

FOOD WASTE INFRASTRUCTURE ASSESSMENT Durham, NC

FINAL

August 2024

For Reviville Development Partners LLC

Developed by



WANU ORGANICS
Composting & Organics Consulting

EXECUTIVE SUMMARY

The goal for this Food Waste Infrastructure Assessment of Durham, NC is to summarize the activities taking place, evaluate them, and proposed next steps to incentivize social action and economic development to solve this issue. For this context, food waste is edible excess food and food scraps, and infrastructure is the collection of organizational networks, policies, collection vehicles, and physical structures that manage food waste. Feedback was gathered from 12 people in 10 organizations, including local government, non-profit, and businesses. The research for this assessment was limited and did not include obtaining feedback from all the organizations in Durham working in this field. This report estimates there are approximately 66,000 tons of food waste per year being generated. Assuming that all of them go to Sampson County Landfill at a cost of \$52.12 per ton, this is \$3.4M that the City, County, and its residents are spending to landfill this resource. Further research is necessary to accurately assess the food waste destinations from different generator types and refine the understanding of current waste management practices in Durham.

Overall, there are many activities happening in multiple fields within the community and a lot of other people that were not able to be interviewed for this assessment. There is great collaboration taking place between groups of 2-3 organizations and there is a lot of space and demand for a more structured comprehensive approach to share projects and improve communication. The individuals representing different organizations all seemed to be very interested in doing more, even those whose focus was not food waste directly. This report also outlines 16 recommended next steps ranging from developing a formal network and sharing food rescue equipment to expanding food scraps collection programs and evaluating regional composting process capacity.

Disclaimer

This report, prepared by Wanu Organics PLLC, provides a limited assessment of food waste infrastructure for Durham, NC, based on data available at the time of research. The findings and recommendations are intended to inform decision-making and are not exhaustive of all possible scenarios. Data limitations, such as the availability, accuracy, and completeness of information, may affect the outcomes presented. This report does not constitute legal, financial, or operational advice, and Wanu Organics PLLC disclaims any liability for decisions made based on its contents. Stakeholders are encouraged to use these findings in conjunction with further research to optimize their planning efforts.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
TABLE OF CONTENTS.....	ii
INTRODUCTION.....	1
GENERATION OF FOOD WASTE.....	1
EXCESS FOOD MANAGEMENT OPTIONS.....	2
ORGANIZATIONS INTERVIEWED	4
City of Durham	4
Interfaith Food Shuttle	4
Central Pines Regional Council.....	4
CompostNow.....	5
NC DEQ Division of Environmental Assistance and Customer Service (DEACS).....	5
NC IDEA	5
Happy Dirt.....	5
Duke University’s Center for Advanced Hindsight	6
Durham County, Durham Food Security Network (survey only).....	6
Durham County Soil and Water Conservation (survey only).....	6
SWOT ANALYSIS & ADDITIONAL INFORMATION	6
Strengths	6
Weaknesses.....	7
Opportunities.....	8
Threats	10
Additional Organizations.....	10
Additional Resources	11
DISCUSSION	12
RECOMMENDED NEXT STEPS	12

INTRODUCTION

The goal for this Food Waste Infrastructure Assessment of Durham is to summarize the activities happening in Durham, evaluate them, and proposed next steps to incentivize economic development to solve this issue. For this context, food waste is edible excess food and food scraps, and infrastructure is the collection of organizational networks, policies, collection vehicles, and physical structures that manage food waste. The goal is to create a baseline of activities taking place and identify opportunities for growth and encourage organizations to get involved or take further actions. This was done by obtaining feedback from 12 people in 10 organizations, including local government, non-profit, and businesses, during a short period of time. The research for this assessment was limited and did not include obtaining feedback from all the organizations in Durham working in this field. There is a section that outlines additional organizations to contact in the future.

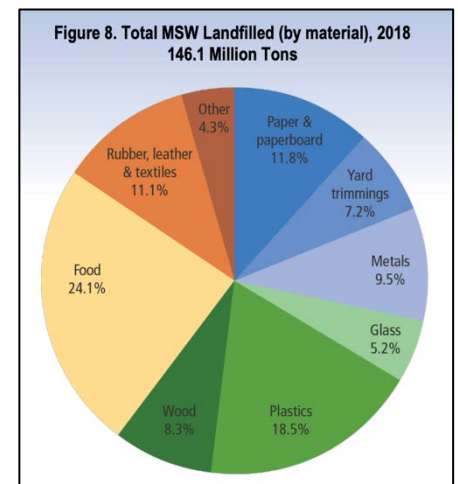
"The 2016 Durham Waste Characterization Study found that nearly 30% of the products going to the landfill could have been composted." – City of Durham Solid Waste Management Survey Results

This assessment was funded by Reviville Development Partners LLC and developed by Jorge Montezuma, PE, Principal Consultant at Wanu Organics PLLC. For comments and questions, please email jorge@wanuorganics.com.

