“Choose Reusable”

Brought to you by Sustainable Plymouth

What is the " Choose Reusable" campaign?

"Choose Reusable" is an initiative of Sustainable Plymouth. It was created to inform local eateries of the impact of waste and marine debris from single use products.

- We aim to educate and inform on the environmental impact of single use products
- We share information on switching to sustainable options, such as accepting reusable containers, composting and choosing PFAS-free compostable food ware
- Our goal is to reduce waste by talking to restaurant management about changes, such as asking before handing out a straw, receipt, plastic cutlery, bag, etc., i.e, "Would you like a straw?"
- This campaign began as a necessary response to the pollution crisis Melanie Monaco, Chairperson of Sustainable Plymouth, and her peers were experiencing in their day-to-day lives.

The "Choose Reusable" campaign is the work of Sustainable Plymouth.

The pamphlet we share with restaurants:

Photo by: James Watt

500 million plastic straws are thrown away daily in the USA

Plastic litter from takeout orders — including cups, plates, cutlery, and straws — is a prime source of the estimated 269,000 tons of plastic pollution swept into waterways and oceans, where they partially degrade, harming marine life and affecting human health.

More than 100 million pieces of plastic utensils are used by Americans every day. They can take up to 1,000 years to decompose, leaking harmful substances into the earth while they are breaking down;
500 million plastic straws are thrown away in the U.S. alone every day.

Source: Plastic Pollution Coalition

74% of plastics tested contained toxins

According to a study by JEST published by Consumer Reports 10/2/19

In Massachusetts black plastic and Styrofoam cannot be recycled

Source: https://recyclesmartma.org/

What can you do right now?

- **Only give out straws and disposable flatware when necessary**
- **Accept reusable containers when allowed**
- **Switch to PFAS free certified compostable food ware when disposable is required**
- **Donate your left over food and compost your food waste**
- **Switch to energy efficient fixtures**

Become part of a database of Sustainable Restaurants and be listed on Sustainable Plymouth's website and others.

It is estimated that by 2050 there will be more plastic by weight than fish in the ocean

In the US 91% of plastic is NOT recycled

When a casual dinning restaurant switches from disposable to reusable products, the average annual savings is $5,175.

Source: Clean Water Action "Rethink Disposable"

According to Whale and Dolphin Conservation 56% of observed marine mammals have been witnessed attempting to eat plastic.

Photo by: Andrew Sutton

450 years

A single use plastic bottle that makes its way into the ocean can take 450 years to break down. Source: Whale and Dolphin Conservation

Notwhalefood.com

The "Choose Reusable" campaign is the work of Sustainable Plymouth.

The problem: Plastic is not disposable.


Photo by James Watt

500 million plastic straws are thrown away daily in the USA

Plastic litter from takeout orders — including cups, plates, cutlery, and straws — is a prime source of the estimated 269,000 tons of plastic pollution swept into waterways and oceans, where they partially degrade, harming marine life and affecting human health;

More than 100 million pieces of plastic utensils are used by Americans every day. They can take up to 1,000 years to decompose, leaking harmful substances into the earth while they are breaking down.

Source: Plastic Pollution Coalition

Impact on marine health

Microplastics

Microplastic have been defined by the international scientific community as synthetic polymer particles <5 mm in diameter. Ubiquitous in the global marine environment, they are created either by the weathering and fragmentation of plastic litter or are released directly as preproduction pellets and powders, polymer particles in personal care products (PCPs) and medicines, etc.

Microplastics contain a cocktail of chemical compounds, such as plastic additives, which may leach out to the surrounding environment or when ingested. In addition, contaminants from other sources tend to adsorb to microplastics. Studies have shown that plastic debris meeting other pollutants in the oceans absorbs harmful chemicals from the seawater they float in, acting like pollution sponges. It was shown that plastic pellets suck up these dangerous persistent organic pollutants (POPs) and toxins with a concentration factor that's almost 1 million times greater compared to the overall concentration of the chemicals in seawater. In other words, the more hydrophobic a chemical, the greater its affinity for microplastics, thus making plastic far more deadly in the ocean than it would be on land.

