REPORT ON THEODORE ROOSEVELT ES'S FOOD WASTE AUDIT

2021 Nov 1–5
BUSD School Site: Theodore Roosevelet ES, 850 N Cordova St, Burbank, CA 91505

2021 Nov 22
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BURBANK ECO COUNCIL

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EXECUTIVE SUMMARY

This study summarizes the findings from a food service audit performed at Theodore Roosevelt Elementary School in Burbank CA during the week of November 1-5, 2021. Waste categories of liquids, food waste, trash, and unopened foods were weighted. This accounted for both hot and cold lunches, for the approximate 546 K-12 students in attendance.

A total weight of almost 600 lbs of waste was generated this week. An estimated 20,520 lbs would be generated for the entire school year (based on 180 school days) just from one elementary school nutrition and lunch food services at one school site. For all 11 elementary schools in the school district, that would be approximately 225,720 lbs of waste per year.

Total food waste weight for the week was approximately 155 lbs. For the entire school year, that would be approximately 5,580 lbs going to the landfill. For all 11 elementary schools in the school district, it would come to approximately 61,380 lbs of food waste per year.

Total liquids waste was approximately 131.5 lbs for the week. For the entire school year, that would be approximately 4,734 lbs of liquids going to the landfill. For all 11 elementary schools in the school district, that would be approximately 52,074 lbs/year of trash going into the landfill.

A total of 129.18 lbs of unopened food items was diverted from the landfill. For the entire school year, that would be approximately 4,650 lbs of food that would have gone to landfill. For all 11 elementary schools, that would be approximately 51,155 lbs of unopened food BUSD paid for but would go to the landfill.

PROJECT SCOPE

A weeklong food waste audit was completed November 1–5 at Roosevelt Elementary School in Burbank, CA. The intention was to measure the amount of food waste generated by each grade, to determine what the organics hauling needs are for frequency and bin size to prepare for SB 1383's enforcement by Jan 1, 2021.

MOTIVATION

In response to the upcoming SB 1383, schools (in addition to commercial and residential properties) will be required to sort organic waste out of the landfill as a separate pickup, to be compliant by Jan 1 2021, or face penalties. Haulers require a low contamination rate, meaning that there is a minimal allowance for non-organic material such as plastic utensils, non-compostable packaging, snack wrappers, ziploc bags, etc. That percentage varies depending on the hauler. This is all in the effort to reduce landfill-released methane and capture soil nutrients.

QUESTIONS

FOR THE GRADES/STUDENTS:

-Which grade produces the most food waste?
-Which types of food lead to the most waste?
-Which types of food are most uneaten and unopened?
-Would the amount of waste decrease through the week if the students saw their progress?

FOR THE DISTRICT/SCHOOLS:

-How much food waste can be diverted from the landfill?
-What fraction of the trash is liquid (that could be disposed to drains)?
-What fraction of food service waste is compostable/organic?
-How much daily variation is there in waste generated?

THE PROCESS

1. PLAN: Hatch a plan with the principal to design user flow for students to understand what's requested of them.
2. ENVIRONMENTAL DESIGN: Choose a site. Design and install signage to clearly indicate where the materials go, thereby easily guiding students.
3. ASSEMBLE A TEAM: Create a sign-up sheet for volunteers.
4. GET THE TOOLS: Prepare for the messiness and data gathering.
5. DESIGN DATA LOG SYSTEM: An easy form and intuitive system to gather data.
6. TRAIN VOLUNTEERS: Understand the why, the flow, and what to say to encourage students.
7. ENGAGE THE STUDENTS: Create a visible tally chart for students to understand the amount of waste they created, and that the goal is to decrease waste.
8. WASTE AUDIT + COLLECTING DATA
9. DATA ANALYSIS + DOCUMENTATON

THE SETUP

When identifying the site for the sorting, Principal Osmond had a few requests: non-obstruction of human traffic, away from classrooms to decrease intrusive noise level, and easy visibility for the students. We picked this outdoor corridor, pictured below. The signage was hung up high so students from the far end of the outdoor lunch shelter could see as they walked up to the waste sort. To the left of this setup is the "share table" where students could drop off uneaten and unopened items.

The intended flow :

1. Share Table
2. Liquids
3. Food Waste
4. Trash
5. Recycling
6. Disposable Trays for Stacking (Clean vs Dirty, To be recycled vs to Landfill)

The "Share Table" was used as a "Drop-Off Table", with partitioned areas for each meal service period to visually get a sense of how much unopened and uneaten food items per age group

and grade. The intention is for the students to place their uneaten food items into their designated meal service sections.

To separate “Liquids”, a filter typically used by auto shops to separate oils was placed in a tall paint bucket, or to sift out the non-liquids material such as leftover cereal or the accidental straw.

The meal service sessions were (in chronological order):

- 1st and 2nd grade Nutrition
- 3rd, 4th, and 5h grade Nutrition
- Kindergarten Nutrition
- 1st Grade Lunch
- 3rd Grade Lunch
- 2nd Grade Lunch
- 4th Grade Lunch
- 5th Grade Lunch

IMAGE A : Aligning receptacles and bins to relevant signage.

STUDENT ENGAGEMENT:

To increase student engagement and use the sort as a teaching moment, the Sustainability Team created a campaign entitled “Race to Reduce Waste”. The principal made the announcement over the PA system, at the beginning of the week introducing this campaign. At each lunch session, the principal or a Sustainability Committee lead made an announcement reiterating the intention to reduce waste, and the flow of the sort, and why we’re doing it.

