

# Luis Contreras

Dear ADEQ,

Please shut down C&H before the Buffalo River is completely contaminated with pig urine and excrement

Attached information on the NC CAFO open pit disaster.

Contaminating rivers and groundwater is done in a few days, restoring the land will take decades

Please make the smart choice, Arkansans deserve clean water and good health

With respect,

Dr. Luis Contreras

2 attachments

## Florence releases waste stored in dozens of NC hog lagoons

The Department of Environmental Quality identified 21 flooded lagoons actively releasing **hog waste** into the environment

September 20, 2018

<https://www.smithsonianmag.com/smart-news/florence-fall-out-threatens-release-waste-stored-dozens-north-carolina-hog-lagoons-180970360/>



Faced with rising floodwaters that threaten to top their 19-inch absorption limit, the open-air pits could pose a significant environmental and health hazard

The nearly 10 million pigs housed in hog farms across North Carolina produce roughly 10 billion gallons of manure per year, and as Sarah Sax notes for [Vice News](#), much of this waste eventually lands in the state's more than 3,300 "hog lagoons." According to [Vox](#)'s Umair Irfan, the clay-lined [anaerobic](#) pits measure around eight feet deep and are filled with bacteria that transform excrement into fertilizer. When functioning properly, the lagoons provide a vital remedy for the issue of hog waste. But faced with rising floodwaters that threaten to top their 19-inch absorption limit, the open-air pits could pose a significant environmental and health hazard. And Hurricane Florence just delivered a walloping 50 inches of rain to certain areas.

As of noon on Wednesday, the North Carolina [Department of Environmental Quality](#) had identified 21 flooded lagoons actively releasing pig urine and feces into the environment and an additional 89 at imminent risk of releasing waste due to structural damage or water overflow. These numbers were up from an estimated 34 lagoons cited as at-risk on Monday, Kendra Pierre-Louis writes for [The New York Times](#).

"You basically have a toxic soup for people who live in close proximity to those lagoons," public University of Maryland public health specialist Sacoby Wilson tells *Vice News*. "All of these contaminants that are in the hog lagoons, like salmonella, giardia, and E-coli, can get into the waterways and infect people trying to get out."

According to *The New York Times*' Pierre-Louise, excess nitrates generated by pig manure mixing with groundwater may contribute to the so-called blue baby syndrome, which limits infants' oxygen supply and gives their skin a bluish tint. Experts are also concerned that Florence could produce damage similar to that wrought by the 1999

storm Hurricane Floyd, which contaminated North Carolina's waterways, drowned animals and produced harmful [algal blooms](#).

Vox's Irfan notes that some environmental activists are citing Floyd in their criticism of the state's preparation for Florence.

"North Carolina gets hurricanes and floods every year," Duke University law expert Michelle Nowlin tells *Vice News*. "I question the wisdom of having a disposal method that is so vulnerable to the types of weather events that we have in this region, with potentially catastrophic effects."

The North Carolina Pork Council (NCPC) argues, however, that in the years following Floyd, the hog industry has taken "significant steps" to minimize the threat of flooding, even closing 334 lagoons located on flood plains. In a September 17 [advisory](#), the NCPC noted that the 2016 storm Hurricane Matthew left more than 99.5 percent of the state's active lagoons unaffected, and in a September 19 [statement](#), the organization added, "While we are dismayed by the release of some liquids from some lagoons, we also understand that what has been released from the farms is the result of a once-in-a-lifetime storm and that the contents are highly diluted with rainwater."

According to the same statement, local farmers are mitigating the risk of overflow by transferring liquids from at-risk lagoons to tanker trucks or lagoons with "ample capacity."

The majority of North Carolina's 2,100 hog farms are located in the southern counties of Sampson and Duplin, which were heavily affected by Florence's torrential downpour and, according to Vox's Irfan, are amongst the poorest in the state.

Pierre-Louis reports that locals have long protested the region's large-scale hog farming, which they say has a detrimental effect on their health and well-being. A Duke University study newly published in the [North Carolina Medical Journal](#) offers support for these claims, noting that those living near concentrated animal feeding operations (CAFOs) exhibit higher death rates from a variety of causes than individuals living further away from hog farms.

