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## Big Poultry in North Carolina

North Carolina's poultry industry has taken flight. Farms now stand near the mountains, the coast and the state's largest cities. The state's largest ag industry raises more than 1 billion chickens and turkeys each year.

The birds generate billions of pounds of untreated waste. Some of the pollutants seep into streams and rivers. Don't know much about it? That's no surprise. Legislators cloak big poultry in secrecy. Environmental regulators almost never inspect the state's 4,600-plus poultry farms. They can't monitor where all the waste goes. They don't even know where most of the farms are. Neighbors complain about the stench and other nuisances. But state laws leave courts and local governments nearly powerless to help. Multi-billion dollar companies running the show shift financial risk to contract farmers, who often live with massive debt and little income. All of that is by design. But what's the cost?





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NORTH CAROLINA

# With little oversight, NC poultry farms raise 1 billion birds a year. Who pays the cost?

Secrecy limits understanding of a growing industry's impact on neighbors, communities and environment.

NOVEMBER 30, 2022 10:00 PM



NORTH CAROLINA

## With no power to fend off poultry farms, neighbors live with stench and nuisances

UPDATED DECEMBER 23, 2022 AT 11:19 AM



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## Cloaked in secrecy, North Carolina's poultry industry has taken flight

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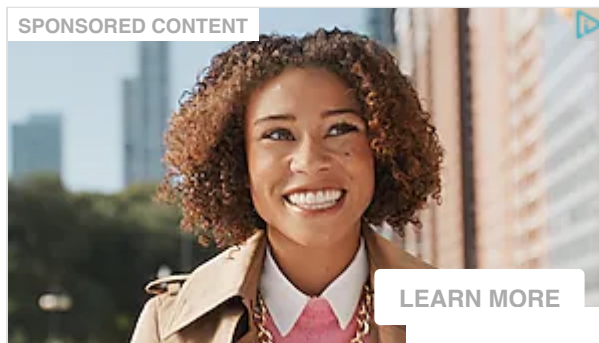
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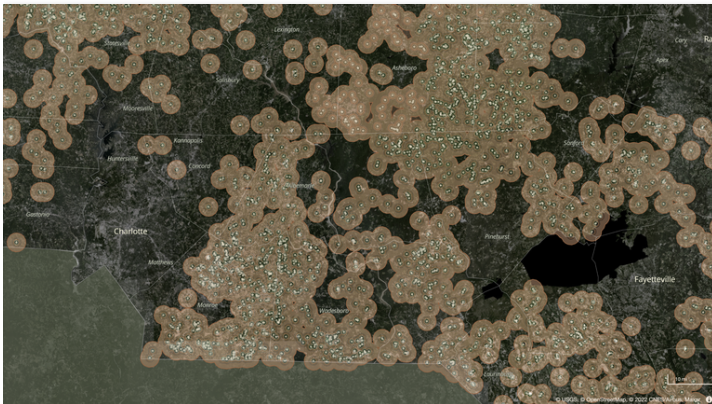
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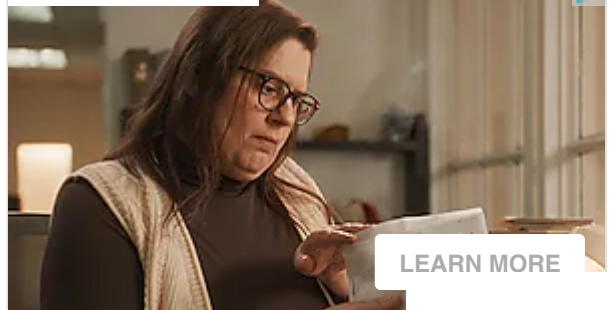


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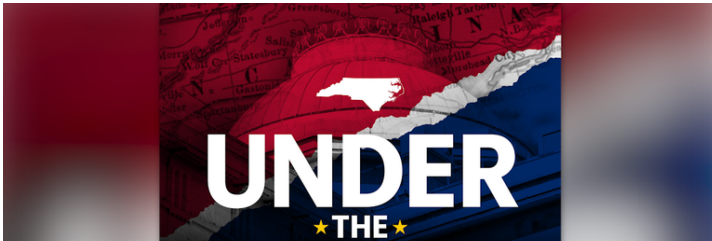
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### 'It's like the wild west' says neighbor of Anson County poultry farms

### The package says the chicken is 'free range.' That may not mean what you think.

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Chickens produce billions of pounds of waste in NC. No one tracks where it goes.

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SOUTH CAROLINA

Advance warning helped SC residents stop 18 poultry barns

UPDATED JANUARY 27, 2023 AT 4:47 PM

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Duplin County resident on life near chicken farm: 'We get the smell. We get the noise.'

UPDATED JANUARY 27, 2023 AT 4:47 PM

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All of that is by design. But what's the cost?

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**BY GAVIN OFF, ADAM WAGNER, AND AMES ALEXANDER**

UPDATED JANUARY 27, 2023 4:47 PM



Johnny “Van” Garris sees how time he leaves his driveway.



