NATIONAL ZERO WASTE CONFERENCE

10:45 am Pacific Time
October 2, 2024

Track C

Concurrent AM

Got Plastic? Innovative Strategies to Reduce, Reuse, Recycle

Speakers:
Jenna Arkin
Anita Schwartz
Nayeli Campos

Moderator: Darienne Highsmith

Hosted by: ZERO WASTE USA

Day 1 • Zero Waste Businesses & Institutions

10:45 am Pacific Time
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Track C

Darienne Highsmith

Project Manager, U.S. Market Transformation and Development

U.S. Green Building Council

(Moderator)

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National Zero Waste Conference 2024

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Jenna Arkin

Chief Innovation Officer

ECOS®

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Anita Schwartz

Sustainability Officer

Re:Dish

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Nayeli Campos

Community Outreach and Policy Coordinator

Zero Waste Washington

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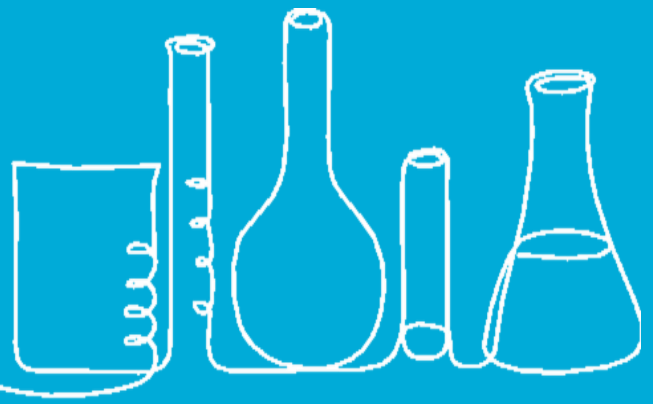
ECOS®



Innovation

envisioning + anticipating the needs
of the consumer of the future

about us

OWNING THE FUTURE

- Family-owned
- Black-woman owned

WOMEN OWNED

NMSDC MBE Certified

PROTECTING THE PLANET

- A Climate Positive company
- Carbon neutral
- Water neutral
- Zero Waste Platinum certified

MAKERS, MOVERS AND SHAKERS

- Primary US manufacturer
- USGBC LEED ZERO Certified
- Platinum-level WELL certified

MADE IN USA with globally sourced ingredients

WELL

ISO 9001:2015 CERTIFIED COMPANY

LEED Zero

PIONEERS IN SAFER CLEANING

- Over 90 Safer Choice certified products
- Affordable
- Plant-powered
- Leaping Bunny-certified
- 100% Vegan

SAFER CHOICE Meets U.S. EPA Safer Product Standards
epa.gov/saferchoice

Product Portfolio

LAUNDRY

Laundry Detergent Liquid Original: *50, 100, 128oz*
Free & Clear, Magnolia & Lily, Lavender, Lemongrass

Laundry Detergent Liquid Stain Fighting Enzymes: *70oz*
Free & Clear, Magnolia & Lily, Lavender

LAUNDRY

Laundry Detergent Sheets Stain Fighting Enzymes: *50ct, 64ct*
Free & Clear, Magnolia & Lily, Lavender Vanilla

Laundry Detergent Packs Stain Fighting Enzymes: *40pks, 52pks*
Free & Clear

OXO BRITE® Multi-Purpose Stain Remover Powder: *3.6lbs*
Free & Clear

Fabric Odor Eliminator: *20oz*
Magnolia & Lily
Lavender Vanilla
Lemongrass

DISHWASHING

Dish Soap: *25oz*
Free & Clear, Grapefruit, Bamboo Lemon, Lavender, Apricot, Almond, Pear

Mother & Child: *16oz/64oz Refill*
Grapefruit, Free & Clear

Dishwasher Gel: *40oz*
Free & Clear, Lavender

Dishwasher Rinse Aid: *8oz*

Plastic-Free Dishwasher Detergent Packs: *40pks*
Free & Clear

CLEANERS & DISINFECTANTS

All Purpose Cleaner: *22oz*
Orange, Parsley

Value Refill Pack: *80oz*
Orange, Parsley

Window Cleaner Vinegar, **Stainless Steel Cleaner + Polish, Furniture Cleaner + Polish** Olive Oil & Citrus, **Bathroom Cleaner** Tea Tree: *22oz*

Toilet Bowl Cleaner Cedar: *24oz*

Surface Scrub Lemon: *17oz*

Fruit + Veggie Wash: *22oz*
Conventional
Organic

Value Refill Pack: *80oz*
Conventional

One-Step Disinfectant Cleaner:
24 & 32oz
Fragrance Free

HAND SOAP

Hand Soap: *11.5, 17, 32oz Refill*
Free & Clear, Lavender, Lemongrass, Orange Blossom