The “Race to Reduce Waste” poster was updated every day tallying the totals for that grade during lunch only. This poster was a visual reminder of their progress to start internalizing their group responsibility and contribution to the total amount of trash.

Food waste and trash were the two easiest variables for students to keep track of so those were the only two shown on the poster. We were afraid too much information would overwhelm them.

WASTE CATEGORIES

Here are the definitions of the waste categories referred to in this document.

Share Table	Unopened food items the students took for hot lunch.
Liquids	Waste that could be disposed via drain.
Food Waste	Solid organic waste that could be composted (for SB 1383).
Trash	Solid waste for landfill, including stacked dirty trays.
Recycling	Clean items to be recycled, i.e. bottles, cans, clean paper items, etc.
Clean Trays	Stacked clean trays to be recycled.

SIMPLIFYING ASSUMPTIONS

For analysis purposes, it was assumed that each grade, including kindergarten, had an approximately equal number of students (91). A school year was assumed to consist of 180 school days, or 36 weeks.

It was assumed that the waste flow was dominated by school-served food, and that contributions to waste from home-brought food were negligible by comparison. Anecdotally, this appeared to be the case.

Results are extrapolated to whole school-year totals, and totals across the district, by simple scaling; this assumes that the measured week was typical.

RESULTS

Table 1-1 shows the data collected from weighing three waste categories: food waste, liquids, and trash throughout nutrition and lunch service periods. NOTE: Incomplete data collection from Monday's nutrition sessions. The weights shown in the table below are net waste weight in lbs.

TABLE 1.1 – DAILY FOOD WASTE

GRADES / TIME	CATEGORY	Mon 11/1	Tue 11/2	Wed 11/3	Thu 11/4	Fri 11/5	WEEK TOTAL (lb)
NUTRITION							
1st + 2nd	Food Waste	0*	1.8	2.0	11.3	1.8	**16.9**
(9:45AM)	Liquids	0*	4.2	4.6	5.1	9.8	**23.7**
	Trash	0*	3.2	3.6	8.3	4.5	**19.6**
3rd, 4th + 5th	Food Waste	0*	7.2	1.2	4.0	4.5	**16.9**
(10:10 AM)	Liquids	0*	2.8	3.0	10.3	8.0	**24.1**
	Trash	0*	7.2	3.4	1.0	8.3	**19.9**
LUNCH							
Kindergarten	Food Waste	2.2	1.0	1.4	8.3	7.3	**20.2**
(10:45 AM)	Liquids	6.8	1.8	2.0	4.0	3.5	**18.1**
	Trash	6.9	6.6	2.4	6.3	8.3	**30.5**
1st	Food Waste	3.2	1.8	8.2	16.3	18.3	**47.8**
(11:20 AM)	Liquids	2.8	3.4	2.4	8.3	10.3	**27.2**
	Trash	3.4	2.6	1.6	10.3	9.3	**27.2**
2nd	Food Waste	3.1	4.6	6.4	10.5	10.5	**35.1**
(11:45 AM)	Liquids	2.1	2.4	2.2	4.0	6.0	**16.7**
	Trash	1.0	3.2	2.6	2.0	15.8	**24.6**
3rd	Food Waste	4.0	2.4	3.2	11.8	12.3	**33.7**
(12:10 PM)	Liquids	1.8	1.2	1.4	2.0	3.5	**9.9**
	Trash	6.1	3.6	1.2	8.3	9.3	**28.5**
4th	Food Waste	4.7	2.8	5.6	12.3	10.3	**35.7**
(12:30 PM)	Liquids	2.1	1.6	1.2	1.5	1.5	**7.9**
	Trash	8.0	2.8	3.2	9.8	9.3	**33.1**
5th	Food Waste	2.2	3.0	4.2	0**	5.5	**14.9**
(12:50 PM)	Liquids	0.8	1.0	0.6	0**	1.5	**3.9**
	Trash	4.6	2.8	2.0	0**	10.8	**20.2**
	TOTAL	**65.8**	**75.0**	**69.6**	**155.7**	**190.2**	**556.3**

**Incomplete Data*

***Away on Class Trip*

TOTAL WASTE:

From Table 1.1, we can see the daily totals of meal waste variations. The first three days in the week, the amount of waste were close in measurement, estimated to be between 69 to 75lbs. However Thursday and Friday saw at least a 2x increase. The biggest difference between the menus as shown in Table 2.1, are the food items being served. Heavier items such as whole fruit, and larger, heavier entrees such as the “Anytimers” (similar to Lunchables), chicken patty sandwich, cheese quesadilla, and pizza contributed to the relative increase. The total waste weight by day, shown in Chart 1.1, illustrates the discrepancy for Thursday and Friday over Monday, Tuesday, and Wednesday.

