Zero Waste Commission
Foodware Subcommittee Special Meeting
Thursday, September 6, 2018
6-7:30pm
Meeting Location: Sports Basement @ 2727 Milvia St. Berkeley, CA 94703

Subcommittee Members:
Christienne de Tournay (Chair), appointed by Councilmember Sophie Hahn, District 5
Annette Poliwka, appointed by Mayor Jesse Arreguin
Katie McKinstry, appointed by Councilmember Cheryl Davila, District 2

AGENDA

1. Roll Call, Approve Agenda, Commissioner Announcements (5 minutes)

2. Introduction by Mayor Jesse Arreguin, or one of his representatives, regarding the proposed Berkeley Single Use Foodware and Litter Reduction Ordinance (Attached) (10 minutes)

3. Presentation on the proposed Ordinance, including business success stories (15 minutes)

4. Public and stakeholder input on the proposed Ordinance
   Speakers are generally allotted up to three minutes, but will be allotted less time if there are many speakers, at the discretion of the Chair. (55 minutes)

7. Announcements Regarding Next Steps, Adjournment (5 minutes)

Attachment: April 24, 2018 City Council Referral to the Zero Waste Commission: Berkeley Single Use Foodware and Litter Reduction Ordinance

Please refrain from wearing scented products to this meeting. This meeting is being held in a wheelchair accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services Specialist at 510-981-6342 (V) or 510-981-6345 (TDD) at least three business days before the meeting date.

Communications to Berkeley boards, commissions or committees are public record and will become part of the City’s electronic records, which are accessible through the City’s website. Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission or committee, will become part of the public record. If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the secretary of the relevant board, commission or committee. If you do not want your contact information included in the public record, please do not include that information in your communication.

Please contact the secretary to the relevant board, commission or committee for further information. Zero Waste Commission Secretary: Heidi Obermeit, 1201 2nd St. Berkeley, CA 94710, 510-981-6357, hobermeit@cityofberkeley.info
To: Honorable Mayor and Members of the City Council  
From: Councilmember Sophie Hahn and Mayor Jesse Arreguin, and Councilmembers Linda Maio and Susan Wengraf  
Subject: Referral to the Zero Waste Commission: Berkeley Single Use Foodware and Litter Reduction Ordinance  

RECOMMENDATION  
1. Refer the proposed Berkeley Single Use Foodware and Litter Reduction Ordinance to the Zero Waste Commission to invite input from key stakeholders, including restaurants and other food retailers and zero waste, plastics, oceans and other environmental experts, and hold public meetings to obtain input on the proposed Ordinance.  

2. Refer to the Zero Waste Commission to report back to the City Council results of the Commission’s community outreach and analysis, and provide recommendations for improvements to the proposed Berkeley Single Use Foodware and Litter Reduction Ordinance.  

FINANCIAL IMPLICATIONS  
The only added cost of the referral, beyond normal staff time to support the Zero Waste Commission’s review of the proposed ordinance, is potential staffing of one or more community meetings to obtain stakeholder and other public input.  

Reducing use and disposal of products that make up the majority of Berkeley’s street and storm-drain litter has the potential to significantly lower City expenses including costs related to collection of debris from over 400 city trash receptacles, from clearing of clogged stormwater intakes city-wide, and from daily street sweeping and litter management.  

BACKGROUND  
Single use disposable foodware and packaging (SUDs) - including plastic bottles, caps, lids, straws, cups, and containers - is a major contributor to street litter, ocean pollution, marine and other wildlife harm and greenhouse gas emissions. The use of disposable foodware has grown exponentially over the past few decades. The practice of providing
food and beverage packaging free of charge fails to incorporate the environmental and social costs of these products into the price of food and beverage service. As a result, customers and food business operators pay little attention to the quantity of single use packaging products consumed and quickly thrown away. Reducing the use of SUDs in the City of Berkeley is a key strategy to achieve the City’s Zero Waste and Climate Action goals, and to address the many environmental impacts and costs associated with the use and disposal of single-use foodware and packaging.

