A GUIDE TO THE STOP WASTE MODEL ORDINANCE FOR FOOD SERVICE PACKAGING REDUCTION AND REUSE

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I. ABOUT THE MODEL ORDINANCE

The Stop Waste **Model Ordinance for Food Service Packaging Reduction and Reuse** (the Model Ordinance) provides a **menu of policy options** for Cities in Alameda County to consider adopting as part of their efforts to address single-use plastics and food packaging waste issues. These policies prioritize reuse and the reduction of disposable materials used in food service and beverage packaging. The menu of options approach offers member agencies flexibility to choose among the specific policy provisions to create an ordinance that fits the priorities of the jurisdiction. In its entirety, the Model Ordinance focuses on reducing and regulating disposable packaging in three business sectors:(1) food service; (2) bottled and other packaged beverages; and (3) retail stores. It also aims to make government facilities themselves models of packaging reduction in food and beverage service.

The primary objective of the Model Ordinance is to reduce the demand for and consumption of certain problematic single-use foodware items, such as plastic and paper cups, plates, and utensils, that contribute to litter/ocean pollution, contaminate compost and recycling collection programs, and contribute to consumption-related greenhouse gas emissions. The co-benefit of the packaging prevention / source reduction approach is that it saves consumers and businesses money since it is well documented that disposable food service ware is expensive and reusables cost less over time when actively reused.

This Model Ordinance is not solely a set of plastics reduction policies. The goal of this Model Ordinance is to reduce the consumption of all disposable packaging, and make the remaining disposables easier to manage as waste in local jurisdictions and safer for human health and the environment. The Model Ordinance incorporates concepts and lessons learned from policies enacted in Alameda County and beyond, and introduces some new approaches designed to advance progress and further incentivize reuse

II. LOCAL AGENCY ROLES AND GOALS

StopWaste will provide a supportive role to member agencies interested in implementing the ordinance in several ways:

- Assist member agency staff to customize elements based on local priorities
- Support stakeholder engagement and data gathering/analysis efforts
- Support City Council presentations for ordinance adoption
- Offer various levels of technical assistance, including incentive funding for businesses
- Develop general outreach materials (geared for countywide use, but customizable)
- Provide grant funding for development of a reuse infrastructure in the county.

Member agencies will be responsible for adopting a local ordinance, implementation, enforcement, and direct outreach to their affected communities.

Some jurisdictions have included measures related to Food Service Ware in their Climate Action Plans (CAP). The following table lists Alameda County jurisdictions with CAP language on this topic. Where there are specific measures in the CAP, they are indicated in bold.

Jurisdiction	Disposable Food Service Ware-related Measure in CAP
Alameda *Climate Action and Resilience Plan (2019)*	No specific measure, though mentioned in the CAP-reference Zero Waste Implementation Plan
Albany *Climate Action and Adaptation Plan (2019)*	**3.2.1. Partner with StopWaste to develop and adopt an ordinance requiring reusables for dine-in restaurants and sustainable take-out foodware.**
Berkeley *Climate Action Plan (2009)*	CAP does not include food serviceware, however does include two related policies: 5. Goal: Expand efforts to eliminate waste at its source a. Policy: Encourage the use of reusable bags at local retail locations b. Policy: Increase producer responsibility for product waste and packaging
Dublin *Climate Action Plan 2030 and Beyond (2020)*	No specific measure, but section 7. Working Toward a Low Carbon Economy features reusable items on page 7-6 (p. 128 of the PDF)
Emeryville *Climate Action Plan 2.0 (2016)*	No specific measure on disposables. The CAP implementation plan section 10A lists, “Promote durable, reusable, pre-owned, recycled content and locally made goods, which reduce excessive manufacturing and enhance local production and resale economies, via a community-based social marketing campaign.

Fremont *Climate Action Plan (2012) but update is coming soon*	SW-A2 Support legislation that reduces waste and litter from single-use disposable items.
Hayward *Original CAP (2009) being updated now*	No specific measure, but related: Action 6.4 Evaluate the viability of implementing a ban on certain materials from landfills, e.g., yard trimmings, untreated wood, cardboard, plastic bags, or polystyrene.
Livermore *2022 Climate Action Plan*	**W-1.4 Improve waste management in commercial industries** (includes examples of targeting food and hospitality industries: "Efforts may include adopting ordinances for compostable food ware, a ban on single-use individual toiletry bottles in hotels/motels, grant/discount programs for switching to reusables, and working with home meal delivery services (e.g., Blue Apron), etc. to reduce single-use packaging and encourage reuse" (p. 80 of PDF; our program is discussed in Appendix C, p. 217 of the PDF)
Oakland *2030 Equitable Climate Action Plan (2020)*	**MCW-3: Eliminate Single-Use Plastics & Prioritize Reuse in Food Preparation, Distribution, and Sale**
Newark *CAP Initial Framework (2010)*	No specific measure on RFO, but on Plastic Bags and Expanded Polystyrene: Business Community Action Item 5.3- Consider Plastic Bag and Styrofoam Bans
Piedmont *Climate Action Plan 2.0 (2018)*	No measure on single-use. Closest measure: "Action SW-1.2H: Educate residents about the different types of plastic and the limitations of plastic recycling. Create awareness that putting a plastic item in the blue recycling bin does not mean it will actually be recycled. Encourage the decreased consumption of plastics and plastic packaging."

Pleasanton *Climate Action Plan 2.0 (2022)*	**P12. Single use plastic reduction** (one of 16 "primary actions" and the only one on materials & consumption)
San Leandro *2021 Climate Action Plan*	**WR-5: Styrofoam and single-use plastics reduction** "Work with regional partners to reduce the prevalence of single-use plastic and ensure that reusable food service ware is the default in dine-in, delivery, and takeout dining… Mandate that any single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) are BPI-certified compostable fiber, except in cases where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities." (p. 85, p. 104 of the PDF)
Union City *Climate Action Plan (2010)*	**WR-1.1 Increase Waste Diversion Target** D. Develop ordinances to ban use/sales of unrecyclable plastics and disposable bags/containers. F. Develop an ordinance that requires take-out food containers to be compostable or recyclable within Union City's Recycling and Composting System.
Alameda County	No relevant measures; GSA's government operations CAP update may address this.

III. OVERVIEW AND PRIORITIZATION OF POLICIES

Overview of the Model Ordinance. The Model Ordinance includes the following sections:

GENERAL PROVISIONS

1. Findings and Purpose.
2. Definitions.

FOOD SERVICE WARE REDUCTION AND REUSE

3. Reusable Food Service Ware Required for Dining on Premises.
4. Customer-Provided Reusable Beverage Cups and Food Containers for Take-Out.
5. Disposable Beverage Cup and Food Container Charge.
6. Accessories Only Upon Customer Request.
7. Reusable Beverage Cups at City Facilities.
8. Reusable Beverage Cups at Large Venues.
9. Reusable Beverage Cups at Events.

DISPOSABLE PACKAGED WATER REDUCTION AND REUSE

10. City Purchase, Sale, or Distribution of Packaged Water Prohibited.
11. Accessible Water Bottle Refill Stations.

COMPLIANT DISPOSABLE FOODWARE

12. Compliant Disposable Food Service Ware for Food Service.
13. Sale or Distribution of Non-Compliant Food Service Ware Prohibited.
14. Polystyrene Foam and Certain Non-Recyclable Non-Compostable Products.

ENFORCEMENT

15. Process to Obtain Waivers.
16. Enforcement.

IMPLEMENTATION

17. Severability.
18. Chapter Supersedes Existing Laws and Regulations.
19. California Environmental Quality Act.

Organization of the Model Ordinance. The Model Ordinance aligns with the priorities of Integrated Waste Management (IWM) and the Circular Economy. First, it places policies that focus on source reduction (i.e. Reduction and Reuse) ahead of those that focus on how disposable food service ware will be managed at end of life (i.e. being recyclable or compostable). Second, it ensures that Food Service Ware is designed to eliminate waste and pollution and to be circular at its highest value. This is intentional. StopWaste believes that it is important to prioritize source reduction by reducing disposable food and beverage packaging through policies that either eliminate unnecessary products and packaging, or transition the delivery systems to reusable and refillable formats.

However, recognizing that there will still be disposable food and beverage packaging, this Model Ordinance also provides policies to ensure that when reuse or refill are not available options, disposable food service ware can be well-managed in local compost and recycling programs.

Starting with food service related policies, the ordinance leads with policies that require reuse and reduction in the following scenarios: dining on-site, customers bringing their own reusable cups and food containers for take-out, reducing disposable beverage cups and food containers for take-out using charges and incentives, businesses only providing accessories for take-out upon customer request, reusable cups at government facilities, large venues, and events.

The Model Ordinance then focuses on packaged water related policies and again prioritizes reduce and reuse with policies that prohibit city purchases, sales, or distribution of water in disposable bottles, and requires accessible water bottle refill stations.

In the last set of policies, the Model Ordinance addresses what types of disposable food service ware will be permitted in the local jurisdiction. There are options to require only compostable, only recyclable, and to eliminate expanded polystyrene (EPS). An optional additional EPS provision also relates to products other than food service ware, like transport packing materials, coolers, pool or beach toys, dock floats and mooring buoys.

Waivers, penalties, and other aspects of enforcement, plus California Environmental Quality Act (CEQA) determinations all follow at the end, along with provisions related to severability and the ordinance superseding existing laws.

Recommendations for how to approach the menu of policies. The Model Ordinance provides a menu of policies that jurisdictions may adopt in its entirety or select from. In the table below, the Reduce and Reuse policies are organized in a hierarchical fashion moving from those considered "Essential," to "Strongly-Advised," and "Worth Considering." They are followed by the Disposable Food Service Ware policies.

- "Essential" policies are those considered to be bare-minimum first steps in transitioning foodservice to reuse and coming into compliance with the major reduction of disposables state law- (AB1276) - that requires Accessories Only Upon Customer Request.

- "Advised" policies are those that help move the needle from reuse in food service to other sectors, including events, large venues, government facilities and take a step towards replacing disposable beverage bottles with refillable ones.

- "Worth Considering" policies are those that would be the first of their kind in the U.S. While there is some early precedent in Europe, jurisdictions that adopt these policies would be taking a leadership role in the U.S.

- "DIsposable Food Service Ware" policies specify what Food Service Ware will be acceptable for use in food service and for sale and distribution within the City. These policies should be enacted as companions to Reduce and Reuse policies as on their own, **they do not serve to reduce environmental impacts such as litter, waste, or greenhouse gasses**. However, these policy measures will help to protect public health because they will reduce exposure to high priority toxic chemicals in Food Service Ware.

ESSENTIAL REDUCE / REUSE POLICIES	Start Date
Reusable Food Service Ware Required for Dining on Premises	12 mos. after adoption
Customer-Provided Reusable Cups and Food Containers for Take-Out	Immediately

Accessories Only Upon Customer Request	Immediately
ADVISED REDUCE / REUSE POLICIES	Start Date
Reusable Cups at Events	18 mos after adoption
Reusable Cups at Large Venues	18 mos after adoption
Reusable Cups at City Facilities	12 mos after adoption
Disposable Cup and Container Charge (Optional Reuse Discount)	12 mos after adoption
Accessible Water Bottle Refill Stations	18 mos after adoption
REDUCE / REUSE POLICIES WORTH CONSIDERING	Start Date
City Purchase, Sale, or Distribution of Packaged Water Prohibited.	12 mos after adoption
DISPOSABLE FOOD SERVICE WARE POLICIES	Start Date
Compliant Disposable Food Service Ware for Food Service	12 mos after adoption
Sale or Distribution of Non-Compliant Food Service Ware Prohibited	12 mos after adoption
Polystyrene Foam and Related Products	12 mos after adoption

IV. EXPLANATION OF KEY DEFINITIONS

- **"City Property"** - Consider adding any exclusions to this definition for city property where this ordinance should not apply. Some types of property that a city might want to consider excluding include:

    a. Property leased to third parties for private use
    b. City hospitals
    c. Property where the nature of the government use makes the ordinance infeasible

- **"Compostable" -** With AB1201 (Ting) enacted into law in 2021, California updated laws that regulate the marketing and labeling of degradable plastic products sold in California, including those claimed to be "compostable" or "biodegradable." The policy requires:

    a. products labeled "compostable" must meet the ASTM performance standards D6400 (re: labeling of plastics designed to be Composted in commercial compost facilities) or D6868 (re: labeling of products that include plastics and polymers as coating or additives with paper and other substrates for composting in commercial facilities)- and be certified as such by a third party certifier;

b. products labeled compostable must meet the US Department of Agriculture's National Organic Program (NOP) standards and be certified by a third-party;

c. products labeled compostable are prohibited from having greater than 100 ppm PFAS;

d. CalRecycle is authorized to adopt labeling regulations so consumers and composters can tell the difference between non-compostable and compostable products; and

e. compostable products must be designed to be associated with the recovery of desirable organic wastes, such as food scraps and yard trimmings.[1]

CalRecycle is charged with enforcing these requirements.[2] The requirement that products labeled as compostable goes into effect on January 1, 2024 and such products have to have held third party certification for at least one year. The requirement that compostable products meet the organics standards does not go into effect until January 1, 2026. By January 1, 2024, CalRecycle may determine that there could be a separate compost stream that does not go into organic agriculture applications.

Some experts believe that it will be very difficult for any compostable plastic or compostable product with any plastic coating or additives to meet the national organics standards and therefore believe that compostable plastics will be effectively phased out.

There are currently two widely accepted third party certifiers of compostability in packaging: the Biodegradable Products Institute (BPI) (www.bpiworld.org) and the Compost Manufacturers Alliance (CMA) (https://compostmanufacturingalliance.com). Both test products to meet ASTM standards and neither will accept products for testing that contain greater than 100 ppm total fluorine- meaning they won't certify products that contain fluorine at very high levels. The main difference between the two certifiers is that CMA conducts testing in the field and BPI uses lab testing.