GENERATION OF FOOD WASTE

Trash or Municipal Solid Waste (MSW) generated in Durham goes to Sampson County Landfill (Permit No. 8202-MSWLF-2000, operated by GFL). In the most recent annual report, the landfill reported 309,075 tons of MSW originated in Durham in Fiscal Year (FY) 2023-2024. Two transfer stations located in Durham, reported their MSW was transferred to Sampson County, and it added up to 248,381 tons in FY 2023-2024¹. The additional 60,000 tons of MSW came from the contamination in the recycling stream which is managed separately. The recycling stream consists of approximately 200,000 tons of material managed at the Waste Management Transfer Station and MRF (Materials Recovery Facility) in Raleigh. This stream has a contamination rate of 30% (which comes out to be roughly 60,000 tons) and after it is removed from the recycling stream, it is managed as MSW and sent to Sampson County Landfill and attributed to the City of Durham.²

To estimate the generation of food waste, we can do simple calculation using the latest value of food waste landfilled by the EPA, see chart to the right.³ Applying the 24.1% to the amount that went to the landfill, it is estimated that approximately 74,500 tons of food waste was landfilled.

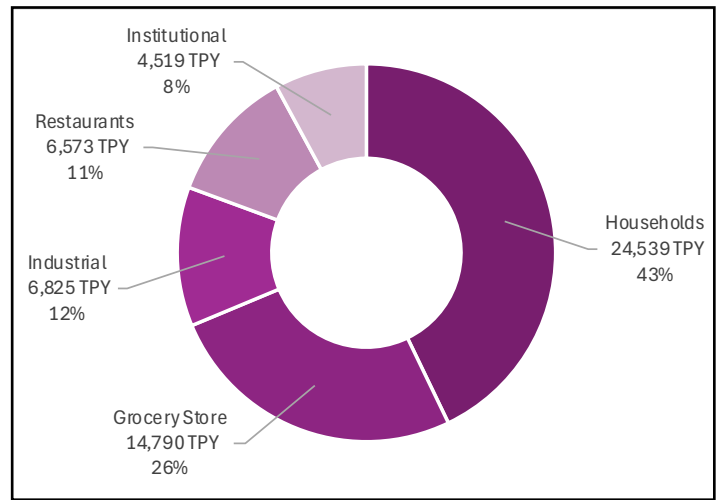


¹ NCDEQ Division of Waste Management, annual reports FY2023-2024 from City of Durham Transfer Station (3212-TRANSFER-2014, operated by the City), 146,175.30 tons, and Stone Park Court Transfer Station (Permit No. 3214T-TRANSFER-2001, operated by GFL), 102,206 tons (assumes 21,799 tons of C&D waste were not generated in Durham).

² From a conversation with City of Durham Solid Waste Management staff.

³ Advancing Sustainable Materials Management: 2018 Fact Sheet, December 2020, US EPA.

Separately, Wanu performed a food waste generation assessment in March 2024 for Reviville Development Partners. It used federal, state, and industry data and estimated that Durham produces approximately 57,245 tons of food waste per year.⁴ The chart on the right shows the breakdown by generator type in tons per year (TPY) and percentages, with households and grocery stores being the largest generators. To highlight the household calculation, NC OSBM reported a population of 334,379 (2022) and the Census reported 2.48 people per household (2023). Based on this, it is estimated that there are 134,830 households. From Wanu’s own residential food waste



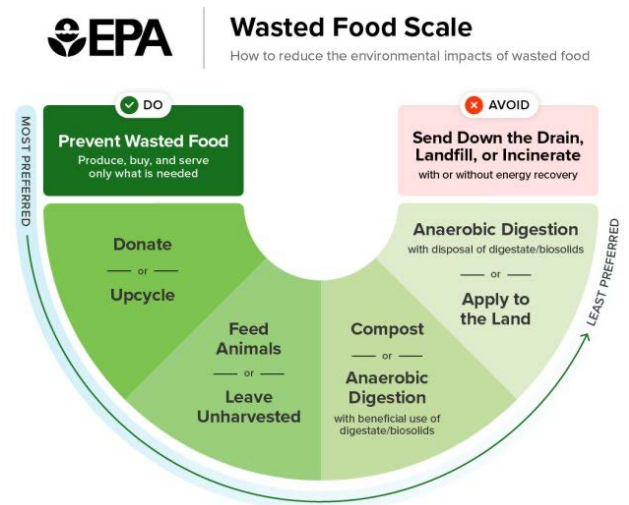
generation research, it is estimated that each household generates approximately 7 pounds per week. This comes out to be 24,539 tons per year of food waste generated at the residential level, including single family and multi-family.