**Environmental Impacts of Single-Use Disposables**

The production, consumption, and disposal of SUDs contributes significantly to the depletion of natural resources. It is a major component of litter on streets and in waterways, and of the plastic polluting our air, food, drinking water and oceans.

- Food and beverage SUDs make up approximately 25% of all waste produced in California\(^1\)
- Bay Area litter studies have found that food and beverage packaging comprises the majority of street litter, half of which comes from fast food and take-out food establishments\(^2\)
- Eighty percent of marine plastic pollution originates from trash in urban runoff\(^3\)
- In the year 2000, half of all plastic packaging in the UK was comprised of SUDs\(^4\)
- Nearly 700 species of marine wildlife are impacted by ingestion and entanglement of plastics, causing starvation, disease, and death\(^5\)
- Without dramatic systems change, by 2050, there will be more plastic in the ocean than fish\(^6\)
- Based on Berkeley’s population of approximately 120,000 people, it is estimated that almost 40 million single use cups are used in the City of Berkeley every year
- Paper cups alone generate 2.2 billion pounds of waste per year nationwide, consuming over 11 million trees, resulting in 4 billion pounds of carbon dioxide emissions, and requiring the consumption of 35 billion gallons of water to manufacture\(^7\)

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\(^2\) See Clean Water Action’s “Taking out the Trash” Bay Area Litter study (2011) [http://www.cleanwateraction.org/files/publications/ca/Curr_CA_12%2012%2011final.pdf](http://www.cleanwateraction.org/files/publications/ca/Curr_CA_12%2012%2011final.pdf) ; California Coastal Cleanup Results 1989-2014 showing Food and Beverage packaging items are 7 out of the top 10 items collected and account for 34% of the total trash - [https://www.coastal.ca.gov/publiced/ccd/history.html#Top10](https://www.coastal.ca.gov/publiced/ccd/history.html#Top10) ; BanList 2.0 shows food and beverage packaging items are 74% of top 20 littered items among 6 different beach cleanup datasets- [https://upstreampolicy.org/ban-list-20](https://upstreampolicy.org/ban-list-20)


\(^6\) Ellen MacArthur Foundation (2016)

\(^7\) Clean Water Action Disposable vs. Reusable Cups Fact Sheet
Most SUDs are used for just a few minutes before becoming waste, while the plastics many are made of last for hundreds and even thousands of years, and have broad, long-lasting negative impacts. Plastics in waterways and oceans break down into smaller pieces (but do not biodegrade) and are present in most of the world’s oceans, at all levels (surface, water column, and bottom).\(^8\) Among other hazards, plastic debris attracts and concentrates ambient pollutants in seawater and freshwater\(^9\), which can transfer to fish, other seafood, and salt that is eventually sold for human consumption.\(^10\) Certain SUDs, including food contact papers and compostable paperboard containers, can also contain harmful fluorinated chemicals that are linked to serious health effects including kidney and testicular cancer, thyroid disruption, delayed puberty and obesity.\(^11\)

**Berkeley as a Zero Waste Leader**

The City of Berkeley has a long history of leadership in sustainability and environmental protections including the adoption of an ambitious Climate Action Plan in 2009, with a goal of achieving Zero Waste by 2020; the nation’s first curbside recycling program and styrofoam foodware ban; and one of the first commercial organics collection programs. 75% of the City’s discarded material is diverted from landfill, and there has been a 50% reduction in solid waste disposal between 2000 to 2013\(^12\). Despite these achievements, Berkeley has not addressed the significant increase in takeout food packaging littering city streets, filling storm drains, requiring management in the waste stream, polluting our waterways, Bay and ocean, and threatening both human and animal health.

In addition, SUDs are particularly costly and challenging to divert from landfill. Non-recyclable food and beverage packaging is costly to remove from the waste stream and reduces the quality and value of recyclables, while non-compostable food packaging (some of which is advertised as “compostable”) contaminates compost, adding costs and reducing the quality of compost\(^13\). With China’s recent rejection of mixed recycled plastic imports, the value of recyclable plastics has dropped sharply and the final destination for these plastic SUDs is uncertain. This adds significant costs to the City’s collection, sorting, and processing of compostables and recyclables. To reach its Zero

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\(^11\) In 2015, the FDA barred from use three such fluorinated chemicals from food contact materials due to safety risks associated with cancer, toxicity, and other health effects; other fluorinated chemicals have similar chemical structures and pose similar risk.