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y industry has grown every

No matter which way he turns, Garris drives by some of the roughly 50 massive poultry barns that have sprung up within a mile of his Anson County home.

If he heads west, he passes 24 barns lining Jarman Road. Six barns stand due north on Robinson Bridge Road and 12 are due south on the same road. Land has been cleared for at least a dozen more.

“If I didn’t already live here, I wouldn’t buy a piece of land to build a house here — not in the middle of all this,” Garris said.

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Johnny "Van" Garris, pictured outside his house in Anson County, says the many industrial-scale poultry farms that have cropped up near his home have brought strong odors and vultures, disrupting his family's quality of life. Alex Slitz [aslitz@charlotteobserver.com](mailto:aslitz@charlotteobserver.com)

Nearly all the barns were built since 2015 as farmers rushed to join a \$4.7 billion North Carolina industry that state officials have allowed to grow with no local control and minimal state regulation.

With chickens and turkey production increasing by 33% in the past two decades — more than half of that growth coming in the past five years — poultry is North Carolina's No. 1 agriculture business. By one measure, pounds of meat produced, North Carolina is the nation's top chicken state.

Big poultry now raises more than a billion birds annually here in densely packed barns found from the western foothills to the coast. That works out to almost 100 chickens and turkeys for each of the state's 10.5 million residents.

So-called dry-litter farms produce billions of pounds of waste with no requirement that they obtain environmental permits or get inspected.



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public waterways, evidence shows.



Dozens of poultry barns, including these near the small town of Morven, N.C., have sprouted up in Anson County in recent years. Alex Slitz [alslitz@charlotteobserver.com](mailto:alslitz@charlotteobserver.com)

North Carolina does not require that neighbors be notified if a poultry farm is planned near their homes. In fact, the state shields the locations of poultry farms.

Only state Department of Agriculture and Consumer Services staff know the addresses of dry-litter farms, which are nearly all of this state's large poultry operations.

Secrecy here not only blocks the public's view of what occurs on individual farms, it prevents regulators and researchers from assessing the industry's collective impact on people and the environment.

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more rigorously than North Carolina. And what occurs in states with more protections, including South Carolina, shows what North Carolina is lacking.

To better quantify big poultry's footprint, reporters created and analyzed what may be the most accurate count of poultry farms made public in North Carolina. Building on data from two research groups, they mapped 4,679 farms in 79 counties across the state.



At a farm north of Greenville, N.C., young chickens recently bunched together inside a barn with thousands of others. Industrial-scale poultry farms like these are proliferating in North Carolina, a state that does little to regulate the industry. Critics say that's hurt the environment and disrupted the lives of neighboring residents. Robert Willett [rwillett@newsobserver.com](mailto:rwillett@newsobserver.com)

The Charlotte Observer and News & Observer investigation found:

- About 230,000 North Carolinians now live within a half-mile of a poultry farm, layering census data on the new map shows. But residents have no formal ability

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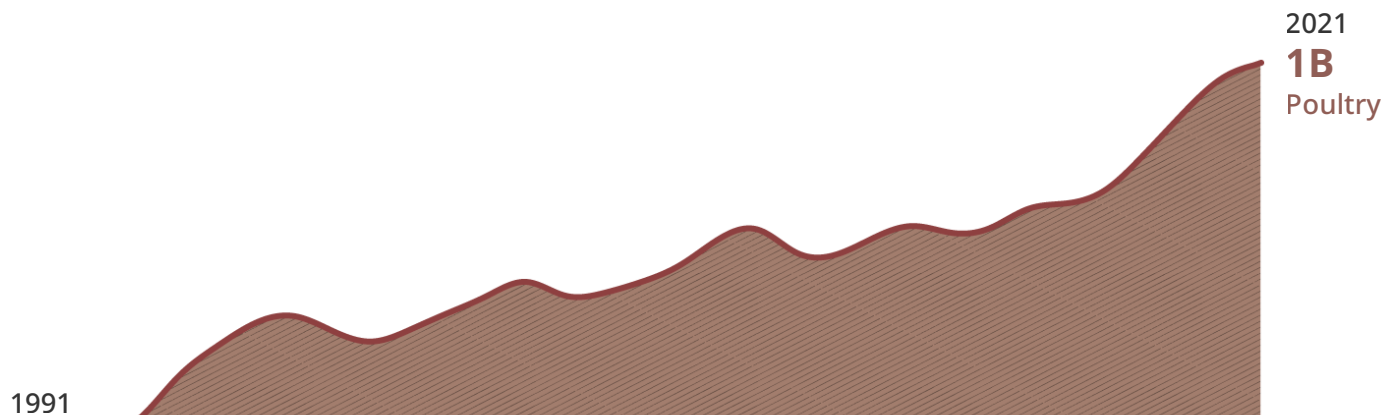
manure and dead birds can travel a half mile, research shows. Proximity to big poultry barns can increase the risk of illness for people living within three-quarters of a mile and reduce home values within a mile, studies say.