Value Refill Pack: *80oz*
Free & Clear, Lavender

FOR PETS

Stain + Odor Remover: *22, 128oz Refill*
Lemon

Hypoallergenic Shampoo: *17oz*
Fragrance Free
Peppermint

Between Baths Grooming: *22oz*
Peppermint

Litter Box Deodorizer: *22oz*

OUTDOOR

Ice Melt: *6.5lbs*

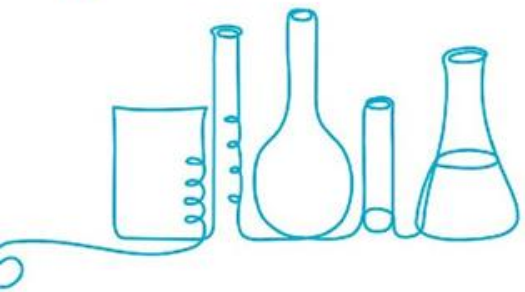
ECOS
Plant Powered Clean

What We Believe

	WATER	MATERIALS	IMPACT FOCUS	PLASTIC	PRODUCTS	SHIPPING
LEGACY MINDSET	*Less Consumption*	*Recyclable*	*Environment*	*100% PCR*	*Sustainable*	*Carbon Offset*
MODERN MINDSET	*Closed Loop Systems*	*Circular*	*Planet & People*	*Plastic Free*	*Low Carbon*	*Carbon Neutral*

ECOS
Plant Powered Clean

Atom Economy



The efficient use of raw materials: each atom used contributes to the utility of the final product.

BENEFITS

- Reduced Waste: Maximizing yield, minimizing by-products
- Enhanced Sustainability: Fewer resources wasted, less environmental impact
- Cost-Effective: Utilizing materials efficiently can reduce costs

PHILOSOPHY

- Not just about quantity, but quality. Efficient reactions are both eco-friendly and economically viable
- Central to the principles of green chemistry, promoting a holistic approach to chemical processes

ONLY 6 INGREDIENTS

1. Water
2. Cocamidopropyl Betaine (plant-derived surfactant)
3. Sodium Coco-Sulfate (plant-derived surfactant)
4. Cocamidopropylamine Oxide (plant-derived surfactant)
5. Phenoxyethanol (preservative)
6. Methylisothiazolinone (preservative)

ECOS
Plant Powered Clean

Pathway to Zero Waste

Multifaceted approach to packaging circularity

We must *take the consumer on a journey*, gradually removing water, compacting our formulas for more utility per ounce, and eventually removing water.

ECOS has *strategically built a pathway* for our portfolio, with options that are more concentrated, have less water, and ultimately no water.

Over time, we will compact our classic offering, while improving shipping efficiency, efficacy, and value, *ushering the market forward*

New materials with better circularity, like aluminum are being explored, while all remaining plastic migrates to PCR to ensure we reduce our reliance on virgin plastic production.

We are partnering with our suppliers to explore light weighting via biomimicry, chemical recycling, and watermarked bottles for Ai-enabled smart sorting to *create cleaner waste streams* that have longer lifecycles.

ECOS
Plant Powered Clean

Consumer Journey

CONSUMER JOURNEY	PRODUCT EVOLUTION	MATERIAL INNOVATION	STRATEGIC PARTNERSHIPS
PHASE-OUT OF WATER	MORE CONCENTRATED FORMULAS	ALUMINUM AND PCR PLASTIC	SUPPLIER COLLABORATION FOR LONGER LIFECYCLES
ENHANCED UTILITY	COMPACT OFFERINGS WITH SUPERIOR VALUE	CIRCULARITY ENHANCEMENTS	INDUSTRY AND PUBLIC POLICY ADVOCACY

ECOS
Plant Powered Clean

Pathway to Zero Waste

Multifaceted approach to packaging circularity

PLASTIC FOOTPRINT

Current virgin plastic footprint

No single use plastic

No plastic

CURRENT STATE: Enhanced PCR utilization, highest concentration in market.

INCREASED PCR
More Concentration
More Utility

ALUMINUM
Infinitely Recyclable

CIRCULAR PACKAGING

GRADUAL REMOVAL OF WATER:
Reducing water content to concentrate formulas.

INCREASED UTILITY PER OUNCE:
More effective products with less material.

EASE OF USE: Adapting dosage mechanisms for precision and simplicity. 5x more concentrated

