

# UNIVERSITY OF GEORGIA



ZERO WASTE ATLAS CAMPUS ASSESSMENT 2021



Post-Landfill Action Network

# TABLE OF CONTENTS

<b>Introduction</b>	<b>3</b>
<b>Zero Waste Scorecard</b>	<b>8</b>
<b>Program Scoresheet</b>	<b>9</b>
<b>Scope 1 - Hard Goods: Surplus &amp; Hard-to-Recycle Materials (HRM)</b>	<b>12</b>
Hard Goods Infrastructure & Programs	13
Surplus: Expand Capacity (Infrastructure and Staffing) for Campus-Wide Management of Surplus Property and Material Donation	13
HRM: Expand Capacity of Campus Wide Management of Hard-to-Recycle Materials (HRM)	16
Programs: Thrift Store & Residential Halls	19
Hard Goods Policy	20
Hard Goods Bin & Signage Standardization	23
<b>Scope 2 - Soft Goods: Food, Plastic &amp; Compost</b>	<b>25</b>
Figure: Campus Dining Facilities and Food-Service Vendors	26
Soft Goods Infrastructure & Programs	27
Expand Reusable Dishware, To-Go Ware, and Access to Reusables	27
Expand Capacity for Food Recovery and Food Waste Minimization to All Food-Service Facilities on Campus	30
Expand Capacity of Compost Program and Eliminate All Single-Use Disposable Plastics	32
Other Programs and Initiatives	34
Campus-Wide Soft Goods Policies and Zero Waste Events/ Policies	36
Soft Goods Policy	36
Zero Waste Events	39
Accessibility Policy	42
Soft Goods Bin & Signage Standardization	43
Standardize Collection Systems, 3-Bin Systems, Eliminate Unpaired Bins, and Establish Liquid Collection	43
<b>Conclusion</b>	<b>46</b>
<b>Acknowledgements</b>	<b>47</b>

# INTRODUCTION

In Spring 2021, the University of Georgia's Office of Sustainability hired the [Post-Landfill Action Network](#) (PLAN) to support two Zero Waste Interns, Avery Lumsden '21 and Benji Holmes '21, to conduct a holistic assessment of the University's waste management system. UGA's 2020 Strategic Plan called for a 65% reduction in landfilled waste, but the University fell far short in reaching this goal. UGA remains committed to reduce waste sent to landfill and to change the ways the campus purchases and manages goods to be in the best interests of the environment and UGA. The following report is intended to identify concrete steps that UGA can take to shift towards holistic zero waste systems.

UGA's student interns used PLAN's Atlas Zero Waste Assessment - a project designed to help campuses assess and streamline campus systems for materials management - to collect the information used to inform this report. This report offers a snapshot of existing programs, services and infrastructure, illustrates ideal material flows throughout a campus, and proposes recommendations to fill the gaps identified during the assessment. While this Atlas assessment provides numerous suggestions based on its assessment of the capacity of existing campus systems and best practices from other campuses, campus stakeholders must ultimately decide on the exact path the University takes to achieve zero waste. [Numerous resources](#) are available to UGA as a PLAN member campus to guide it in making these decisions.

Note: This report is currently being produced during the COVID-19 Pandemic when most colleges switched to virtual learning. All systems were assessed as they were pre-COVID-19. Concerns and questions about Reuse Programs and the COVID-19 pandemic are addressed in [this fact sheet](#).

Terms used in this report can be found in the [Atlas Glossary of Terms](#).

*This report was prepared for the University of Georgia by the Post-Landfill Action Network, a non-profit zero waste advising organization based in Dover, New Hampshire. Any views, thoughts, or opinions expressed in the text belong solely to the Post-Landfill Action Network and do not reflect the views of the University of Georgia.*

© 2021. Post-Landfill Action Network. All rights reserved.

# ASSESSMENT PROCESS

The student interns were trained by PLAN’s Atlas team on the findings and theories that originally informed PLAN’s Zero Waste Atlas Program, and on the interview process central to the assessment. They used PLAN’s Atlas Stage 1 Campus Programs Checklist to complete in-depth interviews with 33 representatives from various campus departments, documenting and gathering data through a series of yes/no questions on the current infrastructure, policies, and communication channels related to the University’s waste mitigation and management. A complete list of the interviewed representatives can be found in the Acknowledgements section of this report.

Following data collection, PLAN’s Atlas team scored the campus checklist - points are awarded in accordance with [the zero waste hierarchy](#), with **3 points** awarded for source reduction initiatives, **2 points** for reuse initiatives, and **1 point** for recycling/compost initiatives. The campus was awarded an overall score, scores for the two major systems of campus materials management described in the following section, and specific programmatic scores, which are all collectively used to guide this report.

## METHODOLOGY - MATERIAL MANAGEMENT SCOPES

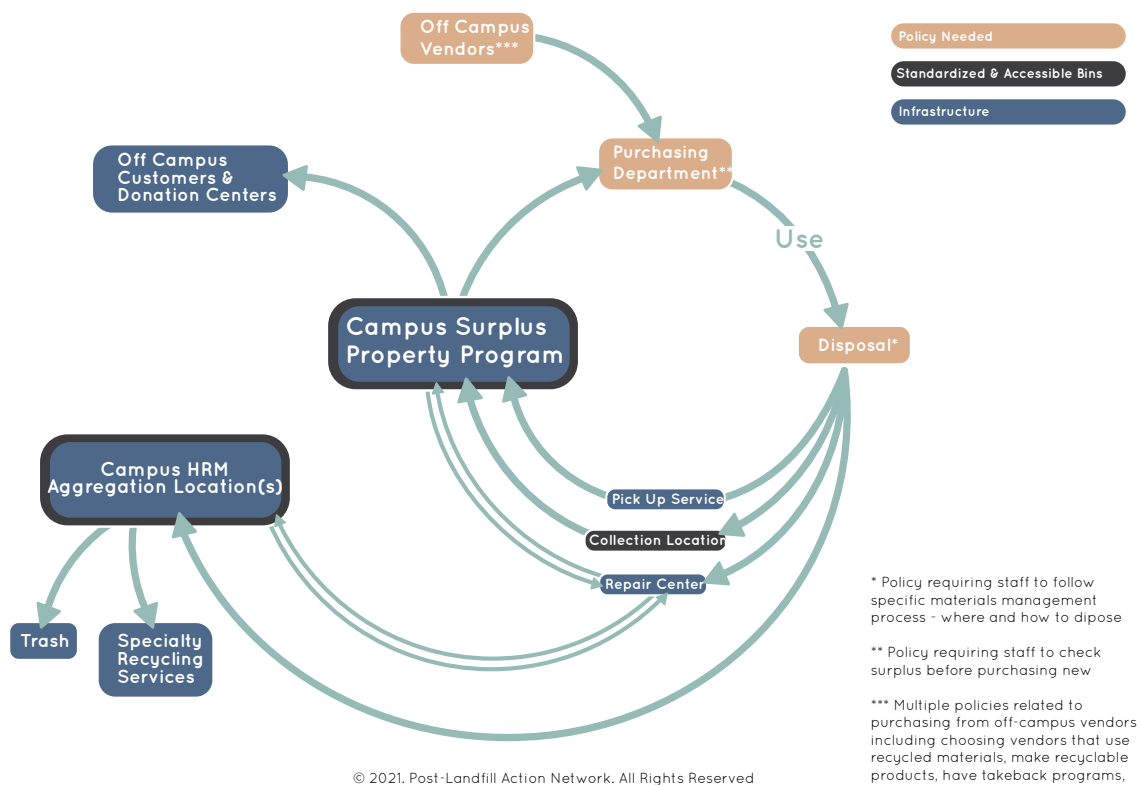
<b>SCOPE 1 HARD GOODS</b> Surplus Property and Hard-to-Recycle Materials	<b>SCOPE 2 SOFT GOODS</b> Food and Single-Use Materials
Materials the campus has direct control over	Materials the campus purchases, but has limited control over which bin the material is placed in
Electronics Furniture Office Supplies Lab / Art Equipment Vehicles / Tires / Oil Chemicals / EH&S Facilities / C&D	Food Waste Food Packaging Disposable Dishware Disposable To-Go Ware Compostable Dishware Compostable To-Go Ware Reusable Dishware Reusable To-Go Ware

[The Zero Waste Atlas project](#) is unique in that it does not simply measure waste outputs, but instead looks holistically at the entire campus materials management system from purchase to use to collection to disposal.

In **Scope 1 - “Hard Goods”**: We assess the materials management system for all materials the campus has direct control over - namely, items that the campus purchases, manages, uses, and maintains ownership over, and is ultimately fully responsible for the method in which they are discarded. Below is an **example** of how a campus would manage materials in an ideal version of this system. You can also chart the path of this item through the idealized system map provided below.

A faculty member wants to **purchase** a file cabinet. First, per **campus policy**, they check the **campus surplus property program** and other local reuse facilities before buying a new item. When reuse isn't an option, the faculty member **purchases** the file cabinet following the campus's procurement policies. Years later, when the file cabinet is being discarded - the staff member contacts the **surplus property program** to schedule a **pick-up**, and the item is picked up for free. The item is **catalogued**, listed for sale on the **University's online surplus sale site**, and possibly also on sale at a **surplus storefront**. If the item goes unsold for weeks or months, the item is **donated to the community** or sent to the **campus aggregation point for hard-to-recycle materials** - where it is stripped into parts. In this case, the file cabinet parts would go to **industrial metal recycling**.

