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# Working Together Toward Swarthmore's Sustainable Community

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# Land acknowledgement

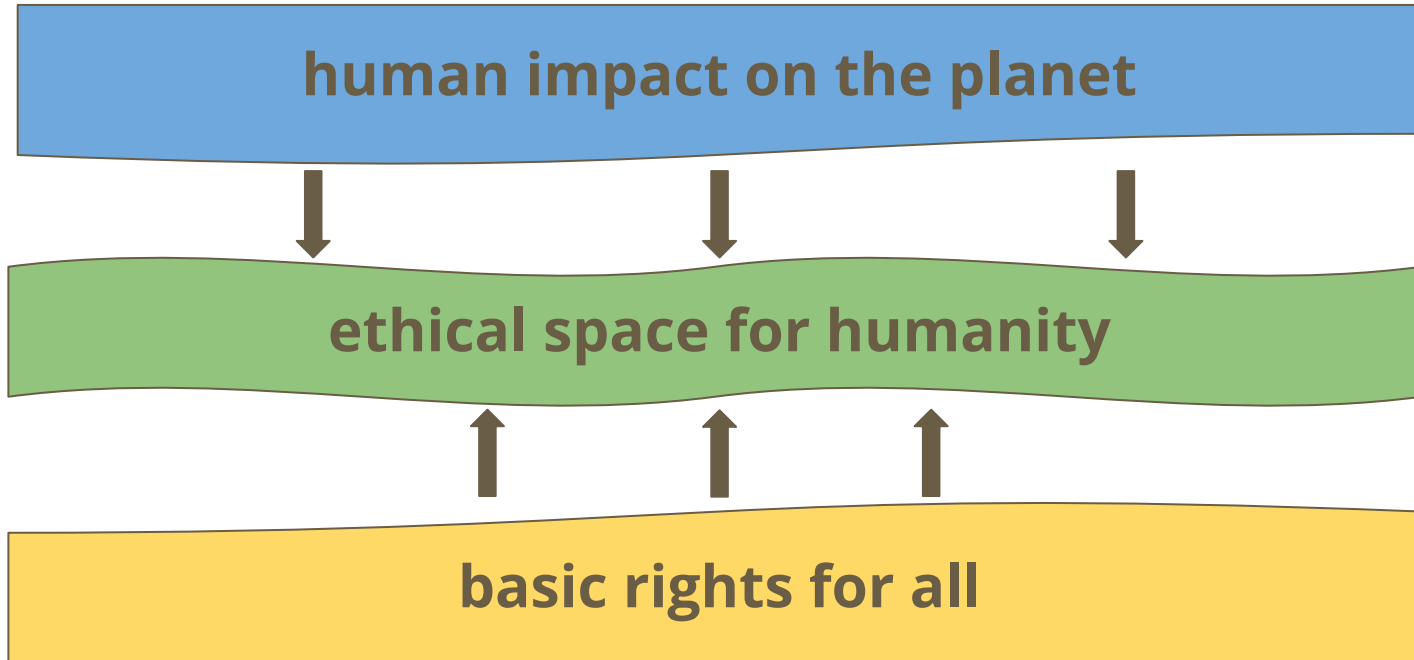
- Lenni-Lenape were the first known settlers in this region
- 10,000 years before Europeans
- ~15,000-20,000 Lenape
- Thomas Penn tricked the Lenape into giving away their land
- Tribe moved west in the Delaware Westward Trek
- ~985 Lenape survived the trip



# Agenda

- Understand **frameworks for sustainability & environmental justice**, and ground those concepts in everyday campus life
- Recognize the **climate crisis** facing us
- Introduce **Swarthmore's Zero Waste commitment** and understand the *why*
- Recognize that achieving sustainability goals requires both **individual and systems change**