- North Carolina’s broiler chickens, birds raised for meat, produce more waste than 7.5 million people, or nearly 72% of the state’s population.
- It is impossible to track where all the waste ends up. Poultry farms must record where they spread it but aren’t required to tell the state. Only some manure haulers must.
- At least 232 barns – housing as many as 5.8 million birds at once – sit in floodplains. North Carolina bought out many hog farms in flood-prone areas, but not poultry farms.
- Poultry waste washes into North Carolina streams and rivers, scientists say. That can contribute to algae blooms and fish kills. But with all the secrecy, knowing where and how often is impossible to know.

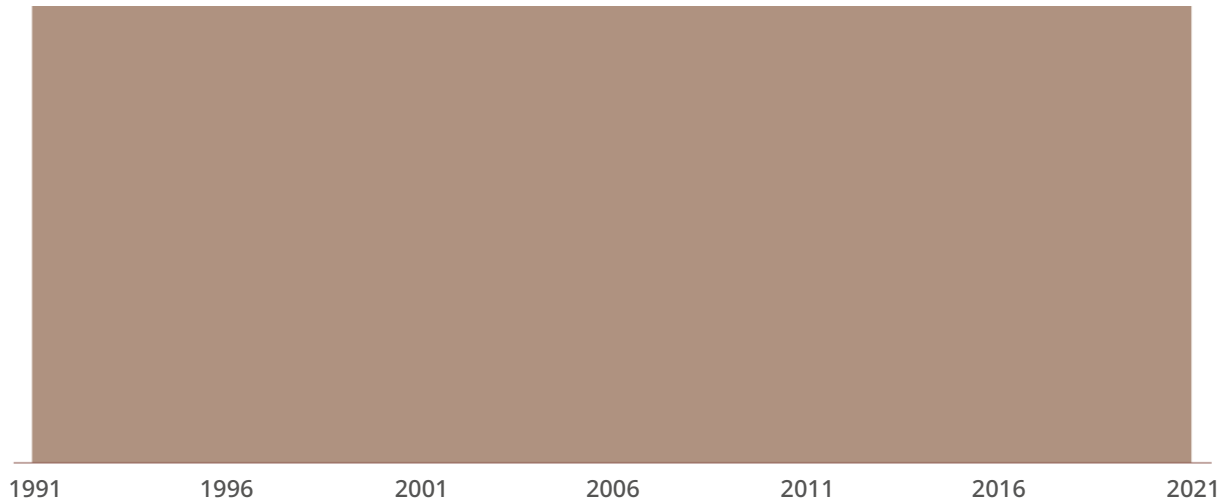
“There is a lack of transparency in virtually every stage of the process,” said Blakely Hildebrand, senior attorney at the Southern Environmental Law Center, the South’s largest nonprofit, nonpartisan environmental legal advocacy group. “...Our state legislature is just ignoring this issue altogether.”

## North Carolina’s poultry crop: more than 1 billion birds

Statewide, chicken and turkey production has grown 66% since 1991. It jumped more than 17% since 2016.



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Source: N.C. Department of Agriculture and Consumer Services

Farmers and industry leaders say they work hard to protect the environment and the people who live near farms. Raising so many chickens and turkeys, they say, produces good jobs and good food.

This state's poultry farmers and the industry's growth are meeting "growing demand for food," according to Steve Troxler, North Carolina's longtime agricultural commissioner. Troxler declined multiple requests to discuss criticism of the poultry industry and North Carolina's lack of regulation and transparency.

"At a time when food insecurity is a growing global issue and when the United Nations anticipates the need to increase food production by 75 percent or more by 2050 just to meet demand, we would hate to see anything damage our farmers' ability to produce food," Troxler wrote in an email to reporters.

