

Solving Lake Erie's Nutrient Problem Requires Busting the Legal Myth of the “*Zero Discharge*” CAFO



Kim Ferraro, Senior Attorney

Conservation Law Center

kimferra@iu.edu



What is a CAFO?

“The term ‘point source’ means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.”

33 USCS § 1362(14) (emphasis added)







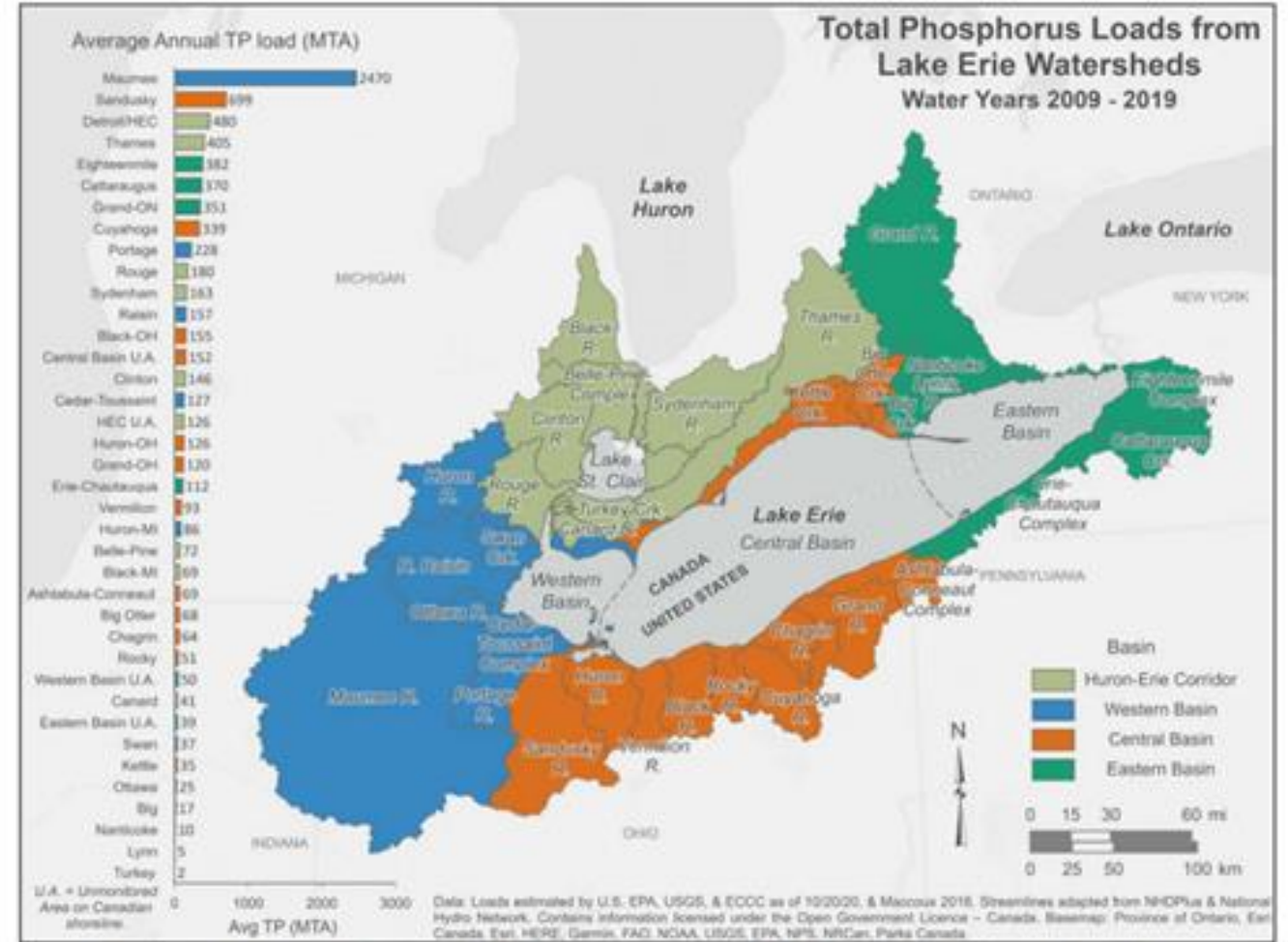


Maumee Watershed Nutrient

Draft Total Maximum Daily Load



long (107.8 river miles in Ohio). Even as the largest direct tributary, the Maumee River only contributes around 5 percent of the water flowing into western Lake Erie, but it contributes nearly 50 percent of the phosphorus (Figure 1).



