

# Cafeteria Waste Assessment

## Katharine Lee Bates Elementary School

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# Outline

- Collaboration and framework
- Assessment goals and design
- Assessment results
- Pilot and next steps
- Acknowledgements



# Collaborative, Town-wide Effort

- Leadership from **Sustainable Energy Committee**
- **School Admin, Custodian/FMD, Parents**
- 3R Working Group, Green Collaborative
- Food Services, BOH
- DPW, RDF



Town of Wellesley  
SUSTAINABLE ENERGY COMMITTEE

# USEPA Food Recovery Challenge & WasteWise

- Bates is the first K12 School in New England to join FRC
- Bates joined WasteWise to account for non-food waste

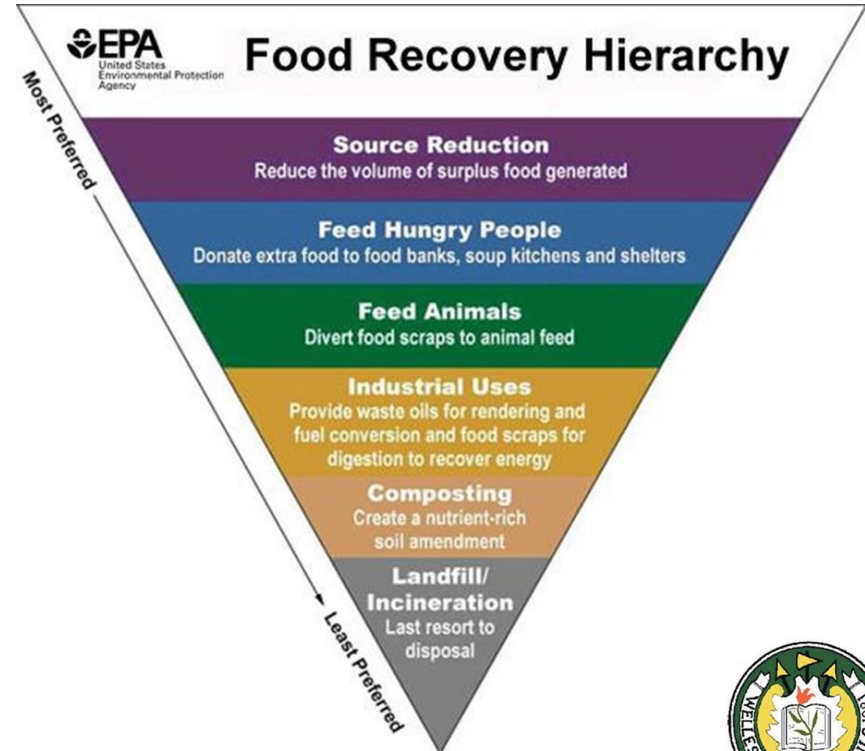


We are here



# Assessment Goals

- Measure **food waste**, **liquids**, **recyclables**, & trash
- Analyze variation of waste with: **age**, **home vs. school**, **menu**
- Engage students
- Minimize disruption
- Rely on volunteers



# Assessment Categories



Sharing  
Items



Animal  
Feed



Simple  
Compost



Complex  
Compost



Recycle



Trash



Liquid



Napkin  
Packets





# Assessment Design



- 1 week
- 3 lunch periods/day
- 10 volunteers/day
- 395 cooperative kids!

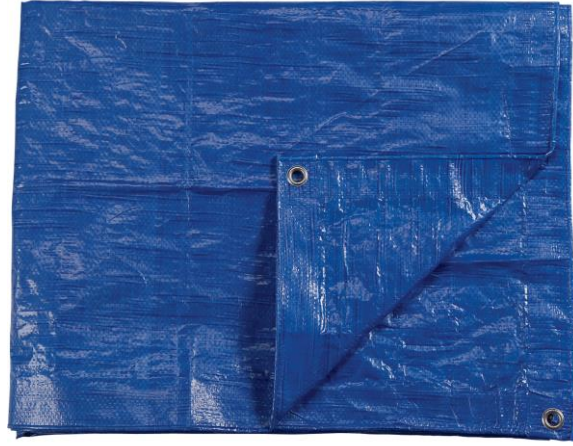


# Assessment: Supplies for Sorting





# Assessment: Supplies for Weighing



# Assessment Education



# Weigh and Record

- Prepare data sheets
- Make note of lunch menu
- Count individual donation items and napkin packets