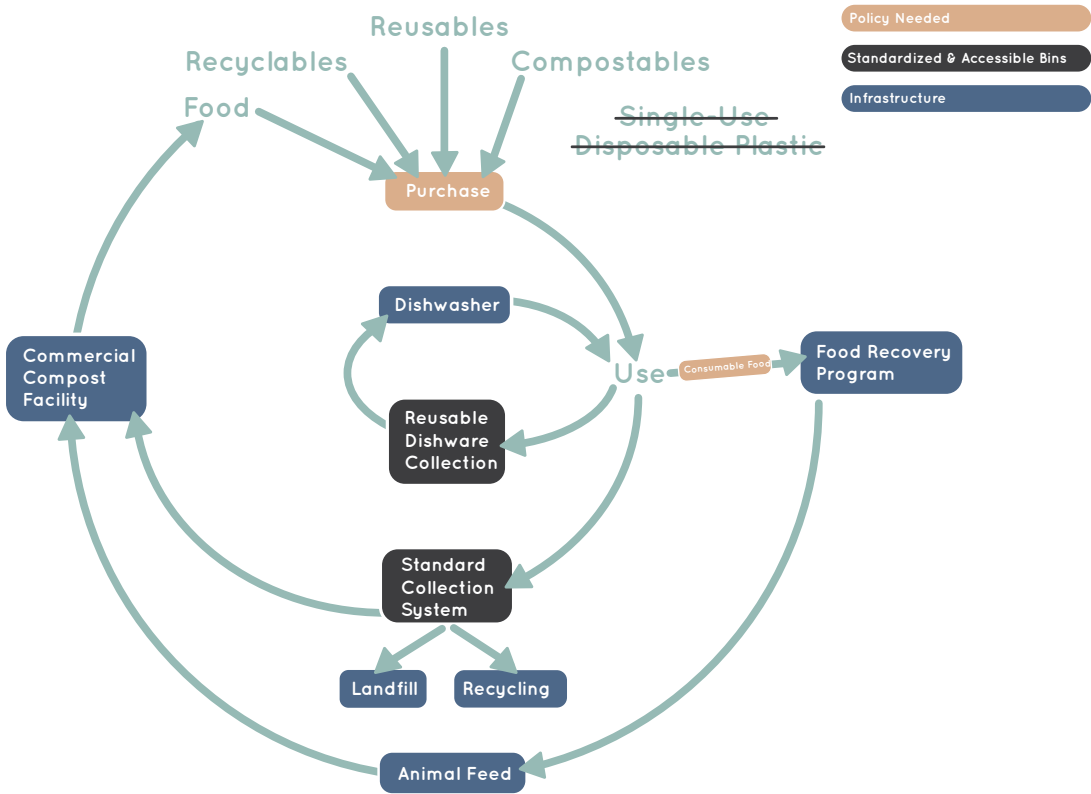
## Scope 1 - An Example of Material Flow Options Through an Idealized Version of a Hard Goods System Map



In **Scope 2 - “Soft Goods”**: We assess the materials management system for all materials that the campus purchases, but ultimately wind up in the hands of individual users, leading to limited control over which bin the material is placed in. Below is an **example** of how a campus would manage materials in an ideal version of this system. You can also chart the path of this item through the idealized example of a system map provided below:

A student purchases a coffee from a coffee vendor on campus that is required to comply with the **campus procurement policy**. The student can either get the coffee in a **reusable to-go mug** or in a **compostable cup**. The student walks across campus with their coffee, and when finished, discards their coffee container in the **standardized collection bin** for either compostable materials or reusable dishware, available in every building on campus. If compostable, the material is collected and transported to an **industrial composting facility** (either on or off campus). If reusable, the dishes are taken to a **campus dishwasher** to be washed and re-distributed back to campus food vendors.

Scope 2 - An Example of Material Flow Options Through an Idealized Version of a Soft Goods System Map



The Zero Waste Atlas project is designed to streamline campus material management systems, as illustrated by the example scenarios for Scope 1: “Hard Goods” and Scope 2: “Soft Goods.” Not addressed in this systemic analysis is a proverbial “Scope 3”, which would account for all items brought to campus (ie, not purchased by the campus) by individual consumers (faculty, staff, students, visitors, etc). We do not include these items in this assessment because the campus has no control over the purchasing of these items, and the ultimate management and disposal of these items falls under the parameters of Scopes 1 and 2. Therefore, effectively-designed Scope 1 & 2 systems will ultimately be capable of capturing Scope 3 materials. Below is an ideal version of how a Scope 3 material would be captured in this system.

A student living in a residence hall on campus discovers that their lamp is broken. They bring the lamp to the **campus repair center** (a facility assessed in **Scope 1**), where an attempt to repair the lamp is made. If the lamp cannot be repaired - the lamp is placed in a **standardized electronic waste recycling bin** which can be found in most buildings on campus.

## PROGRAM SCORING

In addition to the Hard Goods and Soft Goods Material Scopes, and the Additional Programs groupings, all of the questions in the Campus Programs Checklist were also categorized by specific program, as seen in the included Program Scoresheet, such as reusable to-go ware or residential hall initiatives. Program recommendations will be included in the same sections that assess Hard Goods Infrastructure and Soft Goods Infrastructure; note that these programs are generally smaller-scale projects versus campus-wide infrastructure projects. These scores preface the assessment and recommendations in each section and are summarized in the scoresheet included in the following pages. The scores preceded by a “+” at the top of each section indicate “Additional Programs,” meaning that they are added as unweighted extra credit to the Hard Goods and Soft Goods scores.

In some sections, findings are presented in the form of tables and can be interpreted as follows:

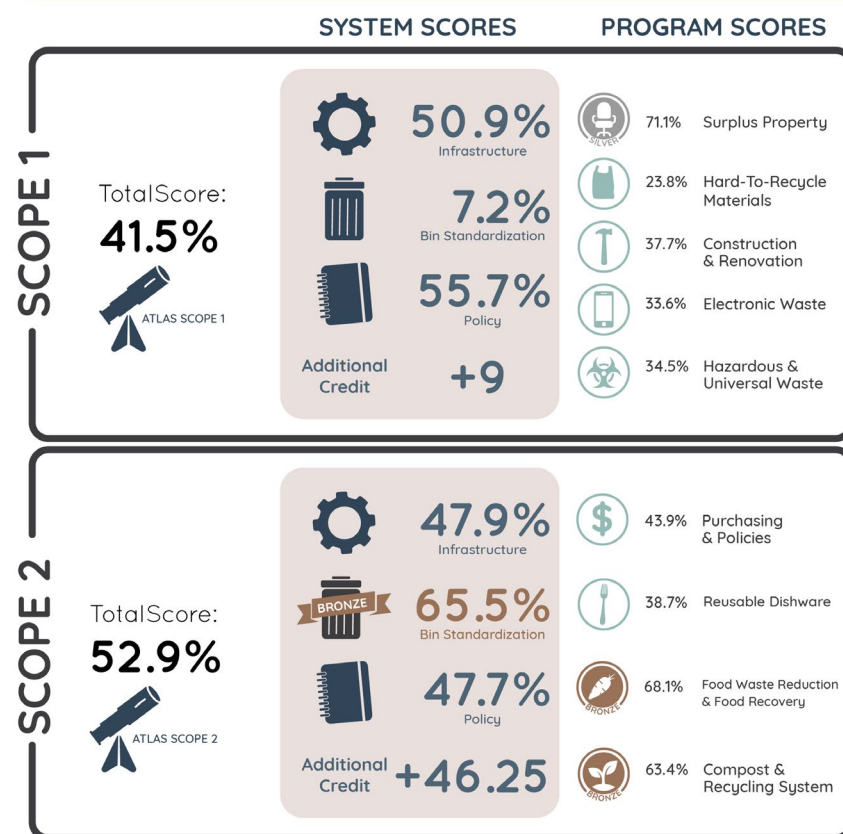
yes	full points awarded, i.e. 100% adoption across all facilities
half yes	half points awarded, i.e. facilities are still in the process of adoption
no	no points awarded, i.e. facilities have not adopted this practice and are not in the process of adopting it
n/a	question is not asked or is not applicable to this facility
+0	no extra points awarded - this is an additional credit question
+number	extra points awarded - this is an additional credit question

## OVERVIEW OF UGA'S SCORES

**University of Georgia**  
Spring 2021


**Zero Waste™ Certification**  
A Program of PLAN

**Total Score: 48.3%**





# PROGRAM SCORESHEET

	Points Given	Points Possible		Points Given	Points Possible
<b>Scope 1: Surplus Property &amp; Hard-to-Recycle Materials (HRM)</b>				<b>396</b>	<b>977</b>
<b>Surplus Property</b>	<b>175</b>	<b>246</b>	<b>Construction &amp; Renovation</b>	<b>21.5</b>	<b>57</b>
Surplus Program Policies & Communication	59	91	Construction & Renovation Policies	21.5	57
Surplus Program & Managed Materials	69	92			
Reuse & Repair of Departmental Surplus Items	24	29	<b>Electronic Waste</b>	<b>98</b>	<b>292</b>
Reuse & Sharing of Student Items	23	34	Policy Requiring Staff to Send E-Waste to Surplus/Recycling	25	33
			Procurement Policies for Purchase, Takeback & Recycling	9	27
<b>Hard to Recycle Materials</b>	<b>67</b>	<b>282</b>	Electronics Repair & Recycling	61.5	125
HRM from Specialized Facilities	62	177	E-Waste Collection Infrastructure	2.5	107
HRM Aggregation & Collection Point Accessibility	5	105			
			<b>Hazardous Materials</b>	<b>34.5</b>	<b>100</b>
			Hazardous Waste Collection & Management	34.5	100
<b>Scope 2: Compost, Food, and Plastics</b>				<b>502</b>	<b>996</b>
<b>Purchasing &amp; Policies</b>	<b>209.5</b>	<b>477</b>	<b>Reusable Dining and To-Go Ware</b>	<b>63.5</b>	<b>164</b>
Adherence to Campus Procurement Policies	76.5	167	Accessibility Policy	4	7
Policies That Favor Bulk Products Over Single-Use	64	150	Reusable Dining Ware at Sit-Down Eateries	30.5	58
Institutionalization of Zero Waste Goals & Plans	22.5	51	Reusable To-Go Ware Program	10	65
Paper Reduction & Reuse Initiatives	46.5	109	Hydration Station Availability	15	16
			BYO Program	2	7
<b>Compost/Recycling &amp; Bin System</b>	<b>172.5</b>	<b>272</b>	Collection Locations for To-Go Ware	2	11
Composting Program	17	32			
Compostable Dining Ware & Disposables	23	56	<b>Food Waste Reduction &amp; Food Recovery</b>	<b>56.5</b>	<b>83</b>
Bin Standardization	103.5	143	Food Recovery Program	26	34
Recycling	29	41	Food Waste Reduction Initiatives & Education	30.5	49
<b>Additional Credit</b>	<b>55.25</b>	<b>150</b>			
Additional Credit - Surplus Sharing Initiatives	5	12			
Additional Credit - Hard-to-Recycle Material	0	2			
Additional Credit - Hard Goods Reuse	4	9			
Additional Credit - Reusable Dishware, To-Go Ware, BYO	0.5	36.5			
Additional Credit - Food Recovery & Waste Minimization	1.5	9			
Additional Credit - Compost	1	7			
Additional Credit - Education	37.5	45			
Additional Credit - Soft Goods Policies	5	8			
Additional Credit - Liquid Collection	0.75	21.5			

PLAN's Zero Waste Atlas project has found so far that the average campus score is between 40-50%. As we expand this project to more campuses, we will continue to update [national scoring averages and standings](#) for how campuses compare with each other. Larger versions of the Scorecard (previous page) and the Program Scoresheet are [linked](#). A detailed breakdown of the campus' points can be found in the Campus Programs Checklist.

