

2025

Day 1

PLENARY 4

2:45 PM
Oct 22

Breaking Barriers: Strategic Initiatives to Fast-Track Your Zero Waste Journey

Moderator: Stephanie Barger

Ashley Koller

Speakers: Maddy Gawler

Sue Beets-Atkinson



NATIONAL
ZERO
WASTE
CONFERENCE





ZERO WASTE

AT SIERRA NEVADA BREWING CO.



HISTORY

NEARLY 45 YEARS IN THE MAKING









SUSTAINABILITY

DEFINING SUSTAINABILITY

Operational Actions

- Focus on zero waste and create closed loops
- Operational continuous improvement
- Inclusion & Engagement

Systems Change Actions

- Supply Chain
- Advocacy
- Community



HOP FORWARD

- A new name for how we have always worked.
- A strategic roadmap with defined ambitions for 2030
- An annual impact report to share progress
- A beer that supports story-telling and showcases Hop Forward elements



OUR 2030 AMBITIONS

TREAD LIGHTLY



SCOPE 1
Further reduce operational emissions by 2%

100%

SCOPE 2
OFFSET EMISSIONS ANNUALLY with 100% of purchased electricity from domestic renewables



SCOPE 3

Reduce supply chain greenhouse gas emissions by

FIVE PERCENT



Annually increase efficiency, reduce purchased energy, and evaluate additional renewable energy generation

BE RESOURCEFUL



Annually reduce water usage per barrel packaged, below forecasted consumption

ELIMINATE PLASTIC PRIMARY PRODUCT PACKAGING

and reduce tertiary plastic packaging by 5%



50% of raw materials grown with regenerative or sustainable practices

Develop supplier and material guidelines that inform a sustainable purchasing policy



MAINTAIN OCEAN FRIENDLY CERTIFICATION

in our Taprooms and commitment to zero waste events

CHART A COURSE

Maintain engagement with advocacy partners in support of public policy aligned with climate science, land and water conservation, circularity and civic engagement



Annually publish progress toward Hop Forward ambitions

WORK WELL



Annually meet or exceed baseline employee engagement score



MISSION ZERO

Annually meet or exceed Mission Zero leading indicator targets

Invest in practices, initiatives, and partnerships that foster

& INCLUSION & BELONGING

GO TOGETHER

CONTRIBUTE \$2 MILLION

to nonprofit partners and initiatives that deliver positive environmental or social impact by 2030

100%

of alcohol brand labels to include responsible drinking message



Build awareness of non-alcoholic products and moderation through **partnerships, events, and donations**

