

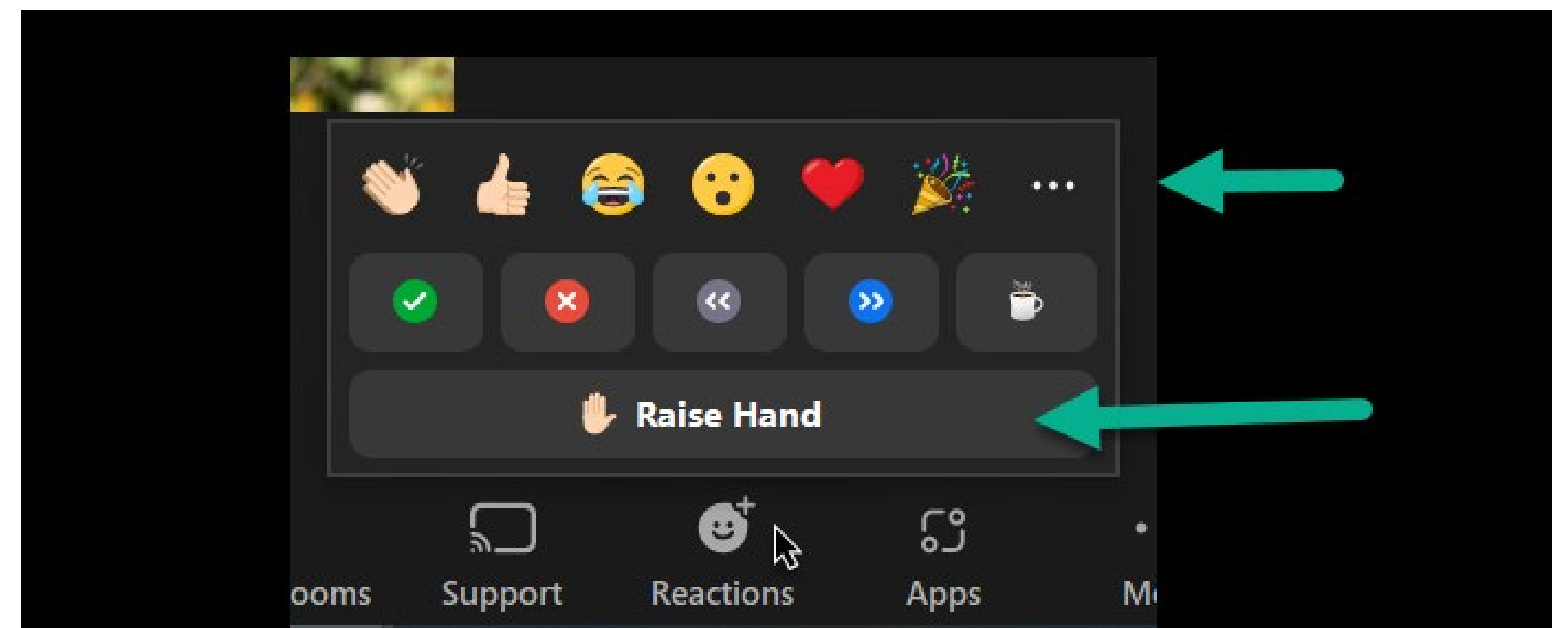


Recycling Development Center Advisory Board Meeting

April 13, 2022 | 9am – 12pm (Pacific time)

Participating in this meeting:

Board members and presenters may unmute themselves.

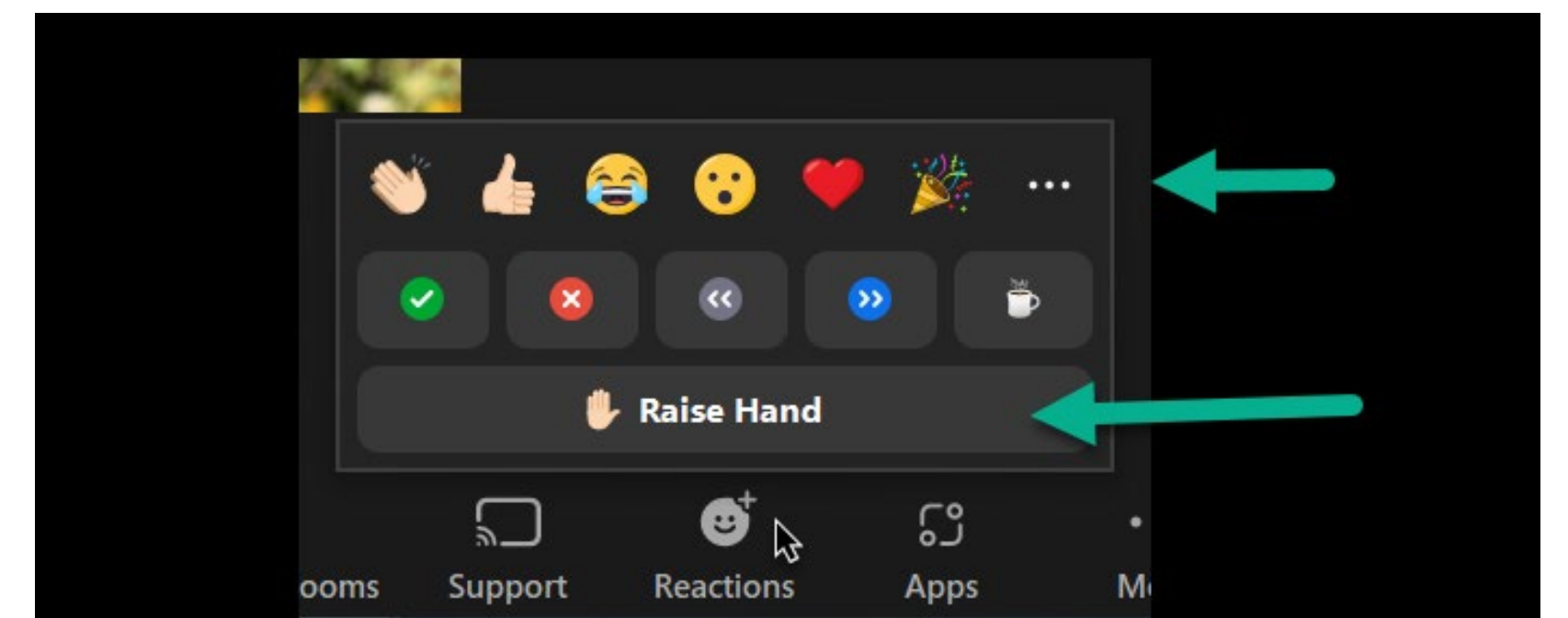
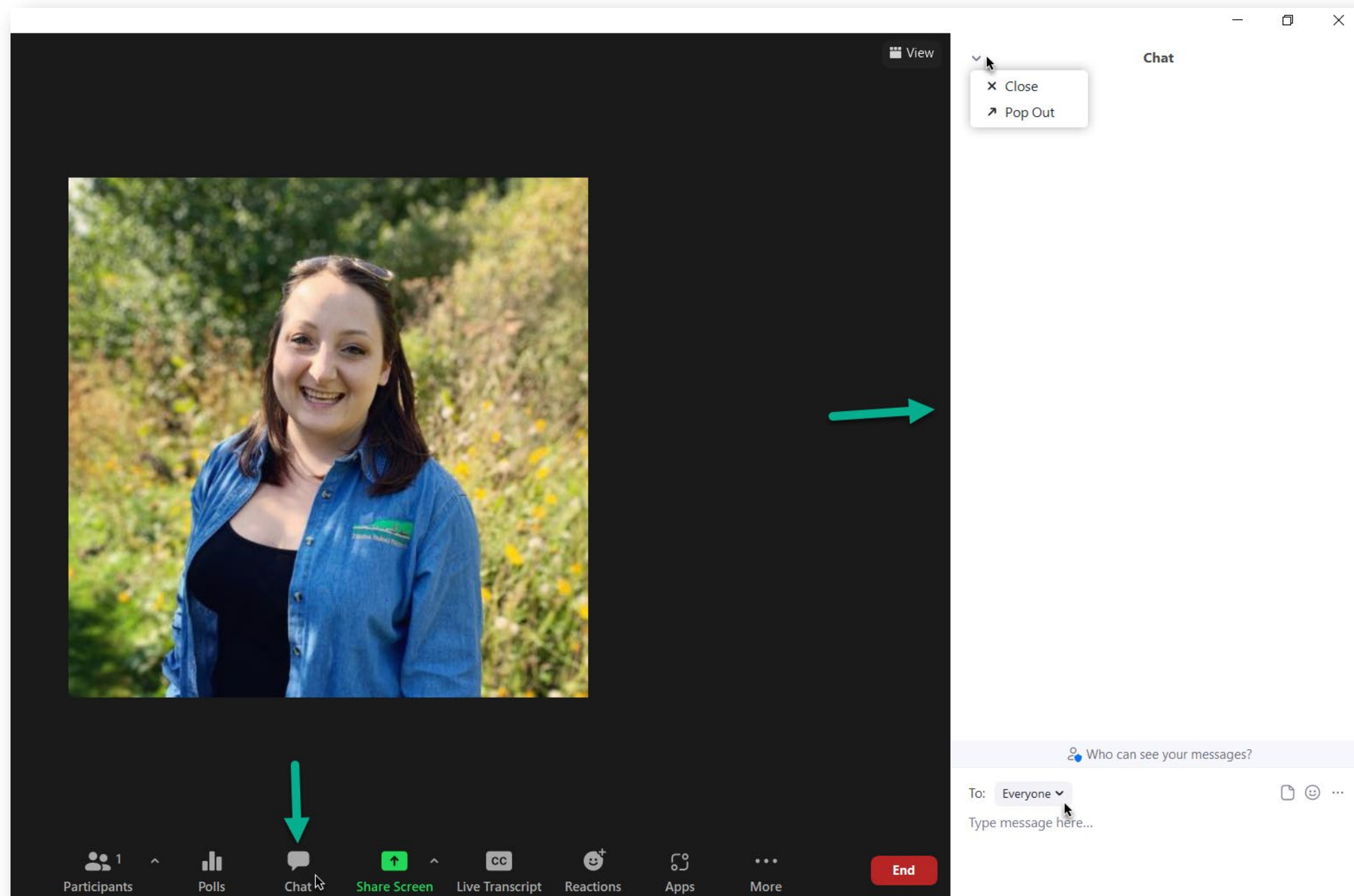