## SUMMARY RECOMMENDATIONS

We recommend that the University gather a Zero Waste Task Force or similar working group to review this report, in tandem with the goals set out in UGA's Strategic Plan and [2015 Campus Sustainability Plan](#). Following that review, we recommend working collaboratively with all stakeholders to discuss and build a strategic vision to address system-wide solutions, and create a comprehensive "Zero Waste Roadmap" for the University. The established vision may update existing goals and outline ambitious new goals that require advanced long-term strategic planning and establishment of new campus infrastructure and systems, as well as policies and standard operating procedures that may differ from the way materials are currently managed. They may also require looking into organizational restructuring to relocate and redefine program management and responsibilities, which should be coupled with ample research to make decisions around management and costs. Reliable and effective operational infrastructure and staff training are essential and will provide the foundation for advanced waste reduction efforts. Consistent with other universities, we recommend that UGA employ at least one full-time employee dedicated to advancing waste reduction initiatives. The Task Force should aim to develop a timeline to achieve measurable progress towards the following recommendations.

### SCOPE 1

- Better communicate the requirement to send state-owned property to the campus surplus program, and encourage faculty and staff to check surplus options before purchasing new items.
- Expand campus' capacity to track, store, and communicate surplus property inventory to the campus community.
- Expand campus' capacity to more efficiently collect, manage, and reallocate hard-to-recycle materials (HRM).
- Increase opportunities for students and staff to share and reuse surplus items and hard-to-recycle materials across campus.
- Establish and communicate sustainable procurement policies based off of the [Sustainable Procurement Guide](#) to guide departments with purchasing electronics and other hard goods.

## SCOPE 2

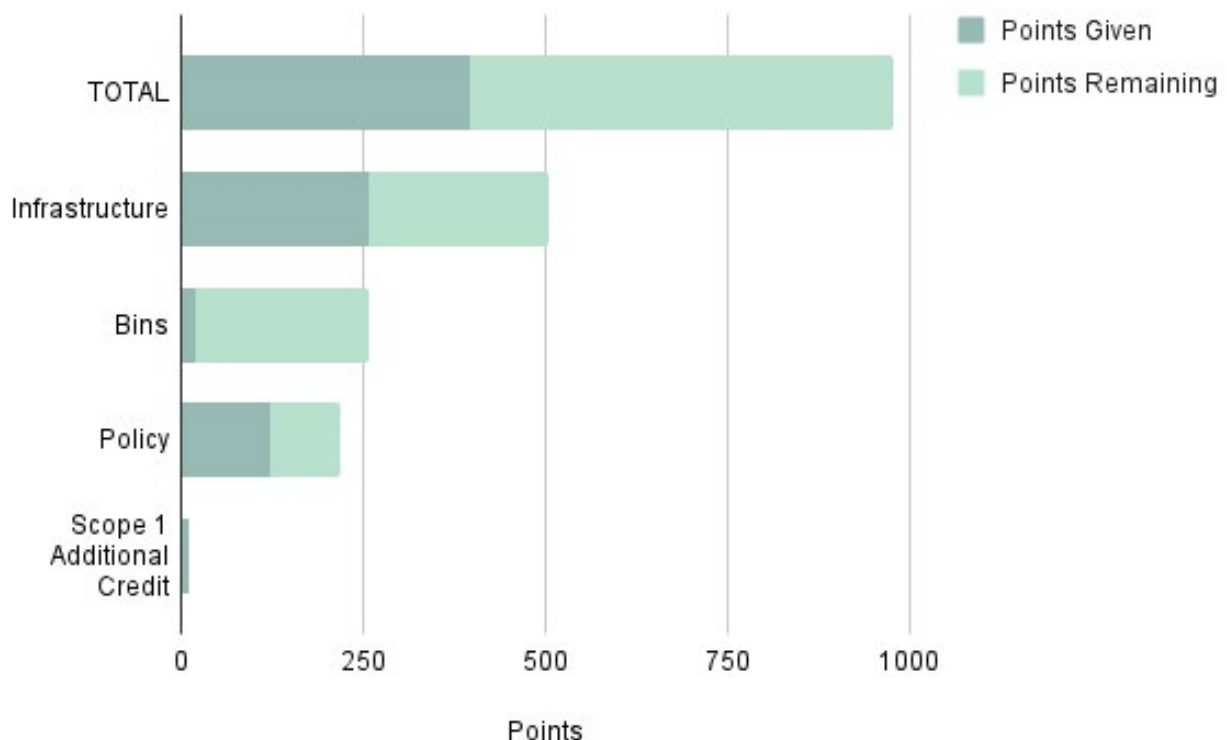
- Explore options to limit disposable dining ware usage, such as by offering reusable dining ware to all food service facilities on campus, expanding the reusable box program and/or developing a bring-your-own-container program that is universally accepted at all facilities.
- Pledge to limit single-use plastic and non-essential packaged items by signing the [Break Free From Plastic Campus Pledge](#), as well as establishing systems for bulk service and bulk purchasing.
- Establish and better communicate sustainable procurement policies and event guidelines for soft goods material management (e.g. dining ware) based off of the [Sustainable Procurement Guide](#) and in line with what items the campus can accept in its composting stream.
- Expand UGA's current composting pilot to a campus-wide system with the ability to process both food waste and compostable dining ware, and ensure universal accessibility to compost bins and collection across campus.

# SCOPE 1 - HARD GOODS: SURPLUS & HARD-TO-RECYCLE MATERIALS (HRM)

## MAP OUT INTERDEPARTMENTAL MATERIAL FLOW

An important first step to better understand connections, increase communication, and identify gaps in surplus and HRM management on UGA's campus is creating a material flow map. This should outline the movement of materials throughout the stages of purchasing, use, collection and disposal between various departments on campus. This should also outline stakeholders that interact with this process, and the logistics and infrastructure necessary throughout each stage. A simplified example of a relatively perfect system map is provided in the Methodology section - note that stakeholders are not identified in this diagram because the distribution of responsibility varies between campuses.

## HARD GOODS: ASSESSMENT & RECOMMENDATIONS



# HARD GOODS INFRASTRUCTURE & PROGRAMS

## I. Surplus: Expand Capacity (Infrastructure and Staffing) for Campus-Wide Management of Surplus Property and Material Donation

This section measures the campus's capacity in terms of infrastructure, services, and staff to fully capture surplus property from all departments

**69 / 92**

**Surplus Program & Managed Materials**

**+ 5**

**Additional Credit - Surplus**

and locations on campus, with the intended purpose of making those items available for reuse on-campus or donation off-campus, as well as non-electronic repair initiatives like textiles and furniture. The campus earned 69 of 92 total possible points for surplus management. The following table assesses whether the campus collects and manages the following surplus materials for reuse in any campus-wide capacity.

**TABLE 1: CAMPUS SURPLUS PROPERTY COLLECTION**

Table 1: Campus Surplus Property Collection	
Surplus Property	Collected by Campus for Reuse
Furniture	yes
Electronics (laptops, lab and medical, refrigerators, air conditioners, appliances, handheld devices, wires and cables)	yes
Mixed media (CD's, DVD's, etc.)	yes
Textiles (clothing, uniforms, etc.)	yes
Reusable building fixtures (i.e lighting, HVAC systems, plumbing fixtures, doors, etc.)	yes
Construction & demolition material (brick, stone, tiles, wood, shingles, etc.)	yes
Misc. household goods (dishware, decorations, school supplies, sporting equipment, etc.)	yes
Campus vehicles	yes
Books	yes
Paint & art supplies	half yes
Lab equipment*	yes
Medical supplies (e.g. crutches)*	yes
Bikes & bike parts	yes

*\*can be collected for internal reuse by specific campus department*

## Assessment

As can be seen in Table 1, the University of Georgia's campus-wide surplus property program has the capacity to collect and manage 12 of the 13 assessed materials for reuse. All reusable materials and some building fixtures from Construction projects are sent to surplus. As a state university, UGA staff is required to use a surplus property system, and this requirement is [well-documented](#) and adhered to - 29 of the 33 stakeholders for this assessment indicated that they follow this policy and send materials to the surplus property system for reuse. Assets are tracked via a submission form and advertised via an email listserv, and picking up items from the warehouse is free.

UGA's Bulldog Bike Share program was discontinued by the contracted vendor because of the pandemic, but there are six free bike repair stations on campus for personally-owned bikes. Bicycles abandoned on campus are tagged and impounded, refurbished through a partnership with Bike Athens and donated to UGA students, faculty, or staff in need of affordable transportation. Points were awarded for these pre-COVID programs.

## Recommendations

We recommend that the University of Georgia consider expanding aspects of its surplus property program to encourage more effective use by staff members. Some possibilities include:

- Identifying and establishing additional storage space on campus
- Creating a searchable online inventory of available items
- Expanding the breadth of materials the program is able to collect to allow for greater on-campus circularity of items
- Establish a policy to check surplus property inventory before purchasing new items for a department
- Exploring ways to make transportation of surplus property to the warehouse free or more convenient
- Offer free material collection services to incentivize departments and staff to send items to surplus rather than disposing of items to avoid additional fees.

Some science labs and art studios already have shared equipment/ resources websites and/or offer their resources and space to the campus community, but the campus could continue exploring these methods within other departments to increase the reuse of department-specific items and incorporate the use of surplus property items into day-to-day operations. EITS offers technical support to help departments with software installation and other challenges, but this is only available to staff and faculty and does not extend to cover hardware repair.

### Additional Credit

**Surplus Reuse & Sharing Among Individual Departments:** UGA earned additional credit for internal reuse and sharing of materials within a few campus departments. Some campus labs informally share lab spaces and equipment between principal collaborators, the libraries hold book swaps, and art studios and the School of Music share and rent materials to some extent. The Center for Teaching & Learning rents instructional equipment to UGA departments and UGA Libraries loan equipment to UGA students.

## II. HRM: Expand Capacity of Campus Wide Management of Hard-to-Recycle Materials (HRM)

This section measures the campus capacity in terms of infrastructure, services, and staff to fully capture Hard-to-Recycle Materials (HRM) from all departments and locations on campus with

the intended purpose of aggregating those items for economical recycling of them through industrial facilities. HRM's exist in different pockets and departments of campus, and are more efficient and cost-effective to manage at campus-scale via a campus-wide system. The following table assesses whether the campus collects and manages the following hard-to-recycle materials for reuse or recycling in any campus-wide capacity.

