

2026

Waste Management

Elon Dining

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ELON DINING WASTE MANAGEMENT

Introduction

Elon Dining prioritizes partnerships with local food systems while also maintaining a strong hold on recycling and composting initiatives.



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Supply Chain
Overview01



Elon Dining Waste Management as a Supply Chain

- ▶ This analysis examines how food waste flows through Elon Dining as a supply chain all the way from sourcing to final disposal, with a focus on sustainability and efficiency
- ▶ Food waste is one of the largest sustainability challenges in campus dining systems



Responsible Sourcing & Dining Operations

Preferential
Purchasing System



Used by Elon Dining to identify food
grown and produced within 150 miles

Locally Grown



50% of Elon Dining products are bought
locally, even at Loy Farm!

Sustainable Animal
Products

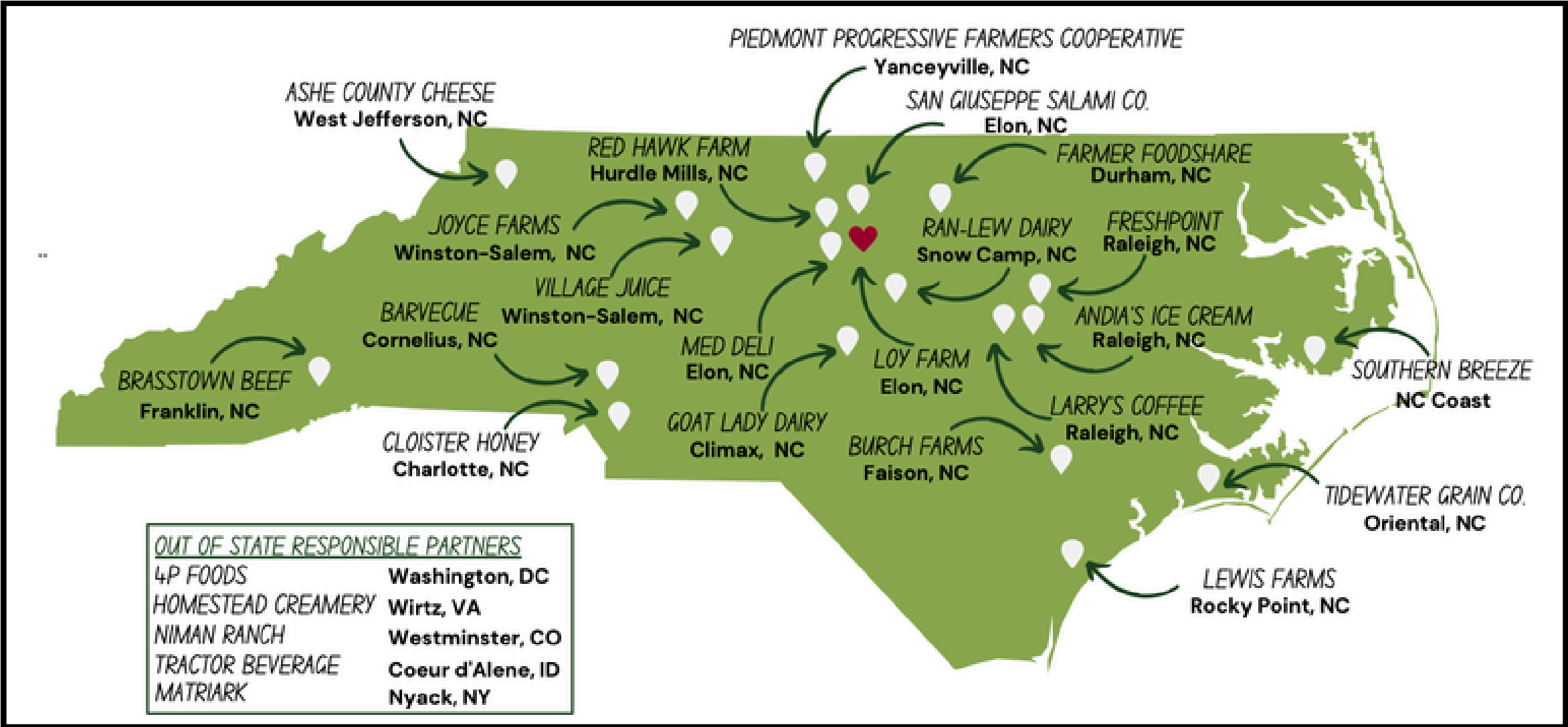


Animal proteins used from local farms are
free of antibiotics and growth hormones

“Just Try It”



An initiative in dining halls meant to help
prevent wasting extra food... “just try it!”





