

CLIMATE CHANGE

Area looking toward composting to reduce carbon footprint



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8 MIN READ

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Three trash bins serve as McIntire Recycling Center's compost receptacles.

Credit: Charlotte Rene Woods Charlottesville Tomorrow

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What would the future of composting look like in the region? Local stakeholders and an out-of-state company are trying to figure that out.

As Albemarle County and the city of Charlottesville work on developing clear paths to reduce their impacts on climate, the Rivanna Solid Waste Authority — which serves both localities — recently conducted a feasibility study that laid out different options.

When food waste decomposes in landfills, the organic materials break down and release methane into the air. As the city and county analyze their greenhouse gas emissions and carbon footprints, composting can be one part of that equation.

“My suspicion is that composting is going to end up being one of the active parts of trying to achieve the goals,” said Phil McKalips, director of solid waste at RSWA. “It has cost to do, but the payback is to keep organics out of landfills.”



IMUC also has a bin to collect food waste for composting.

Credit: Charlotte Rene Woods \ Charlottesville Tomorrow

Presently, RSWA offers composting services at both McIntire Recycling Center in Charlottesville and the Ivy Materials Utilization Center through a contract with Richmond-based Natural Organic Process Enterprises. Augusta County-based company Black Bear Composting has an agreement with University of Virginia to transport food waste to the MUC and to haul food waste to its facility. Other composting is conducted by RSWA’s sister organization, the Rivanna Water and Sewer Authority, which deals not in food but rather biosolids that are shipped to a facility in the town of Waverly in Sussex County.

RSWA recently had a study conducted by Coker Composting and Consulting, of Botetourt County.

“That was to say, ‘What would it look like for us to get into the composting business ourselves?’” McKalips said.

The study resulted in several potential options that RSWA could explore, like building a compost facility on the old closed landfill behind the MUC. It also recommended that the city and county develop and outreach plan to encourage more participation in composting food scraps locally. It also suggested that diverting food scraps from landfills could reduce carbon dioxide emissions by nearly 12%.

“When we had Coker look at composting, [owner Craig Coker] looked not only just at the compostable food waste, but also said, ‘Well, what if you went whole hog and you decided to compost everything?’” McKalips said. “The quantities are currently running around 500 to 550 tons per year of compostable food waste versus we’re doing 12,000 to 14,000 tons of biosolids.”

McKalips said the tons of compostable food are expected to go up as more people gain interest in participating.

Another thing RSWA is looking at is evaluating the feasibility of mixing compostable food waste with the biosolids that are already being shipped off to the McGill Environmental Systems facility in Waverly.

“The thought being that this might be a cheaper alternative than some sort of RSWA-operated facility out at Ivy,” McKalips said. “We’ll see how that study turns out. The two reports should start to give [the RSWA Board of Directors] some reference points from which they can then evaluate costs and benefits and how that fits in with their other financial obligations.”

McKalips said, the study from Coker indicated that the 500 to 550 tons of compostable materials at Ivy could grow over the course of a few years to about 4,000 tons, and that a larger facility could be built for about \$1 million with annual operating costs of \$150,000 per year.

While building out infrastructure for more composting through RSWA or combining food waste and biosolids are possibilities, there would need to be enough of a need for it.

“We haven’t asked the board to make any decisions on those numbers yet. They are just for information’s sake,” McKalips said. “So, when people are saying, ‘Hey, we need to do composting,’ we now have some idea of what means.”



Credit: Photo courtesy of Panorama Paydirt

Meanwhile, Earlysville-based Panorama Farms is considering throwing its hat into the mix.

Panorama Paydirt — operating out of Panorama Farms — has served the area for more than two decades by composting leaves, yard waste and other materials.

“We are in the exploratory phase of expanding our feedstock acceptance to include pre-consumer and post-consumer food waste,” said Panorama Paydirt owner Margaret Bloom.

Presently, Panorama accepts various items to break down and repurpose.