Waste goals, the City must reduce use of unnecessary single-use food and beverage packaging.

**Strategies to Regulate SUDs**

Alameda County implemented its reusable bag ordinance in January 2013, and has seen dramatic results. Countywide, bag purchases by affected retail stores have declined by 85 percent. The number of shoppers bringing a reusable bag to affected stores, or not using a bag at all, has more than doubled during this time. Globally, a number of strategies have been implemented to reduce the use of SUDs. Charges for single-use plastic bags have proven to decrease plastic bag consumption. When Ireland instituted a “Plas-Tax” in 2002 equivalent to about 20 cents per bag, plastic bag use declined by 90% and litter from plastic bags declined by 40%. Similar charges have been implemented in Taiwan, Washington D.C., and the United Kingdom, resulting in decreases in plastic bag use of up to 80%. A 2016 plastic bag ban in California reduced the number of plastic bags found on beaches by half. Studies have also shown that customers in areas with taxes on single use bags were more likely to use reusable bags.

There appears to be growing support for reducing the use of other single use disposables. Ireland is considering banning single use coffee cups, with 50% of the population surveyed in support. The European Union announced in 2018 that it is implementing a policy for all plastic packaging to be recyclable or reusable by 2030. Taiwan will be imposing charges for straws, plastic shopping bags, disposable utensils, and beverage cups by 2025, and will impose a complete ban on single-use plastic items, including straws, cups, and shopping bags, by 2030.

**Economic Advantages for Businesses**

Businesses in the Bay Area spend between $0.25 and $0.85 per meal on disposable foodware. Reducing the use of SUDs can provide significant cost savings, even

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20 Id.
considering the costs associated with making the transition to reusables. The *Rethink Disposable* program of the Clean Water Fund, in partnership with STOP WASTE in Alameda County, has conducted a number of case studies showcasing businesses that have voluntarily minimized SUDs and incorporated reusables\(^{22}\). These businesses saw annual net cost savings (after accounting for costs of reusables, dishwashing, etc.) from $1,000 - $22,000 per year.\(^{23}\)

In addition, recent surveys completed by the City of Berkeley’s Office of Economic Development found that neighborhood cleanliness, including trash collection, was a major concern of business owners interviewed. Business Improvement Districts (BIDs) and the Clean Cities Program work to keep Berkeley’s business districts clean, but at great expense. The Telegraph Business Improvement District (TBID), for example, reported collecting over 22 tons of street litter in one year.

**Reducing SUDs in the City of Berkeley**

Through the leadership of Berkeley’s Ecology Center, working closely with UpStream, Clean Water Action, the Clean Water Fund, Story of Stuff, Surfrider Foundation, GAIA (Global Alliance for Incinerator Alternatives), the Green Science Policy Institute, Excellent Packaging, and numerous active residents and volunteers, a proposed Berkeley Single Use Foodware and Litter Reduction Ordinance has been drafted. This visionary Ordinance combines proven strategies for reducing SUDs including promotion of reusable foodware, fees when SUDs are used, and creation of a list of approved, truly compostable or recyclable SUDs for use City-wide.

The Ecology Center and Clean Water Action also undertook an extensive research and public outreach process, including surveys of local food businesses, discussions with business owners and environmental experts, and assessment of a charge-based cup reduction pilot project completed by Telegraph Green and Cafe Strada\(^{24}\). This level of research, outreach and field testing represents study and consultation of an intensity and duration rarely undertaken in conjunction with new proposals in Berkeley, and has resulted in a proposed ordinance incorporating extensive expert, community and real-world data.

The survey, conducted in 2017-2018 by Clean Water Action, the Ecology Center, and other partners, covers 59 Berkeley food businesses (about 10% of affected food businesses) of various sizes and service styles, and includes respondents from all of

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\(^{22}\) [https://cleanwater.org/publications/participating-business-testimonials](https://cleanwater.org/publications/participating-business-testimonials)

\(^{23}\) Data provided by Clean Water Action’s *Rethink Disposable* program, March 2018. See attached fact sheet.