*Note: we are **not** recording this meeting, meeting notes will be posted on the Advisory Board website.*

Participating in this meeting:

Participants may use reactions throughout.

For questions, please raise your hand or type them in the chat box.



Agenda

9:10 am Board roundtable, agency updates

9:35 am Legislative Discussion

10:00 am Plastic report recommendations

10:30 am Textile presentations and discussion

11:55 am Wrap-up



Center updates

Board member roundtable

Ecology update

Commerce update

Attendee comments



Board roundtable:

Corinne Drennan



Scott Morgan



Karl Englund



Chris Piercy



Kyla Fisher



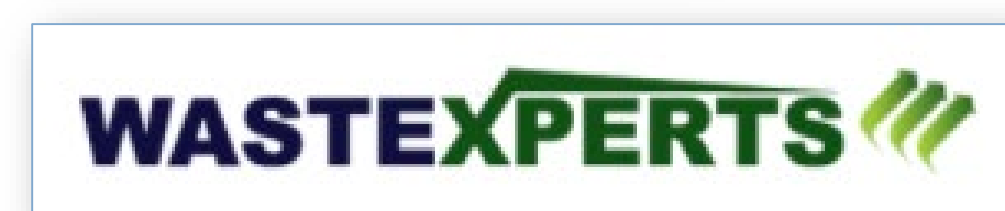
Mike Range



Nina Goodrich



Derek Ruckman



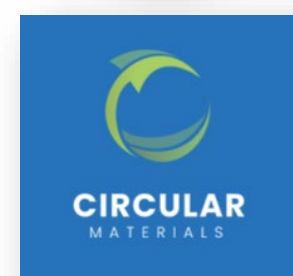
Ruby Irving



Tim Shestek



Allen Langdon



Jay Simmons



Kris Major



Heather Trim



Agency updates:

Rob Duff



Kara Steward



www.nextcyclewashington.com

PROGRAM LAUNCH: SPRING/SUMMER 2022

Supporting businesses, community-based organizations and individuals working to expand the circular economy in Washington State.

JOIN THE MAILING LIST



MENT OF
LOGY
Washington

Governance

The Governance Circle is comprised of industry, community, and academic individuals that provide oversight and guidance to the NextCycle Washington program.

Accepting applications until April 22, 2022.

APPLY



JOIN THE NEXTCYCLE WASHINGTON GOVERNANCE TEAM

NextCycle Washington is a new statewide circular economy accelerator program that has just launched. The competitive program supports businesses, community-based organizations, and individuals working to grow and expand the circular economy in Washington State. By nurturing projects that incorporate waste prevention, repair, reuse, recycling, and/or composting models, the NextCycle program helps develop equitable local economies while reducing waste, keeping materials in use longer and regenerating natural systems.

The NextCycle Governance Model brings together a diverse group of stakeholders comprised of subject matter experts and people with lived experience from industry, local governments, and communities to share power and ensure equitable program outcomes.

WHO ARE WE LOOKING FOR?

We are looking for experience community leaders, professionals, business leaders, and investors motivated to make a lasting impact in Washington's Circular Economy.

There are two ways to participate in NextCycle Washington:



Renew Seed Grants

A great starting point for funding new innovative businesses and projects

LEARN MORE



Circular Accelerator

Competitive challenges designed to support promising circular businesses and projects

LEARN MORE

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11:55 am Wrap-up

RCW 70A.240.040: duties of the advisory board:

- (a) Provide advice and guidance on the annual work plan of the center; and*
- (b) Evaluate, analyze, and make recommendations on state policies that may affect markets for recyclable materials to the Director (of the Dept. of Ecology) and the Department of Commerce.*

The Advisory Board Charter :

Establish subcommittees as needed to delve deeper into specific issues. To study specific problems or projects and make recommendations for action.

Review, advise, and comment on Center work plan, draft output, plans and reports, recommendations and implementation plans.

Evaluate, analyze, and make recommendations on state policies that may affect markets for recyclable materials.

Interpret the responsibilities assigned to the Center in the law.

Prepare the goals and metrics for Center work.

Provide information, resources, and recommendations to the Center.

DRAFT CHARTER ADDENDUM (*proposal for discussion*)

Whereas there will be times when proposed legislation or Agency rule-making impacts upon areas where the Advisory Board could provide useful professional perspectives and guidance, active Board members may request that a sub-committee be formed to prepare an Advisory Note to staff at the Departments of Ecology and/or Commerce. Any such notes should be reviewed by the full board and include the full range of Advisory Board perspectives (as point/counter-point, if necessary) before submission to the Recycling Development Center (RDC).

The Board is responsible for:

1. Agreeing to form the sub-committee; at least 3 members must be willing to participate.
2. Reviewing the sub-committee's draft report and ensuring that all other Advisory Board members have a chance to add/include their professional perspectives in the final note.

The Board is not required to vote upon or reach consensus agreement on the content of the Advisory Note.

