# SUSTAINABLE

LIVING SERIES

Five virtual lectures discussing sustainability programs and resources here at WashU St. Louis

**THURSDAYS** 

4:30–5:15pm Central Time SEP 17<sup>th</sup> Waste

SEP 24<sup>th</sup> Food

Energy

OCT 8th

OCT 1st

Campus Tour

OCT 15<sup>th</sup>

Transportation





### Today's Goals



- Share hacks on how to reduce waste (esp. in the COVID era) through sharing and reuse
- Promote new university programs for reducing and recycling waste
- Review waste sorting concepts



# **POLLS**

### THE PROBLEM

Americans throw away more waste than any other country: **4.4 lbs per person per day** 





### YOUR ANNUAL PLASTIC FOOTPRINT IS 61.02 KG

YOUR USAGE COMPARED TO THE AVERAGE









AMERICAN: 27.36% lower

EUROPEAN: 15.13% higher

INDIAN: 454.73% higher



#### COVID-era



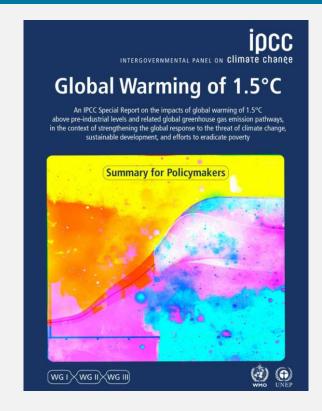
Single Use Plastics

### WHY SHOULD WE CARE?

#### IPCC Special Report on Global Warming of 1.5°C

- Released in October 2018
- Key findings:
  - human activity is responsible for 1.0°C of warming to-date
  - warming is likely to reach 1.5°C between 2030 and 2052 at the current rate
  - Climate-related risks for natural and human systems are lower with 1.5°C versus 2°C
  - Differences include increases in mean temperature in most land and ocean regions, hot extremes in most inhabited regions, heavy precipitation in several regions, and the probability of drought and precipitation deficits in some regions

Action required to stay at or below 1.5°C: Emissions must decline by ~45% by 2030 (below 2010 levels), reaching net zero around 2050





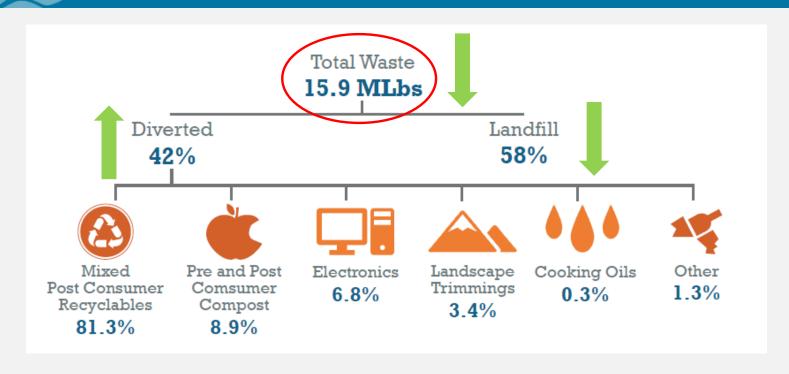
### **SOLUTIONS**

**Reduce** waste where ever possible through avoiding unnecessary consumption, single-use items, and excess packaging.

**Reuse** whenever possible, as many times as possible. Buy things that are durable and reusable. Donate or repurpose when items are no longer needed.

**Recycle** materials through waste diversion strategies, like collection of recyclable and compostable materials.

### WashU's Waste



<sup>\*</sup>Chart includes WUSM and Danforth Campuses

## **Sharing Economy**





Share goods & services
Save money
Increase access & equity
Reduce storage, maintenance, and waste
Build community











### ZERO WASTE DINING AT WASHU





More info and travel utensils available at sustainability.wustl.edu

### **KEY MESSAGES: Reusing**



### Bamboo Travel Cutlery Set

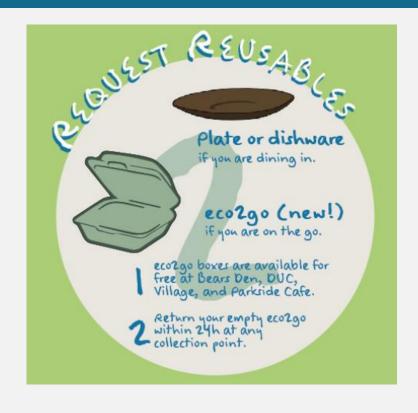
What is it? Reusable fork, knife, spoon, straw set made from rapidly renewable resource. Compost at end of life.