The definitions of "compostable" in local ordinances in the Bay Area include a variety of characteristics including:

- certified as compostable by a third party;
- free of fluorinated chemicals, which is a generic reference to the class of chemicals known as perfluoroalkyl substances (PFAS);
- accepted by a local hauler or in the city's compost program;
- free of any plastic, including in the coating, and some specify this to include biologically based petroleum;
- listed by the jurisdiction as a compostable product;
- being capable of breaking down into, or otherwise becoming a part of usable compost in a safe and timely manner.

Some, like the Cities of Pacifica and Santa Cruz allow items that are coated or lined with biologically based polymer, such as corn or other plant sources (e.g., compostable plastics), if certified by a third party that certifies products free of intentionally added PFAS (polyfluorinated alkyl substance). Others, like Marin County and cities in Marin, and the City of Arcata, do not allow any biological based materials in compostable products.

[1] Section 42357 of the Public Resources Code see also AB 1201
[2] https://calrecycle.ca.gov/plastics/degradables/labeling/

In some cases, local jurisdictions do the work for the retailers by providing a list of specific products that meet their criteria for acceptable disposable foodware. This is stated in the ordinances of Arcata, Berkeley, Goleta, and Pacifica.Checking the approved products of BPI and/or CMA is an easy way for local jurisdictions to maintain a list of approved compostable products.

Using all of these characteristics, the Model Ordinance provides three options for the definition of Compostable.

f. **Option A** is for jurisdictions that want to limit compostable food service ware to:

- fiber based products;
- collected in the City's available organics collection program;
- listed by the City on their website;
- certified by a third party recognized by the City; and
- with no plastics in the product.

g. **Option B** is for jurisdictions that want to limit compostable food service ware to:

- items collected in the City's available organics collection program;
- listed by the City on their website;
- certified by a third party recognized by the City; and

h. **Option C** is for jurisdictions that want to limit compostable food service ware to:

- items collected in the City's available organics collection program;

Cities may pick and choose from these definitions to create new ones.

- **"Food Service Ware" vs. "Food Container" vs. "Food Service Ware Accessory"**- these definitions distinguish between all "Food Service Ware" such as "... cups, bowls, plates, trays, cartons, boxes, wrappers or liners, hinged or lidded containers (clamshells or tiffins), and other items used as part of food or beverage" service or in which Prepared Food is placed or packaged" versus just the "Food Containers" such as hinged or lidded containers, and packaging that only holds food, versus "Food Service Ware Accessories, which includes "straws, stirrers, splash sticks, cocktail sticks, napkins and utensils (forks, knives, spoons, and sporks); condiment cups and packets; cup sleeves, tops, lids and spill plugs; and other similar accessory or accompanying items used as part of Prepared Food or beverage service or packaging."

  "Food Service Ware" is regulated in Section 3 where reusable food service ware is required for dining on premises, Section 12 which describes "Compliant Disposable Food Service Ware "in food service, and Section 13 which relates to the sale or distribution of non-compliant "Food Service Ware and Food Service Ware Accessories."

  "Food Containers" are regulated in Section 4, which governs customer-provided Reusable Beverage Cups and Food Containers, and Section 5, which pertains to charges for disposable

take-out food containers and cups and optional discounts. There is the option to add "Food Containers" into Section 7, which requires "Reusable Beverage Cups at City Facilities," and Section 9 which requires "Returnable Reusable Beverage Cups at Events."

"Food Service Ware Accessories" are mainly dealt with in Section 6 that requires prepared food vendors to provide accessories only upon customer request, but there is an option to include them in the regulation of "Compliant Disposable Food Service Ware" in subsection d) of Section 12.

- **"Disposable"-** this term is used as opposed to "Single-Use" because some packaging might be used or capable of being used more than once (say, two or three times) but it still would not meet the criteria of "Reusable." The most important aspect of "reuse" is that the product be used enough times to achieve environmental and cost benefits. Something used two or three times would not achieve true environmental and cost savings compared to disposables.

  Disposables, as referred to in the wide array of local foodware ordinances, may pertain to "Cups," "Food Service Ware," "Foodware," and Food Service Ware Accessories." In each instance, the definitions refer to a different set of products.[3] In this Model Ordinance, the term "Disposable" is associated with "Beverage Cups" and "Food Containers" in Section 5, related to charges for take-out disposables. "Disposable" is associated with "Food Service Ware Accessories" in Section 6 and with "Packaged Water" in section 10.

Title	Municipality	Sing-use Items in Common	Single-use Items in Variance	Supplied By	Purpose
Disposable	Palo Alto	any	...	...	single use
Disposable Cup	Berkeley, Fairfax, San Anselmo	any single-use cup	...	...	...
Disposable Food Service Ware	Sebastopol	Bowls, cartons, containers, cups, forks, knives, lids, napkins, plates, spoons, straws, stirrers, trays, and other items	...	Food providers	One-time use for prepared food for on-site eating, leftovers, takeout
Disposable Foodware	Alameda	bowls, containers, cups, lids, plates, straws, trays, and other items	cartons, forks, knives, spoons	food vendor	on-site eating, leftovers, takeout
	Berkeley	bowls, containers, cups, lids, plates, straws, trays, and other items	boxes, cartons, condiment containers, paper or foil food wrappers and liners, pizza boxes, sleeves, spill plugs, utensils	food vendor	on-site eating, takeout
	Fairfax, San Anselmo	bowls, containers, cups, lids, plates, straws, trays, and other items	boxes, forks, knives, napkins, spoons	food vendor	on-site eating, leftovers, takeout
Disposable Foodware Accessories	Berkeley	cup lids, cup sleeves, napkins, stirrers, straws, toothpicks, utensils, and other similar items	condiment cups and packets, cup tops, spill plugs	...	accessory to disposable foodware items
	Fairfax, San Anselmo, San Francisco	included but are not limited to, cup lids, cup sleeves, napkins, stirrers, straws, toothpicks, and utensils	condiment containers and saucers, chopsticks, cocktail sticks, food or beverage trays, splash sticks	...	accessory to prepared food served in plates and cups

[Excerpt from Slafter (2019)]

[3] Slafter, Christopher, "A Survey of Single-use Plastic Foodware Ordinances of the San Francisco Bay Region" (2019). *Master's Projects and Capstones*. 974. https://repository.usfca.edu/capstone/974

- **"Food Service Ware Accessory"-** this definition differs from the state of California's definition, in AB1276, in that it includes napkins (perhaps the most heavily used and wasted accessory item), cup sleeves, tops, lids and spill plugs.

- **"High Priority Toxic Food Packaging Chemical"-** These are toxic chemicals that should not be used for food packaging due to public health and safety concerns. PFAS are a widely recognized class of toxic chemicals used in food packaging and many other applications. But the truth is that there are over 12,000 chemicals used in food contact applications, only about 25% of which have been even minimally assessed for impacts to human health. Of those tested, hundreds have been associated with cancer, endocrine disruption and associated human health impacts, as well as chronic illness and diseases.[4] These include groups of chemicals such as bisphenols, ortho-phthalates, toxic metals (lead and lead compounds; cadmium; mercury; hexavalent chromium and compounds); perchlorate; benzophenone and its derivatives; formaldehyde; toluene; and halogenated flame retardants.

  These chemicals, which are intentionally and often unintentionally added to food packaging, migrate out of food packaging into the food and beverages people consume according to a scientific consensus statement published in 2020 by over 30 leading environmental health and toxic substances scientists. "[5] This peer-reviewed statement, led by the internationally-recognized authoritative, independent non-profit science foundation, the Food Packaging Forum, urged policymakers to take action, stating that current chemicals ban lists like Prop 65 are inadequate: "Authorized lists of chemicals for food contact uses should be revised and known hazardous chemicals removed, such as substances of very high concern (SVHC), if their use is considered non-essential."

  This ordinance follows that advice by selecting three authoritative lists of chemicals, a subset of the lists referred to in California's Safer Consumer Products regulations in the California Code of Regulations, to create a list of restricted substances for disposable food service ware. The first is the set of chemicals listed under Prop 65. But this definition also includes the SVHC list from the European regulations, as well as the most authoritative list of carcinogens from the International Agency for Research on Cancer. PFAS as an entire class of chemicals (there are over 12,000 PFAS chemicals) is not listed on any of these three lists. Therefore, this definition specifically includes them.

  The Green Screen Certified™ Standard for Food Service Ware is the only currently available certification for Food Service Ware that provides chemical hazard assessment for a broad range of chemicals known to be associated with the production of food packaging. Green Screen Certification ensures that none of chemicals on the Priority Substances List created by the Food Packaging Forum, or any antimicrobials or nanomaterials (identified by Green Screen® for Safer Chemicals as posing significant human health threats) are in the Food Service Ware products. The Priority Substances List includes endocrine disrupting chemicals such as bisphenols, ortho-phthalates, parabens, organotin compounds as well as a substantial list of chemical classes including PFAS, organohalogens, polycyclic aromatic amines and compounds of cadmium, hexavalent chromium, lead, mercury and more.

4

5 See the Consensus Statement explanation and the peer-reviewed scientific Consensus Statement published by over 30 leading environmental health scientists in 2020: Muncke J et al. (2020) "Impacts of food contact chemicals on human health: a consensus statement." *Environmental Health* 25(20).

The nonprofit organizations Clean Production Action and the Center for Environmental Health developed the standard and certification program. The standard is based on GreenScreen® for Safer Chemicals, a global leader in chemical hazard assessment that benchmarks progress to safer chemicals.

In addition, all certified products must be recyclable and/or compostable according to requirements as set out in the Standard. Polymeric materials (plastics) that are post-industrial recycled content are allowed in certified products if the materials are well-defined, fully characterized (i.e. inventory and disclosure requirements met) and meet all other certification requirements. Polymeric materials (plastics) that are post-consumer recycled content are evaluated on a case-by-case basis.

Producers of Food Service Ware submit their products for testing. Products are tested using a third party certified lab. Access the GreenScreen Certified™ Standard for Food Service Ware and learn more about how products get certified at: greenscreenchemicals.org/certified.

- **"High Priority Material"**- while High Priority Toxic Chemicals added to materials used to manufacture Food Service Ware can pose threats to human health, the materials themselves are often toxic on their own. There are no regulations of the safety of materials used for food packaging, but a coalition of scientists and environmental health experts at Safer States developed for Upstream, for use in its model foodware ordinance[6], this list of materials that should be avoided for use in food packaging based on the well-documented and peer-reviewed literature regarding plastics used in food packaging.

  Most plastics contain toxic chemical additives or are manufactured from monomers that are themselves toxic.[7] **Polycarbonate** plastic (resin code #7), for example, is manufactured from bisphenols, a group of chemicals classified by the European Chemicals Agency (ECHA) as substances of very high concern due to their identification as endocrine disrupters for human health and the environment. They also have reproductive toxicity properties.[8] **Polyvinyl chloride (PVC)** which is composed in large part from the monomer vinyl chloride, a known human carcinogen, contains toxic additives including phthalates, lead, cadmium, and/or organotins that leach out the material into food and beverages.[9] **Melamine** is formed into a resin using formaldehyde, a known human carcinogen. Melamine resin is used as a coating for cans and board packaging, and also for the production of molded unbreakable kitchenware and plates. While the US Food and Drug Administration approves melamine in the manufacture of foodware and for coating in paperboard and cans, it is not approved for direct addition into human foods or animal feeds. However, studies show that melamine leaches from tableware under normal

[6] Upstream Model Foodware and Packaging Reduction Ordinance
[7] Groh K. et al (2018), Overview of known plastic packaging-associated chemicals and their hazards, Sci Total Envir, 651 Part 2, 3253-3268- https://www.sciencedirect.com/science/article/pii/S0048969718338828?via%3Dihub
[8] https://echa.europa.eu/-/group-assessment-of-bisphenols-identifies-need-for-restriction
[9] Fralish M.S., Downs J.W. (2022) Vinyl Chloride Toxicity, StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK544334/. See also, Zimmeramn L. et al (2021) Plastic Products Leach Chemicals that Induce *In Vitro* Toxicity Under Realistic Use Conditions, *Environ. Sci. Technol.* 2021, 55, 17, 11814–11823

use conditions and the leaching continues after many uses.[10] **Polystyrene** is made from the monomer, Styrene, a known human carcinogen. It is on the Prop 65 list as a carcinogen.[11] Styrene readily migrates out of food packaging.[12]

- **Large Venue-** this definition is the same one used in SB 1383, California's law on Short-Lived Climate Pollutants.

- **Prepared Food Vendor" vs. "Vendor"-** Prepared Food and Prepared Food Vendors makes a distinction between food that is prepared by a retail food vendor versus that which is prepared, processed, and packaged before it reaches the retail food vendor. Therefore a Prepared Food Vendor is making the food or beverages for retail sale on premises. This Model Ordinance refers to a "Vendor" in Section 14 related to the prohibition on the sale of EPS by retail stores or businesses that sell or offer goods or merchandise for sale.

  In the Model Ordinance, hospitals, public agencies other than the City, and public and private schools, and prisons and jails are not included in the definition of Prepared Food Vendor. Each city should consider whether or not to include any of these entities. Schools are regulated by the state and do not fall under the jurisdiction of local government but some ordinances have included them, such as the Marin County ordinance and cities within the County of Marin. All ordinances enacted to date regulate temporary food facilities, including food trucks and farmers' markets.

- **"Reusable"-** In the Model Ordinance,"Reusable" is defined in terms of being made from **acceptable materials** and being **repeatedly used** in order to achieve environmental benefit. This definition is an amalgamation of definitions of reuse in SB1335 (Allen) and SB54 (Allen), and determinations about durable materials made in Omnibus Bill AB1570 in 2021 (see Box 1)

  Options for materials that are acceptable as reusable food service ware.