"Life expectancy in North Carolina communities near hog CAFOs remains low, even after adjusting for socioeconomic factors that are known to affect people's health and lifespan," senior author H. Kim Lysterly said in a [statement](#).

The authors are quick to point out that their research doesn't definitively link a lower life expectancy to the presence of hog farms, but they maintain that further assessment of health risks should be conducted.

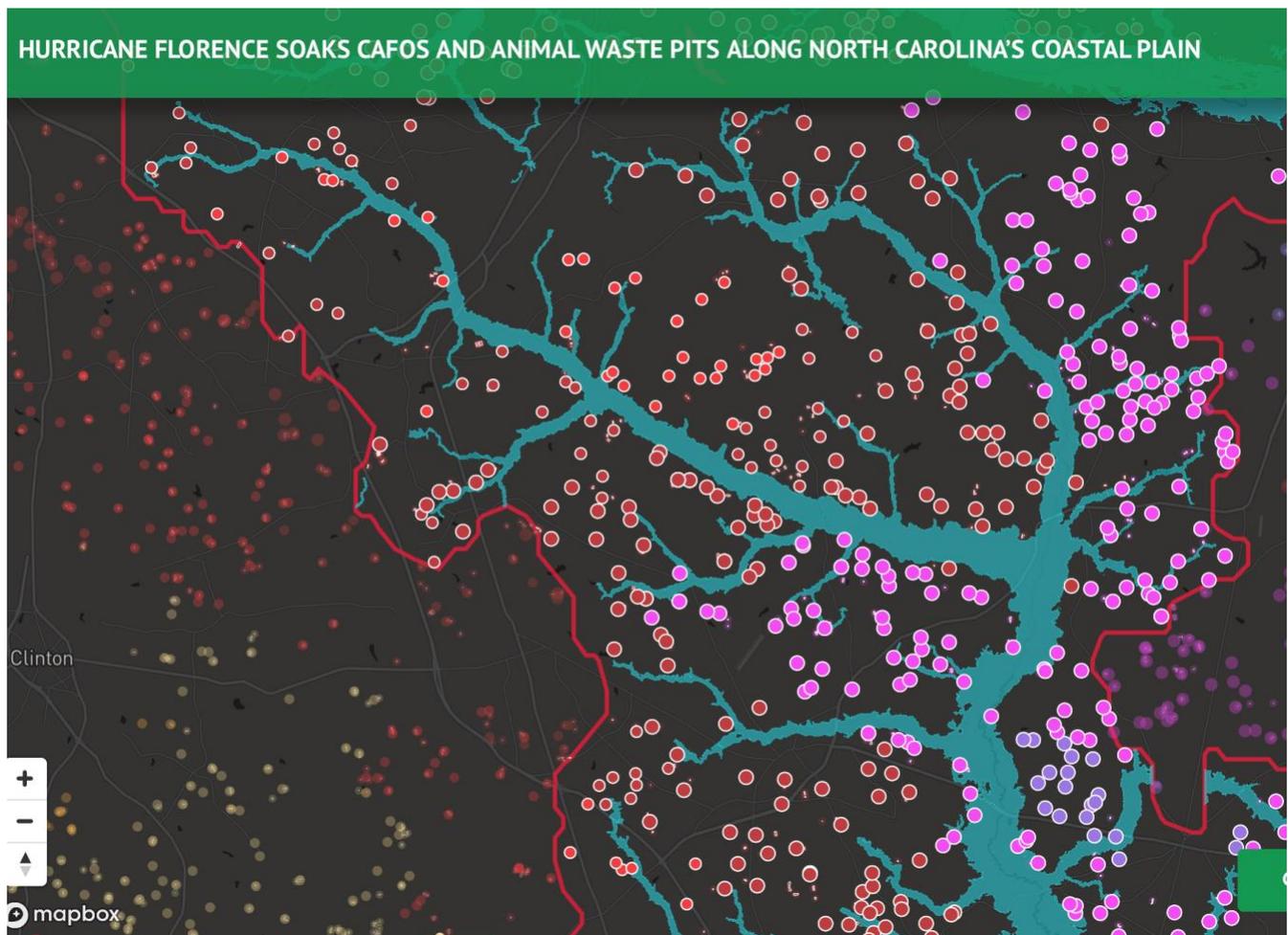
As lead author Julia Kravchenko concludes, "Poor health outcomes in North Carolina communities adjacent to hog CAFOs may need to be addressed by improving access to medical resources, including disease screenings and early diagnosis, and interventions for conditions that affect infant mortality and low birth weight."

