

**Problem Statement:** As of April 2020, 14 of the 2,163 Swine CAFOs registered in North Carolina operate with a Swine **National Pollutant Discharge Elimination System (NPDES)** permit while the remaining operate with a swine general permit, according to the Department of Environmental Quality (DEQ). Despite a robust permitting program, nutrient pollution from CAFO's is found in local water ways and as far reaching as coastal watersheds of the Cape Fear River, suggesting that the non-discharge requirement in both permits is not being met.

## NC CAFO Permitting Overview

In accordance with the Clean Water Act, to discharge any pollutant from a point source into navigable waters is unlawful, unless a NPDES permit was obtained. NC was granted leadership from the EPA of the NPDES program in 1975 and the general permit program in 1991 enabling the NC DEQ to perform many of the permitting, administrative, and enforcement aspects of the NPDES program. Upon completing a line-by-line comparison of the two permits, the following variations were identified:

## NC NPDES Permit vs. NC General Permit

The NPDES permit is required for Animal Feeding Operations that meet the CAFO criteria defined in the NC State Statute and have discharged or propose to discharge pollutants. The public is encouraged to review and comment on the permit prior to approval. NPDES permit holders are subject to additional operating controls outside of the general permit, such as ground water testing to reduce the potential of discharges. The permit is active for 5 years.

The General permit is applicable to animal feeding operations which meet the criteria defined in the NC State Statute and have an approved waste management plan confirming their operation will not discharge. The public is not allowed to comment on new general permit applications. The recently expanded general permit which allows for Biogas production on CAFOs has concerned the public because they do not have the opportunity to comment even though this is a new function. While the Biogas operations reportedly will have a positive impact on air pollution, there is no plan to curb water pollution as the sludge and spray field operations will continue. The general permit is active for 5 years.



Photo: North Carolina Department of Environment and Natural Resources, 2008

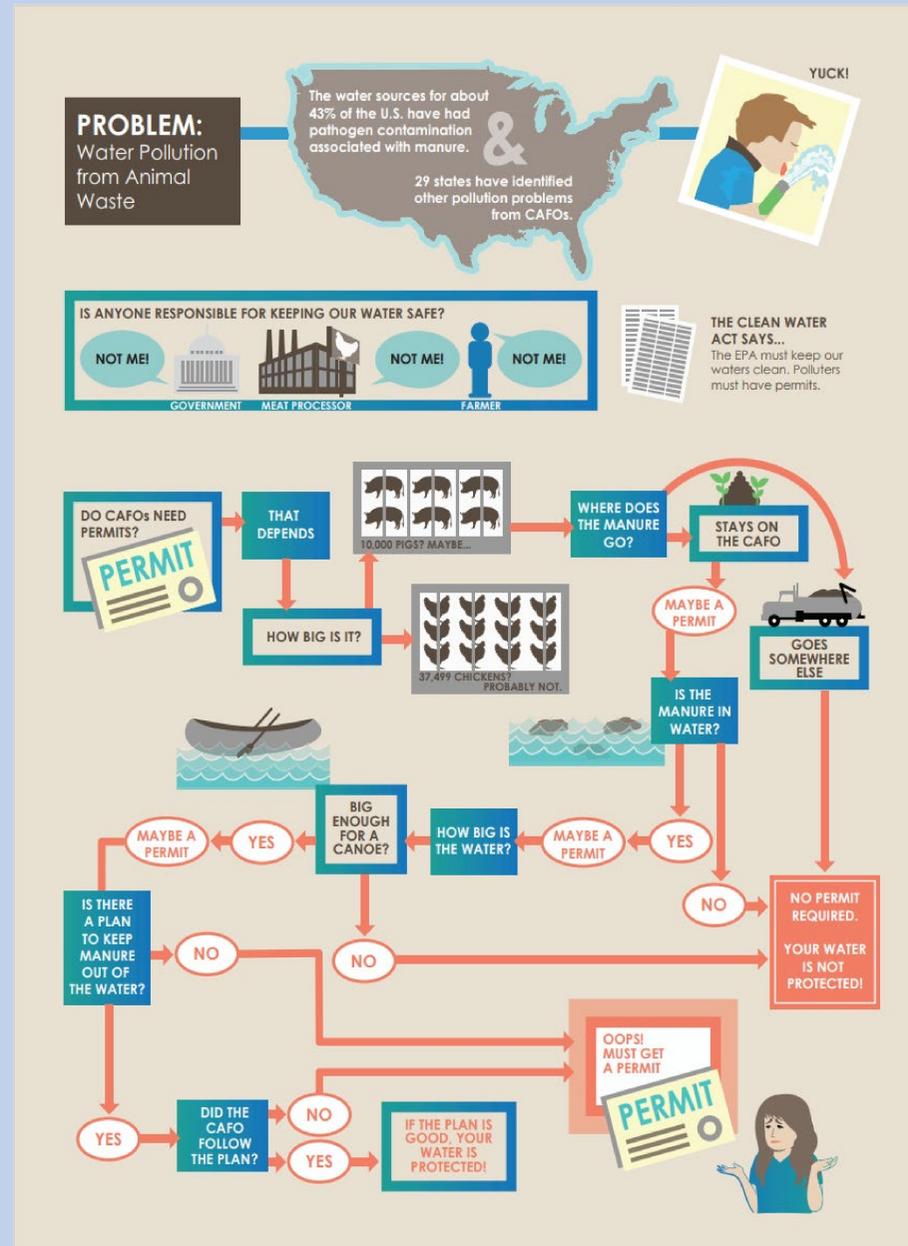
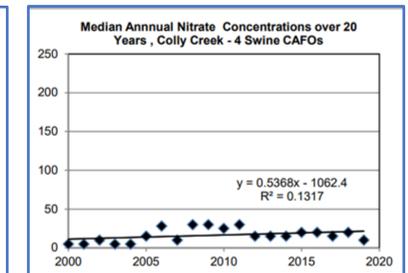
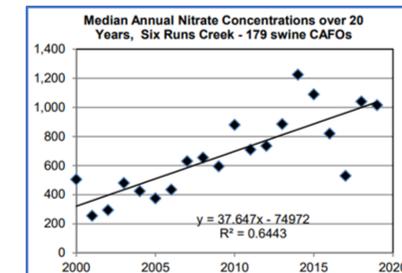


