

# Plastics4Purpose™

**A more sustainable, cost-effective solution for your contaminated lab plastic and medical waste**

January 15, 2026



# Meet Your Presenter

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*Account Manager*

Triumvirate Environmental



# Presentation Overview

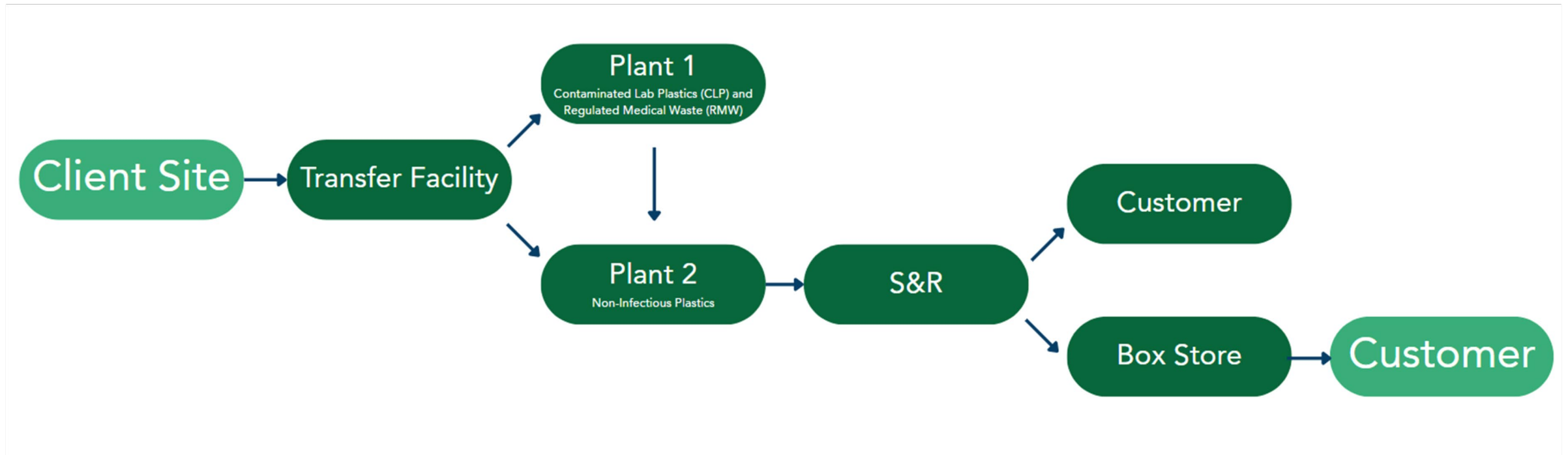
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- Waste treatment process
- Review of major steps
- Final product including other treatment options
- Our carbon impact
- Q&A and final thoughts

