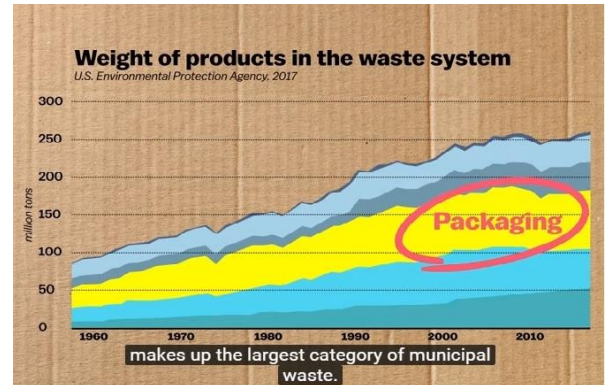


1. The Problem

A clean environment is cultural capital. For hundreds of years, it has been associated with privilege, has drawn people and built prosperity. However, it’s becoming increasingly expensive to maintain due to the constant inventions and promotions of products that are made to be thrown away after single use. Trash has become a problem from the streets to the ocean.

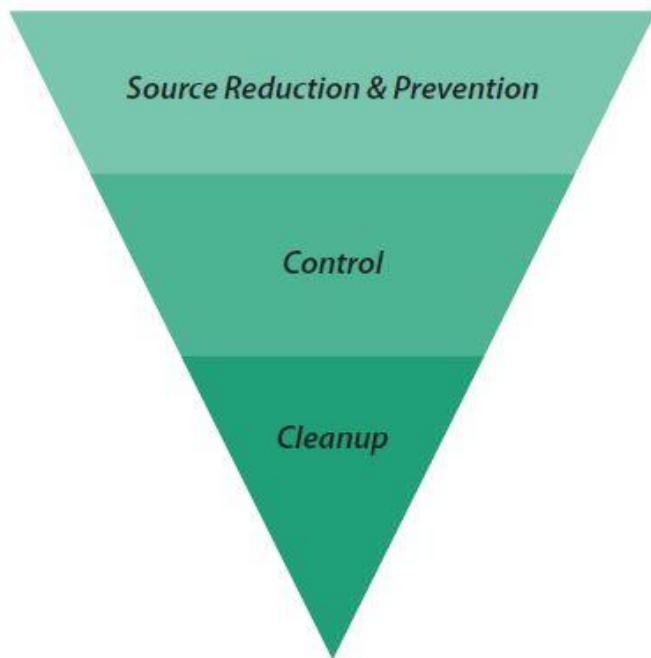
In 2017, cities and counties adopted the California Water Boards’ Trash Provisions, a ten-year process to prevent trash originating in high priority areas from reaching waterways.

In June 2018, the California Ocean Protection Council and National Oceanic and Atmospheric Administration Marine Debris Program published the [California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea](#), as “a suite of source reduction approaches that may be cost-effective and useful to local governments as they develop their compliance approaches for the Trash [Provisions].”



[Climate Lab](#) explains the trend of waste.

Hierarchy of Efforts to Address Ocean Litter



The Strategy prioritizes source reduction and prevention as “the most effective tactic for addressing ocean litter.” Follow the hierarchy to the left. “Examples of litter control methods include street sweeping, stormwater capture devices, storm drain cleaning and maintenance, and increasing options and opportunities for proper waste disposal. . . Examples of cleanup methods include manual litter removal on beaches, installation of trash skimmers in ports, and organizing divers and fishermen to remove lost fishing gear. The public cost burden of control and cleanup makes a compelling argument for accelerating the search for effective strategies to reduce and prevent trash streams that enter our waterways and contribute to ocean litter.” It also states, “A study done in Orange County found that residents go out of their way to avoid trash-littered beaches, spending extra time and money in order to visit a cleaner beach or engage in other recreational activities. The study estimated that removing 100% of the litter on Orange County beaches could save California residents \$148 million during the three months of summer.”

Removing trash on the street is also costly. The 2017 Unified Annual Progress Report by Orange County Stormwater Program shows the total cost of trash & debris control, drainage facility maintenance and street sweeping was almost \$50 million.