Once all active members have either taken advantage of or waived the opportunity to add comments, Advisory Notes will be provided to RDC staff for inclusion in their reports, as appropriate, to the Legislature or internally to agency leadership.

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Plastic Report

- Review summary, research, policy
- Board comment and edits

Next Step: finalize the report

RECYCLING DEVELOPMENT CENTER – RECYCLABLE MATERIAL SERIES: PLASTIC



PLASTIC PACKAGING RECYCLING

This is the third report in the Recyclable Material Series prepared by the Recycling Development Center (Center) for its advisory board. The purpose of this report is to provide an overview of plastic packaging recycling markets in Washington State.

Plastic Overview

The many physical properties of plastics (e.g., low density, flexibility, transparency, chemical resistance, stability) allow their use extensively in manufacturing and consumer products.¹ The most common use for plastics is packaging, often used once and discarded.

China's 2018 National Sword policy substantially reduced imports of plastic packaging waste from other countries. As a result, many curbside programs limited or eliminated collection of plastic for recycling. This reduced plastic recycling activities in Washington State.

Consumer packaging includes common materials made of plastic such as bags, bottles, thermoforms, tubs, tubes, flexible pouches, and film. In a 2021 study, plastic waste comprised 13.1 percent by weight of Washington's municipal solid waste stream, of which packaging made up more than half (7.4 percent).² While use of plastic packaging has increased, it takes less material to make a package out of plastic than glass or metal, creating less waste.³

Summary of next steps

This report identifies a range of efforts that could increase knowledge, support markets, or boost plastic recycling. Not all of these efforts are within the scope of the Center.

Conduct research: Determine the amount of plastic packaging used in Washington, by sector: residential, commercial, institutional, and industrial. Refine list of plastic manufactures and processors in the state and region and what kind of plastic they use.

Support market development: Connect in-state and regional plastic processors and manufacturers to increase demand for and access to recyclable plastic.

Consider policy changes: Providing universal access to recycling would expand collection, require more infrastructure, and increase end markets. Creating a deposit return systems for beverage containers would provide a stable high quality material supply for end market users. Establishing an extended producer responsibility programs for packaging would require producers to fund collection services and educational materials, incentivize improved collection and recycling, lead to developing local end markets, and provide financial support to the system.

¹ <https://www.mckinsey.com/industries/chemicals/our-insights/accelerating-plastic-recovery-in-the-united-states>
² [2020-2021 Washington Statewide Waste Characterization Study](#)
³ <https://doi.org/10.1016/j.wasman.2018.05.003>

April 2022
Final Draft
Page 1



PLASTIC PACKAGING RECYCLING



The following research is recommended:

- Determine the amount of plastic packaging used in Washington, by sector: residential, commercial, institutional, and industrial.
- Publish recent data for materials handled in Washington.
- Clarify, expand, and more effectively collect data requested from regulated recycling facilities on the final destinations of materials sent for reprocessing, including materials handled by brokers.

Survey companies in Washington that manufacture plastic products:

- Identify where they obtain their feedstocks, and if they use recycled content in their products.
- Connect in-state and regional plastic processors and manufacturers to increase demand for and access to recyclable plastic.



PLASTIC PACKAGING RECYCLING



- Identify products or packaging where added recycled content would be beneficial.
- Take actions to provide cleaner plastic feedstock for manufacturing new products:
 - Provide additional education to improve collection and decrease contamination.
 - Add sorting technology for rigid plastic packaging at material recovery facilities (MRFs).
 - Determine if a secondary MRF or plastic recycling facility (PRF) would economically capture additional recyclable packaging.
- Invest in new processing technologies for plastic waste.



PLASTIC PACKAGING RECYCLING



Regulatory actions:

- **Mandatory minimum recycled content** laws that require increased use of recycled content, establish long-term demand, stabilize the market, and ensure end markets for recovered materials.
- **Deposit return systems** for bottles that provide incentives for consumers to return bottles, create a clean and high quality supply of materials, and provide a stable source for end markets.
- **Extended producer responsibility** programs for packaging that require producers to fund collection services and educational materials, incentivize improved collection and recycling, can lead to developing local end markets, and provide financial support to the system.
- **Government procurement policies** that harness the public sector buying power, can commit to the purchase of recycled content products, and support recycling end markets.
- **Universal access to recycling** that expands collection, requires more infrastructure and end markets, and requires funding.
- **Streamlining regulatory requirements** that could attract new plastic recycling businesses in the state.

10 minute BREAK



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Textile presentations

Jeff Bradbury – Five12 Apparel

Tony Shumpert – SMART

Zahlen Titcomb – Regenerated
Textiles





Textile presentation

Jeff Bradbury – Five12 Apparel

www.five12apparel.com



Jeff Bradbury – Five12 Apparel



WHO IS FIVE12

Being born and raised in the amazing Pacific Northwest, we have always had the pleasure of living with clean air surrounded by the beauty of trees, rivers, mountains, and the Pacific Ocean. Creating Five12 wasn't about creating just another activewear collection. We are focused on building the best gear from post consumer recycled materials, designs that are current but last for several years, and bringing awareness to the ever growing problem in our environment.

Our mission is to create a culture and community who not only loves the outdoors but are invested in preserving it.

Jeff Bradbury – Five12 Apparel

Recycled Fishing "Ghost" Nets

More than 640,000 tons of abandoned fishing nets are currently in our oceans. These massive knots of woven fiber can remain adrift for substantial amounts of time and are often responsible for the accidental capture of many types of marine life including whales, fish, birds and turtles. Until recently, nothing been done to clean up this growing problem. In the last 5 years, Econyl, an Italian based mill offered incentives to fisherman to rescue abandon nets resulting in a regeneration process that creates a recycled nylon yarn. The technical properties of the fabric include UPF 50+ UV protection, high stretch, shape retention, muscle control, pilling resistant.

[Five12 Apparel](#)