Maumee Watershed

- 70% in agricultural use
- Extensive subsurface drain tiles underly 86% of farmland
- 16,000 miles of agricultural drainage ditches

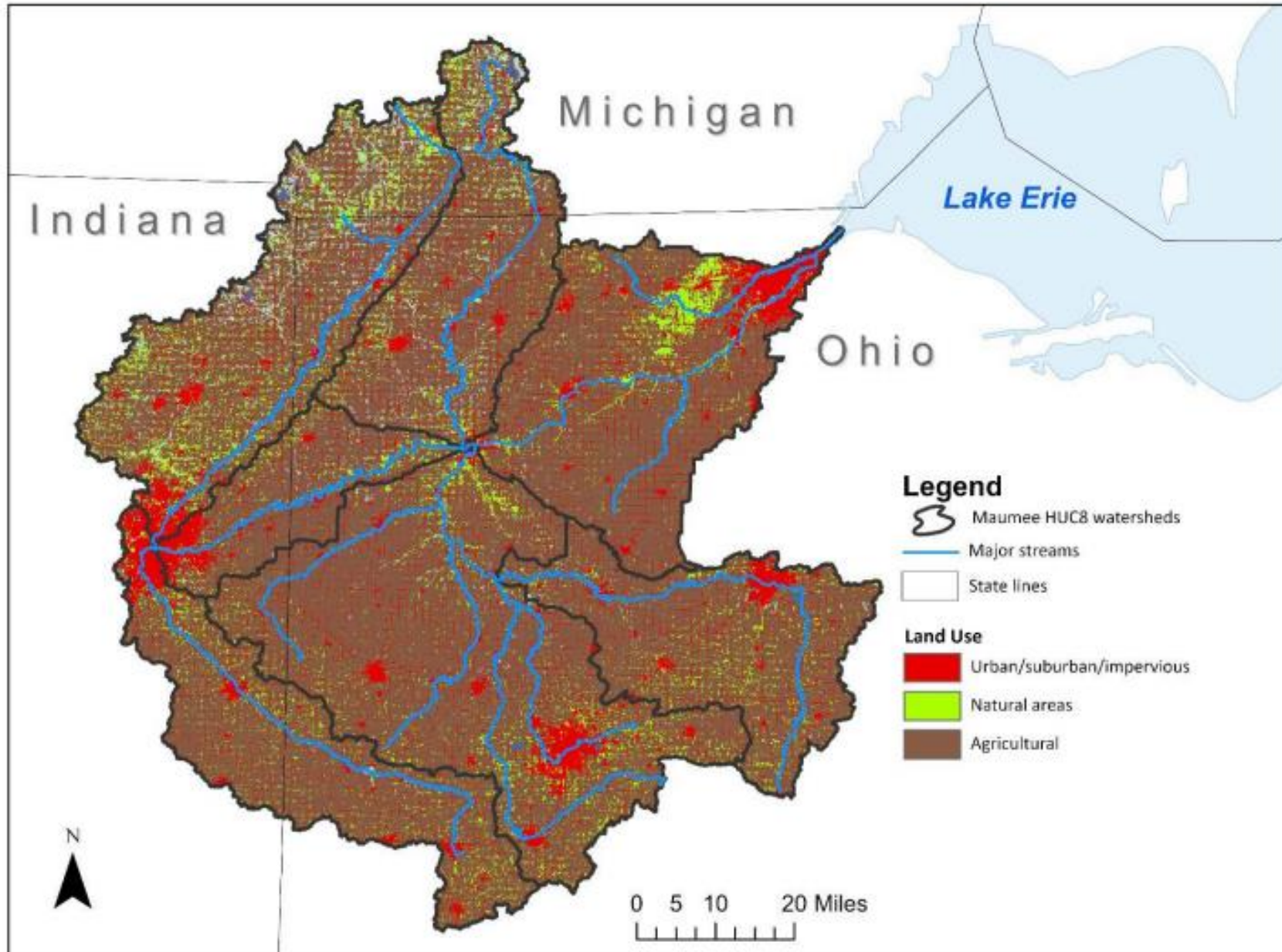


Figure 2. Maumee watershed map showing generalized land uses.