#### How do you get it?

- Buy through Office of Sustainability Website; receive through campus mail or scheduled pick up.
- 2. Limited time: FREE sets available for students, 1 per person, after brief zero waste lesson! (500 sets, through Sept.)



### **KEY MESSAGES: Reusing**



### It's Back: eco2go

What is it? Free, reusable to-go box program.

#### How does it work?

- 1. Request eco2go when ordering (in—person or mobile) at participating locations.
- 2. Eat your food
- 3. Empty and return at any return location, preferably within 24 hrs

### The Details: eco2go

# There is no accountability measure in place to necessitate return.

Eco2go boxes can be used **1000 times** before needing to be replaced. But they need to be used **30 times** to offset the production and transportation costs compared to a disposable box.

Eco2go boxes are expensive – if boxes don't get returned, the program won't work (~\$2.50 vs \$.10)

Eco2go boxes transport food better, don't get soggy, and can be used over and over again!

### Service Locations: eco2go



#### **Check Out & Return:**

BD, DUC, Village,

#### **Return Only:**

Parkside

Whispers, Grounds for Change

### Hacks for Lower Impact Dining

Bring your own utensils, cloth napkin, straw: safer and zero waste.

Bring your own water bottle. Drink way more water.

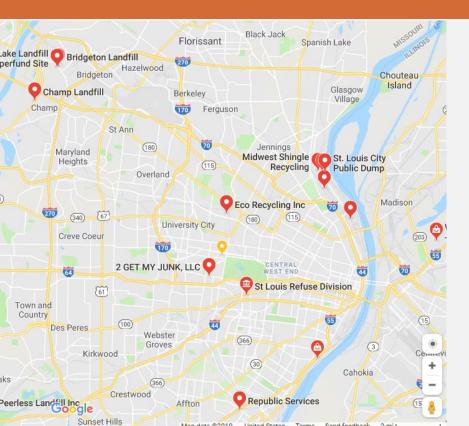
Make coffee at home and bring in a thermos.

Buy bulk condiments and keep in your room/office (avoid condiment packets).

Request eco2go or a dish.

Go for plant-based, plant-forward, no-beef meals for greatest impact!

### Why Recycle?



- A more responsible way to utilize natural resources.
- · Closes the loop.
- Reduce greenhouse gas emissions from extraction of raw/virgin materials.
- Creates jobs.
- Divert waste from landfills.

# WASHU'S WASTE SYSTEM 3 STREAM

2 STREAM

Landfill + Recycle

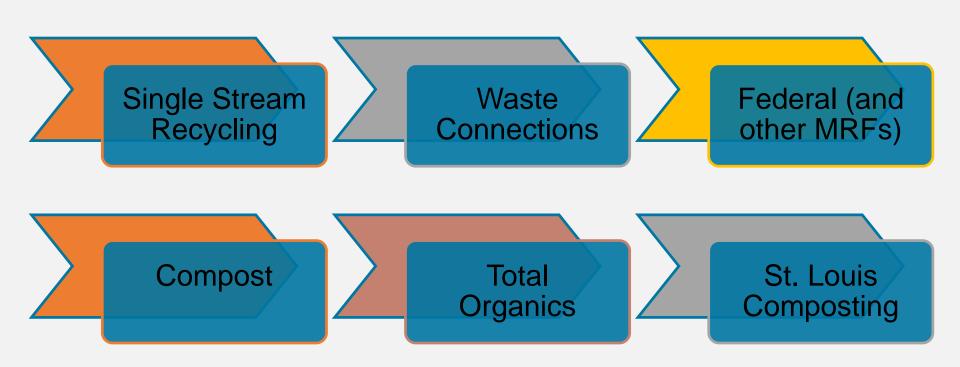
- Launched in 2010
- Available campuswide
- Helped double consumer waste diversion

Landfill + Recycle + Compost

Pre-Consumer (ONLY) compost collection: Shell Café, Farmstead, Whittemore House, Knight Center, Bauer Hall