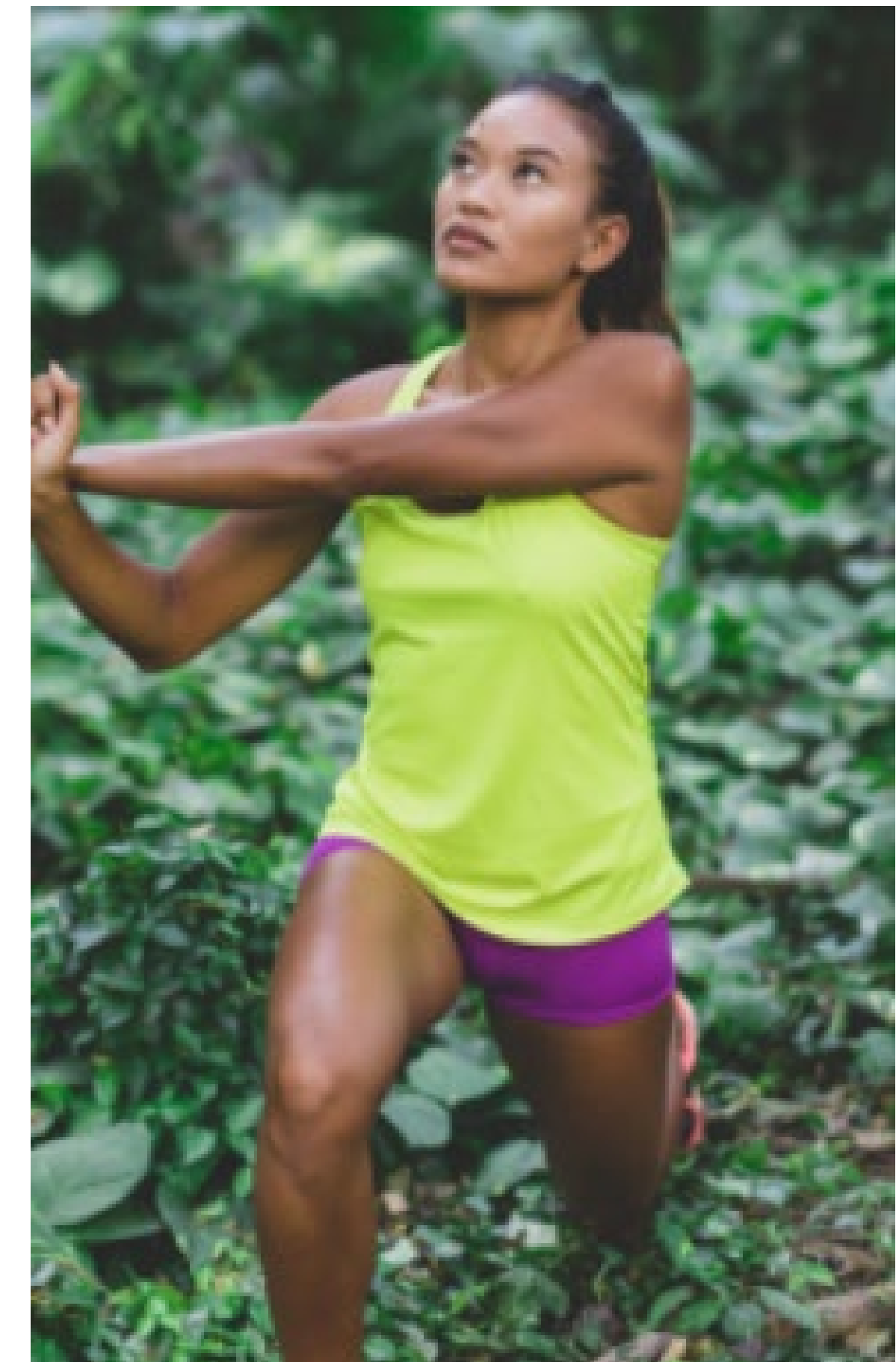
Jeff Bradbury – Five12 Apparel

Recycled Bottles

Whether in landfills, rivers, or oceans, the single use water bottle has become one of the highest polluted object on the planet. Every bottle created that hasn't been recycled is still on the planet in some form. Working with some of the best textile mills, we have created several different fabrics using water bottles in a variety of blends and combinations.

Recycled Coffee Grounds

By utilizing a patented process, we utilize used coffee grounds to our recycled polyester and nylon creating technical fabrics that are UV protected, odor resistant, and moisture wicking.



[Five12 Apparel](#)

Jeff Bradbury – Five12 Apparel

Recycled Windshields

Hundreds of millions of windshields are replaced each year equating to several billion pounds of glass and plastic in landfills. Partnering with a recycling and textile mill, we utilize the film in between the glass (polyvinyl butyral). The Film is cleaned and melted and repurposed into making our pack fabric waterproof.



Jeff Bradbury – Five12 Apparel

PFC Free DWR & Aquapel

PFCs (per- and poly-fluorinated chemicals) are all completely man-made chemicals which do not occur naturally. They are commonly used in DWR (durable water repellent) coatings and waterproof membranes. These fluorochemicals have been used for some time to give clothing water and stain resistant properties. They can affect both the wearer of the garment and the environment when it washes or rubs off jackets. It has accumulated in measurable levels in snow, ice and water around the world. For some PFCs there is evidence that they cause harm to reproduction, promote the growth of tumors and affect the hormone system.

Jeff Bradbury – Five12 Apparel

Recycled, Biodegradable, and Compostable Packaging

Packaging has become one of the worst contributors to non stop of garbage accumulation in landfills and in the oceans. Whether the plastic is recyclable or not, only 10% actually recycled. We at Five12, have and will continue to use Biodegradable packaging. All our mailers are compostable and starting in 2022, we will have water soluble degradable bags for each garment that completely degrades in water over 70.



Jeff Bradbury – Five12 Apparel

Recycled "Sea Breeze" Cooling yarns featuring BRRR technology

We love the outdoors! Whether on the beach or in the mountains, body temperature regulation is critical to performance and comfort. BRR fabrics has created cooling textiles by infusing hollow yarns with cooling minerals. These yarns have been proven to wick moisture, rapidly dry faster, and instantly and permanently keep you cooler.





Textile presentation

Tony Shumpert – SMART

www.smartasn.com



Textile Reuse and Recycling

A SMART Perspective



The Association of Wiping Materials, Used Clothing and Fiber Industries

SMART MEMBERS

SMART IS A US BASED TRADE ASSOCIATION – MEMBERS ARE
FOR PROFIT TEXTILE REUSE AND RECYCLING COMPANIES

- Used clothing collectors, graders, sorters and brokers – focus on reuse of secondhand clothing and textiles
- Wiping rag companies – focus on reuse of textiles not suitable for secondhand market; pre consumer and post consumer materials used for wiping rags for industrial, consumer, hospital and commercial
- Fiber conversion companies – focus on recycling of materials not suitable for secondhand or wiping rag use; primarily mechanical recycling



The Association of Wiping Materials, Used Clothing and Fiber Industries

WHERE ARE THEY

SMART Members are from:

- North America – 77%
- India, Pakistan, UAE – 19%
- Central and South America/Europe – 4%



The Association of Wiping Materials, Used Clothing and Fiber Industries

the secret double life of donated textiles

NEARLY **100%** OF DONATED TEXTILES ARE RECYCLED! They are separated into three grades:



SMART Since 1932
SECONDARY MATERIALS®
AND RECYCLED TEXTILES
The Association of Wiping Materials, Used Clothing and Fiber Industries



45% sold as secondhand or used - reuse

30% wiping rags

20% ground into fibers to make other products

5% unusable

SMART Since 1932
SECONDARY MATERIALS®
AND RECYCLED TEXTILES

The Association of Wiping Materials, Used Clothing and Fiber Industries



According to data from the EPA for 2018, 81 lbs. of clothing per person is thrown away in US each year

Only 15% of clothing and textiles are reused and recycled – 2.5 million tons in 2018
85% of used clothing and textiles ends up in landfills

5-6% of landfill waste is clothing and textiles= 17 million tons

donate recycle don't throw away™

A PROGRAM OF SMART THE SECONDARY MATERIALS AND RECYCLED TEXTILES ASSOCIATION



Since 1932
SMART SECONDARY MATERIALS® AND RECYCLED TEXTILES

The Association of Wiping Materials, Used Clothing and Fiber Industries

WHAT HAPPENS TO USED CLOTHING AND TEXTILES IN US

SMART Members Primarily Collect Textiles in North America

- Some sorting and grading done in the US and Canada; some secondhand sold in thrift outlets in US and Canada; wiping rags sold in North America
- Some members collect materials but do not sort or grade them in North America because of labor costs; these materials are then sold to companies in India, Pakistan and UAE or Central America where they are sorted for graded for specific use (secondhand, wiping materials, fiber) and then exported to buyers around the world.
- Members export used clothing and textiles to Africa, Asia and Central America
- Freight costs for shipping overseas have skyrocketed and limited availability of containers
- Some countries have banned or severely limited exports from US



The Association of Wiping Materials, Used Clothing and Fiber Industries

WHAT HAPPENS TO USED CLOTHING AND TEXTILES IN US

Misconception that secondhand clothing exported to developing countries partially ends up being discarded right away.

The fact is clothing not sold directly in the market simply gets passed down the supply chain and ends up selling in other smaller markets throughout the region.

No profitable business will spend money on packing, shipping, and distributing a product only to have it end up in a landfill.

