# Reusable Container Pilot Program

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# 01 Introduction

**Problem:**

- Despite Berkeley's advancements in sustainable packaging laws in the past few years, we have yet to see total adherement to the rules - disposable dine-in containers
- A push for universal reusables/zero waste has existed at BUSD for 10+ years
- The Berkeley High Cafeteria uses about **113, 400** disposable plates/bowls every year, which creates over **6 tons** of disposables landfilled annually

Our proposed solution:

- Reusable Takeout Container Pilot Program, starting with the Berkeley High School Cafeteria

# Why Reusables?

- Berkeley High School serves over 630 meals a day in the cafeteria, and uses 113,400 disposable plates per year (6 tons of disposables landfilled annually)
- Eliminating our disposable plates would save $900/year in landfill tipping fees
- We would surpass our “break even point” in terms of greenhouse gas (GHG) emissions for plates
- Emissions savings: 3.24 tons in the first year, 4.04 tons annually
- **69.3% decrease in GHG emissions in the first year**

# Our Progress

- In the past 8 months, we've looked into a multitude of providers, types of containers, and various business models

- We found our most optimal provider, Buoy, and started negotiations with them and BUSD's Food Services Dept.

- Last month, we came to a verbal agreement with Steph Collins and Sofia Peltz at BUSD to run a once a week pilot program for the reusable containers

# Why start with Berkeley High?

Before expanding to the greater downtown Berkeley area to include restaurants in the program, we would use Berkeley High as a trial run.

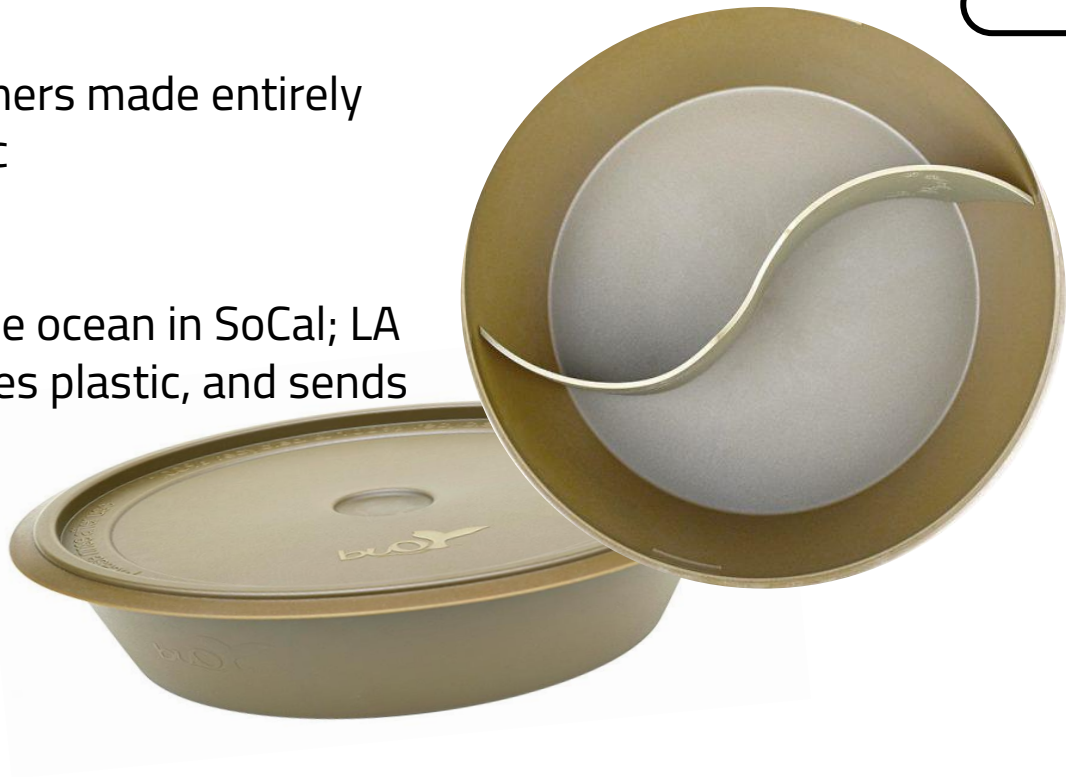
- Smaller pool (~600 students), which means less loss of materials
- BHS Cafeteria is a controlled setting
- Berkeley High/BUSD would **save** money quickly, whereas it might take longer for restaurants to pay off costs
- Restaurants have choice to opt-out/change requirements
- **Teenagers are passionate and malleable!**

