17	0	0.00	0	0	0.00	3	0.18
Gibson	13	1	0.08	3	5	0.38	4	0.31
Grant	12	4	0.33	1	2	0.17	1	0.08
Greene	18	4	0.22	4	8	0.44	4	0.22
Hamilton	8	0	0.00	0	0	0.00	1	0.13
Hancock	15	6	0.40	2	2	0.13	1	0.07
Harrison	11	0	0.00	1	2	0.18	1	0.09

Permitted Farms IDEM Enforcements IDEM Enforcements/Farm OISC Investigations w. Violations Total OISC Violations OISC Solutions Anon/Res Complaints Anon/Res	Anon/Res Complaints/Farm
Hendricks 4 0 0.00 1 1 0.25 0 0.0	.00
Henry 9 7 0.78 1 1 0.11 1 0.1	.11
Howard 38 6 0.16 1 2 0.05 1 0.0	.03
Huntington 19 13 0.68 1 1 0.05 2 0.1	.11
Jackson 15 0 0.00 0 0 0.00 0 0.0	.00
Jasper 40 10 0.25 1 2 0.05 4 0.1	.10
Jay 96 10 0.10 12 13 0.14 10 0.1	.10
Jefferson 0 0 0.00 0 0 0.00 0 0.0	.00
Jennings 11 1 0.09 0 0 0.00 0 0.0	.00
Johnson 5 0 0.00 0 0 0.00 0 0.0	.00
Knox 16 0 0.00 1 1 0.06 1 0.0	.06
Kosciusko 74 1 0.01 1 2 0.03 3 0.0	.04
LaGrange 33 12 0.36 0 0 0.00 0 0.0	.00
Lake 1 0 0.00 0 0 0.00 0 0.0	.00
LaPorte 19 5 0.26 1 1 0.05 1 0.0	.05
Lawrence 4 0 0.00 0 0 0.00 0 0.0	.00
Madison 10 8 0.80 0 0 0.00 1 0.1	.10
Marion 1 0 0.00 0 0 0.00 0 0.0	.00
Marshall 12 6 0.50 2 3 0.25 2 0.1	.17
Martin 22 4 0.18 1 2 0.09 2 0.0	.09
Miami 47 3 0.06 0 0 0.00 4 0.0	.09
Monroe 0 0 0.00 0 0 0.00 0 0.0	.00
Montgomery 16 1 0.06 0 0 0.00 0 0.0	.00
Morgan 6 0 0.00 0 0 0.00 0 0.0	.00
Newton 14 1 0.07 0 0 0.00 0 0.0	.00
Noble 24 7 0.29 0 0 0.00 0 0.0	.00
Ohio 0 0 0.00 0 0 0.00 0 0.0	.00
Orange 8 0 0.00 1 1 0.13 1 0.1	.13
Owen 1 0 0.00 1 1 1.00 1 1.0	.00
Parke 0 0 0.00 0 0.00 0 0.00	.00
Perry 9 1 0.11 9 17 1.89 16 1.7	78
Pike 8 0 0.00 9 18 2.25 13 1.6	.63

County	Permitted Farms	IDEM Enforcements	IDEM Enforcements/Farm	OISC Investigations w. Violations	Total OISC Violations	OISC Violations/farm	Anon/Res Complaints	Anon/Res Complaints/Farm
Porter	1	0	0.00	0	0	0.00	1	1.00
Posey	7	7	1.00	0	0	0.00	0	0.00
Pulaski	27	3	0.11	2	2	0.07	3	0.11
Putnam	10	1	0.10	0	0	0.00	0	0.00
Randolph	45	1	0.02	8	13	0.29	5	0.11
Ripley	17	1	0.06	2	2	0.12	2	0.12
Rush	49	10	0.20	0	0	0.00	0	0.00
Scott	0	0	0.00	1	1	0.00	0	0.00
Shelby	17	0	0.00	1	1	0.06	0	0.00
Spencer	21	1	0.05	2	7	0.33	6	0.29
St. Joseph	11	11	1.00	3	3	0.27	4	0.36
Starke	4	3	0.75	0	0	0.00	0	0.00
Steuben	5	5	1.00	0	0	0.00	1	0.20
Sullivan	5	0	0.00	0	0	0.00	0	0.00
Switzerland	0	2	0.00	0	0	0.00	0	0.00
Tippecanoe	26	0	0.00	0	0	0.00	0	0.00
Tipton	18	0	0.00	0	0	0.00	1	0.06
Union	7	3	0.43	2	3	0.43	1	0.14
Vanderburgh	1	0	0.00	0	0	0.00	0	0.00
Vermillion	4	0	0.00	1	2	0.50	2	0.50
Vigo	3	0	0.00	1	2	0.67	4	1.33
Wabash	77	12	0.16	2	2	0.03	2	0.03
Warren	6	4	0.67	0	0	0.00	0	0.00
Warrick	2	0	0.00	0	0	0.00	0	0.00
Washington	37	1	0.03	0	0	0.00	0	0.00
Wayne	8	8	1.00	2	3	0.38	2	0.25
Wells	42	17	0.40	8	13	0.31	10	0.24
White	65	4	0.06	0	0	0.00	0	0.00
Whitley	30	1	0.03	1	4	0.13	3	0.10