Additionally, it is important to note that the City of Durham commissioned a waste characterization study using data from Fiscal Year 2014-2015 that was published in January 2016 by Kessler Consulting. Though it has information on food waste, it does not mention schools or grocery stores and it was not also able to determine the source of about 23% of waste generated. Data from this study was not used on this report but readers are encouraged to review it to learn more about how the materials were managed in the City of Durham at that time. This also shows that the City has been interested in this topic for a long time.

The EPA calculation and the Wanu assessment both yield values in the same order of magnitude, therefore, for the purposes of this report it is estimated that Durham produces roughly 66,000 tons of food waste per year.

EXCESS FOOD MANAGEMENT OPTIONS

As we dive into the topic further, it is important to highlight two diagrams to help us understand what the possibilities are with excess food. These two diagrams were developed by the US EPA and by the Institute for Local Self-Reliance (ILSR). They suggest which efforts should be prioritized. Starting with the EPA, the Wasted Food Scale was released in October 2023 and it shows the most preferred methods to manage wasted food on the left and the least preferred methods on the right. With prevention as the most preferred option. Then comes donating excess food to neighbors or upcycling foods (i.e. creating shelf-stable products). Next is the option to feed animals or leave unharvested to integrate back into soil. This is followed by composting or anaerobic digestion (with beneficial use of digestate/biosolids, i.e. turning it into soil amendment or applying them to the land). The least