\(^{24}\) [https://serc.berkeley.edu/paying-the-price-of-disposable-cups-at-caffe-strada/](https://serc.berkeley.edu/paying-the-price-of-disposable-cups-at-caffe-strada/)
the City’s commercial districts. Of these businesses, 58% would support a customer charge for cups, and 67% would support a charge for disposable food containers.

These and other findings inform the proposed ordinance, which was written to be both aspirational and achievable. More complex proposals and bans were rejected in favor of a simplified set of recommendations that offer cost savings for restaurants and small businesses, a stream of revenue for the City to implement and enforce the ordinance, and a major step forward in reducing pollution and litter, and in meeting the City’s Zero Waste and Climate Action Goals.

**Proposed Ordinance Elements**
The purpose of the proposed Ordinance is to reduce litter and waste associated with single use food and beverage packaging in the City of Berkeley. The proposal requires that food consumed on-site be served in reusable, durable dishes, cups, and utensils. Foil, wrappers, and tray liners are still allowed, and provision is made for waivers under specific circumstances.

The ordinance also provides that food businesses charge customers for take-out cups, clamshells and other take-out foodware, similar to the charge for paper bags associated with California’s plastic bag ban (SB 270). Charges for disposables will encourage customers to bring their own reusable cups and containers. $0.25 will be charged for disposable cups, and $0.25 for food containers. Food establishments will keep the proceeds from these charges, and the City will collect an “at cost” fee for administration of the program. As with charges for bags, customers using SNAP & WIC will be excluded from paying these fees. The ordinance also provides that single use straws, utensils, and stirrers (which will have to be compostable) be provided only “by request”.

Finally, the policy will require that all disposable foodware be free of certain highly toxic chemicals known to migrate into food and beverages, and be recyclable or compostable in the City’s waste management programs.

The City will be responsible for creating and updating an accessible list of approved foodware so that food retailers can easily identify products that conform to requirements. This will protect public health and the environment from some of the most toxic and persistent chemicals used in food and beverage packaging, and ensure that “compostables” furnished in Berkeley are actually compostable within the City’s program. The City will be responsible for administration and enforcement.
ENVIRONMENTAL SUSTAINABILITY
The production, consumption and disposal of single use food and beverage packaging is a major contributor to litter in our streets, plastic in landfills, pollution in waterways and oceans, GHG emissions, and harm to wildlife. This environmental ordinance represent a huge step forward in reducing the use of disposable foodware in Berkeley, fulfilling Berkeley’s Zero Waste and Climate Action Goals, reducing greenhouse gas emissions 80% by 2050, and meeting State trash load level mandates.

CONTACT
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Mayor Jesse Arreguin | (510) 981-7100 | mayor@cityofberkeley.info

ATTACHMENTS
1. Draft Berkeley Single Use Foodware and Litter Reduction Ordinance
2. CaseStudy: Caravaggio Gelateria Italiana
3. Clean Water Action Disposable vs Reusable Cups Fact Sheet
Single Use Foodware and Litter Reduction Ordinance

ORDINANCE AMENDING THE XXXX CITY CODE BY ADOPTING CHAPTER XXXX SECTIONS XXXX TO REDUCE SINGLE USE DISPOSABLE FOODWARE

Findings and Purpose
The council finds and declares as follows:

Section 1. Definitions

A. "Prepared Food" means foods or beverages which are prepared on the vendor’s premises by cooking, chopping, slicing, mixing, freezing, squeezing, or other processing and which require no further preparation to be consumed. "Prepared Food" does not include raw uncooked whole fruits or vegetables which are not chopped, squeezed, or mixed or raw uncooked meat products.

B. "Takeout Food" means Prepared Food requiring no further preparation which is purchased to be consumed off a Prepared Food Vendor’s premises. Takeout Food includes Prepared Food delivered by a Prepared Food Vendor or by a third party delivery service.