# A framework for sustainability



# Environmental Justice

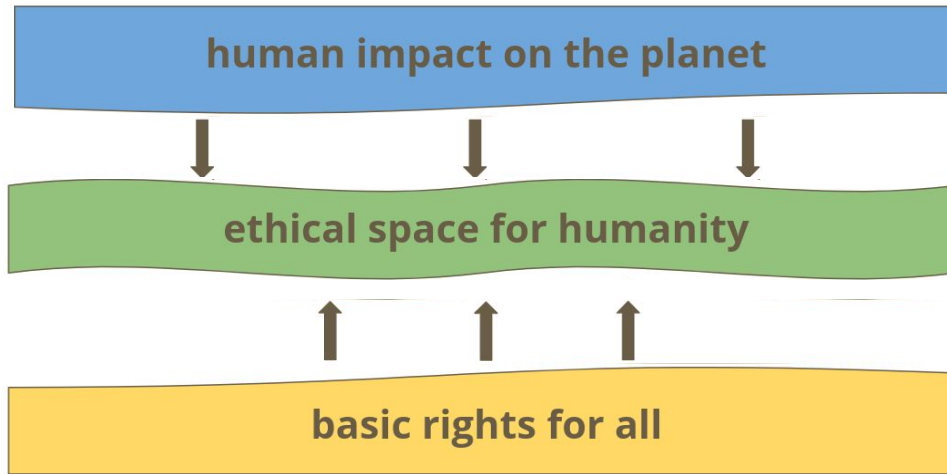
# What is environmental justice?

**EPA definition:** “Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

Furthermore, this goal will be only achieved when everyone enjoys:

- the **same degree of protection** from environmental and health hazards, and
- equal access to the **decision-making process** to have a healthy environment in which to live, learn, and work.

# Returning to the sustainability framework



EJ is the fair treatment and involvement of all people with respect to the environment

*especially* those that are traditionally silenced or marginalized

# Areas of environmental justice work

- Energy Justice
- Food Justice
- Transportation Justice
- Healthy Space Justice
- Climate Justice



Source: Getty Images



# Areas of environmental justice work

- Energy Justice
- Food Justice
- Transportation Justice
- Healthy Space Justice
- **Climate Justice**



Source: Getty Images

# Climate Crisis

**In one word, how do you feel about climate change and sustainability?**

→ [sift.ly](https://sift.ly)

→ [take2](https://take2.org)