There are also primary microplastics which have been created for use in personal-care products and other applications. Scientists call these particles "mermaid tears" and they have been found across all the world's seas and beaches. They are not absorbed into nature, but float around and ultimately enter the food chain through ingestion by marine plankton, fish and filter feeders like the big whales (baleen whales).

Source: Whale and Dolphin Conservation

https://us.whales.org/our-4-goals/create-healthy-seas/pollution/plastic-pollution-in-the-oceans/

According to Whale and Dolphin Conservation 56% of observed marine mammals have been witnessed attempting to eat plastic.

A single use plastic bottle that makes its way into the ocean can take **450 years** to break down.

Source: Whale and Dolphin Conservation

Notwhalefood.com

It is estimated that by 2050 the ocean will contain more plastic by weight than fish.

The plastic that finds its way into the oceans inevitably will pose a risk of ingestion by sea birds, fish, marine mammals, etc. It's not uncommon to see articles of sea life found dead with significant amounts of plastic in their stomach.

Source: Forbes "Plastic in the ocean"

Multiple studies have shown that endocrine disrupting chemicals found in plastic may be disrupting the marine food chain.

Plastic affects human health too.

Philipp Schwabl, the physician-scientist who conducted the human stool experiment, says he hopes his findings will hasten research into the effects of microplastics on human health.

"Based on the research, it was highly likely that microplastics would be present in humans," he says. "But nobody ever investigated if microplastics also reach the human gut. Now this discussion can be taken up in humans."

Source: National Geographic __October 22, 2018

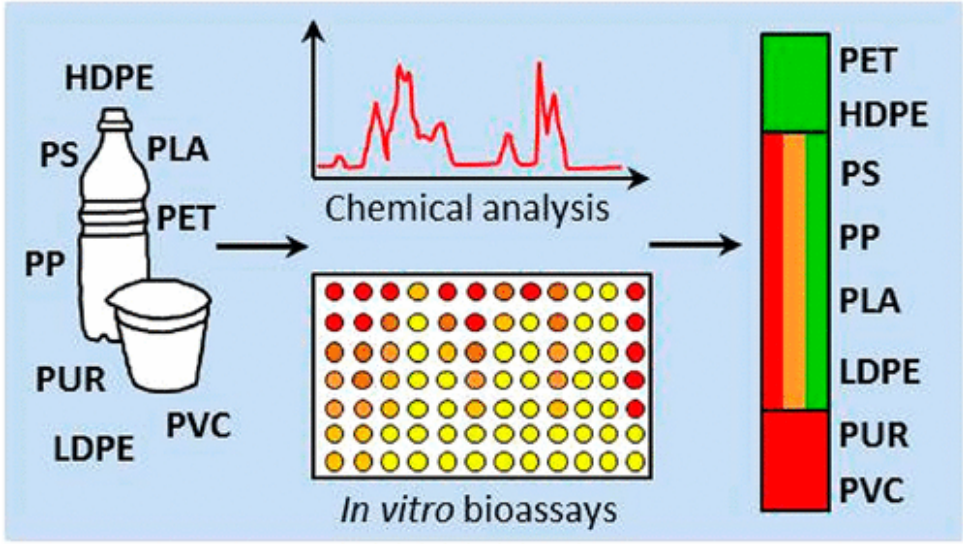
According to Laura Borth with the Silent Spring Institute, people should avoid plastics with the recycling number 3 (PVC), 6 (polystyrene) and 7 whenever possible.

She explains in an email dated 6/20/19 "Among other plastics, Group 7 includes polycarbonate, which is a hard, often clear plastic that is sometimes labeled "PC." PVC and polycarbonate can contain endocrine-disrupting compounds such as phthalates, BPA, or less tested substitutes. Phthalates have been associated with cancer, impaired fertility, and male birth defects. BPA is an estrogenic chemical that has been linked with adverse effects on brain development as well as mammary and prostate gland development. Polystyrene is made from styrene, which is a suspected carcinogen"

74% of plastics tested contained toxins

According to an article published by Consumer Reports 10/2/19 regarding a study published in the Journal of Environmental Science and Technology