Contribute **1000** employee volunteer hours to community non-profits



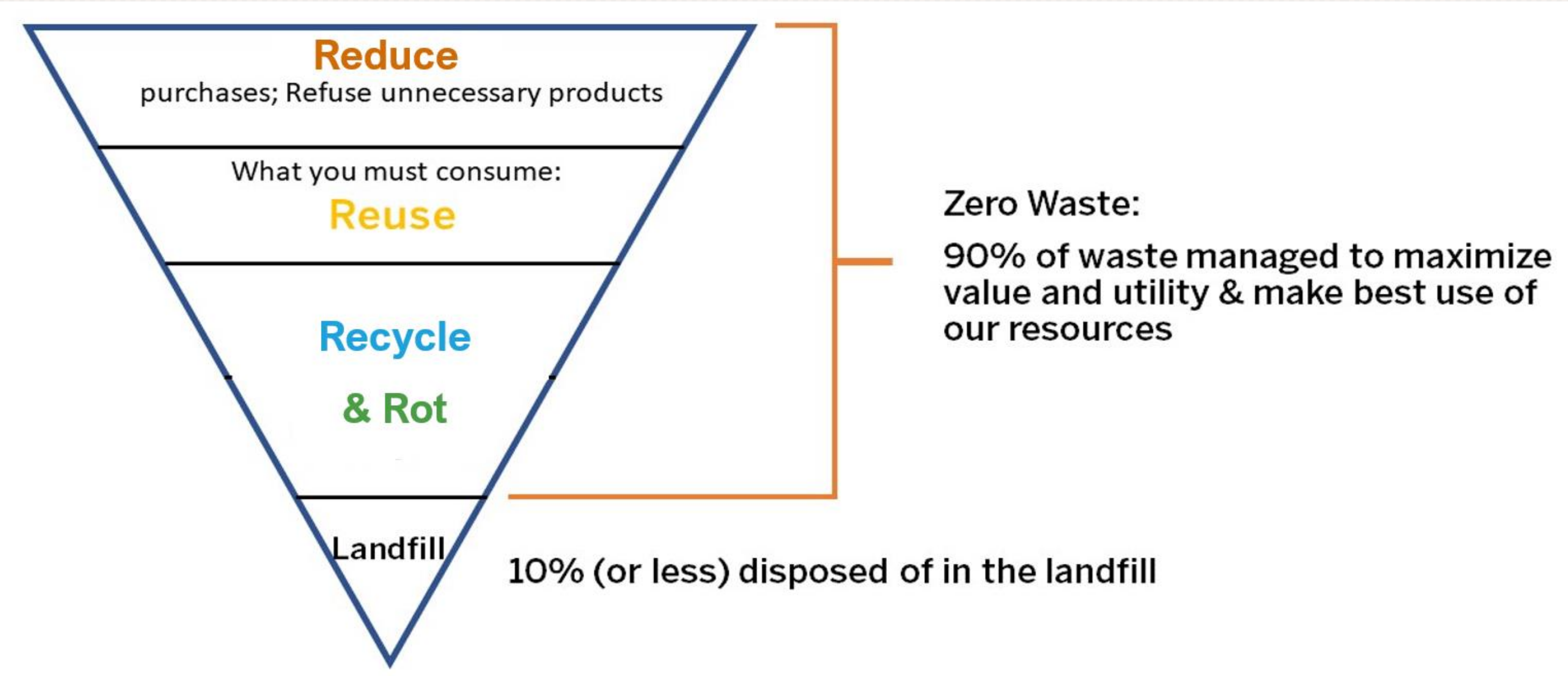
SIERRA NEVADA
HOP FORWARD

Our roadmap for our environmental and social impact ambitions through 2030.

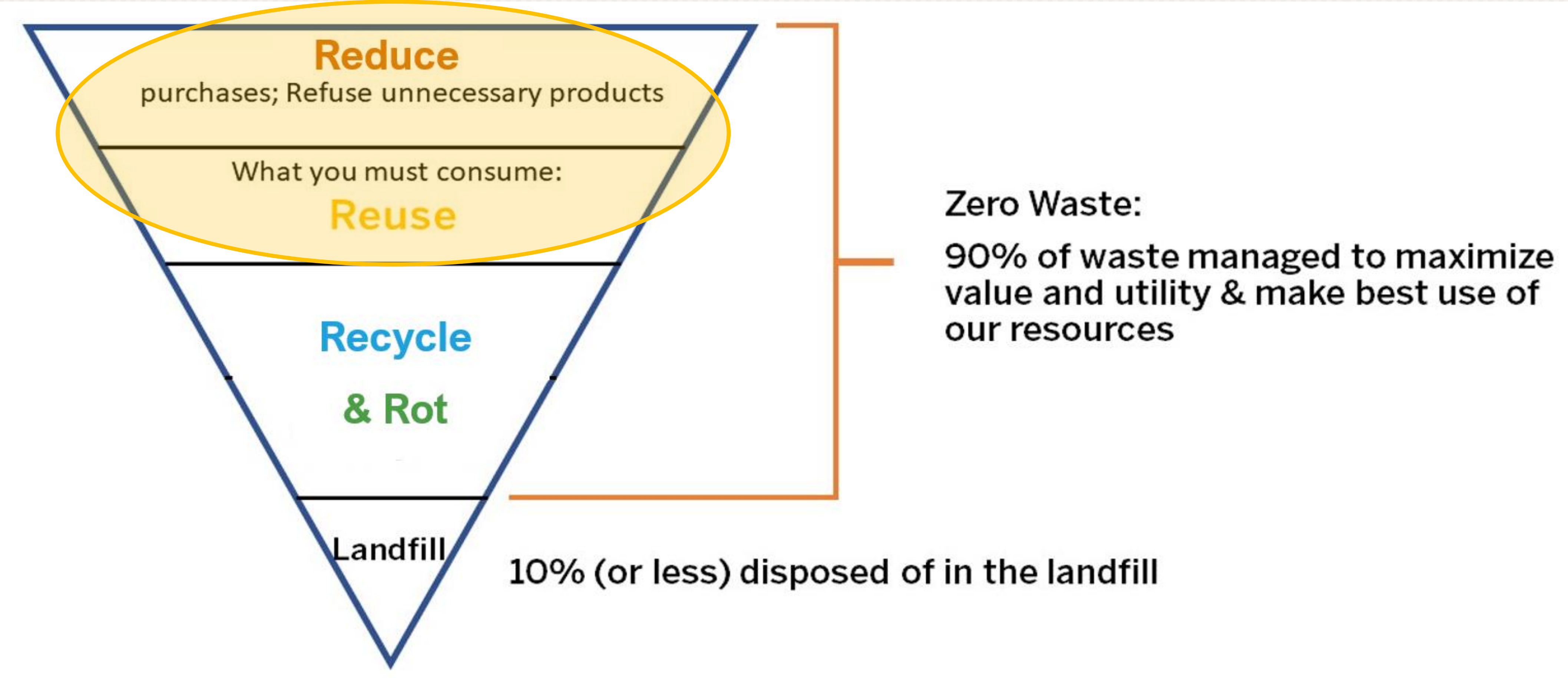


ZERO WASTE

HOW DO WE REACH ZERO WASTE?