Climate change



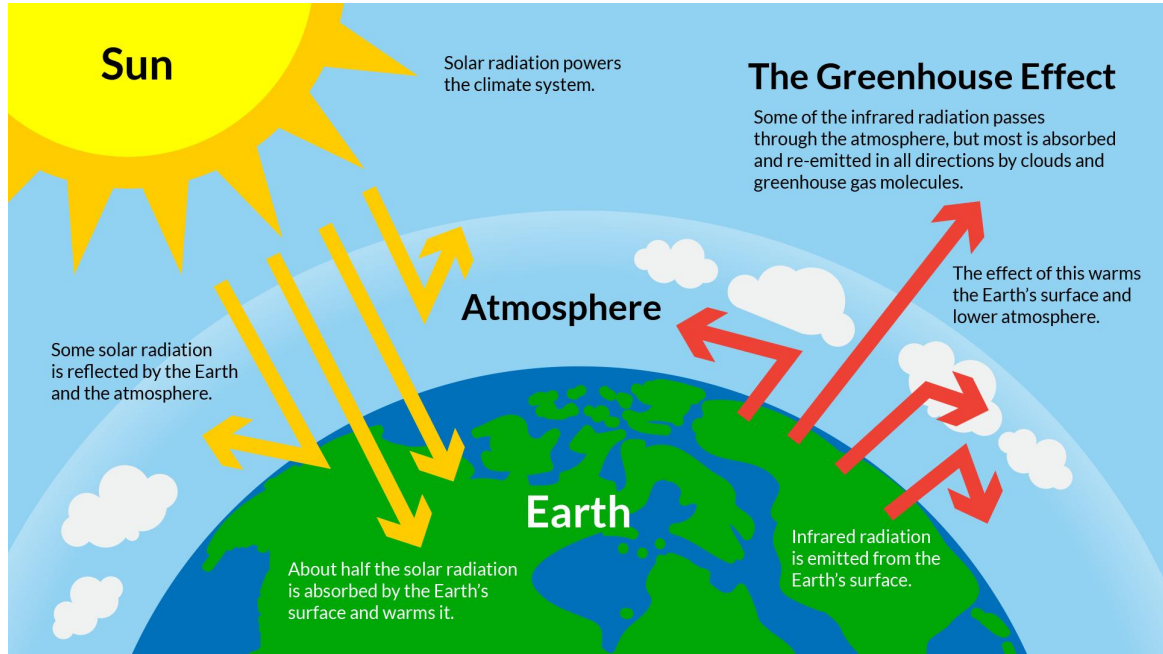
Global warming



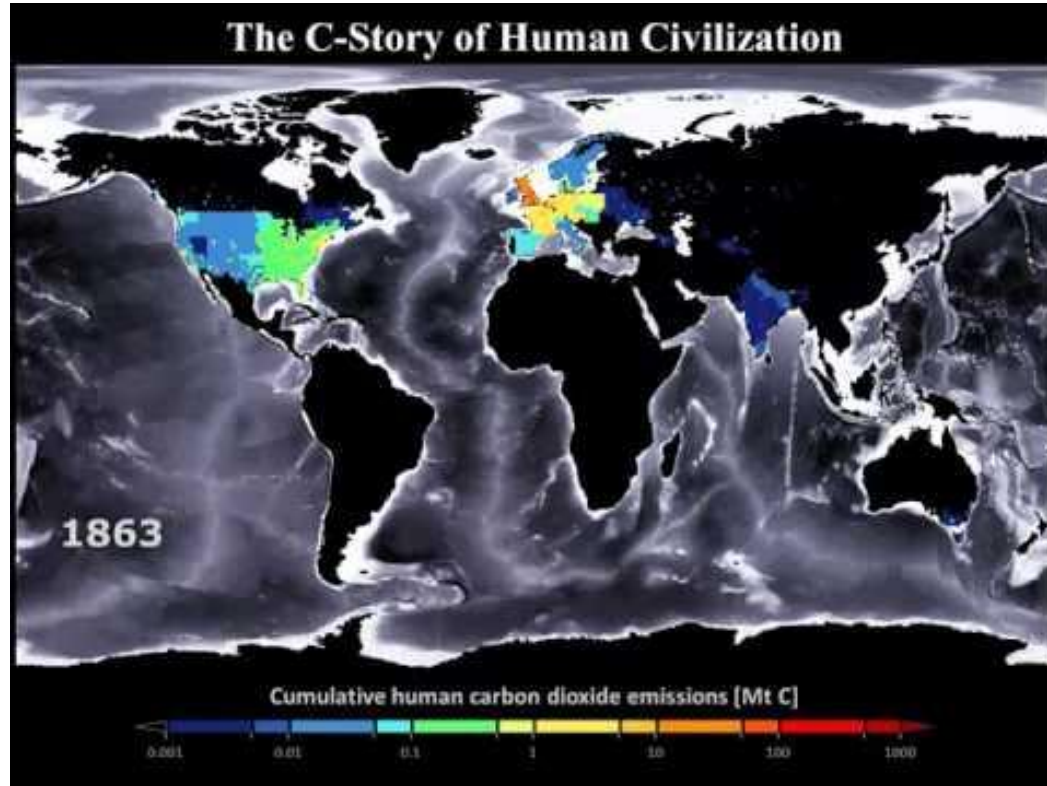
Greenhouse gases



Burning fossil  
fuels

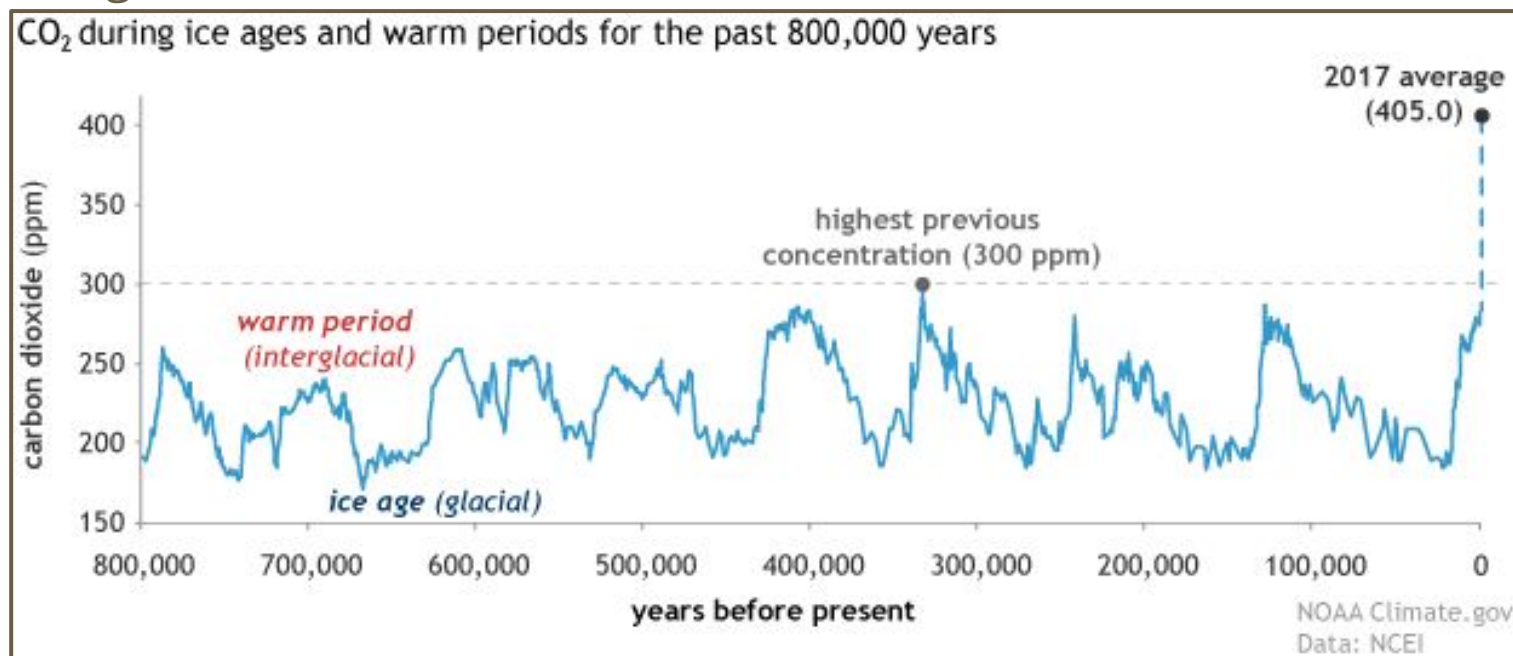


# CO<sub>2</sub>: geographic distribution of emissions



# CO<sub>2</sub>: the long view

The carbon dioxide (and other GHGs) in the air has vastly increased in the modern age



# Consequences of climate change

- Greater severity in:
  - Heat waves
  - Droughts
  - Storms & hurricanes
  - Floods
- Sea level rise
- Desertification
- Longer fire seasons
- Loss of biodiversity



Post-Hurricane Sandy



# Social consequences of climate change

Many recent natural disasters and human conflicts have been exacerbated by anthropogenic climate change:

- West coast fires
- Syrian War
- Hurricane Maria





# Climate (in)justice

Some key questions:

- Who's suffering soonest?
- Who's suffering the worst impacts?
- Who can't afford or can't access adaptation?
- Who is emitting the most greenhouse gases?

