

# Human waste dumped near Florida springs

April 28, 2017

This hits close to home.

[The Naples Daily News](#) published the following article about sprayfields in Florida. Go to this [link to see videos](#).

Comments by OSFR historian Jim Tatum.

-A river is like a life: once taken, it cannot be brought back-

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Human waste dumped near Florida springs | Video

[Lucas Daprile](#), lucas.daprile@tcpalm.com Published 12:52 p.m. ET April 26, 2017 | Updated 1 hour ago

A TCPalm investigation found the Department of Environmental Protection permits treated human waste to be dumped near some of Florida's most fragile and protected waters.

Laying waste

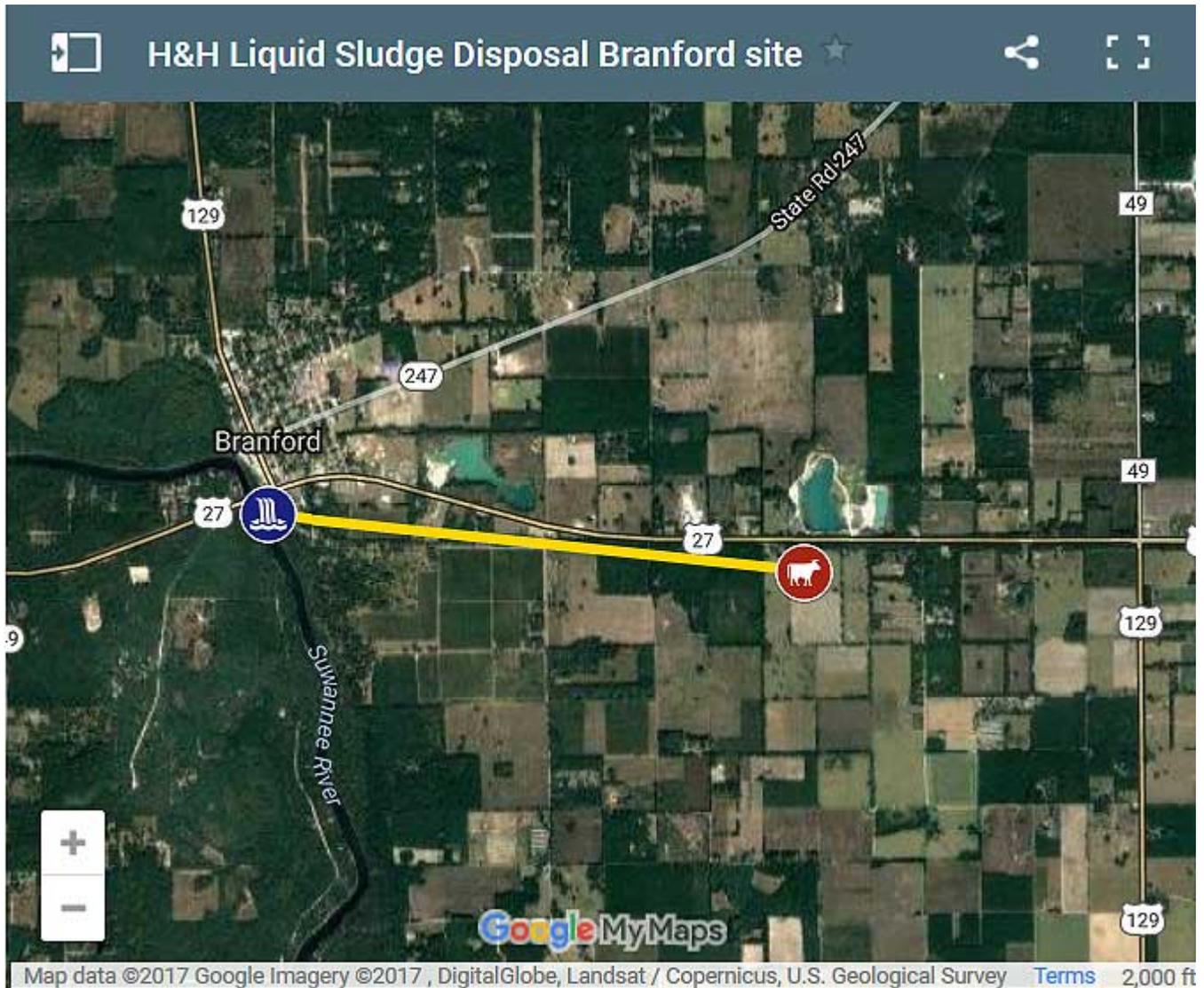
*TCPalm is investigating how Florida pollutes its water by allowing human waste-dumping on farms. [Our first story revealed](#) why the state regulates one class but not another, though they contain the same amount of algae-causing nitrogen and phosphorus. Our second story reveals how even the regulated class is allowed in the springs protection area, though it also contains bacteria and heavy metals.*