HOW DO WE REACH ZERO WASTE?



REDUCE & REUSE



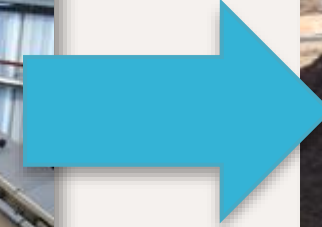
CLOSING THE LOOP



Food Waste



Hot Rot



Compost



Onsite Garden



Brewing



Wastewater



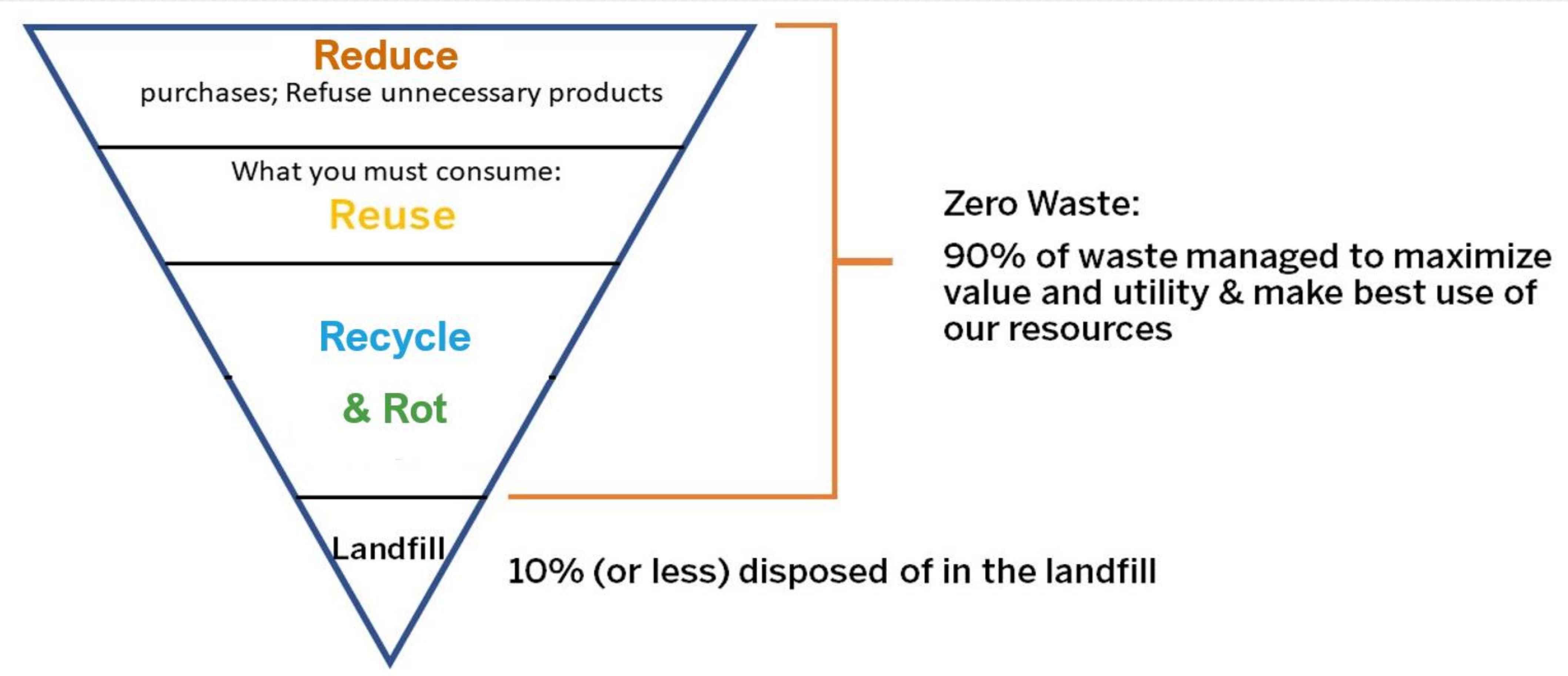
Biogas Recovery



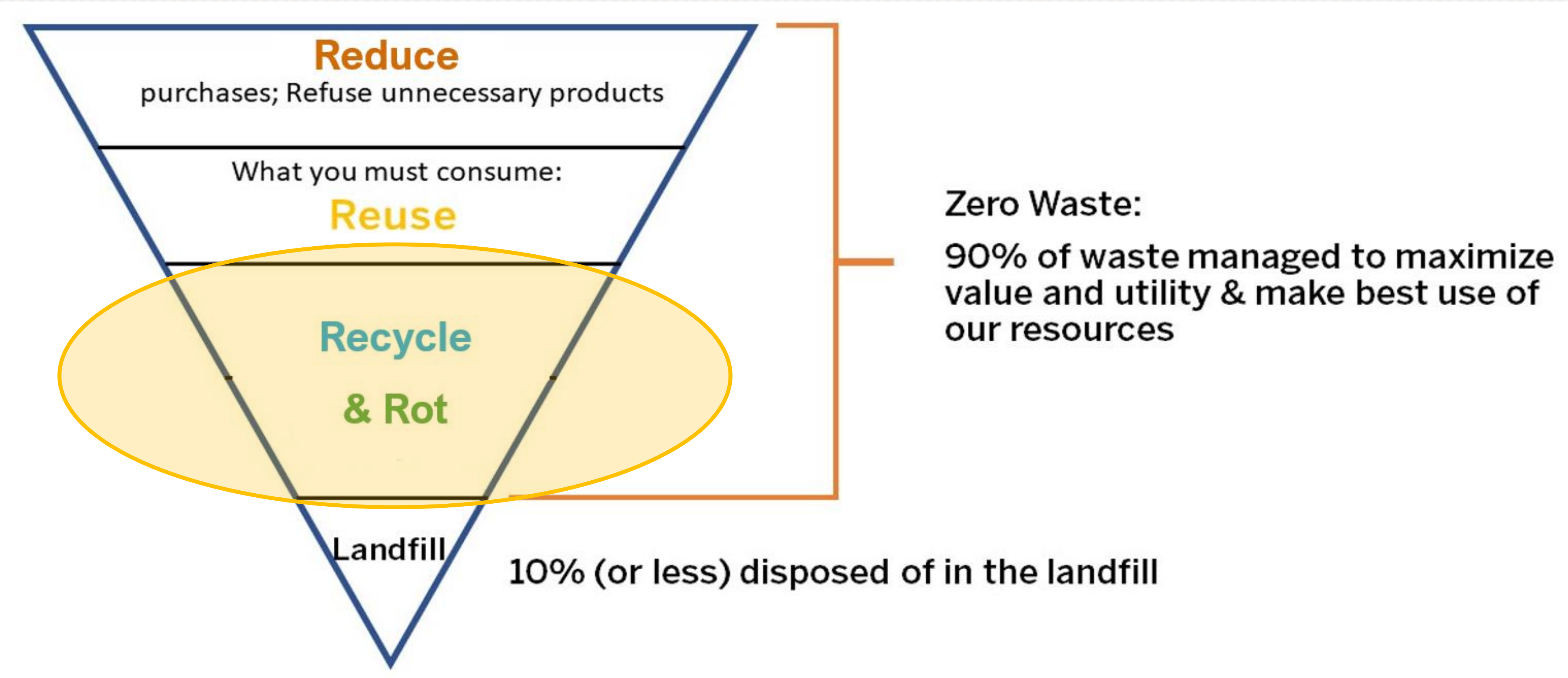
Microturbines



HOW DO WE REACH ZERO WASTE?



HOW DO WE REACH ZERO WASTE?



