Single-Use Plastic Ban Guide



Seaside Sustainability, Inc.
A 501(c)3 Nonprofit Charitable Organization
seasidesustainability.org

Seaside Sustainability's Mission:

To protect and restore our oceans by educating people of all ages about the critical issues that threaten our environment; promoting best practices for sustainability; and inspiring meaningful advocacy and hands-on action. Seaside Sustainability works with schools, cities and towns, environmental groups, technology companies, and individuals. Together, we strive to ensure the healthy future of oceans, rivers, wetlands, and estuaries around the world.



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About This Guide

According to the United Nations Environment Programme (UNEP), bans on disposable plastics are the first step towards more comprehensive policies aimed at reducing the generation of plastic waste and replacing disposable plastic products with more environmentally-friendly alternatives. When it comes to creating sustainable solutions in one's community, developing a strategic plan and advocating for disposable plastic bans are two excellent places to start. The following guide outlines the steps that one should take to implement plastic bans in their community. This guide is intended for community members and organizations looking to make a positive change in their towns and cities that will have a meaningful and long-lasting impact. Implementing a plastic ban allows towns and cities to use less plastic while creating a more environmentally-conscious and educated community.



With the understanding that no two communities are the same, these guidelines seek to provide a number of pointers and resources to help in understanding how to advocate for and achieve a plastic ban. We encourage people and communities to tailor the plans and resources included in this guide to fit the needs of their own community and its members. One should adjust their own plan accordingly depending on the location, economy, and politics of their given town or city.



Strategy: How to Conduct a Successful Plastic Ban

Step One: Data Collection and Research

Collect necessary data, research, and evidence. It is important to define your reasons for proposing a ban (environmental, economic, etc.), the reaction your community may have, and potential arguments.

- Conduct fieldwork (ex. ocean plastic collection) and online research (ex. the environmental effects of single-use plastics, the economic costs and benefits of the plastic industry, alternatives to plastic products, etc.)
- Be informed about the status of any local and state bills and initiatives.
- Be informed about the status of any federal bills and initiatives.
 - The following link is a useful website that tracks bills in the U.S. Congress: https://www.govtrack.us/congress/bills/
- Scope out local business practices and see which plastic products they use as well their cost.

Find local volunteers to help and support you through the process. Student groups are a great place to start!

- Ensure volunteers are educated by sharing research and information.
- Use communal online hubs (such as Google Drive and Trello) for efficiency so that information is immediately available to all team members and advocates.
- Connect with young, interested people through school "Green Teams" or environmental clubs.

Check on reactions from other towns and cities that have already completed successful bans.

- Look at nearby or similar towns and their process.
 - o Examples in Massachusetts: Gloucester, Rockport, Essex, Concord, etc.

Once you feel adequately prepared, begin to write your bylaw!

• See below for tips and guidelines!

Involve your team in some hands-on action by engaging with your community.

Create several FAQ sheets about your proposal, including a guide to alternatives
 (examples provided in this guide on page). Write a draft of the ordinance/bylaw and
 develop parameters (such as when it will go into effect, what town official will be in charge
 of managing it, etc.) Example bylaws can be found at http://www.massgreen.org. Tips
 provided below. Prepare a presentation to show to community members that explains the
 ordinance/bylaw and why it is important legislation.



Recognize your Area and Audience

It is essential to be aware of how the legislative process works in the area one is interested in passing a plastic ban. For example, in Massachusetts, it is very important to distinguish between towns and cities. Cities, generally, have mayors and legislature can be divided into ordinances and home rule petitions.

The former refers to the legislation created by the city council itself and the latter refers to the ability of citizens to bring their own legislation to their city council. Regarding the plastic ban, the community member will typically be writing in the form of a petition. It is important to recognize your audience here – you are "selling" your proposal to an elected body. Your city council is the deciding factor in whether or not your ban is passed. Research your representatives and present your proposal accordingly. Alternatively, towns are generally governed by town meetings in which the constituents vote on legislation. Town Meetings vote on bylaws, which are the town's local statutes. Again, recognize your audience. Town Meetings tend to bring out citizens with a variety of different backgrounds and opinions. Be sure to acknowledge this and speak appropriately.

How to Write a Bylaw

Bylaws and ordinances change from town to city, dependent on details specific to that place. Therefore, it can be difficult to find a template suitable for where you live. Fortunately, MassGreen.org has documents for almost every plastic bag bylaw passed in MA. There are plenty of examples here (even if your town has already passed a plastic bag ban, you can still use it as a template for your next sustainability endeavor).

Key Features

Statement of Intent: Why are you proposing this ban? What is your overall goal?

• Your statement of intent could discuss the environmental consequences of plastic litter, the health implications of microplastics in the ocean, etc.

Definitions: You need to define exactly what you mean! Every person who opposes you is going to look for loopholes, so the best place to start is to make sure there are not any. Define anything that you think can be an issue, even if you believe it is self-explanatory. Keep your definitions clear and concise.



- Helpful Hint: One of the most important things to define is the term BIODEGRADABLE.
 Technically everything is biodegradable, including plastic. The <u>American Society for Testing and Materials International Standards</u> (ASTM) is a good source to use for clearly labeling what items you are allowing and what you are trying to ban.
 - Ex. RETAIL ESTABLISHMENT: Any commercial business facility that sells goods and/or services to the public including but not limited to grocery stores, pharmacies, bars, restaurants, markets, liquor stores, retail stores, and convenience stores [1].

Use and distribution:

- Are you prohibiting establishments from providing them? Are you banning citizens from using them? Specifying waste removal?
- When determining if a product is compostable or not, use the BPI certification. Products that are certified by the BPI are compostable and, as of January 1st, 2020, they do not contain PFAS, a group of deleterious fluorinated chemicals that are persistent in the environment [2].
- Consider including this section proposed by the Americans with Disabilities Act, which was adapted in an ordinance for a straw ban in Gloucester, MA, within your bylaw:
- "In the case of handicapped persons who require plastic straws in order to ingest liquids, establishments may provide plastic straws upon request. Hospitals, nursing homes, and other establishments predominantly serving the elderly, infirmed, or handicapped individuals are exempt from this ordinance."

Penalties and enforcement:

- Who will be in charge of enforcing this rule? Your Board of Health? The Police Department?
- What is the consequence for breaking it?
 - Begin with a simple warning then bump subsequent offenses up to fines.
 - Ex. The penalty for each violation that occurs after the issuance of the warning notice shall be as follows:
 - i. \$50.00 for the first offense
 - ii. \$100.00 for the second offense and each subsequent offense. Each day or portion thereof shall constitute a separate offense.