<b>62 / 177</b>	<b>HRM from Specialized Facilities</b>
<b>34.5 / 100</b>	<b>Hazardous Waste Management</b>
<b>61.5 / 125</b>	<b>Electronics Repair Services</b>
<b>+ 0</b>	<b>Additional Credit - HRM</b>

## TABLE 2: CAMPUS AGGREGATION OF HRM

Table 2: Campus Aggregation of HRM	
Hard-to-Recycle Materials (HRM)	Collected at a Campus Aggregation Point
Lab plastics	no
Lab glass	no
Plastic film & bags, bubble wrap, plastic wrap, air packages for recycling	yes
Styrofoam & packing peanuts	half yes
Rigid plastics (e.g. tubes, pots, pesticide containers)	yes
Rubber gloves	no
Scrap metal	yes
Wood and/or sawdust	no
Concrete	yes
Brick	yes
Drywall	no
Roof shingles	no
Porcelain (e.g. sinks, toilets, tubs, etc.)	no
Textiles	no
Carpet	half yes
Mattresses	half yes
Plastic signage	half yes
Wood pallets	yes
Cooking oil	yes
HRM for Terracycle	no
<b>Electronic Recycling</b>	
Laptops/computers	yes
Lab & medical electronic equipment	yes
Freon-containing equipment (refrigerators, A/C)	yes
Microwaves	yes
Household appliances (fans, vacuums, anything w/cord or battery)	yes
Handheld electronics	yes
Wires and cables	yes
Mixed media (CD's and DVD's)	yes
Batteries	yes
Lightbulbs	no
Ink & toner cartridges	yes
Mercury-containing equipment (thermometers, fluorescent bulbs, etc.)	no
<b>Hazardous/Regulated Waste</b>	
Tires	yes
Paints and oil-based supplies	yes
Lab chemicals or radiological waste	yes
Waste oil	yes
Pesticides	yes
Fertilizer	yes
Propane and propane tanks	yes
Custodial chemicals	n/a
Sharps	yes



## Assessment

At the campus-wide level, the University of Georgia has the capacity to effectively capture and aggregate 29 of the 40 items assessed in this report. Several different departments, including Surplus Property, coordinate the collection and management of hard-to-recycle materials and work closely with the off-campus Center for Hard to Recycle Materials (CHaRM) to recycle many of the assessed items.

- Plastics, Films, and Styrofoam:** Plastic film and block styrofoam collection is a coordinated effort between Support Services, custodial staff, and the Chicopee warehouse. This team responds to work requests submitted by campus staff and consolidates these materials in the warehouse, which is then taken to CHaRM for recycling. Rigid plastics, such as those generated from lab and agricultural facilities, are either accepted in the curbside recycling stream or taken back - for example, the Grounds Department saves plant containers for the nurseries to pick up and reuse. Almost every assessed specialized facility, including agricultural facilities, laboratories, health facilities, arts departments, etc. generate plastic films, bags, and styrofoam, but only about half of them collect them for specialized recycling.
- Construction and Renovation Materials:** Material from major capital construction and renovation projects are managed separately by contractors and are not collected by Facilities Management Division departments. Some material generated by in-house projects is collected and reused. Scrap metal is collected and recycled. Brick, stone and concrete are ground up into gravel and used for new projects. In general, capital projects are encouraged but not required to recycle or reuse construction and demolition materials; concrete, brick, drywall, and porcelain fixtures are the most commonly salvaged materials. Wood and/or sawdust is not collected, but wooden pallets are collected by FMD and taken to CHaRM if vendors don't take them back.
- Textiles, Plastic Signage, and Terracycle Programs:** Few textiles are collected at an aggregation point on campus aside from some textiles collected from campus catering that are sent to the CHaRM. There is no central aggregation point for vinyl and plastic signage, but most signage is reused for years, and the Office of Sustainability collects vinyl signs and scraps from Bulldawg Print & Design. The campus does not consistently participate in Terracycle programs (which does not negatively impact the campus' score).

- **Electronics Recycling and Universal Waste:** Electronic and universal waste are managed under a state contract with Creative Recycling. All assessed electronic waste is sent to the Surplus Warehouse, from which the vendor picks it up. This vendor also accepts printers and ink/toner cartridges. Batteries, lightbulbs, and mercury-containing equipment are managed by FMD and ESD as part of UGA's Universal Waste program. Battery collection buckets are available in each campus building but not all UAG faculty and staff know about this program.
- **Regulated and Hazardous Wastes:** All assessed regulated and hazardous wastes are collected and recycled or disposed of properly. However, individual facilities reported inconsistent separate collection of these materials. The campus only uses Bioesque custodial chemicals that are biodegradable and can be safely disposed of down the drain.

## Recommendations

We recommend that the University explore options for improving hard-to-recycle material collection systems on campus, including:

- Mapping out material flow across campus for items that are not currently collected, identifying where items are already aggregated throughout different facilities, where collection points could be established across campus, and establishing which positions would be responsible for managing these aggregation spaces and collecting these materials.
- Increasing accessibility of hard-to-recycle material and e-waste collection beyond just staff members by establishing year-round collection points in residence halls and other high-traffic areas. Most existing HRM collections are only available to campus staff.
- Continuing to align strategic planning with the campus surplus property program, such as doubling up efforts on identifying further aggregation and storage space and as a way to serve the surplus property program when items sent for reuse ultimately have to be broken down into material parts and recycled.

### Additional Credit

There were no additional credit points awarded in this section.

### III. Programs: Thrift Store & Residential Halls

This section assesses programs that are often student-facing and can function either as part of campus-wide infrastructure assessed above or via separate programs that feed into or share components of larger campus-wide efforts.

**23 / 34**

**Reuse & Sharing of Student Items**

**+ 4**

**Additional Credit - Hard Goods Reuse**

#### Assessment & Recommendations

##### Thrift/Free Store:

The University of Georgia did not have a centralized reuse space on campus until this semester, when one of UGA's Atlas Fellows and Office of Sustainable Intern Avery Lumsden '21 helped open the Swap Shop in MLC 278, which is available to all campus community members. This free store has a clearly labeled collection bin outside the Shop and regularly encourages students to swap from the store through social media, the Office of Sustainability listserv, and many other campus partnerships. As the Swap Shop continues to establish itself, it could consider working with a repair shop to fix slightly broken items, as well as collecting items from the residence halls' move out program.

##### Res Hall Reuse & Sharing:

UGA's residence halls encourage the sharing of commonly purchased but difficult to dispose of appliances by offering microwaves in the communal kitchen areas and making fridge space accessible to around 40% of residents. There are also printing stations, water refill stations, and stoves in the kitchen.

At the end of each year, UGA's residence halls run Dawgs Ditch the Dumpster & Donate, a donations-focused move out program. Standardized collection sites are available at every dormitory and collection bins are reused and recycled each year. Slightly broken electronics are sent to Free IT Athens and any items left over at the end of the year are donated to local thrift stores like Goodwill.

### Additional Credit

**Programs:** UGA earned additional credits for hosting swaps and repair opportunities - Fair Fashion UGA hosts a large clothing swap and Operation Safe Drive fixes bikes.

## HARD GOODS POLICY

### I. Establish Hard Goods Policies

This section assesses the campus-wide procurement policies, communication strategies, and requirements for handling and disposal of all hard goods.

**59 / 91**

Surplus Program Policies & Communication

**25 / 33**

Policy Requiring Staff to Send E-Waste to Surplus/Recycling

**9 / 27**

Procurement Policies for Purchase, Take-Back & Recycling

**21.5 / 57**

Construction & Renovation Policies

### Surplus: Assessment & Recommendations

As mentioned previously, 29 of the 33 campus stakeholders interviewed for this assessment responded that they and their staff are required to send materials to the campus surplus program, but only some highly encourage or require their staff to check surplus before purchasing new items. We recommend the campus consider strengthening communication that:

- Ensures that all staff are required to check surplus property before buying new items
- Ensures that all staff know and understand how the surplus property program works, how to access it, and how to schedule pick-up/drop-off services if applicable
- Includes preferences and incentives for purchasing new products that come with take-back, warranty, or repair programs for items such as furniture, appliances, technical equipment, etc.
- Encourage same-type campus departments to practice centralized purchasing for bulk purchase options of commonly procured materials

## Electronics: Assessment & Recommendations

Most interviewed stakeholders know to send broken campus-owned electronics to Surplus or IT, but were not aware that these are sent to be recycled. Many campus electronics are purchased through the UGAMart system, which has some functionalities that allow you to filter by environmental considerations. However, the University has few specific procurement policies for electronics that prioritize environmental sustainability, but does ensure that all equipment comes with a 3-5 year warranty and service.

To increase best practices around electronics materials management, UGA should establish and communicate policies for electronics purchase, use, and disposal that could include language prioritizing:

- EPEAT Products certified Bronze, Silver, or Gold (currently specified in the [UGA 2020 Sustainable Purchasing Guideline](#), but not adopted)
- Leased equipment
- Companies with take back programs
- Repairable products
- Refillable ink cartridges over disposable
- Keeping current electronics in use over purchasing new
- Partnering with an electronic waste recycler certified under the [e-Stewards](#) and/or the [Responsible Recycling \(R2\)](#) standard

## Construction and Demolition: Assessment & Recommendations

The University of Georgia has a few policies in place regarding best practices around sustainable materials management for construction and demolition projects. UGA Design and Construction Standards require that new buildings consult with Facilities Management Division to ensure efficiency in managing their material waste, and the campus has policy language that requires contractors to recycle or repurpose C&D waste from all large-scale projects, and encourages maintenance projects to recycle concrete, brick, drywall, and porcelain. While it is not an official policy, contractors sometimes attempt to incorporate the deconstructed materials into the new design.

All reusable materials, such as furniture, electronics, etc. are sent to Surplus, and some reusable building fixtures are sent to Surplus if there is an immediate need for them. All new buildings use modular carpet squares rather than carpet rolls, and nylon, the only recyclable carpet material currently on the market in the U.S., is typically used. Hydration stations and retrofitted water fountains that allow water bottle refills are available across campus, and all new buildings are required to install these.

The [UGA Historic Preservation Master Plan](#) prioritizes rehabilitating existing buildings over new construction. Designers do not typically check with Surplus before purchasing new furniture or equipment unless budgets are tight. The state does not allow new buildings to pursue LEED Certification; instead, they are often “Peach” Certified.

