



Climate Conversations

Reduce Plastic to Avoid Gigatons of Carbon Emissions & Improve Health

St Mark's Creation Care Ministry

December 2024



Agenda

- **Land Acknowledgement:** Saint Mark's Cathedral acknowledges that we gather on the traditional land of the first people of Seattle, the Duwamish People, who are still here, and we honor with gratitude the land itself and the life of all the Coast Salish tribes.
- Opening Prayer
- Plastic Impacts
- Reducing plastics
- Discussion
- Plastic alternatives
- Creative solutions and innovation
- Sharing and Q&A
- Closing Prayer

Opening Prayer

- God of life,
we praise you for the beauty of creation,
its richness and variety;
yet, through greed and ignorance,
we scar your world with plastic waste
and throw so much away.
Make us more like Jesus,
treading gently on our common home,
and breathe your Spirit on us,
that we may care more deeply for your
Earth.
We ask this through Jesus Christ our
Lord.
Amen.



Plastic is Almost Everywhere

- Computers and phones
- Packaging
- Food storage containers & water bottles
- Utensils
- Automobiles and planes – and bicycles
- Clothing
- Furniture
- Building materials
- And more...



Plastic has Benefits

- Medicines
 - Syringes, gloves, medication
- Food Safety
 - Shelf life
- Safety equipment
 - Helmets, goggles
- Transportation
 - Seats, tires, dashboards
- Energy
 - Solar panels, insulation



The Problems with Plastic

- Plastics generated 1.8 billion tons of GHG emissions, 3.4% of world total, in 2019
 - Emissions from the combustion of fossil fuels for process heat and electricity and from other non-combustion processes
 - Plastic damages the air, soil, rivers and the ocean
- Only about 7% is recycled
- 98% of single use is from petrochemicals
- Plastic production will grow 2X-3X by 2050, equivalent to 21 million school buses of plastic, 30 million tons per year.
- 50% will be discarded after a single use.



