

Illinois slaughterhouse biggest nitrogen polluter of waterways in US, study finds

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A central Illinois pork-processing plant last year discharged more nitrogen from animal waste into waterways than any other slaughterhouse in the country, according to a report published Thursday.

In an assessment of water pollution produced by 98 large meat-processing facilities across the United States, the Washington, D.C.-based nonprofit Environmental Integrity Project found that a plant in Beardstown, Ill., owned by meat-processing giant JBS released about 1,850 pounds of [nitrogen](#) on average each day into a tributary of the Illinois River. That's the amount contained in raw sewage produced daily by a city with the population roughly the size of Evanston, the report says.

The facility, about 240 miles southwest of Chicago, is within its permitted discharge limits under the Clean Water Act, but the disclosure raises questions about the stringency of federal water pollution standards surrounding meatpacking [plants](#).

Illinois is the fourth-largest producer of pork, and it shoulders a significant share of environmental problems as a result. A Chicago Tribune investigation found that between 2005 and 2014, pollution incidents from hog confinement operations killed at least 492,000 fish and impaired 67 miles of the state's rivers, creeks and waterways.

"Butchering so many animals under one roof is inherently messy—that's no surprise—and that makes them very, very large sources of [water](#)

[pollution](#)," said Eric Schaeffer, director of Environmental Integrity Project. "Those pollutants include nitrogen, which is a chronic water pollutant across the U.S., especially in rural areas."

Each day, nearly 20,000 pigs meet their end in Beardstown at the 630-acre complex, which churns out over 1 billion pounds of pork annually. Though it's not a long-term confinement facility, the plant is bordered by lagoons that hold millions of gallons of animal waste similar to hog farms.

That slough of pig waste courses through a series of drainage ditches, canals and eventually into a tributary of the Illinois River, a waterway already tainted by pollutants associated with meatpacking facilities. While this wastewater typically passes through a treatment facility, residual nutrients like nitrogen can stimulate algae blooms that deplete oxygen levels when they decompose, suffocating fish and resulting in dead zones. Wastewater also can diminish water quality, in part, by contributing to levels of fecal bacteria.

The report considered only one avenue of pollution: pipeline discharges. But Schaeffer said waste from these facilities can also be dumped into local waterways during stormwater overflows and runoff from farm fields where it sometimes is used as fertilizer.

In March 2015, one of the lagoons failed and 29 million gallons of partially treated wastewater spilled into a drainage ditch near the Beardstown plant and flowed 2.6 miles into Muscooten Bay. Afterward, Illinois biologists counted nearly 65,000 dead fish in the waterways that feed into the Illinois River. Cargill owned the plant at the time but sold it to Brazil's JBS later that year.

Despite its rank as the top polluter in Thursday's report, the facility has not exceeded its permitted limit since 2016. Schaeffer, who served as

director of civil enforcement at the U.S. Environmental Protection Agency in the late 1990s, said that finding underscores the need to revisit national limits on slaughterhouse waste that were last modified in 2004.

"If you've got a generous limit that gives you a lot of headroom and lets you pollute more, you're less likely to violate it," Schaeffer said. "What we're seeing is that permit limits are too relaxed."

Wide-ranging regulations across the country have resulted in some plants with strict discharge limits being in violation while other plants with looser limits remain blemish-free.

"In some cases, the limit is so high it's kind of hard to violate it. Nitrogen limits for a pork or beef plant are very high. They are much higher than those that you would see from a municipal sewage plant."

JBS officials disputed the discharge numbers cited in the report, saying they were inconsistent with the company's internal data. The company also argued that it was improper to imply that the plant was discharging every day when it actually only discharged 295 days in 2017.

"The JBS Beardstown pork facility is well within its permitting requirements and has achieved improved environmental compliance since our acquisition of the facility in late October 2015," the company said in a statement Thursday. "The facility has not experienced a water noncompliance issue since December 2015."

Since October 2016, however, JBS, has failed to submit discharge monitoring reports that are required by the Clean Water Act, according Kim Knowles, staff attorney with the Illinois-based nonprofit Prairie River Network.

"This means we don't know what they are discharging," Knowles said. "... I think we should stop sacrificing our water to prop up the meatpacking industry."

The Beardstown plant is a large polluter because it is an unquestionably large operation, producing more than 2 million gallons of wastewater a day, according to state records. But the plant also frequently releases water close to the mandatory limit of nitrogen concentration per liter each month, a finding Schaeffer believes is more reflective of its treatment process than its size.

The federal standards for nitrogen concentration are 134 milligrams per liter of water for slaughterhouses. By comparison, sewage treatment plants typically have a target goal of 10 milligrams per liter, Knowles said.