Kenneth Hulse, 8, of Sebastian, is seen in a reflection of a glass-bottom boat looking for life below the surface of the Silver River during a tour March 23, 2017 at Silver Springs State Park in Ocala. XAVIER MASCAREÑAS/TREASURE COAST NEWSPAPERS

Less than three miles from Branford Spring and the Suwanee River – smack in the middle of the Springs Protection Area, where drinking water is particularly sensitive to pollutants – seems an unlikely place to dump treated human waste.

Pollutants eventually make their way into Branford Spring, a [popular swimming hole](#) that feeds the protected Suwanee River. Yet the state lets H&H Liquid Sludge Disposal dump nearly 600 tons of waste a year on the nearby Bahia grass farm the company also operates.

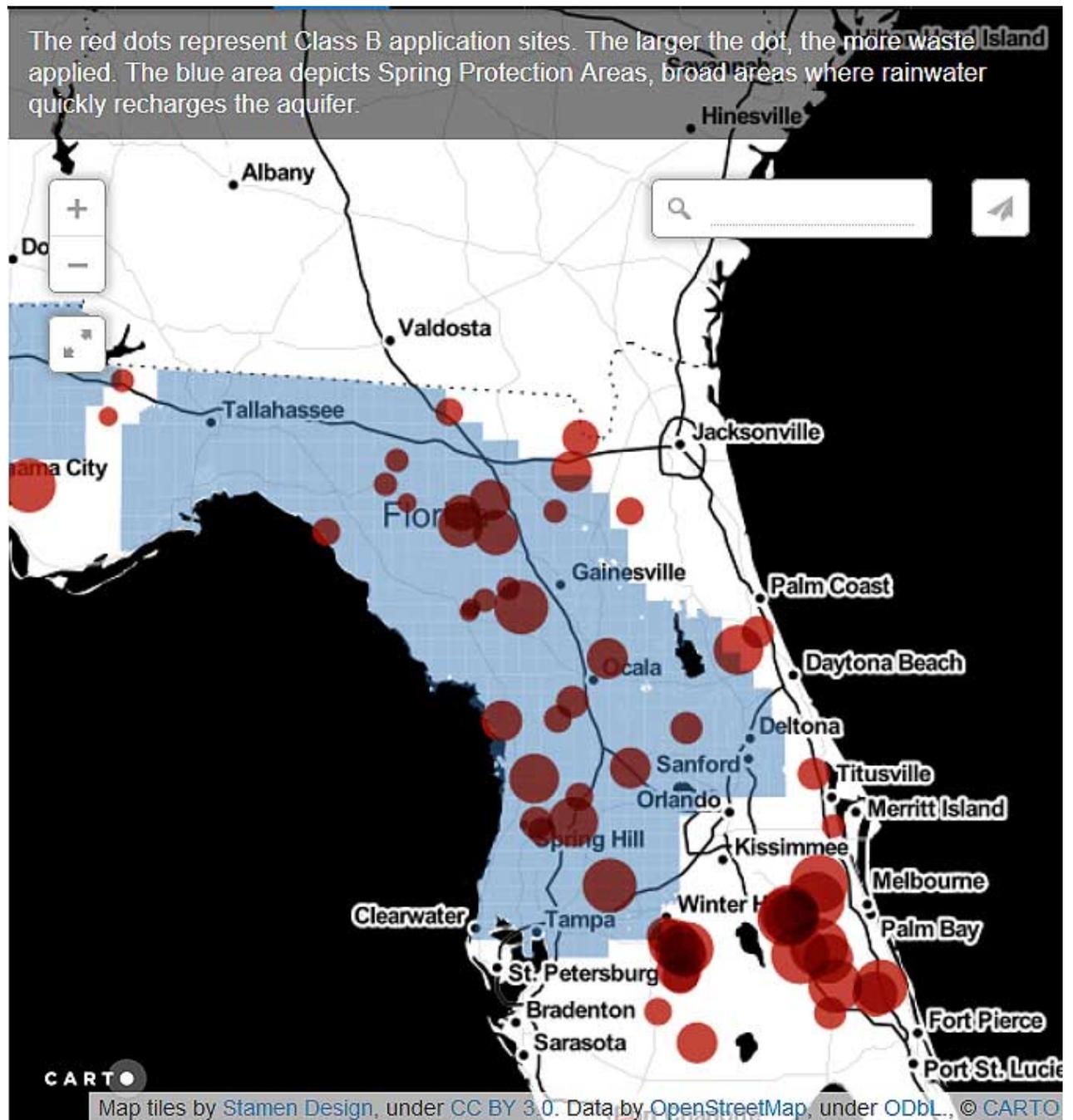
Rolling R Ranch is one of 83 sites where the Department of Environmental Protection lets landowners dump “Class B” waste, rated based on how much bacteria and heavy metals it contains after treatment. Farmers and sludge companies throughout the state dumped 98,000 tons of it over 82,503 acres in 2013, the latest year for which records were available. That’s enough to cover Port St. Lucie, the state’s eighth-largest city.