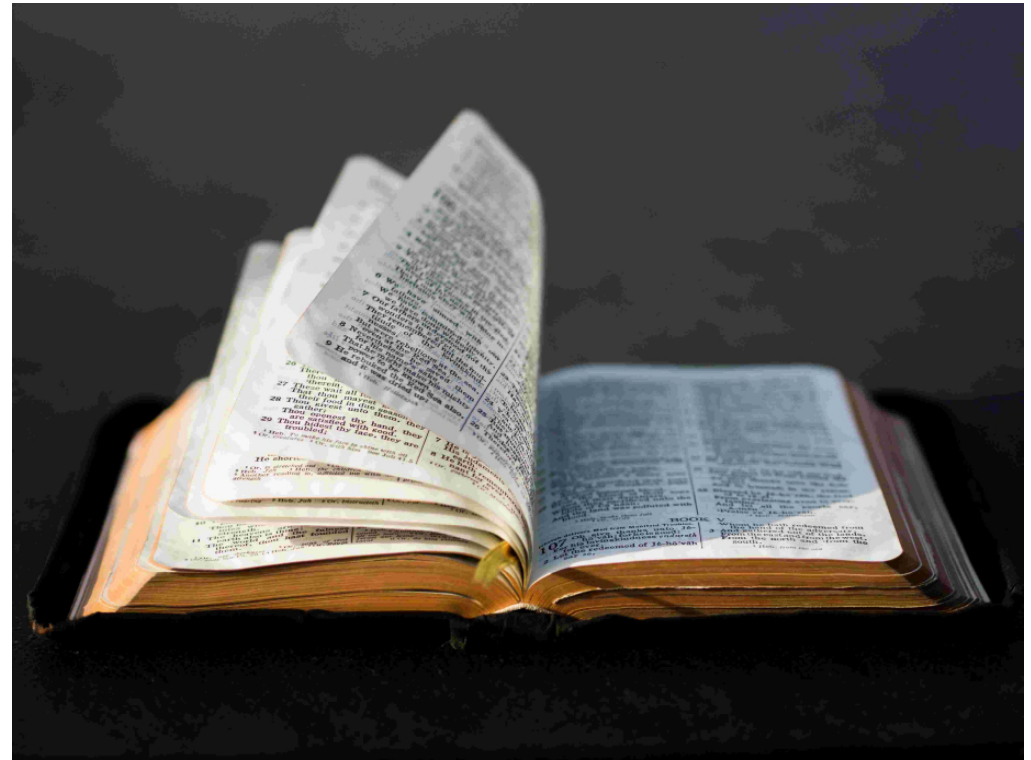
The Impacts on People

- Of the 16,000+ chemicals used to make plastic, more than 4,200 are persistent, mobile, toxic or bio-accumulative
 - Information is lacking for another 10,000
 - Many link to cancer & reproductive harm
- Chemicals from plastic enter our bodies via food wrappers, storage containers, cooking utensils and other routes
- Microplastics in the body do internal damage
- These chemicals, and microplastics, throughout the human body, raise alarm among scientists about health effects, including lower fertility, higher obesity, cancer and cardiovascular disease



A Theological Framework for Plastic

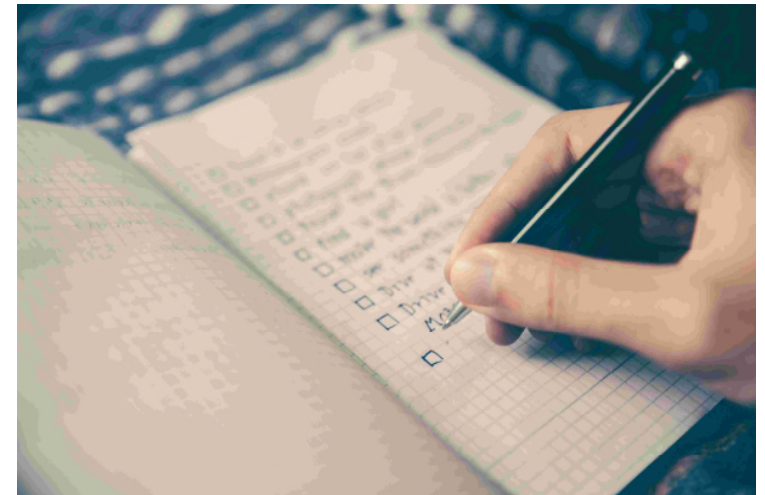
- Raw materials for plastics are part of God's 'very good' creation
- However, plastics today symbolize our desire for convenience, more, new
- Plastic demonstrates our response to ads, our dependence on tech and our carelessness with waste
- Plastics are at the heart of a consumer materialist culture



What to Do about Plastic

- Reduce use
- Find alternatives & replacements
- Influence others to use less plastic
- Consider advocacy or education for others
- Look for innovative new solutions

- Start with a plastic audit
 - Identify usage and alternatives



Reduce Household Plastic

- Replace single use plastic - grocery bags, plastic wrap, dry-cleaning bags and more – with alternatives such as reusable cotton bags and metal or glass containers
- Use plastic-free cleaning products such as biodegradable dishcloths, walnut scrubber sponges, and more
- Clean with water & vinegar, or clove oil
- Steel or glass appliances, ice trays, blenders, and more