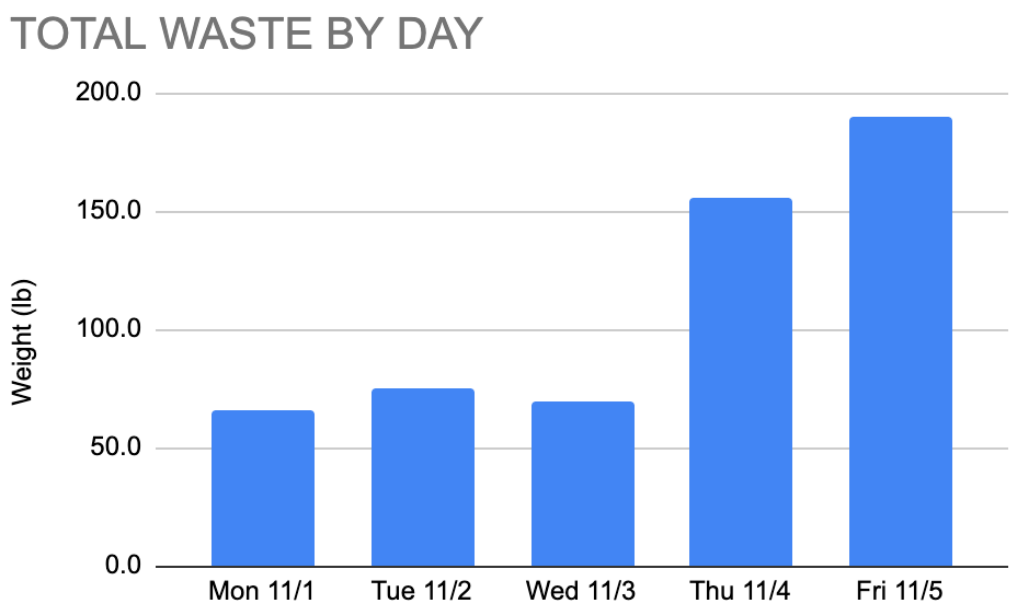

CHART 1.1 – DAILY FOOD WASTE (NUTRITION + LUNCH)

From this average weight of almost 600 lbs of waste this week, an estimated 20,520 lbs would be generated for the entire school year (based on 180 school days) just from one elementary school food service at one school site. For all 11 elementary schools in the school district, that would be approximately 225,720 lbs of waste generated, of which a significant portion could be diverted from landfill.

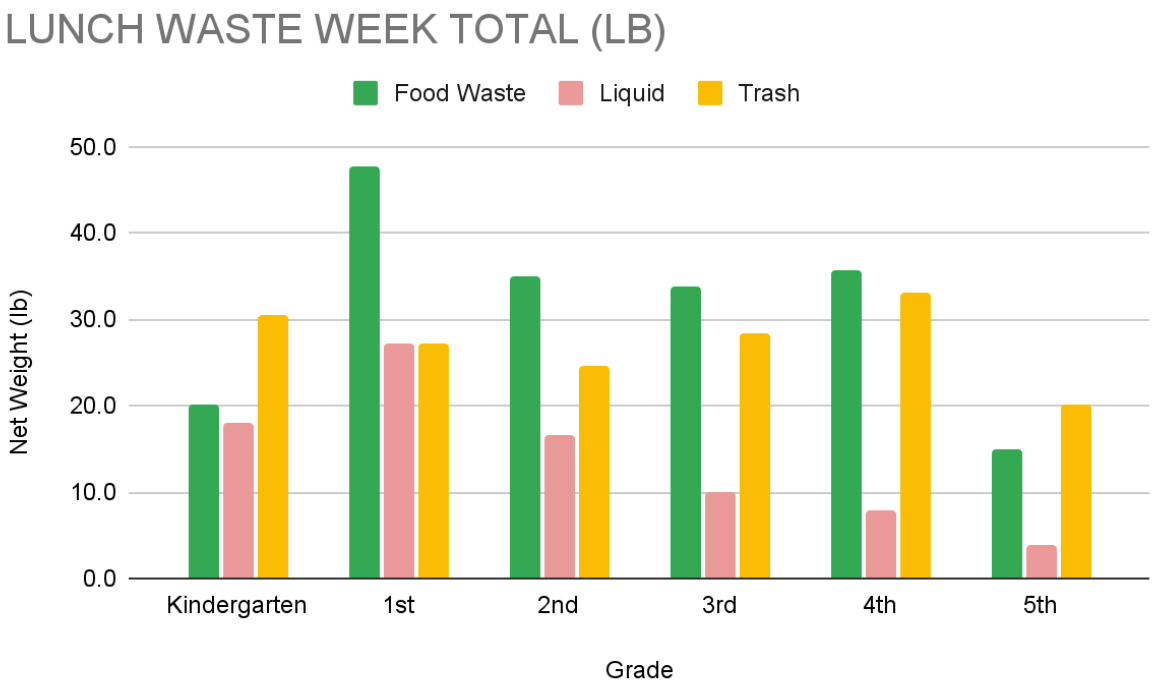

CHART 1.2 : TOTAL LUNCH WASTE FOR THE WEEK / GRADE

FOOD WASTE:

From Table 1.1 and Chart 1.2, food waste out of all the waste categories seems to have the most variation through the week. This is solely dependent on what is being served. Specifics to the menu items are listed in Table 2.1.

Data from Monday, Tuesday, and Wednesday lunch shows food waste is moderate until Thursday and Friday lunch which sees a 2–5x increase in weight. The two main differences noted is that whole fruit, apples and plums, were served on Thursday and Friday. The lunch entrees of chicken patty sandwiches, “Anytimers”, and pizza were served. Referring to Chart 1.3, the unit weight of those items are heavier than the entrees served earlier in the week.