We must recognize that already marginalized communities are most vulnerable to climate impacts, and must provide a key role in crafting solutions

# Youth protest at COP24



# Youth protest at COP24

"I ask you guys, how much our lives matter for you? How much cost one life for you? Because why your life matter more than ours? ... How many people need to be killed, how many lives has to be waste for you guys wake up and see that what we are doing right now is affecting everybody?"

*Indigenous youth leader from Brazil*

# Climate action NOW



# Interconnected issues

- Climate change is only one of many ways in which humans have affected each other and the planet
  - Impacts on each other are uneven and rooted in oppressive systems



# Areas of environmental justice work

- **Energy Justice**
- Food Justice
- Transportation Justice
- **Healthy Space Justice**
- **Climate Justice**



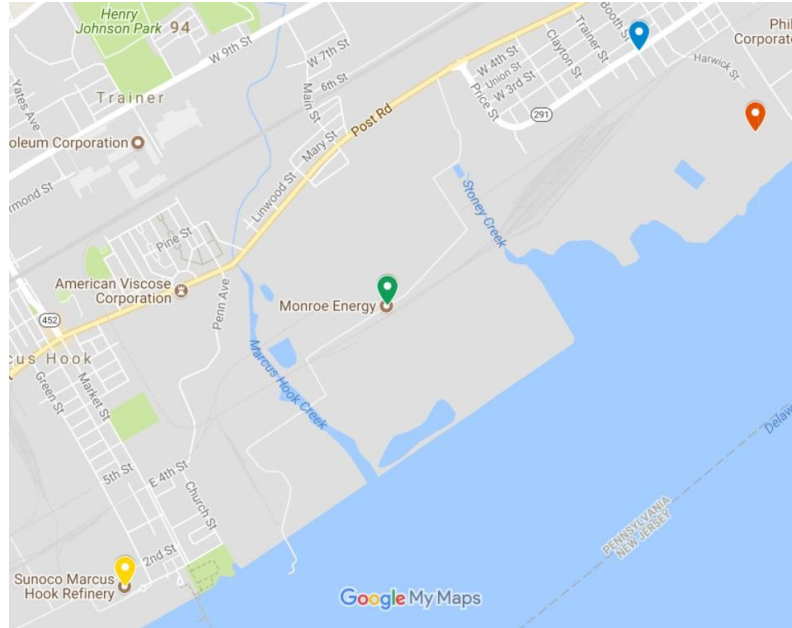
Source: Getty Images

# Zero Waste

# Environmental injustice

Environmental crises tend to cause more harm to already vulnerable communities, both globally and locally