C. “Takeout Meal” means Takeout Food consisting of an entree, or a full size salad, or a breakfast, lunch or dinner item (such as a sandwich, burrito, pizza, soup) served in up to three Disposable Food Containers.

D. "Prepared Food Vendor" means any establishment located within the City of Berkeley, including a Bakery, Cafeteria, Drive In, Food Products Store, Food Service Establishment (Carry Out, Quick Service, Full Service), Drugstore or Theater, as defined in BMC 23F.04, Mobile Food Facility, Temporary Food Facility (CA Health and Safety Code Sections 113831 and 113920), bar and other similar establishment, selling Prepared Food to be consumed on and/or off its premises.

E. "Disposable Foodware" means all bags, sacks, wrappers, paper or foil liners, containers, bowls, plates, trays, cartons, boxes, pizza boxes, cups, utensils, straws, lids and any other food contact items used to hold, serve, eat, or drink Prepared Food, which are designed for single use and in which Prepared Food is placed or packaged on a Prepared Food Vendor’s premises.

F. “Disposable Food Container” is a container designed for single use that holds 16 oz. or more (for containers with lids) or is 62 cubic inches or larger (for boxes and clamshells).

G. “Disposable Cup” is a beverage cup designed for single use to serve beverages, such as water, cold drinks, hot drinks, alcoholic beverages and other drinks.
H. “**Reusable Foodware**” shall mean all foodware, including plates, bowls, cups, trays, glasses, straws, stirrers, and utensils, that is manufactured of durable materials and that is specifically designed and manufactured to be washed and sanitized and to be used repeatedly over an extended period of time, and is safe for washing and sanitizing according to applicable regulations.

I. “**Plastic**” means a synthetic material made from fossil fuel based polymers such as polyethylene, polystyrene, polypropylene, and polycarbonate that can be molded or blown into shape while soft and then set into a rigid or slightly elastic form.

J. “**Fluorinated Chemicals**” means perfluoroalkyl and polyfluoroalkyl substances or fluorinated chemicals, which for the purposes of food packaging are a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

**Section 2. Reusable Foodware for Dining on the Premises (i.e. “Eating-in”)**

This section applies to Prepared Food served for consumption on the premises of a Prepared Food Vendor.

A. As of [Effective Date], Prepared Food Vendors shall only sell or provide food and beverages for consumption on the premises using Reusable Foodware, except as provided in Section 2(C).

B. Prepared Food Vendors offering Takeout Food shall ask customers whether they will consume their purchased food or beverage on the premises (i.e. “for here”) or off the premises (i.e. “to go”). If the purchased food or beverage is intended for consumption on the premises, the Prepared Food Vendor shall serve such food or beverage in Reusable Foodware.

C. Prepared Food Vendors that do not have on-site or off-site dishwashing capacity to wash, rinse and sanitize Reusable Foodware in compliance with the California Health Code may request a full or partial waiver from the requirements of Section 2(A) if they can demonstrate inability to comply due to space constraints and financial hardship, such as investments and costs that take more than a year to be paid for through savings. Waivers may be granted for up to three years, during which time the Prepared Food Vendor shall make every effort to become complaint. If a waiver is granted, all Disposable Foodware used for eating on the premises must conform to the Disposable Food Packaging Standards in Section 3.

D. As of [Date - 1 year after Effective Date?], new zoning permits and business licenses for Prepared Food Vendors shall only be granted to Prepared Food Vendors that have adequate onsite or offsite dishwashing capacity to comply with section 2(A).
E. Disposable food wrappers, foil sheets, napkins and paper or foil basket and tray liners shall be allowed for dining on the premises so long as they meet the Disposable Food Packaging Standards in Section 3.

Section 3. Disposable Foodware Standards

This section provides standards for the types of Disposable Foodware that may be used for Takeout Food, or for Prepared Food eaten on the premises of a Prepared Food Vendor with a valid waiver, as provided for in Section 2(C).

A. The City shall maintain a list of approved Disposable Foodware sources and types that shall be available at [physical location] and on the City’s website. The City shall update annually the list of approved Disposable Foodware types and sources. No other Disposable Foodware may be used by any Prepared Food Vendor.