COMPACTION

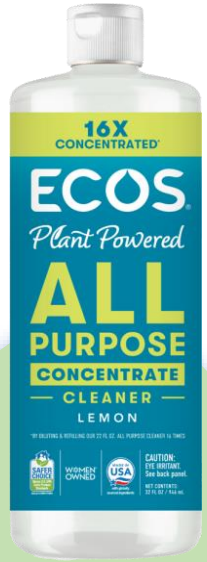
More Water

Less Water

No Water

FOAMING DISH SPRAY

PLASTIC FREE OXOBRITE

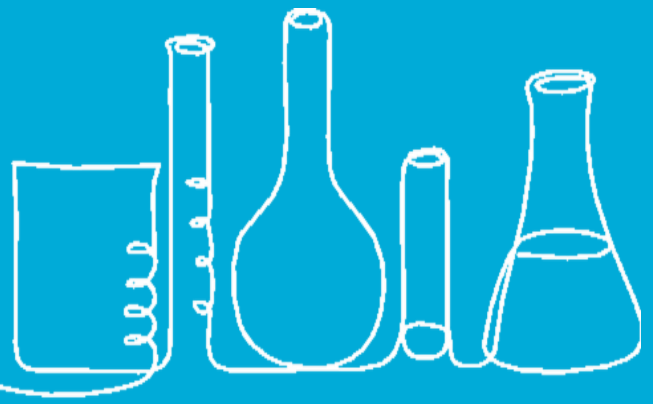


ULTRA CONCENTRATED LAUNDRY

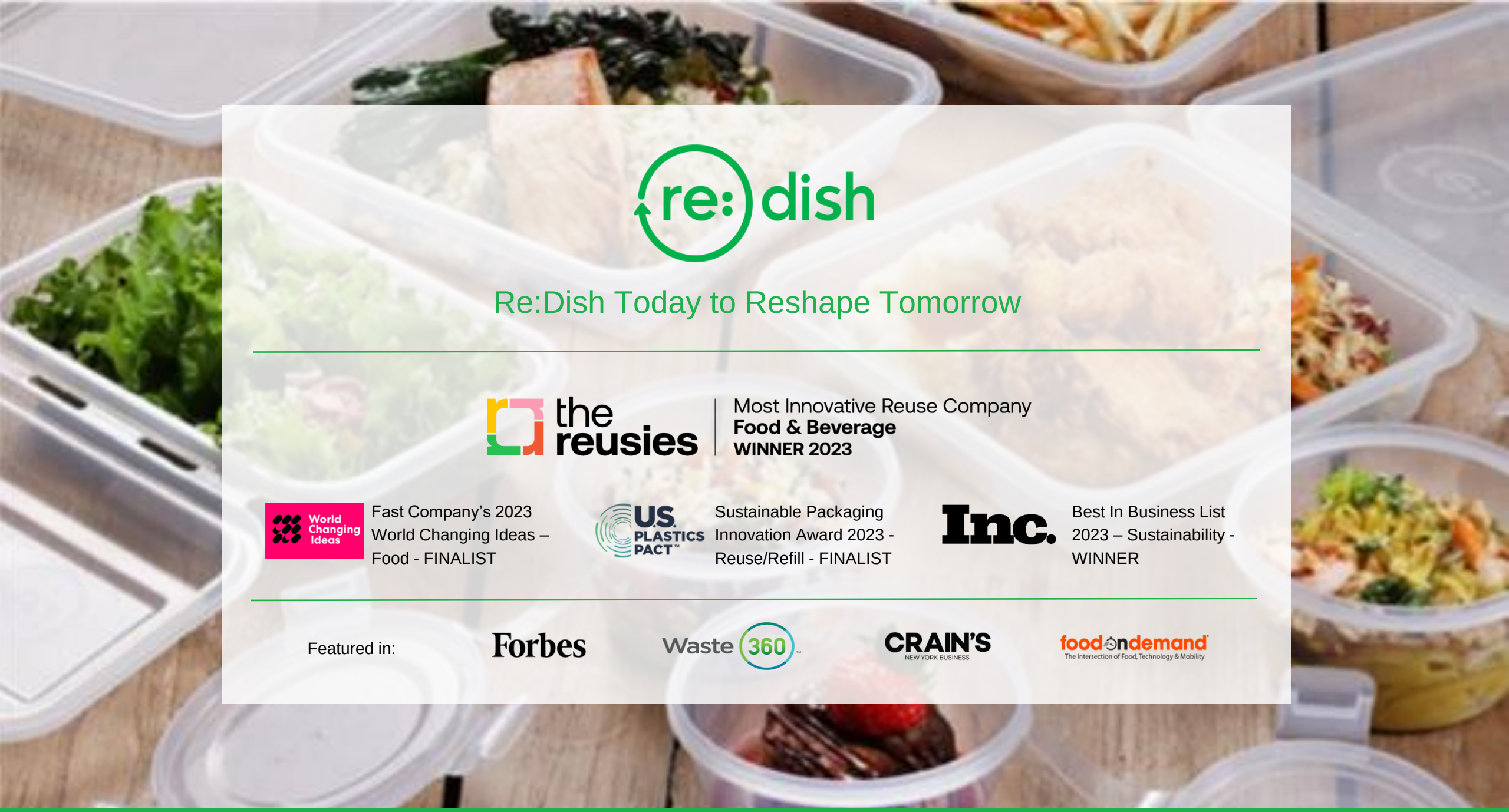
AUTODISH PACKS

Dilutable Cleaner

THANK YOU



Questions?



re:dish

Re:Dish Today to Reshape Tomorrow

the reusies | Most Innovative Reuse Company **Food & Beverage WINNER 2023**

World Changing Ideas — Fast Company's 2023 World Changing Ideas – Food - FINALIST

U.S. PLASTICS PACT — Sustainable Packaging Innovation Award 2023 - Reuse/Refill - FINALIST

Inc. — Best In Business List 2023 – Sustainability - WINNER

Featured in: Forbes, Waste 360, CRAIN'S NEW YORK BUSINESS, food on demand — The Intersection of Food, Technology & Mobility

Anita Schwartz| aschwartz@redish.com | www.redish.com

01

Climate change is no longer an idea. It is here.