*Clustering  
of waste  
facilities  
in DelCo*

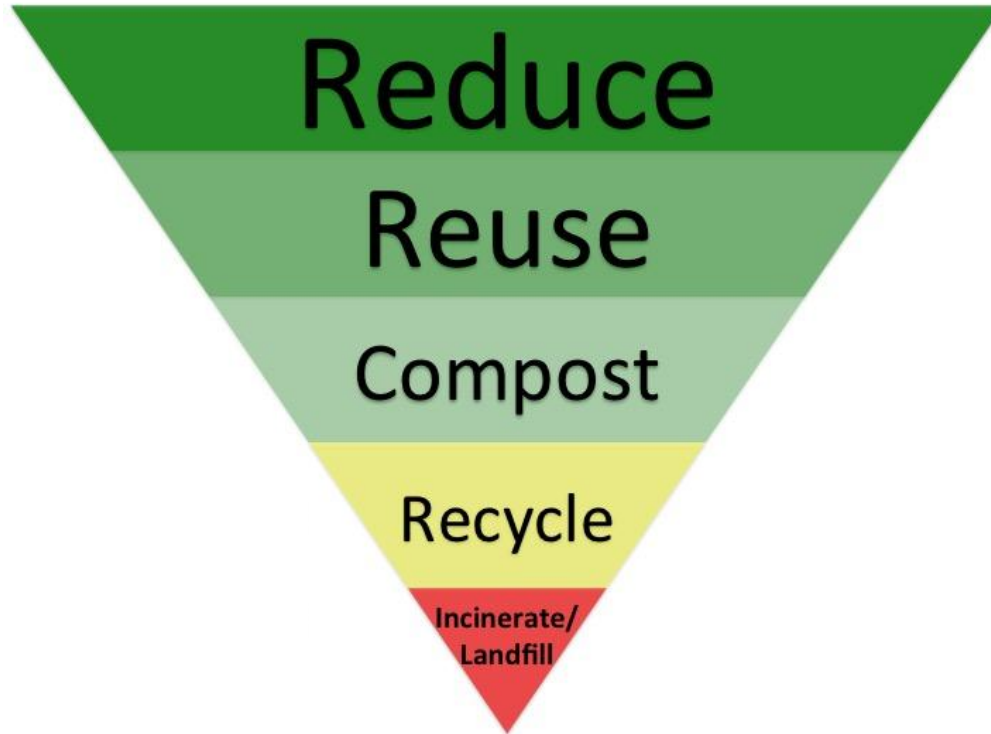


10 miles away from  
Swarthmore...

-  Sunoco Refinery
-  Monroe Energy
-  Delcora
-  Covanta



# Swarthmore's material use hierarchy



# Zero Waste commitment

Need to develop  
reduction targets!

Our goal is a  
**zero waste**  
campus!