## **A GROWING PRESENCE IN NORTH CAROLINA**

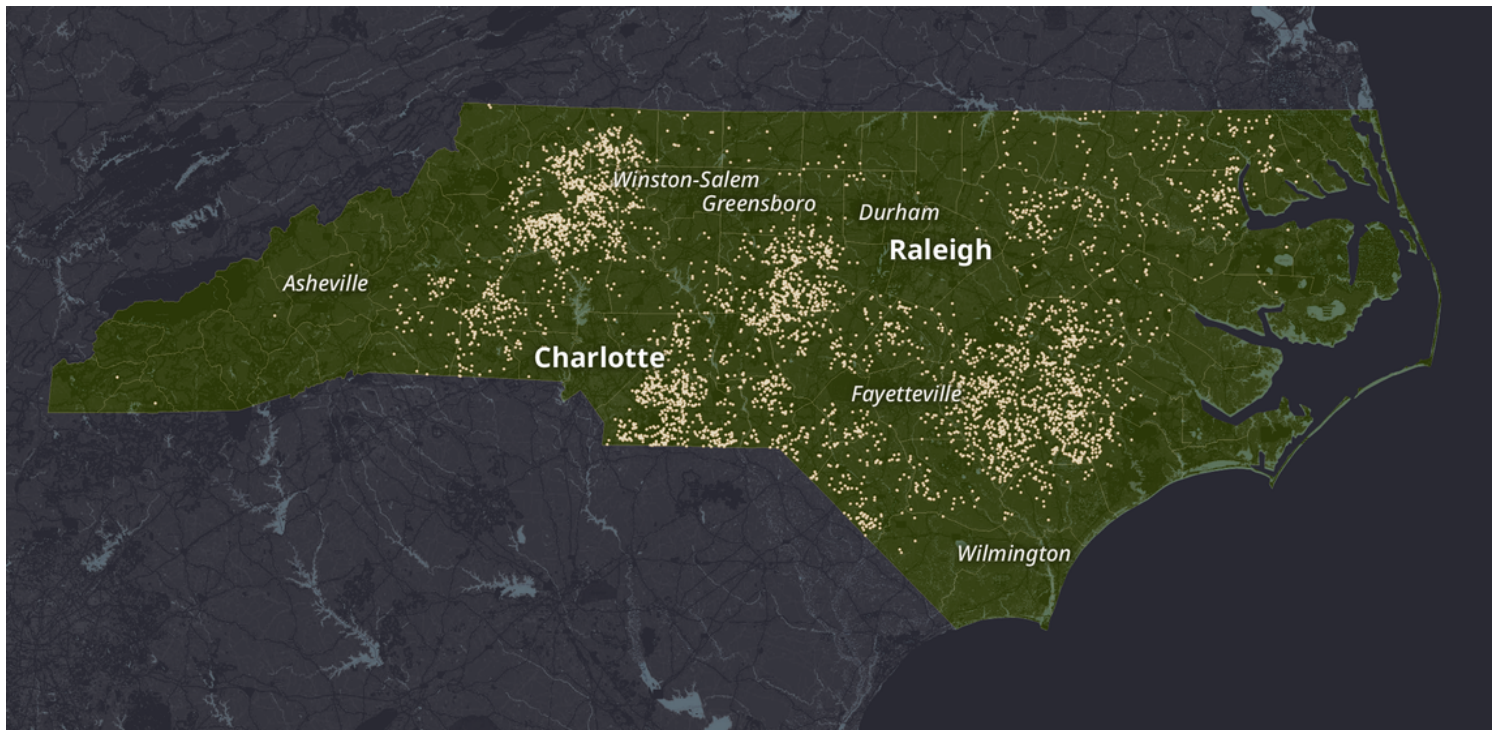
For many years, hog farming was North Carolina's best-known industrial-scale agricultural sector. The state imposed a moratorium on new swine farms in 1997 following concerns about the environmental risks they posed. But no one has applied brakes to the poultry industry.

Like the big hog farms, poultry farms confine thousands of animals inside huge barns. Usually owned by corporations, the birds stay long enough for contract

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THE ANIMALS LEAVE BEHIND.

As long as two football fields, the poultry industry's trademark barns often stand in clusters of four or eight or more. Located in nearly every one of this state's river basins, the farms are in remote spots but also on land bordering state parks and outside North Carolina's largest cities. More are on the way.



Poultry farms now dot most of North Carolina. The smallest farms raise about 20,000 chickens at a time. The largest: more than 1.5 million. This map, built from two datasets and verified with satellite imagery, may be the most accurate view yet published. It shows 4,679 farms in 79 counties. Gavin Off and Susan Merriam *Environmental Working Group, Stanford University, OpenStreetMap data and Charlotte Observer analysis.*

Neighbors complain about the stink, turkey vultures, threats to their property values and traffic from manure haulers or tractor-trailers stuffed with caged birds whose white feathers fall like snow on rural highways.

The North Carolina General Assembly has steadily supported the poultry industry, often boosting industrial-scale hog farming too, by passing at least 10 bills since 2003. Three narrowed neighbors' ability to file nuisance lawsuits against farms in state court.








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But critics say the industry should not grow at the expense of those who live near poultry farms or put the environment at risk. They say North Carolina could learn from other states — including several in the Southeast — that require more regulation and transparency.

## Few NC rules for Big Poultry

Among its neighbors, North Carolina offers the least public information about large poultry farms and its regulations are among the most lenient.

Yes  No

	North Carolina	Tennessee	South Carolina	Virginia
 Permit approval required	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Locations made public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Residents notified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Neighbors can comment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Local restrictions can be imposed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
 Complaints made public	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 State holds inspections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Rules for each category differ from state to state, including types of permits required and the frequency of inspections. Full information about Georgia, which allows some local control over poultry farms, was not available.

Source: State agricultural and environmental agencies

## THE POWER TO SAY NO IN SOUTH CAROLINA

In North Carolina, rumors and gossip are often the only warning that a poultry farm is coming to a community.

Unlike hog farms in the state, nearly all large poultry farms are exempt from annual inspections. They also are not required to get environmental permits that impose rules for controlling waste runoff. Nor must they notify nearby residents that hundreds of thousands of chickens might soon be their neighbors.

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## BIG POULTRY: PART 1

North Carolina's poultry industry has taken flight. Farms now stand near the mountains, the coast and the state's largest cities. The birds generate billions of pounds of untreated waste – more than NC's infamous hogs. But legislators cloak this industry in secrecy. What's the cost?