  1. Made from either ceramic, porcelain, glass, stainless steel. This comes from Omnibus Bill AB 1570, enacted in 2021, which specifies that CalRecycle does not have to review ceramic, porcelain, glass or non-foil metal food service packaging to ensure that it meets the requirement that food service packaging for state facilities has to be reusable, recyclable, or compostable. It created a defacto assumption that these materials are reusable. We excluded aluminum because it will be difficult to distinguish aluminum Food Service Ware that is recyclable from that which is reusable.

     Further evidence that stainless steel, glass, and ceramic are highly durable materials comes from Life Cycle Analyses (LCAs), including:

[10] Takazawa M., Suzuki S., Kannan K. (2020), Leaching of melamine and cyanuric acid from melamine-based tableware at different temperatures and water-based simulants, 2 Environ Toxicol Chem 91-96. https://www.sciencedirect.com/science/article/pii/S2590182620300126

[11] https://www.p65warnings.ca.gov/sites/default/files/downloads/factsheets/styrene_fact_sheet.pdf

[12] Pilevar Z. et al (2019), Migration of styrene monomer from polystyrene packaging materials into foods: Characterization and safety evaluation, 91 Trends in Food Sci & Tech 248-261. https://doi.org/10.1016/j.tifs.2019.07.020

- Stainless steel utensils are assumed to last for at least 1,000 wash cycles.[13]
- Glass cups are assumed to last for at least 1,000 wash cycles.[14]
- Ceramic mugs are assumed to last for at least 1,000 wash cycles.[15]

2. Other durable materials that are specifically designed and manufactured to be washed and sanitized for at least 780 commercial wash cycles, and, as warranted by the manufacturer, are safe for washing and sanitizing according to California Health & Safety Code, 114101 and 114099.7 respectively and all other applicable regulations.[16] This is a design standard. Since plastic is the only other option for reusable materials aside from ceramic, porcelain, glass, or non-foil metal, this means that this is a standard of durability for plastics.

   The types of plastics that will be acceptable for reusable products is limited further by the requirement in the reuse definition that the product can not be manufactured from a High Priority Toxic Material, which means no polyvinyl chloride (PVC), polycarbonate, melamine, or bamboo that uses a resin binding agent.

   The number of wash cycles that the product must be designed to withstand is based on the precedent set by SB1335 regulations which seem to adopt criteria for reusable food service based on the idea that it be able to last for a year. Evidence of this decision comes from the Final Statement of Reasons for the regulations where CalRecycle calculated that a typical reusable Food Service Ware item is used 3 times a day and assumed that with 260 working days per year, the items would be used 780 times in a year. The agency decided that either some evidence that the product is designed to last 780 wash cycles or a manufacturers' warranty would provide evidence that the product could last for a year. The evidence required in the regulations is test results from an ISO/IEC 17025:2017 accredited laboratory.

   Unlike the state definition that makes the one year warranty an option for determining that the product is reusable, this regulation requires that the manufacturer not only warrant that the product last for a year, it also requires that they warrant that it will last for 780 wash cycles.

   Evidence of a warranty provides the option for enforcement. Local jurisdictions will need to inform businesses that they must seek a warranty from reusable product vendors that their products are capable of lasting for one year and withstanding 780 wash cycles that meet the standards for warewashing set forth in the California Health and Safety Code.

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[13] Sheehan, B. (2017) Literature Review and Inventory: Greenhouse Gas Impacts of Disposable vs. Reusable Foodservice Products, Clean Water Fund. www.rethinkdisposable.org

[14] Pro.mo/Unionplast (2015) Comparative Life Cycle Assessment Study of Tableware for Alimentary Use, Milan, Italy

[15] Alliance for Environmental Innovation. Report of the Starbucks Coffee Company/ Alliance for Environmental Innovation Joint Task Force. Rep. 2000. Print.

[16] Sanitization parameters in Section 114101 and 114099.7 are found here https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=104.&title=&part=7.&chapter=5.&article

Ensuring repeated use. The definition of reuse also requires that the products "are used in a system that enables repeated collection, washing, and return of Food Service Ware, thereby ensuring that the product is actually used repeatedly over an extended period of time."

The rationale is to ensure that in the transition from disposable items, (like plastic, paper, or fiber) to more durable materials (like heavy-weight plastic, glass, metal, or ceramics) the environmental benefits of the durable materials get realized. Used once, or only a few times, heavy weight plastic, glass, stainless steel, aluminum, or ceramic would be much more harmful to the planet than a single-use paper or plastic product. For reusables to have less environmental impact than non-reusables, they must generally be used somewhere between 10 and 120 times, depending on the product.[17] Therefore, the definition includes a requirement that the Food Service Ware be used in a system that ensures collection, washing, and return- an "actual reuse" requirement.

The concept of actual and repeated reuse is embedded in SB 54 (Allen) in subsections C and D of the definition. In C, the definition notes that it should be supported by actual infrastructure to facilitate reuse and refill multiple times. D signals that the products should be repeatedly recovered into the infrastructure system for multiple cycles of reuse and refill.

The provisions of the ordinance related to take-out beverage cups ensures that products are "Returnable" operating within a "Reuse System" that facilitates the return and repeated use of reusable packaging. In this way, the ordinance ensures that there is "actual reuse" taking place.

Certification of reuse is on the horizon. There are several programs in development. The first is by PR3, which is currently working to create the Reuse Rose certification that will ensure that certified products meet the standards for reusables that it has published.[18] Once this system is up and running, local policies could require certification by PR3's Reuse Rose to ensure products are reusable.

Reusables - even non-plastic ones- can sometimes contain High Priority Toxic Food Packaging Chemicals in them. While materials like stainless steel, glass and ceramic are not known for the migration of toxic chemicals out of the material, the glazes, coatings (including often-used resin linings), seals and gasket closures can be sources of toxic chemicals migration. A Green Screen certification for reusable food packaging is in development stages. When cities are ready to enact the Model Ordinance, check to see if the Green Screen Chemicals website refers to a reusable foodware certification. If it does, consider requiring that reusable foodware be certified as well.

BOX 1

[17] M Gordon (2022), Reuse Wins: The environmental, economic, and business case for transitioning from single-use to reuse in food service, Upstream. See also the reuse standards from Resolve/PR3- https://www.resolve.ngo/site-pr3standards.htm which discuss the need for reusables to be actually reused. Note that this 10-120 uses range relates to switching materials. It doesn't apply to using the same product once versus more than once. There will always be environmental benefit to reusing a product made of the same exact material. For example, a glass bottle used twice will be less impactful than the same bottle used only once.

[18] https://www.resolve.ngo/site-pr3standards.htm

The SB1335 (Allen) definition of reuse as specified in regulations: *"A food service packaging item is "reusable" and shall be included on the List if the department determines that it meets the requirements of Section 17989.2 and satisfies either of the following criteria:*

(1) The item maintains its shape, structure, and function after 780 cycles in a cleaning and sanitizing process as defined in California Health and Safety Code Section 114101 and 114099.7, respectively, as demonstrated by test results from an ISO/IEC 17025:2017 accredited laboratory; or

(2) The manufacturer of the food service packaging item provides an express, written warranty to purchasers of the item that it will remain reusable for its intended purpose for a minimum of one year or else the manufacturer will take back and replace the item at the manufacturer's expense.[19]

The SB54 (Allen) definition of reuse: "*Reusable" or 'refillable' or 'reuse' or 'refill,' in regard to packaging or food service ware, means either of the following:*

(1) For packaging or food service ware that is reused or refilled by a producer, it satisfies all of the following:

(A) Explicitly designed and marketed to be utilized multiple times for the same product, or for another purposeful packaging use in a supply chain.

(B) Designed for durability to function properly in its original condition for multiple uses.

(C) Supported by adequate infrastructure to ensure the packaging or food service ware can be conveniently and safely reused or refilled for multiple cycles.

(D) Repeatedly recovered, inspected, and repaired, if necessary, and reissued into the supply chain for reuse or refill for multiple cycles.

(2) For packaging or food service ware that is reused or refilled by a consumer, it satisfies all of the following:

(A) Explicitly designed and marketed to be utilized multiple times for the same product.

(B) Designed for durability to function properly in its original condition for multiple uses.

(C) Supported by adequate and convenient availability of and retail infrastructure for bulk or large format packaging that may be refilled to ensure the packaging or food service ware can be conveniently and safely reused or refilled by the consumer multiple times.

Omnibus Bill AB1570 *Section 42370.1 (c)*

(1) "Food service packaging" means a product used for serving or transporting prepared, ready-to-consume food or beverages, including, but not limited to, plates, cups, bowls, trays, and hinged or lidded containers.

[19] https://calrecycle.ca.gov/packaging/statefoodservice/- See: Cal. Code Regs. Tit. 14, § 17989.3

(2) "Food service packaging" does not include any of the following:

(A) Straws, cup lids, plastic bags, and utensils.

(B) Single-use disposable packaging for unprepared foods.

(C) Beverage containers.

(D) Ceramic, porcelain, glass, or nonfoil metal food service packaging that is cleaned and reused by the food service facility.

- **"Reuse System"** means a system in which (1) convenient drop-off of an item is available to the customer and (2) there are suitable incentive systems to encourage customers to return the product. Convenient drop-off locations generally include the retail location where the reusable product was obtained (i.e. "return to retail"), kiosks near the retail location, and drop off kiosks in places that consumers frequently visit, such as grocery stores, commercial districts, libraries, etc. Incentives that reuse systems typically use to achieve high return rates include positive ones, such as discounts, rewards, and other customer loyalty programs. However, negative consequences for failure to return are also effective. These include customers paying deposits or being charged for failure to return the product within a certain period of time. Some systems also limit the number of Reusable products that can be borrowed without return.

- **"Returnable"-** One way to ensure that a product gets actually reused is to add in the requirement that the package or product be returnable. If it does not operate in a return system, it is likely not to be reused. An example of a non-returnable reusable is a souvenir cup sold at a sporting event. It may be technically reusable, but the cup is not accepted back by the vendor for reuse.

- **"Standard Condiments"** is intended to exclude sauces and condiments that are prepared by Prepared Food Vendor for specialty dishes. Standard Condiments are often packaged in single-serve packages and can be served from bulk dispensers instead. Standard condiments are different from the sauces and toppings that are particular to a recipe, such as an aioli sauce or chutney. These are not typically provided in more single-serve packets than the customer wants or needs- like Standard Condiments such as soy sauce and ketchup. Therefore, the regulation pertains only to Standard Condiments.

V. THE SCOPE OF REGULATED ENTITIES AND PRODUCTS

Types of Businesses Regulated

This Model Ordinance regulates **"Prepared Food Vendors,"** which means **"...**any restaurant, café, bar, nightclub, grocery store, food market, delicatessen, bakery, food service establishment (carry out, quick service, full- service), cafeteria (in a Public Venue or at an academic, corporate, and government facility), food truck or mobile unit based vendor hotel, motel, bed and breakfast, inn, special event space, movie house, theater, itinerant restaurant, pushcart, farmers market or other

similar establishments, selling Prepared Food to be consumed on and off the premises located or operated within the City."

The key here is that these food service operators are selling Prepared Food, which include beverages. This means that they prepare the food or beverage on-site and then sell it to a customer. Often this is thought of as retail food sales of prepared food. If the food or beverage was prepared and packaged offsite, that activity is not regulated in this ordinance.

This Model Ordinance also regulates **"Large Venues,"** which are required to provide reusables for onsite dining, per Section 8, if they host on-premises dining facilities. Section 8 requires operators of Large Venues to provide non-bottled beverages in reusable cups. They also need to comply with Section 11, which requires that Accessible Water Refill Stations be available at facilities with 500 or more daily visitors or workers.

The Model Ordinance also regulates **"Event Producers"** An "Event" means any indoor or outdoor event within the City that is subject to a City permit, and expected to have more than 500 attendees or participants. Those who own or control "**City Property"** are regulated in Section 3 which requires them to use Reusable Food Service Ware if they provide Prepared Food Service with on premises dining, in Section 7 which requires the use of Reusable cups for any beverage service onsite, in Section 4 which requires Prepared Food Vendors to accept customers' Reusable personal Beverage Cups and Containers, in Section 11 where they must provide Accessible Water Bottle Refill Stations, and in Section 12 which requires them to use Compliant Disposable Food Service Ware for food service. "City Property" means any City-owned and controlled properties or facilities, including but not limited to, indoor and outdoor recreation fields; parks and; gardens; open space and boulevards; buildings and rooms.

Types of Packaging Regulated

The Model Ordinance regulates different types of packaging generally associated with food and beverage service. **Food Service Ware** is regulated in Section 3, related to only Reusable being permitted for on-premises dining, Section 4, which requires Prepared Food Vendors to accept customer-provided Reusable Cups and Food Containers, Section 5, which requires the Prepared Food Vendors charge customers for Disposable Cups and Food Containers and includes the option of providing a discount to those who bring a Reusable Cup or Food Container. **Food Service Ware Accessories** are regulated in Section 6. **Beverage Cups** are specifically regulated to require reusables at government facilities in Section 7, Large Venues in Section 8, and at Events in Section 9. **Disposable Packaged Water** (i.e. bottled water or water in containers) is regulated in Section 10 which prohibits purchase or sale by city government, and Section 11 which encourages the reusable alternative by requiring Accessible Water Refill Stations for consumers to use with BYO reusable bottles.