^[3] Gloucester City Council (September 2019). Prohibition on Single-Use Plastic Straw, Stir Stick, and Hotstopper http://gloucester-ma.gov/DocumentCenter/View/5916/COV-2019-161?bidId=



^[1] Rockport MA (Sept, 2018). Bag Bylaw. https://www.google.com/url?q=http://nebula.wsimg.com/68b8f55669a957c3b34802fffc16b48a? AccessKeyld%3D1C31A3B4B1A73412F089%26disposition%3D0%26alloworigin%3D1&sa=D&ust=1610995662393000&usg=A0vVaw1N9lZrLrObgs_f6SLbLS mm

^[2] Biodegradable Product Institute (September, 2018). Fluorinated Chemicals and BPI Certification. https://bpiworld.org/BPI-Blog.html/6650181

Effective date:

- When is the ban going into place?
 - Remember that you are banning businesses resources many of them small and owned by local citizens. Many businesses stock up on their supplies and order in bulk. They will require ample time to go through them so as not to waste what they have already purchased. Make sure the effective date of the ban is more than one year away so businesses have enough time to adapt and switch to alternatives.
 - Ex. Effective January 1, 2021, Disposable Food Service Ware shall be Biodegradable or Compostable if used or sold at Food Establishments.

Things to consider:

- Make sure your bylaw is grammatically correct, incredibly clear, and understandable. Your proposal is going to be read by many people with the power to veto it. Unclear writing could put your bylaw in an unfavorable position.
- You want to be strict with your language and restrictions, but keep the citizens of the
 town in mind, especially if they will be the ones voting in the end on whether or not it
 will pass. If you are too harsh with the timing of effectiveness or don't provide enough
 alternatives, then your proposal might not be passed.
- The banned items must be easy to identify for the health department (or enforcement equivalent).

Step Two: Going Public

Write a letter to the editor of the local newspaper explaining your proposal and make sure to always invite journalists to your public activities.

• See Sample Letter to the Editor 1

Create flyers and posters to distribute to community members and local businesses.

- Include information and statistics that make people *think*.
- Your goal is to improve your community's overall sustainability so try to limit the amount of paper you use. Shift your movement to an online format or find more eco-friendly options, such as reusing recycled paper.
- <u>Sample Flyer 1</u>
- <u>Sample Flyer 2</u>

Create Social Media pages (Instagram, Facebook, Twitter)

- Take pictures wherever you go and post online show people what you are doing.
 - Remember to ask for permission before posting pictures of other people!



Petitions (see <u>Sample Ban Petition</u>):

- Choose your format; handwritten petitions or online formats (such as <u>change.org</u>) work well.
- Include a short write-up of the ban proposal (this should be at the top of every page on the petition).
- Be present with your petitions on the streets or at local events, such as farmers' markets, festivals, and concerts.
- Take names, phone numbers, emails, addresses, and signatures.

Step 3: Gaining Support

Reach out to local organizations, businesses, and individuals to gain their support.

- Visit local businesses individually so that all business owners get the opportunity to give their feedback, ask questions personally, and propose their own problems/solutions.
 - It can take a lot of work, but it is crucial to get every business on board as they will likely be the most significant opposition.
 - Survey local businesses about their sustainable habits (see <u>Sample Local Business</u> <u>Survey</u>.)
- Show public screening of movies like "Bag It" or "Plastic Ocean" to spread awareness (host a viewing at a school).
- Contact local green organizations for sponsorship and advice.
- Find and apply for appropriate grants.
 - Ex. Grant money to fund a water bottle filling station when proposing a potential ban on plastic water bottles.
- Example letters:
 - Sample Email: Asking for Connections and Supporters
 - o <u>Sample Letter to Local Businesses</u>
 - Make sure to include information/statistics when reaching out.
 - Sample Information to Attach to Letters and Emails

Information to gather from your group

- A list of resident supporters (using your petition).
- A list of business supporters.
- A list of possible local opposition to this ban and answers as to how each will be addressed.
- A list of any artists/musicians willing to create pieces for the cause.
- A list of upcoming events to host presentations at.



Step Four: Sustaining Support

Reach out to members of the city/town council

- Develop a spreadsheet of all council members (or town equivalent).
- Gather documentation and prepare a personalized email for every council member.
- Identify the following (track everything on a shared Google spreadsheet so everybody is up-to-date).
 - Who is in support of you?
 - Who is against you and why?
 - Focus on council members who are not decided or support you the ones who are against you are unlikely to change.
 - Don't confront or argue; be as friendly as possible all the time.
- It is very important to connect with council members and try to get as many as possible on your side.
 - Show interest in their other articles and local projects.

Attend meetings with anyone who will listen. It is a good idea to come to all of your meetings with possible alternatives in hand (ex. Reusable bags, hay straws, paper straws) so your audience can better visualize your proposal.

- Local DPW (Department of Public Works)
- Chamber of Commerce
- Board of Health
- Conservation Commission
- Open Space Committee
- Government studies committee
 - Board of Selectmen or City Councilors
- Any other relevant group (resiliency committee, waste reduction committee, etc)

Get ahead of the negativity (large groups of volunteers can help with this)

Politely participate in online communities (such as Facebook) by sharing news articles or scientific research discussing single-use plastics. Be sure to answer any questions your community may have.



Town Meetings

- Reach out to Town Meeting supporters and try to get them to come vote.
- Make sure you know the rules regarding your Town Meeting every town is different.
 Arrive early and organize your presentation. Make a strong presentation to impress the attendees at your Town Meeting.
- The presenter should be a respected and well-known member of your community Town members like it when local people talk about their personal lives (i.e. shopping habits).
 - Refute opposition during the presentation before questions can be taken from the audience.
 - Make sure to discuss a transition plan, alternatives, cost efficiency, etc.
 - Create a "<u>common opposition arguments</u>" sheet in advance, like the example created in this guide. People will present opposing arguments, and it is important to have answers prepared. (Make sure to include the sources of your information!)
- At Town Meetings, give out free reusable bags if possible the town members will love it!
- Try to have your group of supporters show up at the Town Meeting all in green (or matching) shirts and with reusable bags to make a statement.

Additional Notes

- After you begin your campaign, *NEVER USE PLASTIC BAGS WHEN SHOPPING!* One picture with you using plastic bags on social media can damage your campaign drastically.
- If possible, partner with popular local businesses who are willing to make a change to alternative straws, etc. even before the ban is brought to council. This way, community members are educated on/familiarized with alternative options firsthand.

Be in contact with the <u>www.massgreen.org</u> network and ask them questions – they have a lot of knowledge and are very helpful and supportive.

Handling Feedback From the Community

Plastic bans usually require significant changes for most businesses. This means that backlash or general feedback regarding such bans should be expected, with many business owners and community members likely raising questions and concerns. One of the goals for conducting successful plastic bans is being prepared for pushback, knowing how to respond, and being proactive in an attempt to decrease its likelihood.



Common Counterarguments

Below is a list of common oppositional arguments in response to plastic bans. As a group, be prepared to answer these arguments with data and resources to support you.