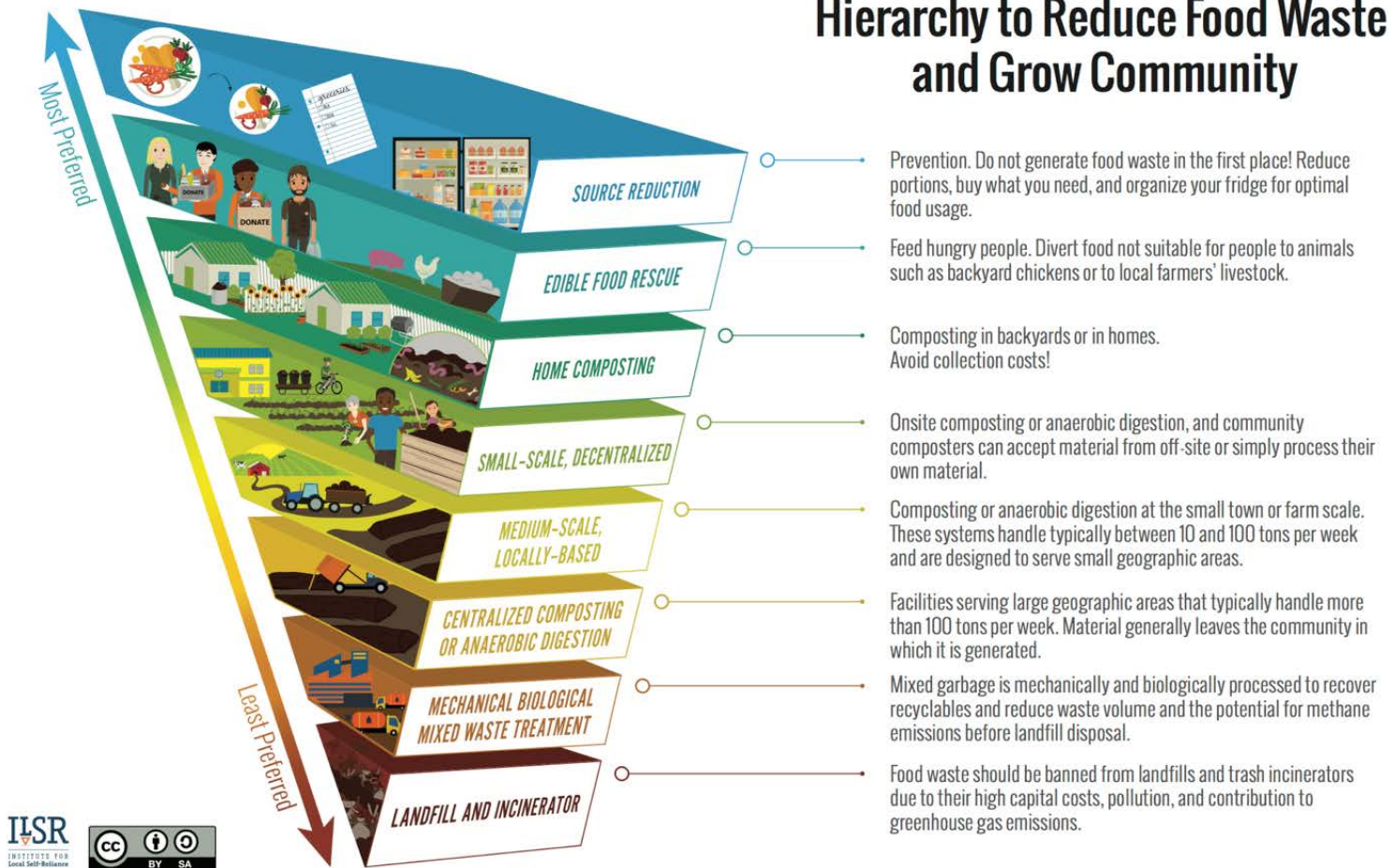


⁴ Assessment used data from the EPA Excess Food Opportunities Map, US Census Bureau, NC OSBM, NC DHHS, NC DOA, NC DA&CS, NC Report Cards, and other industry information.

preferred option is to send it to AD that disposes their digestate/biosolids in a landfill or apply the food residuals directly on the land. Lastly, the EPA recommends avoiding sending it down the drain, to the landfill, or to be incinerated.

The second diagram is by ILSR and is similar to the EPA's except that it highlights a few extra options that were not mentioned. It splits composting and AD into scales, and it recommends focusing efforts first in backyard composting, then small-scale decentralized systems for composting and anaerobic digestion, then in medium-scale systems in the 5,000 tons per year range, and lastly to focus on large centralized systems. Lastly, prior to Landfill and Incinerator, it recommends Mechanical Biological Mixed Waste Treatment to extra recyclables and organics from the MSW prior to landfill the rest of the materials.

Hierarchy to Reduce Food Waste and Grow Community



These two approaches were used as the lenses to evaluate, interview, and analyze the information to then form recommended next steps in the last section.

ORGANIZATIONS INTERVIEWED

Below is a summary of the organizations that were interviewed for the SWOT analysis and their role in this field.

CITY OF DURHAM

The city has been running a residential food waste collection pilot program for 2 years and it is currently collecting food waste from 440 residences. This pilot is being done in collaboration with the Duke University's Center for Advanced Hindsight to understand the behaviors of participants. The City's Solid Waste Management team also owns the yard waste mulching and biosolids composting operations in the City. The food waste collected is processed at the biosolids composting operation, which is run by Atlas Organics / Generate Upcycle. Additionally, the City just launched a new food waste drop off station program at two locations in partnership with CompostNow, with assistance from NC DEQ DEACS.

Staff interviewed: Wayne Fenton, Director (Solid Waste) and Muriel Williman, Senior Assistant Solid Waste Manager (Solid Waste), and Lyndsay Gavin, Innovation Manager (City wide)

INTERFAITH FOOD SHUTTLE

Food rescue non-profit organization that works with 19 partners in Durham to distribute donated food, grown food from their own farm, or purchased food from local farmers. They are part of the Feeding America network. They also work with farmers to purchase their Grade 2 produce to rescue them from leaving edible food in the field. In Durham alone they distributed 5 million pounds of food, with 51% being produce. About 90% was recovered food from the area and 10% was from outside of the County or purchased. Much of their food waste goes to hog and cow farmers, 45,000 lbs out of 10.5 million pounds total. They also introduce concepts to reduce food waste or make the most of it through their culinary programs. Collaborates closely with Eastern and Central Food Bank of North Carolina to service Durham.