- The researchers behind the study analyzed 34 everyday plastic products made of eight types of plastic to see how common toxicity might be. Seventy-four percent of the products they tested were toxic in some way.
- The team was hoping to be able "to tell people which plastic types to use and which not [to use]," says Martin Wagner, Ph.D., an associate professor in the department of biology at the Norwegian University of Science and Technology, and senior author of the new study. "But it was more complicated than that." Instead of pointing to a few problematic types of plastic that should be avoided, the testing instead revealed that issues of toxicity were widespread—and could be found in nearly any type of plastic.
- The results help illustrate just how little we know about the wide variety of chemicals in commonly used plastics, says Wagner.
- https://www.consumerreports.org/toxic-chemicals-substances/most-plastic-products-contain-potentially-toxic-chemicals/



https://pubs.acs.org/doi/abs/10.1021/acs.est.9b02293

Plastic and single use products are contributing to greenhouse gases.

- The biggest environmental impact of disposables happens before you buy the product. The majority of a product's impact—energy, resources, carbon emissions—come from sourcing the materials, manufacturing and transportation.
- Because reusable cups, cutlery and dishware are used thousands of times in a typical restaurant setting, even when factoring in dishwashing, they use far less energy, water and resources over their lifetime than would be needed to make, transport and dispose of thousands of their disposable counterparts.
- Reusable dishware, even if only offered to customers for on-site use, is the best environmental choice.

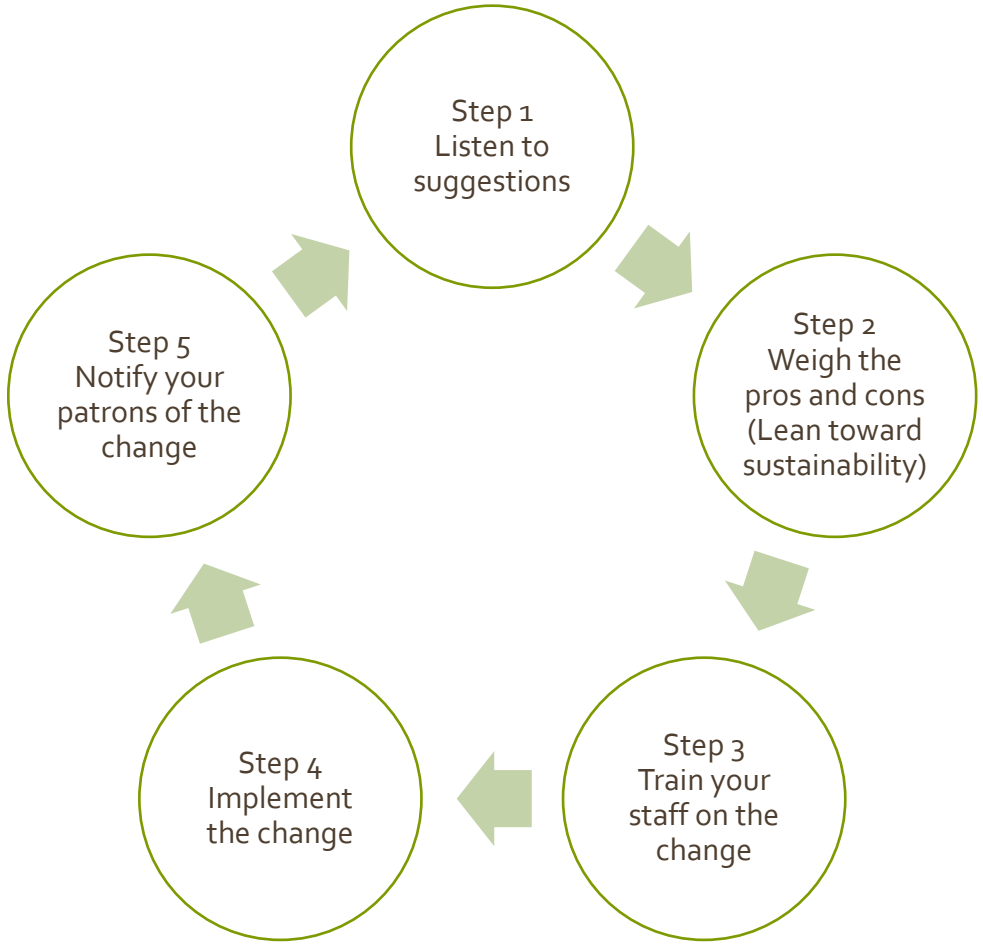
Source: www.portlandoregon.gov/sustainabilityatwork