[With little oversight, NC poultry farms raise 1 billion birds a year. Who pays the cost?](#)

[NC lawmakers have steadily changed rules, added protections to help poultry industry](#)

[Chickens produce billions of pounds of waste in NC. But no one is tracking it.](#)

[The package says the chicken is "free range." That may not mean what you think.](#)

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There was a rumor among neighbors that a farmer whose family owns 64 chicken barns in the area had bought about 300 acres directly behind Garris' home and had plans to build 18 barns, he said.

"I can't do anything about it," Garris said. "All of these others are built, and there are more on the way."

Three weeks later, crews began stripping the land. By late October, satellite images captured two squares – roughly 600 feet by 600 feet — carved into the earth. A dirt road connects them to a row of barns already standing.

If Garris lived in South Carolina, things would be different.

Sixty miles south of the North Carolina border, a South Carolina state worker six years ago posted a notice announcing that a landowner wanted to build 18 chicken barns near that spot in Mountville.

The barns, combined with 24 more that were proposed for another tract, would nearly double the number of chicken houses in a three-mile area of the town.

Unlike North Carolina, South Carolina requires that farms raising 30,000 pounds or more of animals apply for environmental permits.

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“It was essential,” Charles Blackmon, a retired deputy game warden and founder of South Carolinians for Responsible Agricultural Practices said of the heads up. “Otherwise, it would have been too late to do anything.”



Charles Blackmon, a retired game warden, and his organization South Carolinians for Responsible Agricultural Practices helped stop the construction of poultry barns near his home. BY ALEX SLITZ

That notice enabled Blackmon’s group, started in Laurens County, to challenge the proposed farm in a South Carolina court.

It was a long road, but in May of this year, the South Carolina Court of Appeals stopped the farm from being built.

The state failed to make the farm acquire the necessary permits, the court noted in its ruling. And it failed to require any additional protections for an impaired watershed.

The barns would border Little River, which was already polluted with fecal coliform, possibly from existing poultry barns.



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the advance notice. I was astonished to hear how problematic and primitive North Carolina's oversight of chicken farms is compared to South Carolina."

Guild stressed that even with the notice rules, the poultry industry almost always has the upper hand in South Carolina.

Within a month of when the group filed to contest the farm in court, state lawmakers there began limiting neighbors' powers to oppose poultry operations, Guild said.

Previously, residents within two miles of a proposed farm could voice their concerns with the state. The legislature has since limited that distance to one mile.

## **MORE LOCAL MUSCLE IN GEORGIA**

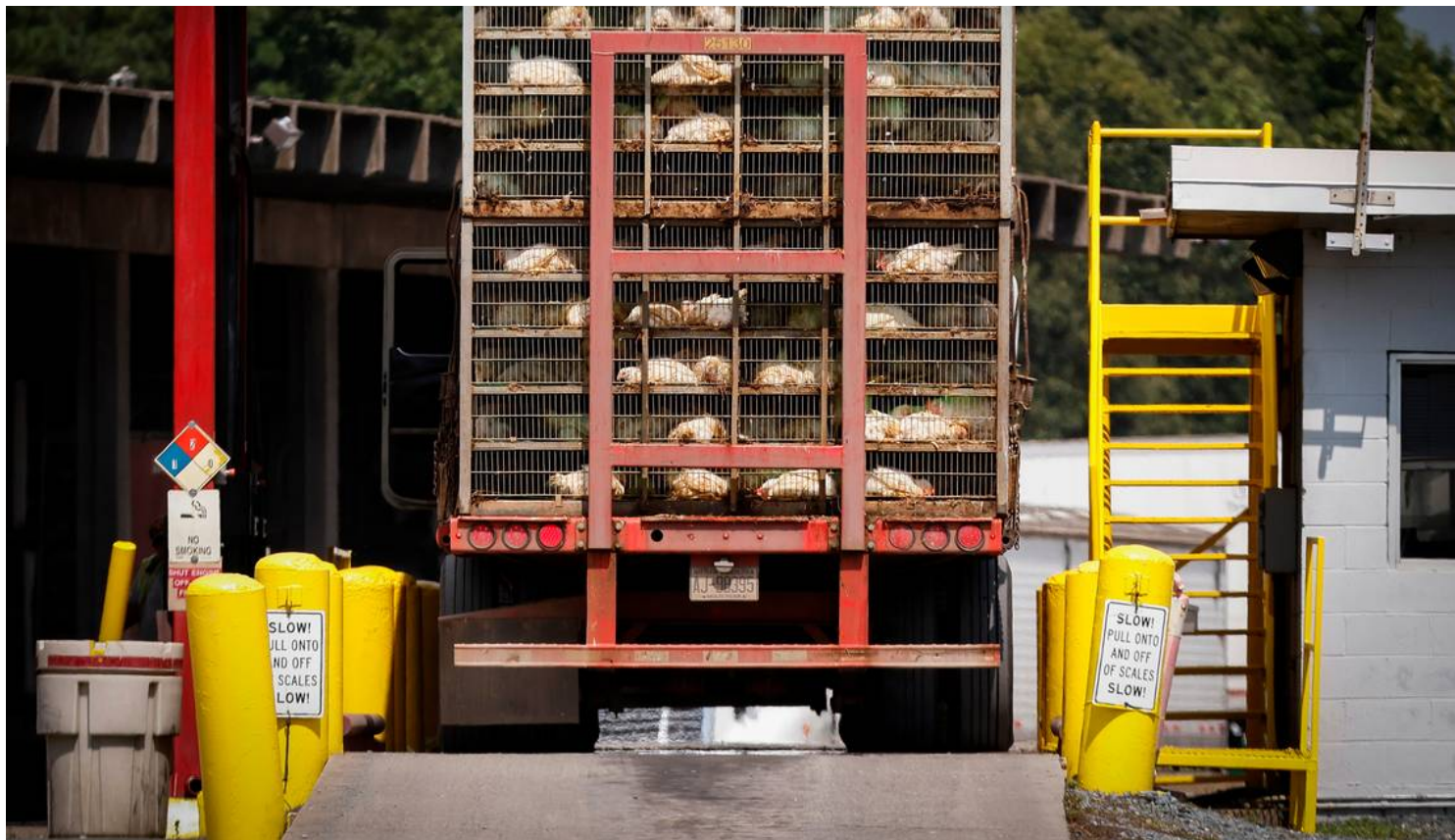
North Carolina doesn't allow counties [to restrict](#) where farms can be built.