Staff interviewed: Melvin Acosta, VP Operations and Logistics

CENTRAL PINES REGIONAL COUNCIL

For more than five decades, Central Pines Regional Council, former Triangle J Council of Governments, "has been educating and empowering local government through direct assistance, regional planning, and technical expertise." Central Pines hosts the Solid Waste Consortium with solid waste managers from around the Triangle. Participating members include City of Durham, County of Durham, Apex, Cary, Chatham County, Holly Springs, Raleigh, Wake County, and Orange County. They meet bi-monthly and allow solid waste departments to share insights, challenges, and solutions. This is forum that could serve to talk about topics such as this one and develop a regional approach to some common challenges that member communities are facing, such as local landfills closing, greenhouse gas emission reductions, and others.

Staff interviewed: Alex Holloway, Planner

COMPOSTNOW

For over 10 years, CompostNow has been collecting food scraps from residences and commercial entities in the County. CompostNow works with local composters to process the food scraps. They swap out full bins with clean bins and provide information to their clients related to amount of food scraps collected, greenhouse gas emissions, and give the option to clients to get free compost back or donate it. Additionally, they are working with municipalities in the Triangle, including Durham, to collect from the food waste drop off stations.

Staff interviewed: David Paull, Chief Impact Officer

NC DEQ DIVISION OF ENVIRONMENTAL ASSISTANCE AND CUSTOMER SERVICE (DEACS)

Within NC DEDEACS, there is the Recycling and Materials Management Section (RAMMS), which is a non-regulatory NC DEQ office that provides complimentary technical assistance and grants to increase recycling of various materials. RAMMS provides grant funding for businesses and local government to reduce food waste going to landfills and also works on food waste reduction campaigns at schools. DEACS provided the funds for the Durham food waste drop off stations.

Staff interviewed: Christine Wittmeier, Organics Recycling Team Lead

NC IDEA

NC IDEA empowers North Carolinians to achieve their entrepreneurial potential by offering support when and where they need it most. The organization provides \$10k and \$50k grants plus support to entrepreneurs, as well as grants from \$5-\$150k to the entrepreneurial support ecosystem in North Carolina. In the past they have awarded grants to the Piedmont Food Processing Center, the N.C. Network of Incubator Kitchens, and WE Power Food, and various food-related companies including a firm that gleans “ugly” produce and berries.

Staff interviewed: Ben Redding, Chief Financial Officer

HAPPY DIRT

Happy Dirt is an organic produce grower and distributor, servicing customers in the Southeast and beyond. Besides from working with farmers in the Triangle to market and distribute their products, they also work with farmers to identify potential market outlets for Grade 2 produce so that it is not left in the field. All their produce comes through Durham to be distributed. Happy Dirt also provides food to a privately funded rural food bank that gets Grade 2 produce and they helped them get cold storage. Lastly, they have also worked with a client to add Grade 2 produce into their kitchen by creating a smooth process for everyone involved from the farmer packaging the produce to the accountant paying the invoices.

Staff interviewed: Sandi Kronick, CEO and Co-Founder

DUKE UNIVERSITY'S CENTER FOR ADVANCED HINDSIGHT

Co-leads the residential food waste collection pilot, researches the behavior of the participants, and works with the City to evaluate expansion of the pilot program.

Staff interviewed: Joseph Sherlock, PhD, Principal Behavioral Scientist

DURHAM COUNTY, DURHAM FOOD SECURITY NETWORK (SURVEY ONLY)

Works to unite efforts and transform systems to ensure that all people have access to enough safe and nutritious food. The Network came into existence during COVID-19 and helped get emergency food contracts, worked with community partners, and gave out masks and other supplies. Through this work, Durham County spent more than \$1 million to help provide food for people in need.

Staff surveyed: Raina Goldstein Bunnag, Durham Food Security Network Coordinator

DURHAM COUNTY SOIL AND WATER CONSERVATION (SURVEY ONLY)

Involved in the Durham Food Security Network. Has connected vermicompost business with pantry to obtain excess food waste and Farmer FoodShare waste is being picked up for food by farmer for pig food.

Staff surveyed: Sherry Scully, Ag Development Coordinator

SWOT ANALYSIS & ADDITIONAL INFORMATION

This section provides summarized responses for the SWOT Analysis from the interviewees. A SWOT Analysis is a framework used in strategic planning to evaluate an organization, business, or activity. It dives into 4 distinct elements: Strengths, Weaknesses, Opportunities, and Threats. The first two (Strengths and Weaknesses) are elements related to what is already taking place within the Food Waste Infrastructure in Durham. And the last 2 (Opportunities and Threats) are elements related to what Durham could use to improve its activities or protect its activities from. Wanu used this framework to interview diverse participants who play various roles within the Food Waste Infrastructure in Durham. This information assisted in creating the Recommended Next Steps. Additionally, the interviewees shared additional organizations and resources that were added at the end of this section.