Pre-Consumer Waste Management

Leanpath Waste Tracking System

- ▶ Tracks food type, weight, and photos
- ▶ Identifies trim waste, expired items, overproduction
- ▶ Data is used by chefs & sustainability team

Goal?

Reduce waste before service



Consumption

76 % of Food Waste is Post- Consumer (Plate Waste)

Post-Consumer Waste

- ▶ Largest Source of Food Waste
- ▶ Occurs After Food is Served
- ▶ Driven by Student Behavior
- ▶ Harder to Control than Kitchen Waste

Preventative Initiatives

“Just Try It”

“Pick Your Portion”

Trayless Dining



Sorting

Compost



Elon Dining diverted 231.5 tons of organic material from landfill & created 23 tons of compost

Recycling



Elon University & Elon Dining recycle pre-consumer plastic, paper, cardboard, and aluminum

Landfill



Campus figures for 2024-2025 show 1,100 tons of residual waste went to landfill sites

Reusable
Initiatives



Green to-go boxes are available for check out at all Elon dining halls and participating retail locations



Final Destination + Insight

System Strengths

- ▶ Strong Waste Diversion
- ▶ Data-Driven Kitchen Efficiency
- ▶ Sustainability Integrated into Operations + Sourcing
- ▶ Cost Savings through Waste Reduction & Reusables

Destinations

CompostNow - Goldston, NC

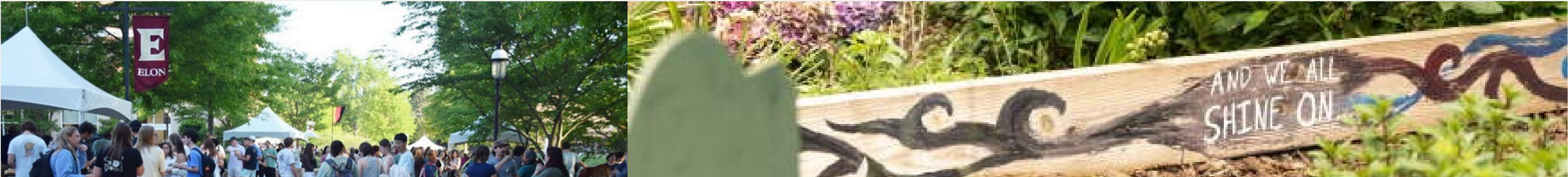
Regional Recycling Processing

Contaminated / Non-Recoverable Waste

Used Fryer Oil - Converted into Biodiesel

Key Challenges

- ▶ Post-Consumer Waste Dominates
- ▶ Contamination Risks in Sorting
- ▶ Heavy Reliance on Student Behavior