VI. POLICIES IN THE MODEL ORDINANCE - Rationale, Precedent, Options

Section 3. Reuse for Onsite Dining

Rationale. This is the most essential policy provision because it is easiest to implement for most restaurants (excluding fast food) and data from ReThink Disposable demonstrates that 100% of businesses save money over time.The more disposables transitioned to reuse, the greater the cost savings.[20] Similarly, the environmental benefits accrue 100% of the time since the weight of the evidence demonstrates that reusables are better for the planet than disposables through almost every use case and every environmental measure.[21]

There are exceptions in subsection a) made for paper wrappers, napkins, liners, sleeves and bags and accessories and condiments that may be provided upon a customer's request (consistent with Section 6). However subsection b) makes clear that condiments must be provided in bulk or reusable containers. There is an exception for medical necessity because some people with Celiac's disease cannot have condiments that might be contaminated with any gluten related product.

Subsection c) provides that onsite dining includes any dining that takes place onsite, including non-seated picnic tables. This means that food truck gatherings with picnic areas, food courts in malls and multi-vendor food emporiums- anywhere that has dining on site is included.

Cost Savings. The program reported that cost savings for 121 Bay Area businesses and 11 institutional dining programs ranged from $3,000-$22,000 net. Meanwhile, the businesses reduced a range of 1,300-2,200 pounds of waste and eliminated 110,000 to 225,000 packaging items per year.[22] Similar results were reported by Starbucks which found that a cafe could save $6,000 per year with 10 reusable cups used per hour, and research from CIRAIG in Quebec which found ceramic cups to be less expensive than paper once they were used 45 times, regardless of dishwasher type. In a British Columbia case study, a restaurant that switched from paper to ceramic plates also saved money, even allowing for a generous 30% replacement cost for ceramics, and all other operational costs.[23]

Ease of Implementation. It's easier to bring reuse to closed facilities where no one is leaving with packaged prepared food or beverages than it is for take-out scenarios. Restaurant operators often express significant concerns about the labor and added costs of dishwashing associated with reusables. However, those who have made the switch report extremely positive results, ranging from cost savings, to satisfaction of the business and their customers with the elevated dining experience, to being surprised by how much easier it was than they anticipated. Cost savings are usually realized within the first few months and always within a year.[24]

The fact is that all restaurants that serve customers on the premises have some type of installed dishwashing- either a three sink system or a dishwasher, or both. And external dishwashing services are starting to become available.[25] In Seattle, 76% of food service operators have commercial dishwashing systems installed. Switching to reusables would require significant changes in Seattle since the restaurants are already using reusables at these rates: plates at 86%, cups at 86%, drinking glasses at

[20] www.rethinkdisposable.org
[21] Gordon, M., (2022) Reuse Wins: The Environmental, Economic, and Business Case for Transitioning from Single-use to Reuse in Food Service, Upstream. https://upstreamsolutions.org/reuse-wins-report
[22] Gordon, M., (2022) p.59.
[23] Gordon, M (2022).
[24] Based on many reports since 2012 from businesses that have participated in ReThink Disposable. See ReThink testimonials - https://rethinkdisposable.org/businesses. See also Gordon, M (2022) at p. 60.
[25] Dishjoy is the only one currently available in the Bay Area. SF Environment has an RFA to fund one.

83%, utensils at 75%, and bowls at 67%.[26] Generally, fine dining restaurants are the ones that rely only on reusable Food Service Ware. Fast casual and cafes generally use a mix of disposable and reusable. Fast food relies solely on disposable Food Service Ware and for this sector the transition is the hardest. However, fast food is based on a disposability model that is the most significant generator of single use Food Service Ware and the most important model of food service to change. Ironically, it is fast food service that will benefit economically the most in the long run because the cost of disposable food ware is significant and it's increasing as regulations demand more expensive recyclable and/or compostable disposables..

Environmental Benefits. Life Cycle Analysis (LCA) is the universal method for evaluating the lifetime environmental impacts of a product from cradle to grave. The weight of the evidence in LCAs that compare reusable to disposable Food Service Ware demonstrates that reuse is better for the planet by every environmental measure as long as the reusable products are used enough times (i.e. beyond the break even point with disposables). One report that evaluated 14 different LCAs found that reusable cups break even with the disposables at rates that vary between 2 and 122 times, depending on the specific products and materials being compared. For plates and clamshells it's between 3 and 50 uses. For stainless steel utensils, once they are used more than twice, they outperform single-use plastic utensils.[27] Between 2020 and 2021, the United Nations Environment Programme's Life Cycle Initiative evaluated LCAs for single use plastic tableware, take-out Food Service Ware, and cups compared to reusable alternatives, and in all 3 reports concluded that the reusables were better for the environment than the disposable plastics.[28]

Precedent. As of February 2023, 17 jurisdictions have enacted policies that mandate reuse for onsite dining. Fifteen of them are in California including: Arcata, Berkeley, Culver City, Cupertino, Fairfax, Goleta, County of Los Angeles (only for fine dining restaurants), County of Marin, Pacifica, Palm Springs, San Anselmo, Santa Rosa, Sebastopol (only at City Hall), Tuburon, Truckee. The other two are Bellingham and Edmunton (only cups) in the state of Washington. Santa Rosa's ordinance stands out for its requirement that foodware accessories for onsite dining must also be reusable.

Effective January 23, 2023, the City of LA's Zero Waste at City Facilities and Events policy requires that City facilities, City-permitted events held on City property, and food and beverage providers operating on City property will only be allowed to use reusable foodware. All contracts entered into by the City will include these mandatory requirements.
France implements a similar policy starting in 2023. Article 77 of the law related to anti-waste and the circular economy (No 2020-105) requires that food service establishments serve meals and drinks consumed on the premises in reusable cups, plates and containers, and cutlery.

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[26] Carros, O. Faller, M. Jones A., Perkins E., Stapnes A. (June 2020), Implementing Progressive Leadership Policies to Reduce Plastic Pollution in Seattle, p.30. A report from the Evans School of Public Policy and Governance Prepared for Seattle Public Utilities. No such data is available in the Bay Area.
[27] Gordon, M. (2022), p.39. See also, https://www.oregon.gov/deq/FilterDocs/reusable-fsw.pdf and reports from the United Nations:
[28] **For take-out packaging**, see UNEP (2020), United Nations Environment Programme, Single-use plastic take-away food packaging and its alternatives - Recommendations from Life Cycle Assessments. **For tableware**, see UNEP (2021), United Nations Environment Programme, Single-use plastic tableware and its alternatives – Recommendations from Life Cycle Assessments. **For cups**, see UNEP (2021), United Nations Environment Programme, Single-use beverage cups and their alternatives - Recommendations from Life Cycle Assessments. https://www.lifecycleinitiative.org/resources/reports/

Options for Consideration. There are a few optional provisions in this section.

- **Exclude Mobile Food Facilities, Farmers Markets, and/or Temporary Facilities.** These are included in the definition of Prepared Food Vendor. Sometimes these types of businesses offer onsite dining (i.e. they have tables and/or dining areas, including non-seated picnic areas). It is more challenging for food trucks (e.g. mobile food facilities), and temporary facilities to offer this option. One possibility, however, is that they can contract with a third party reusable Food Service Ware service to provide the option. It is unclear whether the costs of such services exceed the cost savings from the reduced purchasing of disposable Food Service Ware and the reduced hauling/disposal fees. There are currently too few such services to make that determination. One option is to phase the requirement in for food trucks and temporary events, based on a determination by City staff that such third party services are available within the jurisdiction at a reasonable cost.

- **Specifically Include hospitals and public schools in provisions related to Reuse for Dining on Premises.** Specifically including hospitals and public schools means that they don't have to be selling Prepared Food, unlike the rest of the regulated businesses.
  For school children, changing how food is served not only protects their health from dangerous chemicals used in disposable Food Service Ware, it models community standards in which the planet's resources are not treated as disposable. Some schools that have made the switch to reusable food service (schools in Berkeley, Emeryville, Alameda, Glendale, Palo Alto, San Francisco, and Austin TX, for example) have found ways to eliminate pre-packaged and processed foods and bring back "from scratch" meal preparation. Therefore, the transition to reuse also benefits school children by also transitioning to more healthful, nutritious, and delicious fresh food. For hospitals, the same is true.

  Schools and hospitals are among the largest generators of single-use Food Service Ware in most cities and present an opportunity to have a large impact on Food Service Ware waste as well as offering nutritional and quality of life benefits.

Section 4. Customer-Provided Beverage Cups and Food Containers.

Rationale. The best case scenario for reusables to be normalized in take-out involve easy, convenient systems readily available for customers to use reusables without having to remember to Bring Your Own (BYO). However, as long as people are motivated to take individual action to eliminate disposables by bringing their own Reusable Beverage Cup or Food Container, it is important to support that behavior.

In the early days of COVID, there was a widespread misunderstanding that the virus could be spread from touching surfaces that had contact with the virus. This caused a backlash against reusables and led to a common perception that disposable plastics could provide protection against the virus. The Centers for Disease Control (CDC) issued guidance that led Governors, state regulators, and local public health agencies to suspend policies that banned plastic bags and to issue orders that prevented retailers from allowing customers to bring reusable bags and cups.

Despite the fact that early on, research revealed and health experts agreed[29] that COVID-19 is not

[29] Health Expert Consensus Statement

transmitted by surface contact, but rather by airborne respiratory droplets of virus, the CDC continued to advise restaurants (out of an abundance of caution) to consider using disposables upon reopening. Over time, as the safety of reusables became clear and the CDC reversed its guidance, local health departments rescinded the prohibition on reusables in their emergency orders. StopWaste and other local waste agencies issued guidance about the safety of reusable foodware.[30] But the lingering impact of the backlash against reusables during COVID-19 means that many cafes continue not to accept BYO cups.

Precedent. The California Retail Food Code (CRFC) has historically allowed personal reusable cup filling at a retail food operation (Health and Safety Code Section 114075(e)) when using a contamination-free process- i.e. without contact between the pouring utensil and the lip-contact area of the drinking cup or container. Prepared Food Vendors were not explicitly allowed or prohibited from filing a customer-provided reusable food container until California AB 619 (Chiu) was passed in July 2019. This law amended Section 114121 of the Health and Safety Code and explicitly allows consumers to bring Reusable containers to a food facility to be filled, provided certain conditions are met. Clean consumer-owned containers may be filled by an employee or the customer provided the food facility meets three requirements:

1. Consumer-owned containers must be isolated from the serving surface or the surface must be sanitized after each filling.
2. Food facility is required to prepare, maintain and adhere to written procedures that address cross-contamination prevention and waste water disposal.
3. Food facility shall ensure compliance with handwashing requirements specified in CRFC.

AB 619 (Chiu) also rectified a challenge for temporary food facilities. Previously CRFC required that only single-use utensils be provided to the consumer. In AB 619 (Chiu), section 114353 of the Health and Safety Code was amended to allow temporary food facilities to use multi use utensils where conditions are approved for washing and sanitizing in the temporary food facility or at an approved permanent food facility.

In the case of food containers, the Alameda County Department of Environmental Health, consistent with the Centers for Disease Control and Prevention, allows the use of reusable food service ware when properly washed, rinsed, and sanitized. Section b) allows Prepared Food Vendors to refuse, at their sole discretion, any customer-provided Reusable Food Container that is cracked, chipped or corroded, or appears inappropriate in size, material, or condition for the intended beverage or food, or that appears to be excessively soiled or unsanitary. It is important to allow the vendors this discretion in order to ensure they can comply with regulations and best practices for clean and sanitary food service.

The following local jurisdictions include a provision requiring that vendors accept BYO cups: Berkeley, the County of Santa Cruz, Edmonton, Vancouver BC, Watsonville. These jurisdictions mandate that vendors allow BYO cups and food containers: Arcata, Banff, the City of LA (at city facilities and city-sponsored events), Palm Springs, Truckee.

The cities in Canada are also requiring that food vendors have a written procedure for serving beverages and food in customer-supplied reusables and that the procedures conform to food

[30] https://www.stopwaste.org/resource/reusable-foodware-is-safe-during-covid-19

safety regulations.

National laws in Europe are moving in this direction. France's law related to anti-waste and the circular economy (No 2020-105), Article 41, states that, as of January 2021, "any final consumer may ask to be served in a container supplied by him, so far as the latter is clearly clean and suitable for the nature of the product purchased."

Options for Consideration. If a Prepared Food Vendor rejects a customer provided reusable cup or food container, there are two options to consider for providing the customer with a disposable alternative:

- OPTION A: the customer would not be charged for the disposable beverage cup or the disposable food container; or
- OPTION B: the customer would be charged for the disposable item.
- Several of the Canadian ordinances require that vendors have a written procedure for serving customers in their personal reusable cups or food containers that meets the standards and requirements of food safety and health regulations. Cities may consider requiring this.

Cautionary NOTE- the intent is not for businesses to make money by promoting disposables and charging for them. In terms of enforcement, local programs should ensure that the charges are not being implemented without reusables being available onsite and acceptance of BYO reusables.

Section 5. Disposable Take-out Beverage Cup and Food Container Charge.

Rationale. Providing disposables for free to customers creates a mindlessness about their consumption and incentivizes an undesirable behavior. Charging customers for disposables in order to incentivize them to choose a reusable alternative has been demonstrated to be an effective policy in the case of plastic bag bans in California that included a charge for paper bags. In Alameda County, single-use bag consumption declined by 80% and storm drain bag litter decreased by 44%, while the number of shoppers bringing a reusable bag more than doubled.[31] San Jose 's plastic bag ban/ paper bag fee reduced plastic bag litter by 89% in the storm drain system, 60% in the creeks and rivers, and 59% in city streets and neighborhoods. The average number of single-use bags decreased from 3 bags to 0.3 bags per visit.[32]Social behavior research demonstrates that consumers more readily change behavior to avoid increased costs than in response to customer loyalty and discount offers.[33]

This section includes charges for each Disposable Beverage Cup and Disposable Food Container provided for take-out consumption. The $.25 amount can be adjusted by the City to meet its needs and there are two options for how to calculate the charges. The rationale for the $0.25 charge is based on data from

[31] https://reusablebagsac.org/overview
[32] http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203_d5.pdf
[33] This is well-settled in social behavior research. Here's one study that relates this research to bag charges: T. A. Homonoff, Can Small Incentives Have Large Effects? The Impact of Taxes versus Bonuses on Disposable Bag Use National Tax Association Proceedings, Princeton University- http://ntanet.org/wp-content/uploads/proceedings/2012/008-homonoff-can-small-incentives-2012-nta-Proceedings.pdf

surveys conducted in San Francisco and Berkeley assessing business and customer reactions to various levels of charges.