STRENGTHS

GENERAL

1. A lot of people already working on this topic or interest (this was mentioned by most of the people interviewed). Critical mass of aware people, strong aspect of how people operate.
2. Existing committed network that is open to talking with one another and to collaborate.
3. Overall community desire to make things happen.

4. In general, City tries to be innovative and entrepreneurial, has a good mix of companies, and has a unique culture around startups.
5. Cost to dispose of waste being a driving force to use the food waste.

FOOD RESCUE AND FOOD WASTE PREVENTION

6. Active network that rescues food (Interfaith Food Shuttle (IFFS) and Food Bank of Eastern and Central North Carolina (FBECNC), and their distribution partners, grocery stores, and farmers).
7. Phone app “Too Good to Go” is active in Durham. People can sign up to get discounted food from restaurants and coffee shops.
8. IFFS provides blankets and thermometers to manage foods through refrigeration.
9. The FarmLink Project started brokering Grade 2 produce (also a weakness for existing food rescue organizations).

COMPOSTING

10. CompostNow, a private company, providing residential and commercial food scraps collection services has been active for over 10 years in Durham.
11. Recollective is a new company that has started to collect residential food scraps.
12. Residential food waste collection pilot led and managed by the City (collection) in partnership with Duke University’s Center of Advanced Hindsight (behavioral study) and Atlas Organics (composting).
13. City owns the composting operation where the food waste from the pilot is being processed (by Atlas Organics) and turned into Class A exceptional quality compost.
14. Backyard composting efforts are underway. In May 2024, 60 units were provided at cost by the City.
15. City Council has been supportive of initiatives.
16. There is trust between government and the private sector.
17. Food truck rodeos with waste sorting by Keep Durham Beautiful and CompostNow.
18. Saturday farmer’s markets drop off station with Recollective.
19. The community wants curbside collection, initial residential pilot survey gathered 4,500 responses: 88% were very or moderately familiar with composting and 47% were currently composting at their homes or through a pick up service.
20. Durham Public Schools working 9 schools to pilot food scraps collection project with CompostNow.
21. Regional appetite to do something together across municipalities.

WEAKNESSES

GENERAL

1. Volume and expense to transport.
2. Food waste as food scraps is an expense for residents (also an untapped resource).
3. No coordinated/comprehensive food waste infrastructure.
4. Lack of systematic communication across multiple organizations to work on larger projects.
5. City has not had a staff position focused on education outreach.

6. Many businesses in this field need more business knowledge. There are a lot market factors that create inefficiencies but do not necessarily create good business ventures.
7. Need more support from larger entities to take this to the next level, this goes beyond the City and Duke University. Need more buy-in at the higher level to prioritize this topic.

FOOD RESCUE AND FOOD WASTE PREVENTION

8. Lack of resources for food safety. Pantries do not have on-site equipment or trucks to keep foods refrigerated. Or they may be able to get trucks donated, but there is a lack of funds to maintain the equipment.
9. Not enough education to get people to not throw away food.

COMPOSTING

10. Confusion on food service packaging products, what is compostable versus not compostable, lookalike products.
11. Lack of spaces and funding to develop composting infrastructure.
12. Margins of food waste collection are very low and it is hard to expand access.
13. Slow development of the residential pilot program.
14. No city pilot for commercial entities.
15. Limited composting processing capacity in the City composting operation.
16. Contamination in the non-food waste recycling stream takes the City staff considerable amounts of time.
17. Non-food waste recycling is not clear.

OPPORTUNITIES

GENERAL

1. Durham's landfill closed in 1994 and the City has to rely on transferring waste out of county. The City is currently paying \$52.12 per ton to send waste to Sampson County landfill from the City's Transfer Station (contract managed by GFL), this includes transportation and landfill tip fee. The tip fee to manage food scraps at the biosolids composting facility is \$33.72 per ton (contract managed by Atlas Organics).⁵
2. Durham's MSW goes to Sampson County Landfill, a regional landfill. Its projected service life is 10-12 years (2034-2036)⁶. This should open the conversation to create regional approach to waste management by Triangle governments.
3. Focus on consumer food waste prevention.
4. Eagerness from local government staff and community to improve infrastructure.
5. Find ways to incorporate other City priorities into solutions for food waste reduction, upcycling, and recycling.
6. Schools could lead in the development of some policies and actions.
7. Sporting events have a lot of waste that could be redirected.