**Florence drenched thousands of North Carolina CAFOs animal waste pits**

<https://www.ewg.org/release/map-florence-drenched-thousands-north-carolina-cafos-and-animal-waste-pits>

Thursday, October 4, 2018

The NC water contamination from their CAFO open cesspools with Florence, reveals release of billions of gallons of manure and urine, shown on the map below:

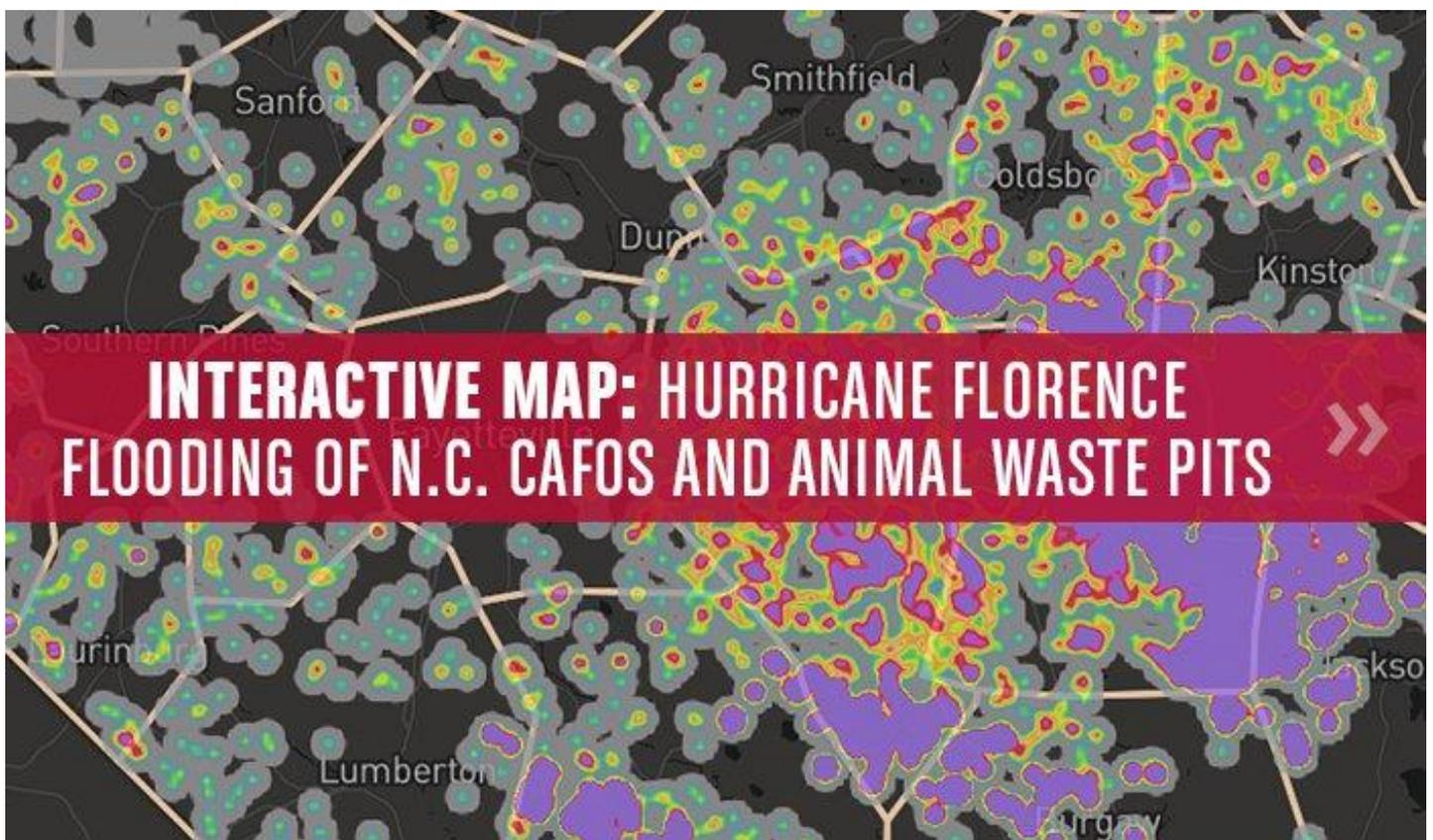


<https://www.ewg.org/interactive-maps/2018-nc-cafo-rainfall/>

NEW BERN, N.C. - Hurricane Florence's torrential rains pelted areas of North Carolina that are home to more than 1,500 industrial animal operations with more than 1,000 nearby animal waste storage cesspools. These operations have the potential to annually produce as

much as four billion gallons of wet swine waste and 400,000 tons of dry poultry waste, according to an exclusive analysis by EWG and Waterkeeper Alliance.

The organizations overlaid locations of concentrated animal feeding operations, or CAFOs, with government rainfall estimates to produce an interactive map that details Florence's potential impact on vulnerable operations in the state. Clicking and zooming in on a location shows the estimated amount of rain each CAFO received from Sept. 14, when Florence made landfall, through Sept. 16, and the potential amount of waste produced or stored at each site.