# Provider - Buoy

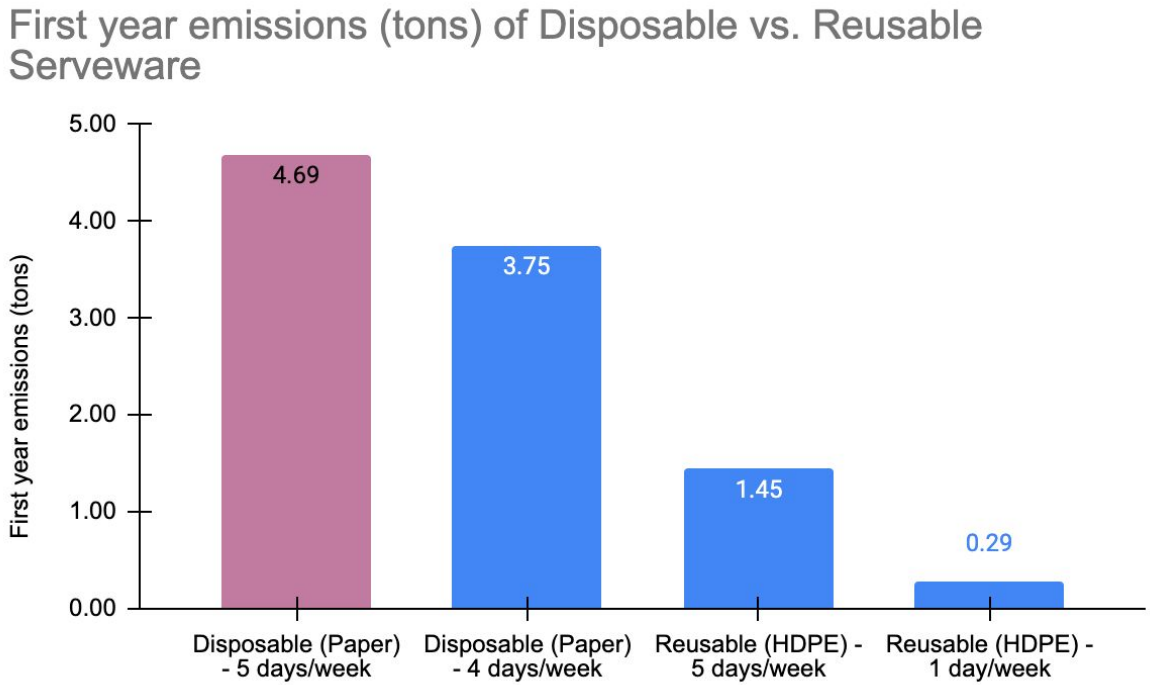
- Manufacturer of food/drink containers made entirely from recycled, ocean-bound plastic

What does this mean?

- Intercept plastic exiting towards the ocean in SoCal; LA recycling facility collects it, pelletizes plastic, and sends it to Buoy
- Only use plastic from milk/orange juice containers, not detergent (to avoid toxins in plastic)
- Solar-powered injection model, which drives down footprint of production