“We currently accept leaves. Those come to us starting about the middle of October through the middle of January. The city wants to get rid of them because they can do things like clog storm drains,” Bloom said. “The second main product we take are arborous chips. If a tree company takes down a tree, they chip it in their truck. Another category we take is yard waste. That is mostly small tree limbs, hedge and shrub clippings. Occasionally, it will be things like ornamental grasses. The last category is poultry litter, which is the main nitrogen source that we use to make our compost.”

Composting requires a carbon source and a nitrogen source. Many of the collected items are the carbon, while the poultry waste serves as the nitrogen. Should Panorama begin collecting food waste,

that could serve as a nitrogen source and Bloom said the company could start adjusting its composting recipe to include the food waste.

Panorama Paydirt also has applied for a permit with the Virginia Department of Environmental Quality.

“Because I’m the new owner, we had to apply for a change in ownership permit — and during that process, we are applying to accept food waste as part of our stock,” Bloom said.

After the composting process, the finished products can be placed back into the soil to help with growth.

Panorama Paydirt already has clients — like bulk sales of composted materials to Southern States and Ivy Nursing Garden Spot, and landscapers or gardeners who come to the farm to load their trucks.

“We do currently sell out of compost every year, so we feel confident that we will be able to sell the product on the backend,” Bloom said. “There’s compost on the front end, which is diversion from landfill, and benefits on the backend — fertilizing your soil.”

Carbon capture is also another benefit to using compost in soil, Bloom said.

She cited a [University of California, Davis study](#), published over the summer but conducted over a 19-year-long time frame, that analyzed compost’s role in overall soil health and carbon reduction. For the study, scientists dug 6 feet in depth to compare soil carbon changes in cover-cropped soil and compost-added plots. Cover-crops are plants that are planted to cover soil rather than for harvesting produce, to help manage erosion, quality and fertility of soil.

The scientists found that conventional soils don’t release or store much carbon. They also discovered that by adding compost to soil, it helped the soil capture carbon from the air.

As Charlottesville and Albemarle look to ways to achieve climate goals, compost in soil could be something else to explore, as well.

As for the business of expanding compost types, Bloom said Panorama Paydirt hopes to have in January a completed analysis and a clearer vision of broadening its composting.

Bloom said Panorama Paydirt potentially could start accepting a limited number of food waste vendors as it adjusts its composting recipe. The process can take up to 16 weeks, so she said that even if her company were to begin accepting materials in January, it wouldn’t know the results of how it composted right away.

“Our plan is to start slow and change our recipe accordingly and then figure out how to market that particular type of compost to our customers,” Bloom said.

South Carolina-based Atlas Organics also has expressed interest in composting in the area and had initial conversations with RSWA.

“It’s pretty preliminary, but we have talked a few times with Phil [McKalips],” said Jarrett Bond, controller and operational analyst for Atlas Organics. “We have a general proposal and overview of operations. We’re hoping to schedule a site visit to talk about more specific things hopefully at the beginning of this year.”

The company operates composting facilities in various cities and counties within the Carolinas, Georgia and Tennessee. It most often utilizes public-private partnerships and, should it collaborate with RSWA around Albemarle and Charlottesville, would be the company’s first foray into Virginia.

Bond said that depending on the property of a potential facility, Atlas Organics could process up to 14,000 or 15,000 tons of material at about a 50-50 ratio of carbon and nitrogen.

On the possibility of contracting with Panorama for more composting, McKalips said that the costs and feasibility of all options will be weighed.

“If Panorama becomes a cost-effective local composter, I think that we become just another vendor and they become one of our composting options,” McKalips said. “I suspect that others will have less need to look to us to be the regional solution. Obviously, this presumes Panorama has the capacity, pricing and interest in becoming the “community solution” for all its organics recycling. If they have more limited goals, then we have to see where there may be a need that we can be useful in meeting.”

As for Atlas Organics, McKalips said both companies are “really just trying to understand how an arrangement would work; what are the questions we need to be asking.”