- 88% increase in the number of livestock in the watershed from 2002 to 2017
-
- 5100 metric tons of manure phosphorus generated in 2017

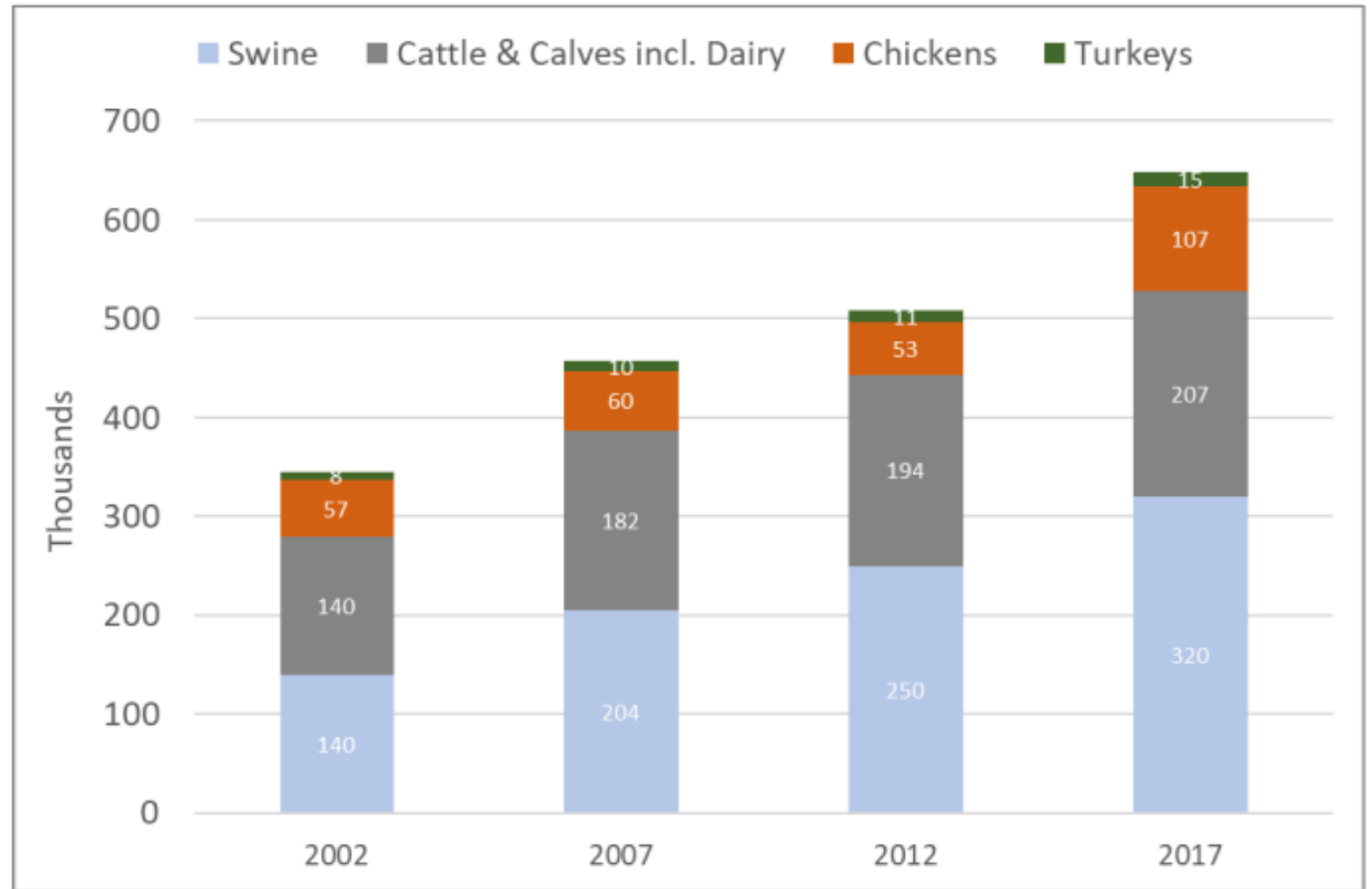


Figure 13. ODA estimate of animal unit capacity based on a combination of USDA's Census of Agriculture and ODA DLEP numbers.