Secondhand clothing exported to countries is sorted and graded for customer needs or preferences. Suppliers do not ship waste; it is not cost-effective. Customers demand quality clothing for resale, not waste; the semantics of 'waste' really means what they couldn't sell. The reality is if clothing doesn't sell, it is often shipped to other worldwide markets for resale or recycling – not thrown away.



**SECONDARY MATERIALS®
AND RECYCLED TEXTILES**

The Association of Wiping Materials, Used Clothing and Fiber Industries

CHALLENGES FOR COLLECTIONS

Lagging multi-industry acceptance that Reuse is the highest and best use for the environment

Materials must be clean and dry and have no odor or hazardous chemicals – can't be combined with other recyclables

Secondhand clothing and wiping rag industry has been around for generations, challenge is getting people to not throw materials away and understand reuse and recycling capabilities

Freight costs and container availability



The Association of Wiping Materials, Used Clothing and Fiber Industries

CHALLENGES FOR COLLECTIONS

Companies that are interested in new technologies (chemical recycling) often have little knowledge of the reuse industry

Retailers that are destroying wearable clothing that could be reused or refurbished for resale continues despite this not making sense from a business or environmental perspective

Fast fashion is a concern because the quality of clothing is inferior and is not good clothing to sell for reuse or make into wiping rags



The Association of Wiping Materials, Used Clothing and Fiber Industries

why recycle textiles?

CLOTHING AND TEXTILE RECYCLING HAS MAJOR IMPACT ON REDUCING GREENHOUSE GASSES



2 million tons of textiles are recycled each year in the U.S.

That is equivalent to removing **1 MILLION CARS** from America's highways

HOW DOES THIS COMPARE TO OTHER RECYCLABLES?

RECYCLED YARD TRIMMINGS	GLASS RECYCLING	PLASTIC RECYCLING	ALUMINUM RECYCLING
170,000 CARS REMOVED	210,000 CARS REMOVED	640,000 CARS REMOVED	1.3 million CARS REMOVED

GO FIGURE DONATE, RECYCLE, DON'T THROW AWAY!
 According to the EPA, textile recycling has a major impact on reducing greenhouse gasses. And yet ... clothing is not typically considered a recyclable. While 2 million tons are recycled each year, there is a long, long way to go!

SMART Since 1932 SECONDARY MATERIALS AND RECYCLED TEXTILES
 The Association of Wiping Materials, Used Clothing and Fiber Industries



donate recycle don't throw away™
 A PROGRAM OF SMART THE SECONDARY MATERIALS AND RECYCLED TEXTILES ASSOCIATION

Reuse and recycling of textiles has great environmental benefits

Major impact on reducing greenhouse gases – equivalent to removing 1 million cars from US highways

SMART Since 1932 SECONDARY MATERIALS® AND RECYCLED TEXTILES
 The Association of Wiping Materials, Used Clothing and Fiber Industries

THANK YOU

WEBSITE www.smartasn.org

Tony Shumpert, Savers, SMART Immediate Past President

tshumpert@savers.com

425-462-1515

QUESTIONS?