"These are notably different industries with different regulations, but one has to wonder about the policy choices being made here and the resulting cost on others," Knowles said.

Leslie Harris, mayor of the rural town of 5,500, said Beardstown has recovered from the devastating spill three years ago, and JBS has been a part of the solution.

Since taking ownership of the facility, JBS made repairs to its lagoons and coordinated with the Illinois Department of Natural Resources and the Lost Creek Drainage District in an effort to restock a nearby pond with fish.

The State Journal-Register has reported that the Beardstown Sanitary District has received federal funding to renovate its water treatment facility, and local officials were hopeful that would remove more phosphorous and nitrogen from its wastewater.

"The vegetation is growing. The fish are there. They have corrected that problem," Harris said. "They (JBS) are doing everything they can to keep in compliance and we appreciate their cooperation. They are very good to our community. If something wasn't right, I'm sure the Illinois EPA and the U.S. EPA would've notified the city of Beardstown, but we've not received any notification."

Harris described JBS as a "good corporate citizen." The plant, which has around 2,000 workers, is by far the town's largest employer. Asked about the plant's title as the top nitrogen polluter, Harris said:

"I would be concerned, but yet—if the state's monitoring it and they don't have any problems with it ... I would like to see what the state would say about it before I make any comment."

The Environmental Integrity Project report indicates that 74 of the 98 facilities surpassed their permitted limits for pollutants like nitrogen or fecal bacteria at least once between January 2016 and June 2018. Although the Beardstown plant had no discharge violations in that period, a Tyson Fresh Meats beef-processing plant in Joslin, Ill., which ranked as the seventh-largest nitrogen polluter in 2017, had three such violations.

Tyson spokesman Worth Sparkman argued that the report contained errors "in analysis and methodology" but declined to elaborate.

"We want people to know that the water we use in our meat and poultry plants is essential for producing safe food," Sparkman said in an email. "It is returned to streams and rivers only after it's been properly treated by our wastewater treatment systems, which operate under government permits."

Mark Dopp, senior vice president of regulatory and scientific affairs for

the North American Meat Institute, said the EPA data cited in the report is misleading, emphasizing that companies typically share wastewater treatment solutions with each other to improve environmental stewardship.

"Meat processing plants are large and complex facilities with many outfalls," Dopp said in a statement emailed to the Tribune. "It is not uncommon to have isolated hiccups in these large wastewater systems. The report treats a single isolated exceedance the same as a facility with a chronic problem. If the report had included a wider representation of facilities and focused only on chronic issues it would be far more valuable. Instead the so-called Environmental Integrity Project provides its own data analysis, offering limited insight into how it reached conclusions and not distinguishing between violations of nitrogen limits and other, unrelated issues.

"Members of the meat and poultry industry recognize they have an ethical responsibility to protect the environment in which they operate."

Even when a plant is found in violation, enforcement and penalties are rare. The federal Clean Water Act allows courts to fine plants that pollute more than their permit allows, up to \$46,129 per day for each separate violation. But the Environmental Integrity Project identified at least 18 slaughterhouses that accumulated more than 100 days of violations from 2016 to 2018, only 10 of which paid any fines at all.

A Keystone Protein plant in Pennsylvania, which violated discharge limits for more than 1,000 days, paid only \$1,030 since 2016, the report says.

"What you hear is, 'Well we just want to get them back in compliance,'" Schaeffer said. "My quick reaction, thinking like an ordinary taxpayer, is when I get pulled over for speeding, it's not like I'm going to tell a cop,

'I'm trying to get back into compliance so if you don't mind just give me a warning.' He'd laugh."

Typically, enforcement falls to a state's attorney general to take polluters to court. Attorney General Lisa Madigan named Cargill and JBS in a lawsuit after the 2015 spill.

Cargill and JBS were ordered to pay \$150,000 in civil penalties to the state EPA and \$34,000 to the state Wildlife and Fish Fund, in part to recoup the value of the bluegill, largemouth bass and catfish killed in the incident. Neither acknowledged a role in the allegations leveled by Madigan's office.

Thursday's analysis determined that the worst polluters released about 30 times more nitrogen concentration than the cleanest slaughterhouses. Schaeffer said it shows that cleaner technology is available to make these facilities more capable of removing nitrogen, but it may come down to states or federal lawmakers to motivate the industry.

"Every several years, the EPA is supposed to look back at the standards and decide is this up to date," Schaeffer said. "You don't want to freeze standards to what they are 20, 25 years ago. Looking at this data, industry is capable of doing more, and the EPA should update that and essentially lower the floor, establish a new set of minimum requirements that are more stringent. And they can point to the industry's own data when they do that."

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