RECYCLE & ROT

99.7% diversion

Both facilities are Platinum Zero Waste certified

Generated \$170k net savings in 2024



TRACK WASTE STREAMS

*Understand the different types of waste
& where they are generated*

How

- Waste audits – big & small
- Start gathering data

You can't manage what you don't measure

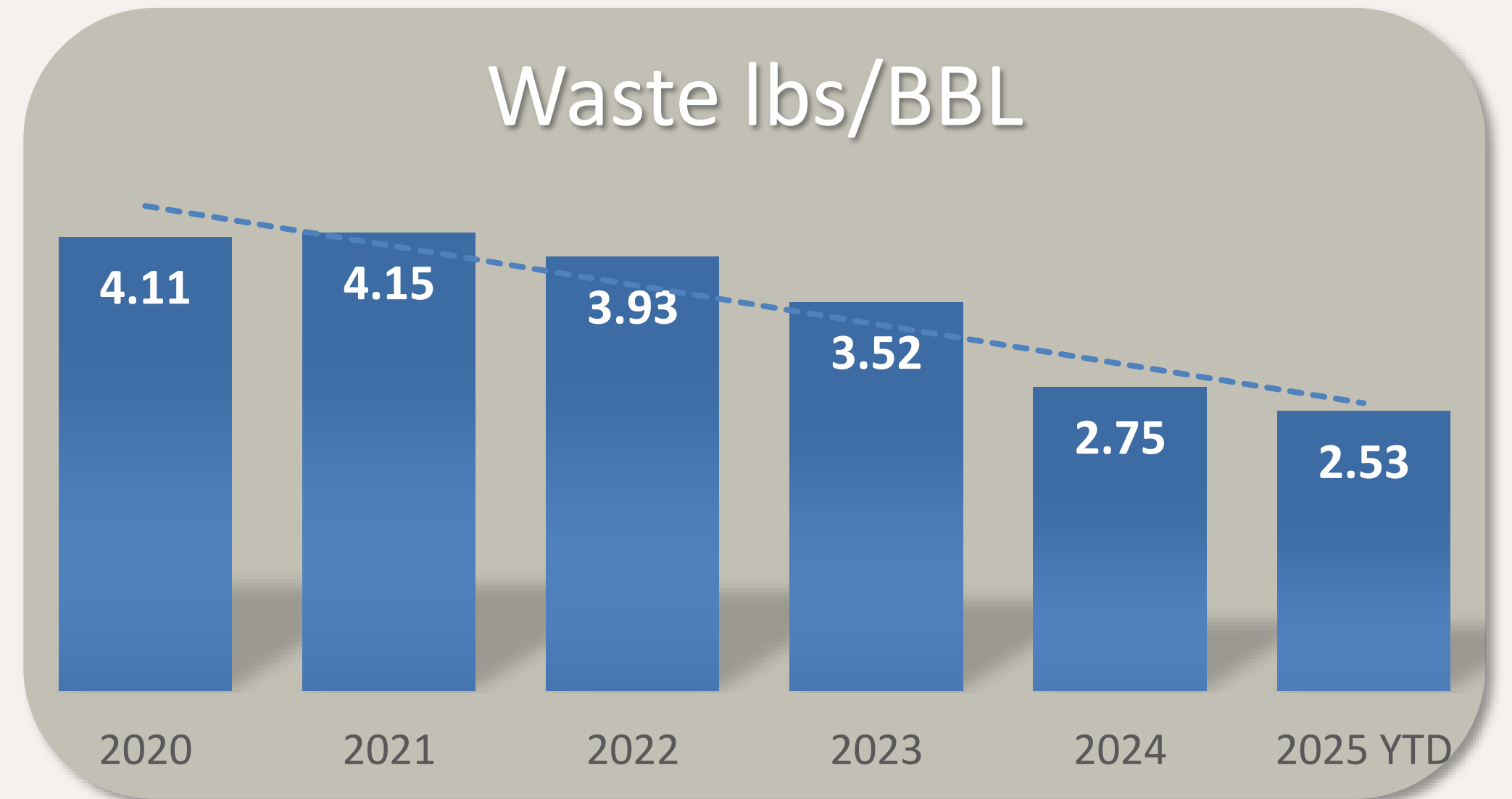


UNDERSTAND VOLUMES

Determine how much materials is being generated

How

- Review data with team
- Identify locations
- Right-size containers and equipment