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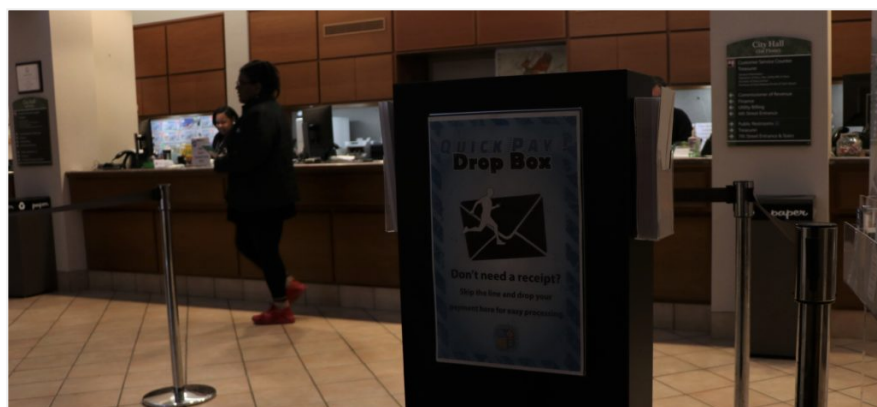
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7 MIN READ

Tuesday, July 23, 2019, at 3:16 PM



De Campos Lopes brings his climate policy experience from Argentina to Charlottesville.

Credit: Charlotte Rene Woods/ Charlottesville Tomorrow

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From metropolitan to mountain views, Caetano de Campos Lopes is continuing his environmental work as Charlottesville Climate Collaborative's new director of climate policy.

After growing up in Brazil, the São Paulo native spent much of his adult life in Buenos Aires, Argentina, where he worked in economics and eventually in his dream field of climate policy. It also was there that he met his wife and began to find a new home in Charlottesville.

"My wife is American," de Campos Lopes said. "She moved here at 1 year old with her parents."

It was a desire to connect with her Argentinian family members that led to her going to Buenos Aires. After she and de Campos Lopes moved to Charlottesville, he began working for American Council for an Energy Efficient Economy. De Campos Lopes said he still serves as a consultant in his spare time, but as he grew interested in C3, he excitedly applied for his new role when he saw an opening.

De Campos Lopes, who holds a master's in environmental management and economics, previously worked for the city of Buenos Aires and led the city's assessment of clean energy projects.

But breaking into the climate sector wasn't a straightforward path. He worked for a time in investment banking and brings applicable skills to his policy roles.

"I always wanted to transition to the climate sector. I'm an economist. Although I can see the relevance of having an economist in the environmental sector, it wasn't always an easy transition because usually, when you have a degree in economics, you can find a lot of jobs in banks but it's not as easy to knock on the door of an environmental nonprofit and say, 'Hey, I'm an economist. Want to hire me?'"

He said that as the city of Buenos Aires was establishing its clean energy department, his background ended up being an asset.

"I was like, 'Yay, it's my time,'" de Campos Lopes said.

While working in the department, he said he was part of various projects to enhance sustainability and climate resilience.

"It was very cool because when I started, I was the advisor to the director on financial assessment of every climate policy. The budget was about 2.5 million of clean energies, but after two years our budget was almost 15 million," de Campos Lopes said. "Because we started to structure climate policy in a way that we could actually show the mayor the value of the policies, that was actually the return of the policies."

De Campos Lopes said environmental policies are important but that showing that a policy can have a clear economic benefit for localities as well as its residents is important as well.

Buenos Aires went on to become the first Latin American city to declare a goal of carbon neutrality, a stance Charlottesville recently took. De Campos Lopes said he is thrilled to have witnessed it twice.

He is aligned with C3 on valuing the intersection of climate policy with other solutions.

While in Buenos Aires one initiative he worked on was promoting demand-side management initiatives to reduce the city's emissions of greenhouse gases and shave the community-wide peak electricity demand, reducing the probability of power outages due to insufficient generation capacity or inadequate transmission infrastructure. The outages were a common problem faced by the city, that disproportionately affects economically disadvantaged neighborhoods.

Other policies de Campos Lopes worked on involved enhancing energy efficiency in [residential](#) and [municipal buildings](#).

"I think that it's very important to build the understanding that climate policies are complementary to other social policies," he said. "It's important to understand that an equitable and prosperous future both for a social and economic aspect will require and engagement of social and climate policies."