- Shoppers will just take their business to another town that does not have a ban in place.
- Some may dispute the sources of information provided or the lack of them. Therefore, it
 is very important to use supported and reliable sources in any presentation or resource
 in order to provide a knowledgeable exposition. (Remember to include sources in the
 slides!)
- Plastic bans do not help decrease the amount of litter in our environment. Most of the litter we see comes from other, bigger sources (cans, chip bags, etc.).
- In 2017, the US plastic industry provided jobs to 1.8 million people with suppliers included and 989,000 excluding suppliers. Introducing a plastic ban will surely impact employment in this sector unless a smooth transition is introduced. [4]
- Bans should be at the state or national level.
- Education is better than enforcement.
- Non-coastal communities might claim that there are limited negative effects of small plastic items (such as straws) on the coast and therefore in the oceans.
- Not providing plastic bags increases litter.
- Due to the energy used for creation, a paper bag would have to be used three times in order to have a lower contribution to global warming than the one-time use of plastic bags. Additionally, paper bags are around five times heavier than their plastic counterparts, eventually meaning increased vehicle emissions in order to transport their weight [5].
- The ecological-impact of alternatives to plastic bags (i.e. paper bags) is also very high if there is not an efficient recycling system in place [6].
- In order to achieve zero environmental impact, a cotton bag has to be recycled 7,100 times and a bioplastic bag 42 times [7].
- It is challenging to find cost-efficient alternative products.
- Some alternatives contain carcinogens.
- This argument refers to the use of fluorinated chemicals, especially Perfluorooctanoic Acid (PFAS) in plastic alternatives.

[4] Behm, J. (July, 2019). The Pros and Cons of the Plastic Bag Ban Debate https://www.dumpsters.com/blog/plastic-bag-bans

[5] Environment Agency. (February, 2011). Life cycle assessment of supermarket carrier bags: a review of the bags available in 2006. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291023/scho0711buan-e-e.pdf

[6] Muthu S.S. et al. (March 1, 2021). Eco-Impact of Plastic and Paper Shopping Bags, Journal of Engineered Fibers and Fabrics. https://doi.org/10.1177/155892501200700103

[7] Ministry of Environment and Food of Denmark. (February, 2018). Life cycle assessment of grocery carrier bags https://www2.mst.dk/Udgiv/publications/2018/02/978-87-93614-73-4.pdf



The COVID-19 Dilemma: Don't reusable bags spread germs/viruses?

- The coronavirus pandemic initially caused concern for cities and towns across the country that have implemented or were in the process of implementing single-use plastic bag bans. Many areas temporarily retracted the bans to reduce the potential higher risk of transmission thought to be associated with reusable bags.
- Public health professionals' understanding of the virus has developed since these initial precautionary measures were taken in the early stages of the pandemic, and it has been determined that reusable bags can be used safely by washing, disinfecting, and employing basic hygiene [8].
- In June 2020, over 115 public health experts hailing from 18 countries published a statement released by Greenpeace USA and UPSTREAM addressing the safety of reusables during COVID-19, stating that single-use or reusable bags are no better or worse for transmission or prevention of transmission of the COVID infection [9].

Plastic Products vs. Paper/Compostable Products Cost Comparison

While the main goal of our plastic reduction efforts is to become less reliant on single-use products and evolve into a society that instead emphasizes reduction and reuse, compostable products offer another alternative to harmful single-use plastics. Compostable and environmentally-friendly products that substitute for plastic are made from durable, natural alternatives such as bamboo, paper, cardboard, seaweed, mushrooms, and hay.

The general perception is that switching to a compostable alternative can lead to an increase in cost for the producer and the consumer. While the manufacturing costs of paper and bio-plastic alternatives can be moderately higher than those of plastics, the increased reusability and

[8] Greenpeace & UPSTREAM. (June 22, 2020). Health Expert Statement Addressing Safety of Reusables and COVID-19.https://storage.googleapis.com/planet4-international-stateless/2020/06/26618dd6-health-expert-statement-reusables-safety.pdf

[9] Grant, J. (September 3, 2020). Scientists know more about how COVID-19 spreads. So is it safe to bring your reusable bags back to the grocery store?. Stateimpact. https://stateimpact.npr.org/pennsylvania/2020/09/03/scientists-know-more-about-how-covid-19-spreads-so-is-it-safe-to-bring-your-reusable-bags-back-to-the-grocery-store/



recyclability of these alternatives provide cost-effective benefits in other ways [10]. Companies must also consider the societal costs of their continued reliance on single-use plastic products, as consumers become increasingly aware of the troubles caused by plastic pollution. According to studies, plastic pollution costs trillions of dollars per year on the global level and the corporate sustainability movement continues to intensify in response [11]. As the demand for these compostable products increases (as well as the variety of alternative products), the prices of these environmentally-conscious alternatives will decrease as well [12].

Additionally, it is a good idea (when arguing the economics of your proposal) to encourage local businesses to move toward providing straws solely "upon request" at their establishment. This benefits the community in terms of sustainability (in moving away from single-use items) as well as the business owner (people may be less inclined to take a straw which decreases the number of straws needed to be purchased and inevitably lowers the overall budget of the business).

Useful Resources

MASSGREEN.ORG

Mass Green Network

www.massgreen.org

- Connects over 650 members interested in plastic bans all over the State of Massachusetts. You can join their email list to stay informed about the progress of other groups and get information to help with your own work.
- Includes a list of most successful plastic bag bans in Massachusetts, with their ordinances included. The website may not always be entirely up to date, but this is still a great list to have a look at when drafting an ordinance!
- Offers a Community Bag Law Toolkit, which includes suggestions for funding, PowerPoint presentations, flyers, tips for town meetings and working with business owners, and advice on how to handle opposition. It is an incredibly useful tool for any town or organization looking to implement a plastic ban.
- Offers The Impact of Plastic Laws, which includes arguments in favor of bag fees, economic impact analysis, triple bottom line evaluation, etc. It is a very useful tool to give a scientific and economic approach to one's position!

^[12]SFGate. (2020). Are Biodegradable Materials More Expensive? https://homeguides.sfgate.com/biodegradable-materials-expensive-78496.html



^[10] EcoEnclose. (2018). Paper versus Plastic (and Bio-Plastic). https://www.ecoenclose.com/Paper-versus-Plastic-and-Bio-Plastic-

^[11] Forbes. (February 24, 2020). Plastics Cost the Earth, But There Are Alternatives. https://www.forbes.com/sites/deborahtalbot/2020/02/24/plastics-cost-the-earth-but-there-are-alternatives/?sh=2468e335341f



Surfrider Foundation

https://www.surfrider.org/

- Surfrider is an international non-profit that connects over 60,000 members who are passionate about cleaning up our oceans. This worldwide network constantly collects new resources and data which can be used in ordinances and business letters.
- Offers a <u>guide for a successful plastic bag ban</u> which includes facts about plastic in general (focusing on plastic bags in particular) as well as an introduction and tips for each step one should take in order to conduct a successful ban.