5.3.4. Allocations for CAFOs/CAFFs

The Clean Water Act defines CAFOs as point sources. However, this TMDL provides no wasteload allocations to CAFO livestock operations. There are currently no CAFOs in the watershed that discharge or propose to discharge non-ag stormwater under an NPDES permit. CAFOs do contribute to the nonpoint source phosphorus load via agricultural stormwater from the land application of manure. This load is considered part of the load allocation for nonpoint sources discussed in Section 5.3.6.

The Clean Water Act exempts agricultural stormwater. Therefore, the majority of nonpoint source reductions remain voluntary. TMDLs are planning tools that are used to better organize and affect pollutant reductions from nonpoint sources. TMDLs are not policy tools that contemplate the impact of changing regulations on managing pollutant loads. This TMDL's implementation plan

Ohio:

- Nonpoint Sources: 61% load allocation - *voluntary*
- Point Sources: 12% wasteload allocation - enforceable

Indiana:

- 5% “boundary condition” – *voluntary*

Michigan

- 20% “boundary condition” – *voluntary*

Table ES1. Allocations to meet the TMDL for the Maumee watershed to address western basin of Lake Erie impairments.

Allocation type	Spring season total phosphorus (metric tons)	Daily total phosphorus (kilograms)
Boundary condition: Michigan	180.7	1,180.9
Boundary condition: Indiana	48.0	313.6
Wasteload allocation	109.3	714.6
Load allocation	555.9	3,633.2
Explicit margin of safety (3%)	20.6	134.5
TOTAL	914.4	5,976.8

Concerned Area Residents for the Env't v. Southview Farm, 34 F.3d 114 (2nd Cir. 1994) (spreading a CAFO's liquid manure on land is a point source under the CWA)

Community Association for Restoration of the Environment v. Henry Bosma Dairy, 65 F. Supp. 2d 1129 (E.D. Wash. 1999) (wastes removed from CAFO lagoons and spread on land is subject to NPDES permitting)

Maple Leaf Farms, Inc. v. State Dep't of Natural Res., 247 Wis. 2d 96 (Wis. App. 2001) (NPDES permit applies to CAFO's land-spreading operations)



Concentrated Animal Feeding Operations

Clean Water Act Requirements

EPA 2003 Rule

- All CAFOs *presumed* to have “a potential to discharge” from production and land application areas
- CAFOs could request a “no potential to discharge determination” from EPA
- Failure to apply for a permit was a separate violation from discharging without a permit
- Discharges from land application areas were point source discharges unless land application done in accordance with a nutrient management plan (NMP)
- But NMP was not reviewed or approved by EPA and not made available to the public

Waterkeeper Alliance, Inc. v. Environmental Protection Agency, 399 F.3d 486 (2d Cir. 2005)

- No duty to apply for permit based on CAFO's "potential to discharge" — only actual discharges
- Runoff from CAFO's land application area does not have to be "collected" or "channelized" to be regulated because a CAFO is a point source
- Land application discharge can be regulated or exempt depending on the cause:
 - **Regulated discharge** = runoff from over-saturation of waste
 - **Exempt discharge** = runoff due to rain





U.S. Environmental
Protection Agency

Office of Wastewater
Management

October 2008

Concentrated Animal Feeding Operations Final Rulemaking – Fact Sheet



EPA's 2008 Rule:

- CAFOs that discharge or “propose to discharge” must apply for NPDES permit – failure to apply is a violation
- A CAFO “proposes to discharge” if based on an objective assessment of the CAFO’s design, construction, operation, and maintenance, the CAFO will discharge from its production area or land application area
- CAFOs that do not discharge or propose to discharge may submit a no discharge certification to meet their “duty to apply”

National Pork Producers Council v. U.S. EPA, 635 F.3d 738 (5th Cir. 2011)