91% of plastic is not being recycled

- According to National Geographic only 9% of the plastic in the US is being recycled.
- Often, plastic that is recyclable may only be recycled a limited number of times.
- Many colored plastics are not being recycled due to sorting difficulty and color contamination (The lid is often recyclable.)
- Plastic cutlery is not being recycled.
- Straws are not being recycled.
- Plastic food wrappers are not recyclable in typical recycle streams.

How do we go about making changes?

- Ask for suggestions on sustainable options and ideas
- Young people have innovative ideas
- Older people have experience
- Be open minded
- Always lean toward sustainability
- Advertise that you are environmentally friendly



Asking before handing out cutlery, straws, bags and receipts saves your restaurant money and helps the environment.

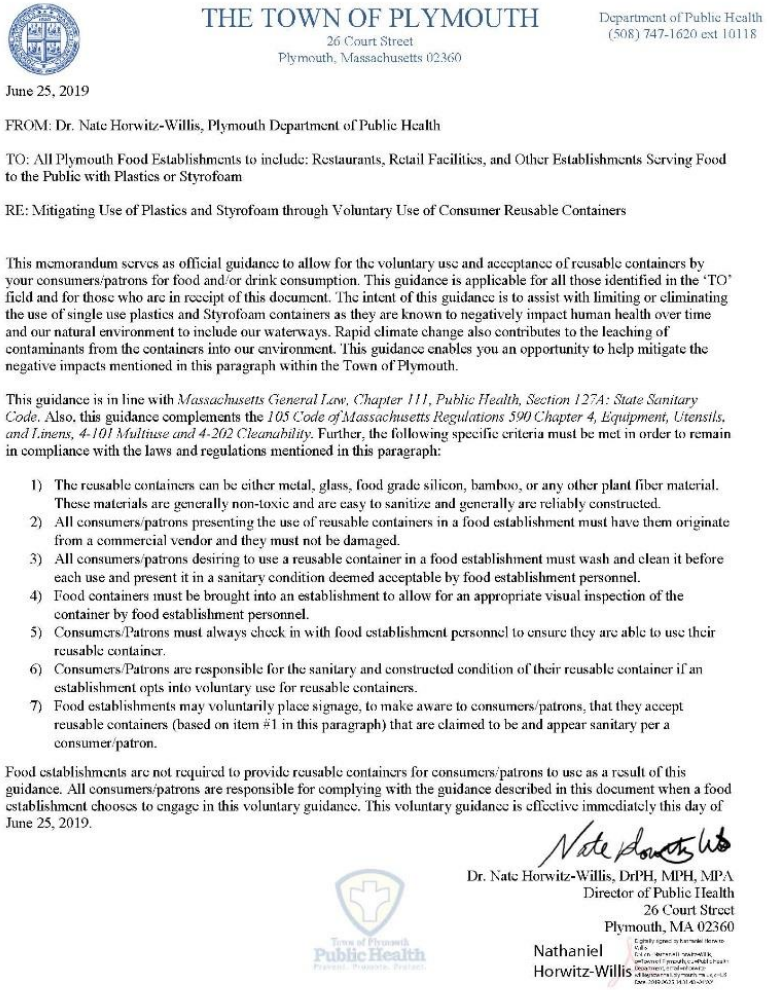
Consumers can bring their own:

- **CUTLERY**
- **STRAW**
- **WATER BOTTLE**
- **COFFEE MUG**
- **BAG**
- **CONTAINER**

- **The former Director of Public Health in Plymouth issued guidance clarifying that restaurants may accept clean, reusable containers for takeout (including coffee mugs).**
- Many customers carry straw/ cutlery pouches and/or water bottles with them.
- If you ask if they would like a _____ (straw, cutlery, etc.), the answer may be no.
- The customer may be going straight home to eat and might throw away the plastic flat ware immediately.
- Even receipts cost money and contain BPA – a harmful chemical.