B. Disposable Foodware approved by the City shall meet the following standards:
   a. Beginning [Date], all Disposable Foodware used to serve or package Prepared Foods that are prepared in the City of Berkeley:
      i. Must be accepted by City of Berkeley composting or recycling municipal collection programs, and
      ii. If compostable, must be certified compostable by the Biodegradable Product Institute or another independent third party certifying organization or agency recognized by the City.
   b. Beginning [Date - one year from Effective Date], compostable Disposable Foodware containing paper or other natural fiber material shall be free of all intentionally added Fluorinated Chemicals as certified by the Biodegradable Product Institute or other third party certifying organization or agency recognized by the City.
   c. The City may adopt regulations that require Disposable Foodware to have minimum post-consumer recycled content, and any other Disposable Foodware specifications that support the goals of this Ordinance.

Section 4. Disposable Foodware Charges

Customers shall be charged for Disposable Foodware used for dining off the premises.

A. Beginning [Effective Date], Prepared Food Vendors selling Takeout Food shall charge a customer twenty five cents ($0.25) for every Disposable Cup provided.
B. Beginning [Effective Date], Prepared Food Vendors selling Takeout Food shall charge a customer twenty five cents ($0.25) per Disposable Food Container and no more than twenty-five-cents ($0.25) per Takeout Meal.
C. Income from charges for Disposable Cups and Disposable Food Containers shall be retained by the Prepared Food Vendor.
D. The charges set forth in A and B apply to all Takeout Food and Takeout Meals prepared and sold in the City of Berkeley and served in Disposable Food Containers and Disposable Cups, except for Prepared Food Vendors providing Disposable Food
Containers and Disposable Cups for carry-out of leftovers from Prepared Food eaten on the premises (i.e. “doggie bags”).

E. All customers demonstrating, at the point of sale, a payment card or voucher issued by the California Special Supplemental Food Program for Women, Infants, and Children pursuant to Article 2 (commencing with Section 123275) of Chapter 1 of Part 2 of Division 106 of the California Health and Safety Code, or an electronic benefit transfer card issued pursuant to Section 10072 of the California Welfare and Institutions Code, shall be exempt from the charges specified in this Section.

F. Charges for Disposable Cups, Disposable Food Containers and Takeout Meals shall be identified separately on any receipt provided to the customer.

G. Disposable straws, stirrers, cup spill plugs, napkins, condiment packets, utensils and other similar Disposable Foodware accompanying Disposable Cups, Disposable Food Containers and Takeout Meals shall be provided free of charge, and only upon request by the customer or at self-serve stations.

**Section 5. Signage Requirements for Takeout Food Vendors**

A. The City shall provide text explaining Disposable Foodware Charges and specifications for signage that Takeout Food Vendors must post in plain view of customers at the point of sale.

B. Takeout Food Vendors shall also include Disposable Foodware Charges on their printed and electronically available menus.

C. Takeout Food Vendors shall inform customers of Disposable Foodware Charges for orders taken by telephone.

D. Third-party delivery services shall include on their electronic platforms text pursuant to subsection A explaining Disposable Foodware Charges and include Disposable Foodware Charges on their menus and billing interfaces.

**Section 6. Duties, Responsibilities and Authority of the City of Berkeley**

A. The City Manager is hereby charged with the enforcement of this Chapter, except as otherwise provided herein, and shall prescribe, adopt, and enforce rules and regulations relating to the administration and enforcement of this Chapter.

B. The Master Fee Schedule shall be amended to include a fee to cover City expenses of inspection and enforcement of this ordinance.

C. It shall be the duty of the City Manager to collect and receive all fees imposed by this Section, and to keep an accurate record thereof.

D. Within three years of the effective date of this Ordinance, the City shall evaluate and report to City Council on the effectiveness of this ordinance.
Packaging Practices prior to Rethink Disposable:

- All gelato and beverages served in disposable packaging
- Disposable tasting spoons used for samples
- Individually wrapped sugar packets used for coffee service

Emiliano, the owner of Caravaggio, is from Italy and strove to replicate many practices in his shop that one can find in his home country — everything except for the disposable products he was using, like the 91,250 disposable spoons used every year for tastings and the 24,333 individually wrapped sugar packets to cater to the “to-go” coffee service culture. The owner believes that the taste of the handmade gelato is much improved by eating it with a real spoon from a real glass bowl.