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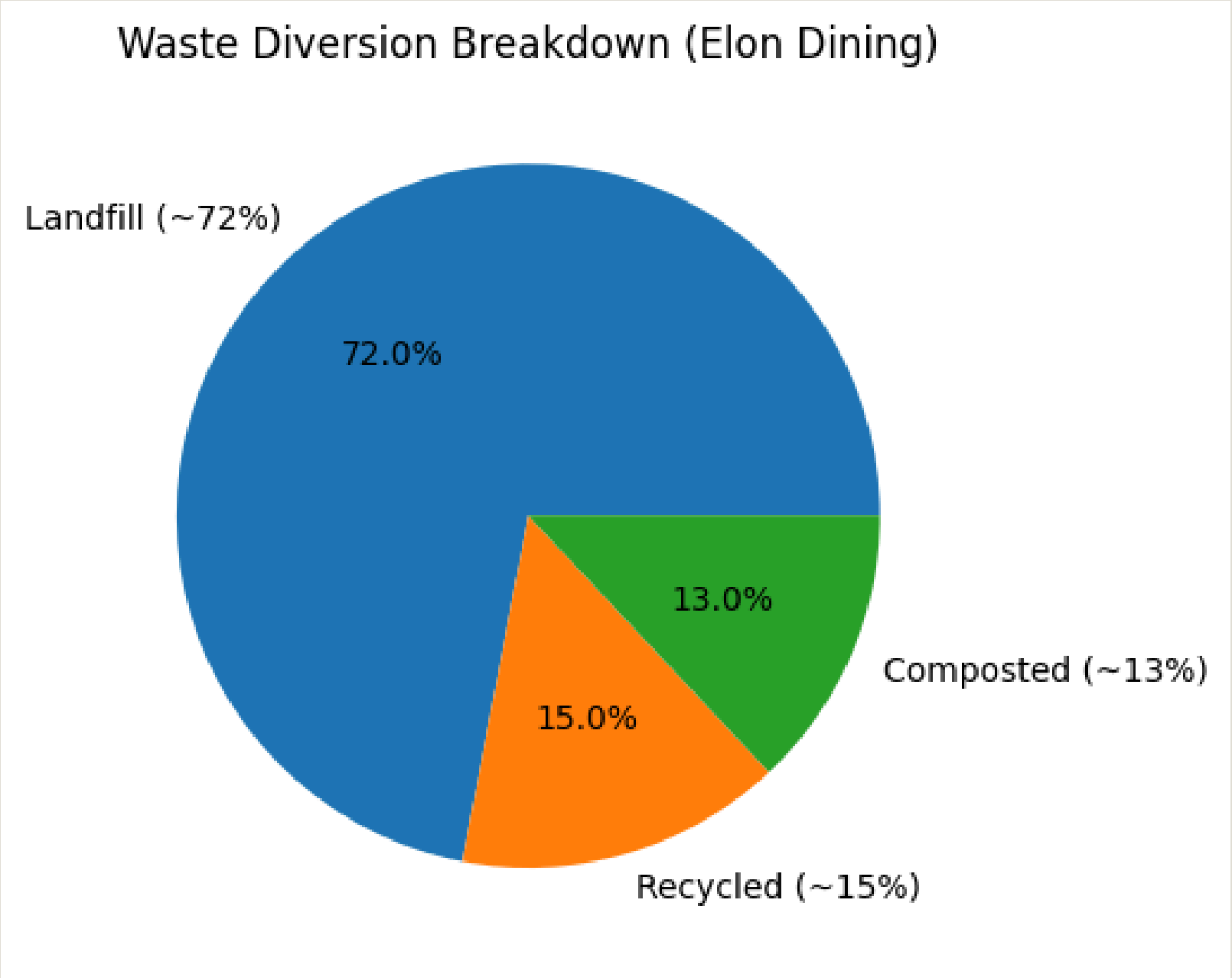
Performance
Measurement02



Peformance Measurement Overview

To analyze Elon Dining's waste system, we used both supply chain metrics and sustainability measures from the Sustainability Tracking, Assessment & Rating System (STARS) report and dining data.

- Elon produced about 1,523 tons of waste in 2024–2025, with 236 tons recycled and 187 tons composted.
- This results in a diversion rate of about 27.8%, meaning over 70% of waste still goes to the landfill.
- Elon's goal is to reach 50% diversion by 2030, so the system is currently only about halfway to that target.
- Additional measures, like waste per student and sorting efficiency, help show how well the system performs in daily operations.





Operational Strengths

Elon Dining uses a system called Leanpath, which tracks food waste in real time.

- Leanpath allows kitchen staff to adjust how much food they prepare, improve their menu planning, and avoid overproducing food.
- Only about 24% of total food waste happens before food is served, which shows that the kitchen side of the system is well managed.
- This also helps reduce costs, because less wasted food means they're not spending extra money on ingredients or labor that isn't needed.



Post-Consumer Waste

The Greatest Challenge

- While Elon Dining performs well in the kitchen, performance becomes much weaker after food is served, which is the biggest problem in the system.
- About 76% of food waste comes from students not finishing their food . This means most waste happens after food is served, not during preparation.
- Even though Elon has strong systems in place before food reaches students, those systems cannot fully control what students choose to take or throw away



Overall, this shows that student behavior plays a major role in sustainability, and it is the hardest part of the system to control.

Overall Performance and Key Insight

- Elon Dining's waste system is well designed, but its success depends heavily on student behavior.
- The system does a strong job managing costs, improving kitchen efficiency, and offering sustainable options like composting and reusable containers.

To improve performance, Elon will need to focus more on reducing waste after meals and helping students make better choices when taking and throwing away food.



Trade-Off Analysis 03



Trade-Off 1: Data-Driven Kitchen Control vs. Post-Consumer Behavior

Where Should Resources Be Focused?