Weigh	{ School Home	} donations, feed, compost, recyclables, liquid, trash
Weigh	{ K 5 <sup>th</sup> Grade	} donations, feed, compost, recyclables, liquid, trash



# Animal Feed: 17 lbs/day





# Complex Compost: 20 lbs/day





# Simple Compost: 7 lbs/day

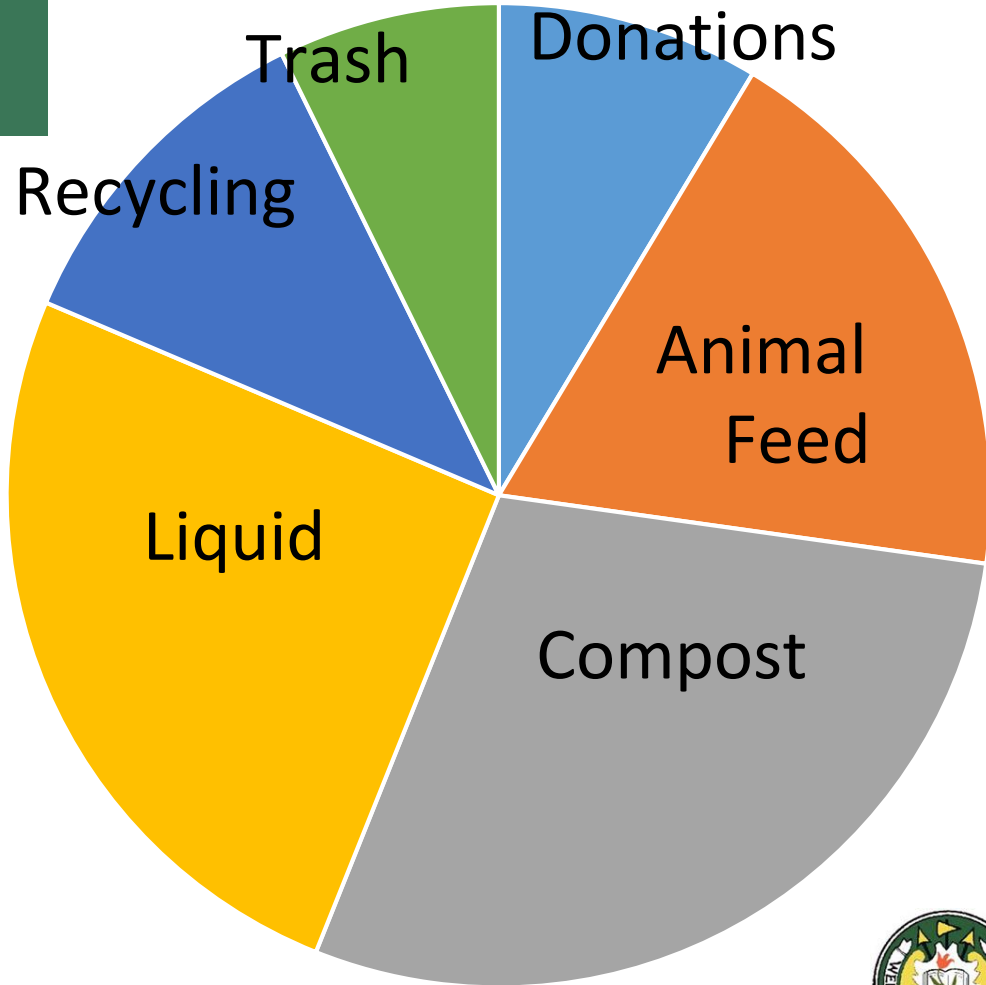


# Recyclables: 11 lbs/day



# Results

Item	Weight (lbs/week)	%
Donation	32	9
Animal Feed	69	19
Compost	107	29
Liquid	94	25
Recycling	42	11
Trash	27	7