Photo: Melissa Smith, Scientific Illustrator, UNCW, 2022

## Key Trends

- Statistical increases in Nitrogen concentration are found in Cape Fear river watersheds with high concentration of Swine CAFO's. In contrast, Cape Fear river watersheds with few or no CAFO's showed no increase.



(Source: Merritt J., McIver, M., & Mallin, M. A. 2021).

- Compliance inspections are required on an annual basis and performed by the Division of Water Resources. The top three compliance violations for the last four years:

- Discharge from animal waste management system (1.5%)
- Inadequate freeboard levels (3.4%)
- Evidence of over application (3.9%)

## Recommendations

- Eliminate the General permit and require all CAFO's to apply for an NPDES permit.
- Decrease life of permit from 5 years to 1 year.
- Increase compliance inspections from annually to quarterly.
- Improve water quality testing activities by adding additional testing sites at the nearest body of public water to the CAFO and increasing testing frequency to twice per month, year-round.
- The DEQ should require all CAFOs to regularly monitor groundwater and surface water and report the results to the DEQ.
- Require both the CAFO and the Corporation to agree to the terms in the permit and hold both responsible for compliance.

## References

- Harden, Stephen (2005) Surface-Water Quality in Agricultural Watersheds of the North Carolina Coastal Plain Associated with Concentrated Animal Feeding Operations. [USGS.gov](https://www.usgs.gov/)
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## Discussion

**Major Loophole:** The 2nd-Circuit Court of Appeals ruling in the 2005 *Waterkeeper et al. v. EPA* ruled that agricultural stormwater discharges are excluded from the definition of the term "point source", therefore discharges from land application areas at a CAFO are not subject to NPDES permit requirements. For example, the number of farms operating under NPDES permits dropped from 95 to 1 in the area of Brunswick, Columbus, Jones, and Pender Counties alone.

**Lack of Responsibility:** A common practice in animal feeding operations is that large corporations, enter contracts with smaller farmers to raise animals. The corporation provides the contract farmer with the animals and instructs them on how they must be housed and fed. The contract farmer provides the land, facilities and labor, and retains ownership of and responsibility for the proper disposal of animal waste. As a result, the large corporations have no incentive to ensure that their contractors are capable of properly disposing of the waste.

**Social Impacts** – Depriving the public the opportunity to comment on new general permits is a missed opportunity for not only the public but the CAFO itself. The residents living around these operations have firsthand knowledge of their environment and are the first to see or feel any impacts from change. While the CAFO industry does bring jobs and generate revenue, communities may prioritize environmental quality above all.