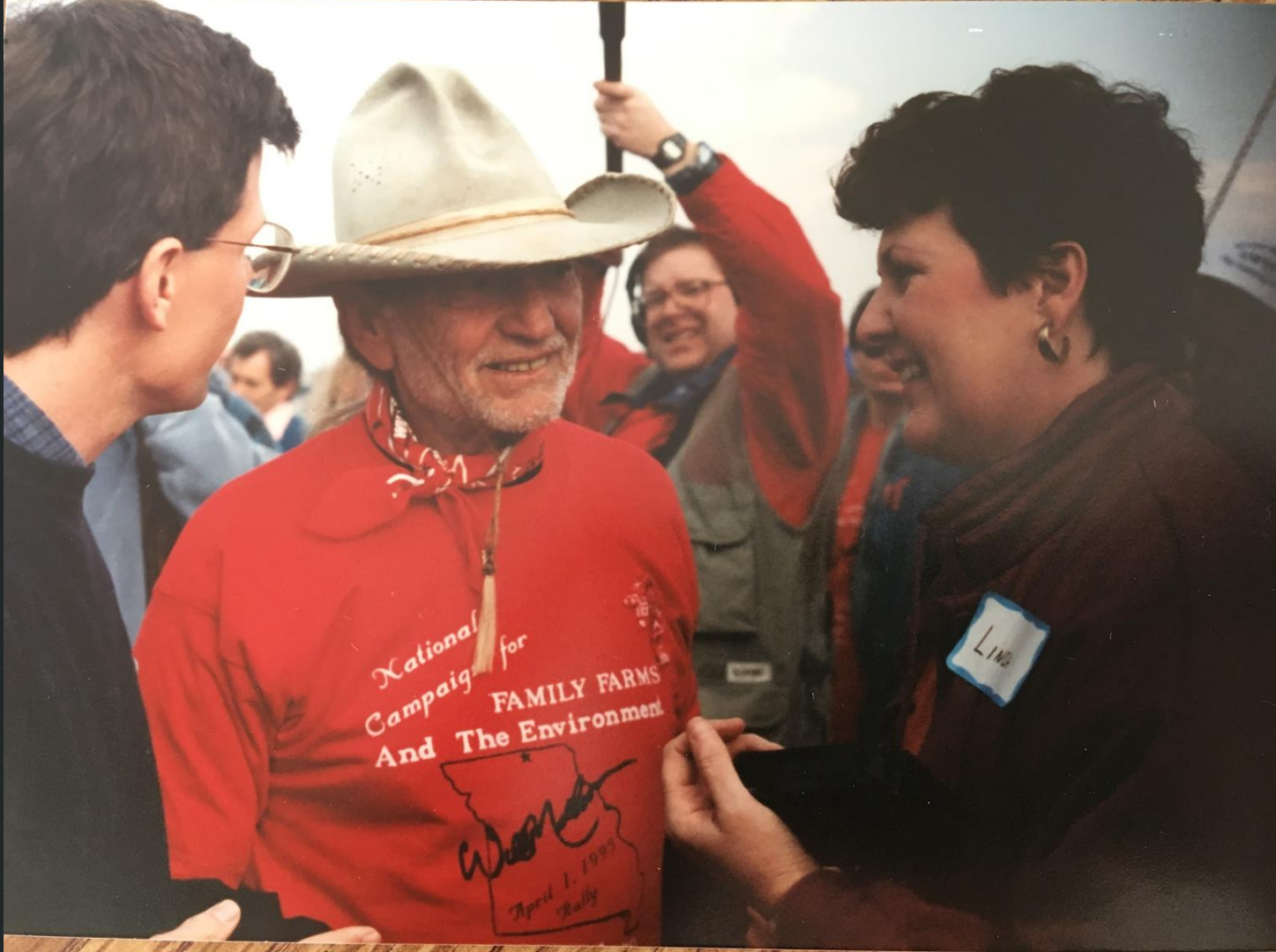


Factory Farms and the Plight of Rural Communities

By Ashlen Busick
Socially Responsible Agricultural Project







Smithfield Whitetail Facility

Unionville, Missouri



Google Earth

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Factory Farm Landscape

Regulation

Impacts to the environment

Impacts to public health

Impacts to rural
communities

Trends

Taking Action

Federal Regulation of CAFOs

Clean Air Act of 1970:

- Authorized regulation to limit industrial emissions
- Initiated the National Ambient Air Quality Standards (NAAQS)

CERCLA: Comprehensive Environmental Response, Compensation, & Liability Act

- Animal waste exempted under FARM Act in 2018

EPCRA: Emergency Planning & Community Right-to-Know Act

- Proposed amendment to exempt animal waste at farms

Federal Regulation of CAFOs

Clean Water Act of 1972:

- Identified concentrated animal feeding operations (CAFOs) as point sources of pollution
- Required permitting of these facilities through the National Pollutant Discharge Elimination System (NPDES)
- Authority largely delegated to the states

EPA Definition of a CAFO:

An AFO is a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
- crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

AFOs that meet the regulatory definition of a concentrated animal feeding operation (CAFO) are regulated under the NPDES permitting program.

(https://www.epa.gov/sites/production/files/2015-08/documents/sector_table.pdf)

Animal Sector	Size Thresholds (number of animals)		
	Large CAFOs	Medium CAFOs ¹	Small CAFOs ²
cattle or cow/calf pairs	1,000 or more	300 - 999	less than 300
mature dairy cattle	700 or more	200 - 699	less than 200
veal calves	1,000 or more	300 - 999	less than 300
swine (weighing over 55 pounds)	2,500 or more	750 - 2,499	less than 750
swine (weighing less than 55 pounds)	10,000 or more	3,000 - 9,999	less than 3,000
horses	500 or more	150 - 499	less than 150
sheep or lambs	10,000 or more	3,000 - 9,999	less than 3,000
turkeys	55,000 or more	16,500 - 54,999	less than 16,500
laying hens or broilers (liquid manure handling systems)	30,000 or more	9,000 - 29,999	less than 9,000
chickens other than laying hens (other than a liquid manure handling systems)	125,000 or more	37,500 - 124,999	less than 37,500
laying hens (other than a liquid manure handling systems)	82,000 or more	25,000 - 81,999	less than 25,000
ducks (other than a liquid manure handling systems)	30,000 or more	10,000 - 29,999	less than 10,000
ducks (liquid manure handling systems)	5,000 or more	1,500 - 4,999	less than 1,500

State Regulation of CAFOs (through NPDES)

Depending on state statutes, authority, and definitions

- Permitted by state agency (KDHE, DEQ, DNR, etc.)
- Requirements depend on size & type of waste system
- Main focus: Nutrient Management Plan (NMP)

Impacts to the Environment

- Surface water pollution through runoff and spills
- Groundwater pollution through leachate
- Nutrient overload to the soil
- Loss of biodiversity/harm to native plants & animals
- Greenhouse gas emissions



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“Animal agriculture manure is a primary source of nitrogen and phosphorus to surface and groundwater. Manure runoff from cropland and pastures or discharging animal feeding operations and concentrated animal feeding operations (CAFOs) often reaches surface and groundwater systems through surface runoff or infiltration.”

<https://www.epa.gov/nutrient-policy-data/estimated-animal-agriculture-nitrogen-and-phosphorus-manure>