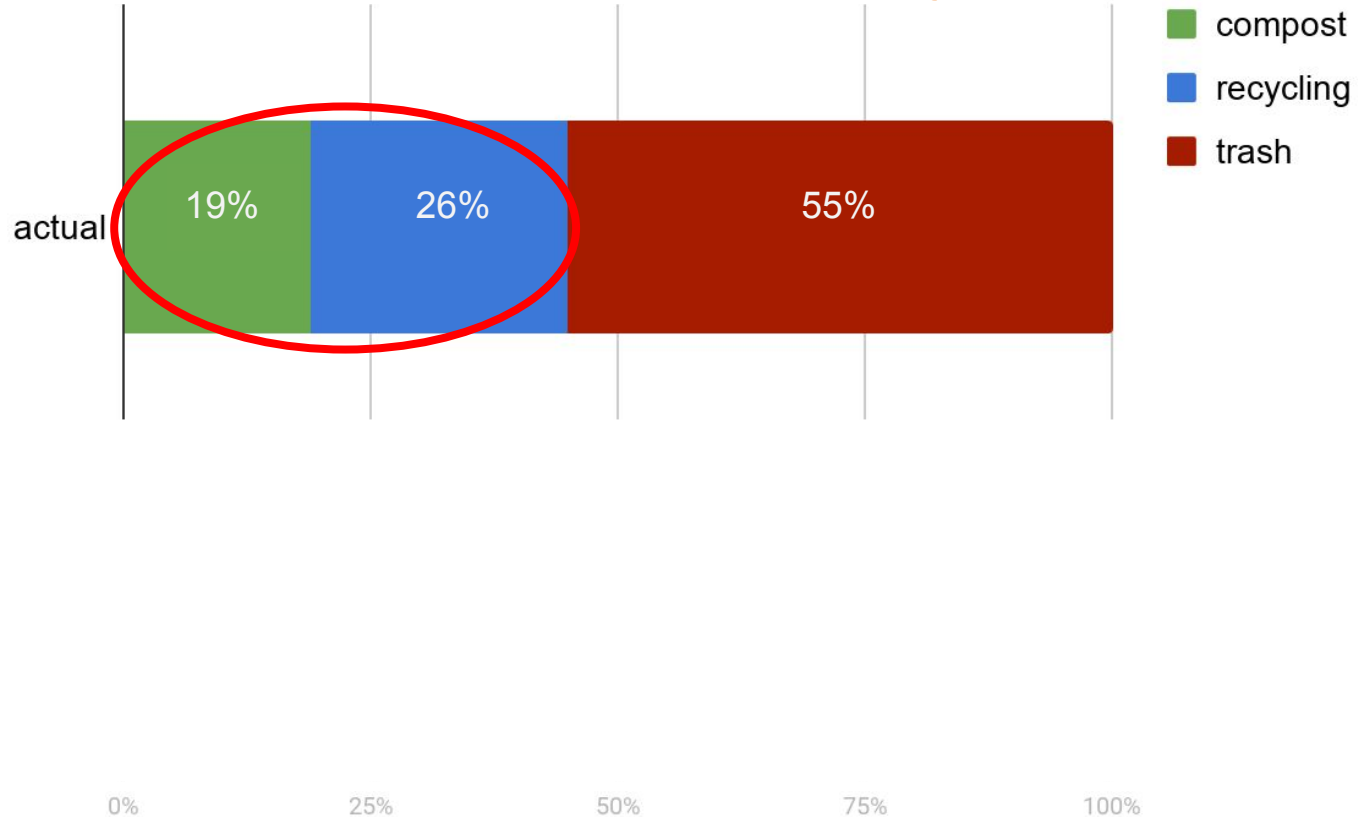
**INTERIM  
GOAL**



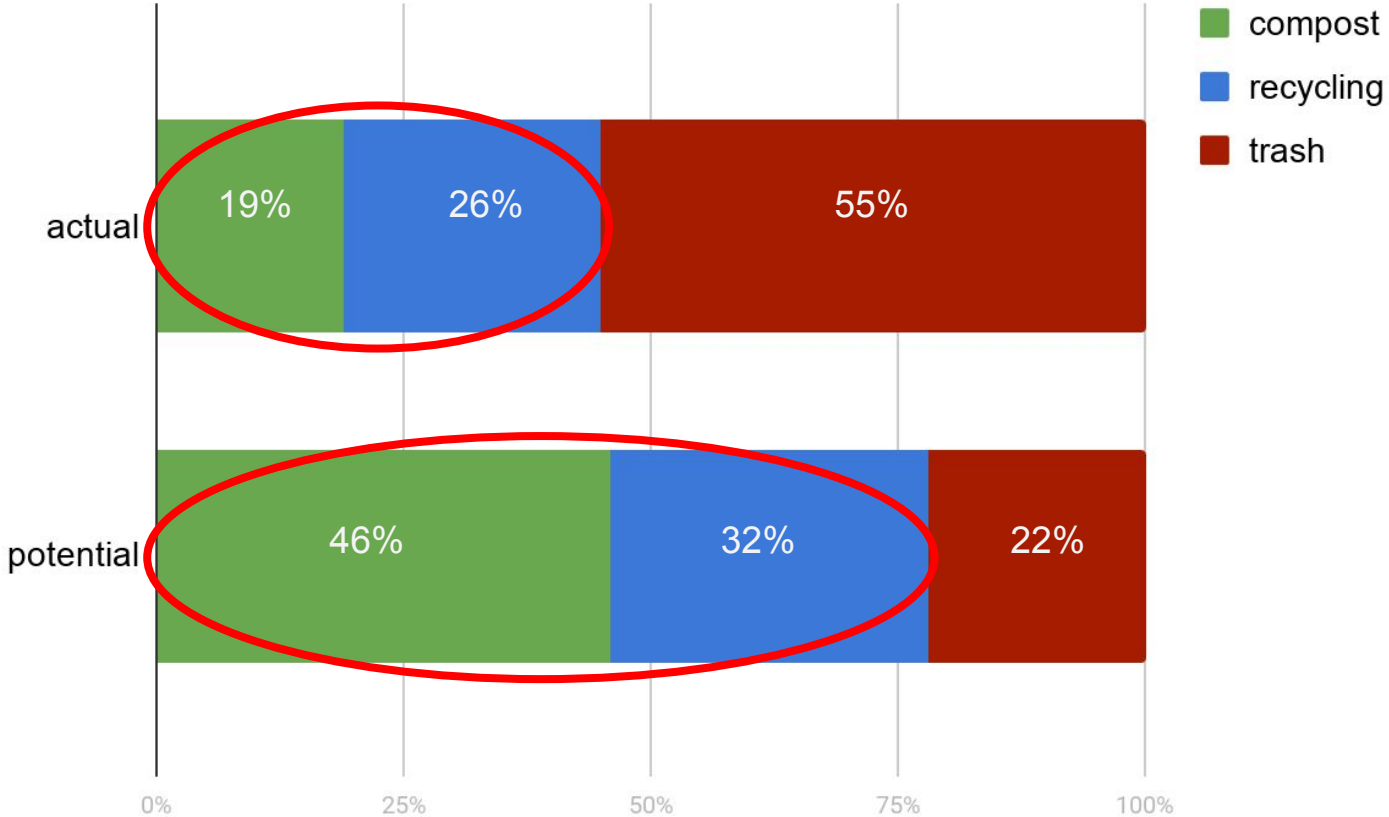
**80%**

of Swarthmore's waste will  
be diverted from the  
Chester incinerator by 2022.

# 2018 waste characterization study



# 2018 waste characterization study



# Environmental Services (EVS)



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**Swarthmore College Community**  
(students, faculty, administration, staff, visitors, vendors)  
**generates:**

\*Note: “Final”  