**Pre- AND Post-consumer compostable:**Bear's Den, the Village, DUC, Parkside Café, S40
ResHalls

### Where does our waste go?

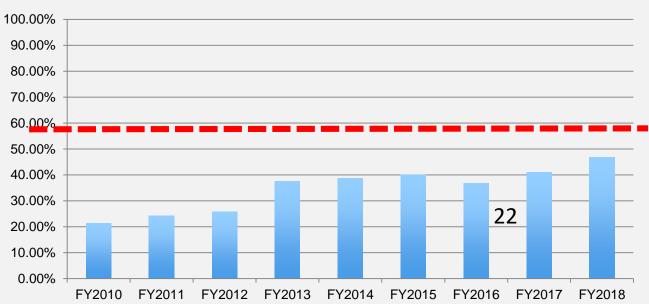


### Stakeholders

- Facilities (Danforth)
- Operations and Facilities Management Department (WUSM)
- Capital Projects
- Custodial Services/WFF
- Housekeeping (Residential Living)
- Students
- Staff/Faculty
- Offices
- Dining Services
- Bon Appetit
- Environmental Health and Safety
- Office of Sustainability

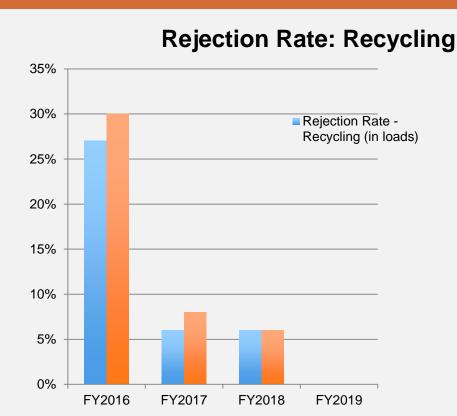
### Goals

#### **Total Diversion Rate without C&D - Danforth**

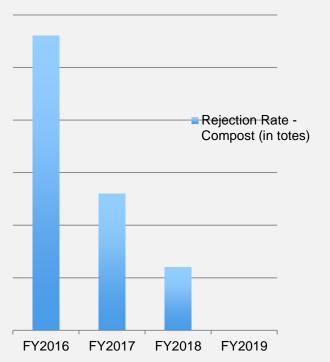


By 2020, achieve solid waste diversion rate of: **55%** on the Danforth Campus.

### Trends

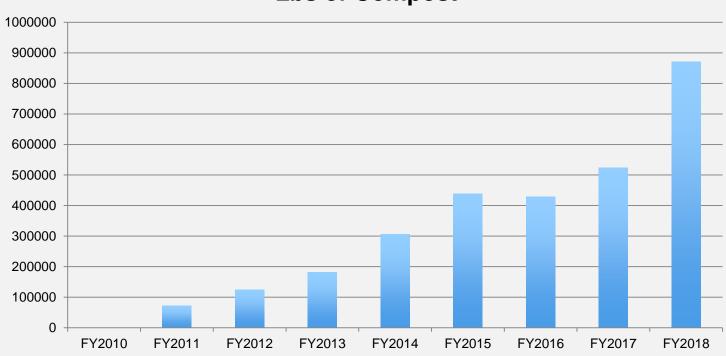


#### **Rejection Rate: Compost**



### **Trends**











#### FOOD CONTAMINATES RECYCLING

**ABSOLUTELY NO:** 

- Food, liquids or ice
- Food-soiled containers
- Paper cups or to-go bowls
- Coffee lids or cups
- #6 plastics or plastic bags

### Key Concepts: Avoid the 4 "T"'s

### Tiny Items

Smaller than a golf ball (3-d), smaller than a credit card (paper)

### **Tanglers**

Plastic bags and film, hoses, hangers, etc.

#### Tech

E-Waste and batteries can start fires in trucks and recycling centers.