Schools have a unique opportunity to drive the reuse economy forward by introducing circular principles that normalize environmentally-conscious behavior at scale.

1,000,000,000,000 single-use food service products are used each year in the United States.

The time to act is now.

02

Re:Dish = Reuse

Re:Dish is on a mission to make reuse mainstream.

We help schools transition to reusables.

We enable schools to outsource washing operations.

And we make it seamless.

Re:Dish is singularly focused on the software and infrastructure to make reuse scalable. We offer our tracking and washing services to schools serving food on single-use disposables or washing reusables in-house.

We also offer a full-service reusable container program that helps schools reach their ESG goals by eliminating single-use waste in foodservice operations.

- Established in 2020
- WBE & WBENC-certified
- Facilities in Brooklyn, NY & Philadelphia, PA
- Launching in Boston in Q3 2024

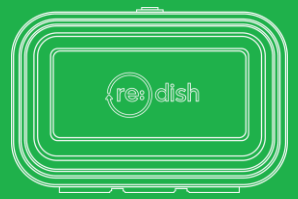
03

How the Re:Dish Reusable Program Works

We make switching to reusables simple and turnkey.

DELIVERY

Re:Dish delivers clean dishes on a convenient schedule to ensure you always have enough inventory.



SERVICE

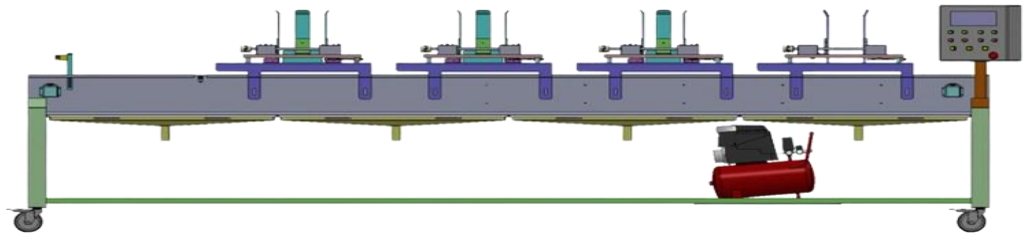
Food is served in Re:Dish dishware or any third-party reusables. When finished, students return the dirties to a designated Re:Dish return bin.

COLLECTION

Re:Dish collects the dirties and takes them back to its facility to be washed, sanitized and repackaged for new use.

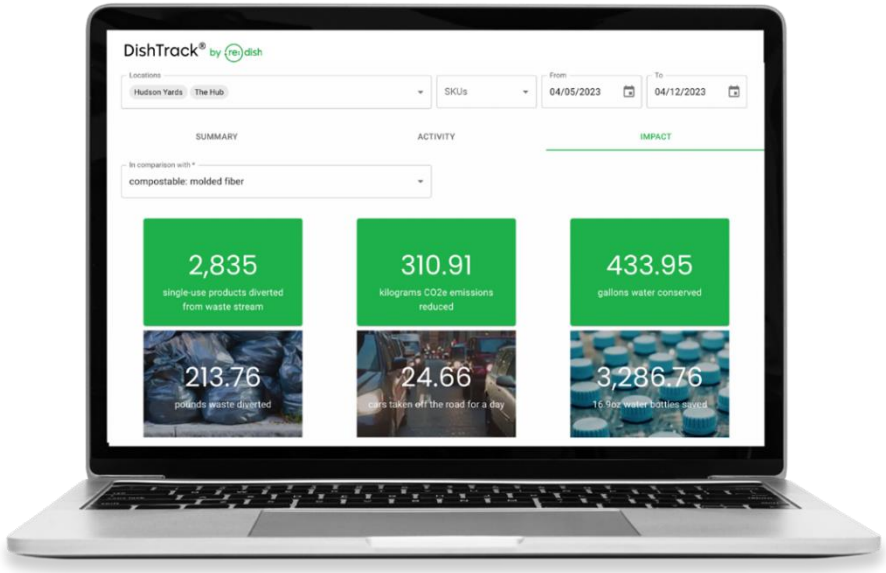
04 Specialized Infrastructure Enables Reuse At Scale

CUSTOMIZATION & AUTOMATION



Washing thousands of reusables requires more than a traditional commercial dishwasher; it requires specialized expertise in equipment, facility, process, and product. Re:Dish has developed the data management and industrial warewashing facilities to achieve this scale and is constantly innovating in order to maximize performance and efficiency.