Assessed Waters of United States

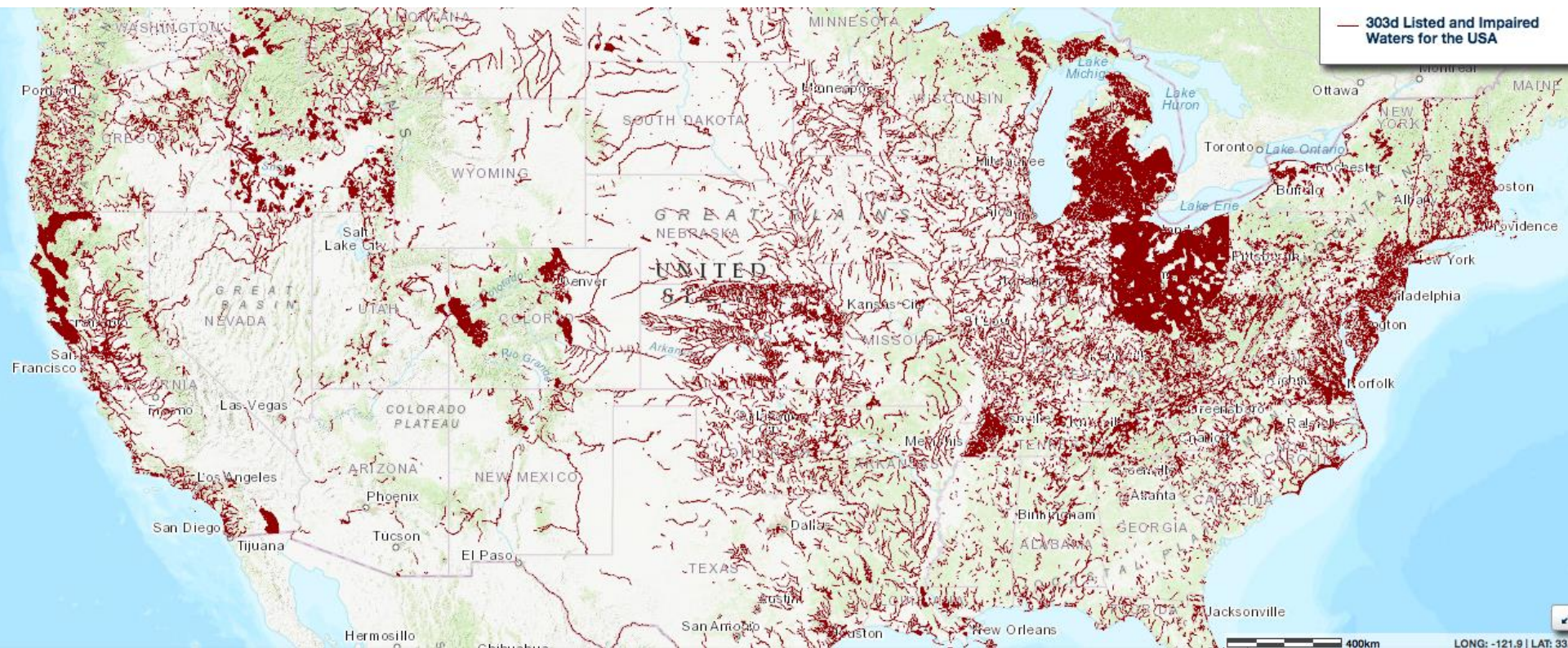
Incomplete state reported information may lead to discrepancies and/or missing information in these reports.

Description of this table

	<u>Size of Water</u>							
	<u>Rivers and Streams (Miles)</u>	<u>Lakes, Reservoirs, and Ponds (Acres)</u>	<u>Bays and Estuaries (Square Miles)</u>	<u>Coastal Shoreline (Miles)</u>	<u>Ocean and Near Coastal (Square Miles)</u>	<u>Wetlands (Acres)</u>	<u>Great Lakes Shoreline (Miles)</u>	<u>Great Lakes Open Water (Square Miles)</u>
<u>Good Waters</u>	518,293	5,390,570	11,516	1,298	726	569,328	106	1
<u>Threatened Waters</u>	4,495	30,309						
<u>Impaired Waters</u>	588,173	13,208,917	44,625	3,329	6,218	672,924	4,354	39,230
<u>Total Assessed Waters</u>	1,110,961	18,629,795	56,141	4,627	6,944	1,242,252	4,460	39,231
<u>Total Waters</u>	3,533,205	41,666,049	87,791	58,618	54,120	107,700,000	5,202	196,343
<u>Percent of Waters Assessed</u>	31.4	44.7	63.9	7.9	12.8	1.2	85.7	20.0

https://ofmpub.epa.gov/waters10/attains_nation_cy.control

Impaired waters listed on the 303(d) list (2014)



Map courtesy of Data Basin: <https://databasin.org/maps/new#datasets=53f72f00668848f48e6ebfd7d99ad05b>

**National Summary
Probable Sources of Impairments in Assessed Rivers and Streams**

[Description of this table](#)