Sierra Club https://www.sierraclub.org/

- Sierra Club is a non-profit environmental protection organization that advocates for renewable energy, protection of natural resources and habitats, wildlife protection, and human rights. With 3.8 million members across the United States, the Sierra Club has built a great network in almost every community.
- The group takes direct action, one example being through demonstrations. It could be useful to ask members for some support in regards to a plastic ban.
- Offers many scientific resources concerning plastics which can be used to support arguments in any ordinance and business letter.



Trash Shouldn't Splash https://www.trashshouldntsplash.org/

• This is a Cape Cod-based nonprofit that fights plastic pollution in the ocean (ex. their Skip The Straw Movement).

They have published a <u>Toolkit</u> with further information on how to reduce disposable (plastic) items in restaurants, schools, and other public areas. This toolkit includes campaign materials and should be looked at when gaining support for a plastic ban.



Sample Ban Petition

"I support a local ordinance mandating the reduction or elimination of disposable plastics (plastic bags, straws, stirrers, cutlery, disposable water bottles, balloons and polystyrene (Styrofoam)) by (Town/City) establishments in an effort to reduce plastic pollution and promote more environmentally-friendly alternatives."

Registered Voter's Name	Email	(<u>Town/City</u>) Address	Signature

Thank You!



Getting Letters of Support

An important part of canvassing, in addition to collecting signatures, is having local businesses and community members write letters of support to the City Council (or town equivalent). This leaves a stronger, more personal impact on those considering the ban proposal. Council members can view direct statements from residents and take this form of active support into consideration.

Tips for letter writing

Letters must be professional. They also should specifically mention the official title of the proposed ban for clarification.

Businesses and community members are encouraged to add their own **personal touches** and add **why a plastic ban is importan**t to them as individuals, and the community as a whole.

Below are example templates for both business letters of support and community letters of support for a <u>Straws, Stir Stick, and Hotstopper Ban</u> in Gloucester, MA. These templates should be adjusted to fit your location and may be provided to local businesses interested in supporting the ban:



Sample Letter to Reprensentatives

Sample Letter 1

-Insert business logo (optional), address, contact info here-

(insert date here)

Dear (City's name) City Council,

The (insert business/ organization name here) is writing to show our support for the disposable STRAWS, STIR STICK & HOTSTOPPER BAN ORDINANCE, introduced by (insert name). Laws are a key part of a campaign to reduce unnecessary plastic waste and increase sustainability. According to ten organizations' joint data analysis, which was published in the B.A.N. (Better Alternatives Now) List 2.0, straws and stirrers constituted 7.5 percent of the top 20 plastic pollutants in the U.S. in 2016.

Eliminating plastic straws, etc., from the waste stream will be a significant positive environmental action. As litter, plastic can be carried by wind and water into oceans and water streams, harming wildlife all along the way. Plastic eventually becomes microparticles, which are ingested by aquatic animals and enter the human food chain. (*Insert town/city name*) actions support state-wide legislation addressing these critical problems.

We strongly endorse your straw, stir stick, and hotstopper ordinance. The ordinance reflects similar laws that have been implemented elsewhere in the Commonwealth of MA (or equivalent). We urge you to vote "YES" in this new ordinance, which is a logical next step.

Respectfully,

(Signature)



Sample Letter to Reprensentatives

Sample Letter 2

(insert date here)

Dear (City's name) City Council,

As a long-term resident of (*insert town or city*). I am writing today to express my support for the disposable PLASTIC STRAW, STIR STICK & HOTSTOPPER BAN ORDINANCE, introduced by (*insert name*).

I believe that efforts to curb the usage of disposable plastics should be united under community level legislation. Laws are a key part of the campaign to reduce unnecessary plastic waste and increase sustainability.

I, and most of my fellow residents, wish to improve the environmental scene in this city, which requires taking action against products that contribute significantly to the waste and litter that negatively impact our community. Eliminating plastic straws, stirrers, and hotstoppers from the waste stream will be a significant positive environmental action. Plastic and other forms of litter can be carried by wind and water into oceans and water streams and can have lethal consequences for wildlife.

Plastics are eventually reduced to micro-particles that can be ingested by aquatic animals and enter the human food chain. (*Town/City*) actions support statewide legislation addressing these critical problems. I urge you to vote "YES" in this new ordinance, which is a logical next step.

Respectfully,

(Name of Sender) (Address)

(Contact info)



Sample Local Business Survey

Sample Letter 2

(Dear (Town/City) Business Owners,

With the (<u>Product Ban Bylaw/Ordinance</u>) set to have a public hearing on (<u>Date and Time</u>), we at (<u>Group Name(s)</u>), and (<u>Councilors/Leaders</u>) want to make sure your voice is heard. We have compiled a list of questions that we would like for you to answer. These bans have the potential to make (<u>Town/City</u>) cleaner, more sustainable, and environmentally conscious while allowing businesses to stay economically viable. These questions will provide us data to be able to make sure these ordinances are effective and benefitting all. Thank you for your time and we look forward to your response!

1. About (<u>#</u>) plastic shopping bags are given away in (<u>Town/City</u>) each year. About how
many does your store distribute? # each (day/week/month/quarter/year)
2. Retailers in ($\underline{Town/City}$) spend over $\$(\underline{\#})$ a year on plastic shopping bags. How much
do you spend on these items? \$ each (day/week/month/quarter/year)
3. Retailers all over the country have noticed that more and more customers bring
their own bags. Have you found that to be the case at your store? Y/N
4. ($\underline{\#}$) cities and towns in (<u>State</u>) have passed regulations to reduce plastic bags.
(<i>Town/City</i>) is considering one that [ADD CONCISE DETAILS OF ORDINANCE]. Are
you concerned that this would have an impact on your business?
5. What could be done to address your concerns?

Sincerely,

(<u>Name</u>) - (<u>Group</u>) - (<u>Email address</u>) (<u>Name</u>) - (<u>Group</u>) - (<u>Email address</u>) (<u>Name</u>) - (<u>Group</u>) - (<u>Email address</u>)



Sample Letter to Local Businesses: Plastic Bag and Polystyrene Ban

Dear (*Town/City*) Business Owner;

We, (<u>Group Name</u>), are a group of local volunteers (<u>insert mission statement</u>) working to keep (<u>Town/City</u>) clean, healthy, welcoming, and economically thriving! It is very important for us to work with all citizens of (<u>Town/City</u>) to accomplish this goal through education and collaboration. With this in mind, we would appreciate feedback from you on a new initiative that we are proposing!

We are proposing a ban in (<u>Town/City</u>) on all disposable plastic bags and disposable polystyrene (*Styrofoam*) containers, such as coffee cups and takeout food containers. We believe this initiative is important in maintaining the beauty of our city and the health of our oceans and land. Given the availability of biodegradable and reusable alternatives and the economic benefits of the proposed ban, we anticipate support from (Town/City)'s residents and businesses.

This proposed ban is similar to those already passed in dozens of cities and towns in (State) (and counting) including (*Example Town/City*). Cities and towns (and entire states such as Hawaii) along the coastline of our country have been particularly vigilant in implementing this ban. Just between 2015 and 2016, bills similar to ours were proposed in 23 states regarding the regulation of disposable plastic bags and/or polystyrene.