[View this map on mobile devices](#)

TCPalm's investigative analysis of the 65 active sites shows:

- 8 are in an Outstanding Florida Waters basin, where the state prohibits liquid wastewater discharges.
- 24 are in the Springs Protection Area, where rainwater quickly flows underground to recharge the aquifer system and drinking water supply.
- 44 are in a basin that drains directly into a stream, canal or lake.
- Some fall into more than one of the above categories.



While the state often caps how much nitrogen can be dumped, it almost never caps phosphorus, a main culprit in [toxic algae blooms](#). Extra phosphorus isn't even needed to grow crops on 87 percent of the 83 sites, TCPalm's analysis found.

"Phosphorus occurs in (waste) often at levels higher than the crop needs," Ned Beecher, executive director of the nonprofit North East Biosolids & Residuals Association, said in

a 2016 interview with trade publication Treatment Plant Operator. “If you apply biosolids based on the nitrogen needs of the crop, which is the common practice, you end up applying more phosphorus than needed.”

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Citing concerns about phosphorus pollution, lawmakers in 2007 banned Class B waste in the Lake Okeechobee, St. Lucie River and Caloosahatchee River watersheds. In response, some plants began treating waste to the higher Class AA standard, which contains less bacteria and heavy metals, but the same amount of nitrogen and phosphorus. Others simply moved their dump sites into other watersheds.

Supporters of the practice call it a win-win: Farms get free fertilizer and cities get a cheap way to dispose of waste. Critics are more alarmed.

“What we’ve now got is excess phosphorus ending up in our water resources,” said Jake Varn, who served under Gov. Bob Graham as secretary of the Department of Environmental Regulation, DEP’s predecessor. “Sounds to me it’s – rather than a win-win – a win-lose.”

Too much phosphorus

Some landowners’ dirt contained literally off-the-charts amounts of phosphorus when they applied for a permit, according to DEP-required soil tests and the University of Florida’s agricultural fertilizer-use guidelines, which balance crop needs and environmental impacts.

UF’s chart maxes out at 80 parts per million. Some soil at Peace

River Ranch in Homeland, for example, contained 629 parts per million. That's 10 times the amount UF deems "very high." One part per million is like one drop of ink in a kitchen sink full of water.

DEP granted a permit anyway, allowing the Bahia grass farm to dump an average 2,485 dry tons each year. That's roughly 55 tons of phosphorus per year, TCPalm calculated based on DEP data.

Bahia grass is one crop UF says rarely needs extra phosphorus, but farms growing it account for 81 percent of the 83 DEP-permitted sites, TCPalm's analysis found.

"It's never good to be dumping a chemical that's causing the surface waters to be impaired when you don't need it," said Gary Roderick, a former DEP administrator in the Port St. Lucie branch office.

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DEP defended the practice, saying the state's regulations are "far stricter" than the federal government's, with several rules "specifically directed at minimizing potential impacts to surface and groundwaters," spokeswoman Dee Ann Miller said in an email. Applicants must hire an engineer to produce a report DEP uses to cap how much waste can be applied. The report documents information such as soil type, composition and distance to the water table.

"Properly handled biosolids are a good thing," agreed Pat Walsh, a project manager at Severn Trent Services, a private contractor that operates St. Lucie County's wastewater treatment plant on South Hutchinson Island, which ships its waste to sites in Osceola and Indian River counties. "It's a very heavily regulated industry. And it needs to be."

