

Reusable Container Pilot Program

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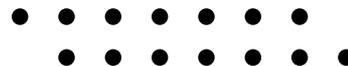
Introduction

Problem:

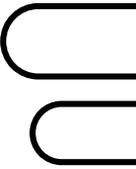
- Despite Berkeley's advancements in sustainable packaging laws in the past few years, we have yet to see total adherence to the rules - disposable dine-in containers
- A push for universal reusables/zero waste has existed at BUSD for 10+ years
- The Berkeley High Cafeteria uses about **113,400** disposable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

Our proposed solution:

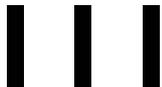
- Reusable Takeout Container Pilot Program, starting with the Berkeley High School Cafeteria



Why Reusables?



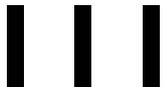
- Berkeley High School serves over 630 meals a day in the cafeteria, and uses 113,400 disposable plates per year (6 tons of disposables landfilled annually)
- Eliminating our disposable plates would save \$900/year in landfill tipping fees
- We would surpass our “break even point” in terms of greenhouse 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

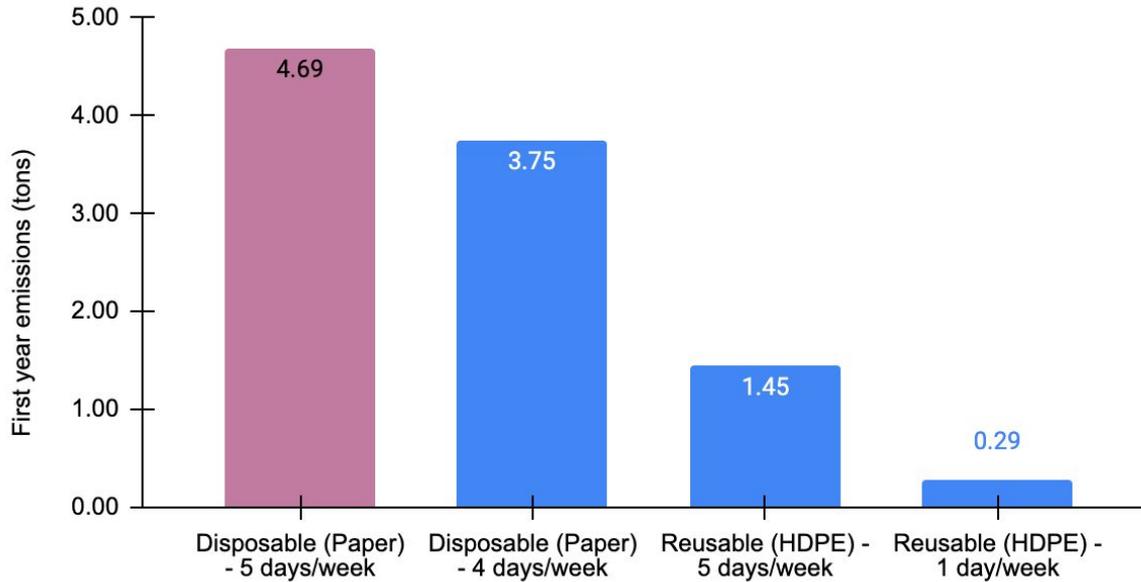
What does this mean?

- 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

First year emissions (tons) of Disposable vs. Reusable Serveware



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

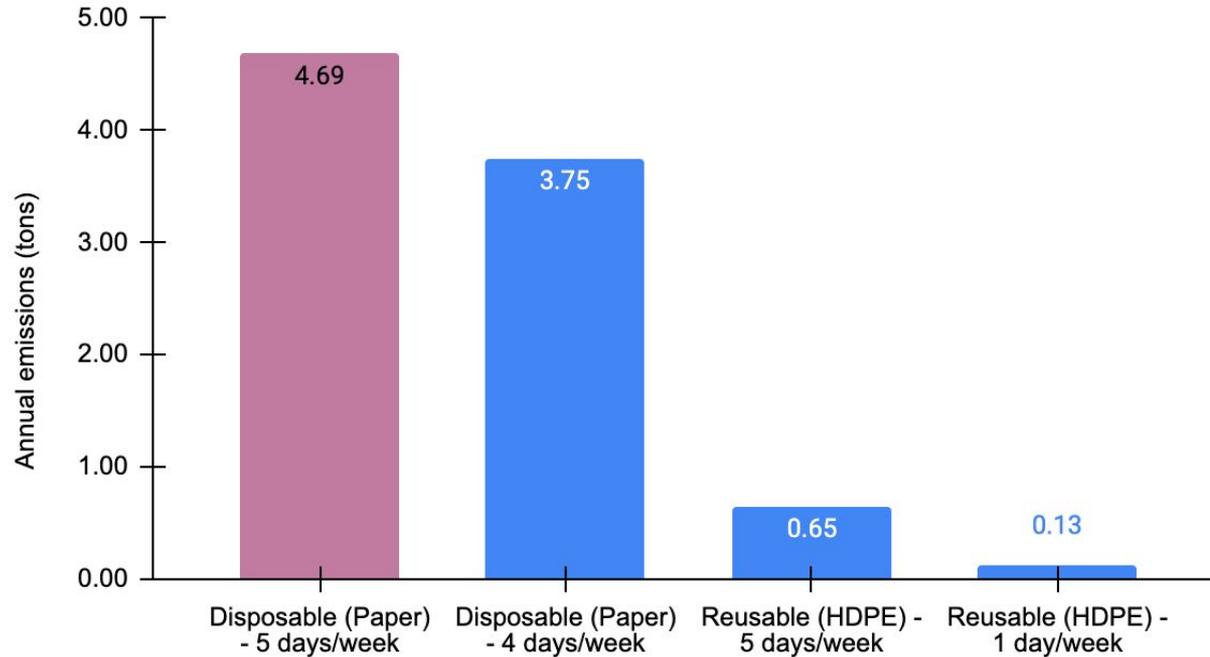
3.24 tons in first year
4.04 tons annually

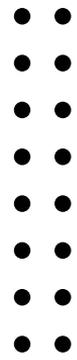
Emissions savings comparing 4 day disposable use with 1 day reusable implementation vs 5 day disposable use:

0.65 tons in first year
0.81 tons annually

Figure 2

Annual emissions (tons) of Disposable vs. Reusable Serveware



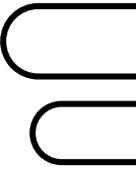


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Business Model



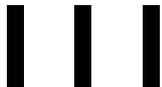
Cost/Usage Breakdown



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

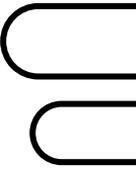
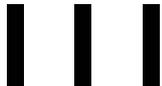
Total Container Cost Per 2 Years: ~\$630



Cost/Usage Breakdown

Collection Bin Costs

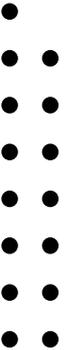
- Number of collection bins: 3
- Cost per bin: ~\$1000, total cost: ~\$3000
- Collection bin locations: Cafeteria, Main Green, C-Steps
- Collection bin life-span: ~15 years



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)

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Thank You

Do you have any questions?

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