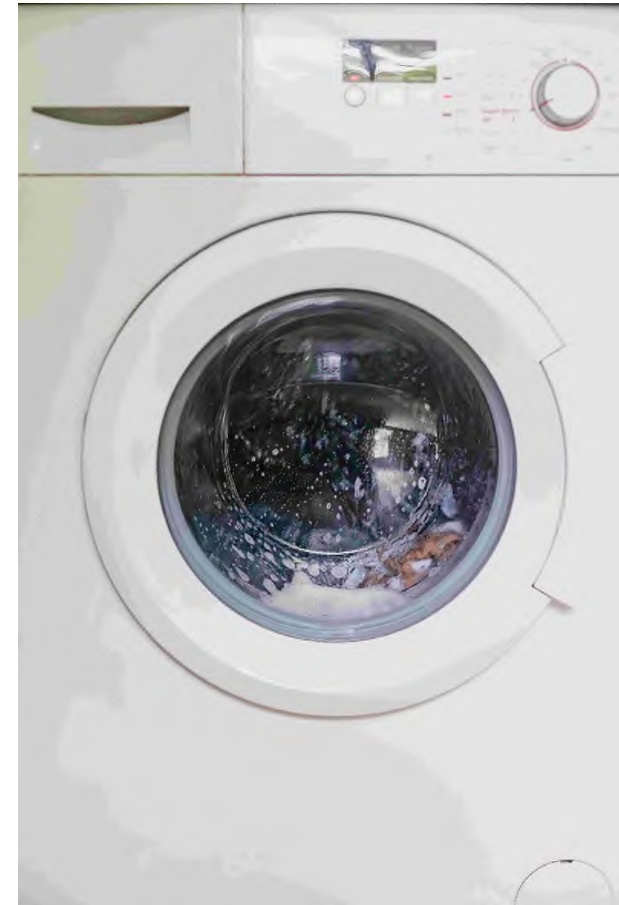
Reduce Plastic at Mealtimes

- Buy in bulk, using eco-friendly containers
- Take produce bags for shopping
- Eat lower on the food chain - more grains, fruits, vegetables - because toxic chemicals tend to accumulate in animals higher up the food chain
- Cook more, take out less
- Use cloth napkins, reusable dishes, glasses, silverware, coffee mugs
 - Avoid disposable cutlery, straws, coffee-cup lids
- Use glass containers for leftovers
- Carry a reusable water bottle
- Avoid snacks wrapped in plastic by making your own cookies, granola bars, crackers or chips & storing them in glass jars or cloth bags



Reconsider Plastic and Water Usage

- Put a filter on your water tap and refill bottles with filtered water
- Change laundry practices
 - Conventional detergent containers are made with plastic & dryer sheets from non-recyclable polyester
 - Washing synthetic clothes in washing machines releases 35% of microplastics
 - Use detergent powder or strips
 - Laundry filters



Discussion & Breakout Session

Questions:

- What concerns do you have about plastic in your life?
- Where do you use plastic the most?
- What steps have you taken or can you take to reduce plastic?



Home and Personal Care

- Replace facial scrubs, toothpaste, body washes, cosmetics with natural material & exfoliants such as oatmeal or salt
- Use bars of soap, not plastic dispensers
- Wooden combs and hairbrushes
- Handkerchiefs
- Plastic-free toothpaste containers and dental floss
 - Soap bars and shampoos, bamboo toothbrushes, metal safety razors, and toothpaste tablets or powder
- Natural fiber sheets, towels & blankets



Interactive bathroom infographic: <https://www.unep.org/interactive/whats-in-your-bathroom/>