is relative

**TRASH**

**RECYCLABLES**

**COMPOSTABLES**

Consolidated by **EVS**

Consolidated by  
**Green Advisors & EVS**

Consolidated by  
**Sharples Kitchen**

Collected by **Jack Clark  
& Sons Hauling**

Collected by  
**J P Mascaro &  
Sons (soon)**

Sorted by **Green Advisors**

Collected by **Kitchen Harvest**

Final\* disposal:  
**Covanta Incinerator  
in Chester, PA**

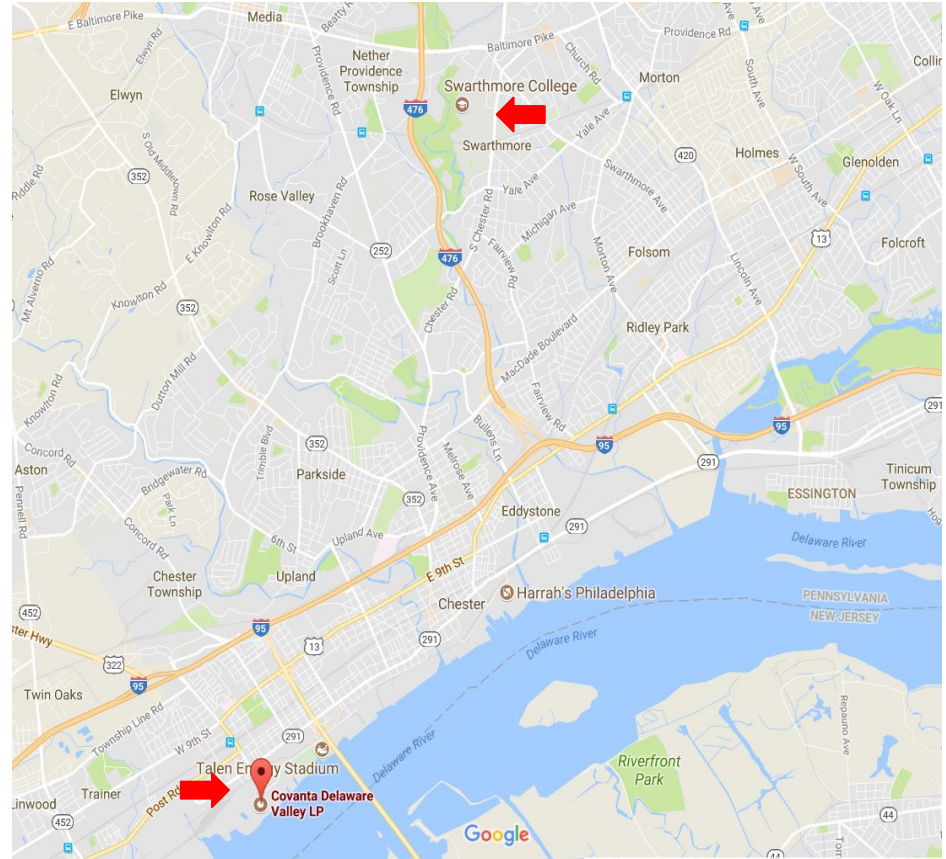
Final\* disposal:  
**J P Mascaro & Sons  
in Birdsboro, PA (soon)**