In these studies, $.25 was found to be the lowest level likely to influence people's behavior and incentivize them to bring their own reusable cup. In the San Francisco survey, 71% of businesses surveyed supported the idea of a city-wide disposable cups fee if businesses got to keep the money collected, and 67% supported the fee if 50% of the money collected was kept by the business and 50% went to the city for litter abatement, and 48% supported a fee that went entirely to support litter abatement. Cafe customers were surveyed regarding support for a mandatory charge for disposable cups- 77% supported the idea. When asked what was the lowest charge that would motivate them to BYO cup, 25 cents was the most favored option.[34]

In the Berkeley survey, 67% of business respondents supported the idea of a city-wide food container charge and 58% supported the idea of a cup charge city-wide. Charges of 25 cents and 50 cents were equally popular among businesses that supported a food container charge.[35]

Some consideration must be given to the metrics used to assess this performance. Baseline data will be needed prior to implementation of the ordinance. One option might be to collect random samples before implementation, and then offer stipends to businesses willing to share data for the analysis.

Precedent. Arcata, Marin County and cities in Marin (Fairfax, San Anselmo, Tiburon- to date) have a blanket 25 cent charge for any Disposable Food Service Ware provided to a customer - on a per order basis. Berkeley, and Santa Cruz City and County require 25 cent charges for disposable beverage cups. Watsonville requires vendors to charge 10 cents for disposable beverage cups.

All of these cities have structured the charges such that the vendor keeps all of the monies collected in order to avoid the charge being construed as a tax. However, the County of Santa Cruz structured their ordinance as a tax and requires the business operators to remit half of the 25 cent charge to the County for no specified purpose.

The implementation and enforcement of a requirement that covered businesses charge customers a significant amount (25 cent minimum) on single-use to-go cups assists businesses by:

1. Creating a level playing field for businesses.
2. Rewarding those businesses that have been/are doing the right thing.
3. Creating a revenue source for the business that:
    a. Off-sets costs for a truly compostable single-use to-go cup, which cost more than traditional to-go cups or cups that make false environmental claims (greenwashing).
    b. Assists with the transition to on-site reusables (if needed) that can cost some money up front, but then saves money in the long run.
4. Sending a community-wide and City-coordinated message to the customer that single-use to-go

[34] Clean Water Action/ Clean Water Fund (2016) "Reducing Litter and Achieving Zero Waste by Charging for Take-Out Cups: A Survey of Customer and Cafe Behaviors and Response to a Proposed Ordinance in San Francisco" available at https://rethinkdisposable.org/resources.
[35] Clean Water Action. Clean Water Fund (2018), "A Policy Approach to Reducing Disposable Food Packaging and Litter: A Survey of Food Business Owners - Berkeley, California."

cups are costly and not environmentally-preferable.

5. Reducing the use by customers of single-use cups and foodware as those customers switch to on-site dining in reusables, bring their own cups and/or use reusable cup loaning programs:
    1. Reducing the litter in the neighborhood around the business reducing the need to pick up those items and related costs and reducing blight
    2. Reducing the cost to the business for supplying single-use to-go cups and other single-use foodware as customers switch to reusables

Options for Consideration. Cities may decide to structure the disposable cup and container charges as a tax. The monies collected could specifically support litter abatement, or local grants to support food service businesses in their transition to reusables (for purchasing reusables, getting technical support from programs like ReThink Disposable, or installing dishwashing capacity). To enact a tax, a two thirds majority vote would be required.

In the Model Ordinance, the charges are not structured as taxes- they are mandates to charge customers that have the businesses keeping the monies collected. There are two options for how to structure the charge.

- OPTION A- Prepared Food Vendors charge 25 cents for each disposable cup or food container up to $1.00, except that customers who BYO reusable cup or container will not be charged for any additional disposable cups or containers needed. The rationale is to support the BYO behavior as much as possible.
- OPTION B- the one charge per order approach. Customers pay 25 cents for each order that includes disposable food service ware - disposable cups and / or food containers.
- Subsection b) is also optional. It requires that vendors provide a minimum 25 cent discount for customers that BYO reusable cup or food container.

Equity Issues to Consider. Concerns regarding the disproportionate impacts of charges on low income customers are often cited. Each community will have to decide for itself how to address these concerns. The built-in exemptions in subsection e) for customers enrolled in the WIC or EBT programs or receiving Medi-Cal benefits are there to provide some redress for customers who can't afford the charges. These exemptions are imperfect since not all those who will have a hard time paying the charges are enrolled in these programs, and there are concerns with the stigma associated with having to show proof of participation in the programs.

Based on these or similar concerns, a local jurisdiction may opt to eliminate this section entirely, or may engage in an equity review process or community input process to determine how low low-income residents and businesses that serve them feel about this approach. Local jurisdictions may find alternative methods to reduce disposable take-out food service ware that work better for their communities.

*Consider perverse incentives***.** There are significant concerns that the charge can create a "perverse incentive" for business operators to promote the Disposable Beverage Cup and Disposable Foodware since they will make more money on charging customers for disposables. Cities that include these charges might consider mandating that the prepared Food Vendor that uses Disposable Beverage Cups or Food Containers for take-out must provide a returnable reusable option at a lower cost.

There is precedent for this approach in France. Article 42 of the law related to anti-waste and for circular economy (No 2020-105) states that the sellers of takeaway drinks shall adopt a lower price when the

beverage is sold in a reusable container presented by the consumer, compared to the price charged when the drink is served in a disposable cup. Article 43 requires retail shops with a sales area greater than 400 m² to ensure that reusable containers are available to the consumer, whether free of charge or for payment.

An additional requirement the City may consider adding is an assessment and review of the economic impact of the charges on Prepared Food Vendors and on the availability of third-party Reuse Systems within the jurisdiction. The intent is to identify when the costs for reusables systems are comparable to disposables, so that the City can potentially apply more tools to encourage adoption of reusables. Based on the results of the analysis, the City Council may consider various policy options. For example, if reusables are determined to be economically and geographically feasible, the City may want to amend the ordinance to require Prepared Food Vendors to provide access to Reusable Beverage Cups and Food Containers to all customers at a cost that is no higher than the amount charged for disposable alternatives, or even at a price lower than the disposables charge in order to incentivize reuse.

Section 6. Accessories Only Upon Request

Rationale. Prepared food service operators often provide customers handfuls of accessory items, like plastic utensils and single-serve condiment packets, in the interest of greater customer satisfaction. The result is customers receive large quantities of disposable stuff they don't want or need. Most people have the condiments, napkins and utensils they need at home or at the office. This wasteful practice was exacerbated by COVID-19, which brought a 28% increase in take-out and delivery orders that partially contributed to the 10 million ton increase in plastic waste associated with COVID-19 in the U.S.[36] Pre-pandemic, research showed that

- More than 36 billion plastic utensils are purchased by the food service industry each year in the United States. Placed end to end, they would wrap around the Earth 129 times.[37]
- Straws and stirrers were the third most common beach litter items found during the 2019 International Coastal Cleanup.[38] Americans use as much as 142 billion straws each year.[39]
- Chopsticks made in China result in cutting down 4 million trees per year.

Accessories on Request policies are aimed at changing the behavior of prepared food service operators so that they only give customers the accessories that they want and need. The versions of this policy that are most likely to impact this behavior are those that require customers to "opt-in" by requesting what they want, rather than "opt-out" by refusing accessories offered by the retail operator. The County of Los Angeles accessories ordinance is an example of an "opt-out" version - this is a policy where the business must offer the accessories before provisioning them. It's too easy for a business to conclude that simply providing them is tantamount to an offer.

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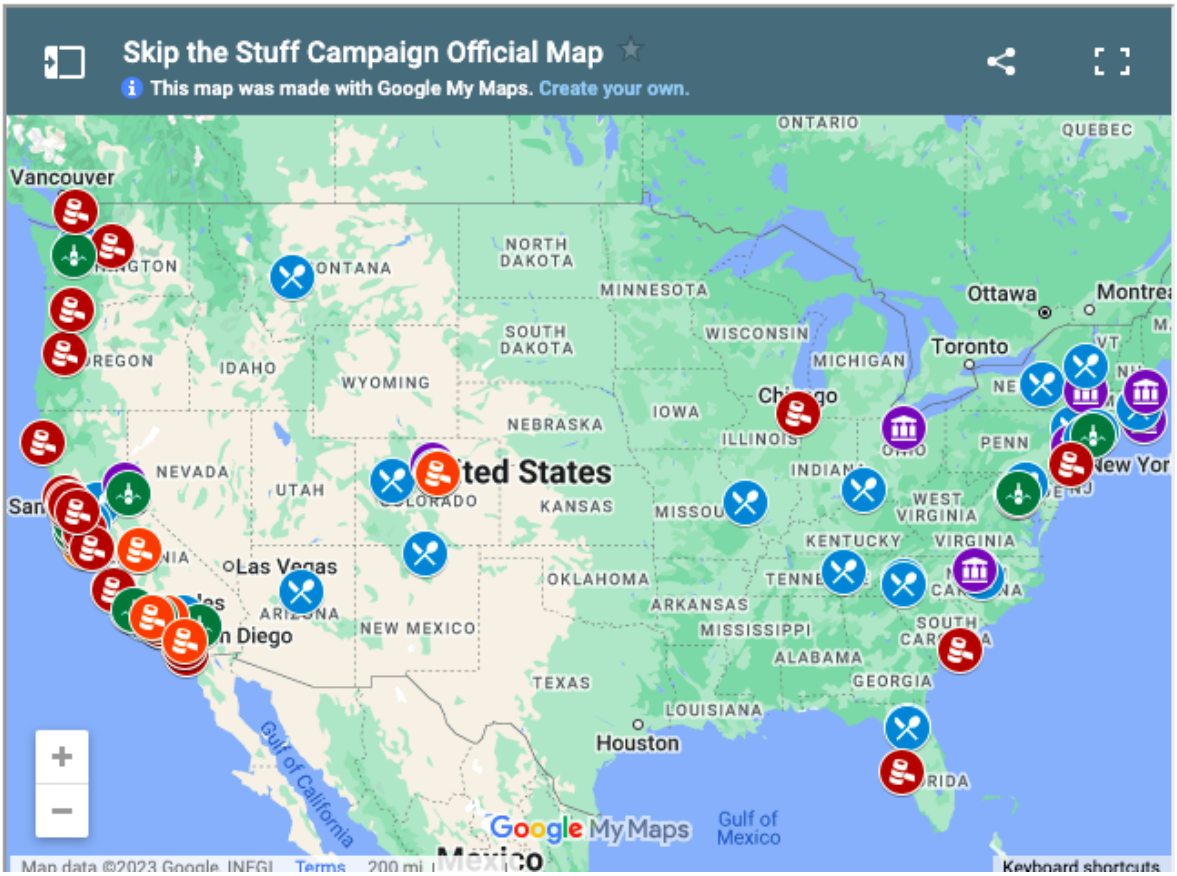
[36] Mesirow(2022) How COVID-19 Changed Packaging Forever, pp. 5-6- citing McKinsey & Co. from 2020.
[37] Sietsema, T., "All my takeout has delivered a mountain of trash. So I asked experts how to minimize it," Washington Post, Sept. 2020.
[38] The Ocean Conservancy (2019), The Beach and Beyond ICC Final Report
[39] Chokski, Nriaj. "How a 9-Year Old Boy's Statistic Shaped a Debate on Straws." N.Y. Times, July 19, 2018

Most of the ordinances enacted since the Berkeley foodware ordinance in 2019 follow the "opt-in" model, where a food business can only give the customer the specific accessories that they request. Furthermore, the ordering platforms they use and third party delivery ordering platforms must make it possible for vendors to list the specific accessories they provide and for customers to request the specific items and quantities of items they want. The intent of "only upon request" policies is to make not giving out accessories automatically the default behavior of food service operators.

Prepared food vendors use a variety of different Online Ordering platforms. These range from web-based and app-based platforms where orders go directly to the vendor (like Square or Menufy) and third party delivery websites or apps (likeDoordash or GrubHub). All of these sites will be required to enable the vendors to list what food service ware accessories and standard condiments are available and enable customers to select the specific accessories and condiments they want.

Enacted in 2021, California AB 1276 (Carillo) is an opt-in ordinance that applies mostly to onsite dining, and delivery of prepared food using online-ordering platforms. It requires that local jurisdictions start to enforce the provisions of AB 1276(Carillo) by June 1, 2022, but jurisdictions are not required to adopt any separate ordinance. They may choose to adopt a local ordinance that meets the requirements of AB 1276 (Carillo) at a minimum and may add additional requirements. It is recommended that local jurisdictions adopt the provisions of this Model Ordinance because it makes clear that the Accessories on Request provisions apply also to take-out food orders. It also includes napkins in the definition of Food Service Ware Accessories. Napkins were excluded in the state law for political reasons (it reduced opposition from the paper industry). There is no environmental or operational reason to exclude napkins from this policy. Provisions that exceed the requirements of AB 1276 (Carillo) are noted in the model ordinance.