SOFTWARE



Custom software, DishTrack, for Scope 3 Emissions reporting also enables bilateral inventory management, reverse logistics, and Periodic Automatic Replacement (PAR) for Reuse.

05 Data-First Infrastructure is Unique in Reuse

Integration of Front and Back End

Robust data is the key enabler to Re:Dish's success and informs everything we do. Data allows us to build smart systems, assess performance, optimize for efficiency, and remain accountable to clients and the environment.

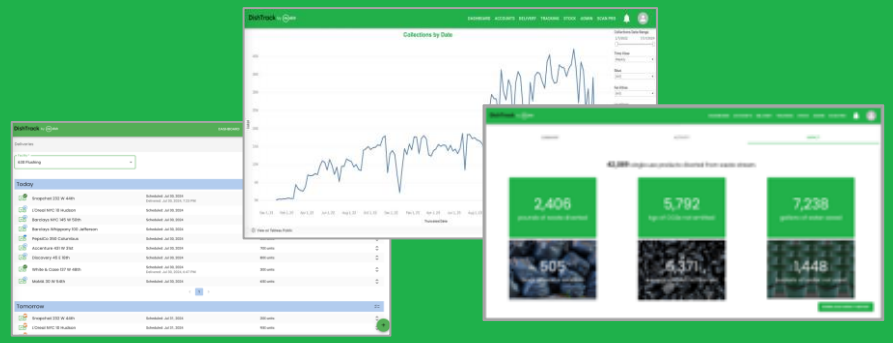
WAREHOUSE MANAGEMENT

ASSET MANAGEMENT

LOGISTICS MANAGEMENT

DishTrack

RE:DISH'S CUSTOM SOFTWARE PLATFORM



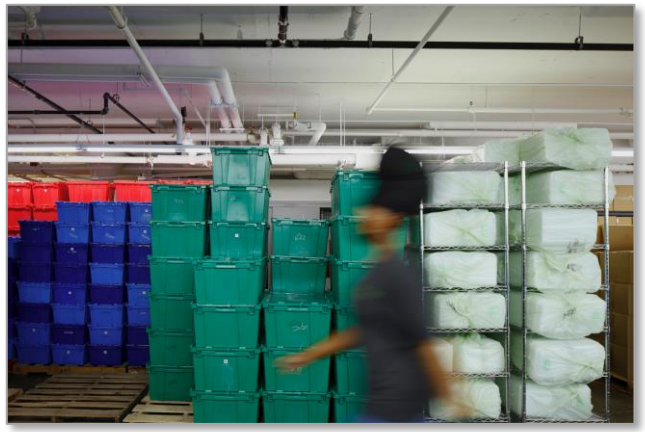
CLIENT MANAGEMENT

INVENTORY TRACKING

ENVIRONMENTAL IMPACT

06 Re:Dish Clean

- Re:Dish is establishing the standard by which all future facilities will be judged: TRUE certification, HAACP plans, third-party certified audits
- Washed at a minimum of 170° with environmentally-friendly chemistry
- Optimized environmental footprint with water, energy, and chemical maximized for efficiency
- Sanitized, dried, and immediately packed and sealed for distribution – never touched by human hands
- Quality Control built into every process and procedure



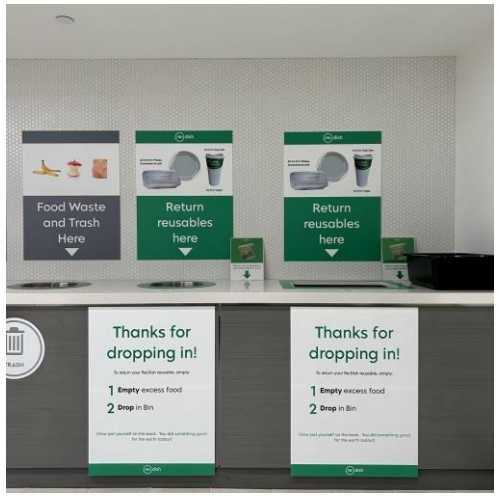
07 Re:Dish Products

Re:Dish's reusable polypropylene products are made in the USA, BPA-free, NSF certified, and microwave & freezer safe.

Currently available:

- 9" x 9" clamshell
- 9" x 9" 3-compartment clamshell
- 6" x 9" clamshell
- 5" x 5" clamshell
- 16-ounce round clamshell
- 16-ounce pleated hot/cold cup
- 8-ounce round with separate lid
- 10" plate with 7.5" food well
- Boat with separate lid (Q4 2024)

08 Return Receptacles used by Re:Dish clients



Enabling Re:Dish is as easy as providing convenient return bins.

Re:Dish has available bins to rent. Alternatively, clients can repurpose their own bins and brand them with assets provided in the Re:Dish media kit.

9 DishTrack App Supports User Engagement

Scan Me!