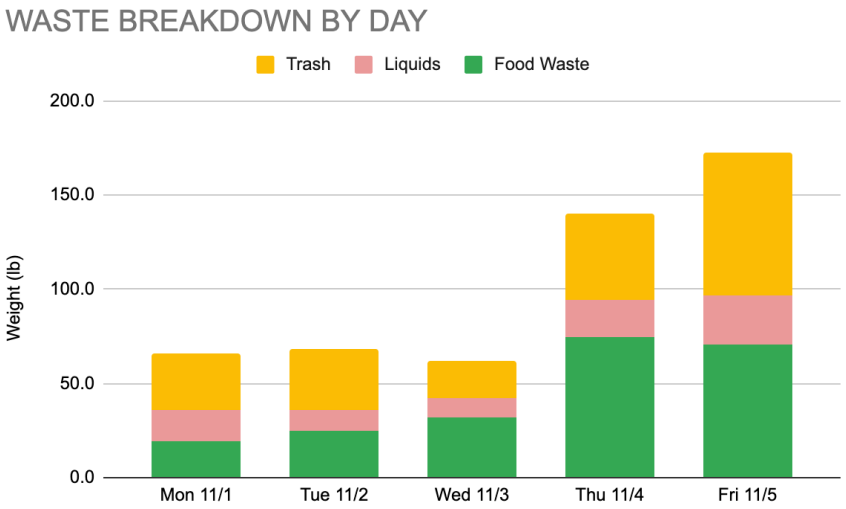

CHART 1.3 – WASTE BREAKDOWN BY DAY

Referring to Chart 1.4, food waste has the heaviest weekly total of all the waste categories in this study.

Total food waste weight for the week was approximately 155 lbs. For the entire school year, that would be approximately 5,580 lbs going to the landfill. For all 11 elementary schools in the school district it would come to approximately 61,380 lbs/year.

LIQUID WASTE:

Of the two nutrition periods, 1st and 2nd grade nutrition —182 students— generated 23.7 lbs of liquid waste compared to the 24.1 lbs from 3rd, 4th, and 5th grade nutrition—273 students. This tells us there's more liquid waste generated per student from 1st and 2nd grades than 3rd, 4th, 5th grades combined during nutrition.

Referring to Chart 1.2, 5th graders had the least liquid waste, perhaps they drink more and/or take less milk. In general, the liquid waste seems to decrease as we go up in grade level, meaning the older students a) drink more, b) don't take milk if they know they will not drink it, and/or c) understand milk is optional.

Referring to Chart 1.2, liquids are a significant portion of the total trash percentage. If the liquids can be diverted from the waste stream and disposed of at the school site through drainage, that would decrease the overall weight, which is approximately 131.5 lbs/week. For the entire school year, that is approximately 4,734 lbs of liquids that could be diverted from the landfill per this school site. For all 11 elementary schools, that would be approximately 52,074 lbs/year of trash going into the landfill, just from meal service.

Referring to Chart 1.2, 1st grade lunch had the most liquid weight for the week. It's possible they don't know milk is optional and they can't drink as much as a half pint's worth of milk. 1st grade also has the least amount of time between nutrition (9:45am) and lunch (11:20am), giving a total of 95 minutes in between two major meals. They may not be that thirsty within such a short span, hence more liquid waste.

TRASH:

Referring to Chart1 1.1, 1.2, and 1.3 trash saw the largest weight increase on Thursday. Again pertaining to the increased packaging from the "Anytimers", which has the outer paper packaging along with the partitioned compartmentalized plastic tray.

Referring to Chart 1.2, trash is a close second to food waste as far as total weekly weight. Most of it is food packaging — wrappers, trays, milk containers, utensils, etc. As an independent measurement the dirty trays for 4th and 5th grade were approximately 1–1.5 lbs, depending on the food residue attached.

Total trash weight for the week was approximately 200 lbs. For the entire school year, that would be approximately 7,200 lbs going to the landfill. For all 11 elementary schools in the school district it would come to approximately 79,200 lbs/year.