Precedent. Accessories on request ordinances are growing in popularity in part due to the "Skip the Stuff" campaign launched by Upstream in 2021. Upstream tracks the implementation of these policies on this map tracker using the gavel symbol:



This tracker may not be up to date. However, some notable places where these policies have been enacted include:

- STATES:The State of Washington (an opt-out version), the state of California, the State of Colorado
- LARGE CITIES: New York City, Denver, Washington DC, Los Angeles, San Francisco.
- SMALLER CITIES and COUNTIES: Arcata, Bellingham, Berkeley, Culver City, Cupertino, the County of Los Angeles (an opt-out version), Marin County, Pacifica, Palm Springs, the City and County of Santa Cruz, Santa Rosa, Sebastopol, Truckee.

Options to Consider. The main option available is not to include this section in the City's ordinance. That would mean that AB 1276 (Carillo) would be in effect without any additional requirements. This would mean that the following things would not be required:

1. Napkins would not be regulated as accessories that require customer request.
2. The accessories on-request policy would not apply to take-out and delivery orders unless those orders were made via a third party delivery platform like Doordash or Grubhub. They would still apply to online ordering platforms where the order goes straight to the Prepared Food Vendor.
3. Confusion might exist about whether disposable utensils are or are not permitted onsite, since utensils are an accessory made available only on request for onsite dining in AB 1276(Carillo) and Section 3 prohibits disposable utensils for on-premises dining.

4. There would be no requirement that Standard Condiments be provided in bulk dispensers or reusable jars, bottles, or containers for onsite dining, just a requirement that they be available only upon request, which suggests that all Standard Condiments might need to be in packets made available only upon request.
5. There would be no prohibition on wrapping for individual accessories.
6. There would be no disability exemption for plastic straws.
7. There would be no requirement that leases, contracts, funding agreements, and sponsorship agreements that the City enters into include accessories on request requirements and no clear statement that Prepared Food Vendors operating on City Property must comply with the requirements.

Section 7. Reusable Cups at City Facilities

Rationale. Disposable cup consumption is significant and increasing. World-wide, 500 billion disposable cups are used per year in 2017. Americans discarded more than 80 billion disposable cups every year.[40] With a projected growth rate for foodservice disposables was three percent per year, the worldwide consumption rate for cups in 2022 was an estimated 578 billion, and in the U.S. it was 93 billion. That's 279 disposable cups per person consumed per year in the U.S.

Disposable cups are used in a matter of minutes before being discarded. Switching to reusables can have significant benefits across all environmental measures.[41] For example, the climate and water consumption impacts of disposables are generally far greater than those of reusables. Ceramic, stainless steel and glass cups, when used approximately 500 times have less than 20% of the greenhouse gas footprint of 500 paper cups lined with polyethylene and a paper sleeve, and 20% to 30% of the greenhouse gas emissions of the plastic options (PET, EPS, PS, and PLA).[42] The water footprint of disposable paper cups is about 370 gallons over their lifecycle, whereas a ceramic cup used 500 times consumes approximately 53 gallons of water. With reusable cups, glass has the lowest water footprint over its lifetime, ceramic is a bit more, stainless steel with a polypropylene lid has a very high water footprint even compared to paper and EPS and compostable fiber cups.[43]

Mandating reusable cups for take-out beverages across the entire food service sector may be a policy that goes too far when reusable take-out systems are not yet widely available. But policies can be technology and business forcing. It's appropriate to regulate government facilities and allow them to model best practices as well as create an incentive for new reuse systems to migrate to cities with these policies. Some call starting with government facilities a form of "eating our own dog food."

Precedent. The City of LA's Zero Waste at City Facilities and Events policy requires that effective January 23, 2023, City facilities, City-permitted events held on City property, and food and beverage providers operating on City property will only be allowed to use reusable foodware.

[40] Open source data provided by the Overbrook Foundation in "The Dirty Truth About Disposable Foodware" (2020) by Ellie Moss and Rich Grousset for the Overbrook Foundation
[41] Gordon, M. (2021) Reuse Wins.
[42] Id at pp 47-48.
[43] Id at pp. 51- 52.

In 2018 Scotland and in the Netherlands also banned single-use cups in government buildings.[44]

Options to Consider. This section applies only to Reusable Beverage Cups. Cities may opt to include Reusable Food Containers or all Reusable Food Service Ware, as the City of Los Angeles has chosen to do.

Section 8. Reusable Cups at Large Venues.

Rationale. The rationale from Section 7 regarding the environmental impacts of disposable cups applies here as well. In many ways, bringing reusable cups into large venues is easier than in events because large venues are at fixed locations that generally provide the same food service every time the venue is used and disposable beverage cups are provided in a geographically limited and closed campus setting. Much of the food service system is standardized and there are often onsite dishwashing systems. Even without onsite dishwashing systems, third-party solutions are increasingly available to bring dishwashing to the venue. These solutions (e.g. TURN, r.Cup) are already able to provide a 100% reusable cup system that gets a high return rate.

Precedent. None that we know of.

Section 9. Returnable Reuse Beverage Cups at Events.

Rationale. Over 4 billion disposable beverage cups are discarded at live events alone.[45] Events and festivals largely rely on disposables for food and beverage service. Depending on their size, they can be large generators of waste. Often they are outdoors, which means they can contribute significantly to litter. Companies like Turn and r.Cup are making huge progress in bringing reuse to temporary events.

TURN successfully launched across C3, Live Nation's largest festival group, reusing up to 2.5M cups. This is expected to grow to 7.5M cups in 2023. Live Nation has committed to a national roll out of TURN's returnable reusable cup system to divert 40M cups from landfill at their events. TURN's cups are not "keep cups," they are only reusable and they have "gamified" returns so that they get close to a 100% return rate.

Precedent. The San Francisco foodware ordinance requires event producers who provide prepared beverages to more than 100 attendees on City property to promote or provide reusable beverage containers to at least 10% of attendees. While 10% is a low bar and reports from city staff indicate that compliance is extremely low, a powerful outcome of the SF event reusables policy is that one of the largest event producers switched their measurement method from counting "single-use cups used" to a metric at the cash register. They changed their software to account for beverages sold in reusable cups.

[44] https://www.euronews.com/2018/05/30/scotland-bans-single-use-coffee-cups-in-government-buildings

[45] The 120 billion figure was developed by Clean Water Action in their disposable cups fact sheet based on market data from Freedonia in RCup Reuse Impact Snapshot

The City of LA's Zero Waste at City Facilities and Events policy means that effective January 23, 2023, City facilities, City-permitted events held on City property, and food and beverage providers operating on City property will only be allowed to use reusable foodware.

A longer phase-in period of 18 months is recommended for this provision. This reflects that it may take some time to establish plans and agreements with vendors who can support reusables at City events. Also, given that events can take many forms and are not all uniform, a rate of 25% of beverages served in reusables is suggested, ramping up to 50% or more over time. A scenario for partial reusables at an event might be focusing on a beer garden or food vendor area at the event only.

Section 10. City Purchase, Sale, or Distribution of Packaged Water Prohibited.

Rationale. This section prohibits the City from purchasing, selling, or otherwise distributing water in disposable packaging. Some jurisdictions are moving in the direction of banning water packaged in single-use plastic bottles. This ordinance avoids the plastic ban approach because it results in "regrettable substitutes" like aluminum and carton-based disposable packaging. The environmental impacts of these alternative disposable materials is significant.

- *The problem with aluminum.* While aluminum is highly recyclable, approximately 30 percent of aluminum cans and bottle content is still virgin material that requires the mining of raw bauxite in strip mines that cause soil erosion and water pollution. It is energy intensive and releases perfluorocarbons that are 9,200 times more harmful than CO2 in global warming impacts. Because aluminum is so energy-intensive to produce, it has a higher carbon footprint (11.09 tons of CO2 emission per ton) than plastic bottles (2.2 tons) and the perfluorocarbons released pose an even more significant climate threat than carbon.[46]

- *The problem with switching to paper.* Three billion trees are logged every year to produce cartons. Trees provide a range of environmental benefits, including habitat and biodiversity, soil health, clean air, and carbon sequestration. While trees are technically "renewable," the logging and paper industry overall degrades habitat and ecosystems and emits significant amounts of CO2. In most cases, the global warming impact for single-use paper products is greater than comparable single-use plastic products.[47] Aseptic cartons, often used for milk and other boxed liquids, include multiple layers of film plastic and metals that serve as a vapor barrier and extend shelf life of the product. While technically recyclable, not all processing facilities are equipped to handle this material.

The bottom line is that all single-use packaging is harmful, no matter what materials are used. Reusable options are much better for the planet. The best approach is to stop relying on disposable packaging for water and to increase access to unpackaged drinking water. The rationale here is to start with government purchasing, sales, and distribution.

Precedent. To date, many jurisdictions in California have banned plastic bottled water, including San Francisco, and several cities in Southern California. South Lake Tahoe enacted a ban that will go into

[46] Gordon, M (2021) Reuse Wins, p. 26.
[47] Id. at 27.

effect for municipal operations in April 2023, and then extend to all commercial businesses in April 2024. None of these have adopted this approach that extends beyond bottles to include other single-use water packaging.

Section 11. Accessible Water Bottle Refill Stations

Rationale. Based on the findings that reusables are a better option than packaged water, the current best practice is to support customer BYO bottles by making accessible water bottle refill stations available.

Precedent. AB1953 (Manschein) was introduced in 2021 and never made it out of the Appropriations committee. The bill was similar to this proposed policy. There is no other precedent in the U.S. that we know of. However, France's law related to anti-waste and the circular economy (No 2020-105), includes Article 77 which prohibits the free distribution of plastic bottles containing drinks starting in 2021 and requires that establishments open to the public will be equipped with at least one accessible drinking water fountain as of 2022.

Options to Consider.

- Cities may want to add language in the ordinance that provides an exemption for when the installation is cost prohibitive or impractical due to plumbing configuration.
- An additional enhancement for consideration is to require that refill stations be co-located with vending machines. Suggested text for this option: "City offices and facilities on City Property that have beverage vending machines shall provide a drinking water fountain or Accessible Bottle Refill Station in the same location as the vending machine."
- If the City chooses not to include this provision in their ordinance, they may instead opt to put a policy like this into the City's General Plan: "It shall be the City policy to increase the availability of drinking water for public consumption in public areas by ensuring access to drinking fountains, Accessible Water Refill Stations, and potable water hookups. City departments will take all reasonable and appropriate steps to promote and facilitate achievement of the intent and requirements of this section."

Section 12. Compliant Disposable Food Service Ware

Rationale.

Recyclable and compostable food service ware. According to the Ellen MacArthur Foundation, in the Circular Economy, "products and the systems they sit within should be designed to ensure no materials are lost, no toxins are leaked, and the maximum use is achieved from every process, material, and component ... All packaging should be designed to fit within a system, whether a reuse, recycling or composting system." This section follows these principles in determining what types of disposable food service ware items are acceptable for use within the City.

Local jurisdictions are confronted with packaging materials in the waste stream that may be recyclable or compostable in theory, but not in the real world. This policy aims to provide parameters for acceptable packaging that address what can be truly recycled or composted in the local jurisdiction.

What's Compostable? Increasingly, commercial composters are rejecting food service packaging,[48] especially compostable plastics which fail to degrade as quickly as necessary in real world compost conditions, causing contamination. Often non-compostable plastics, which often look the same to most consumers as compostable plastic, get mixed into the organics stream, adding to contamination problems.[49]

What's Recyclable? In California, the 2021 Truth in Labeling Act, AB 343 (Allen) requires CalRecycle to complete two major steps by January 1, 2024: (1) a study of what gets recycled (material characterization studies), and (2) update to regulations to require material management facilities and operations to report though CalRecycle's Recycling and Disposal Reporting System how materials are collected or processed in the state and which material types and forms facilities recover and don't consider contaminants. In 2025, CalRecycle will publish their findings and then implement new regulations that prohibit mislabeling of products as recyclable. These regulations will determine what products are recyclable

How to ensure food ware is safe from a human health exposure lens? and also minimizes the toxic chemicals that can be released from the products during consumption and ensures that the materials used are not inherently toxic.

Furthermore, it aims to eliminate polystyrene foam foodware both because the plastic polymer, polystyrene, is made from the monomer, Styrene, a known human carcinogen.[50] Expanded polystyrene (EPS) is a problematic material in the environment because it is lightweight, easily breaks apart into small pieces, and becomes widely dispersed making it difficult to remove as a littered item.California's marine litter prevention strategy prioritizes support for policies that ban EPS products.[51]

The toxic chemicals exposure issue. While several existing policies ban the use of compostable food service ware that contains polyfluoro-alkyl substances (PFAS), none address the much broader array of health threatening chemicals that are commonly used in the manufacture of food service ware products, which are known to migrate out of the packaging into food and beverages prior to and during consumption. This Model Policy aims to set a precedent for safe exposure by requiring that food service ware be Green Screen(™) Certified. This ensures that over 600 chemicals are not present in the products.

Third Party Certification. The rationale for requiring that disposable food service ware be certified by a third party is that this is the only way to know that these products are free of the high priority chemicals that threaten public health as a result of exposure to food service ware. Asking local government or food service providers to check into the chemical constituents used in food service ware is unrealistic.They don't have the bandwidth to check each product, and even if they tried, manufacturers typically will not disclose ingredients without strict confidentiality protections, which certifiers typically offer. In addition, manufacturers don't often know all the chemical ingredients in the additives they use in manufacturing unless they make great efforts to obtain disclosures from their suppliers.

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[48] https://www.oregon.gov/deq/mm/Documents/MessagefromComposter-En.pdf

[49] https://www.beyondplastics.org/fact-sheets/bad-news-about-bioplastics

[50] https://www.nationalacademies.org/news/2014/07/styrene-reasonably-anticipated-to-be-a-human-carcinogen-new-report-confirms; Styrene is listed on Prop 65

[51] https://marinedebris.noaa.gov/sites/default/files/publications-files/2018_California_Litter_Strategy.pdf- p.18

The only known certification programs of chemical ingredients in food service ware sold in the U.S. market are GreenScreen(TM) Certified and C2 Certified. GreenScreen(™) Certified has a variety of compostable takeout containers, bowls, plates, clamshells, and Polylactic Acid (PLA) materials used in food service. Cradle2 has certified beverage lids. There aren't currently enough products certified to meet the needs of the food service industry. The requirement of use of certified products phases in to allow time for more products to achieve certifications.