Turn waste data into actionable insights for cost savings and efficiency



CREATE WASTE MANAGEMENT SYSTEM

Defines roles, responsibilities, and workflows

How

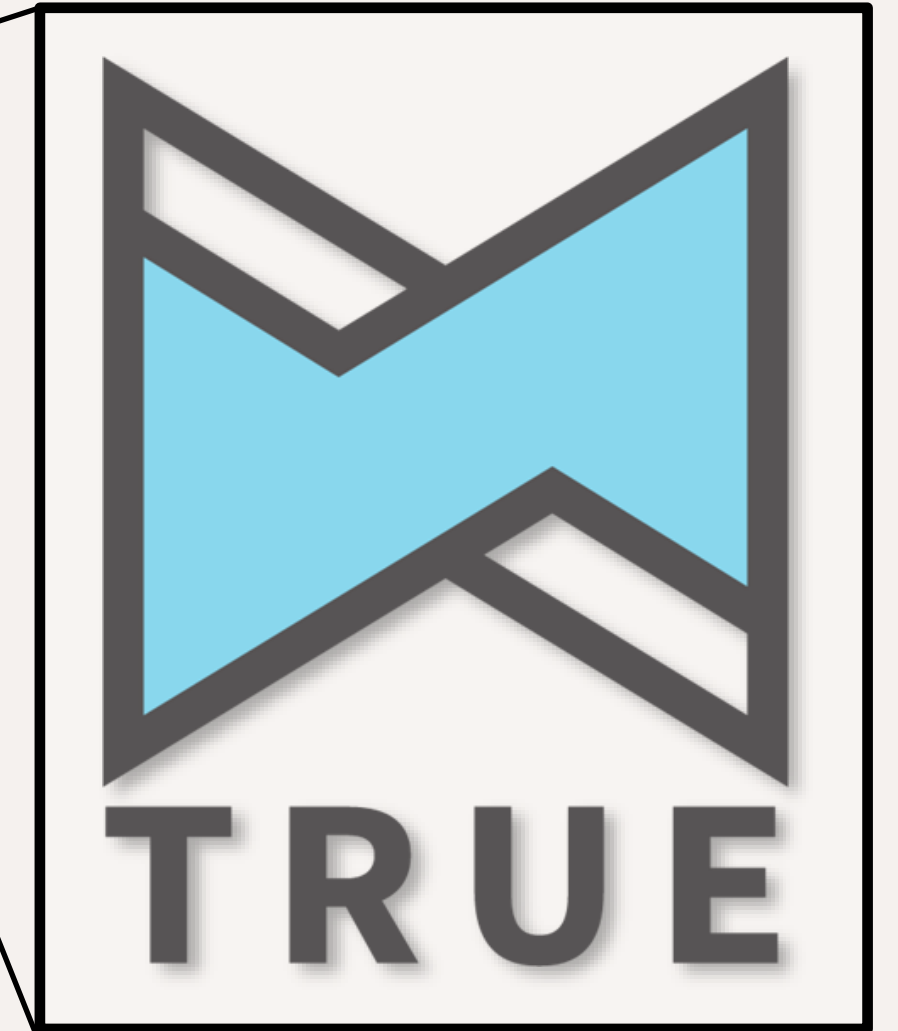
- Find Supportive Vendors & Partners
- Train Employees
- Create Signage
- Purchasing Guidelines

Simple for staff & seamless for operations



ZERO WASTE BENEFITS

- Cost savings
- Improves food safety
- Employees love it
- Certification on packaging





THANK YOU

ASHLEY KOLLER

WWW.LINKEDIN.COM/IN/ASHLEYKOLLER

TOGETHER

we can all make a difference



Smucker Zero Waste to Landfill Journey



THE J.M. SMUCKER Co

Building a Scaled Zero Waste Program

- Start with a comprehensive inventory of waste streams across all sites.
- Evaluate new waste streams promptly to identify the best disposal or recycling methods.
- Optimize vendor relationships to consolidate services and increase financial returns.
- Facilitate best practice sharing among teams to drive continuous improvement.



Scaling Your Zero Waste Program

- Conduct a thorough inventory across all facilities to understand current waste streams
- Evaluate new waste streams promptly to determine optimal disposal or recycling routes
- Consolidate vendors where possible to streamline operations and increase returns
- Encourage best practice sharing across teams to foster continuous improvement