Allow customers to bring their own container

Per guidance issued by the Plymouth Dept. of Public Health on 6/25/19, consumers may bring their own container.



THE TOWN OF PLYMOUTH
26 Court Street
Plymouth, Massachusetts 02360

Department of Public Health
(508) 747-1620 ext 10118

June 25, 2019

FROM: Dr. Nate Horwitz-Willis, Plymouth Department of Public Health

TO: All Plymouth Food Establishments to include: Restaurants, Retail Facilities, and Other Establishments Serving Food to the Public with Plastics or Styrofoam

RE: Mitigating Use of Plastics and Styrofoam through Voluntary Use of Consumer Reusable Containers

This memorandum serves as official guidance to allow for the voluntary use and acceptance of reusable containers by your consumers/patrons for food and/or drink consumption. This guidance is applicable for all those identified in the 'TO' field and for those who are in receipt of this document. The intent of this guidance is to assist with limiting or eliminating the use of single use plastics and Styrofoam containers as they are known to negatively impact human health over time and our natural environment to include our waterways. Rapid climate change also contributes to the leaching of contaminants from the containers into our environment. This guidance enables you an opportunity to help mitigate the negative impacts mentioned in this paragraph within the Town of Plymouth.

This guidance is in line with *Massachusetts General Law, Chapter 111, Public Health, Section 127A: State Sanitary Code*. Also, this guidance complements the *105 Code of Massachusetts Regulations 590 Chapter 4, Equipment, Utensils, and Linens, 4-101 Multiuse and 4-202 Cleanability*. Further, the following specific criteria must be met in order to remain in compliance with the laws and regulations mentioned in this paragraph:

1) The reusable containers can be either metal, glass, food grade silicon, bamboo, or any other plant fiber material. These materials are generally non-toxic and are easy to sanitize and generally are reliably constructed.
2) All consumers/patrons presenting the use of reusable containers in a food establishment must have them originate from a commercial vendor and they must not be damaged.
3) All consumers/patrons desiring to use a reusable container in a food establishment must wash and clean it before each use and present it in a sanitary condition deemed acceptable by food establishment personnel.
4) Food containers must be brought into an establishment to allow for an appropriate visual inspection of the container by food establishment personnel.
5) Consumers/Patrons must always check in with food establishment personnel to ensure they are able to use their reusable container.
6) Consumers/Patrons are responsible for the sanitary and constructed condition of their reusable container if an establishment opts into voluntary use for reusable containers.
7) Food establishments may voluntarily place signage, to make aware to consumers/patrons, that they accept reusable containers (based on item #1 in this paragraph) that are claimed to be and appear sanitary per a consumer/patron.

Food establishments are not required to provide reusable containers for consumers/patrons to use as a result of this guidance. All consumers/patrons are responsible for complying with the guidance described in this document when a food establishment chooses to engage in this voluntary guidance. This voluntary guidance is effective immediately this day of June 25, 2019.