# Figure 1



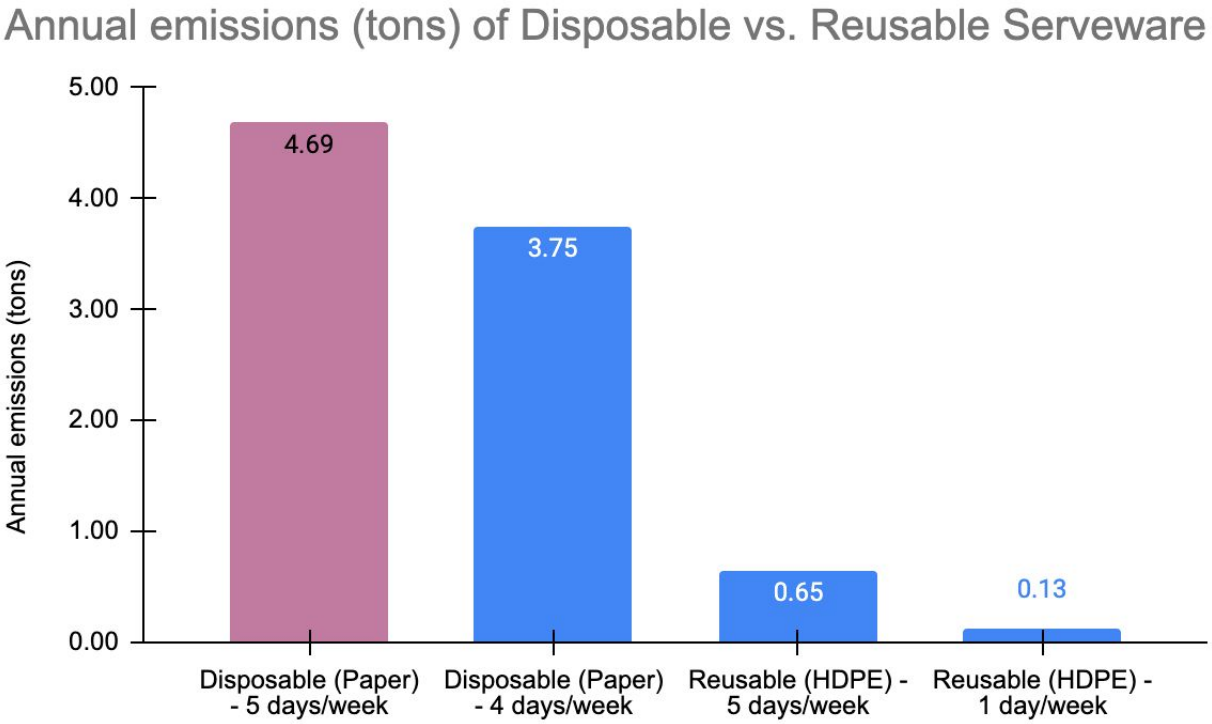

Emissions savings comparing 5 day disposable use vs 5 day reusable implementation:

**3.24 tons in first year**
**4.04 tons annually**

Emissions savings comparing 4 day disposable use with 1 day reusable implementation vs 5 day disposable use:

**0.65 tons in first year**
**0.81 tons annually**

# Figure 2


Annual emissions (tons) of Disposable vs. Reusable Serveware
Annual emissions (tons)
5.00
4.00
3.00
2.00
1.00
0.00
4.69
3.75
0.65
0.13
Disposable (Paper) - 5 days/week
Disposable (Paper) - 4 days/week
Reusable (HDPE) - 5 days/week
Reusable (HDPE) - 1 day/week

# 04
# Business Model

# Cost/Usage Breakdown

## Container Costs

- Number of individual students served: ~300
- Number of containers used per week: ~300
- $0.5 per container, total container cost: ~$600
- Containers are used once per day for 36 days, total containers used per year: ~10,800 (36 days X 300 containers per week)
- Overage costs: ~5% of containers(~30 containers), ~$15

Total Container Cost Per 2 Years: ~$630

# Cost/Usage Breakdown

## Collection Bin Costs

- Number of collection bins: 3
- Cost per bin: ~$1000, total cost: ~$3000
- Collection bin locations: Cafeteria, Main Green, C-Steps
- Collection bin life-span: ~15 years

# Cost/Usage Breakdown

## Washing/Transport Costs(Buoy Estimates)

- Cost per container: ~$0.70
- Washing machine washes 120-150 containers per cycle,
- 90 second washing cycle
- Cycles per year: ~80 (# of containers used per year/135 containers per cycle)
- Washing costs per year: ~$7560 (if Buoy provides transport and washing)