#### **Textiles**

Gets wrapped up in machines



Image source: <a href="http://www.startribune.com/recycling-or-wish-cycling-m">http://www.startribune.com/recycling-or-wish-cycling-m</a> aterials-to-stop-tossing-in-the-big-blue-bins/329264261/

### Key Concepts: Read the labels

# = Resin code or type of plastic, not confirmation that the item is recyclable.



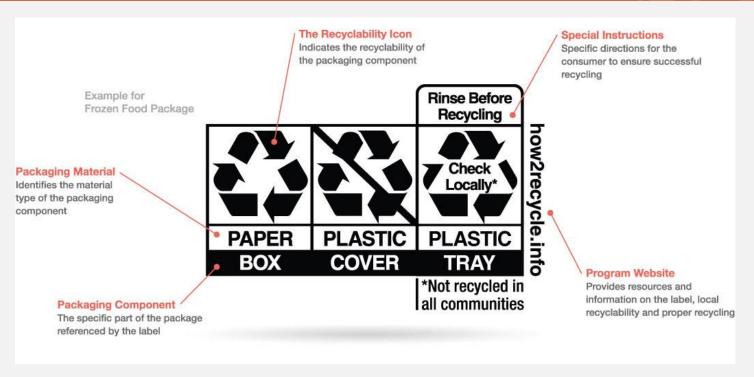


Bioplastics = must be certified to compost. NOT RECYCLABLE.



How2Recycle Labeling = AWESOME!

### Key Concepts: Read the labels



Source: https://www.stocktonrecycles.com/recycling-symbols/

### Key Concepts: Avoid "Wish-Cycling"

Just because you want something to be recyclable, doesn't mean it is.

If it bothers you, don't buy it or buy something else.

# COMPOST



**INCLUDE:** 

- Food and liquids
- Brown paper products
- Napkins

 Paper to-go boxes (make sure no materials are left inside, unsorted)

# **Industrial Composting**

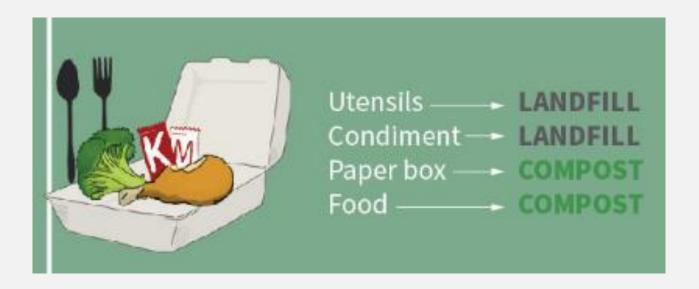


### **KEY MESSAGES: Reduce & Divert**





### **KEY MESSAGES: Sort It Out!**



When you are done eating, sort your waste! If compost collection isn't available, food, napkins and paper to-go boxes must be thrown in the landfill bin.

### **KEY MESSAGES:** Sort it out!



When you are done eating, sort your waste! If compost collection isn't available, food & napkins must be thrown in the landfill bin. But always hold on to your eco2go container and return it at a collection point!

### KEY MESSAGES: Recycling

- Clean, Empty, Dry
- If in doubt, leave it out!
- #6 = NIX
- No plastic bags or utensils
- Avoid the 4 Ts": tiny things, tech, tanglers, textiles
- Consume less
- Pass it along: Keep it simple

# QUIZ













# QUIZ



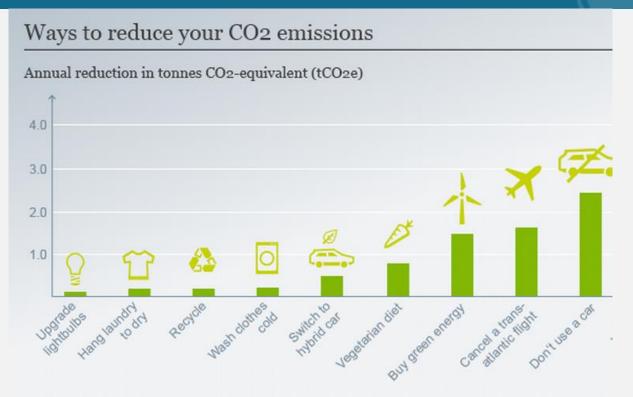








### Recycling as a Gateway



Source: Seth Wynes; Kimberly A Nicholas | Environmental Research Letters, Volume 12, Number 7

# SUSTAINABLE

LIVING

**SERIES** 

Five virtual lectures discussing sustainability programs and resources here at WashU St. Louis

THURSDAYS 4:30-5:15pm

**Central Time** 

SEP 17 <sup>th</sup>	Waste
SEP 24 <sup>th</sup>	Food
OCT 1st	Energy
OCT 8 <sup>th</sup>	Campus Tour
OCT 15 <sup>th</sup>	Transportation

### **QUESTIONS?**

Cassie Hage
Office of Sustainability
cassandra.hage@wustl.edu