

GLOBAL TECHNOLOGY

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'The land is just too precious:' The landfill will become a massive nature park in 60 years

Environment / By adminculttr



NEW HANOVER COUNTY — There is a constant vortex of birds swirling over the active cells of the New Hanover County Landfill.

County Environmental Management Director Joe Suleyman estimates it's 6,000 strong and composed entirely of three species of seabirds.

As landfill grows, New Hanover County's composting program needs food

Looking over the site from a mound on the northern extreme of the landfill is a dramatic sight. There is heavy machinery, an endless plume of methane flare burning in a shack and impoundment pools constantly filling and treating a liquid Suleyman affectionately refers to as "trash juice."

But the site is also pretty. Covered in greenery, a wooded section of creek runs alongside it and there is surprisingly little smell. On the northern edge are planting beds reserved for rare species.

It's a preview of what the landfill is supposed to become 60 years from now.

In a few generations the site — located at 5210 US Hwy. 421 — will turn into the largest nature park the county could possibly create. And it will stay that way forever because of what is buried there rather than in spite of it.

Suleyman said it works like this: The county has an estimated 30 years left to intern trash at the site before it is full. At that point the mounds, which start off looking like nightmarish Mesoamerican trash pyramids, will be capped off with layers of purpose-made material to keep what lies beneath from making an appearance. Sod is then planted on top of that material.

Then the site sits empty for a minimum of 30 years, while the county monitors it as spelled out in federal law. Federal regulation also means the site will not have any use besides becoming a park after the landfill operation stops.

County spokesperson Alex Riley said the landfill falls into a narrow slice of the property types where no permanent structures, like housing or retail space, can ever be built because they would puncture the membrane materials. The park will not pose any threat to that barrier. Any shelters and picnic tables will sit on the surface, and the bathrooms on site will be converted from existing office buildings.

"At the end of that 30 years, you have to demonstrate that the landfill is no longer settling; there's no more gas being created; it's not generating any wastewater, no side slope erosion," Suleyman said.

That settling process is happening right now.

One pyramid was capped off five years ago and has already shrunk 5 feet since. The reason for the diminution is the same phenomenon that generates all the methane and thick juice. Bacteria and fungus take over the garbage and decompose what they can. What is left is soil, along with durable waste like plastics and metals.

The goal is to be left with stable, rolling green hills covering 270 acres of park space.

There are 18 other landfills in New Hanover that have been sealed and several which are now parks. However, those sites were operated before current regulations brought the standard for waste disposal above "throwing trash in a big hole," according to Suleyman.

New Hanover County has 18 former landfill sites, the most in the state, and one has been converted into a successful project. Cape Fear Regional Soccer Park, a few minutes south of the current landfill, was built on a trash pile that closed in the 1970s. The City of Wilmington, which owns the site, added 70 acres to it in 2019.

Another site is Blue Clay Bike Park, next to the county juvenile detention center on Detention Center Road. Suleyman said waste was buried at the site decades ago and inspecting some of the ruts tires have cut into reveals strata of mid-century vintage trash.

He said better practices are put in place for the current landfill to make the greenspace park a success, namely pressing the waste into extremely dense blocks and covering it with state-of-the-art material on top. Also, its beautiful location — flanked by a stream, wetlands to its east and tree canopy around its entire perimeter — makes it unique for a business that normally takes place in undesirable parcels, kept out of sight a mere five minutes from downtown.

Suleyman kayaks through the section of creek that hugs the north side of the current landfill site. He said it's one of his favorite places in the county.

"The land is just too precious," Suleyman said.

The landfill opened in 1981 and was the first in the state with a special liner on the bottom to contain its waste. Plans for the park Developed by county staff and turned into a site plan by SCS Engineers, the park proposal includes fishing access to the creek along the north side, a viewing area for the natural wetlands to the east, beds planted with rare plant species propagated by UNCW, and areas for people to enjoy the natural wonder of the space..

There is also a 300-foot wooded buffer around the entire site to be permanently conserved with a trail, the most recent addition to the plan. Suleyman described it as a nature "superhighway."

The county needed to install an access road along the perimeter, which will remain there for decades to become a major feature of the park.

The 90-acre expansion was the last the state would allow at the existing site because it is bounded by wetlands, a waterway and infrastructure on all sides.

The landfill is filling up faster than anticipated. It was expected to carry the county through 2093, but now the estimate is closer to 2050 because of local population growth — more than 10% every 10 years — and storm debris. It stands as the largest future park project the county has on the books.

"I like to call it a permanent liability," Suleyman joked, noting the county will be stuck with the site no matter what.