Precedent. Many existing local ordinances in California require that food service ware is recyclable or compostable and some also require that the items be PFAS free.

Section 13. Sale of Distribution of Non-Compliant Food Service Ware Prohibited.

Section 14. Polystyrene Foam and Certain Non-Recyclable Non-Compostable Products.

This section prohibits EPS (Expanded Polystyrene foam) from use in meat and vegetable trays, and egg cartons. One potential unintended consequence of this could be the adoption of expanded PET (#1 plastic) foam trays. This is not prohibited in other ordinances, and there are no known instances of PET foam being used as a replacement, but language can be added to the ordinance to specifically include expanded PET if this is a concern. Alternatively, some jurisdictions, including the City of Edmonton, Alberta, and the State of Washington, have exempted "trays or other food containers used as primary packaging for food safety or sanitation purposes, which includes packaging for uncooked meat, poultry, seafood, or eggs" from their ordinances.

Section 15. Process to Obtain Waivers

a. An undue economic hardship could include but is not limited to: overstocked supplies that cannot be returned to the distributor or used at another store outside the City; or unique packaging needs for which no suitable packaging alternative exists.

Section 16. Enforcement

The model ordinance includes suggested violation fines that range from $100 - $500. This level of financial penalty may be adequate for smaller independently owned businesses, and insufficient to motivate larger businesses and national chains. Jurisdictions may consider alternate financial penalties that can address this. For example, penalties can be based on gross revenue (or some other quantifier of vendor size) versus a flat rate, to discourage larger businesses from buying their way through non-compliance.

Section 17. Severability

Section 18. Chapter supersedes existing laws and regulations

This section of the Model Ordinance includes a provision that "Nothing in this Chapter shall be interpreted or applied so as to create any requirement, power or duty in conflict with any federal or state law." Some might question whether SB 54- The **Plastic Pollution Prevention and Packaging Producer Responsibility Act-** preempts local jurisdictions from regulating in the packaging arena.

Until the regulations required by SB54 (Allen) are finalized, it's hard to foresee the full extent of how this new program will impact local jurisdictions. However, based on the plain text of the legislation, these issues should be considered in evaluating the Model Ordinance.

(1) **Time is of the essence for local jurisdictions to regulate what's recyclable and compostable.** Section 42060.5(a) of SB54 (Allen) requires that "all local jurisdictions or recycling service providers shall include in their collection and recycling programs all covered material… This section does not authorize the department to require mandatory route collection service where it does not already exist." Therefore, local jurisdictions might have to collect all "covered products" -i.e. packaging that is determined by CalRecycle to be compostable or recyclable under the new program[52]- in existing collection programs. However, in (b) there is an opportunity to apply to CalRecycle for an exemption from this requirement and for the Producer Responsibility Organization (PRO) to challenge the application.

In addition, (d) provides that if the jurisdiction has acted to ban the sale or distribution of certain products before SB 54 regulations are adopted which determine what is recyclable or compostable, they will not be required to collect those materials.[53] The PRO Plan for collection, recycling, and compost of covered materials must be finalized by January 1, 2026. *One might conclude from this that if a jurisdiction doesn't want to collect certain materials considered recyclable or compostable by the state, it should act to prohibit their sale or distribution within the jurisdiction before January 1, 2024.*

(2) **SB 54 (Allen) regulates producers of single-use packaging and plastic food service ware** - e.g. "covered material"[54] whereas this Model Ordinance relates to Prepared Food Vendors, Event organizers, and Venue operators- none of whom are Producers. SB 54 (Allen) requires producers to achieve a recycling or compost rate of 30% by 2028, 40% by 2030, and 65% by 2032. It also requires

[52] Section 42061 specifies that CalRecycle will determine what is covered material- among those factors are what is recyclable based on SB343 (Allen) and what is compostable based on AB1201 (Ting)- b**y January 1, 2024.**
[53] See SB 54 section 42060.5(e) "A local jurisdiction shall not be required to collect a material category that is subject to an ordinance passed by the local jurisdiction prohibiting the sale or distribution of that covered material in the local jurisdiction before the publication of the lists of recyclable or compostable material pursuant to subdivisions (c) and (d) of Section 42061." This list will be published by July 1, 2024.
[54] (A) Single-use packaging that is routinely recycled, disposed of, or discarded after its contents have been used or unpackaged, and typically not refilled or otherwise reused by the producer. (B) Plastic single-use food service ware, including, but not limited to, plastic-coated paper or plastic-coated paperboard, paper or paperboard with plastic intentionally added during the manufacturing process, and multilayer flexible material. For purposes of this subparagraph, "single-use food service ware" includes both of the following: (i) Trays, plates, bowls, clamshells, lids, cups, utensils, stirrers, hinged or lidded containers, and straws. (ii) Wraps or wrappers and bags sold to food service establishments.

producers to reduce plastic covered material by 25% by 2030- 10% of that reduction must be accomplished by switching to a reusable or refillable format or by eliminating a plastic component- only 4% must be through reusable/ refillable. The other 15% can be accomplished by adding recycled content (up to 8%) and reducing packaging through concentrates, rightsizing the package, or transitioning to bulk packaging. All of these actions are to be taken by producers- not retailers.

(3) **It's "Recycle or Die" for EPS producers.** SB54 (Allen) bans EPS food service ware unless producers can show that it achieves recycling rates of at least 25 percent by January 1, 2025, 30 percent by January 1, 2028, 50 percent by January 1, 2030, and 65 percent on and after January 1, 2032, and annually thereafter. CalRecycle interprets this to mean that at each juncture (2025, 2028, and 2030), it will determine whether EPS is banned. While it is very plausible that EPS will be banned as of 2025, cities might want to take action to ensure that they don't have any EPS in their waste streams before then.

(4) **Environmental Mitigation Fund.** SB 54 (Allen) specifies that by January 1, 2025, CalRecycle has to adopt regulations necessary to ensure the producers fully fund implementation, which includes the costs incurred by a local jurisdiction or a local jurisdiction's recycling service providers to implement the program, including but not limited to, the cost of consumer education and of collection, including the cost of containers where relevant, as well as the processing, storage, and transportation of covered materials. Costs may vary based on population density or other relevant factors and shall allow local jurisdictions to protect ratepayers from increased costs associated with the processing and marketing of covered material.

Section 18. Chapter Supersedes Existing Laws and Regulations

Summary of SB 54 and its interaction with the Model Ordinance

The Model Ordinance states that it is not to be in conflict with any federal or state law and has been drafted accordingly. The model ordinance is designed as a local regulation on the operation of local businesses and events. It does not conflict with state regulation of plastic producers. The Model Ordinance includes the option of banning the use of certain materials. These bans, if adopted prior to certain actions by state regulators, would ensure that jurisdictions imposing the bans would not be required to collect those materials in their waste management system under rules that may be adopted by the State in coming years.

The Plastic Pollution Prevention and Packaging Producer Responsibility Act (also known as SB 54) is California's landmark legislation regulating producers of food service wares and single-use packaging. The types of materials covered by the new law include single-use packaging and plastic single-use food service ware such as trays, plates, bowls, clamshells, lids, cups, utensils, stirrers, hinged or lidded containers, straws, and wraps or wrappers and bags sold to food service establishments (some items are excluded, such as packaging for medical products and infant formula, packaging for hazardous products, and beverage containers subject to the California Beverage Container Recycling and Litter Reduction Act).

The law calls for producers to ensure:

- That all covered material offered for sale, distributed, or imported into the State from 2032 on be recyclable in the State or eligible for being labeled “compostable.”
- That all plastic covered material meets specific recycling rates which increase over time from 30 percent in 2028 to 65 percent in 2032.
- There is a 25% source reduction by weight and by plastic component for covered materials sold, offered for sale, or distributed in the State. (This source reduction must be achieved by shifting plastic covered material to refillable or reusable; by eliminating plastic components; or through other means to shift from plastic to non-plastic covered material.)

In addition to regulating producers of plastics and other covered materials, SB 54 imposes responsibilities on local jurisdictions and recycling service providers. They must include in their collection and recycling programs all covered materials contained on lists of materials that are deemed “recyclable” or “compostable.” However, local jurisdictions and recycling service providers are permitted to collect additional materials for recycling or composting that are not on the lists. Importantly, the law includes an exception: a local jurisdiction is not required to collect a material category that is subject to a local ordinance prohibiting the sale or distribution of that covered material in the jurisdiction, so long as the ordinance is passed before the State publishes its lists of recyclable and compostable material. The legislation requires that the State publish these lists by January 1, 2024.

The model ordinance contains two proposed bans:

- Section 12 prohibits the sale and distribution of food service ware and accessories that are not Green Screen Certified or compostable.
- Section 14 prohibits the sale or distribution of certain polystyrene foam items, including packing materials; meat, fish, and produce trays; and egg cartons.

These have been drafted to fit within the exception in SB 54 as bans on specific types of covered materials, e.g., “food service ware” and “food service ware accessories.” Accordingly, a local jurisdiction that adopted this ordinance before the State published its lists of compostable and recyclable materials would not be required to collect the items listed in the ordinance. However, even if a local jurisdiction failed to adopt this ordinance before the State published its lists, there is no indication that SB 54 would preclude that jurisdiction from later adopting or enforcing its ban. Instead, it would be permitted to ban the materials described in the ordinance, but it would nevertheless be required to collect them for recycling or composting.

Note too that SB 54 specifies that producers of covered materials are required to fully fund implementation. This includes the costs incurred by a local jurisdiction or a local jurisdiction’s recycling service providers to implement the program, such as the cost of consumer education and of collection, the cost of containers where relevant, as well as the processing, storage, and transportation of covered materials. CalRecycle is required to adopt regulations to implement this requirement and protect ratepayers from increased costs associated with the processing and marketing of covered material.

Section 19. California Environmental Quality Act

Rationale. Section 19 of the ordinance includes a determination that the ordinance is exempt from CEQA review as a regulatory action to protect the environment and because there is no possibility that it could have a significant effect on the environment. The findings set forth the rationale for these determinations and should be revised as needed given the particular circumstances in your jurisdiction. These CEQA findings are similar to those used by other jurisdictions that have adopted single use Food Service Ware and polystyrene food bans.

Precedent. For legal reference, your counsel may wish to review Save the Plastic Bag Coalition v. City and County of San Francisco 222 Cal.App.4th 863 (2013) and Save the Plastic Bag Coalition v. County of Marin 218 Cal.App.4th 209 (2013) upholding CEQA exemptions for ordinances regulating use of disposable plastic bags.

To date, 15 California jurisdictions have enacted reusable foodware policies. Four (4) of them have determined that these policies will not create any potentially adverse impacts on the environment and therefore are exempt from review under CEQA. The other 11 have not made any CEQA determinations and have not conducted any CEQA analysis. The cities that determined no CEQA analysis is required includes: Culver City, Cupertino, Goleta, and Truckee.

Additional Considerations

REUSE AND REFILL IN GROCERY STORES

This section, which is not included in the model ordinance, would require grocery stores to allocate a % of retail floor space to unpackaged and bulk items. It is included here for consideration with future updates to zoning codes. France and Spain are considering these policy measures. French organic supermarket BioCoop claims that 34% of products sold were in bulk, in refillable packaging or in reusable packaging. Spain's Royal Decree on Packaging Waste

Access to Refillable and Returnable Reusable Products

Beginning [specify date - 36 months after adoption suggested]

Guidance: This section requires grocery stores to devote floor/shelf space to items that do not require packaging, such as bulk foods and products. Similar policies have been enacted in parts of Europe.

a) Grocery Stores shall allocate at least 10% of their sales area to the supply of food, personal care products, and household cleaning products presented without primary packaging, including the sales in Bulk that offer customers the option of using Returnable Reusable containers, or products pre-packaged in Returnable Reusable packaging. Systems used to fulfill this obligation shall be compliant with

all relevant health and safety regulations.

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a) "Grocery Store" means a full line, self-service retail store with gross annual sales of two million dollars ($2,000,000) or more, and which sells a line of dry grocery, canned goods or nonfood items and some perishable items and has at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code. Food marts and convenience stores are excluded for the purposes of this Chapter. *Guidance: This definition applies to section 12. Remove this definition if the section is not included Also consider if different standards would be appropriate given the types of grocery stores in your jurisdiction.*

APPENDIX 1: CITATIONS FOR THE FINDINGS

a) The production, consumption and end of life management of Disposable Food Service Ware, typically used for only a few minutes before being discarded, have significant environmental impacts including substantial greenhouse gas emissions, litter, marine pollution, environmental contamination, harm to wildlife, the depletion of precious natural resources, decrease of biodiversity, and the generation of hard-to-manage waste.

- Regarding the plastics: Jambeck, J. R. et al. Marine pollution. Plastic waste inputs from land into the ocean. Science 347, 768–771 (2015).

- Discussion of the overall life cycle impacts of Disposable Food Service Ware: Franklin Associates (2018), The Significance of Environmental Attributes as Indicators of the Life Cycle Environmental Impacts of Packaging and Food Service Ware, Oregon Department of Environmental Quality -

b) Prior to the COVID-19 pandemic, nearly 1 trillion individual pieces of Disposable Food Service Ware and packaging were used annually by U.S. food service operators; 21% for on-site dining and 79% for take-out and delivery. The use of disposable Food Service Ware in the food service sector increased dramatically during the COVID-19 pandemic as take-out and delivery became the most common form of prepared food service.