Impact Calculator
Every Re:Dish has a QR code that shows how many times that specific unit has been reused. This feeds calculations of:

- Waste Diversion
- Carbon Reduction
- Water Use Savings

10 Empowering the Next Generation through Sustainability

By choosing Re:Dish, schools actively:

- appeal to environmentally conscious students and staff
- highlight the school's commitment to green practices
- demonstrate a campus-wide culture of sustainability

Re:Dish can be used in:

- Dining halls
- Takeout orders
- Catering
- Conferences

11 Re:Dish – a Successful, Sustainable Program for Clients and Employees

Re:Dish focuses on ongoing education and training to ensure that all groups – students and staff – understand the why's and how's of reuse

01

Thank you
Re:Dish

Plastic Challenges & Solutions for Farmers in Western Washington

October 2nd, 2024
National Zero Waste Conference

Nayeli Campos
Zero Waste Washington

This material is funded through a Public Participation Grant from the Washington State Department of Ecology

Walandtrusts.org Photo by: Fletcher Ward

Zero Waste Washington

Works to make *trash* obsolete

Three strategies:

- help pass laws
- conduct research
- do pilot projects

Seven Focus Areas

PRODUCER RESPONSIBILITY

EXCESS PACKAGING

REUSE/REPAIR

RECYCLING

INNOVATION

PLASTIC POLLUTION

Agricultural Plastics & their Challenges

- Agricultural Plastics include all plastics used in agriculture like films, mulch, irrigation, general supplies, silage and more.

- Recycling agricultural plastics faces many challenges, including, contamination, collection, color, mix of plastics and more.




Project Objective:

- Research waste issues in the agricultural sector
- Implement two or more pilot projects

Geography: Statewide, with focus on King, Snohomish, Pierce, and Kitsap counties

Goals

Divert agricultural waste from the landfill

Increase awareness among farmers regarding waste alternatives

Save farmers money!

Project Components

Research Phase

Top agricultural plastic products, solutions and current disposal of agricultural plastics

Interviews

Assessing current status, barriers, and opportunities for waste reduction through interviews

Pilot Projects

Implement at least two pilot projects to demonstrate waste solutions.