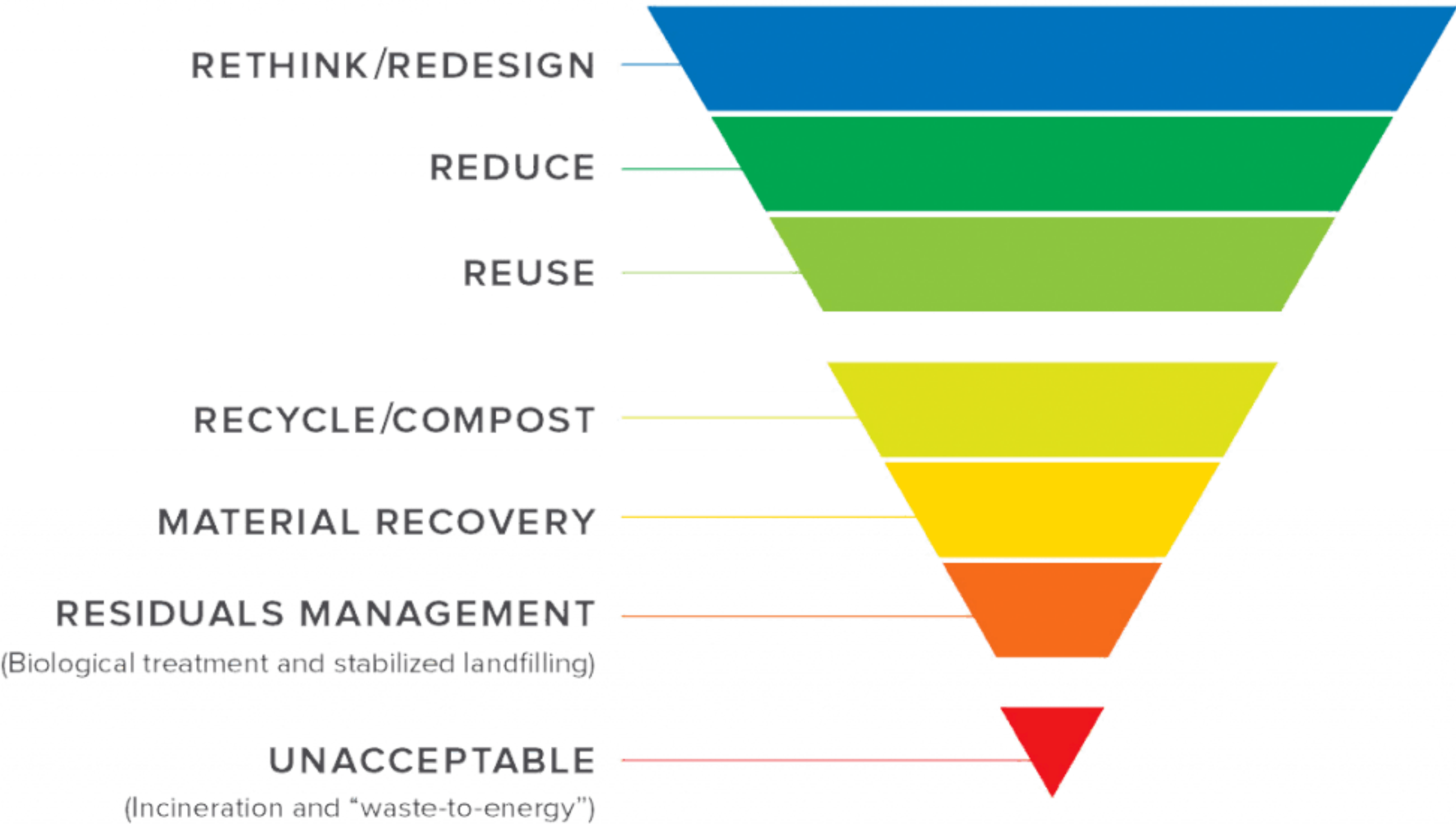


Inventory

What is leaving your facility? Where does it go?

THE ZERO WASTE HIERARCHY 8.0

For detailed version visit www.zwia.org/zwh



- FOG (fats, oils, greases)
- Plastic (evaluate what types)
- Cardboard
- Paper
- Food waste
- Metals
- Glass
- Trash
- Etc



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Optimization of Waste



- Waste diversion can save a lot of money. If you operate multiple sites evaluate what makes the most sense.
- Third party vendor to help manage waste streams – one for all, or one per stream.
- Doing it yourself- make a game plan and evaluate best waste stream and vendor for each stream on each site.



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Optimization of Waste

Pros

- Time savings
- Standardization
- Streamline communication

Cons

- Cost
- Occasionally reduction of offerings



Best Practice Sharing

If something works, **SHARE IT!**

- Monthly best practice sharing calls
- Group Emails
- Group chats (teams, slack, whatever you use)
- Build community & connection



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Starting Off with TRUE

- Budget!! TRUE is not cheap. If you have a lot of sites going through it, build a spreadsheet to track size of each facility and estimated costs for application process
- Organize: Which sites are you going to tackle, why, when? Make a plan & ensure you have local buy in at each site.
- Train: TRUE Advisor helps with basic training resources.



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TRUE Portfolio

Requirements

- Minimum of 5 projects
- All projects must be owned and managed by 1 organization
- Portfolio Manager
- Standardized processes & Policies