- Leanpath technology targets pre-consumer (kitchen) waste
- Pre-consumer = only 24% of total food waste
- Post-consumer (plate waste) = 76% of total food waste
- "Just Try It" and "Pick Your Portion" are the only post-consumer tools- and they're limited in reach



Trade-Off 2: Catering Overproduction vs. Demand Unpredictability

The trade-off Leanpath can track but can't solve

- Dining halls use batch cooking to monitor guest behavior in real time and adjust production on the fly, making overproduction manageable
- Catering has no such flexibility-- food must be fully prepared in advance based on an attendance estimate that is frequently inaccurate
- Our interview identified catering overproduction as the kitchen's single biggest waste generator and the hardest part of the operation to control



Trade-Off 3: Composting Expansion vs. Contamination Risk

More access creates more problems

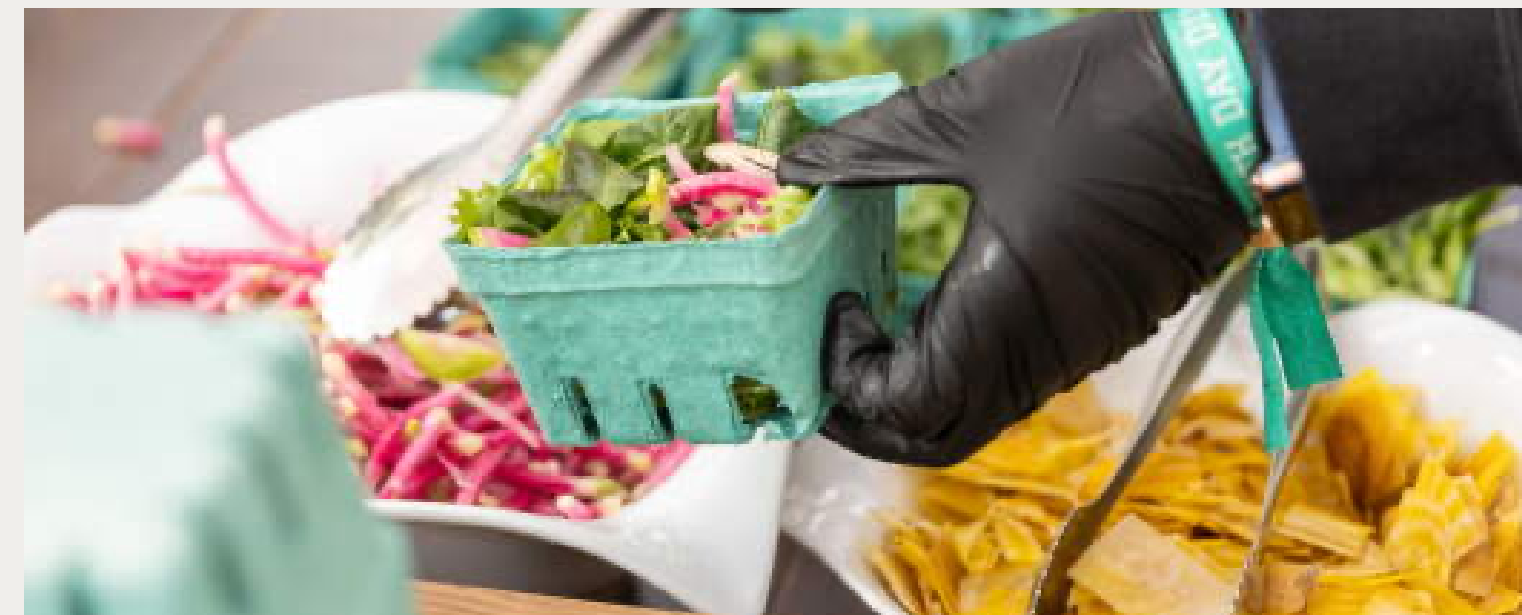
- Adding more composting bins across campus would increase diversion potential, but also increases the risk of students placing non-compostable items in the wrong stream
- When loads are contaminated, CompostNow cannot process them, and the sole fallback is GFL Environmental and the landfill
- A single contaminated load doesn't just weaken the system, it sends material meant for composting to exactly the place the program is designed to avoid
- Elon has responded by deliberately limiting bin locations in certain areas, prioritizing load quality over broader access



Trade-Off 4: Ambitious Diversion Goals vs. Current Reality

The 50% by 2030 gap

- Elon has publicly committed to diverting 50% of campus waste from landfill by 2030 as part of its university-wide sustainability master plan
- The current diversion rate sits at only 27.8%, with 1,100 out of 1,523 total tons still going to landfill, meaning the goal requires roughly doubling performance in five years
- Closing that gap demands both infrastructure investment and meaningful student behavior change, two things that are difficult to scale and that can sometimes work against each other
- The fastest path to higher diversion numbers directly conflicts with the contamination controls that keep the composting program functional



Conclusion 04





Recommendation: Improve Waste Sorting Through **Clearer** Signage

Update Waste Diversion Signage Across Campus

- ▶ Color-coded bins
- ▶ Visual guides (photos of items)
- ▶ Clear compost / recycle / landfill labels
- ▶ Consistent signage across all dining locations

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THANK YOU!

QUESTIONS?

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