People are a vital part of the Chesapeake Bay ecosystem. Actions we take today can revive the Bay's health tomorrow and into the future.

Reduce Use of Disposable Plastic Grocery Bags

Americans go through hundreds of billions of disposable plastic bags each year. Plastic grocery bags are convenient, but they are also a major source of waste and pollution. Toxins produced in plastic bag manufacturing, transportation, and when degrading are harmful to soil, water, air, wildlife, marine life and human health. In our area, plastic bags represent a serious threat to our Chesapeake Bay ecosystem.



Figure 1: https://www.chesapeakebay.net/discover/field-quide/all/birds/waterfowl

What You Can Do to Help

When you need a bag, reduce your environmental impact by using other bags (including reusable cotton or paper bags). Re-use bags as many times and in as many ways as possible.⁴

Studies show that concerted communication efforts to get people to stop or minimize using plastic bags work: fewer bags get picked up during clean-up events. Just the simple act of reducing your plastic bag use can result in less microplastics (i.e., small pieces of plastic debris less than five millimeters in size resulting from the disposal and breakdown of consumer products and industrial waste) and toxic chemicals in the Chesapeake Bay ecosystem, including in fish like rockfish that many people consume.

Here are some of the positive environmental benefits of using reusable bags.

1. Helps reduce climate change.

Plastic bags are made from non-renewable resources and contribute to climate change. Using reusable bags reduces the demand for plastic bags and leads to fewer bags being manufactured, which helps combat climate change. The majority of plastic bags are made of polyethylene, a substance that is derived from crude oil refining and natural gas processing. Oil and natural gas are non-renewable fossil

¹ https://www.nationalgeographic.org/media/sustainable-shoppingwhich-bag-best/

² https://www.reusethisbag.com/articles/plastic-shopping-bags-environmental-impact

³ https://www.plasticpollutioncoalition.org/blog/2019/2/20/report-plastic-threatens-human-health-at-a-global-scale

⁴ https://blogs.ei.columbia.edu/2020/04/30/plastic-paper-cotton-bags/

fuel-based resources that emit greenhouse gases in the extraction and production process. This contributes to global climate change.

2. Avoids harming wildlife and marine life.

Each plastic bag is typically used for a total of 12 minutes before being disposed.⁵ However, the plastic bag can take 500 or more years to degrade when thrown away.⁶ While degrading, tiny pieces break off and end up in the soil, oceans, and stomachs of wildlife and marine life. Birds, turtles, and other marine life mistake plastic bags for food, which can lead to suffocation. In recent years, a dead whale that washed ashore was found to have 13 pounds of plastic waste in its stomach. The United Nations envisions that there will be more plastic than fish in the world's oceans by 2050 unless people stop using single-use plastic items such as plastic bags and plastic bottles.⁷

3. Avoids harm to human health.

You may not realize the plastic bag from the grocery store could actually end up in your food and water. Microplastics have been found in human feces; but this should not be a surprise since microplastics have been detected in marine water, wastewater, fresh water, food, air and drinking water, both bottled and tap water. Researchers estimate more than 50% of the world population might have microplastics in their fecal stools. We know that in animals, microplastics can cross the hardy membrane protecting the brain from many foreign bodies that get into the bloodstream. And there's preliminary evidence that mothers may be able to pass microplastics through the placenta to a developing fetus. Plastic products were never designed to end up in our oceans and soil. Because research into microplastics is so new, there is not yet enough data on how they are affecting human health.

4. Reduces landfill waste and saves your community money.

Plastic bags are not easy to recycle. They are considered a contaminant in most municipal waste contracts because they are not recyclable, and they jam industrial recycling machines. High rates of waste and recycling contamination like this leads to higher municipal waste costs. While molding plastic bags into new products is possible, the equipment is too costly for municipal budgets. Instead, plastic bags and other single-use plastics go into landfills. Because of bags' light weight, the wind often carries them away from trash piles or landfills, contributing to land and water pollution.

Websites for More Information

- National Geographic Which Bag is Best?
- EcoAction Arlington Bag Tax FAQ
- National Resources Defense Council (NRDC) Do Plastic Bag Bans Work?

⁵https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/plastic_bag_facts.ht ml

https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/plastic_bag_facts.html https://news.un.org/en/story/2017/04/556132-feature-uns-mission-keep-plastics-out-oceans-and-marine-life

Behavior Change Campaign Examples

It is common to find it challenging to adapt to using reusable bags. Common barriers to change include:8

- Convenience. Plastic grocery bags are used in most stores and are readily available.
- Cues. Forgetting the reusable bags at home.
- Values, beliefs and motivation. Believing this single action matters and has an impact on protecting the environment is motivating.