There are economic and feasible alternatives to these products that all businesses, large and small can stand behind and support!

Please review the attached information and visit us on Facebook at (Facebook Group Name) to learn more about the initiative. Contact us with any questions or concerns. We would love to set up a meeting with you to discuss any pertinent concerns as well as strategies for change that have proven successful in other cities. We want (Town/City) to be known as a leader in sustainable environmental practices.

Sincerely,

(Name) - (Group) - (Email address) (Name) - (Group) - (Email address)



Sample Email: Asking for Connections and Supporters

Hi (Name),

I'm (*Name*) from (*Group*). We have been working on an initiative that would ban several disposable plastics, if approved by the (*Town/City*), including (*Insert product*).

If passed, these ordinances would help make (*Town/City*) cleaner, more sustainable, and environmentally conscious. We plan to have this voted on (*Time/Date of Town Meeting or Equivalent*), depending on how it is received.

In preparation, we're reaching out to members of the community. If you are interested in supporting us, we have a couple of outreach projects with which we would appreciate your help.

We're interested in talking to some businesses and helping them switch to more sustainable foodware practices. If you know of any (*Town/City*) businesses that are already incorporating disposable plastic reduction practices, could you let us know or connect us with the owner if you have a personal connection?

Is there anyone else you know that could be interested in supporting this initiative? If so, how may we get in touch with them?

Shortly, we will be taking this campaign public and gathering signatures. Would you be willing to help publicize this initiative on social media once we get this up and running?

Thank you for connecting us with businesses and/or specific people!

PS: As of now, we are keeping this relatively quiet and would appreciate it if you would do the same!

Thank you,

(Name) - (Group) - (Email address) (Name) - (Group) - (Email address)



Sample Letter to the Editor

To the Editor:

(Town/City) is on the verge of becoming a leader in sustainability. Many towns and cities have already adopted disposable plastic bans, and now, thanks to an effort led by (Groups/Organizations/People), (Town/City) can become one of them. We, (Groups/People), urge (Town/City) to vote "YES" on (Article/Ordinance) to ban (Insert product). The (Meeting) will be held on (Date) at (Time) in the (ex. Rockport High School Gymnasium).

Disposable plastics have negative effects on our environment. Coastal communities have seen how plastic pollution can directly harm marine wildlife through entanglement, ingestion, and exposure to leached toxins. According to the National Oceanic and Atmospheric Administration (NOAA), over a million fish and birds die each year due to ingesting or becoming entangled in plastics. These effects can in turn damage the fishing and tourism industries. Since plastics do not biodegrade, they can travel up the food chain as microplastics and eventually be consumed by humans.

Recycling is not a viable option for many disposable plastics, such as bags and straws, since they can easily get caught in recycling machinery. In addition, these plastics are not cost-effective to recycle. The only reasonable option is to stop using these disposable plastics and move to reusable or compostable options. Affordable alternatives already exist, and some, such as reusable grocery bags, can easily be obtained by any consumer. It is (Town/City)'s turn to further demonstrate its commitment to fostering the sustainable well-being of its community! Please, vote "YES" on (Article/Ordinance)!

Sincerely,

(Name) (Group/Organization) (Email Address)



What Is Wrong with Disposable Plastics?

It has become the American standard to expect a plastic bag with every purchase, a plastic straw for every drink, and a plastic container with every meal. They are generally perceived as cheap, practical, and easily-disposable items for everyday use. However, environmentally conscious citizens, stores, and towns across the U.S. have begun to switch from these plastic items to more sustainable options. Whether that be reusable, compostable, or nothing at all, there are prime examples of how easy life can be without plastic in it. Why is this change important?

Plastic is harmful to wildlife: Plastic affects the marine environment whether it stems from a coastal community or not. Plastic can be easily transported into the ocean via waterways and wind. Once there, marine animals may face severe consequences via entanglement and ingestion [13]. Injuries from ingestion may include internal damage, choking, and diminution in growth and photosynthesis in essential producers of food chains (such as algae). Plastic pollution also has detrimental effects on the reproductive and developmental system of crustaceans [14].Birds are also prone to the negative effects of plastic debris and will often collect plastic pieces for their nests or accidentally ingest litter when confusing it for food.

Plastic is difficult to recycle: According to Geyer and other researchers, of the 8.3 billion tons (Bt) of plastic generated from 1950 to 2015, 5.7 Bt were waste, 4.9 Bt of which were dismissed into landfills or natural environments such as oceans and water streams [15]. Furthermore, according to the EPA, the recycling rate of plastic bags was only 10% in 2018 [16]. Even if this rate was to be increased the overall impacts would still be harmful; in many cities and towns waste is incinerated and the burning of plastic has shown to free noxious chemicals, known as cancer-causing carcinogens, into the atmosphere [17]. Additionally, most of the single-use plastics we dispose of (plastic bags, plastic straws, plastic water bottles) are so lightweight that they easily get lost while being transported to their designated recycling centers.

[13] Sigler M, The Effects of Plastic Pollution on Aquatic Wildlife: Current Situations and Future Solutions (October 2, 2014).https://projectdragonfly.miamioh.edu/wp-content/uploads/2019/06/Sigler_Michelle_Water-Air-Soil-Pollut_2014.pdf

[14] Stuart J. Barnes. (June, 2019). Understanding plastics pollution: The role of economic development and technological research https://doi.org/10.1016/j.envpol.2019.03.108

[15] Stuart J. Barnes. (June, 2019). Understanding plastics pollution: The role of economic development and technological research https://doi.org/10.1016/j.envpol.2019.03.108

[16] Frequent Questions regarding EPA's Facts and Figures about Materials, Waste and Recycling (2020, October 28). United States Environmental Protection Agency. https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/frequent-questions-regarding-epas-facts-and#Percentage

[17] United Nations Environment Programme. (May 02, 2019). Plastic bag bans can help reduce toxic fumes https://www.unenvironment.org/news-and-stories/story/plastic-bag-bans-can-help-reduce-toxic-fumes

[18] United Nations Environment Programme. (May 02, 2019). Plastic bag bans can help reduce toxic fumes https://www.unenvironment.org/news-and-stories/story/plastic-bag-bans-can-help-reduce-toxic-fumes



What Is Wrong with Disposable Plastics Continued

Microplastics are permanent pollution: Over a period of time, larger pieces of plastics may degrade (due to reasons such as light exposure, reaction to thermal changes, interaction with organisms, etc.) and become microplastics, particles smaller than 5 mm that are insoluble in water [18]. Due to their size, microplastics are incredibly difficult to locate with the naked eye and removal from bodies of water is extremely problematic. Microplastics can also be engulfed into the food web with ease. During production, plastics are infused with multiple chemicals to help sustain longevity and durability. Once broken down, plastics may begin to leach these chemicals, some of which are toxic when released from their original form. When consumed by marine animals, these chemicals bioaccumulate up the food chain until they eventually reach the human dinner plate. An increased concentration of microplastics within marine animals may lead to an increased concentration of toxins within the human consumer [19]. A variety of studies have shown the possible toxicity of phthalate plasticizers found in PVC (a class of plastics commonly used in plastic film, bottles, and cups) and the potentially harmful effects it may have on infant nutrition and reproductive health [20].