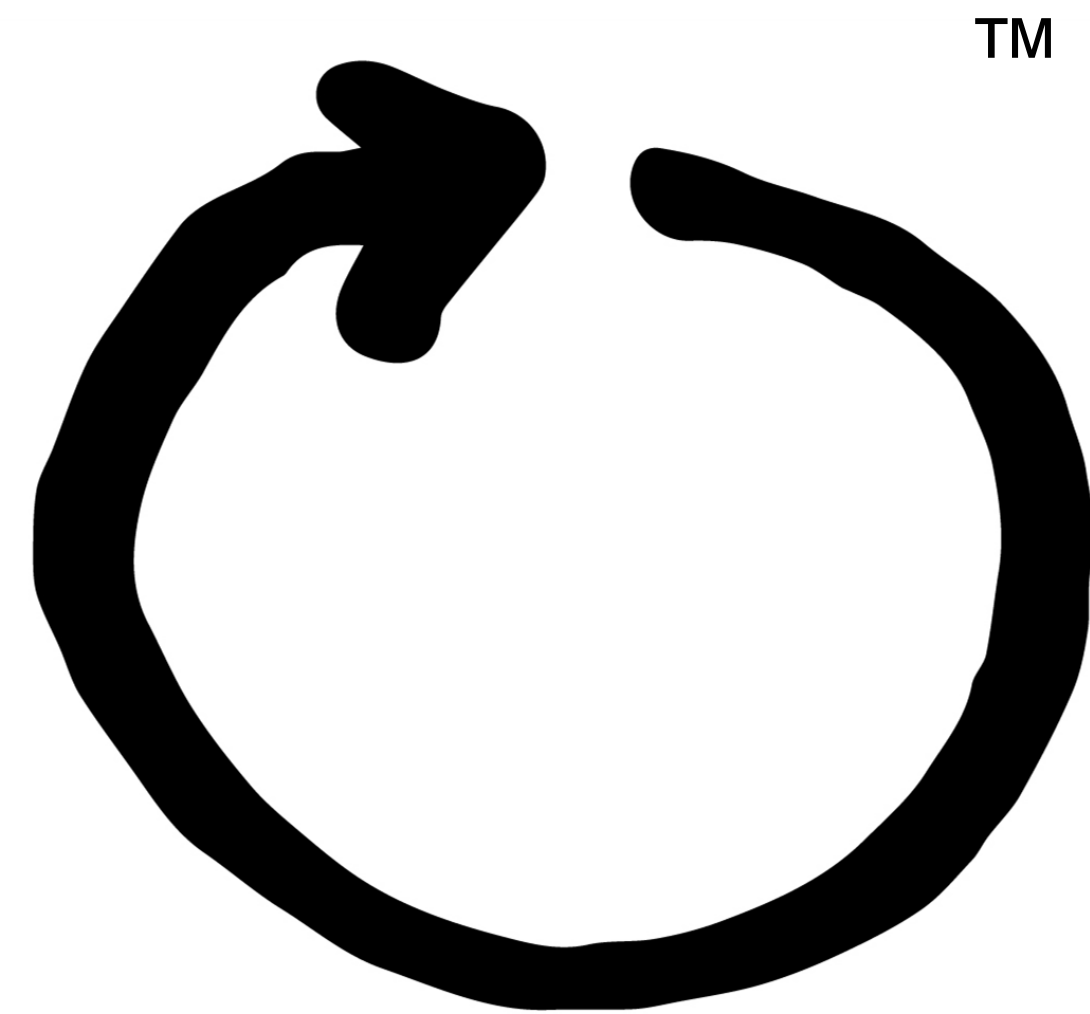
Textile presentation

Zahlen Titcomb – Regenerated
Textiles

www.regenerated-textiles.com



Regenerated Textiles

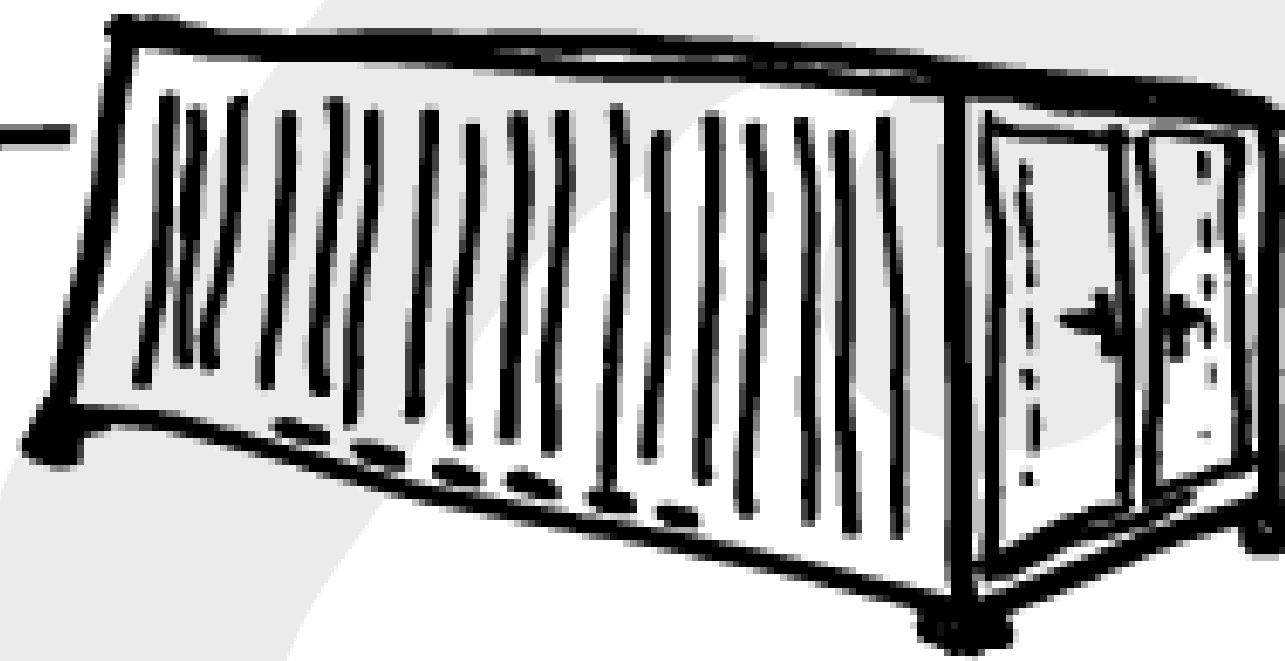
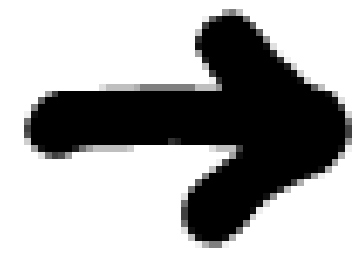


Diverting clothing waste from landfills
A total #MaterialRevolution™

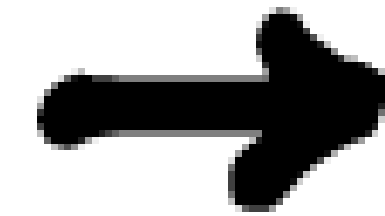
Zahlen Titcomb
zahlen@regenerated-textiles.com



Mixed textile waste



Recycling micro-factory



Brand new clothing

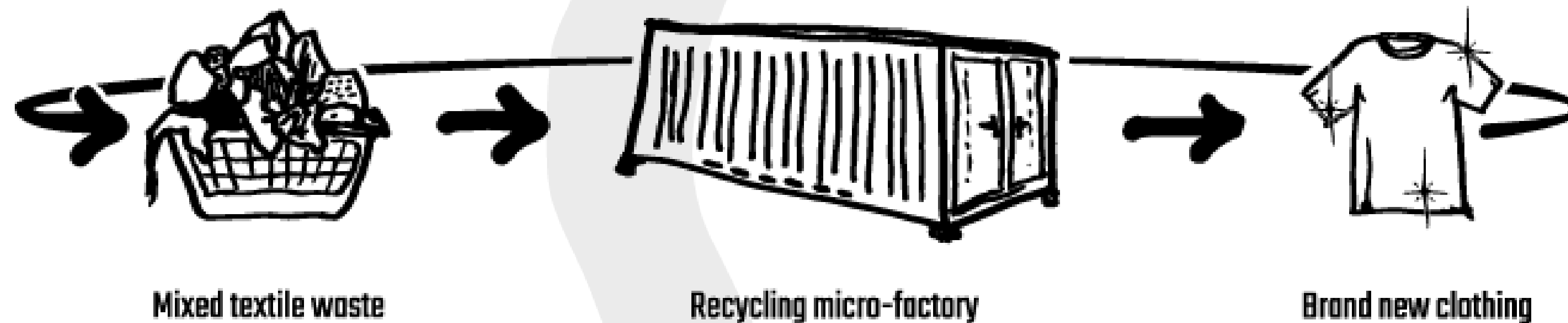


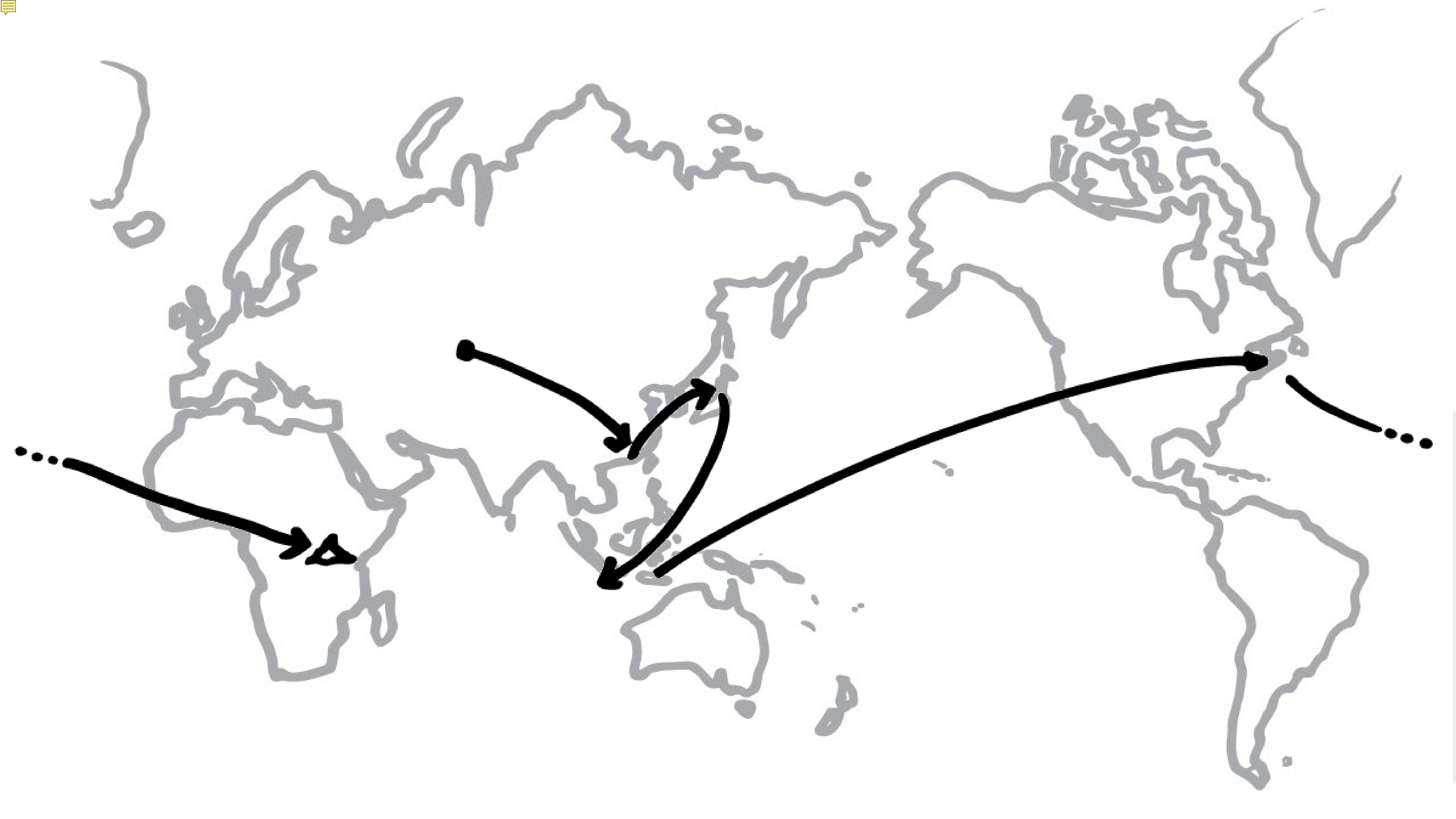
Diverting clothing from landfills.