CHART 1.4 – WEEKLY TOTAL BY WASTE CATEGORY

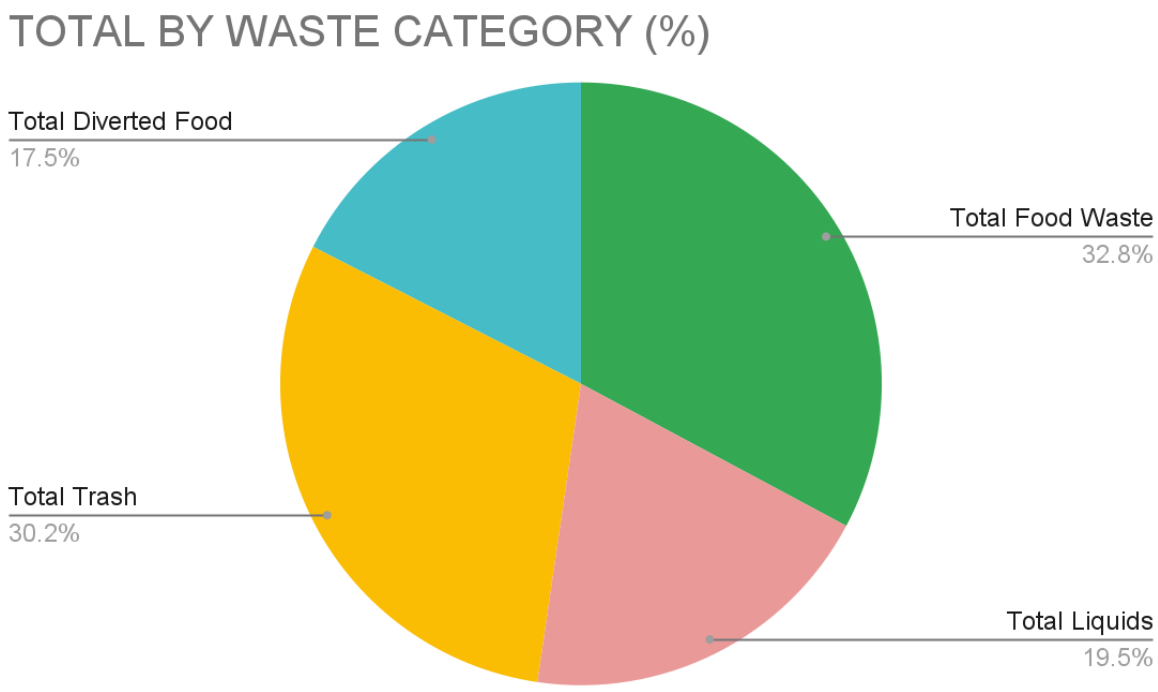

CHART 1.5 – WEEKLY TOTAL BY WASTE CATEGORY (%)

GREATEST WASTE PER GRADE:

As shown in Image B, the “Race To Reduce Waste” Poster stood at the end of the sorting line for greater visibility and correlation. We realized even with a visible tally for the students (as shown in Image A), the students could not visibly reduce their collective waste. It was not an equal playing field. The total daily waste correlated directly with a) the type of food item being served, b) its perceived popularity amongst the students, c) the weight of the packaging. Referring to Tables 2.1 and 2.2, food waste was greatest on days when heavier meat or cheese entrees or whole fruits, carrots, or celery were served.

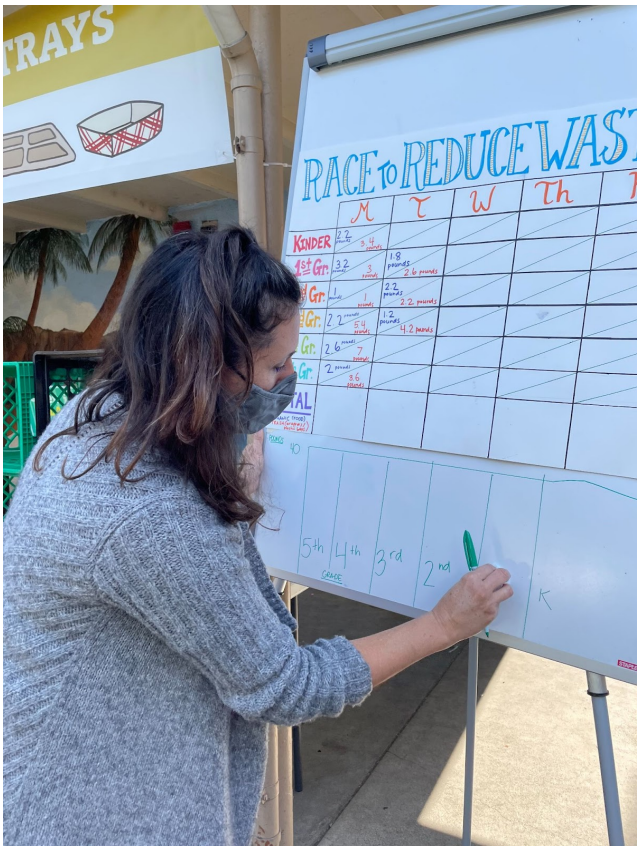

IMAGE B : Tallying food waste and trash on the "Race to Reduce Waste" poster.

Table 1.2 and the accompanying bar chart shows the lunch waste created per student per day based on the valid days of collecting data, therefore accounting for the 5th grade missing lunch due to their class trip.

TABLE 1.2 – WASTE/STUDENT

Grade/Meal	# of students	Total trash (lb)	Days of valid trash data	Trash/student/day (lb)
Kindergarten	91	67.6	5	0.1486
1st Gr	91	79.4	5	0.1745
2nd Gr	91	64.4	5	0.1415
3rd Gr	91	59.9	5	0.1316
4th Gr	91	65.9	5	0.1448
5th Gr	91	35.1	4	0.0964