For the most part, identified policy gaps should be focused on large, contracted projects. We recommend that the campus establish policies that:

- Continue to prioritize rehabilitating existing buildings over building new.
- Prioritize deconstruction over demolition in order to better salvage materials.
- Require contractors to identify all salvageable materials and develop a plan to reuse or donate materials whenever feasible options exist within 50 miles of the job site.
- Prioritize reused or refurbished furniture, fixtures, and equipment in the design and construction of new or renovated facilities.
- Require contractors and in-house teams to send non-reusable materials from construction and renovation projects to expanded recycling, i.e. CHaRM.
- Require all in-house construction and renovation projects to recycle or repurpose C&D materials and building fixtures within reason.
- Encourage designers to check Surplus options before furnishing buildings with all new items.

## HARD GOODS BIN & SIGNAGE STANDARDIZATION

This section assesses UGA's capacity to provide clear, standardized, and accessible drop-off locations and collection bins for all surplus and hard-to-recycle materials across campus.

Ideally, all students and staff on campus would know where they should bring items for discard.

**5 / 105**

Aggregation Facility &  
Clear Collection  
Points

**2.5 / 107**

E-Waste Collection  
Points

### Assessment & Recommendations

The University of Georgia collects most campus-owned reusable materials and electronics from faculty and staff through Surplus and other FMD teams, but does not have clear collection systems for the rest of the campus community. The Residence Halls have collection locations for plastic film and bags but not for other commonly generated HRMs such as styrofoam and clothing. While the campus might actually have well-managed collection systems for hard-to-recycle materials, there are very few clear and standardized bin or collection locations available for the hard-to-recycle materials generated within specific facilities. We recommend that UGA:

- Establish collection locations and a bin standardization guide for hard-to-recycle materials that provides clear standards for bin styles, shapes, colors, and signage designs.
- Develop a process for designating collection locations, distributing bins, or establishing pick-up processes to collect the materials assessed in this section across campus. This process should include a plan for the logistics of collection and management of any materials that have not already been established, and a strategy to communicate these programs to campus users.





# SCOPE 2 - SOFT GOODS: FOOD, PLASTIC & COMPOST

## MAP OUT INTERDEPARTMENTAL MATERIAL FLOW

Sustainable materials management for Scope 2 materials can be an extremely complex puzzle on campus that involves many different facilities. First and foremost, our goal is material reduction - what are the strategies the campus can take to effectively eliminate disposable materials from campus? This means looking at all possible opportunities to switch to reusable dishware and reusable to-go containers.

For all disposable products that are left on campus, we want to think about what steps we can take to effectively reduce contaminated streams by establishing a system that is standardized across campus, is simple to navigate, and reduces confusion. This means that **all disposable products should be switched to compostable wherever possible, all “recyclable” products should be free of food contamination, and all other single-use disposable products should be eliminated wherever possible.**

In both the reusable and compostable systems, campus-wide procurement policies could be enacted to ensure all events and food service outlets are in compliance, and campus-wide standards for collection bins should be considered in all facilities across campus to ensure the highest rate of successful material management.

An important first step to better understand this intricate system, identify gaps, and decrease the risk of contaminated streams is creating a material flow map for reusables and compostables. This outlines the movement of materials between departments and identifies stakeholders throughout the stages of purchasing, use, collection and logistics, and disposal. A simplified example of a system map for both reusable and compostable material streams can be found in the Methodology section.

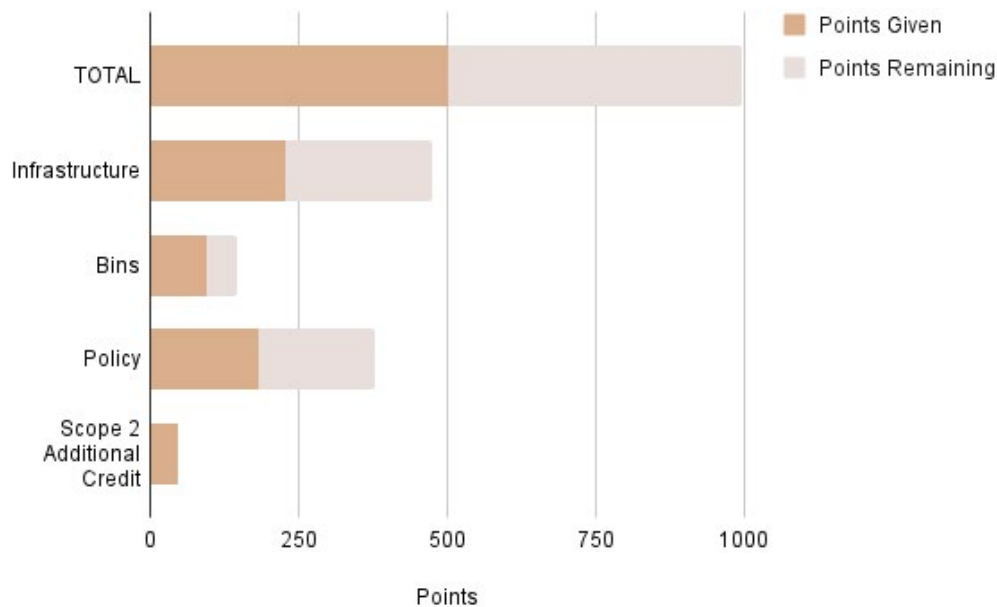
# CAMPUS DINING FACILITIES & FOOD-SERVICE VENDORS

For the purposes of this report, we divided dining facilities and campus vendors into assessment categories based on management and the style of food service (dine-in vs. to-go).

<b>Campus Dining Halls</b>	Locations with buffet style service in an enclosed setting. May be "all you can eat" or food court style with multiple stations, but under one facility.	<ul style="list-style-type: none"> <li>- 4 on main campus</li> <li>- Niche on Health Sciences Campus</li> </ul>
<b>Restaurants</b>	Locations with full sit-down service in an enclosed setting.	<ul style="list-style-type: none"> <li>- Georgia Center Savannah Room*</li> </ul>
<b>Casual Sit-Down Eateries</b>	Locations that have seating for customers but may not be fully enclosed locations (i.e. may share seating with common area seating), with both dine-in and to-go options.	<p>Tate Eateries:</p> <ul style="list-style-type: none"> <li>- Starbucks</li> <li>- Chick-fil-A</li> <li>- Panda Express</li> <li>- Niche Pizza Co.</li> </ul> <p>Non-Tate Eateries:</p> <ul style="list-style-type: none"> <li>- Einstein Bros (2),</li> <li>- East Side Deli</li> <li>- Coffee Shop at East Campus</li> <li>- Red Clay Cafe</li> </ul>
<b>Grab &amp; Go</b>	Locations that primarily serve food for take-out. May have some seating but majority of food is to-go.	<ul style="list-style-type: none"> <li>- Au Bon Pain</li> <li>- Athena Mediterranean Kitchen</li> <li>- Barberitos</li> </ul>
<b>Convenience Stores</b>	Locations that sell primarily pre-packaged food that generally do not prepare food on-site.	<ul style="list-style-type: none"> <li>- Market at Tate</li> <li>- Market at East Campus</li> <li>- The Station</li> <li>- Market at The Creamery</li> <li>- Market at Russell</li> </ul>
<b>Athletics</b>	Concessions stands within Athletics Facilities; also includes tailgates and catering for traveling athletes.	<ul style="list-style-type: none"> <li>- Stanford Stadium (Aramark)</li> <li>- Stegman Coliseum (Aramark)</li> <li>- Herty Baseball Field</li> <li>- Turner Complex</li> </ul>
<b>Events</b>	Food served outside of the above locations provided by catering or off-campus vendors.	<ul style="list-style-type: none"> <li>- UGA Dining Services</li> </ul>

\*Location was not available for interview and is not included in this assessment.

# SOFT GOODS: ASSESSMENT & RECOMMENDATIONS



## SOFT GOODS INFRASTRUCTURE & PROGRAMS

### I. Expand Reusable Dishware, To-Go Ware, and Access to Reusables

This section assesses the campus infrastructure and systems in place to eliminate disposables, namely increasing the availability of reusable dining ware and encouraging reusable container use. In this section, we look at the prevalence of reusable dishware and reusable to-go containers, the availability of campus dishwashers in various facilities, the availability of hydration stations on campus, and the prevalence of discounts for

users who bring their own containers. All recommendations made regarding reusable dishware and bulk bin programs may require further consideration in light of the ongoing COVID-19 pandemic.<sup>1</sup>

**30.5 / 58**

Reusable Dining Ware at Sit-Down Eateries

**10 / 65**

Reusable To-Go Container Program

**15 / 16**

Hydration Stations Availability

**2 / 7**

Bring-Your-Own Program

**+ 0.5**

Additional Credit - Reusable Dishware, To-Go Ware, BYO

<sup>1</sup>Refer to PLAN's [Reusables and Sanitation Toolkit](#) for guidance and best practices regarding reusable to-go ware and bulk bin programs during the COVID-19 pandemic.

## TABLE 3: REUSABLE DINING WARE INFRASTRUCTURE

Table 3: Reusable Dining Ware Infrastructure							
	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events
Dishwasher	yes	yes	yes	yes	n/a	half yes	yes
Reusable Dishes							
Plates	yes	no	no	+0	n/a	n/a	half yes
Bowls	yes	no	n/a	+0	n/a	n/a	no
Utensils	yes	no	no	+0	n/a	n/a	half yes
Mugs/cups	yes	no	no	+0	n/a	n/a	half yes
Straws*	+0	+0	+0	+0	n/a	n/a	n/a
Napkins*	+0	+0	+0	n/a	n/a	n/a	half yes
Reusable To-Go Ware							
Clamshell	half yes	no	no	no	no	+0	+0
Soup	no	no	n/a	no	no	+0	+0
Utensils	no	no	no	no	no	+0	+0
Mugs/cups	no	no	no	no	no	+1	no
Containers for bulk items*	n/a	+0	+0	+0	+0	+0	+0
Customers Allowed to BYO Containers	yes	no	no	no	no	n/a	no
Bring Your Own Discount							
Containers*	+0	+0	+0	+0	+0	+0	+0
Mugs/cups*	+0	+0	+0	+0	+0	+0	+0
Bags*	n/a	+0	+0	+0	+0	+0	+0
Utensils*	n/a	+0	+0	+0	+0	+0	+0
Bulk bins*	n/a	+0	+0	+0	+0	+0	+0

## Recommendations

**Reusable Dishes:** All dining locations on campus aside from Convenience Stores have access to an industrial dishwasher capable of washing all dining ware collected at the location. There is a dishwasher available in “premium areas” in the Athletics facilities. However, only the campus’ dining halls and the Savannah Room at the Georgia Center provide reusable dishes, and china dining ware is available only upon request for Events.