Final\* disposal:  
**Kitchen Harvest  
in Media, PA**



# Life cycle of our waste

Items that are not composted or recycled go to the Covanta incinerator in Chester





## Green Advisors visit Covanta incinerator





## Green Advisors visit Kitchen Harvest compost facility



# What's going on with recycling?

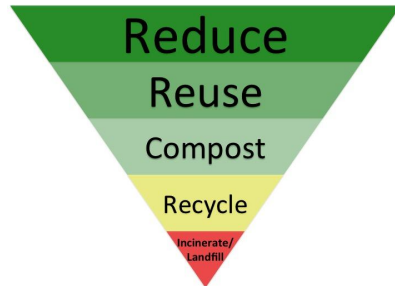
- Let's start with the question: where had all of our recycling been going??
- In 2018, China restricted imports on many types of recyclables
- Why? Some potential reasons:
  - High levels of contamination in US stream
  - More recyclables being produced in China
  - More environmental protections in China
- The effect has been that many municipalities are finding it hard to continue paying for recycling
- Also, other countries are now bearing the burden

# What's going on with recycling?



# Multi-year process

- Install standardized, new bins
- Vastly increase compost capability
- Update signage & launch an educational campaign
- Develop the Worthmore Free Store





# Waste sorting practice



# Tea bags



# Solo cups

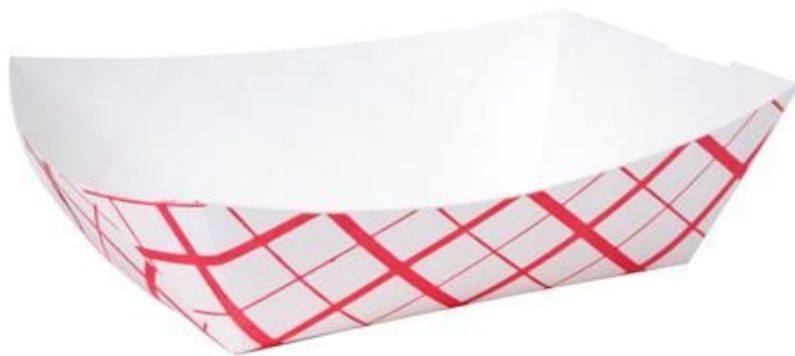




# Campus coffee cups



# Essie's fry boats



# Plastic bags



# Paper towels



# Pizza boxes



# Q & A



## COMPOST

FOOD AND PLANT-BASED ITEMS

### FOOD and DIRTY PAPER

Meat and oil OK. No glossy or waxy paper.



### COMPOSTABLE CUPS and UTENSILS

College-provided items are compostable.



Questions? Email [zerowaste@swarthmore.edu](mailto:zerowaste@swarthmore.edu)



## RECYCLE

CLEAN MATERIALS ONLY

No food, liquid, shredded paper, or plastic bags

### PAPER and CARDBOARD

Attached staples, paper clips, and tape OK!



### METALS



### GLASS

Unbroken only



### RIGID PLASTICS

marked ♻️ ♻️ ♻️ ♻️ ♻️

NO unnumbered plastics, #3 or #6, or plastic bags, films, and wraps



Questions? Email [zerowaste@swarthmore.edu](mailto:zerowaste@swarthmore.edu)



## TRASH

TRASH IS BURNED! LOOK FOR REUSABLE OPTIONS.



### STOP! DROP OFF THE FOLLOWING:

#### AT WORTHMORE

- CLOTHING
- ELECTRONICS
- OFFICE SUPPLIES

[swarthmore.edu/sustainability/worthmore](http://swarthmore.edu/sustainability/worthmore)

#### IN SHANE LOUNGE

- BATTERIES
- INK CARTRIDGES

Located in Parrish Hall, first floor

Questions? Email [zerowaste@swarthmore.edu](mailto:zerowaste@swarthmore.edu)