- Upstream (2021),"Reuse Wins- The environmental, economic, and business case for transition from single-use to reuse in food service," calculated by Rich Grousset, Senior Vice President of ReDish and author of The Overbrook Foundation, "The Dirty Truth About Disposable Food Service Ware" based on data from that report and from market data provided by the Freedonia Group- https://www.freedoniagroup.com/Food-Service-Single-Use.html

- De Oliviera W.Q., (2021), Food packaging wastes amid the COVID-19 pandemic: Trends and challenges, Trends Food Sci Technol. 16: 1195–1199.

c) Pre-pandemic, restaurants and foodservice businesses in the U.S. spent $24 billion on disposables each year. Local businesses and city governments spend nearly $6 billion per year on solid waste management costs attributable to disposable food packaging. Roughly 20 billion pieces of litter are from disposable food-service packaging.

- Data reported inUpstream (2021),"Reuse Wins- The environmental, economic, and business case for transition from single-use to reuse in food service," calculated by Rich Grousset, Senior Vice President of ReDish and author of The Overbrook Foundation, "The Dirty Truth About Disposable Food Service Ware."

- Purchase costs based on data from the above report and from market data provided by the Freedonia Group: https://www.freedoniagroup.com/Food-Service-Single-Use.html.

- Waste management costs were based on the following: "In the U.S., about $200 billion a year is spent on solid waste management and lost energy resources from

disposing trash, according to Dancy. https://www.latimes.com/world/global-development/la-fg-global-trash-20160422-20160421-snap-htmlstory.html. Used mass of total waste in U.S. from EPA and total mass of single-use products (nearly 9 million tons) to calculate fraction of total waste represented by disposables. Then applied that fraction to $200 billion.

- Litter costs based on estimate of 2% of waste generated in high-income countries such as the United States ends up as litter, according to Law, K.L., Star, S., Siegler, T.R., Jambeck, J.R., Nicholas (2020) "The United States' contribution of plastic waste to land and ocean," Science Advances, 6/44

d) DIsposable Food Service Ware substantially contributes to hard to recycle wastes. Packaging comprises 27% of California's disposed waste stream annually. The generation of municipal solid waste in 1960 was just 2.68 pounds per person per day and reached 4.9 pounds per person per day in 2018 -the last time EPA reported generation rates. In 2018, 28% of municipal solid waste generated in the U.S. in 2018 was packaging.

- CalRecycle Packaging Reform Workshop Background Document (2017) citing CalRecycle waste characterization study entitled "2014 Disposal Facility-Based Characterization of Solid Waste in California." https://www2.calrecycle.ca.gov/PublicNotices/Documents/8345
- https://www.epa.gov/sites/default/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf
- https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#Generation.

e) Each year in California and globally, during International Coastal Cleanup Day, 7 of the top 10 littered items collected on beaches and shorelines are Disposable Food Service Ware. Almost all of them are plastic.

- California's top 10 from 1988-2017 and more recent years reported individually - https://www.coastal.ca.gov/publiced/ccd/history.html; see also The Ocean Conservancy and select the Top ten report for any year, the top 10 generally includes beverage bottles, food wrappers, bottle caps, straws and stirrers, take-out containers, beverage cans, beverage bottles. Over time, an increasing amount of the litter collected is plastic. https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/annual-data-release/

f) Plastic beverage bottles are number 1 of the top 10 most commonly found plastic items on beaches when measured by weight. Every hour, Americans use 3 million plastic water bottles. Californians used more than 12 billion plastic beverage bottles in 2017- about 70% are not recycled.

- Greenpeace (2019), Branded: Vol. II Identifying the World's Top Corporate Plastic

Polluters.

- https://www.5gyres.org/plastic-bottles
- Lam M., A Future With 100% Recycled Beverage Bottles?" KQED, April 11, 2019.

g) Every year, about 8 million tons of plastic waste escapes into the oceans from coastal nations. That's the equivalent of dumping the contents of one garbage truck into the ocean every minute. Research indicated that as of 2015, there was over 150 million tons of plastics in the ocean. If plastic inputs are not significantly curtailed, the ocean will contain 3 times more plastic by weight than fish by 2025. Over 900 species of marine wildlife have been impacted by plastic ingestion and entanglement.

- Parker L. (2019), The world's plastic pollution crisis explained, National Geographic.
- Ellen MacArthur Foundation (2016), The New Plastics Economy: Rethinking the future of plastics.
- Kühn S., van Franeker J.A.,(2020) Quantitative overview of marine debris ingested by marine megafauna, MarPollBull, 151/110858

h) Plastic may last for hundreds and even thousands of years, and has broad, long-lasting negative impacts. Plastics are persistent and accumulating dramatically in oceans worldwide. Scientists document a complex toxicology of plastic micro- and nanoparticles in marine life that transfers up the food chain, including to people.

- https://www.annualreviews.org/doi/abs/10.1146/annurev-environ-102016-060700

i) Polystyrene is a petroleum-based, lightweight plastic material commonly used as Food Service Ware by retail food vendors. Products made from expanded polystyrene foam are not biodegradable, returnable or recyclable. Polystyrene foam easily breaks up into smaller pieces and, because it is lightweight, is easily dispersed in the environment. It has been found to comprise 70% of the plastic debris in California rivers and on beaches.

- State list of Recyclable food packaging does not include any polystyrene foam.
- CIWMB Report to California legislature finds it's not recyclable- see p. 14
- Moore C., et al (2011), Quantity and type of plastic debris flowing from two urban rivers to coastal waters and beaches of Southern California, Journal of Integrated Coastal Zone Management 11(1):65-73

j) Packaging, including Food Service Ware, is a primary user of virgin materials and resources. Fifty- five percent (55%) of paper produced each year is used for packaging. Paper production is responsible for 3 billion trees logged in the U.S. each year, which causes loss of habitat and biodiversity, sedimentation of waterways, and reduces the availability of trees to capture CO2 from the atmosphere.

- Environmental Paper Network (2018), State of the Global Paper Industry, p.11, which cites: Pulp and Paper International, and Van Weijk, Stijn, Julia A. Stegemann, and Paul Ekins, Global Life Cycle Paper Flows, Recycling Metrics, and Material Efficiency, Journal of Industrial Ecology, 6 June 2017.

k) The growth of plastics production in the past 65 years has substantially outpaced any other manufactured material. 42% of non-fiber plastics produced are used for packaging and 60% of all plastics produced between 1950 and 2015 were landfilled or entered the environment. Half of all global plastic production is for single-use applications.

- Geyer, R., Jambeck, J., Law, K. (2017), Production, use, and fate of all plastics ever made, SciAdv (3)7
- https://www3.weforum.org/docs/WEF_IR_Future_of_Reusable_Consumption_2021.pdf (p.6)
- https://www.nrdc.org/stories/single-use-plastics-101

l) Cheap fracked natural gas is driving a ramp-up in plastics production world-wide. The production capacity for plastic is poised to grow by 33% or more in less than a decade and is causing the plastics industry to identify or create new markets- primarily packaging- for an ever-growing flow of cheap plastic.

- Center for International Environmental Law (2017), Fueling Plastics: How Fracked Gas, Cheap Oil, and Unburnable Coal are Driving the Plastics Boom. Discusses the plastics production ramp-up.
- Center for International Environmental Law (2018), Fueling Plastics: Untested Assumptions and Unanswered Questions in the Plastics Boom Discusses the markets the plastics industry is working to develop and shows industry plans to target millennial consumers in the US and EU and low income consumers in Southeast Asia.

m) Reducing the production and disposal of plastic is essential to reducing greenhouse gas emissions. It was estimated that in 2019 the production and incineration of plastic would produce more than 850 million metric tons of greenhouse gasses—equal to the emissions from 189 five-hundred megawatt coal power plants.

- Center for International Environmental Law (2019), Plastics and Climate: The Hidden Costs of a Plastic Planet Discussed the climate threats.

n) Disposable food service ware poses numerous threats to human health. Over 12,000 chemicals are used in materials that contact food. Many of these chemicals are known to cause cancer, endocrine disruption, chronic disease and other illnesses in people and harm the aquatic and terrestrial ecosystems. Many of the most toxic chemicals used in Disposable Food Service Ware migrate out of packaging into food and beverages.

- Muncke, J., Andersson, AM., Backhaus, T. *et al.* (2020), Impacts of food contact

chemicals on human health: a consensus statement. *Environ Health* 19, 25

o) Disadvantaged and low-income communities and communities of color are disproportionately impacted by human health and environmental impacts of toxic chemicals in Disposable Food Service Ware, plastic pollution, and fossil fuel extraction.

- Gordon, M. (2020), The Disproportionate Impacts of Chemicals in Food Packaging on Communities that Lack Access to Fresh Food – an Environmental Justice Issue
- UNEP (2021), NEGLECTED: Environmental Justice Impacts of Marine Litter and Plastic Pollution.

p) Micro- and nanoplastics are released from Disposable Food Service Ware, including polypropylene food containers and PET beverage bottles. People inhale microplastics through the air, consume them through food and water, and even absorb them through the skin. Microplastics have even been found within human lungs, livers, spleens, and kidneys, in the placentas of newborn babies; and in breast milk.

- https://www.unep.org/interactive/pollution-to-solution/
- K.M. Gurusamy, et al (2023), Microplastic diagnostics in humans: "The 3Ps" Progress, problems, and prospects, Science of The Total Environment, 856/2
- World Health Organization (2022). "Dietary and inhalation exposure to nano- and microplastic particles and potential implications for human health."
- https://auroraresearch.eu/micro-and-nanoplastics-are-released-from-food-packaging/

q) Prioritizing reduction and reuse of packaging can provide significant economic, environmental, and social benefits and is consistent with the Integrated Waste Management hierarchy that places "Reduce" and "Reuse" above "Recycling" and disposal.

- Coelho P.M. et al (2020), Sustainability of reusable packaging - Current situation and trends, ResCons&Recycling, 6/100037

r) The availability of innovative services, systems, and businesses that unpackage products and deliver them in reusable formats is increasingly creating new opportunities for local business entrepreneurship and economic development. Recycling and reuse creates between 9 and 30 times more jobs than landfills and incinerators.

- Coelho P.M. et al (2020), Sustainability of reusable packaging - Current situation and trends, ResCons&Recycling, 6/100037

- Ellen MacArthur Foundation, Reuse-rethinking packaging
- Upstream, The New Reuse Economy
- Ecocycle, Jobs and Economic Benefits of Zero Waste.

s) Requiring the use of 100% Reusable Food Service Ware for onsite dining and reuse for take-out food service in urban cities is estimated to achieve an 86% reduction in Disposable Food Service Ware, equal to 841 Food Service Ware items eliminated, 7.5 million tons of waste avoided, and $5 billion in net savings for the food service industry for food service operations, $5.1 billion saved by business and local government in solid waste management costs, and 17 billion pieces of litter prevented. Meanwhile 193,000 local community-based jobs would be created.

- Upstream (2021),"Reuse Wins- The environmental, economic, and business case for transition from single-use to reuse in food service," calculated by Rich Grousset, Senior Vice President of ReDish and author of The Overbrook Foundation, "The Dirty Truth About Disposable Food Service Ware" based on data from that report and from market data provided by the Freedonia Group- https://www.freedoniagroup.com/Food-Service-Single-Use.html

t) Public access to water refill stations supports personal efforts to use refillable bottles, helps save consumers money, and eliminates plastic beverage bottle litter and pollution. A 20% increase in refillable glass and PET beverage bottles in place of single-use throwaway PET bottles could reduce marine plastic pollution by 39%, keeping 8.1 to 13.5 billion PET bottles out of the ocean every year, based on 2018 data. Switching to reuse can save 8 billion metric tons of CO2, 2% of the remaining carbon budget. Reusable glass beverage bottles were found to be 85% more climate friendly than Disposable plastic beverage bottles.

- Re: plastic reduction in the ocean: Oceana (2020), Just one word: refillables. How the soft drink industry can-right now- reduce marine plastics pollution by billions of bottles each year
- Re; CO2 savings: https://www.greenbiz.com/article/setting-standard-reusable-packaging, see also Reloop, Zero Waste Europe, University of Utrecht (2019)"Reusable vs Single-Use Packaging: A Review of Environmental Impact"
- https://www.greenbiz.com/article/setting-standard-reusable-packaging, see also Reloop, Zero Waste Europe, University of Utrecht (2019)"Reusable vs Single-Use Packaging: A Review of Environmental Impact"

u) Stainless steel and polypropylene cups at major events dramatically outperform disposable cups across all environmental metrics as long as they are washed and used more than six times. Polypropylene cups can be washed hundreds of times and stainless steel can be washed and reused thousands of times.

- Wentz, J. (2021), A Life Cycle Analysis of Reusable and Single-Use Cups, University of St. Thomas. Published by Upstream. https://upstreamsolutions.org/research

v) In 2021, Governor Newsom signed into law California Assembly Bill AB1276 (Carillo) (codified at Pub. Res. Code Section 42270 et seq.) which prohibits food facilities from providing any Disposable Food Service Ware Accessories or condiment packages unless requested by the customer.
   - https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1276

w) State law allows customers to provide their own Reusable Beverage Cups and Reusable Food Containers for service, and, consistent with the Centers for Disease Control and Prevention, the Alameda County Department of Environmental Health allows the use of Reusable Food Service Ware when properly washed, rinsed, and sanitized.

   - https://cpd.sccgov.org/food/food-safety-program/new-legislation-related-food-service/legislative-bill-archives/ab-619#:~:text=California%20Assembly%20Bill%20619%20was,containers%20from%20consumers%20for%20reuse.

   - https://www.stopwaste.org/at-work/reduce-and-reuse/reducing-disposable-food-ware/reusable-Food Service Ware-during-covid-19

   - https://www.stopwaste.org/resource/reusable-Food Service Ware-is-safe-during-covid-19