In Georgia, the state that raises the most poultry for slaughter, counties can set restrictions on new poultry farms.

One Georgia county – Gordon County – placed a moratorium on poultry farms in 2017 after residents complained that "mega chicken houses are negatively affecting their property values, use and enjoyment of their land," the resolution read. The county is home to 164 chicken farms.

"They have a right to grow chickens, and people have a right to their houses," Ursula Richardson, Gordon County's zoning administrator, said in an interview. "We need farming, not industrial production."

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A truck carrying live chickens arrives for processing at the Tyson Foods plant in Monroe. Alex Slitz  
[alslitz@charlotteobserver.com](mailto:alslitz@charlotteobserver.com)

County leaders ended the moratorium in December 2021 but only after requiring that operations with 1,000 or more birds complete a conditional use application. Required on the application: the names of all adjacent landowners; disclosure if the applicant donated money to a county official; design of barns; their distance from neighboring homes and other buildings; and the farm's waste management plan.

Murray County, just north of Gordon in northwest Georgia, has gone a step further.

Farmers there must submit an odor and pest control plan to the county and can build no more than four barns holding egg-laying hens or eight houses for raising chickens for slaughter. In addition, no poultry farm can rise within a half-mile of another.

If Anson County enacted similar rules, dozens of barns would have to disappear from Garris' neighborhood.

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Tarry Thomas' home in the Chinquapin community of Duplin County is located close to a large poultry farm. Thomas describes the pollution and noise issues associated with living close by. BY ROBERT WILLET

## HEALTH CHECKS POSSIBLE IN PENNSYLVANIA

Tarry Thomas moved from an urban suburb of Washington, D.C. to her family's single-story Duplin County home about three years ago. After she arrived in Chinquapin, about 50 miles north of Wilmington, her asthma and chronic allergies got worse, she said. That was the opposite of what she expected.

She wonders whether her health problems have been worsened by air pollution from a six-barn poultry operation a farmer built in late 2019 on a dirt road less than half a mile from her home, and whether the many chicken and hog farms in Duplin County are contributing to hospital visits that five of her cousins make "almost every week" with breathing problems.

More than one-fifth of the county's residents live within a half-mile of a poultry farm, data show.

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Thomas' security cameras capture hundreds of feathers floating from the beds of trucks. She's certain that can't be all that the farms release into the air.

"If we can see big stuff falling, small stuff is falling," Thomas said.



Two poultry operations sit within a half-mile of Union Elementary School in Clinton, N.C. Travis Long  
[tlong@newsobserver.com](mailto:tlong@newsobserver.com)

Very little research in North Carolina has explored whether anything emitted into the air by poultry farms affects neighbors, however. Researchers can't assess what they can't locate.

But a pair of central Pennsylvania studies show what could be possible if researchers here knew more.

Geisinger health system and Johns Hopkins University researchers studied health effects associated with living closer to poultry farms in central and northeastern Pennsylvania, a largely rural area that had at least 304 poultry operations in 2015.

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RESEARCHERS USED DATA FROM THE STATE THAT SHOWED THE LOCATIONS OF FARMS AND THE NUMBER OF birds raised there

People who lived within an average of 2.5 miles of the most poultry farming in a 38-county area had a 66% higher chance of being diagnosed with pneumonia than those who lived an average of 37.9 miles away from a poultry farm.

“Ambient air pollution increases your risk of lower respiratory infections,” said Melissa Poulsen, an environmental epidemiologist with Geisinger’s Department of Population Health Sciences and [one of the study’s](#) lead authors.