In general, we recommend UGA consider transitioning to reusable dining ware as much as possible, especially in locations with already existing dishwashing capacity. To do this, we recommend exploring options to:

- Consider establishing a reusable dishware program at the eateries in the Tate Center.
- Consider expanding and publicizing affordable reusable dishware options through on-campus catering and student-run events to eliminate disposable alternatives.

**Reusable To-Go Ware:** The University of Georgia offers reusable to-go containers through the Bulldog Box program in the five Residential Dining Halls. This program includes a clamshell to-go container, and students can bring their own mug for beverages. Athletics facilities sell reusable to-go mugs and cups.

Campuses have a wide variety of implementation strategies for reusable to-go ware initiatives, from barcoding containers to track their use and return, to either fining students for not returning them or identifying other creative methods to incentivize returns. Since many campuses struggle with container retention, it is worth exploring successful methodologies from other campuses for expansion/implementation.<sup>2</sup>

We recommend that the University of Georgia explore options to:

- Establish a reusable to-go ware program that is universally accepted at all dining locations across campus. This could involve expanding the program to the Tate Center, non-Tate eateries, Athletics, and Events, and could even include offering pre-packaged food at Grab & Go locations and Convenience Stores in reusable to-go ware.
- Expand this program beyond the traditional clamshell container, to include reusable containers for soup/salads, beverages, and utensils.

**Hydration Stations:** Hydration stations allow students to refill reusable water bottles rather than buying beverages in disposable containers. The University of Georgia has installed hydration stations in most existing buildings on campus, including the lobbies of the dining halls and some of the larger retail operations as well.

**Bring-Your-Own Container:** Prior to COVID-19, customers were allowed to bring reusable cups to coffee shops and to fountain drink stations in the Tate Center. During the ongoing COVID-19 crisis, we recommend relying on a campus-run reusable to-go ware program that can be controlled in terms of sanitation and handling. Under other circumstances, UGA could consider formalizing a BYO program as a campus-wide policy, and expanding it to allow students to bring their own containers to all dining locations, Athletics, and on-campus events.

<sup>2</sup> Case studies of successful to-go ware programs can be found in PLAN's [Program Case Library](#).

**Bulk Snack Bins:** UGA does not offer snacks in bulk at the dining facilities on campus. We recommend UGA explore options for installing bulk snack bins in Grab & Go's, Convenience Stores, Athletics concessions, and at Events, along with expanding reusable to-go container options for bulk products in order to cut down on the number of pre-packaged snacks in non-recyclable, non-compostable packaging. This could be a great project for a student group and a Grab & Go location to pilot, with the intention of later expanding the program to be universal wherever applicable.<sup>3</sup>

Additional Credit

The University of Georgia earned one additional point by offering reusable to-go mugs and cups in the Athletics facilities. UGA could consider offering more bring-your-own discounts for customers that bring their own dishware or bags to various dining facilities and retail locations, as well as offering reusable to-go containers at Athletics concessions and campus events. Finally, expanding bulk bin options around campus and accompanying reusable container options for those products would also earn UGA more additional credit points.

II. Expand Capacity for Food Recovery and Food Waste Minimization to All Food-Service Facilities on Campus

This section assesses the campus's capacity to recover food, as well as reduce overall food waste via internal audits and external educational efforts.

26 / 34

Food Recovery Program

30.5 / 49

Food Waste Reduction Initiatives & Education

+ 1.5

Additional Credit - Food Recovery & Waste Minimization

<sup>3</sup> Included are examples of successful, student-initiated programs at the University of California, Berkeley - they have run successful bulk snack bin programs in one of their dining-operated [convenience stores](#) and at another [on-campus cafe](#).

**TABLE 4: FOOD RECOVERY & FOOD WASTE REDUCTION PROGRAMS**

Table 4: Food Recovery & Food Waste Reduction Programs							
	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events
<b>Food Recovery Program</b>	yes	yes	yes	yes	yes	no	yes
<b>Food Waste Reduction</b>							
Run audits	yes	yes	yes	yes	yes	yes	yes
Purchase gleaned	no	no	no	no	no	n/a	n/a
Food waste education	half yes	no	no	no	no	no	n/a
Trayless dining	yes	yes	yes	n/a	n/a	n/a	n/a

## Assessment & Recommendations

### Food Recovery Programs

The University of Georgia has an on-campus food pantry located in the Tate Center that accepts donations anytime, but is only open from 10-2. The campus' food recovery program has been in place for at least 24 years, working with Full Plate to distribute food to the Athens community. All dining locations aside from Athletics facilities donate leftover food to Full Plate, and catered events can schedule a Full Plate pick-up by phone. The containers used to transport recovered food from Dining Halls and Events are reusable, food safe containers, while other retail facilities only distribute pre-packaged food. In addition, UGA staff and students in Campus Kitchen at UGA and Concrete Jungle recover food from local businesses, glean from farms and urban agriculture, and distribute to food-insecure community members.

We recommend the University of Georgia explore opportunities to:

- Expand hours of operation for the Tate Center food pantry.
- Distribute recovered food from dining facilities to the Tate Center food pantry to increase on-campus food security.

### Food Waste Reduction Programs

All assessed dining facilities at the University of Georgia regularly run audits on food purchasing to examine food consumption habits and reduce food waste; the Dining Halls use a system called FoodPro to forecast production and store production records.

All locations have gone tray-less, and the Dining Halls put together an educational display showing the amount of food saved when these locations first went tray-less. However, dining locations do not regularly run food waste education campaigns or programming.

We recommend that the University of Georgia explore opportunities to:

- Purchase gleaned foods where possible.<sup>4</sup>
- Expand food waste education programming to regularly educate customers on the problems with food waste and the strategies to reduce it.
- Implement other food waste reduction strategies, especially with the increase in to-go meals provided during COVID-19.

### III. Expand Capacity of Compost Program and Eliminate All Single-Use Disposable Plastics

This section assesses the prevalence of compostable products at all food-service vendors on campus, the availability of compost collection and management at those same facilities, and the risk of contamination

in the compost stream from the distribution of non-compostable disposables. This assessment looks at each location as a holistic system, with the goal of reducing the risk of contamination in compost and recycling streams as much as possible. While UGA's Bioconversion Center is currently unable to efficiently process compostable dining ware from campus eateries, UGA can continue and expand partnership with ACC to capture these materials. Full points are given to an assessment category only when it has full (100%) adoption; half points are awarded when a facility is still in the process of transitioning to fully compostable products.

17 / 32	Composting Program
23 / 58	Compostable Dining Ware & Disposables
+ 1	Additional Credit - Compost

<sup>4</sup>The Food Recovery Network has a [Guide to Gleaning](#). Bon Appetit Management Company (BAMCO) also has great resources to explore through their [Imperfectly Delicious Produce](#) and [online recipes](#).



## Assessment & Recommendations

### Compostable Dining Ware & Disposables

Few campus dining locations distribute compostable dining ware aside from Events catered by campus dining services and a few fast food eateries that distribute compostable plates or salad bowls in the Tate Center. Napkins and some straws are compostable across campus.

We recommend that the University of Georgia explore options to:

- Pass campus-wide procurement policies that standardize disposable products by switching to compostables in all locations on campus.
- Alternatively, UGA can consider eliminating all single-use disposables where possible and converting to a reusable to-go ware system to reduce the overall need for expensive compostable dining ware that is often challenging for composting facilities to process.

**TABLE 5: COMPOSTABLE MATERIALS**

Table 5: Compostable Materials							
	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events
<b>Compostable Ware</b>							
Plates/bowls	n/a	no	no	no	n/a	n/a	yes
Hot bowls	n/a	no	n/a	no	n/a	n/a	yes
Utensils	n/a	no	no	no	no	n/a	yes
Cups/mugs	n/a	half yes	no	no	no	no	yes
Straws	yes	yes	half yes	no	no	no	yes
Napkins	yes	yes	yes	yes	yes	yes	yes
To-go ware	n/a	no	no	n/a	no	n/a	yes
Miscellaneous packaged food items (e.g. sushi boxes)	n/a	no	no	no	no	no	no
Single-use creamers, condiments, butters, etc.	n/a	no	no	no	no	no	no
Containers for bulk items	n/a	no	no	no	no	no	no
<b>Compost Program</b>							
Food waste as feedstock for agriculture*	+0	+1	+0.5	+0	+0	+0	+0
Back-of-house collection	yes	yes	no	no	no	no	yes
Front-of-house collection	yes	yes	no	no	no	no	half yes

Composting Program

The University of Georgia Bioconversion Center, managed by the FMD Grounds Department, composts pulped food scraps from campus dining halls, along with landscape debris and animal bedding. UGA also contracts Athens-Clarke County to collect back-of-house compost from the Tate Center, and has piloted front-of-house, customer-facing compost collection at Bulldawg Cafe in the Tate Center. The UGA Bioconversion Center processes large quantities of material that is brought back to campus as nutrient-rich compost, but does not process compostable dining ware, which is accepted through the contract with Athens-Clarke County. Events that are catered by UGA Campus Catering always receive composting bins for back-of-house collection, and for front-of-house collection if the event host requests it. Elsewhere, UGA does not have a universally accessible composting program aside from the opt-in composting program for departmental break rooms run by the Office of Sustainability. We recommend UGA establish a campus-wide composting program with accessible compost bins and collection across campus (see bins section below).

Additional Credit

**Compostables:** Additional credit in this section is awarded when specific disposable products, such as gloves, hairnets, and aprons, are compostable or recyclable, or for innovative practices such as using reusable liner bags for waste bins and collecting coffee grounds for on-campus landscaping. Coffee Grounds are collected in departmental break rooms within approximately 100 campus buildings. These materials, along with other organics, are taken to the Bioconversion Center, composted and returned to campus landscapes and community gardens.

IV. Other Programs & Initiatives

This section mainly covers paper-reduction and diversion-based programs and practices.