- EPA cannot impose a duty to apply on a CAFO that “proposes to discharge” or on any CAFO before there is an *actual* discharge
- EPA cannot impose separate liability for the “failure to apply” for a permit
- CAFOs with NPDES permits must have site-specific NMPs as enforceable part of permit



NPDES CAFO Permitting Status Report:
National Summary, Endyear 2020, completed 05/11/21
(as reported by EPA Regions)

State	EPA Region	Total CAFOs ¹	CAFOs with NPDES permits ²
Alabama	4	558	487
Alaska	10	0	0
Arizona	9	115	1
Arkansas	6	776	0
California	9	1,083	141
Colorado	8	210	96
Connecticut	1	1	0
Delaware	3	685	193
Florida	4	100	58
Georgia	4	828	53
Hawaii	9	0	0
Idaho	10	365	0
Illinois	5	576	10
Indian Country (R7)	7	9	9
Indian Country (R8)	8	4	3
Indiana	5	862	0
Iowa	7	3,896	166
Kansas	7	432	432
Kentucky	4	150	2
Louisiana	6	250	4
Maine	1	6	5
Maryland	3	542	518
Massachusetts	1	0	0
Michigan	5	282	267
Minnesota	5	1,464	1,175
Mississippi	4	433	54
Missouri	7	513	47
Montana	8	124	103
Nebraska	7	1,743	500
Nevada	9	16	8
New Hampshire	1	1	0
New Jersey	2	2	2
New Mexico	6	171	20
New York	2	488	0
North Carolina	4	1,222	14
North Dakota	8	90	0
Ohio	5	257	30
Oklahoma	6	39	37
Oregon	10	125	369
Pennsylvania	3	429	429
Puerto Rico	2	0	0
Rhode Island	1	0	0
South Carolina	4	201	0
South Dakota	8	431	431
Tennessee	4	129	44
Texas	6	1,049	523
Utah	8	55	5
Vermont	1	35	0
Virgin Islands	2	0	0
Virginia	3	204	10
Washington	10	109	24
West Virginia	3	21	1
Wisconsin	5	335	318
Wyoming	8	49	40
TOTALS		21,465	6,629

States in Maumee Watershed	Total CAFOs	CAFOs with NPDES Permits
Indiana	862	0
Michigan	282	268
Ohio	257	30
CAFOs in the US	21,465	6,629

Indiana's “CFO Approval”

Regardless of size, type or number of animals, CFOs and CAFOs (along with manure pits and lagoons) can be:

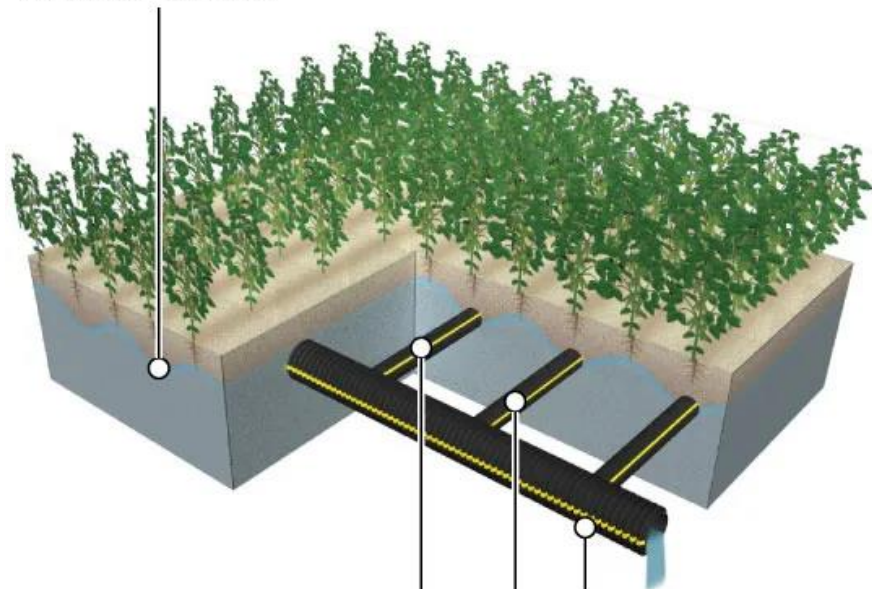
- built in karst terrain and other sensitive areas
- located 100 feet from water wells
- 300 feet from surface waters, drainage inlets, sinkholes
- 1,000 feet from a public water supply or intake structure

Secret Record Keeping . . .