Another study from the same team found that people living near the most dense clusters of poultry farms in that area were more likely to suffer infectious diarrhea and campylobacter infection, a disease associated with bloody diarrhea and stomach cramps, than those living further away.

The American Public Health Association cited both Pennsylvania studies in 2019 when calling on the federal government to better track air pollution from animal farming operations and for more oversight of dry manure, including poultry litter.

Poulsen, who now lives in Winston-Salem, said she is well aware she could not have conducted the same research in North Carolina, where farm addresses and nutrient management plans are not public.

“That was central to our research,” Poulsen said.

## **TRACKING AIR HAZARDS IN MARYLAND**

In October, just outside of Pocomoke City, Maryland, near the Virginia border, industrial ventilation fans thrummed on clusters of poultry barns.

Those fans spew thousands of tons of ammonia from chicken litter into the air around the Chesapeake Bay, N.C. State University [researchers concluded in 2020](#).

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Poultry houses sit along a roadway near Salisbury, Maryland. Public officials in that state — unlike those in North Carolina — release information about the locations of poultry barns, how many birds they hold and other key information. That data has allowed researchers to study how much ammonia those farms are releasing into the air near the Chesapeake Bay. Kyle Grantham

Using computer models, the researchers calculated that about 600 farms can emit as much as 11,684 tons of ammonia onto land around their barns and 560 tons into the Chesapeake Bay.

Doing such research in North Carolina would be impossible, says Viney Aneja, an N.C. State professor of air quality who calculated air emissions in Maryland.

Calculating poultry farms' potential ammonia emissions here would require him to know the locations of barns, how many birds they hold, and other key information that is not publicly available. Unlike North Carolina, Maryland makes information about its largest farms public.

Ammonia emissions are unwelcome because they convert into nitrate in soil and water, contributing to algal blooms and threatening water quality in the sensitive ecosystem.

“There is a huge amount of ammonia,” Aneja said.

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were taking steps to curb ammonia emissions.

The peer-reviewed study was submitted as evidence in a 2021 lawsuit filed by the Assateague Coastal Trust that argued Maryland regulators should require poultry houses to limit ammonia emissions to prevent water pollution.

A Maryland Circuit Court judge [ruled in favor](#) of the environmental groups, but the state Department of Environment is appealing.

Air emissions from industrial-scaled poultry farms concern Monica Brooks, a Salisbury resident who co-founded Concerned Citizens Against Industrial CAFOs as part of an ultimately successful effort to stave off a 13-barn poultry operation about a half-mile from her Maryland home.

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Monica Brooks founded a group that successfully fought plans for a poultry farm near her Maryland home. Unlike North Carolina, Maryland makes key information about poultry farms public - and that has helped residents like Brooks. Kyle Grantham



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Yet her youngest daughter and her granddaughter, both of whom grew up on the Eastern Shore, have been diagnosed with asthma.

Like Thomas in Duplin County, Brooks wonders whether what is being blown out of poultry houses, be it particulate matter or ammonia, plays a role.

“You’re not going to tell me that some 18 unfiltered fans on one house is not detrimental to the air that we breathe,” Brooks said.

“Then you multiply that and you put 5, 10, 15, 20 houses all together? Absolutely ridiculous,”

Asked whether he expected similar research in North Carolina would yield different results than he obtained in Maryland, N.C. State’s Aneja did not hesitate.

“No,” he said, “not at all.”

## **UNKNOWN LOCATIONS, UNKNOWN PROBLEMS**

North Carolina law requires the state department to keep confidential [any records](#) collected from farm owners or animal owners. The department has long maintained that confidentiality is needed to keep farmers’ trust so that the state can guarantee it is receiving accurate information in the event of a disease outbreak like this year’s avian flu.

“Individual farmers need to know that information shared with us that could potentially help prevent an outbreak is protected from a public records request,” Heather Overton, a Department of Agriculture and Consumer Service spokeswoman, wrote in an email.

Little information is shared, even with other state agencies.

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Chickens are quickly moved from a barn into crates at a farm near Lumber Bridge, N.C. The chickens were then moved to a Mountaire processing plant nearby. Scott Sharpe [ssharp@newsobserver.com](mailto:ssharpe@newsobserver.com)

Environmental officials have repeatedly said that not knowing the locations of poultry farms makes it impossible to figure out how much nitrogen and phosphorus poultry operations are adding to waterways, hindering efforts to protect them from pollution.

Michelle Raquet, an official from DEQ's Basin Planning Branch, in 2020 said [DEQ needs more information](#) about where poultry operations are located and where their waste — a mix of manure, bedding and more — gets applied to farm fields.

State officials don't protect the locations of cattle farms, which are scattered across the state, or hog farms, which are largely clustered in eastern North Carolina. Both cattle and hog farms must obtain waste disposal permits.

## CLUES TO WATER POLLUTION

Both [urine and feces inside poultry barns](#) release ammonia. When ventilation fans push ammonia out of the barns, the gas converts into nitrogen that falls on land, streams and rivers. Runoff from farm fields over laden with animal waste is another source of the nutrient, which feeds algae that reduces oxygen in public waterways, causing fish kills.