# Results

- 371 lbs/week or over 13,000 lbs/school year
- School Lunch Waste = 4 x Home Lunch Waste (by weight)
- Older Kid Waste = Younger Kid Waste (by weight)
- Least popular lunch menus generate more waste per lunch (tentative finding)



# Recommendations

## Donate, Divert Liquid, Recycle, Compost and...

### HOME LUNCH

- Reusable containers for all lunch items
- Cloth napkins
- Stainless steel or other reusable utensils
- Reusable drink containers



### SCHOOL LUNCH

- Reusable trays or eliminate trays
- Eliminate plastic, clamshell containers
- Napkin & utensil dispensers
- Reusable or compostable utensils
- Condiment & milk dispensers
- Further analyze school lunch waste and adjust menus





# From Assessment to Pilot

- Compromise w/Town departments
- Implement recycling & composting in phases
- Build trust and lay a strong foundation



# Phase 1 Pilot

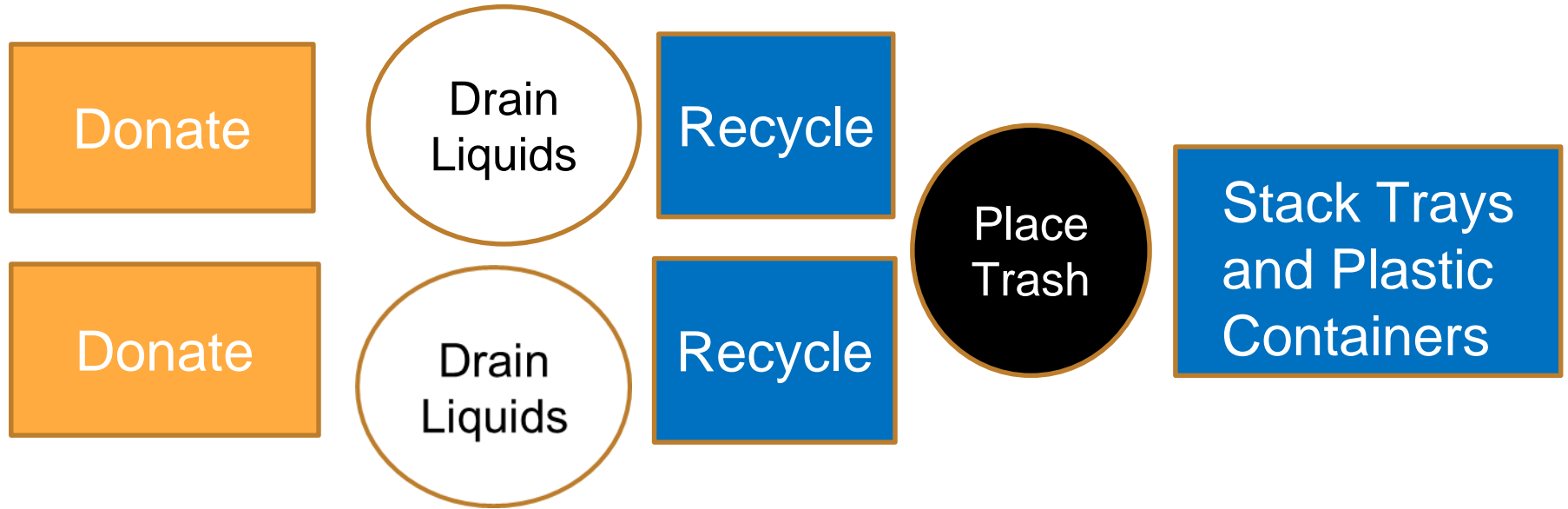
- 5<sup>th</sup> Grade Recycling Leadership Team
- Waste reduction
- Donation
- Liquid diversion
- Single Stream