Timeline

Winter 2024

Interviews of farmers and visiting farms

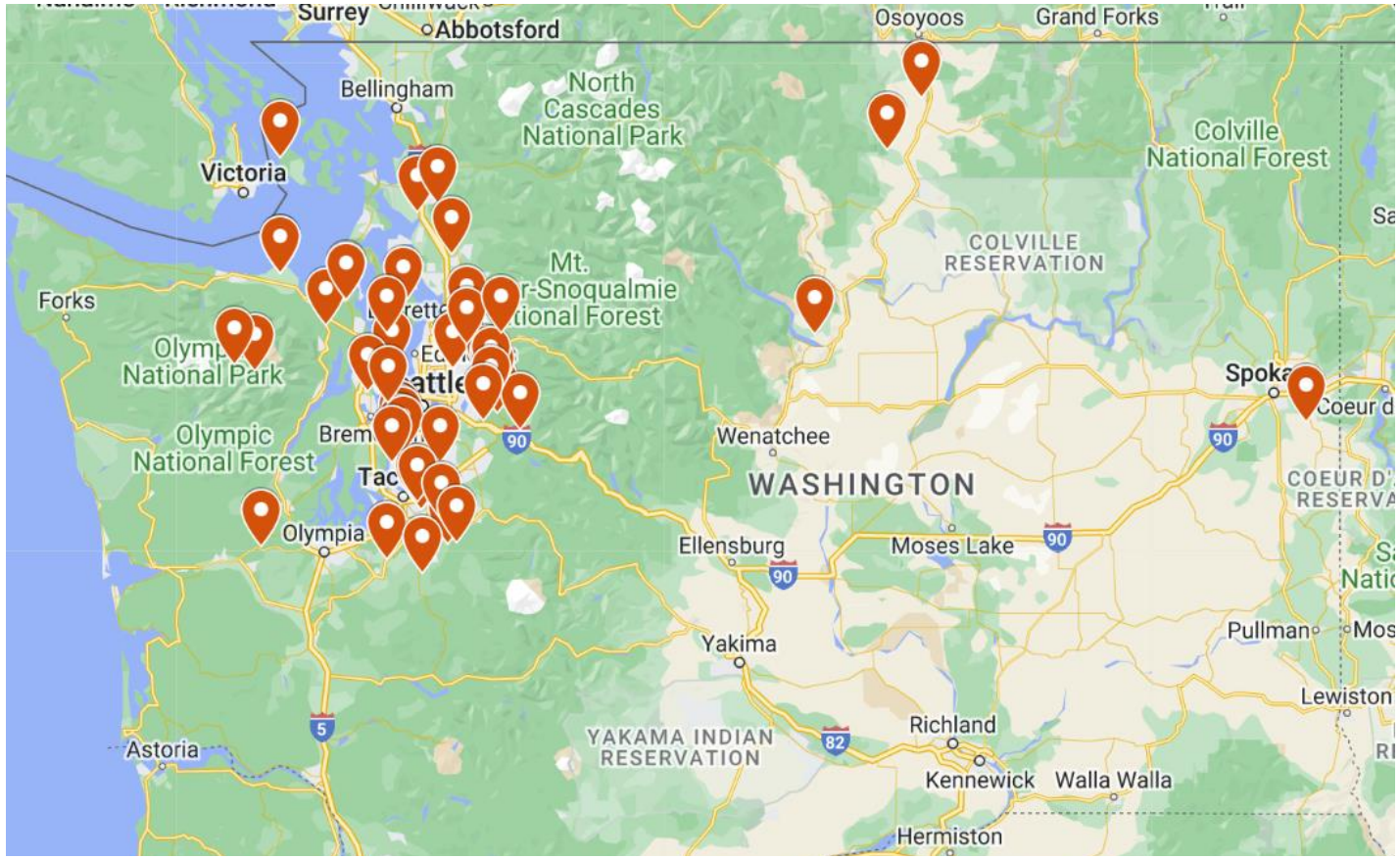
Spring-Fall 2024

Began planning and implementing pilot projects

June 2025

Pilot projects completed and results shared with participants

Interviews, to date



- *59 Farms*
- ***14 counties***
  Jefferson, Pierce, Clallam, Snohomish, Okanogan, Chelan, King, Grays Harbor, Spokane, Kitsap, Island, Skagit, San Juan, Thurston
- *Sizes ranging from 1/2 acre - 1500 acres*

			Priority Waste Items																																
Interviewee	Farm Type	Farm Size (acres)	Greenhouse/hoop film	Nursery Trays/Pots	Drip Tape	Smaller Plastic Bags (soil/fertilizer etc)	Row Cover	Silage film	Landscape Fabric	Plastic Twine/netting	Packaging/Processing Materials	Polyfabric totes/textiles	Waxed boxes	Plastic Mulch	Tarps	Drip Irrigation	Plastic Trellising	Plant tags/protectors/clips	Hoses	Pesticide/Fertilizer Containers	Jugs/Barrels/Buckets	Cardboard	Organic Waste	Reflective Mylar	Milk Hoses	Pallet Wrap	Seed Packaging	Macrobins	Styroblock	Fumigating plastic	Shade Cloth	Deer netting	Sandbags	Supply Breakage	Wood
1	pasture	15																																	
2	diversified	12																																	
3	Fruit,veg, poultry	10																																	
4	organic veg	260																																	
5	fruit, apple orcha	30																																	
6	veg, grains, lives	20																																	
7	fruit, veg, nuts, li	10																																	
8	veg, flowers	5																																	
9	veg, pasture, live	224																																	
10	veg, flowers	21																																	
11	veg and culinary	1																																	
12	perennial crops,	4																																	
13	livestock, poultry	37																																	
14	veg, flowers	26.9																																	
15	veg, poultry, mic	1.5																																	
16	veg, flowers	6.5																																	
17	veg	1																																	
18	livestock, poultry	5																																	
19	veg	14																																	
20	flowers	6																																	
21	wholesale seed a	25																																	
22	veg, fruit, livesto	8																																	
23	veg, mircogreens	0.5																																	
24	veg, fruit, flowers	80																																	
25	veg, flowers, see	10																																	
26	veg	15																																	
27	veg	1																																	
28	veg, fruit, orchar	1																																	
29	veg, fruit, seeds	1.5																																	
30	aquaponics, veg	2.5																																	
31	veg	1.5																																	
32	veg, livestock, po	20																																	
33	veg, livestock	180																																	
34	veg	3																																	
35	veg	n/a																																	
36	seed company	1																																	
37	veg, flowers	3																																	
38	veg	0.5																																	
39	dairy	20																																	
40	orchard	130																																	
41	pasture, livestock	30																																	
42	seed	2																																	
43	orchards and mic	10																																	
44	diversified, livest	28																																	
45	orchard	200																																	
46	dairy	8																																	
47	Hay	1500																																	
48	veg, herbs, fruits	4.5																																	
49	veg, flowers	2																																	
50	veg, pasture, live	18																																	
51	veg	100																																	
52	veg, flowers, pou	25																																	
53	veg, livestock	12																																	
54	Livestock	10																																	
55	veg	80																																	
56	orchard	50																																	
57	dairy	80																																	
58	Diversified	1200																																	
59	Diversified	35																																	

Waste Data

Items ranked as:

- *1st Priority*
- *2nd Priority*
- *3rd Priority*
- *4th and on*

Top 10 Waste Items

greenhouse film

nursery trays

drip tape

smaller bags

row cover

landscape fabric

silage film

plastic twine

packaging material

super sacks

Waste Data

SORTED BY MOST MENTIONED

- *greenhouse film*
- *nursery trays*
- *drip tape*
- *smaller bags*
- *row cover*

SORTED BY #1 PRIORITY ITEMS

- *row cover*
- *smaller bags*
- *drip tape*
- *greenhouse film*
- *nursery trays*