<u>Probable Source Group</u>	<u>Miles Threatened or Impaired</u>
Unknown	144,971
Agriculture	135,855
Hydromodification	88,634
Atmospheric Deposition	85,922
Habitat Alterations (Not Directly Related To Hydromodification)	65,633
Unspecified Nonpoint Source	60,807
Municipal Discharges/Sewage	57,237
Natural/Wildlife	50,702
Urban-Related Runoff/Stormwater	49,330
Silviculture (Forestry)	40,942
Resource Extraction	32,975
Construction	21,583
Industrial	11,388
Other	9,277
Land Application/Waste Sites/Tanks	8,587
Legacy/Historical Pollutants	5,771
Spills/Dumping	3,781
Recreation And Tourism (Non-Boating)	1,534
Groundwater Loadings/Withdrawals	249
Aquaculture	165
Recreational Boating And Marinas	132
Military Bases	21

https://ofmpub.epa.gov/waters10/attains_nation_cy.control

**National Summary
Causes of Impairment in Assessed Rivers and Streams**

[Description of this table](#)

Cause of Impairment Group	Miles Threatened or Impaired
Pathogens	187,872
Sediment	138,874
Nutrients	118,831
Organic Enrichment/Oxygen Depletion	98,037
Temperature	94,488
Metals (other than Mercury)	94,384
Polychlorinated Biphenyls (PCBs)	82,311
Mercury	72,554
Habitat Alterations	63,019
Turbidity	47,750
Cause Unknown	45,318
Cause Unknown - Impaired Biota	44,900
Flow Alteration(s)	41,329
Salinity/Total Dissolved Solids/Chlorides/Sulfates	38,072
pH/Acidity/Caustic Conditions	33,740
Pesticides	18,069
Ammonia	12,160
Total Toxics	11,174
Other Cause	9,273
Biotoxins	6,450

https://ofmpub.epa.gov/waters10/attains_nation_cy.control





Buffalo National River

Carver Campground, Canoe launch, Day use area

Big Creek

Impacts to Public Health

- Excess nitrates & fecal coliform in well water:
 - Decreased blood pressure, cramps & vomiting, headaches, “Blue Baby” Syndrome
 - Diarrhea, dysentery, hepatitis (*Centers for Disease Control and Prevention*)
- Respiratory illness
- Nausea and headaches
- Increased asthma risk in children living near CAFOs
- Antibiotic resistant bacteria transmission
- Stress, anxiety, depression





Composted chicken manure, feathers and dead chickens blow in the wind.
Hickman Family Farms - Arlington, Arizona

Impacts to Rural Communities

- Community relationships severed
- Low-paying, low-skilled, dangerous jobs
- Exploitation of vulnerable populations
- Increased cost of water treatment
- Road damage
- Property devaluation



Impacts to Rural Communities

- Tear at community relationships
- Low-paying, low-skilled, dangerous jobs
- Exploitation of vulnerable populations
- Increased cost of water treatment
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- Property devaluation

"On rainy days when there's no wind this whole area smells like wet chicken. I have to keep the windows shut. Still you can smell a mix of ammonia and manure all the time, and more than a half-mile away you still smell that smell. Friends won't come over. I don't blame them."



**- Brian Kaltreider
Codorus Township, Pennsylvania**

Trends

- “Export Only” operations
- Anaerobic digestion - manure as renewable energy
- “Antibiotic free” and “Organic” CAFOs
- Slaughterhouse expansion
- Foreign ownership of agricultural land
- Recruitment of non-American investors/operators
- Nutrient trading framework



Smart Chicken, Tecumseh, NE - Cornucopia Institute

<https://www.cornucopia.org/2015/05/latest-usda-scandal-organic-program-dismisses-legal-complaints-targeting-factory-farms-without-investigating/>



Aurora Dairy, Stratford, TX - Cornucopia Institute

<https://www.cornucopia.org/2015/05/latest-usda-scandal-organic-program-dismisses-legal-complaints-targeting-factory-farms-without-investigating/>

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What can we do?

- Call SRAP!
- Sign up for alerts/updates from state & federal agencies
- Submit comments on permit applications, renewals, rulemaking
- Track & report violations
- Know your rights under KOMA & KORA, & act on them
- Get informed on legislature activities, then talk to your elected officials
- VOTE
- Support the alternative