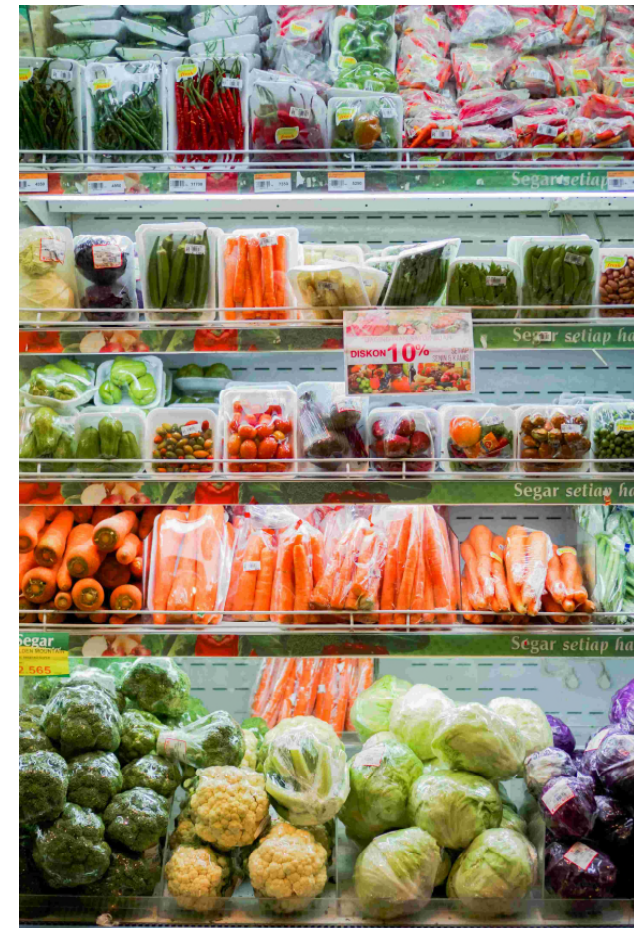
Purchases

- Avoid plastic toys and decorations
- Buy clothing made of wool, cotton or other natural fabrics
 - Not polyester
- Furniture with natural fiber and not plastic, or second-hand
- Curtains and rugs made from natural fibers



Reduce Microplastics

- Avoid single-use plastics, especially food and beverage packaging and to-go containers
 - Bottled water has more microplastics than tap water.
- Avoid highly-processed foods. Studies found microplastics in processed foods
- Swap plastic cutting boards for wooden or other non-plastic options.
- Replace plastic containers with glass or ceramics
- Heat tends to release more microplastics, so be wary of placing hot foods in plastic
- Loose leaf tea with a metal tea strainer
- Buy clothes with natural fibers, and then to reduce microplastic shedding from clothes, wash them less frequently, run full loads, line-dry your clothes.
- Vacuum and clean more often
- Use non-toxic cleaning materials like baking soda



Creative Solutions

- Repurposing: Transform old t-shirts into reusable shopping bags and use glass jars for storage
- Mindful consumption: Before buying, ask yourself if it's something you truly need and if there's a plastic-free alternative
- Avoid gum: It often contains plastic
- Pet Supplies: Plastic-free alternatives such as biodegradable dog waste bags, natural cat litter made from wood or paper and durable toys made from fabric



Innovative Alternatives to Plastic

- Biologically degradable alternatives to thin-film plastic
 - Seaweed-based wrappers
- Eco-friendly materials like bamboo, metals, or biodegradable polymers
- Cornstarch, sugarcane fiber, and other plant-based packaging
- Dell: [Mushroom-based padding](#)
- Patagonia: Soy- and algae-based inks
- Carlsberg: Glues six-packs together
- Tim Hortons: Replacing its plastic coffee lids and cutlery with wood and plant-based