2. The Targets

According to the Ocean Conservancy’s 2018 Cleanup Report, nine out of the top ten litter items are single-use food ware. Most of these items are made from plastics: a fossil fuel product with chemicals. Over time, plastics break down to microplastics, and affect the ecosystem and food chain. Sometimes, the chemicals don’t break down. They build up in our bodies, causing health problems.

We propose immediate source reduction and prevention on these single-use plastics, including expanded polystyrene:

- utensils, lids, stirrers, straws
- plates, bowls, cups, containers
- water and other beverage bottles
- bags, to-go utensils and condiment packets

It’s worth noting that paper alternatives of these products also contribute to the costs mentioned above, and pose the threat of bacteria. Reusable is the way to go. When not possible, compostable options should be considered.



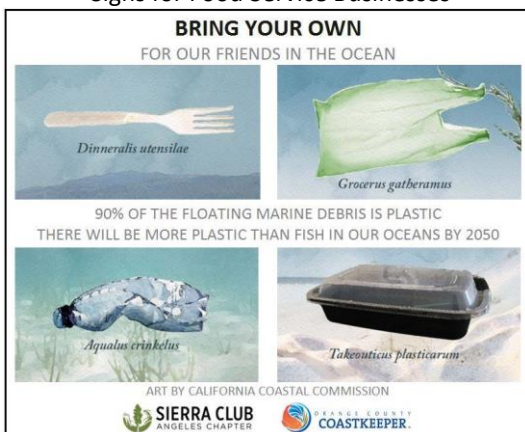
Single-use foodware collected by storm drain.

3. The Sources

While inventors and manufacturers are figuring out the eco-friendly way, we should take quick and easy actions: expand the practices of grocery bags and plastic straws to more reduction and prevention at the obvious sources.



Signs for Food Service Businesses



3.1. Food Service Businesses

A large portion of trash comes from food service businesses. Since governments interact with them in regards to permits, inspections and education, trash reduction and prevention can be addressed conveniently in the process.

- 3.1.1. Educate businesses on practices that are cost-savings and eco-friendly. The [Sierra Club’s Letter to Restaurants](#) provides an example. Seamless provided result: in 2013 alone, they saved more than a million sets of plastic ware and napkins by letting customers opt out.
- 3.1.2. Incentivize businesses and corporations to transition to reusables (e.g., film industry craft services, corporate dining, water refill stations) through sharing case studies and demonstrating cost-savings.*
- 3.1.3. Engage with companies that are already using alternative products and materials to help advocate for transition away from common ocean litter items.*

3.2. Events

Many events have food provided by sources other than the above. A method should also be developed for venues and organizations that host events.

- 3.2.1. Promote certification for events (e.g., music festivals, concerts, sports competitions, film production) that achieve zero waste principles.*

3.3. Governmental Agencies

Purchases and consumption by governmental agencies add up to a significant amount. In addition, many third-party events are held on governmental properties.

3.3.1. Lead by example, and adopt the State's [Environmental Preferred Purchasing \(EPP\)](#).

3.3.2. Change procurement to minimize the use ocean litter items in local and state buildings and events, and share lessons learned with other public institutions (e.g., federal facilities, jails, hospitals).*

*An action item in *California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea*.

4. The Campaign

Single-use reduction requires behavioral change, not easy. However, California has been successful with a series of campaigns of the kind, which provided us a formula.

4.1. It starts with an image.

A good campaign starts with a creative name and design. They need to be catchy and educational. Unfortunately, even some environmentalists don't know that everything is connected, and the ocean is the destination in our region. We have a slogan "Our Beach Pristine Precious," that is also a hashtag. The Orange County Stormwater Program has "The Oceans Begins at Your Front Door." Neither have a catchy design. The new campaign can utilize children's creativity. To get the momentum started, we propose a public contest to create a name and logo.