Intersectional Solutions

Now, de Campos Lopes is involved in C3's recent pilot program with Local Energy Alliance Program to incentivize landlord's acceptance of housing vouchers through upgrading infrastructure to be more environmentally friendly and energy-reducing. The policy was developed by C3 and LEAP. The program would lower utility bills, which can weigh heavily on low-income households, and help prevent voucher holders from having to relocate farther and farther out of the city.

The Housing Voucher Energy Efficiency Pilot's projected benefits include increasing the number of rental options for residents with housing vouchers, while opening the stagnant waitlist for residents in need of housing assistance, reducing greenhouse gas emissions from transportation and energy use in the residences, and lessening the energy cost burden for low income residents.

"As climate advocates, we want to see people living in the communities where they work," said Susan Kruse, executive director of C3.

The initiative offers up to \$10,000 in forgivable loans to landlords for energy-efficient improvements to their rental properties, which can include updates to heating and cooling systems, LED lighting, water heaters and insulation. The landlords must commit to accept vouchers for five years with loans forgiven at a rate of 20% each year, and they will be administered by the Charlottesville Redevelopment and Housing Authority.

Funding for the pilot largely comes from LEAP, with money on hand from the city and a grant from Dominion Energy.

Recently, the Housing Advisory Committee approved the program and final revisions to the policy are currently underway. About 10 landlords are expected to participate.

Rebecca Quinn owns two properties in Charlottesville that she rents for lower than market rate and is interested in participating in VEEP. She had seen public information about LEAP and later discovered C3 from attending the housing advisory committee's subcommittee meetings.

Quinn says the connection of energy efficiency with affordability attracts her to the idea of the pilot.

"When tenants have lower heating and a/c costs, and lower electric usage and lower water consumption, the more likely they'll be able to stay on top of their monthly rent," Quinn said. "I'm still exploring what it takes to qualify to accept housing vouchers, so I don't yet know if I'll go that route."

She noted that the pilot can make it easier for landlords like herself who already try to keep their rents affordable.

"I understand the initial focus is landlords who are not yet accepting vouchers, or not for all of their units — that's because there are people who qualify for vouchers, but not enough units available," Quinn said.

As for de Campos Lopes, he is excited to continue his work as part of the team at C3, and to address multiple concerns through bridging and intersecting policies like the pilot.

"I think the house voucher program is a good idea," he said. "It's a good way for the city to build policies that are highly connected."

In his spare time, de Campos Lopes also collaborates with the design and development of American Council for an Energy Efficient Economy's climate performance scorecard for cities in the U.S. He also enjoys spending time in the mountains and hiking trails around Charlottesville.

"I'm super enthusiastic for this position here and I look forward to engaging effectively with the governments in the Charlottesville area as well as community members and stakeholders," he said.

CLIMATE CHANGE, GOVERNMENT + POLITICS

Charlottesville, Albemarle students strike again for climate change action



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5 MIN READ
Friday, May 24, 2019, at 7:08 PM



Midday Friday, about 100 students from various Charlottesville and Albemarle County schools marched on the Downtown Mall to advocate for addressing climate change.

Credit: Charlotte Rene Woods/Charlottesville Tomorrow

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Midday Friday, about 100 students from various Charlottesville and Albemarle County schools marched on the Downtown Mall, ending and beginning at the Freedom of Speech Wall. The march, which was for stating that governments have failed future generations by not cutting emissions and curbing global warming, echoes one from March and again was organized by 11-year-olds Gudrun Campbell and Ezra Laiacona. Though most of the attendees were students, some City Council candidates were among a handful of adults showing their support.

While the students walked to the Omni Charlottesville Hotel and back to the free speech wall, some patrons in restaurant patios on the Downtown Mall cheered.

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[CHARLOTTESVILLE, ALBEMARLE STUDENTS RALLY IN SUPPORT OF SUSTAINABLE CLIMATE POLICY](#)

Along with Democratic City Council candidates Sena Magill, Michael Payne and Lloyd Snook, Sally Hudson, a Democratic House of Delegates candidate for the 57th District, was in attendance.