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to figure out where all the nitrogen is coming from.

As early as 2016, N.C. State University and UNC-Chapel Hill researchers with testing [identified poultry waste](#) as one source of unwanted organic nitrogen throughout the Neuse River basin.

Scientists took water samples and used a chemical fingerprinting technique, a technology called fluorescence, to trace nitrogen to its source. The laboratory forensics showed that poultry waste, on average, added more organic nitrogen to the water than hog waste.



In July, this pile of uncovered poultry litter sat in a field in southern Anson County. Alex Slitz  
[alslitz@charlotteobserver.com](mailto:alslitz@charlotteobserver.com)

Preventing poultry waste from reaching river water would get the state closer to the target set back in 1996, said Hans Paerl, a UNC-Chapel Hill marine and

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What would help? “It’s all about keeping better records and track of how much waste there is, where is it going and where is it being applied,” Paerl said.

## HOGS VS. CHICKENS

After The News & Observer published a 1995 Pulitzer Prize-winning report detailing environmental hazards and nuisances from North Carolina’s hog farms, state legislators ordered a moratorium to slow the growth of that industry, which was rapidly expanding across the coastal plain.

North Carolina’s roughly 2,100 active hog farms established before the moratorium must obtain state permits. They do so by documenting that they can manage animal waste safely. The state Department of Environmental Quality inspects them annually, too.

But between 1997 – when North Carolina imposed the hog farm moratorium – and 2021, the state’s production of broiler chickens and turkeys has grown 39%, to more than a billion birds, a Charlotte Observer and News & Observer analysis found.

As far back as 2014, North Carolina environmental regulators calculated that this [state’s poultry farms](#) produced three times more nitrogen and six times more phosphorus than its swine farms. With the number of chicken and turkey farms having increased since then, the volume of poultry waste has become worrisome, environmentalists say.

Headline-grabbing evidence of pollution from hog farms in the 1990s pushed the state to effectively stop the hog industry’s growth, said Bill Holman, who led what is now the state DEQ from late 1998 to 2001.

“We had Hurricanes Fran and Floyd, very visible swine lagoons overtopping and hog farms flooded,” Holman said. “There was that famous picture of the pigs on the roof, and so it was a very visible problem for the public that the public wanted action on.”

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In 1999, the state launched a buyout program to remove at-risk hog farms from the area that has a 1% chance of flooding each year, also known as the 100-year floodplain. That program removed 43 farms from the floodplain.

A Charlotte Observer and News & Observer analysis this year found that 232 poultry barns that could house as many as 5.8 million birds at one time sit in 100-year and 500-year floodplains across the state.

Ford, with the poultry federation, was noncommittal when he was asked whether his group would be in favor of a buyout of farmers who are growing birds in floodplains.

“I’d want to do what’s right,” Ford said. “If something like that would come along that would benefit the industry then naturally we’d be for it. If it wouldn’t benefit the industry, we’d be against it, just like anything else.”

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A truck hauling live chickens leaves a farm on the way to a processing plant in Lumber Bridge, N.C. Scott Sharpe [ssharpe@newsobserver.com](mailto:ssharpe@newsobserver.com)

In 2000, Smithfield Foods, the state's predominant producer of hogs, agreed to pay \$1 per hog produced in the state — for a total of up to \$2 million — into a fund, with part of that money used to research more environmentally friendly ways of [handling hog waste](#).

During negotiations, Holman said, Smithfield's status as a dominant company gave regulators a clear party to negotiate with to try to effect change. But poultry's big players here have always included a number of large companies.

"I'd assumed we would get around to it eventually," Holman said of regulating poultry, "but here it is 20 years later and it's still a problem."

From 2017 to early 2021, now-EPA Administrator Michael Regan was secretary of the state DEQ. During that time, he tried to work with the N.C. General Assembly to craft additional regulations around poultry, he said.

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hog farms. He said he tried to work with state legislators to expand environmental regulation of the farms but failed.

“The argument I made was that with the growth of an industry comes new challenges,” Regan said during an interview. “And water quality is something that the agency takes seriously, and we need to have some clarifying laws on the books that helps manage that growth.”

Nothing changed. But that doesn’t mean it will always stay the same, the EPA administrator said during a recent visit to North Carolina.

“If the poultry waste issue isn’t addressed at some point, the industry’s going to run into a buzzsaw,” Regan predicted. “Science will demonstrate where the waste streams are coming from. And that puts EPA and DEQ in a perfect position to regulate.”

***Coming Monday online:*** *About 230,000 North Carolinians live within a half mile of a poultry farm. But there’s little neighbors can do to protect themselves from the stench, vultures and other nuisances.*

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Environmental Working Group, the leading authority on North Carolina poultry locations, and one from researchers at Stanford University. Off linked those maps to a dataset of every parcel in the state, eliminating locations not owned by or zoned for farms. He then viewed satellite images of some 5,000 locations to verify which were poultry farms.

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