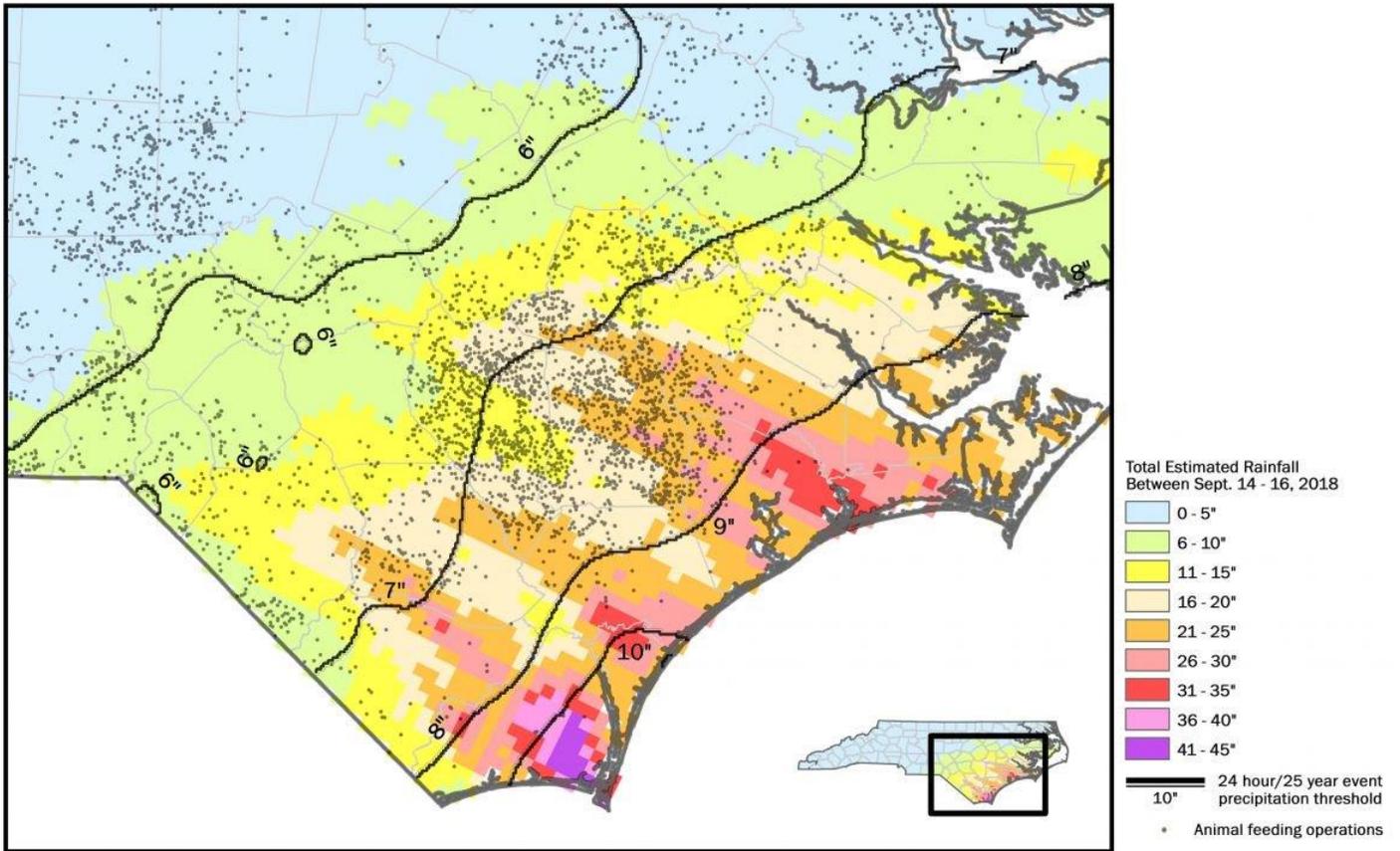


*Source: EWG/Waterkeeper Alliance, from National Weather Service, USDA Agricultural Census and N.C. Dept. of Environmental Quality data*

The groups calculated the potential waste stored at each site by using North Carolina permit data, the Agricultural Census from the U.S. Department of Agriculture and manure-production-rate data from the North Carolina Agricultural Chemicals Manual. A link to the [methodology is here](#).

## Findings:

- There are 926 concentrated animal feeding operations, or CAFOs, housing more than 3.8 million hogs and 578 poultry CAFOs holding an estimated 35 million fowl in areas where the National Weather Service said flooding was "occurring or imminent" after Florence. Livestock at those 1,504 concentrated animal feeding operations are capable of producing four billion gallons of wet waste and more than 400,000 tons of dry poultry waste each year. More than a third of those sites received an estimated 15 to 19 inches of rain, and more than one-fourth saw more than 20 inches.
- There are 123 industrial hog operations and 40 industrial poultry operations in or within 500 feet of the 100-year floodplain that received at least 15 inches of rain. Livestock at those 163 sites are capable of producing more than 395 million gallons of liquid waste and more than 27,000 tons of dry waste a year.
- Federal standards require waste pits in North Carolina to be designed to withstand a so-called [24-hour/25-year rain event](#) without releasing manure. In areas where the National Weather Service said flooding was occurring or imminent, more than 1,000 waste