A total #MaterialRevolution™

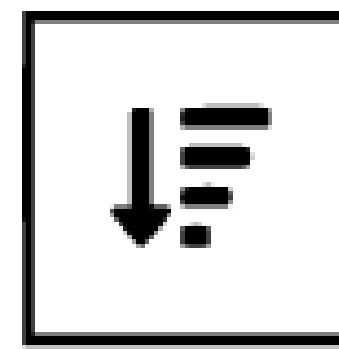
Local, sustainable supply chains, and landfill diversion

- Local raw materials markets promote healthy local economies
- Sustainably converting trash into valuable materials
- Climate savings are massive compared to existing supply chains

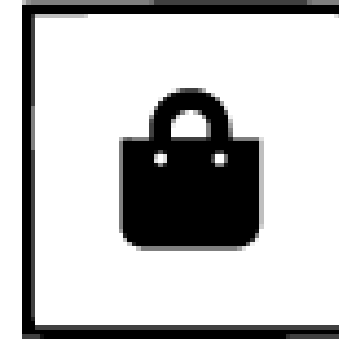




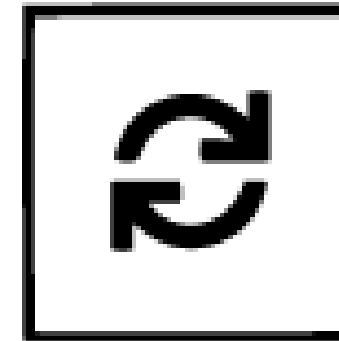
THE 7th R
OF
CONSCIOUS
CLOTHING
CONSUMPTION