Banned here, not there

Sen. Gary Farmer, D-Broward, this year filed a springs protection bill that included a Class B waste ban in small areas near the Silver, Rainbow and Wakulla springs. But Senate Bill 1700 was so specific it would have applied to only one location, a 374-acre Bahia and Bermuda grass farm in Marion County, TCPalm's analysis found.

That's because the bill was a mishmash of items that got cut from a more comprehensive water bill last year, said Ryan Smart, president of environmental advocacy group 1000 Friends of Florida, which publicly supported the bill.

"Should we be banning biosolids in more areas than just these? Absolutely," Smart said, but "there has not been an appetite for addressing springs issues in the Legislature this year. Most of the attention has gone toward dealing with the Everglades and the estuaries."

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The 2007 law that banned Class B waste in the Lake Okeechobee, St. Lucie River and Caloosahatchee River watersheds had two unintended consequences. [It deregulated Class AA waste](#) so DEP no longer oversees how much is dumped and where. And it sent Class B waste to other watersheds.

"Basically, the dumpers ... just went over to St. Johns," said Audubon Florida scientist Paul Gray. "I don't want the St. Johns River even more polluted because we're trying to save (Lake) Okeechobee."

Of the 82,503 acres where DEP allows Class B dumping, more than half – an area the size of Lakeland – is in the St. Johns River

watershed portion of Osceola County, TCPalm's analysis found. Taxpayers have spent [a quarter-billion dollars](#) restoring Florida's longest river over the past four decades, yet St. Johns River Water Management District spokeswoman Danielle Spears said phosphorus levels have increased in half the Upper Basin's measured areas.

"There has been some progress made," said Jimmy Orth, executive director of the nonprofit St. Johns Riverkeeper. "We've still got a ways to go in restoring the ecosystem."

How bad is it?

Kenneth Hulse (left), 8, and his brother, Jay Hulse, 11, of Sebastian, look at wildlife in and around the Silver River during a glass-bottom boat tour March 23, 2017, at Silver Springs State Park in Ocala. The brothers and their parents, Katie and Alan Hulse, were on a road trip to admire some of Florida's natural attractions during spring break. Katie Hulse, a biology teacher at Vero Beach High School who follows issues related to the Indian River Lagoon, said, "I'm hoping we can all work together to troubleshoot it – I'm sure there's a way we can get these things (nitrogen and phosphorous) out of the water, without damaging our environment further." (Photo: XAVIER MASCAREÑAS/TREASURE COAST NEWSPAPERS)

Scientists disagree on how significant a role waste-dumping plays in the state's high levels of nitrogen and phosphorus in surface and groundwater.

"You can be a mile away or two miles away," Roderick said, "and if it goes into that ditch, which goes into that canal, which goes into that Outstanding Florida Waters, it's just a mainline right into the Florida waters."

George O'Connor, a biosolids expert at the University of

Florida, called that a “gross oversimplification.”

“Everything that’s added to the land will eventually wind up in the water, but that may take thousands of years to occur,” O’Connor said. “The fact that we have ... phosphorus deposits that we mine in Florida, shows ... (it) can be very stable in the soil and exist for eons.”

Beecher is among those who think Florida should focus its cleanup efforts on more significant nutrient pollution problems.

“While biosolids is potentially one factor in nonpoint source pollution from agriculture, manure and standard fertilizers are probably, in most places, a much larger piece of the pie,” he said.

“What is it they’re going to do with the biosolids if they don’t apply it to that field?”

Nathan Nelson, Kansas State University associate professor

Finding solutions is a balancing act, said Nathan Nelson, a Kansas State University associate professor who published an academic paper on identifying areas prone to nutrient runoff. When TCPalm gave him examples of high phosphorus levels on Class B waste sites, he said, “If the soil tested that high, I obviously don’t need to apply phosphorus.

“But,” he added, “what is it they’re going to do with the biosolids if they don’t apply it to that field?”

## HOW WE DID IT

*TCPalm compiled a spreadsheet containing data from 83 Class B permits and soil tests stating whether phosphorus was needed in several different zones on the same farm. We calculated what percentage of soil didn’t need phosphorus and how much*

*phosphorus the waste likely contained based on DEP averages in a 2013 report. We also downloaded DEP's map of Class B sites and overlaid maps of watersheds and the Springs Protection Area from publicly available databases.*