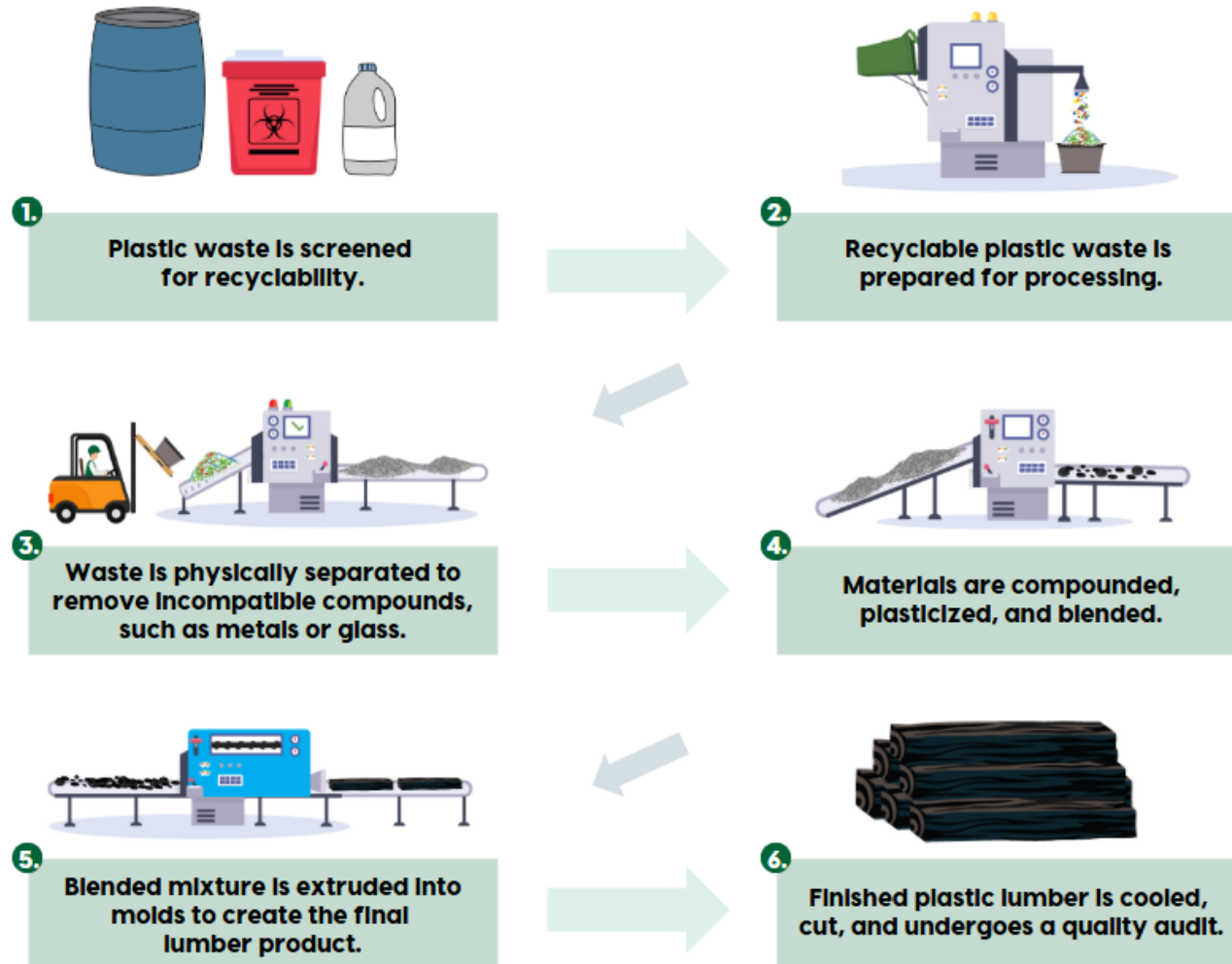


# Plastic Lumber Supply Chain

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# Triumvirate Environmental's Solution



# Sterilization

**RMW and CLP are sterilized to ~1000x the regulated level at Plant 1 before they can be used as a raw material at Plant 2.**

- Custom-built for higher vacuum component to ensure even greater effectiveness
- Cold/Chemical (PIWS) sterilization is also still used onsite



# Plastics

## High Density Polyethylene



### HDPE

- 5-Gallon Buckets
- Drums (All Sizes)
- Pallets (Certain Types)
- Manufactured Parts
- Molded Parts
- Large Water Bottles
- Trash Bins
- Consumer Product Bottles
- Medicine Bottle (Certain Types)
- Shipping Containers
- Crates
- Totes

## Low Density Polyethylene



### LDPE

- Films
- Stretch Wrap
- Equipment Parts
- Bottles
- Bread Bags
- Dry Cleaning Bags
- Garbage Bags
- Heavy Duty Bags
- Plastic Food Wrap
- Recycling Bins
- Some Toys

## Polypropylene



### PP

- Pipette Tip Trays
- Pipette Tips
- Bottle Caps
- Trash Bins
- Yogurt Containers
- Consumer Product Bottles
- Consumer Food Packaging
- Research Vessels & Containers
- Margarine Containers
- Medicine Bottles
- Microwave Ovenware
- Straws

## Favorable Plastics



## Plastics Pending Review



## Polyethylene Terephthalate



### PET

- Juice/Soft Drinks/Water Bottles
- Shampoo/Conditioner Bottles
- Liquid Hand Soap Bottles
- Dried Spice Bottles
- Household Cleaners
- Frozen Food Packaging
- Cosmetics
- Bakery Products

## Polyvinyl Chloride



### PVC

- Rigid Pipes
- Wire Insulation
- Commercial/ Residential Flooring
- IV Bags
- Garden Hoses
- Shower Curtains
- Sporting Equipment
- Interior Door Panels

## Polystyrene



### PS

- Car Parts
- Medical Test Tubes
- Culture Trays
- Petri Dishes
- Coffee Cups
- Packing Foam
- Take Out Containers
- Building/Home Insulation



# Material Optimization

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Shredding • Drying • Plastification • Shredding • Grinding • Pelletizing • Blending



**Fun Fact!** This belt dryer was formerly used to dry potato chips!



# Material Optimization

Shredding • Drying • **Plastification** • Shredding • Grinding • Pelletizing • Blending