“It was a great experience. This was hard but very substantial and satisfying,” Ezra said of his involvement. “To any politicians who read this, do something.”

Gudrun is a sixth-grade student at Walker Upper Elementary in Charlottesville, and Ezra is a sixth-grade student at Agnor-Hurt Elementary School in Albemarle County. Some high school students from Charlottesville High School also attended.

“It was a lot of emails,” Gudrun said of orchestrating the march. “I think they went really well. It’s great when people show up because it’s great to know people care about this issue.”

Some of the CHS students in attendance included ESL students and their teacher, Tina Vasquez. She said she was among the community members to receive an email about the strike.

Among those students was a girl who practices Islam. Vasquez said that many of the Muslim students did not attend the march because they are fasting for Ramadan, and the heat would have been too much for them to handle on an empty stomach.

“She made the choice to not fast today because they can if they are sick or [there are] certain circumstances and then make it up. So, she made a conscious choice to come and drink water, and then she will make up her day of fasting.”

Hudson said her team had been knocking on doors for canvassing when she learned of the event.

“Sometimes folks tell me I’m a little too young to be running for office, and all I can think is ‘wait till you see the next wave,’” she said to the young crowd.

“We landed on Ezra’s house, and they let us know that he was planning a march and he wanted candidates who were very active climate advocates to be in the program, so we were happy to join,” Hudson said.

“I think we have to pass the suite of reforms that were in the solar freedom act this year,” she said. “All the things that would make it possible for us to empower local power producers to generate more solar energy, because right now we have so much red tape in Richmond holding them back.”

During the march, Magill told Charlottesville Tomorrow why her 11-year-old daughter was not present.

“Ever since her father was hurt in 2017 at the protests, she gets actual physical reactions, she shakes,” Magill said. “She’s afraid that someone is going to kill her, ... so yeah, I don’t make her come to things like this.”

Magill’s husband, Tyler, was injured on University of Virginia Grounds during the Aug. 11, 2017, torch-lit rally.

During Magill’s speech ahead of the march on the malls, she thanked the students and said she wants to do everything she can to support the students in their efforts.

“We have to do everything we can to both mitigate and adapt to the climate change we are already facing,” she said.

“Our role as politicians and elected leaders is to get out of the way,” Payne said in his speech to the students. “Make no mistake about it. What you are doing today, there’s going to be people who push back. There’s going to be people who will tell you that you don’t understand how politics really works, but I am telling you don’t listen to them. Keep doing what you are doing.”

As for Gudrun and Ezra's inspiration to organize the event, Gudrun cited a fellow youth across the Atlantic Ocean.

"The school strike for climate justice movement was started by a Swedish teen, Greta Thunberg. She's 16, and when she was 15, she started striking outside the Swedish parliament every Friday. Then that movement started spreading to America because we really do need climate action."

Gudrun said that her school knew she would be striking. In the March strike, her school was not aware ahead of time.

"Yesterday I sat down, and I talked to the principal, and he actually came out in full support," she said.

She also urged people to hold their elected officials accountable by reaching out to them through phone calls and emails to remind them to address climate change policy.

"There are upcoming elections and I think it's important to vote for candidates that are in support of combating climate change," Gudrun said.

At the Federal level, Gudrun would like to see the Green New Deal passed in Congress. On a local level she advocates against the Atlantic Coast and Mountain Valley pipelines.

"They're not necessary, they pollute our land and harm our wildlife. They're also planning to build a compressor station near Union Hill and it's important to stop that in our community," she said.

"Future events or marches may be different," Ezra said. "Maybe we will do something like a die-in or a sit-in, but we will be having future strikes for sure."

"I think we're just going to keep showing up and coming out to these things," Gudrun said. "We need to keep coming out to these things to get more climate-centered legislation and to get people informed about the climate crisis."

Gudrun and Ezra noted changes since their last strike, as the United Kingdom and Ireland declared climate change an emergency, and they look forward to the City Council's June 3 meeting where there will be an upcoming vote on divesting public money from fossil fuels and other industries.

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