Owner Florence Erikson diligently researched how to better prepare her meals with the least amount of chemicals, synthetic additives, and processed foods. She moved from plastic, to bioplastic, and finally to compostable food packaging. Then, Florence learned about PFAS and PFOA that are present in most compostable packaging. These chemicals have been linked to cancer, elevated cholesterol, decreased fertility, thyroid problems, changes in hormone functioning in adults as well as adverse developmental effects and decreased immune response in children, attention-deficit hyperactivity disorder, delayed puberty, and obesity.

Flo’s Friendly Foods partnered with ReThink Disposable to secure a grant from the County of Alameda’s StopWaste Innovation Program. The mission of the project was to protect the health of our children, reduce the consumption of single-use food and beverage packaging, and eliminate disposable packaging procurement costs. This case study summarizes the results of the pilot project, which modified operations at three pilot schools.

**Packaging Practices prior to ReThink Disposable:**
- Two sizes: single-use lined paper take-out containers for entrees
- 16 oz and 8 oz single-use lined paper take-out pails for entrees
- 16 oz single-use lined paper soup containers with lids for soup
- 4 oz, 2 oz, 0.75 oz plastic portion cups and lids for sides and sauces
- Paper “cookie bags” for cookies, chips, and whole fruit
- Aluminum foil wrap for burritos
- Individually wrapped snacks and condiments

**Recommendations Implemented:**
- Stainless steel containers for entrees, sides, and soups
- Kid-friendly stainless steel utensils
- Bulk snacks and condiments when possible

**Summary:**
Flo’s Friendly Foods is a school lunch catering service, specializing in meals for kids with food allergies, alternative diets, or other food sensitivities. Before partnering with ReThink Disposable, the business used half a million pieces of food packaging each school year, generating more than 9.5 tons of waste every year.
Savings:
By switching to stainless steel containers, utensils, and going bulk when possible at three pilot schools, Flo's Friendly Foods prevents 24,318 pieces of single-use packaging, weighing 844 pounds, and earns $1,306 of net cost savings, all on an annual basis. Florence plans to deploy these circular re-use practices across all of their 25+ schools throughout the Bay Area. The pilot program is still ongoing. The projected impact of reusable foodware implementation at all 25+ schools that contract with Flo's Friendly Foods could yield more than $16,000 in annual net cost savings and the reduction of 350,000 disposable items, annually.

Lessons Learned:
The toughest challenge was finding a reliable supplier of stainless steel lunch boxes that could ship bulk orders within a workable timeframe; months-long shipping timelines were common. Florence made orders in small increments or shopped at local stores and paid non-wholesale prices. Meanwhile, the demand for a package-free school catering service was hard to keep up with. This demand continues to grow. Schools consistently reach out to Florence for service contracts because of her zero waste business model.

Cost/Benefit:
Reusable foodware is paid for by Alameda’s StopWaste Innovation Grant so the annual net cost savings does not include cost of purchasing reusable items. Florence continues to test reusable lunch containers with price points ranging from $1 to $20. The payback period falls between 41 days to 3 years, depending on container type. The demand for new business, reputation, reducing children’s exposure to toxins, and overall environmental impact makes the pilot worthwhile for Florence and her team.

A few ways to make a circular system economically viable (while simultaneously reducing product loss — i.e. the stainless steel lunchbox goes home with the student):
- Include a deposit that is charged to the parent/guardian at the beginning of the school year (i.e. $20-40)
- Have the parent/guardian buy the lunch box outright so they can keep the container(s) at the end of the school year
- Charge a fee to opt in to the reusable option
- Work with other zero-waste providers to buy in bulk and buy far in advance
- Use grants and other community resources to offset costs

The Bottom Line for three Alameda County Schools
- $1,306 in annual net cost savings
- 24,318 disposable items reduced per year
- 844 pounds of annual waste reduction

Path to Reusables

**STEP 1**
8:00 am
Five days a week, a power team of moms show up to start cooking, whipping up roughly 500 meals — 200 of these meals, destined for Aurora, Redwood Day, and Shu Ren International schools, are packed in all reusable containers.