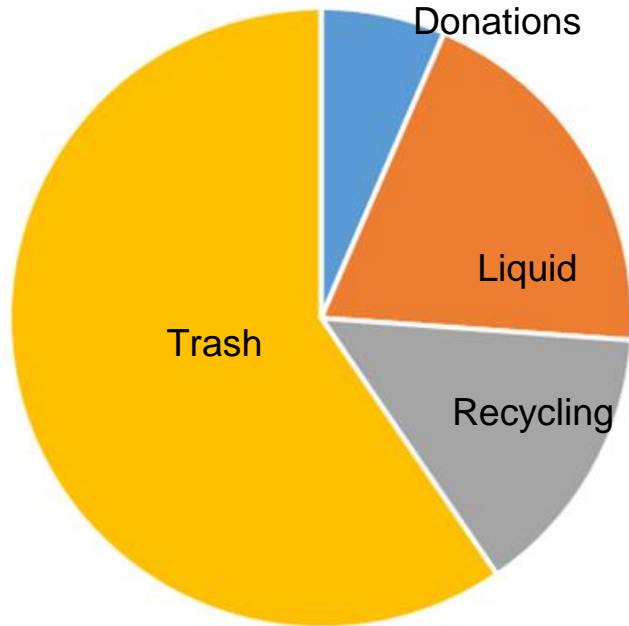
# Recycling and Food Recovery Pilot



# Recycling and Food Recovery Pilot



# Phase 1 Pilot Results: 40% Diversion



**Waste**

**Weight  
(lbs./wk)**

**%**

Donations

25.6

6

Liquid

78.0

20

Recycling

56.8

14

Trash

236

60

**Phase 2 Pilot will divert approximately 93%  
of previously landfill-bound waste.**





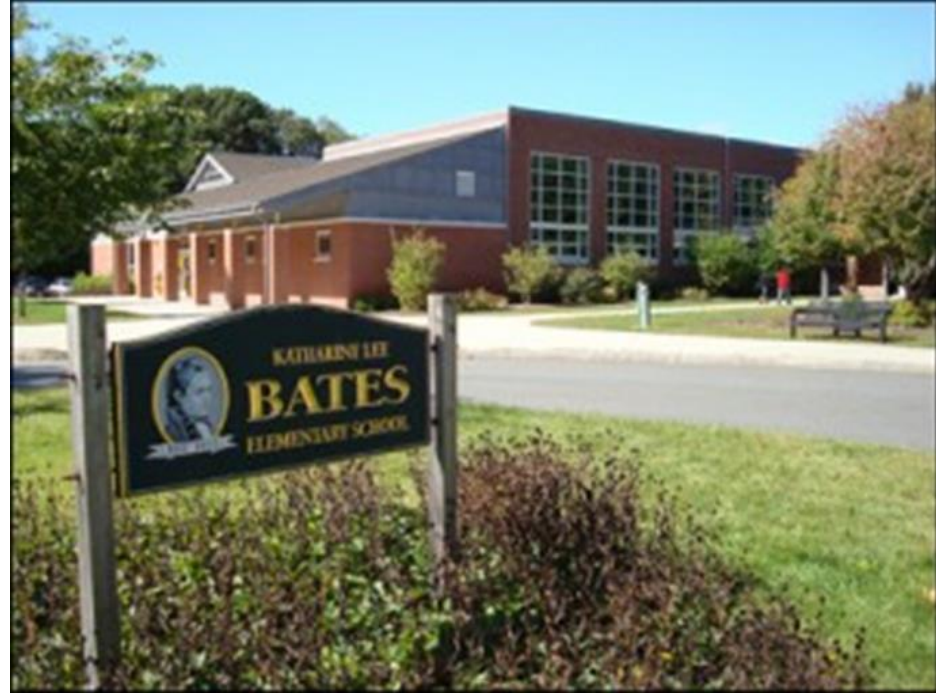
# Next Steps

- Introduce pilot in additional Wellesley schools
- Expand food rescue
- Compost pick-up



# Bates Assessment Team

- **Nancy Braun**, Wellesley Green Schools
- **Gretchen Hall**, Bates Parent
- **Stephanie Hawkinson**, Natural Resources Commission
- **Marybeth Martello**, Sustainable Energy Committee
- **Alexa Plenge**, Bates Parent



# Special thanks to...

Christine Beling, EPA

Carolyn Dann, MA DEP

Janet Bowen, EPA



# Thank you!

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