29 / 41

Recycling

46.5 / 109

Paper Reduction & Reuse Initiatives

## Paper Reduction, Recycling & Education

UGA has the capacity to systematically reduce paper consumption, but has yet to implement practices such as transitioning from paper receipts to electronic receipts in retail locations and ensuring that all self-serve printers are set up with a print-release function and automatically print double-sided. Some Events, performance centers, and GMoA have partially moved to paperless programming and electronic ticketing, but this is not the standard. The Libraries do have a policy that prefers electronic readings over paper, and staff members use e-signatures to discourage printed documents. FMD and UGA Procurement have transitioned to paperless purchasing and approval systems via DocuSign and UGAmart. Athletics facilities allow patrons to bring their own towels to minimize paper towel usage for wiping down athletic equipment. The locker rooms also rent out towels for \$1.

**TABLE 6: PAPER RECEIPT ELIMINATION**

Table 6: Paper Receipt Elimination							
	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Bookstore
Transitioned from paper receipts to electronic	no	no	no	no	no	half yes	no
Can turn off paper receipts	yes	yes	yes	yes	yes	yes	yes

UGA could further explore programs and policies that reduce paper, such as:

- Encouraging the reduction of paper receipts as a standard practice, whether by turning off paper receipts at each location for customers who do not want them, or transitioning completely to electronic receipts.
- Further limiting paper programming for marketing purposes, orientation, events, and performances.
- Implementing print-release systems for self-service printers to reduce accidental print jobs.
- Requiring all professors to post course packets and other class materials online and only providing printed versions upon request.

## Campus Recycling & Reuse of Recyclables

The campus's hauler accepts all typical recyclables in single-stream recycling. Cardboard boxes are seldom reused in the various dining facilities and Athletics, but are recycled by all facilities. Single-serve beverages come in a mix of recyclable and plant-based (but not necessarily compostable) containers in all locations. Campus procurement is encouraged to standardize the purchase of single-serve beverages to clearly recyclable or clearly compostable containers to minimize confusion and contamination of waste streams.

## CAMPUS-WIDE SOFT GOODS POLICIES AND ZERO WASTE EVENTS/POLICIES

### I. Establish Soft Goods Policies

In this section we assess the existence of a variety of procurement policies related to soft goods management including the types of products purchased, requirements or standard operating procedures for staff to use those policies, and the existence of zero waste guidelines.

**76.5 / 167**

Adherence to Campus Procurement Policies

**64 / 150**

Policies that Favor Bulk Products Over Single-Use

**+ 5**

Additional Credit - Scope 2: Soft Goods Policies

### Assessment & Recommendations

The University of Georgia does not have a set of campus-wide procurement policies governing sustainable purchasing, but does have a set of guidelines written by the Office of Sustainability and the Procurement Office. However, the vast majority of interviewed stakeholders were not aware of these guidelines; in general, departments set their own individual procurement practices that they adhere to instead. For example, FMD Building Services follows a standard of only purchasing green-certified cleaning products, and Dining Services follows its own set of internal policies, such as only purchasing LED lighting and restricting

the purchase of plastic bags, styrofoam, and plastic straws. Stakeholders cited reasons for the nonexistence of an overarching policy that included concerns about potential interference with state policies of stewardship of financial resources and transparency.

UGA does not have a waste reduction guiding document aside from a set of goals in the Waste Reduction section of its [2015 Sustainability Plan](#), 2020 UGA Strategic Plan, and 2025 FMD Strategic Plan.

**TABLE 7: PROCUREMENT POLICIES**

Table 7: Procurement Policies							
Procurement Policies	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events
Vendor required to comply with campus procurement policies	no	yes	yes	yes	yes	no	no
Reusable gloves/aprons/hairnets	half yes	half yes	half yes	half yes	half yes	yes	n/a
Recyclable/compostable gloves/aprons/hairnets*	+0	+0	+0	+0	+0	+0	n/a
Eliminated plastic bags	n/a	yes	yes	yes	yes	no	n/a
Eliminated sales of bottled water	n/a	no	no	no	no	no	no
Bulk Procurement							
Eliminated unnecessarily wrapped single-serve items	half yes	no	no	no	no	no	no
Snacks and sides in bulk	n/a	no	no	no	no	no	no
Beverages in bulk dispensers	yes	half yes	half yes	half yes	half yes	yes	half yes
Eliminated K-Cups and plastic-wrapped tea bags	yes	half yes	half yes	half yes	half yes	n/a	no
Bulk dispense creamers, condiments, butters, jellies	half yes	no	no	no	no	yes	yes

### General Sustainable Procurement Policies

We recommend that the University strengthen its existing procurement guidelines into a policy or policies that apply to all campus departments, contracted franchises, and vendors that state preferences for:

- Reusable, repairable, and refillable products over single-use products
- Packaging made from compostable materials or post-consumer recycled content\*
- Products and dining ware made from compostable materials or post-consumer recycled content\*

- Paper made from post-consumer recycled, agricultural residue, or FSC or SFI-certified content\*
- A restriction on disposable swag, in favor of products that are durable, reusable etc. (while suggestions are communicated for certain events, no formal guideline or policy exists)<sup>4</sup>
- A restriction/guideline on plastic shopping bags and plastic water bottles
- Companies that have take-back programs

\*Similar language exists in the Sustainable Purchasing Guideline, but is not implemented campus-wide.

### **Policies that Prefer Bulk Purchase over Single-Use Products**

More than half of the stakeholders interviewed for this assessment purchase products in bulk as a standard practice whenever possible, mostly for cost saving and shipping efficiency reasons. Facilities stocks its central receiving warehouse with bulk-ordered supplies for Custodial, Grounds, and Operation & Maintenance departments, and stocks items that can be bought by campus customers as well. To reduce disposable packaging and the life cycle impacts of shipping multiple orders, UGA should explore enacting policies that require all staff to purchase in bulk where practical and implement more centralized purchasing practices between similar facilities to consolidate shipments. UGA could also explore purchasing policies that apply to all food-service facilities, contracted franchises, and vendors that:

- Favor bulk items over unnecessarily wrapped single-serve items (napkins, oyster crackers, individually wrapped fresh baked goods, mints, toothpicks, etc.)
- Favor snacks and side dishes in bulk rather than individually packaged
- Favor beverages in bulk dispensers rather than individually packaged (soda, juice, milk, coffee, K-cups, etc.)
- Favor bulk dispensers for all sauces, condiments, creamers, sugars, salt, pepper, butter, peanut butter, and jellies rather than individually wrapped products<sup>5</sup>

<sup>4</sup> We define “swag” as a free giveaway that is distributed at events or by organizations to their members. Check out [PLAN Swag Hierarchy](#) for more information.

<sup>5</sup> For a more comprehensive list of single-use products that we suggest phasing out, refer to PLAN’s [Break Free From Plastic campus pledge](#).

### Additional Credit

Additional credits are awarded for special policies on campus. In this case, UGA was awarded extra credit points for programs in the University Childcare Center that prioritize zero waste activities and crafts that make useful and valued end products.

## II. Zero Waste Events Guides, Plans, and Policies

UGA does not have a zero waste roadmap or guide for large-scale zero waste events such as at athletic venues. In general, we recommend the University of Georgia review its [Waste](#)

[Reduction Near-Term Goals](#) and establish an updated campus-wide zero waste strategic vision. To accomplish this, we recommend establishing a zero waste task force made up of many of the stakeholders interviewed in this report who would be tasked with analyzing this report and UGA's strategic goals, identifying gaps, and developing idealized versions of the system flow charts detailed in the Methodology section. The projects identified in the system flow charts may require establishing new campus infrastructure and systems, as well as policies and standard operating procedures that may differ from the way materials are currently managed at the University of Georgia.

**22.5 / 51**

**Institutionalizing Zero Waste Goals & Plans**

**37.5 / 45**

**Additional Credit - Education**

For this process to be successful, it is important to **work collaboratively with all stakeholders** to build a vision for how these new initiatives will be communicated and managed in the future, which may also require looking into organizational restructuring to relocate and redefine program management and responsibilities. After completing the visioning process, we recommend going through the process of "[backcasting](#)" to identify what resources would be required to achieve these goals, and what decisions around management and costs need to be made in order for these initiatives to be operationalized.

This backcasting would lay the groundwork for a strategic plan. From there, we recommend UGA develop timelines and goals and identify the campus capacity for investing in the various initiatives detailed in the plan. As these initiatives advance, we recommend the University of Georgia consider establishing specific guidelines for campus departments on how to host zero waste events, practice sustainable procurement, and institutionalize other elements of the campus-wide strategic plan in their daily operations.

While the Office of Sustainability provides guidance for hosting zero waste events, UGA does not have a set of formal guidelines or policies for large-scale zero waste events. Previously hosted waste audits at Stegeman Coliseum, Foley Field, and Turner athletic complexes could provide baseline data for this effort. We recommend the University develop a campus-wide guide for zero waste events that could include procedures for transporting recycling and compost bins to and from the event (which could build on existing guidelines for Commencement and Football games), ensuring there is proper bin signage at events, and creating a volunteer waste monitoring program to educate users on how to use the standardized bin and signage set-up at outdoor and sporting events. We recommend that event procurement follow existing and recommended sustainable purchasing policies and event waste collection follow campus bin standardization guidelines, such as by aligning mobile/temporary outdoor standardized collection stations with indoor collection stations (i.e. color, signage, order of arrangement) to limit confusion.

## **Student Programs & Initiatives**

UGA earned all possible points for student-led initiatives and involvement. The campus has multiple student groups with a focus on waste reduction, including Bag the Bag and the Swap Shop. The waste reduction working group includes Zero Waste Interns hired by the Office of Sustainability, who collaborate with staff across campus such as the Green Labs Coordinator, Building and Sanitation Services, etc. Finally, there is a \$3 per student green fee that funds sustainability-focused programs and initiatives on campus.



## Education & Communication

In terms of academic curriculum, there are many courses that address zero waste in their curriculum - some examples include Food Science courses that address food packaging waste and sustainability (Kong), Fashion Merchandising courses that address waste in the fashion industry (Medvedev), a sustainability course that addresses composting (Dwivedi), and an Environmental Management and Sustainable Business Practices course with a section on circular economies and circular design.

Waste reduction practices and education are covered during housekeeping/custodial staff training but are not typically included for non-housekeeping/custodial staff and faculty. The campus does not currently run a Green Office Certification program. New students do not receive formalized zero waste education in their orientations; thus, we recommend building out curriculum to familiarize students with opportunities to reduce waste and reuse, share, and repair items; properly utilize the standardized collection stations; and appropriately dispose of hard-to-recycle materials. While education is extremely important in contributing to culture change, infrastructure change ultimately provides the greatest impetus for behavior change, so any educational campaigns must be coupled with the implementation of systems and programs to support long-lasting change.<sup>6</sup>

### Additional Credit

The University of Georgia received a few additional credits in this section. Points were awarded for staff who regularly communicate with custodial services in their buildings and for waste reduction competitions hosted in the residence halls. Points were also awarded for waste-related events and workshops hosted by the campus or student organizations, and for prioritizing activities and crafts that use recovered/upcycled materials in the Childcare Center.