- Land application records are kept by the CFO/CAFO owner – not available to the public
- IDEM required to conduct announced inspections once every five years

So... no meaningful mechanism for transparency, public accountability, or enforcement

Water table



Laterals

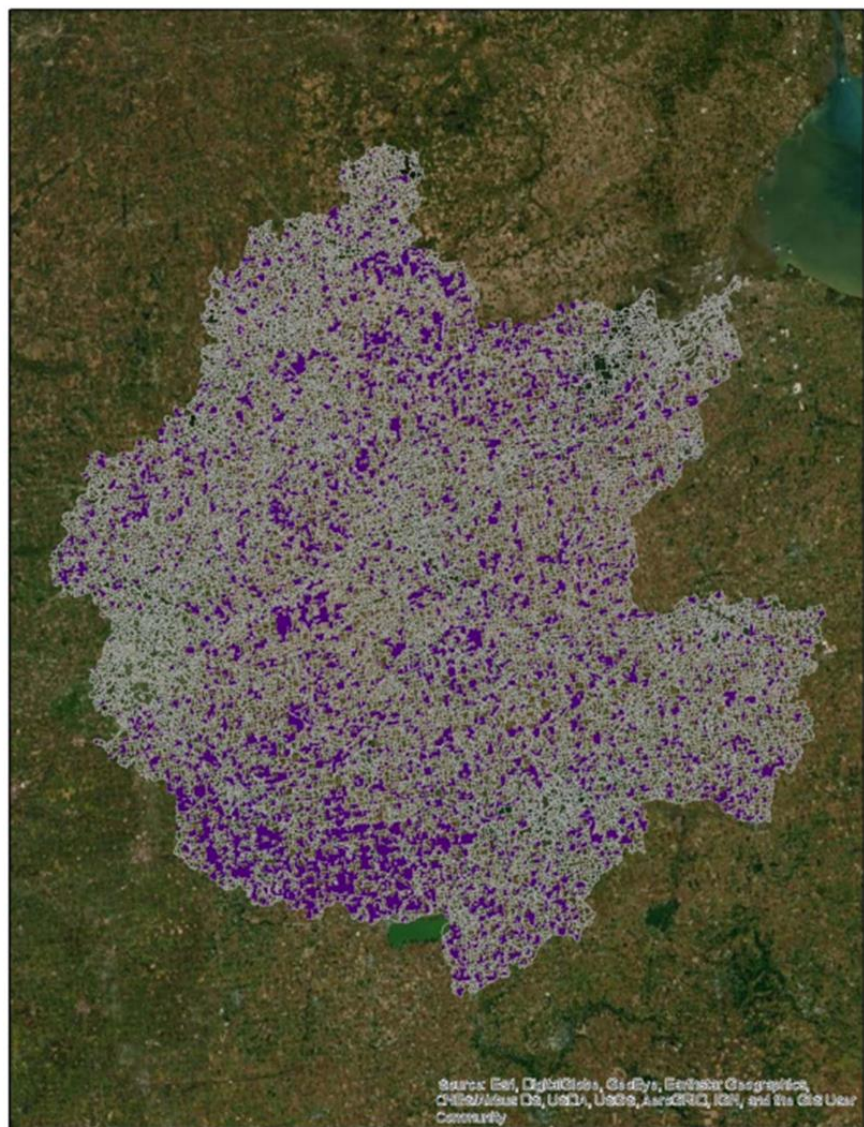
Smaller pipes — usually around 4 inches in diameter — lower the water table on a slight grade, allowing gravity to carry excess water to the main.

Main

Larger pipes at the edge of the field collect the water from the laterals and carry it into ditches.

STEPHEN J. BEARD / INDYSTAR





HRUs Selected to Receive Manure Application

0 5 10 20 30 40
Kilometers

Locations of animal feeding operations in the Western Lake Erie Basin