[Campaign by California Water Boards](#)

4.2. It takes a joint effort.

The drastic changes on grocery bags and water-use could not have succeeded without the statewide coordinated effort by the government, environmentalists and media. Within the region, there's an upward movement by broader collaboration on a multi-dimensional problem: homelessness. For how expansive the problem of plastics is, this campaign needs non-traditional partners:

- **Businesses:** including chambers of commerce and restaurant associations. Some of the most common campaigns are buy local and eat local. Clean streets and beaches directly benefit these campaigns.
- **Educators:** including libraries and museums. A picture is worth a thousand words, particularly in the social media era. Art proved its effectiveness at the 2018 Newport Beach Green on the Green Eco Expo. An ocean program, including a youth art exhibit, was created by Sierra Club, Bow Seat Ocean Awareness Programs, Newport Beach Chamber of Commerce and City of Newport Beach. The Expo had its biggest attendance ever.
- **Faith groups:** Pope Francis said, "We are faced with one complex crisis which is both social and environmental." Our Lady Queen of Angels formed a study group for Pope's encyclical on the environment. The Sisters of St. Joseph of Orange ran a summer-long campaign on plastic reduction with weekly prizes.



Youth Art at Newport Green Expo

4.3. It needs high visibility.

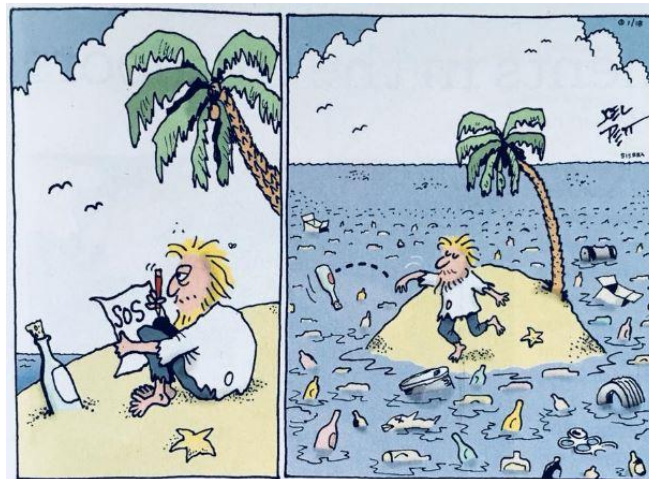
The drought campaign is creative with visibility: signs on light poles and agency vehicles, demonstration gardens, free consultations with giveaways, etc. Orange County Stormwater Program’s campaign *Overwatering is Out* also has many good actions. Similarly, we propose the following countywide actions:

- 4.3.1. Host discussions with the above partners to develop a plan that will work out for each party’s benefit.
- 4.3.2. Create one social media campaign for agencies to promote low waste, link single-use plastics with trash, nature, health and children. Cross promote with the above partners.
- 4.3.3. Coordinate public events (Earth Day, Ocean Day, Coastal Cleanup Day, Restaurant Week, festivals and other events by the above partners), demonstrate low-waste, and associate it with style and smart investment.
- 4.3.4. Collaborate with the above partners on tours to landfills and recycling centers, host workshops at city halls and other public places. Develop a countywide calendar that residents and schools in all cities can conveniently participate within 12 months.
- 4.3.5. Develop a toolkit on single-use plastics reduction:
 - banners, tip cards and posters for agencies
 - magnetic signs for agency vehicles
 - signs (i.e. serve-on-request, bring-your-own) for food service businesses
 - public awareness surveys
 - inserts for utility bills
- 4.3.6. Produce PSAs for:
 - movie theatres
 - gas station monitors
 - radio stations
 - television using celebrities
- 4.3.7. Run public contests for designs of high-visibility items/giveaways, such as funny bumper stickers.



A magnetic Sign: Reduce Your Water Use By 10%

“The goal of the public and business education program shall be to target 100% of the residents, including businesses, commercial and industrial establishments,” stated in Santa Ana Water Board’s Municipal Separate Storm Sewer Systems (MS4) requirements. 100% coverage is easier said than done. Yet, for education to stick to the mind and lead to change, one has to re-learn the same message multiple times through multiple methods. The process has to be fun. It’s possible. With all the talents brought by a joint effort of various types of partners, we can save the ocean.



Sierra Club’s Cartoon on Ocean Litter