<sup>6</sup> See PLAN's blog post on why [Infrastructure Change Must Precede Behavior Change](#), which shares takeaways from other behavioral psychology experts.

<sup>7</sup> [Carleton College](#) incentivizes students to work as "trash talkers" by reimbursing their student organization or sports team for their time.

Additional points could have been achieved by establishing a more formalized program for “bin goalies” or “trash talkers” at Athletics events and other outdoor events - where individuals are placed near waste collection stations to help people sort their waste appropriately.<sup>7</sup> Dining Services currently sources from UGArden and hydroponic towers in Oglethorpe Dining Commons. UGArden also donates food to food-insecure seniors in the Athens-Clarke County area.

### III. Accessibility Policy

We assess plastic straw accessibility in the policy section because it is imperative that straws are

still available for those who need straws for accessibility reasons. Plastic straws are available at all campus eateries except for Dining Halls, where only paper straws are available. We recommend UGA add language on the importance of continuing to stock plastic straws for accessibility reasons to their sustainable purchasing policies.<sup>8</sup>

4 / 7

#### Accessibility Policy

	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events
Plastic straws still accessible	no	yes	yes	yes	no	yes	no

<sup>8</sup> [Sample language can be found in PLAN's Break Free From Plastic Campus Pledge.](#)

## SOFT GOODS BIN & SIGNAGE STANDARDIZATION

### I. Standardize Collection Systems, 3-Bin Systems, Eliminate Unpaired Bins, and Establish Liquid Collection

In this section we assess the existence of standardized collection stations (including compost collection) in all areas of campus, as well as ensuring that no standalone or “unpaired”

bins exist on campus. We also recommend exploring the benefits of establishing additional collection bins for liquids and to-go ware. or “unpaired” bins exist on campus. We also recommend exploring the benefits of establishing additional collection bins for liquids and to-go ware.

**103.5 / 143**

**Bin Standardization**

**2 / 11**

**Collection Locations for To-Go Ware**

**+ 0.75**

**Additional Credit - Liquid Collection**

### Assessment

Most of the interviewed stakeholders were aware of campus guidelines around appearance and signage of waste bins, but not all stakeholders reported that the areas and facilities they worked in/oversee always adhered to these guidelines. All but one stakeholder reported having access to recycling and trash bins in their building, but only a few departments and facilities have access to composting. The University of Georgia generally purchases a 2-bin system for landfill and mixed recyclables from Busch Systems, but some departments work out agreements with Facilities Management Division in terms of right-sizing bins for their needs.

<sup>9</sup> See page 18 in [University of Southern Maine's Waste Minimization & Recycling Overview](#)

<sup>10</sup> Check out our [Reusable Dishware on Campus During COVID-19](#) article on reusable to-go ware container programs during COVID.

## Recommendations

### Bin Standardization

As previously mentioned, infrastructure change is a prerequisite to achieving systemic behavior changes - to see universal adoption of sustainable material management behaviors, infrastructure has to be clear, consistent, and uniformly accessible in all locations. Standardized collection stations greatly increase diversion rates, decrease contamination rates, and are the first foundational step to setting up education and communication initiatives that have high likelihoods of success. Clearly communicated standards for bins and signage will ensure uniformity across campus and decrease confusion and resulting contamination of waste streams.

We recommend creating a formal resource for campus-wide standardization for all types of bins and signage. These standards could be developed and clearly communicated by Facilities and the Office of Sustainability in a style guide that outlines what type and color of bin should be used across campus for each waste stream, as well as specific signage that outlines what can be disposed of in each stream. This guide could also specify where bins are located, the types of bins that are used in different facilities and for on-campus events and Athletics, and guidelines like eliminating “standalone” or “unpaired” bins around campus and ensuring that landfill, recycling, compost, and liquids (where applicable) streams are always found side-by-side, in the same order.<sup>9</sup>

### Expanding Compost

As mentioned in a previous section, expansion of UGA’s compost program beyond collection in dining locations and departments who have opted into the Office of Sustainability’s pilot program should occur in tandem with a decision to go full-scale compostable for disposable dining ware. While adding a composting stream to most buildings could take advantage of existing custodial workflows, labor and infrastructure may need to be reviewed if the University decides to expand collection. As compost collection expands across campus, large compost bins could be placed next to small landfill bins in bathrooms and other areas with high volumes of paper towel waste, marked with highly specific signage.

<sup>9</sup> This example from the [University of Michigan](#) designates the difference between certain styles of bins, where they should be placed, and who pays for them.

## Additional Credit

**Liquids Collection:** To make compost collection more efficient and disposal less expensive, liquids could be collected separately from the rest of the organics stream to reduce the weight of the compost. As can be seen in the University of Southern Maine's case study shared as a footnote, separating liquid collection is a more efficient and cost effective method of material management because it reduces the weight of the compost, reduces the cost of managing spills and clean-up, and reduces the labor costs in the aforementioned efforts.<sup>10</sup>

	Campus Dining Halls	Tate Casual Sit-Down	Non-Tate Casual Sit-Down	Grab & Go	Convenience Stores	Athletics	Events	Res Halls	Library	Admin Offices & Classrooms
To-go ware collection	yes	no	no	no	no	no	no	no	no	no

## Expand To-Go Ware Program Collection Locations

The University of Georgia has a reusable to-go ware program that is available in the Dining Halls only - this is also the only place with collection points for used to-go ware. As mentioned above in the reusable to-go ware section, we recommend that the University of Georgia expand the existing program to all food service locations, in addition to expanding the number of collection points.

<sup>10</sup> See page 18 in University of Southern Maine's [Waste Minimization & Recycling Overview](#).

## CONCLUSION

The recommendations outlined above are just the beginning in a multi-stage zero waste planning process. We have provided recommendations based on best practices from campuses across the country, but the next step in zero waste planning is to identify the feasibility of these recommendations at the University and to strategize with PLAN's Atlas team to vision and develop a Zero Waste Task Force and subsequent Zero Waste Roadmap specific to the University of Georgia. We encourage the campus to develop a goal that incorporates quantitative measurements like aversion, reduction, and diversion, as well as qualitative goals to develop campus-wide service models for sustainable materials management and program areas such as engagement and education. For the University of Georgia to achieve zero waste, there will need to be financial support behind campus-wide infrastructure changes and administrative support for campus-level policies. It is recommended that one or more full-time staff positions within Facilities Management Division and other auxiliary or athletic units are established to implement effective waste reduction initiatives that are integrated with campus operations. The University should also utilize this report as a wayfinding tool to benchmark and track progress on remaining opportunities for waste reduction.

# ACKNOWLEDGMENTS

## Contributors

**Author & Report Design:** Yu-Shien Ni, PLAN Co-Director of Atlas Zero Waste Strategy

**Stage 1 Atlas Fellows & Interview Coordinators:**

Avery Lumsden '21 and Benji Holmes '21

## Recognitions

**Kevin Kirsche**, Director, Office of Sustainability, University of Georgia

**Jason Perry**, Sustainability Specialist, Office of Sustainability, University of Georgia

## List of Interviewed Stakeholders

Joel Bacon, Head Design Engineer,

Facilities, College of Veterinary Medicine

John Bateman, Assistant Director, Event

Management, Athletic Association

Elizabeth Beckett, Executive Director,

Office of Special Events

Todd Berven, Interim Director,

Transportation & Parking Services (TPS)

JoHannah Biang, UGArden Farm

Manager

R. Anthony Black, Superintendent,

Southeast Georgia Research and

Education Center\*

Claire Boyd, Assistant Procurement

Office, UGA Procurement

Tyra Byers, Sustainability Certificate

Director and Sustainability Specialist,

Office of Sustainability

Taylor Cain, Director of Engagement,

Leadership & Service, Student Affairs

Adam Clark, Co-Store Manager, UGA

Bookstore

Alan "Ray" Covington, Superintendent,

Georgia Mountain Research & Education

Center\*

Art DiFrancesco, Executive Catering

Manager, UGA Dining Services

Cornelius B. Edwards, Supplies

& Materials Manager, Facilities

Management Division

John Eric Elsner, Superintendent, J. Phil

Campbell Sr. Research and Education

Center\*

Chris Fagan, Assistant Director,

Operations, UGA Dining Services

Melanie Ford, Office of University

Architects

Brett Ganas, Director, Grounds

Department, Facilities Management

Division (FMD)

Jody Ward Hall, Administrative Manager,

Tate Print & Copy

Katie Hammond, Research

Superintendent, Northwest Georgia

Research and Education Center\*

Dale Hess, Superintendent Plant

Operations and Engineer, Facilities

Management, UGA Griffin Campus\*

Edith Hollander, Administrative Assistant

to the Director, Hugh Hodgson School of

Music

Karen I Kelley, Senior Accountant,

College of Agricultural & Environmental

Sciences\*

Todd Kerzie, Director-Building Services,

Facilities Management Division (FMD)

Craig Matthews, Manager, Surplus

Property

Todd Miller, Senior Safety & Compliance Officer, Environmental Safety Division (ESD)

Annelies M. Mondi, Deputy Director, Georgia Museum of Art (GMA)

Michael P. O'Connell, Technical Director, Department of Theater and Film Studies

Amelia Pak, Director, Student Food Pantry

Calvin Perry, Superintendent, College of Agricultural & Environmental Sciences, Facilities\*

John Purcell, Facilities Manager, UGA Libraries

Melvin Robinson, Assistant Athletic Director-Facilities Operations, UGA Athletic Association

Robert Scott Rogers, Superintendent, Southwest Georgia Research and Education Center\*

Star Scott, Green Labs Program Coordinator, Facilities Management Division (FMD)

Jon Swindler, Associate Professor of Art, Lamar Dodd School of Art

Christy Tweedy, Sustainability Coordinator, UGA Housing

Christ Tyson, Superintendent, Vidalia Onion and Vegetable Research Center\*

Susan Van Gigch, Associate Director, UGA Dining Services

George Veeder, Manager, Enterprise Information Technology Services (EITS)

Elizabeth Weeks, Associate Provost for Faculty Affairs

Brian Williams, Associate Director, Rec Sports

*\*Some stakeholder responses did not end up being incorporated into this report because they fell outside the scope of the assessment, which was limited to the UGA main campus in Athens, GA.*