



Written Statement for the Record

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North Carolina Department of Environmental Quality

Hearing on “Strengthening Community Recycling Programs: Challenges and Opportunities”

Testimony before the
U.S. Senate Committee on Environment and Public Works

September 22, 2021

Chairman Carper, Ranking Member Capito, and members of the Committee, thank you for the opportunity to speak with you today about the concept of a circular economy and our approach to making a circular economy a reality in North Carolina.

The term “circular economy” means transitioning from a make-take-waste society to one in which we treat end-of-life materials as commodities that can be put to good economic use, creating jobs and economic investment in our communities.

North Carolina has long been on the path of creating a circular economy. Today, I’d like to share our lessons learned with you. I’m going to harken back to how we all learned about environmental stewardship to begin with – the three R’s of reduce, reuse, and recycle.

I’ll begin with “reduce.” One of the best ways to reduce waste is to prevent it from happening in the first place. Nineteen years ago, with the help of EPA start-up funding, my agency launched a program called the Environmental Stewardship Initiative. This free and voluntary program is open to any entity in North Carolina, from large corporations to non-profit organizations, that wants to go above and beyond the minimum regulatory requirements for their management of waste, air, water and energy. Increasingly, companies are making ambitious sustainability goals, and they benefit from technical assistance and peer contacts to know how to make their environmental commitments a reality.

In the past fifteen years, our partners have saved over \$95 million and have experienced similarly impressive results in their collective environmental impact. Through strategic changes, they’ve reduced the amount of waste going to landfills by 4.2 million tons.¹ They have also reduced collective CO₂ emissions by over 32 million metric tons, which is equivalent to the CO₂ produced by the energy usage of 3.8 million homes for a year.² The Environmental Stewardship Initiative shows the power of public-private partnerships in creating a circular economy.

Next, let’s examine “reuse.” Traditionally, reuse is seen in programs such as the refillable glass milk containers that my family gets at the grocery store. Broadly speaking, reuse policy is still developing at the municipal and state level around the country. For today’s purposes, I’ll examine the ways we prioritize keeping materials within the circular economy by recruiting industries to our state that can utilize end-of-life materials as manufacturing feedstock. In North Carolina, we have a long history of recruiting industries that use recycled materials in their manufacturing processes. Companies like Owens-Illinois and Ardagh use recycled glass to create new bottles. Within thirty days, the bottle you’re holding today can be back on the shelf with a new life. This is a great example of a circular economy, and I’m proud to say the entire process, from the resident placing their bottle in the recycling bin to the sortation at material recovery facilities to the glass processor to the bottle manufacturer, is all contained within the state of North Carolina.

¹ *Environmental Stewardship Initiative*. (2021). NCDEQ. <https://deq.nc.gov/about/divisions/environmental-assistance-customer-service/environmental-stewardship-initiative>

² *Ibid.*

North Carolina is also home to Jackson Paper, a company that converts used cardboard into 100 percent recycled corrugated sheets, which in turn gets made into cardboard boxes. This company helps divert more than 100,000 tons of cardboard from landfills in our state. It's a great circularity story – especially considering the increased shipping demands over the last year and a half.

To have the material to feed these businesses, we need to look at the last “R” – Recycle. Recycling alone isn't the circular economy, but a circular economy can't exist without recycling. Having a strong state recycling program – one that supports local recycling programs and coordinates regional and statewide solutions with industry partners – is a key component for success.

In the early 2000s, a combination of policy changes led to significant improvements in our recycling rates. The state established a disposal surcharge (essentially a tax on landfilled waste), a portion of which supported grant dollars for recycling infrastructure, such as recycling carts to expand curbside recycling throughout the state. North Carolina has traditionally split its recycling grant money distribution into two streams – one for strengthening local recycling programs and the other for helping build the state's recycling economy. This helps to create a balance in our efforts to ensure that we have both strong collection and robust processing and end markets.

North Carolina also enacted a number of landfill disposal bans for readily recyclable materials, such as aluminum cans and plastic bottles, recognizing that these materials were not “wastes,” but commodities needed as vital feedstocks by North Carolina manufacturers. To complement these policy changes, North Carolina led a robust economic development effort to recruit industries and strengthen market demand for recycled materials. As part of these efforts, our state established one of the first market directories in the country in 1989, and it has maintained the effort as a dynamic searchable online database, the data from which has assisted a number of industries in deciding to locate in our state.

More recently, our state recycling program has supported local government collection programs by mapping out the materials accepted by material recovery facilities, or MRFs, and creating custom educational resources that these local governments can use with their residents to increase both the quantity and quality of recycled materials collected. This is just the latest example of a long history of assisting local communities in offering robust recycling services to their residents.

The advantages of a strong recycling program go beyond environmental benefits. More than 15,000 North Carolinians are directly employed in recycling-related jobs in the state, with a total payroll of \$759 million.³ The companies with facilities in our state that put otherwise wasted materials to use in their manufacturing processes are planning to invest at least another \$27 million in our state in the next two years. We have worked with our economic development

³ *Recycling and Materials Management Section*. (2021). NCDEQ. <https://deq.nc.gov/conservation/recycling>

partners in North Carolina to recruit these industries and provide competitive grants to help expand their operations. We're not alone – communities across the country benefit from recycling industry investments.

While North Carolina is making great progress, like every state, we still have a way to go before we have a truly circular economy. We had nearly 14 million tons of solid waste disposed of in our state's landfills last year.

We also have a lot of work to do to decrease the amount of wasted food ending up in our landfills. According to the Environmental Protection Agency (EPA), wasted food is the largest segment of the country's waste stream, making up 24 percent of the solid waste sent to landfills.⁴ The US Department of Agriculture estimates that 30 to 40 percent of the nation's food supply is wasted each year.⁵ This waste occurs even while more than 13.8 million households in the United States experience food insecurity.⁶ Food waste also contributes to climate change. Approximately 15 percent of total US Methane emissions comes from landfills.⁷ We've only begun to scratch the surface on what can be done to reduce food waste. Addressing this issue is an important step towards creating a more circular economy.

EPA and Congress can help bridge the gap. North Carolina has benefited from EPA's investments, whether it was in kickstarting the Environmental Stewardship Initiative, or giving us grant funding to begin a Recycling Business Assistance Center in 1993 to support market development. As we're looking to bridge the gap to a circular economy future, the federal government can again play an important role in strengthening states' ability to respond to infrastructure, program and market needs.

While the work is not done, I appreciate the opportunity to share North Carolina's journey with you. With programs that encourage the source reduction of waste, a robust economic development effort to support infrastructure and businesses that reuse materials, and a strong state recycling program, we can make real progress towards a truly circular economy.

⁴ *2018 Wasted Food Report*. (November 2020). US EPA Office of Resource Conservation and Recovery. https://www.epa.gov/sites/default/files/2020-11/documents/2018_wasted_food_report.pdf

⁵ <https://www.usda.gov/foodwaste/faqs>

⁶ *Household Food Security in the United States in 2020*. (September 2021). USDA Economic Research Service. https://www.ers.usda.gov/webdocs/publications/102076/err-298_summary.pdf?v=242.9

⁷ <https://www.epa.gov/lmop/basic-information-about-landfill-gas#methane>