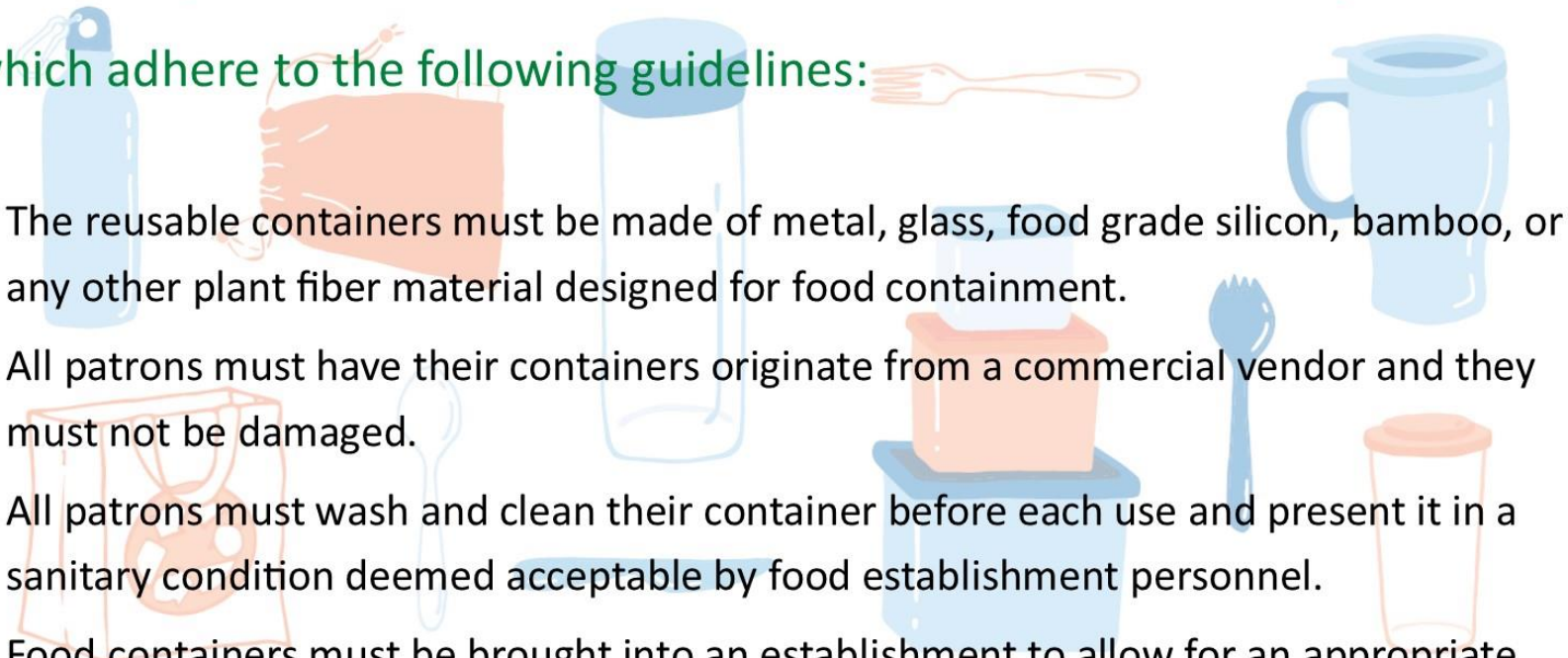
Dr. Nate Horwitz-Willis, DrPH, MPH, MPA
Director of Public Health
26 Court Street
Plymouth, MA 02360

Nathaniel Horwitz-Willis

The "Choose Reusable" campaign is the work of Sustainable Plymouth.

To reduce waste, this establishment accepts CLEAN, UNDAMAGED reusable containers,

which adhere to the following guidelines:



1. The reusable containers must be made of metal, glass, food grade silicon, bamboo, or any other plant fiber material designed for food containment.
2. All patrons must have their containers originate from a commercial vendor and they must not be damaged.
3. All patrons must wash and clean their container before each use and present it in a sanitary condition deemed acceptable by food establishment personnel.
4. Food containers must be brought into an establishment to allow for an appropriate visual inspection of the container by food establishment personnel.
5. Patrons are responsible for the sanitary and constructed condition of their reusable container.

Start a "Bring Your Own" promotion

- The EPA "Reducing Wasted Food & Packaging" guide suggests running a promotional discount if patrons bring their own container.
- If you run a promotion for a short time it may help customers get into the habit.
- Try asking "Did you bring your own container today".
- Coffee can be made in a stainless steal pitcher and transferred into the consumer's mug if you have a drive-through.