Around the country, communities have developed social marketing campaigns to help people change their behavior on plastic bags. Listed below are examples of some effective campaigns:

❖ New York State's Plastic Bag Ban – BYOBagNY Campaign

New York State banned plastics bags in January 2020 and launched an outreach campaign to help citizens transition to reusable bags.

Spearheaded by the New York State

Department of Environmental Conservation, the BYOBagNY campaign includes TV and radio advertisements, social media, Google Ads, and events hosted by Feeding New York State Food Banks. (Social Norm)



National Geographic's Planet or Plastic? – Pledge and Social Media Campaign

National Geographic's <u>Planet or Plastic?</u> campaign raises awareness of the impacts of single-use plastics and encourages commitments to reduce plastic use. Campaign tools available for community use include:

- <u>Planet or Plastic? Pledge</u>: The pledge encourages individuals to commit to reduce single-use plastic, then shows how many billions of items will be prevented from reaching the ocean as a result of these pledges.
 (Commitment)
- Social Media Campaign: an effort to spread the word on social media about the pledge and the problem with single-use plastics. (Social Diffusion)



https://www.indystar.com/story/news/2018/07/29/plastic-waste-pollution-people-cant-resits/818703002/

EcoAction Arlington – Plastic Free Challenge

In 2018, EcoAction Arlington hosted a <u>Plastic Free Challenge</u> to help Arlington residents commit to reducing their use of single-use plastics. (Commitment)



Example Messages

These messages about reducing the use of plastic grocery bags could be used in congregational outreach campaigns:

- 1. Use reusable shopping bags to protect the environment. Now, more than ever, people are bringing reusable bags from home. Reusable shopping bags are available in many colors and styles. You also can buy them in various weights for different types of products, such as heavy cans and other weighty/bulky items. (social norm; stewardship⁹)
- 2. Reuse plastic bags to help future generations. If you have any plastic bags at home, reuse them. Plastic bags can be difficult to recycle, so it is wise to reuse them for as long as you can. Instead of throwing them away, consider these uses: wrap and protect fragile items for a move or storage, wrap paint brushes and rollers in plastic bags for later use, or use them to cover and protect tender plants from overnight frost. Remember, plastic bags do not go in the recycling bin. Many supermarkets and other retailers accept plastic bags for recycling at no cost. If no stores near you accept plastic bags for recycling, throw these items in the trash. (stewardship)
- 3. Using reusable bags saves you money. Shop at stores that offer a credit for using reusable bags. Some cities in the U.S. have passed plastic bag ordinances and more are doing so every year. Some stores, such as Target, will offer a cash credit for bringing reusable bags. The next time you are checking out, ask if you can get a discount for using reusable shopping bags. (incentive)
- 4. Being accountable makes you proud. Count the plastic bags brought into your home in a week. When we actually count the number of bags we bring into our home each week, it can spur us to take action. Make a commitment to reduce the number of plastic bags you bring into your home. (responsibility; commitment)
- 5. **We're all on Team Chesapeake. Spread the word**. One of the most common challenges with this new habit is remembering to bring the reusable bags to the store so you have them when you need them. Acknowledge this is a challenge with others by sharing tips that help you remember to bring your own bags and encourage others to share their tips with their friends

⁹ Messages of stewardship, creation care, and legacy have been shown to resonate with congregational communities. Jonathan Haidt, Moral Foundations theory https://moralfoundations.org/, TED talk https://www.ted.com/talks/jonathan haidt the moral roots of liberals and conservatives, and https://righteousmind.com/wp-content/uploads/2013/08/ch07.RighteousMind.final .pdf

and family. Getting more people talking about this habit, and the challenge of remembering to do it, normalizes the use of reusable bags, which encourages more people to make the switch. ¹⁰ (social diffusion; cue)

The above messages could be used in various outreach strategies, such as the following:

- **Include relevant information and tips in bulletins and newsletters.** Make plastic bag waste reduction relevant by making connections to issues in the local community.
- Get youth involved. Many congregations have youth programs and integrating information
 about behaviors and actions they can take to reduce their use of plastics bags could be helpful.
 For example, encourage young people to pack their lunch with reusable containers. In addition,
 the book One Plastic Bag could be part of a congregational youth lesson plan.
- **Get congregational leadership on board.** A word of support from the congregation's leadership can be helpful in influencing the congregation.
- Incorporate prayer and spirituality into any project: "Caring for creation is part of our religious philosophy."¹¹

¹⁰ https://www.reusethisbag.com/articles/plastic-shopping-bags-environmental-impact

¹¹ https://www.ncronline.org/news/earthbeat/how-can-parishes-reduce-plastic-waste