⁵ Conversation with Wayne Fenton, Solid Waste Director, City of Durham. This information is publicly available.

⁶ "Capacity of North Carolina Landfills – NCDEQ's Annual Report" Presentation to Environmental Review Commission Feb 7, 2024 by NCDEQ Division of Waste Management

8. Use the existing enthusiasm around health and entrepreneurship to tackle this topic and figure out how address underemployed communities.
9. Durham is part of a huge agricultural state, and this should help us be more food forward.
10. Connect more with universities to see if there are any innovations that could be commercialized to help with this.
11. There are rural entrepreneurship efforts that could help urban areas in some ways.
12. Larger centralized hub to discuss this topic.
13. Untapped potential in business community.
14. More education around this topic.
15. More transportation options to move these resources.

FOOD RESCUE AND FOOD WASTE PREVENTION

16. Share food rescue equipment between organizations to get more organized and distribute more food.
17. A lot of volunteers activated through various projects as well as organizations willing to go the extra mile.
18. Agricultural cooperatives are forming in Nashville and Edgecombe and farmers around Durham could learn from those new initiatives.
19. More kitchens and businesses that can turn excess produce into shelf-stable products.
20. Use health inspectors to provide information about food waste reduction, food rescue, and composting to commercial kitchens.
21. Expand on the work to rescue food at the retail level.
22. Food hubs collaborating with food banks to obtain USDA LFPA grants and grants to purchase locally grown food, target Grade 2 produce as well.

COMPOSTING

23. A lot of trucks are coming into transfer station, if food waste is collected separately, this could have a positive impact in the traffic at the transfer station.
24. Neighbor Orange County has been running a commercial food waste collection program for years and there may be some things to learn from it that could be applied in Durham.
25. Composting Infrastructure Grants: EPA ([Climate Pollution Reduction Grant](#)), USDA ([Composting and Food Waste Reduction Cooperative Agreements](#)), and NCDEQ ([various](#)).
26. City to work with the private sector on food waste collection to expand access and programs.
27. Build on the momentum by Green to Go to add more sustainable practices. Some restaurants feel frustrated that their foodservice compostable packaging is going to the landfill.
28. Expand residential pilot program.
29. Compost use by the City and County departments.
30. Work with planners to find potential locations to site composting operations.

THREATS

GENERAL

1. Increase in population and urban sprawl leading to fewer spaces to site composting operations.
2. Other priorities could deprioritize food waste reduction and recycling efforts from getting the funding that is needed.
3. Lack of staff throughout organizations could prevent project evaluations and expansions.
4. Lack of funding.
5. Potentially new mayor, how will this change the priorities and some of the work currently underway?
6. Election cycle national and statewide and the impact it could have.
7. Ease of throwing away trash.

FOOD RESCUE AND FOOD WASTE PREVENTION

8. Existing funding not being able to be renewed in future years to continue the work.
9. Varying hot food regulations can be challenging, between Feeding America, state, and local rules.

COMPOSTING

10. Relying on grants to fund needed infrastructure.
11. Finding a site that is suitable to build composting infrastructure.
12. Contamination coming in from the food waste drop off stations could limit its expansion.

ADDITIONAL ORGANIZATIONS

This is a list of additional organizations and people that were mentioned during the interviews. This list should be kept in mind as additional efforts move forward:

- Tanya Dautlick, Keep Durham Beautiful
- Chrissie Koroivui, Durham County
- Kelly Crane, Farmer Foodshare
- Deborah Hill, Duke University – World Food Policy Center
- Eric Hallman, Piedmont Food Processing Center and NC Network of Incubator Kitchens
- Bryce Brooks, Recollective
- Linden Thayer, Durham Public Schools
- Atlas Organics and Don't Waste Durham

ADDITIONAL RESOURCES

This is a list of additional resources mentioned during the interviews. This is not an all-inclusive list of all the activities happening in Durham.