Example: "Bring Your Own" Cost Analysis

ASSUMPTIONS

$0.15	Cost of disposable packaging (cup, lid, and sleeve)
$0.10	Discount for "bring your own" cup
12 hours	Daily operating hours

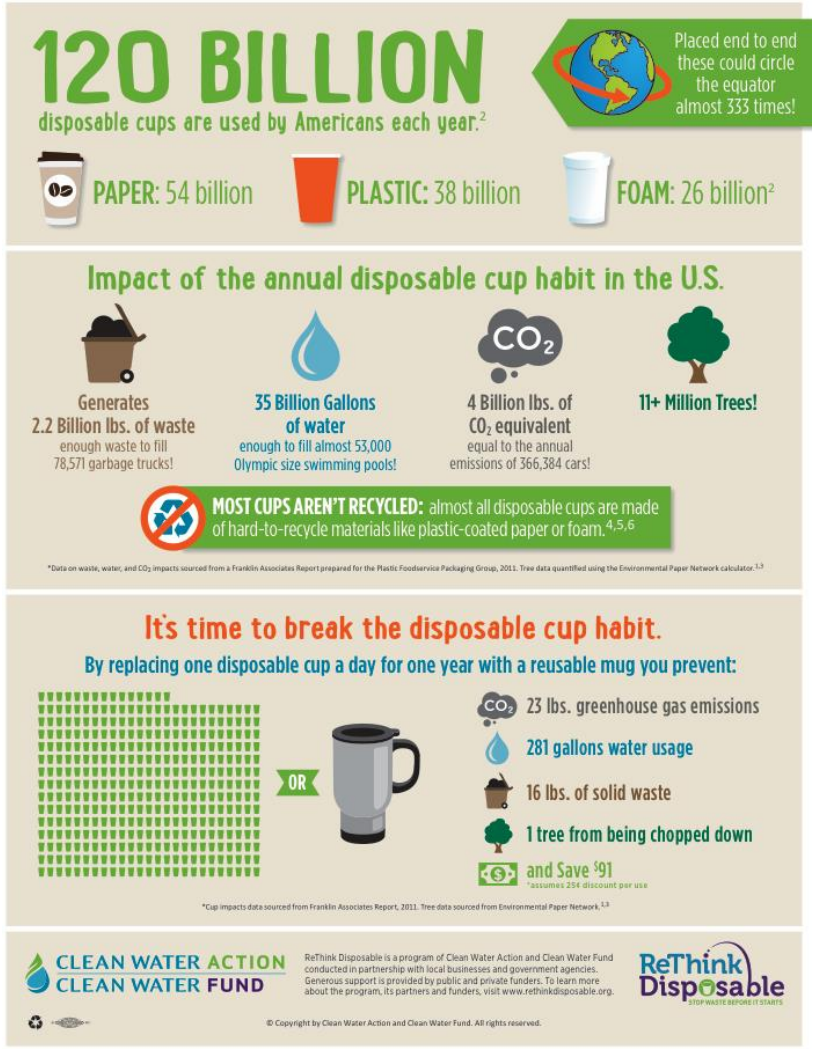
RESULTS

No. of "bring your own" per hour	Daily cost savings	Annual cost savings
3	$1.80	$657
10	$6.00	$2,190

No. of "bring your own" per hour	Annual greenhouse gas reduction (lb. CO_2 equivalent)*	Annual solid waste reduction (lb.)*
3	339	378
10	1130	1260

*Based on 16 oz. cup with insulating sleeve

"Rethink Disposable" is a program offered by Clean Water Action. They offer assistance in making the switch to reusable.



The "Choose Reusable" campaign is the work of Sustainable Plymouth.

The Economic payoff of switching to reusable.

MassGreen.Org

WORKING TOGETHER FOR JUST AND SUSTAINABLE COMMUNITIES

The Economic Payoff

Clean Water Action's ReThink Disposable project has performed a series of analyses looking at the financial savings made when food service facilities switch from disposable products to reusable ones.

Here are case studies they prepared for four different facilities:

o A fast casual restaurant. Annual savings: $5,175

o A cafe / food shop. Annual savings: $3,768

o A food truck. Annual savings: $2,028

o A high school. Annual savings: $6,459

The ReThink Disposable program offers resources and expertise for municipalities, businesses and individuals to go green.
For more information, click here!

The "Choose Reusable" campaign is the work of Sustainable Plymouth.

Thank you for making an effort and working toward sustainability.

Please send suggestions to sustainableplymouth@gmail.com

Thank you!