pits received more rain than the 24-hour/25-year rain event defined for that location. Of those, an estimated 35 pits are in the 100-year floodplain and received over 15 inches of rain. Those pits alone are capable of holding more than 129 million gallons of animal waste.
- The map below shows colored bands of estimated rainfall amounts in North Carolina's coastal plain from Sept. 14-16. The dark diagonal lines show the zones of rainfall expected during a 24-hour/25-year rain event. In all of the zones except for the one with the lowest expected rainfall (in blue), the total estimated rainfall was well in excess of what the waste pits were designed to withstand.



Source: EWG, from [National Weather Service](#) data

**"It's just a matter of time until another massive rain event happens again in the floodplain,"** said Soren Rundquist, EWG's director of spatial analysis.

"How many scenes of swamped animal barns and breached manure pits do state leaders and the factory farm industry need to see before they realize producing and storing billions of pounds of animal waste in flood-prone areas is disastrously bad policy?"

"Waste mismanagement at industrial animal agriculture operations threatens public health and environmental quality even under sunny skies," said Will Hendrick, staff attorney and manager of the Pure Farms, Pure Waters campaign at Waterkeeper Alliance. "That threat is disproportionately borne by communities of color or low wealth and it is exacerbated, given the concentration of production in the coastal plain, by increasingly frequent and severe storms like Hurricanes Matthew and Florence."