Recommendations Implemented:

- Reusable water cups, gelato bowls and spoons for on-site dining
- Reusable spoons utilized for gelato tastings
- Napkin dispensers and bulk sugar for coffee service
- Purchased and installed a dishwasher to save water and reduce labor costs

Implementing ReThink Disposable recommendations helped significantly reduce waste and achieved Emiliano’s goal to elevate the experience of eating handmade gelato and the ambiance in the shop. Emiliano purchased an efficient ware washing machine that provided energy and water savings, reduced labor time, and created a sanitary work environment. The new dishwasher and set-up cost $2,100, which made the full set-up cost to implement the program $2,411. The high up-front cost of the dishwasher made the payback period for each item longer, yet there is still a significant annual cost savings of $2,301 after the payback period was met to cover and exceed the set-up costs in the future.

Emiliano Cecchetti, owner: “Eating our gelato from a paper cup is like drinking champagne from a paper cup! The idea to change to reusables started with a ReThink Disposable visit.”
## Results:

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Product Replaced or Minimized</th>
<th>% Disposable Reduction</th>
<th>Payback Period (including dishwasher)</th>
<th>Payback Period (excluding dishwasher)</th>
<th>Annual Savings (after payback period)</th>
<th>Annual Waste Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement a reusable gelato cup for dine-in customers</td>
<td>6 oz Gelato paper cup</td>
<td>67%</td>
<td>7.6 months</td>
<td>3 months</td>
<td>$608</td>
<td>73 lbs.</td>
</tr>
<tr>
<td>Implement a reusable spoon for tasting and for dine-in customers</td>
<td>Plastic tasting spoons</td>
<td>75%</td>
<td>4.1 months</td>
<td>21 days</td>
<td>$821</td>
<td>137 lbs.</td>
</tr>
<tr>
<td>Implement an efficient napkin dispenser</td>
<td>Napkins</td>
<td>50%</td>
<td>2.7 months</td>
<td></td>
<td>$183</td>
<td>146 lbs.</td>
</tr>
<tr>
<td>Implement a bulk sugar dispenser</td>
<td>Sugar packets</td>
<td>75%</td>
<td>12 days</td>
<td></td>
<td>$365</td>
<td>218 lbs.</td>
</tr>
<tr>
<td>Replace disposable water cups with a reusable glass</td>
<td>7 oz Water cups</td>
<td>100%</td>
<td>9.2 months</td>
<td>18 days</td>
<td>$324</td>
<td>91 lbs.</td>
</tr>
</tbody>
</table>

**TOTAL** $2,301 **665 lbs.**

### THE BOTTOM LINE

- 151,577 disposable items reduced per year
- $2,301 annual savings after payback period
- 655 pounds of annual waste reduction
- Improved presentation
- Increased customer satisfaction
- No additional labor required

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*Disposable spoons and paper cups were replaced by metal spoons and glass bowls for on-site dining.*

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*ReThink Disposable is a Clean Water Fund program conducted in partnership with local businesses and government agencies. Generous support for the program 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.*
108,000,000,000 disposable cups are used by Americans each year

Annually the American disposable cup habit uses:

- 22 Billion Gallons
  enough to fill more than 33,000 Olympic swimming pools!
- 26 billion pounds of CO₂
equal to the emissions from 2.5 million cars annually!
- 20+ Million Trees!

Most cups aren't recycled: almost all disposable cups are made of non-recyclable materials like plastic-coated paper or foam food ware.

Let's compare

What happens if you replace one disposable cup a day with a reusable mug for one year?

**Vs.**

By replacing one disposable cup every day for one year you prevent:

- 87.6 lbs greenhouse gas emissions
- 76 gallons water usage
- 126 trees from being chopped down
- 12 lbs of solid waste

and Save $36

*assumes 10¢ discount per use*