Plastic production contributes to atmospheric carbon concentration: In 2019, the production and combustion of plastics added more than 850 million metric tons of greenhouse gases to the atmosphere, undermining the capacity of the global community to meet carbon emissions targets and therefore aggravating the climate crisis [21]. An increase of greenhouse gases in the atmosphere can be derived from various steps in the plastic production process such as extraction and transportation, refining and manufacturing, waste management and disposal, and plastic in the environment. In regards to the latter, researchers have found that plastic residing on coastlines, rivers, and landscapes release greenhouse gases at a higher rate due to embrittlement and microcracking through weathering. The deterioration of these plastics releases microparticles into the environment, which carry a much larger surface area than those of virgin plastics. Due to the increase in surface area through the breakdown of these plastics, the smaller they become, and the more hydrocarbon gasses per unit mass they will emit over time [22].

[18] Verschoor, A. (2015). Towards a Definition of Microplastics. https://rivm.openrepository.com/bitstream/handle/10029/575986/2015-0116.pdf? sequence=3

[19] Smith, M., Love, D.C., Rochman, C.M. et al. (2018). Microplastics in Seafood and the Implications for Human Health. Curr Envir Health Rpt 5, 375–386. https://doi.org/10.1007/s40572-018-0206-z

[20] Andranday, A.L. (August 2011). Microplastics in the marine environment. https://doi.org/10.1016/j.marpolbul.2011.05.030

[21] Center for International Environmental Law. (n.d.). Plastic Proliferation Threatens the Climate on a Global Scale. https://www.ciel.org/wp-content/uploads/2019/05/Plastic-and-Climate-Executive-Summary-2019.pdf

[22] Royer S.J. et al. (August 1, 2018). Production of methane and ethylene from plastic in the environment. https://doi.org/10.1371/journal.pone.0200574



Plastic Bags

Disposable plastic bags have been one of the most successful products worldwide. Their popularity amongst consumers and retailers is due to the fact that plastic bags are functional, lightweight, cheap, and a hygienic way of transporting goods.3 Hence, plastic bag production is increasing on a daily basis. In fact, in accordance with Miller (2012), about 500 billion to one trillion plastic bags are consumed worldwide each year, 1.4-2.7 billion per day, and averaging more than one million per minute [23].

Understandably, this huge production of plastic bags does not come without any environmental costs. As a matter of fact, the collection and disposal of plastic bags has become a global challenge, as 96% of daily plastic bag waste goes directly into dumpsites or landfills, and a large quantity is disposed of illicitly [24]. The main problem with plastic bag disposal is that it takes hundreds of years to photodegrade and even still the plastic does not come to complete decomposition.

Plastic bag waste is hazardous for the environment and health: Plastic bags are produced with different types of polymers. In order to optimize their properties and to decrease production costs, these polymers are condensed with heavy metals and plasticizers. A plasticizer is known as a substance commonly added to materials such as plastic, in order to improve its flexibility, resilience, and handling. These plasticizers may be released into the environment when in contact with heat or light [25].

Plastic bags are being banned worldwide: Concerns about global climate change and plastic waste have spurred many environmentalists to implement legislative reform. As of 2019, bans on plastic bags have been enacted in 32 countries [26]. By November of 2020, eight states in the U.S. (including California, Connecticut, Delaware, Hawaii, Maine, New York, Oregon, and Vermont) have banned singleuse plastic bags [27]. The number of plastic initiatives increases when looking at the city level (examples being Boston, Seattle, Chicago) and even more when considering the many towns and small communities that have taken this step. Transitioning away from single-use plastic is possible and there are many examples worldwide of how it can be done. Alternatives: Paper bags, reusable cloth bags, reusable plastic bags (made of thicker and more durable material).

[23] Ohidul A. et al (May, 2018). Characteristics of plastic bags and their potential environmental hazards. https://doi.org/10.1016/j.resconrec.2018.01.037

[24] Ohidul A. et al (May, 2018). Characteristics of plastic bags and their potential environmental hazards. https://doi.org/10.1016/j.resconrec.2018.01.037

 $\label{eq:condition} \begin{tabular}{l} \{25] Board, G. F. (2020). Plasticiser. Retrieved from Green Facts: https://www.greenfacts.org/glossary/pqrs/plasticiser.htm and the properties of the$

[26] Waste 360 (June, 2019). Study: Where are Plastic Bags Banned Around the World? https://www.waste360.com/plastics/study-where-are-plastic-bags-banned-around-world

[27] National Conference of State Legislatures (November, 2020). State Plastic Bag Legislation. https://www.ncsl.org/research/environment-and-natural-resources/plastic-bag-legislation.aspx



Polystyrene

Polystyrene is an amorphous, clear, and non-polar thermoplastic that is easily processed and therefore transformed into a great number of semi-finished products like films, foams, and sheets. It is one of the most used commodity plastics, accounting for seven percent of the total thermoplastic market [28].

It can come in two forms: rigid and foam. The former is used to make food containers, plates, bowls, various utensils, and straws while the latter is used for insulated beverage cups and bowls, clamshell food containers, and trays. Polystyrene is one of the cheapest materials compared to most alternatives, but the environmental cost far outweighs the costs that the suppliers are paying to provision them [29].

Polystyrene contains styrene, a neurotoxin and possible carcinogenic substance: Polystyrene is an extensive form of packaging used for many products such as meat, dairy, and bakery supplies. Studies have shown a potential migration of styrene from polystyrene packaging into corresponding foods. Moreover, the storage conditions and characteristics (such as fat content and pH) of food can significantly influence styrene migration [30]. A styrene monomer is not considered a toxic substance, but its presence can decrease a food's sensorial properties and could lead to health problems such as carcinogenic, hematological, cytogenetic, and neurotoxic issues [31].

Polystyrene is hardly recycled: Due to its low value and bulky foam form, polystyrene is not always accepted in curbside recycling plans. Even if the recycling rate of this substance was increased, there would still be a high overall negative impact since the burning of polystyrene releases several cancercausing substances into the atmosphere [32].

Alternatives: Biodegradable paper or woodenware, compostable bioplastics, highly recyclable aluminum, and reusable items that are washable all constitute safe alternatives to polystyrene.