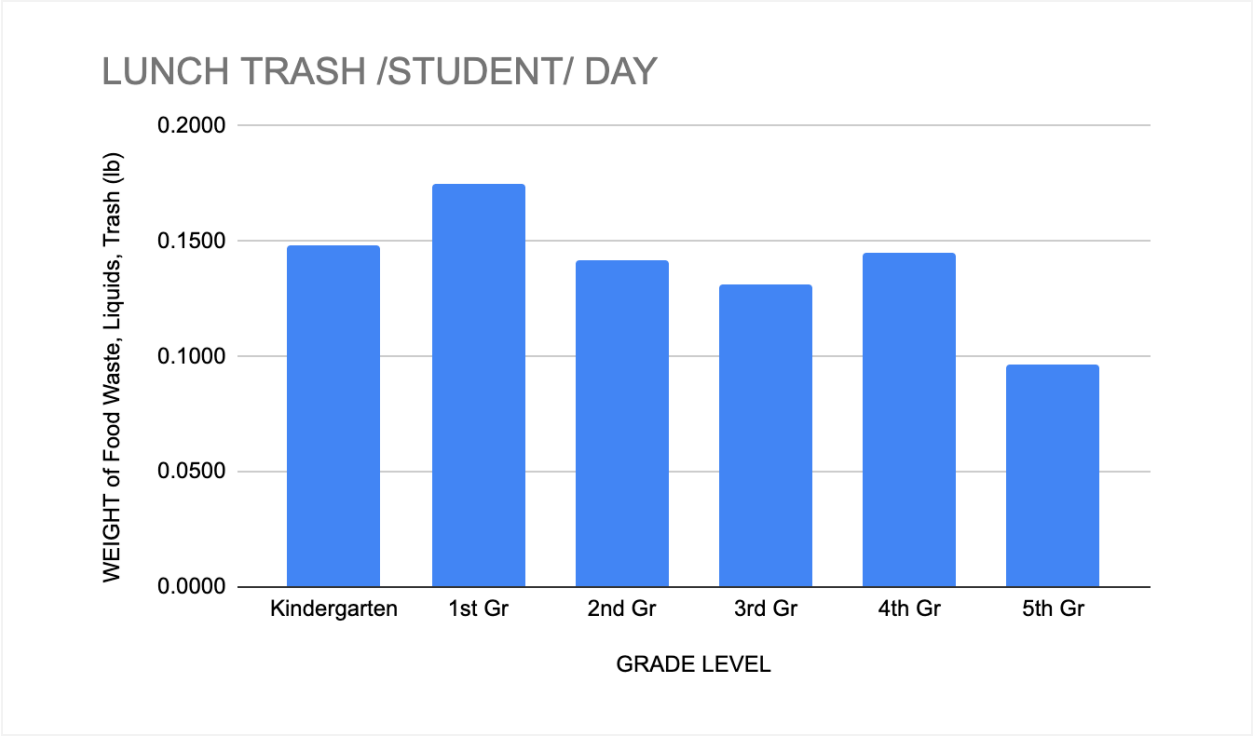

CHART 1.6 : TOTAL LUNCH WASTE FOR THE WEEK / GRADE

However from cumulative data for the week, from Table 1.2 and Chart 1.2, we can deduce the average 5th grader created the least waste. The average 1st grader created the most.

UNOPENED / UNEATEN FOOD ITEMS:

IMAGE C : Partitioned food service period.

Each food service period had its own partitioned area on the table to match the chronological order of food service through each day. Students were encouraged to place their unopened food items on the table that otherwise would have ended up in the landfill.

Certain food items, especially vegetables, were rarely even open by the students. Referring to Image C and D, the most unpopular were celery, carrots, and raisins in that order. Referring to Chart 1.6, the heaviest unopened foods were whole fruits, and during this study, they were apples and plums.

IMAGE D : Dried cranberries and celery are not a first grade favorite.

One day on a separate measurement, apple slices totalled 9.5 lbs of uneaten food donated, and approximately 50 unopened utensil packets that would otherwise be in the trash.

Tables 2.1 and 2.2 show the amount of items that were unopened and uneaten placed on what would normally be the “share table”.

TABLE 2.1 – UNOPENED FOOD ITEMS_ NUTRITION

NUTRITION		9:45	10:10	10:45	
		1st + 2nd	3rd, 4th + 5th	Kindergarten	
MON	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**TOTAL**
Breakfast	Cinnamon Roll	1	0	1	**2**
Cereal	Cocoa Puffs	2	1	0	**3**
Fruit	Raisins	1	10	5	**16**
Low Fat Milk		4	0	0	**4**
Fat Free Milk		3	0	4	**7**
Juice	Blue Raspberry Slushy	3	1	2	**6**
	Bean Burrito	0	0	3	**3**
TUE	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	
Breakfast	French Toast Sticks	0	1	0	**1**
	Maple Syrup	2	15	0	**17**
Cereal	Lucky Charms	1	0	0	**1**
Fruit	Dried Cranberry	28	35	27	**90**
Low Fat Milk		6	0	0	**6**
Fat Free Milk		2	0	0	**2**
Juice		1	0	0	**1**
WED	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	
Breakfast	Chocolate Muffin	0	0	0	**0**
Cereal	Trix	1	0	0	**1**
Fruit	Raisins	67	50	5	**122**
Low Fat Milk		0	0	7	**7**
Fat Free Milk		12	0	1	**13**
Juice		0	0	0	**0**
	Dried Cranberry	0	0	6	**6**
	Apple Sauce	0	0	1	**1**
THU	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	
Breakfast	Burrito / Sandwich	0	1	0	**1**
Cereal	Cocoa Puffs	4	0	0	**4**
Fruit	Apple	37	7	4	**48**
Low Fat Milk		0	0	0	**0**
Fat Free Milk		5	0	2	**7**
Juice		0	0	0	**0**
FRI	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	
Breakfast	Waffle	1	0	0	**1**

Cereal	Lucky Charms	0	0	0	**0**
Fruit	Plum	47	41	1	**89**
Low Fat Milk		2	0	1	**3**
Fat Free Milk		2	0	0	**2**
	Apple	0	0	6	**6**

Referring to Table 2.2, 1st grade generally had the most unopened vegetable, and usually 3rd grade is a close second.