# Extrusion Process

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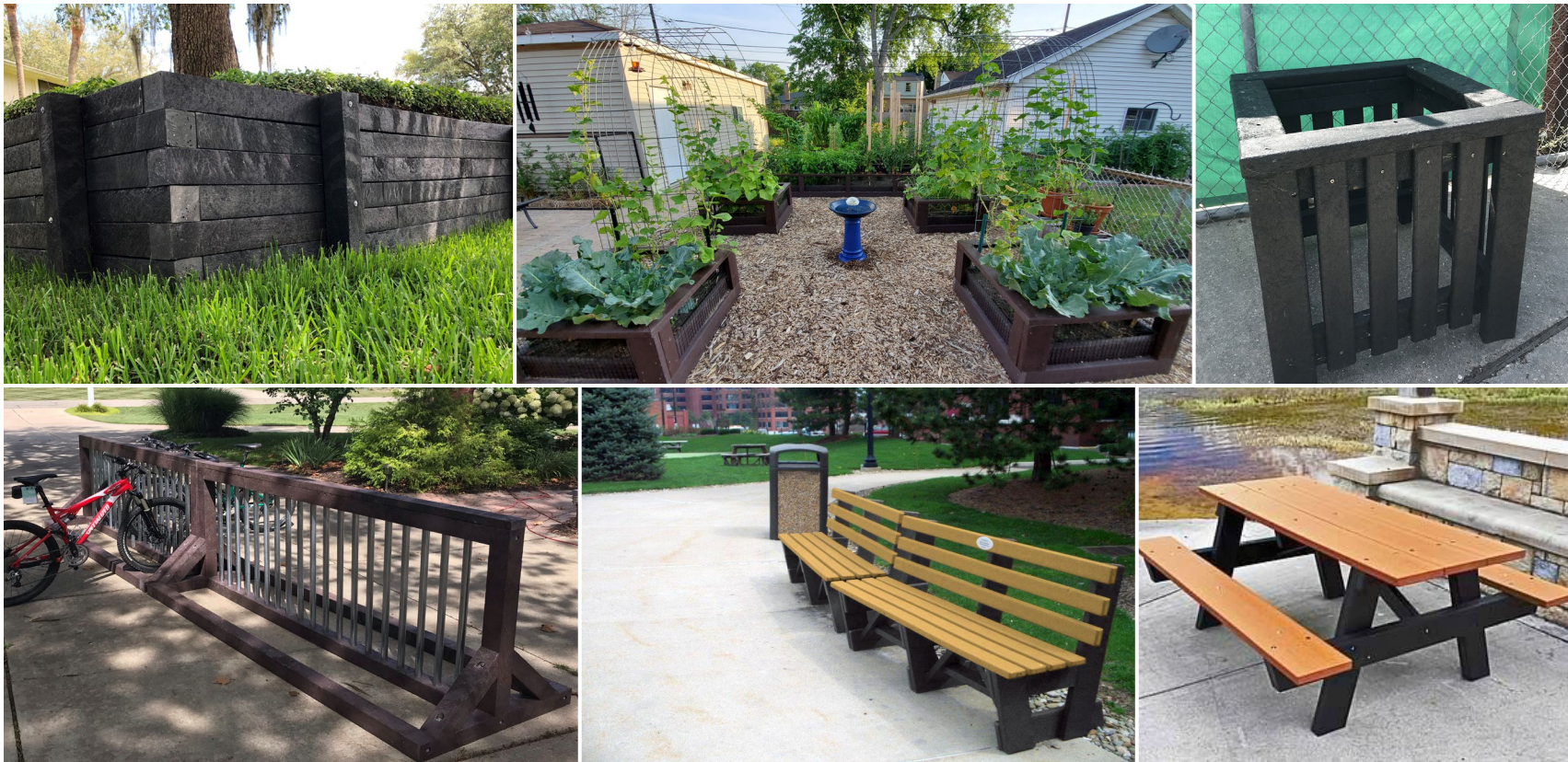
## Turning feedstock into lumber



# The Final Product

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**Durable, sustainable, attractive plastic lumber.**



# More Sustainable Disposal at Triumvirate

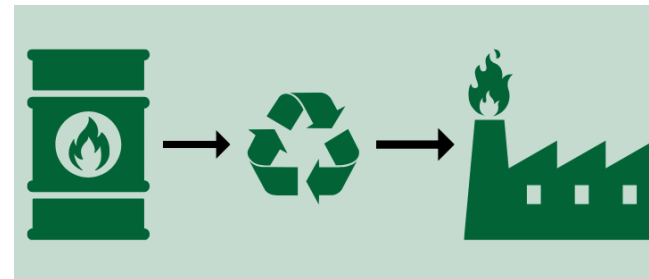
## GreenBoard®

Another product of our Jeannette plant, these boards are made of 98% recycled plastic, including at least 40% recycled turf.



## Fuel Blending

Flammable waste streams, and even some corrosives, are treated, blended, and processed into alternative fuels for cement kilns and other uses, preventing significant fossil fuel consumption across a variety of industries, including the firing of cement kilns.



## And More!

- Oil Recycling
- Paint Recycling
- RECLAIM Internal recycling program



# Carbon Impact Comparison

Estimated greenhouse gas emissions (CO<sub>2</sub>e) per pound of CLP disposed:



Incineration



Plastics4Purpose™

\*As of 1/1/2025




† † International Energy Agency. (n.d.). Municipal Solid Waste Incineration CO<sub>2</sub> Estimates.




# Thank You!

## Let's stay connected

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