SORTED BY MENTIONED IN TOP 3

- *drip tape*
- *row cover*
- *smaller bags*
- *nursery trays*
- *greenhouse film*

Waste Data

SORTED BY MOST MENTIONED

- *greenhouse film*
- *nursery trays*
- *drip tape*
- *smaller bags*
- *row cover*

SORTED BY #1 PRIORITY ITEMS

- *row cover*
- *smaller bags*
- *drip tape*
- *greenhouse film*
- *nursery trays*

SORTED BY MENTIONED IN TOP 3

- *drip tape*
- *row cover*
- *smaller bags*
- *nursery trays*
- *greenhouse film*

Greenhouse Film

- Polyethylene (PE)
- Prone to damage
- Cheaper than rigid materials and produces higher yields than unprotected cultivation
- Annual global waste generation estimated at almost 3 million tons
- recommended lifespan of 3-6 years

Greenhouse Film: Common Practices & Alternatives

Common practices:

- Reuse as solarizations or compost tarps
- Donate to smaller farmers

Alternatives:

- Silica glass
- Rigid Polycarbonate

Nursery Trays

- PP, PE
- Increase in nursery survival rate
- farmers replace 50-200+ a year at various rates
- Typical lifespan of 2-5 years

Nursery Trays: Common Practices & Alternatives

Common practices:

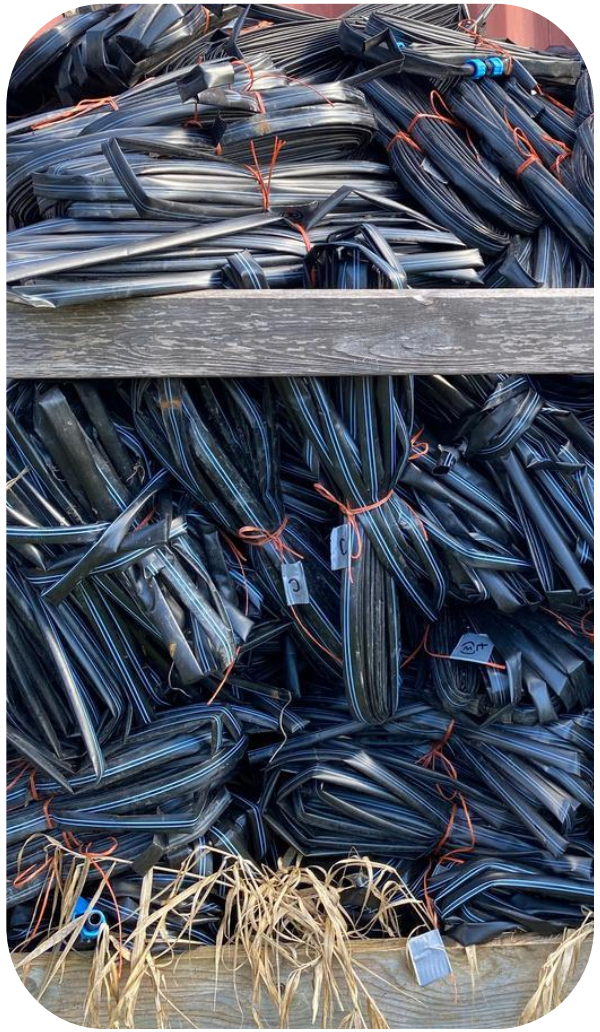
- Double stack trays for durability

Alternatives:

- Paper pot system
- soil blocking
- durable trays

Drip Tape

- PE derivatives, PVC reported, HDPE, LDPE
- Improves water use efficiency and penetrates roots
- Easily clogged or prone to damage from rodents + wear and tear
- Typical lifespan is 1-3 years



Drip Tape: Common Practices & Alternatives

Common practices:

- Immediate retrieval and proper storage
- patching holes

Alternatives:

- Permanent underground PVC or metal irrigation system

Other Waste Items

Pilot Projects

Repurpose Woven Bags Through Refugee Artisan Initiative (RAI)

Cost Sharing Durable Items

Establish Collection Points for Plastics

Create a Pipeline for Woven Bags to Refugee Artisan Initiative (RAI)

- Non-profit that partners with refugee and immigrant women
- Bags will be repurposed by artisans into totes and other products
- Gives artisans months of continuous work

Cost Sharing Durable Nursery Trays and Reusable CSA Boxes

- Offer funding to farmers for the purchase or cost-share of durable nursery trays (Winstrip or Proptek) and/or durable reusable corrugated polypropylene boxes for CSAs.
- Replacements aim to reduce waste and support long-term sustainable farming practices.
- Recyclable at end of life

Create Collection Points for a Wide Range of Plastic Items

- Identifying retail or other locations willing to serve as collection points for agricultural waste with baling options.

- These materials will be recycled by Hamilton Polymers and/or East Jordan Plastics

Questions or want to connect? Contact me!

Nayeli Campos

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www.ZeroWasteWashington.org

zero waste washington

THANK YOU!