TABLE 2.2 – UNOPENED FOOD ITEMS_LUNCH

LUNCH		**11:20**	**11:45**	**12:10**	**12:30**	**12:50**	
		1st	**3rd**	**2nd**	**4th**	**5th**	
MON	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**QTY**	**QTY**	**TOTAL**
Entree #1	Corn Dog	0	0	0	0	0	**0**
Entree #2	Grilled Cheese	0	0	0	0	0	**0**
Fruit		1	0	0	0	0	**1**
Vegetable	Carrots	26	13	0	0	5	**44**
Low Fat Milk		5	0	0	0	0	**5**
Fat Free Milk		0	0	0	0	0	**0**
Juice		2	0	0	0	0	**2**
TUE	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**QTY**	**QTY**	
Entree #1	Quesadilla	0	0	0	0	0	**0**
Entree #2	Chicken Nuggets	0	0	0	0	0	**0**
Fruit		0	0	0	0	0	**0**
Vegetable	Celery	42	29	34	26	23	**154**
Low Fat Milk		0	0	1	0	0	**1**
Fat Free Milk		5	1	0	0	0	**6**
Juice		0	0	0	0	0	**0**
WED	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**QTY**	**QTY**	
Entree #1	Chicken Taquito	2	1	0	0	0	**3**
Entree #2	Salad	1	0	0	0	0	**1**
Fruit	Apple	10	12	10	9	10	**51**
Vegetable		0	0	0	0	0	**0**
Low Fat Milk		0	0	0	0	0	**0**
Fat Free Milk		7	3	2	2		**14**
Juice		0	0	0	0	0	**0**
THU	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**QTY**	**QTY**	
Entree #1	Turkey	0	0	0	0	0	**0**
Entree #2	Chicken Patty Sandwich	0	0	0	0	0	**0**
Fruit		0	0	0	0	0	**0**

Vegetable	Carrots	40	6	32	23	0	**101**
Low Fat Milk		0	0	1	0	0	**1**
Fat Free Milk		0	1	0	2	0	**3**
Juice		0	0	0	0	0	**0**
	Anytimers	0	1	0	2	0	**3**
FRI	**FOOD TYPE**	**QTY**	**QTY**	**QTY**	**QTY**	**QTY**	
Entree #1	Pizza	0	0	0	0	0	**0**
Entree #2	Sunbutter + Jelly Crustable	0	0	0	0	0	**0**
Fruit	Apple Slices	18	14	21	23	18	**94**
Vegetable		0	0	0	0	0	**0**
Low Fat Milk			3	2	2	2	**9**
Fat Free Milk		0	0	0	0	0	**0**
Juice		0	0	0	0	0	**0**

IMAGE E : Boxed unopened food items donated to Burbank Temporary Aid Center (for Food Recovery)..

TABLE 2.3 – UNOPENED TOTAL FOOD ITEMS _NUTRITION + LUNCH

DAY	MILK (lb)	NON-LIQUID FOOD ITEMS (lb)	TOTAL (lb)
MON	9.00	11.00	**20.00**
TUE	5.20	15.80	**21.00**
WED	7.20	9.20	**16.40**
THU	2.28	40.00	**42.28**
FRI	10.26	19.24	**29.50**
		TOTAL FOOD DIVERTED	**129.18**

Table 2.3 shows Thursday and Friday as the days for highest weights for unopened foods.

A total of 129.18lbs of unopened food items were diverted from the landfill. For an entire school year, that would be approximately 4,650 lbs of food that would have gone to landfill. For all 11 elementary schools, that would be approximately 51,155 lbs of unopened food BUSD paid for but would go to the landfill. Chart 1.6 illustrates the increase in unopened/uneaten food weight when whole fruits were part of the menu.

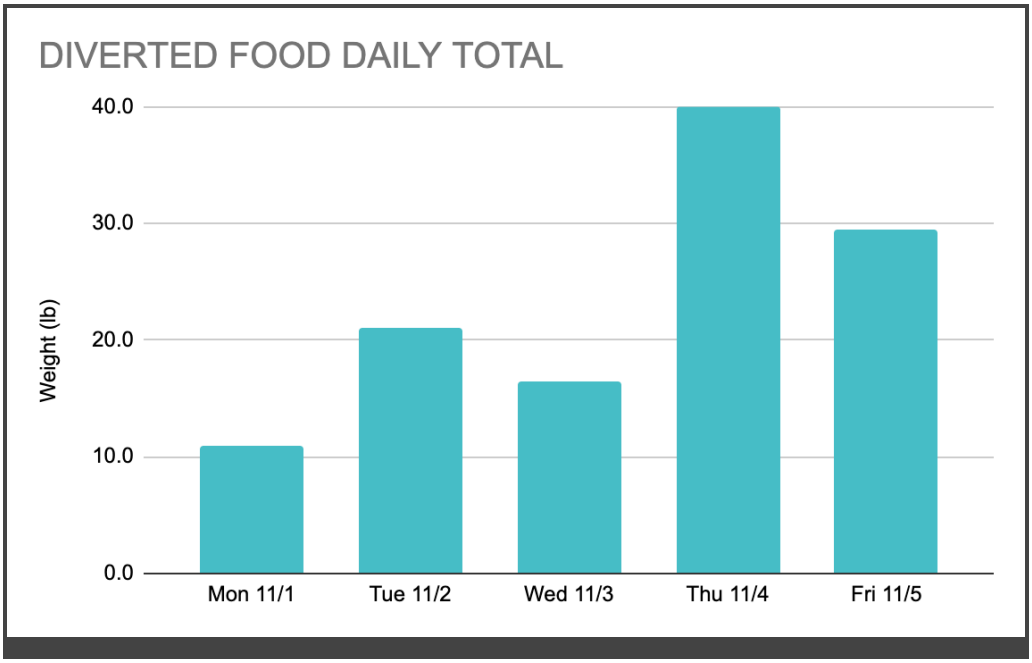

CHART 1.6 : DAILY TOTAL FOR DIVERTED (UNOPENED) FOOD WASTE

OBSERVATIONS

Immediately after emptying milk or juice, the empty carton would sometimes be erroneously thrown into the nearest bin, which was the food waste bin. More conscious action needs to be exhibited.