100% Recycled Fiber Takeaway Bags
November 2019



Standard Cold Beverage Lids
July 2019

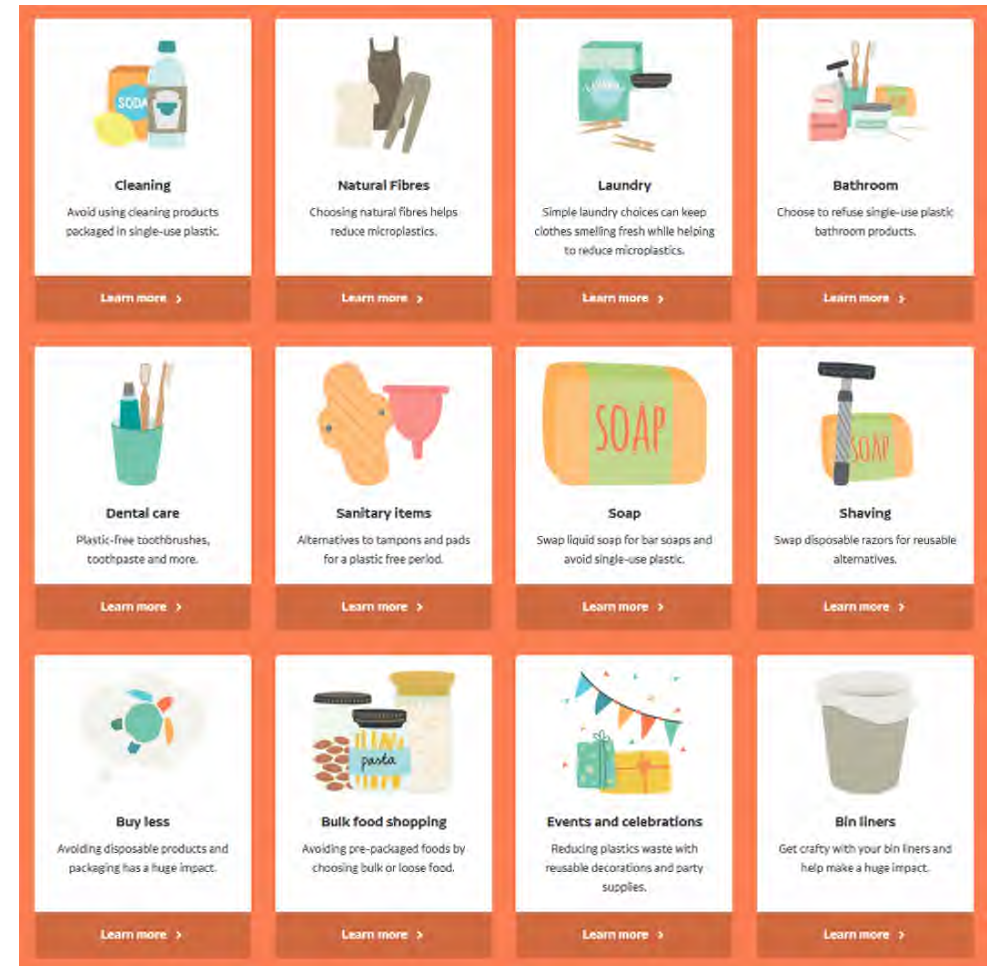


100% Recyclable Hot Beverage Lids
May 2019



A Plastic-Free Lifestyle

- Buy products that can replace as many of your plastic-containing ones as possible
- For products you can't find replacements for, stop using them, make your own or grow them
- Buy packaging-free items
- Use reusable shopping bags and other reusable items
- Buy in bulk
- Don't use disposable plastic products
- If you do buy plastic products, buy recycled plastic or second-hand
- Tell friends about your lifestyle



Source: https://www.onyalife.com/a/blog/post/guide-to-living-plastic-free-life?srsId=AfmBOorvB8_JhXIRQPSFQqEaCHwZyWWm8vVxzv7FHAUIWuKxHy7My60a
<https://www.plasticfreejuly.org/>

Sharing, Discussion and Q&A

Questions

- What might you buy or do differently to reduce plastic?
- How might you reduce microplastics in your life?
- What innovative solutions to reduce plastic have you seen?



Make a Difference

It does seem really hard to get consumers to do the right thing. It is stupid that we use two tons of steel, glass, and plastic, to haul our sorry selves to the shopping mall. It's stupid that we put water in plastic bottles in Fiji and ship it here.
- John Doerr

We don't need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly.
- Anne Marie Bonneau (chef)

Closing Prayer

May you guide us to care for this earth
and treat it with the love with which it was
created.

Allow us to preserve it for future generations.

To reduce our plastic consumption.

To reuse what we already have.

To recycle what no longer serves a purpose.

May we do this for a better world so that we
can fulfil our purpose as stewards of the
earth and the animals within it.

Amen