[28] Polystyrene (GPPS, HIPS, EPS, SBR, SBS, ABS). Polymer properties database. https://polymerdatabase.com/polymer%20classes/Polystyrene%20type.html

[29] Massachusetts Sierra Club. (n.d.) Regulating the Use of Polystyrene Food Service Items. https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u1997/polystyrene_fact_sheet_MA-SC-2015%281%29.pdf

[30] Pilevar Z. et al (September, 2019). Migration of styrene monomer from polystyrene packaging materials into foods: Characterization and safety evaluation. https://doi.org/10.1016/j.tifs.2019.07.020

[31] Pilevar Z. et al (September, 2019). Migration of styrene monomer from polystyrene packaging materials into foods: Characterization and safety evaluation. https://doi.org/10.1016/j.tifs.2019.07.020

[32] Only 0.2% of polystyrene food service packaging in California is recycled according to California Integrated Waste Management Board (December 2004), Use and Disposal of Polystyrene in California: A Report to the California Legislature, Table 4, Page 14



Balloons are usually made of two materials: latex and mylar. The former can take from six months to four years to degrade, while the latter material is not biodegradable [33]. It is also important to remember that the ribbons attached to balloons can be problematic, as they are easily lost to the environment.

Balloons made of latex take a long time to degrade: Latex is a biodegradable material, but it can take up to four years to entirely degrade, during which it may be exposed to and harm many organisms. Moreover, balloons made of latex are often mixed with other chemicals and dyes. While latex can fully biodegrade, these other chemicals transform into nanoscale polymers and volatile substances, therefore introducing hazardous compounds in the environment [34].

Mylar helium-filled balloons can cause electric shutdowns: Since mylar balloons are made of a metallic material, they are excellent conductors of electricity. Therefore, when they touch a power line, they can generate a surge of electricity provoking power lines to short-circuit. This can lead to fires and even injury

or death from electric shock. Hence, it is essential to keep festival balloons tied down and/or avoid buying them! [35].

Alternatives: Bubbles, reusable streamers, banners, kites, flowers, plants, etc.

Plastic Straws, Stirrers, and Hotstoppers

Straws, stirrers, and hotstoppers are manufactured to be expendable: While plastic bags may technically be designed for a couple of uses, plastic straws, stirrers, and hotstoppers are not. They are produced to be used once alongside a single drink, after which they are disposed of as well as the coffee, tea, or soda they came with.

They are mostly unnecessary: Straws are necessary for some people with disabilities. For the ablebodied population, drinking out of a straw is more a matter of convenience than necessity. If these items were not handed out with drinks or provided in a self-serve station by a cafe door, most able-bodied people would not think to take one. There are many reusable alternatives available to those who need them.

They may result in chemical consequences: Chemicals found in polypropylene (a plastic commonly used for plastic straws) may percolate into liquids and release compounds that affect protein function in humans.

Alternatives: Straws made out of metal, paper, hay, pasta, candy (such as Twizzlers), bioplastics, bamboo, etc.

[23] O' Shea R. O. et al. (February 15, 2018). Predictable pollution: An assessment of weather balloons and associated impacts on the marine environment – An example for the Great Barrier Reef, Australia. https://doi.org/10.1016/j.marpolbul.2013.12.047

[34] Lambert S. et al. (March, 2013). Effects of environmental conditions on latex degradation in aquatic systems. https://doi.org/10.1016/j.scitotenv.2012.12.067

[35] Yoon- Hendrics A. (December, 25 2019). Celebrate with those festive mylar balloons the wrong way and the lights go out – or worse. The Sacramento Bee. https://www.sacbee.com/news/local/article238710388.html

36] McDonald GR, et al. (November, 2008). Bioactive contaminants leach from disposable laboratory plasticware. https://pubmed.ncbi.nlm.nih.gov/18988846/



Plastic Water Bottles

Bottled water is more expensive to the consumer than tap water: In 1976, American consumption of bottled water averaged 1.6 gallons of bottled water per person in comparison to the 2016 average of 39.0 gallons of bottled water per person [37]. In this span of 30 years, bottled water has become a staple in the American grocery budget, yet at an increasingly steep price. On average, the price of bottled water can be 500 to 1000 times higher than that of tap water [38].

Water removal for bottling strains local resources: Most bottled water companies are allowed to pump hundreds of gallons of groundwater per minute from local reservoirs. This fast-paced and copious rate of extraction leads to water depletion in surrounding wetlands, rivers, and residential aquifers/wells [39].

Bottled water is not necessarily safer than tap water: Tap water is largely regulated by the EPA and is typically held to more rigorous standards than bottled water (which is regulated by the FDA). Furthermore, bottled water that is produced and sold within a single state (i.e. that is not part of interstate commerce) is exempt from federal regulation entirely [40]. In terms of the public perception that tapped water is prone to bacterial contamination, studies have shown that bottled water actually holds significantly higher bacterial counts than is found in the same volume of tap water [41]. Any issues that are found in tap water are much more likely to be sourced and solved (as regulated by EPA standards) than bottled water, for the FDA does not hold a similar reporting requirement [42]. Additionally, studies have shown that over time the chemicals used in the production of bottles (for example, the PET in plastic containers) may leach into the water itself. The concentration of such chemicals may vary depending on the temperature of storage, exposure to UV light, and the amount of time in which the water remains in the bottle [43].

Alternatives: Reusable water bottles, "boxed" water bottles (typically made from paper).

[37] Graydon R, et al. (April, 2019). Bottled water versus tap water.

https://www.researchgate.net/profile/Ryan_Graydon2/publication/333907899_Bottled_water_versus_tap_water_Risk_perceptions_and_drinking_water_choices_at_the_University_of_South_Florida/links/5f353cf7299bf13404beaeda/Bottled-water-versus-tap-water-Risk-perceptions-and-drinking-water-choices-at-the-University-of-South-Florida.pdf

[38] Hu Z. et al. (February, 2011). Bottled Water: United States Consumers and Their Perceptions of Water Ouality

 $https://www.google.com/url?q=https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3084479/pdf/ijerph-08-00565.pdf \&sa=D \&ust=1607612661638000 \&usg=A0vVaw24gs_G0BkU-OsRwEW5lajJ$

[39] Graydon R, et al. (April, 2019). Bottled water versus tap water.

 $https://www.researchgate.net/profile/Ryan_Graydon2/publication/333907899_Bottled_water_versus_tap_water_Risk_perceptions_and_drinking_water_choices_at_the_University_of_South_Florida/links/5f353cf7299bf13404beaeda/Bottled-water-versus-tap-water-Risk-perceptions-and-drinking-water-choices-at-the-University-of-South-Florida.pdf$

40] Saylor A. et al. (June, 2011). What's Wrong with the Tap? Examining Perceptions of Tap Water and Bottled Water at Purdue University. http://www.msubillings.edu/library/Reserves/Jenks/LS125/TapWaterArticle.pdf

[41]Graydon R, et al. (April, 2019). Bottled water versus tap water.