Because there was already a station for Clean and Dirty Tray stacking pre-Covid, students in 4th and 5th grades knew that process and got back into the flow fairly quickly. Stacking trays was first proposed by Amy Hammes from the Burbank Recycling Center to reduce volume.

Some K-2 students had a tough time reading and/or comprehending the signs or looking up to associate the appropriate signage to the bin below. Midway through the week, we chalked out the steps on the ground with a “start line” and arrows to indicate more clearly the intended flow. The students thought it was a game and followed the “rules”.

IMAGE F : Volunteers helping / training students to separate their food waste.

By the end of week, most students understood what they had to do, with fewer questions on where things should go.

4th and 5th graders came up to the poster to inquire who was winning. The 4th graders were generally appalled at how much waste they were making compared to the 1st graders and 5th graders.

The students asked if the Share Table was back and were eager to get food from it.

As the 5th graders passed by to class, they commented on how much uneaten celery, or carrots there were on the table, and how shocked they were to see the 1st and 2nd grade nutrition and lunch partitions had mounds of unopened food.

If there were slushy packs, they would be gone by 2nd and 3rd grade lunch.

Some students were eager to help out with packing up the unopened food items to donate to a food shelter. (See Image F.)

Typically no more than 10 CRV qualified items were collected daily.

Clamshells that contained the salad is made from plastic #6, which is not recyclable in Burbank.

IMAGE G : Students helping to pack up unopened food items for food recovery, donated to Burbank Temporary Aid Center.

RECOMMENDATIONS

- Restart the Share Table program ASAP with an efficient restocking process so food doesn't have a chance to spoil.
- Clear glass refrigerator on the share table would help keep milk from going bad, and prevent kids from touching all the food items.
- "User flow" is important. Having clear signage, high up (hung banners) and low (chalk drawings) will help the students know where to start. Also it's fun!
- The flow should be 1) Share Table, 2) Liquids, 3) Food Waste, 4) Trash, 5) Recycling, and 6) Stacked Trays to reduce volume.
    - This also helps students to understand to repurpose or reuse an item always as a first measure.
- Milk, condiments, and utensils should be by request only and perhaps a bit out of the way so it is not a mindless grab going through the lunchline.
- Request fruits not have stickers as those do not decompose, and students don't want to eat adhesive residue.
- *Enforce* and *emphasize* milk, condiments, utensils are optional.
- Education/outreach program—take what you need only.
- Create a food recovery program for unopened food items that can't be restocked.
- Use reusable trays and utensils and an industrial dishwasher.
- Include a small bin for CRV collection. Usually a handful or at most less than 10 CRV qualified items are dropped in.
- Color code the liquids, and organic waste bins.
- Use utensil, napkin, and condiment dispensers.
- Offer a milk dispenser OR use the quarter pint size especially for nutrition, especially when it is paired with cereal.
- Thaw icees for younger students (1st and 2nd graders) to have in the morning, because they are too cold for them to drink.
- The "dirty trays" area should read "stack" to clarify the request to save space.
- Include a CRV receptacle.
- Replace the clamshell housing the salad to a recyclable plastic #1, 2, or 5.
- A parent volunteer can come once a week to reinforce the practice of sorting, and also do some quality control to decrease the contamination level.

SUGGESTIONS FOR FUTURE DATA COLLECTION

- Include a small bin for CRV collection.
- Modify layout to ensure that empty milk cartons are not mindlessly miscategorized as FOOD WASTE solely due to its proximity to LIQUIDS.
- Weigh each meal break's uneaten food separately.
- To obtain more detailed data, document weight and amount of hot meals served for each period to how much food waste is generated from just those hot meals.

FOLLOWUP QUESTIONS

- Is the new waste sort setup easier for facilities to manage? How so?
- What is the rate of contamination (intermingling of other items) in the food waste bin?
- What other support do the students need to help them have a higher success rate in sorting?
- Is the level of contamination acceptable to organics haulers?
- Are there local or on-site compost solutions to reduce the organics volume?
- Is facilities changing garbage bags less often due to the sort?
- What are unexpected outcomes from the sort on facility, students, faculty, and staff?

For more information, please contact burbank.eco.council@gmail.com


TRAYS
RACE to REDUCE WASTE
M T W Th F
KINDER 2.2 pounds 3.4 pounds
1st Gr. 3.2 pounds 3 pounds 1.8 pounds 2.6 pounds
2nd Gr. 1 pounds 1 pounds 2.2 pounds 2.2 pounds
3rd Gr. 2.2 pounds 5.4 pounds 1.2 pounds 4.2 pounds
4th Gr. 2.6 pounds 7 pounds
5th Gr. 2 pounds 3.6 pounds
TOTAL
POUNDS
40
5th
4th
3rd
2nd
1st
K
GRADE
STAPLES


Driftwood
LOWFAT MILK
CALIFORNIA MILK
Trix
40% LESS SUGAR
SUN VALLEY
CALIFORNIA RAISINS
1st + 2nd NUTRITION