**STEP 2**
11:00 am
Delivery of hot lunches to schools; Pickup of previous day’s used lunch containers and utensils.

**STEP 3**
12:00 pm
Staff returns to the central kitchen to wash and sanitize used lunch wares and prep for the next day.
## Results:

<table>
<thead>
<tr>
<th>Disposable Product Replaced or Minimized*</th>
<th>Practice Implemented</th>
<th>Percent Disposable Reduction</th>
<th>Annual Quantity of Disposable Items Eliminated</th>
<th>Annual NET Cost Savings After Payback Period ($)</th>
<th>Annual Waste Reduction (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 lined paper takeout box</td>
<td></td>
<td>100%</td>
<td>5,598</td>
<td>$603</td>
<td>605</td>
</tr>
<tr>
<td>#3 lined paper takeout box</td>
<td></td>
<td>100%</td>
<td>204</td>
<td>$41</td>
<td>21</td>
</tr>
<tr>
<td>16 oz lined paper takeout pail</td>
<td></td>
<td>100%</td>
<td>1,888</td>
<td>$158</td>
<td>87</td>
</tr>
<tr>
<td>8 oz lined paper takeout pail</td>
<td></td>
<td>100%</td>
<td>1,398</td>
<td>$84</td>
<td>45</td>
</tr>
<tr>
<td>16 oz lined paper soup container</td>
<td>Replace with a stainless steel clamshell, container, or cup and reusable silicone or durable plastic lid</td>
<td>100%</td>
<td>316</td>
<td>$49</td>
<td>14</td>
</tr>
<tr>
<td>16 oz lined paper soup container lid</td>
<td></td>
<td>100%</td>
<td>316</td>
<td>$54</td>
<td>4</td>
</tr>
<tr>
<td>4 oz plastic portion cup</td>
<td></td>
<td>100%</td>
<td>4,210</td>
<td>$96</td>
<td>29</td>
</tr>
<tr>
<td>4 oz plastic portion cup lid</td>
<td></td>
<td>100%</td>
<td>4,210</td>
<td>$71</td>
<td>14</td>
</tr>
<tr>
<td>2 oz plastic portion cup</td>
<td></td>
<td>100%</td>
<td>481</td>
<td>$5</td>
<td>3</td>
</tr>
<tr>
<td>2 oz plastic portion cup lid</td>
<td></td>
<td>100%</td>
<td>481</td>
<td>Included with cup</td>
<td>.19</td>
</tr>
<tr>
<td>0.75 oz plastic portion cup</td>
<td></td>
<td>100%</td>
<td>1,331</td>
<td>$57</td>
<td>3</td>
</tr>
<tr>
<td>0.75 oz plastic portion cup lid</td>
<td></td>
<td>100%</td>
<td>1,331</td>
<td>$11</td>
<td>1</td>
</tr>
<tr>
<td>Paper cookie bag for snacks and fruit</td>
<td>Eliminate and place in a reusable container</td>
<td>100%</td>
<td>2,079</td>
<td>$62</td>
<td>12</td>
</tr>
<tr>
<td>Foil wrapper for burritos</td>
<td></td>
<td>100%</td>
<td>475</td>
<td>$15</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTALS:</strong></td>
<td></td>
<td></td>
<td>24,318</td>
<td><strong>$1,306</strong></td>
<td>844 lbs.</td>
</tr>
</tbody>
</table>

*ReThink Disposable is a program of Clean Water Action and Clean Water Fund conducted in partnership with local businesses and government agencies. Generous support is provided by a changing list of public and private funders. To learn more about the program, its partners, and funders, visit: [www.rethinkdisposable.org](http://www.rethinkdisposable.org).