Sharewaste, online platform to match food scraps with backyard composting	https://sharewaste.com/
NC Network of Incubator Kitchens	https://www.ncnik.org/
WE Power Food	https://www.wepowerfood.org/
NC DEQ Guide: Prepared Food Recovery for Food Donors	https://www.deq.nc.gov/food-donors-sop-safe-plates/open
Farmer Foodshare	https://www.ncfoodhubs.org/meet-the-nc-hubs/farmer-foodshare
Food Rescue US – Durham	https://foodrescue.us/about/our-locations/
How to Reduce Food Waste: Self-Assessment Guide for NC Businesses	https://www.deq.nc.gov/environmental-assistance-and-customer-service/self-assessment-guide-nc-businesses/download?attachment
Food Waste Reduction Strategies for NC Dining	https://www.deq.nc.gov/serve-smart-webinar-presentations-62524/download?attachment
Webinar, Use the Food NC	https://www.deq.nc.gov/about/divisions/environmental-assistance-and-customer-service/recycling-and-materials-management/use-food-nc/use-food-nc-businesses#Pre-ConsumerWaste-11365
Durham Community Fridges	https://www.durhamcommunityfridges.com/
NRDC Save the Food - Ad Campaign	https://savethefood.com/
NC Food Waste Policy Gap Analysis and Inventory, NRDC, October 2021	https://www.nrdc.org/sites/default/files/nc-food-waste-policy-gap-report.pdf

DISCUSSION

This report estimates there are approximately 66,000 tons of food waste per year being generated. Assuming that all of them go to Sampson County Landfill at a cost of \$52.12 per ton, this is \$3.4M that the City, County, and its residents are spending to landfill this resource. However, more research is needed to understand where industrial and commercial food waste generators are sending their food waste.

Overall, there are many activities happening in multiple fields within the community and a lot of other people that are involved in other ways that were not able to be interviewed for this assessment. There is great collaboration taking place between groups of 2-3 organizations and there is a lot of space and demand for a more structured comprehensive approach to share projects and improve communication. The individuals representing different organizations all seemed to be very interested in doing more, even those whose focus was not food waste directly.

RECOMMENDED NEXT STEPS

The recommended next steps are a blend of information from the interviews and their analysis. Their order does not mean prioritization or imply that some ideas or comments mentioned elsewhere on the document should be disregarded.

1. **Develop a Formal Network** – Create a structured network to share resources, exchange project updates, eliminate duplicative services, and enhance collaboration.
2. **Integrate into Larger Conversations** – Use existing momentum to incorporate other City priorities into food waste reduction, upcycling, and recycling solutions. Explore ways to address equity through food waste discussions. Engage more universities and companies to leverage ongoing work in health and entrepreneurship to tackle this issue and address underemployment.
3. **Collaborate with Health Inspectors** – Partner with health inspectors to provide information on food waste reduction, food rescue, and composting to commercial kitchens.
4. **Expand Restaurant Participation** – Build on the success of Green to Go by encouraging more restaurants to adopt sustainable practices.
5. **Increase Upcycling in Commercial Kitchens** – Encourage more kitchens and businesses to turn excess produce into shelf-stable products (i.e. Brewery Spent Grain into flour). Collaborate with Happy Dirt to bring additional Grade 2 produce into Durham for new product creation.
6. **Start Public Ad Campaigns** – Launch public ad campaigns to educate consumers on preventing food waste, collaborating with NCDEQ and the NRDC Save the Food campaign.
7. **Share Food Rescue Equipment** – Improve communication among organizations focused on food rescue to maximize the use of resources like cold storage, fridges, refrigerated trucks, and volunteers, enhancing coordination and food distribution.
8. **Increase Food Safety Education** – Provide more food safety training for organizations and volunteers, and seek additional funding to expand these services.
9. **Reuse Fridges** – Establish a phone hotline to donate working fridges to organizations for food storage.
10. **Provide Resources for Schools to Lead the Way** – Schools can lead policy and action development in K-12 and higher education, integrating learning projects and accessing alternative funding sources.
11. **Assess Sporting Events** – Evaluate waste at school sporting events for potential redirection.

12. **Evaluate Financial Impact of Food Waste Diversion** – Assess the financial benefits of diverting food waste from transfer stations and how this could expand food waste collection access.
13. **Expand Residential Food Waste Collection Pilot** – Evaluate and expand the program city-wide and beyond, working with private sector partners like CompostNow and Recollective. Assess costs and access for different city areas.
14. **Develop Regional Composting Processing Capacity** – Collaborate regionally through the Central Pines Regional Council to identify shared infrastructure for composting. Work with planners to find locations for composting operations, whether central regional sites or smaller operations serving multiple communities.
15. **Start a Commercial Food Waste Collection Pilot** – Consider adopting a commercial food waste collection program like Orange County's.
16. **Increase Grant Applications** – As a network, evaluate available grants and develop coordinated plans to apply. Relevant grants include EPA ([Climate Pollution Reduction Grant](#)), USDA ([Composting and Food Waste Reduction Cooperative Agreements](#)), and NCDEQ ([various](#)).