REDUCE



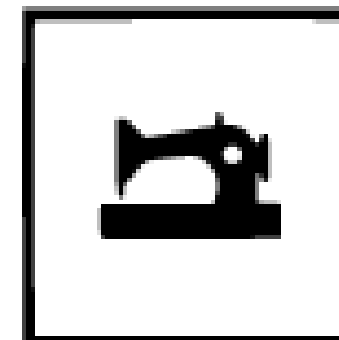
RENT



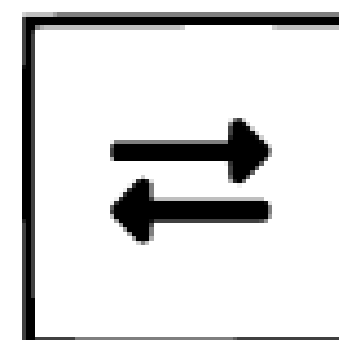
REUSE



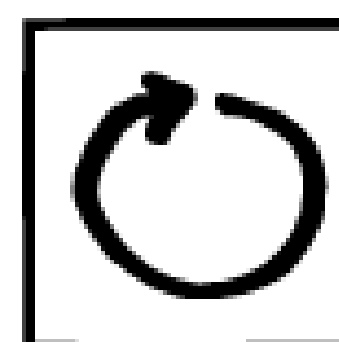
RESALE



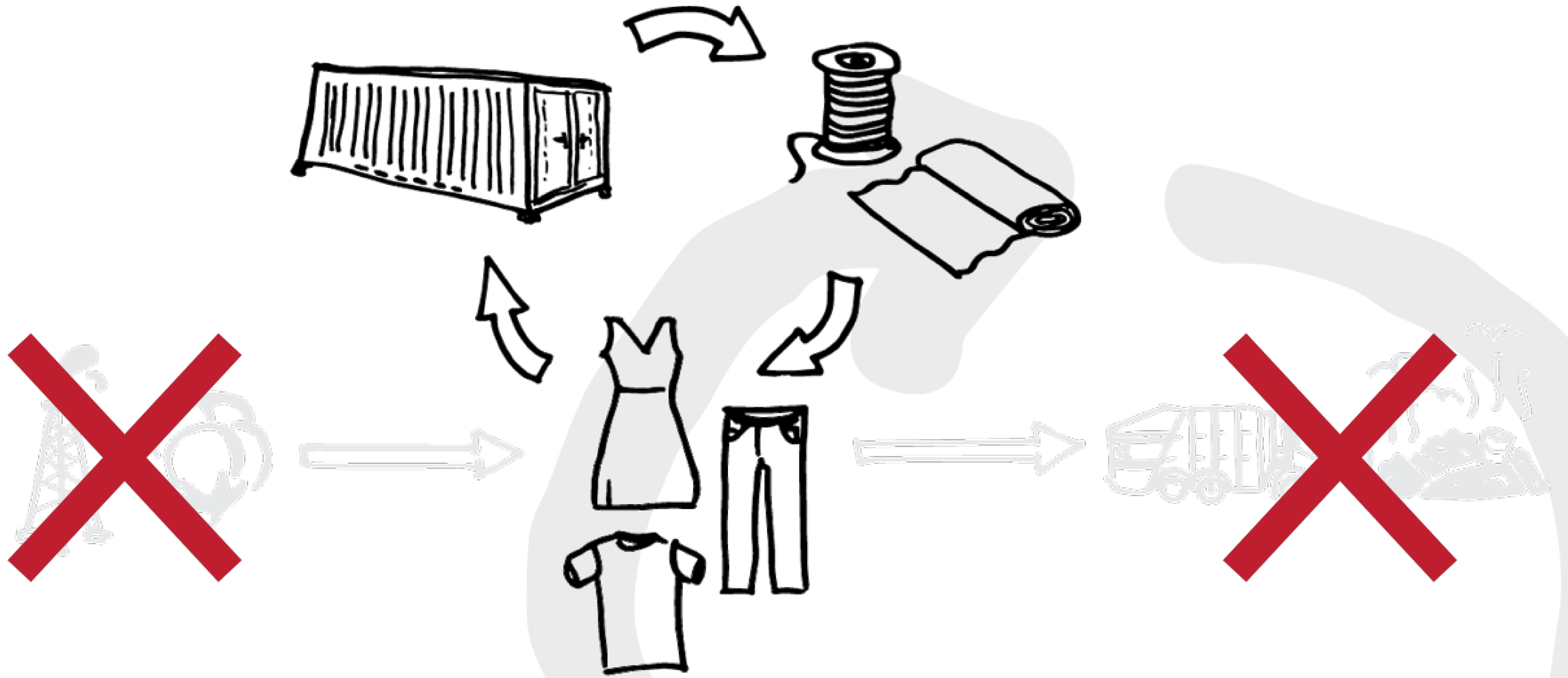
REPAIR



REPURPOSE



REGENERATE







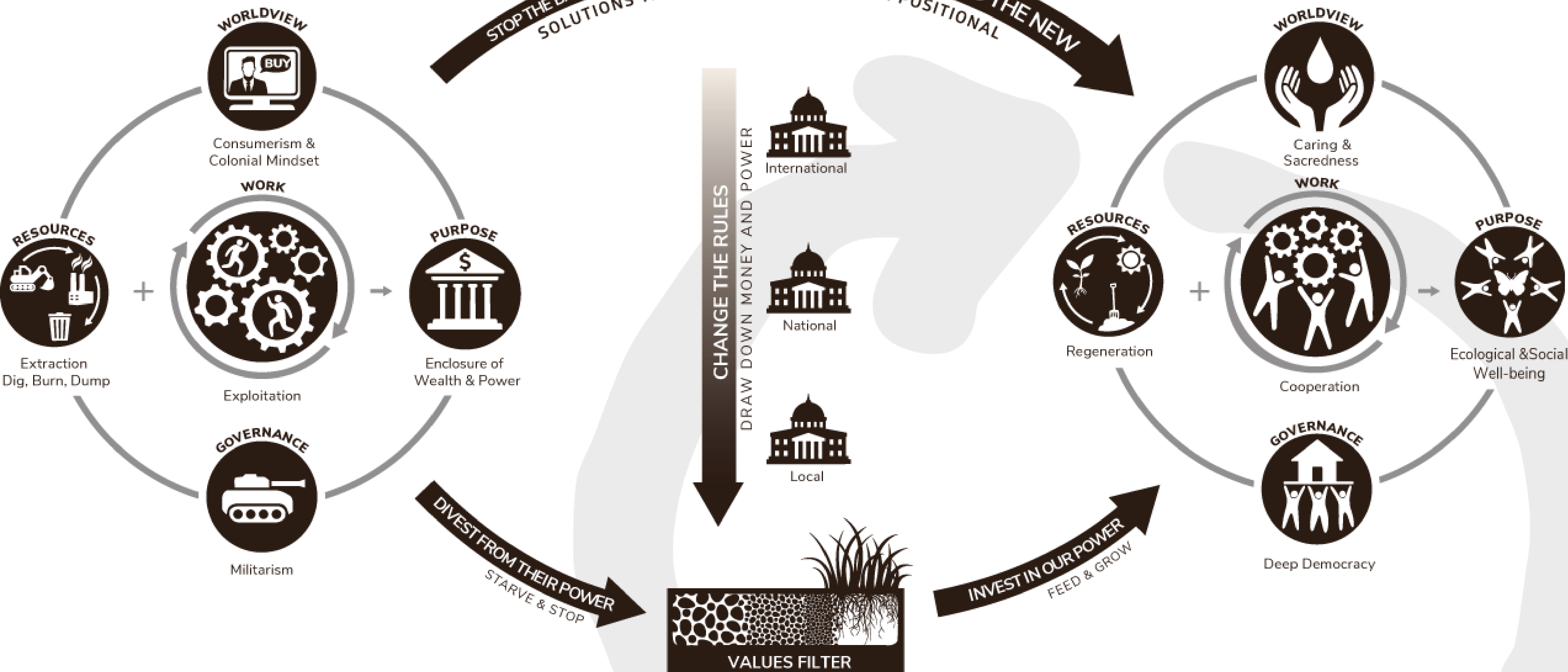
Hundreds of sustainability commitments by top brands, but nowhere near enough infrastructure to make true on even a fraction of them.

A faint, light gray background graphic showing a hand holding a globe. The hand is positioned as if supporting the globe from below, with fingers slightly curled. The globe is partially visible, showing a curved horizon line.

#MaterialRevolution™

Extractive Economy

Regenerative Economy



- A JUST TRANSITION MUST:**
- ▶ Shift economic control to communities
 - ▶ Democratize wealth and the workplace
 - ▶ Advance ecological restoration
 - ▶ Drive racial justice and social equity
 - ▶ Relocalize most production and consumption
 - ▶ Retain and restore cultures and traditions

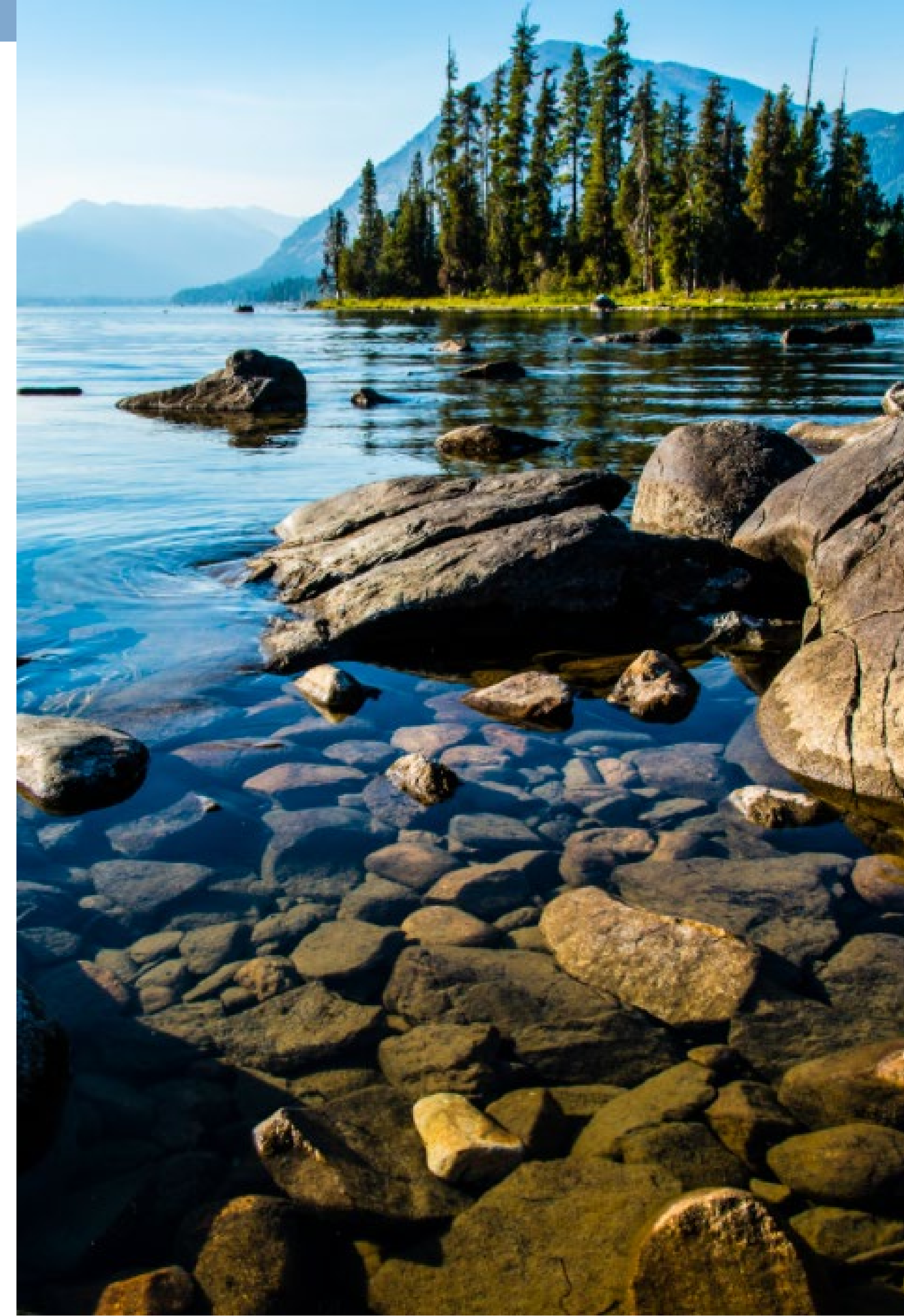
Wrap up

Next meeting:

- Wednesday June 8, 2022
- In-person option for board members at NORPAC facility in Longview
- Topic: TBD

Tasks from today:

- Notes and slides from today will be posted next week
- Plastic paper re-routed to board for comment





See you at the June 8th meeting

Board members in-person (optional);
attendees remote only

Link to the next ZOOM meeting will be
included in an email update next week
with today's notes.