 $https://www.researchgate.net/profile/Ryan_Graydon2/publication/333907899_Bottled_water_versus_tap_water_Risk_perceptions_and_drinking_water_choices_at_the_University_of_South_Florida/links/5f353cf7299bf13404beaeda/Bottled-water-versus-tap-water-Risk-perceptions-and-drinking-water-choices-at-the-University-of-South-Florida.pdf$

[42] Saylor A. et al. (June, 2011). What's Wrong with the Tap? Examining Perceptions of Tap Water and Bottled Water at Purdue University. http://www.msubillings.edu/library/Reserves/Jenks/LS125/TapWaterArticle.pdf



Compostable Alternatives to Disposable Plastic Products

All products designed to be "plastic" alternatives must be certified as compostable by the BPI and meet ASTM standard D6400 or D6868. As of January 1st, 2020, BPI certified products are guaranteed free of PFAS, according to the Biodegradable Products Institute [44]

These certifications indicate the standards are met:



COMPOSTABLE IN INDUSTRIAL FACILITIES

Check locally, as these do not exist in many communities. **Not suitable for backyard composting.**CERT # SAMPLE

The BPI has an online database of certified products: products.bpiworld.org

BPI: Refers to the <u>Biodegradable Products Institute</u>. They "provide technically and scientifically credible certifications for materials that biodegrade in biologically active environments."

ASTM: Refers to the <u>American Society for Testing and Material</u>s.

<u>ASTM D6400</u>: Certifies materials as compostable in municipal and industrial aerobic composting facilities <u>ASTM D6868</u>: Certifies plastic materials that may have a plastic film or sheet attached as compostable in municipal and industrial aerobic composting facilities

PFAS: Man-made chemicals that were once commonly used in food packaging, cleaning products and paints [45].

Note: Products may or may not include this logo.

Note: Products only labeled "biodegradable" are not acceptable. Biodegradable means that the product has the ability to break down over time; however, there is no research pertaining to how long these products take to break down or what they do once they reach the ocean [46].

 $[44] \ Biodegradable\ Products\ Institute.\ (December\ 02, 2019).\ About\ BPI's\ Eligibility\ Requirements.\ https://www.bpiworld.org/BPI-Blog.html/8160161$

[45] United States Environmental Protection Agency (n.d.). Basic Information on PFAS. https://www.epa.gov/pfas/basic-information-pfas

[46] Swiftpak. (September 24, 2020). Green packaging: The difference between recyclable, compostable and biodegradable. https://www.swiftpak.co.uk/insights/difference-between-recyclable-compostable-and-biodegradable



Compostable Alternatives to Disposable Plastic Products Poster

Alternatives to Single-Use Plastic Products

BAGS

- -Paper
- -Compostable
- "plastic" alternative
- -Reusable cloth bags



FOODWARE

-Ceramic	-Recycled
-Glass	wood
-Paper	fibers
-Mushroom	-Metal
material	Wood
-Corn	-Grains
-Bamboo	based



STRAWS/STIRRERS

- -Paper straw
- -Bamboo
- -Compostable "plastic" alternatives
- -Wood
- -Hay



WATER BOTTLES

- -Reusable Bottle
- -Seaweed fiber
- -Plant fiber
- -Canned water in an
- aluminum can
- -Boxed water (74% paper)



Disclaimer: Seaside Sustainability does not receive funding from any company included in this guide, nor does it claim rights to these images.





Compostable Alternatives to Disposable Plastic Products Bags

Acceptable materials:

- Paper
- Compostable "plastic" alternative (see below)
- Reusable cloth bags







Straws and Stirrers

Acceptable materials:

- Paper
- Straw
- Bamboo
- Compostable "plastic"
- alternatives (examples below)
- Wood
- Hay







Sample Flyers

Sample Flyer 1

SKIP THE STRAW!

WHAT CAN YOU DO INSTEAD?

Since straws have multiple negative effects on coastal ecosystems, opting for biodegradable and reusable options is the way to go! Check out local stores for options!





Sample Flyers

Sample Flyer2





Sample Flyers

Sample Flyer 3

Ban Single Use Plastic Straws, Stirrers & Hotstopers

What Are Microplastics?

a type of plastic
debris that
is less than
5mm in
size
5mm >

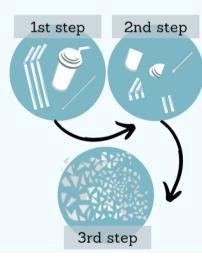
that's smaller than a sesame plastics known as "macroplastics" break down into smaller pieces

 These macroplastics commonly come from single-use products like stirrers, straws, and hotstopers that people throw away.

300
million tons of PLASTIC
are produced annually

Plastic waste and plastic garbage kill up to 1 million marine animals in the Pacific per year.

Macroplastics break down into smaller pieces as they do not degrade, becoming microplastics floating through the ocean, which can't be removed.



The United States generates 10.5 million tons of plastic every year, but recycles only 1-2% of it. This ban would prohibit the use and distribution of disposible plastic straws, stir sticks, and hotstoppers in food service establishments and require the use and distribution of compostable or reusable products or materials in their place.

Harmful Impacts of Plastics

For Humans:

Plastic polymers' health risks are mostly attributed to the presence of the wide range of plastic additives they may contain.

For Wildlife:

In marine and freshwater, microplastics disrupt reproduction, growth, appetite, cause damage to tissue and liver, and disturb feeding behaviors.

Alternatives

There are a variety of compostable straws and other plastic products that work efficiently, made out of materials like bamboo. Reusable straws are another great alternative to plastic ones, and you can find them at many local shops.



Sources:

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Case Study:

Getting Feedback for a Straw, Stirrer, and Hotstopper Ban in Gloucester, MA

The Ban

The city of Gloucester, MA proposed to ban disposable plastic straws, stirrers, and hot stoppers. Before bringing the proposal to the city council to be voted on, Seaside Sustainability did extensive research on compostable options and made notes on proposed amendments to their original ordinance, which included striking the clause that excluded the disabled and elderly community from the ban due to health issues. The council voted to strike the clause after receiving examples of compostable options that would accommodate the disabled and elderly, and the entire ban passed. Almost immediately, the town mayor was flooded with backlash and concerns, all of which were targeted at the council's decision to strike the disability clause.

The Problem

Many community members who were not at the town meeting were not aware of the reasoning for striking the clause that exempted the disabled and elderly. Therefore, they were not able to see the compostable alternatives that would accommodate these people. Because the town mayor was not presented with these examples as well, they could not respond effectively to the people who came to them with concerns, and the entire ban had to go back to a vote.

The Lesson

Seaside Sustainability was not in contact with the town mayor prior to going to the town council. It was also difficult to communicate with the public about compostable alternatives, and many community members did not know of the examples. Also, the language of the clause was confusing and could have been better edited. Going forward, Seaside Sustainability will make sure to communicate with all parties that will be involved, and work on getting compostable or other alternative items out and in the hands of the public, if possible.

Now It Is Your Turn

Adjusting to a sustainable future can be a controversial and daunting task. However, it is a necessary one. Here, you have found the steps, information, and hints to begin planning an outstanding plastic ban. Change starts with the individual and your dedication to sustainability will end in success.