Benefits

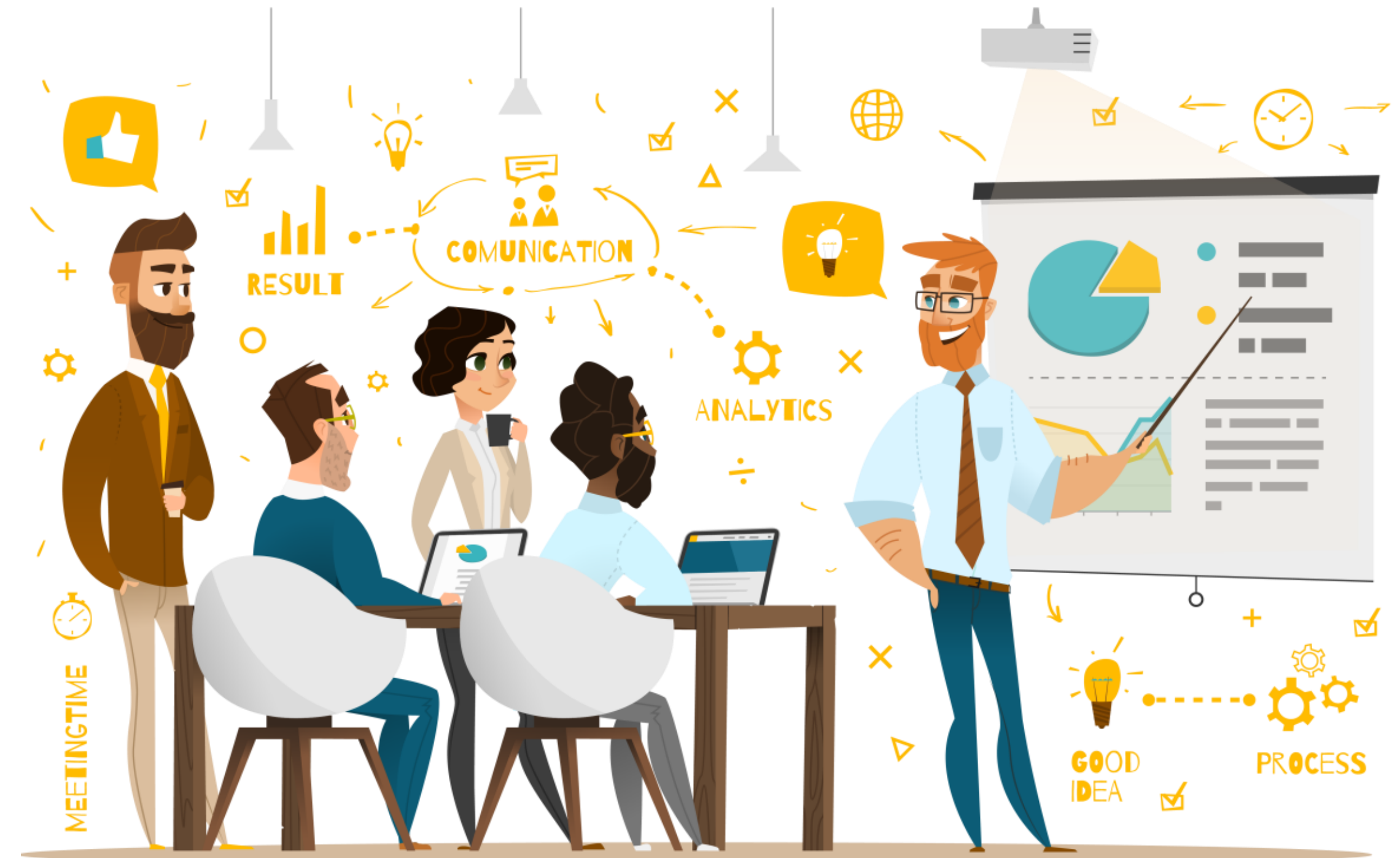
- Reduces work
- Expedites process
- Saves money (discount for bulk)



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Resource Building- Do it First

- Review TRUE requirements and assess what is realistic for all sites or majority of sites
- Blueprint what you can – the easier for others the better
- Build trackers, templates, folders and resources
- Have one project manager for the company to make it easier for sites



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Execution

- Meet with sites regularly
- Continue to update resources, if things are
- Create tracker to show which sites have gotten which credits
- Make COMPLETED application folders accessible to others for them to use as examples
- Celebrate victories



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2025

BREAKING BARRIERS STRATEGIC INITIATIVES

Together for a Greener Tomorrow

Tips on Achieving 90% TRUE Diversion

Challenge: Meeting the 90% diversion of waste from landfill and incineration/waste to energy can seem daunting. Understanding Reuse and Reduce opportunities helps to meet this goal.

Getting Started:

- **Meet with site teams**

- I. Explain what reduce and reuse is and have them brainstorm opportunities in their areas

- **Meet with contractors**

- I. Often janitorial, facility management and lab support vendors are already undertaking processes that count for diversion

- **Think outside the box**

- I. **Look at operations with a new a lens**
- I. Identify items that could be disposable that are reused at your facility

Reuse/Reduce Examples:

- **Cafeteria/Cafes**

- I. Durable dishes and utensils in place of disposables
- II. **Refillable water or coffee stations**

- **Labs**

- I. Lab Glass washing
- II. Safety glasses reuse
- III. Laundered labware such as coats, booties, coveralls, etc.

- **Facilities**

- I. Furniture reuse
- II. **Reusable boxes/crates for office moves**

- **Janitorial**

- I. Reusable microfiber clothes

- **Warehouse/Shipping & Receiving**

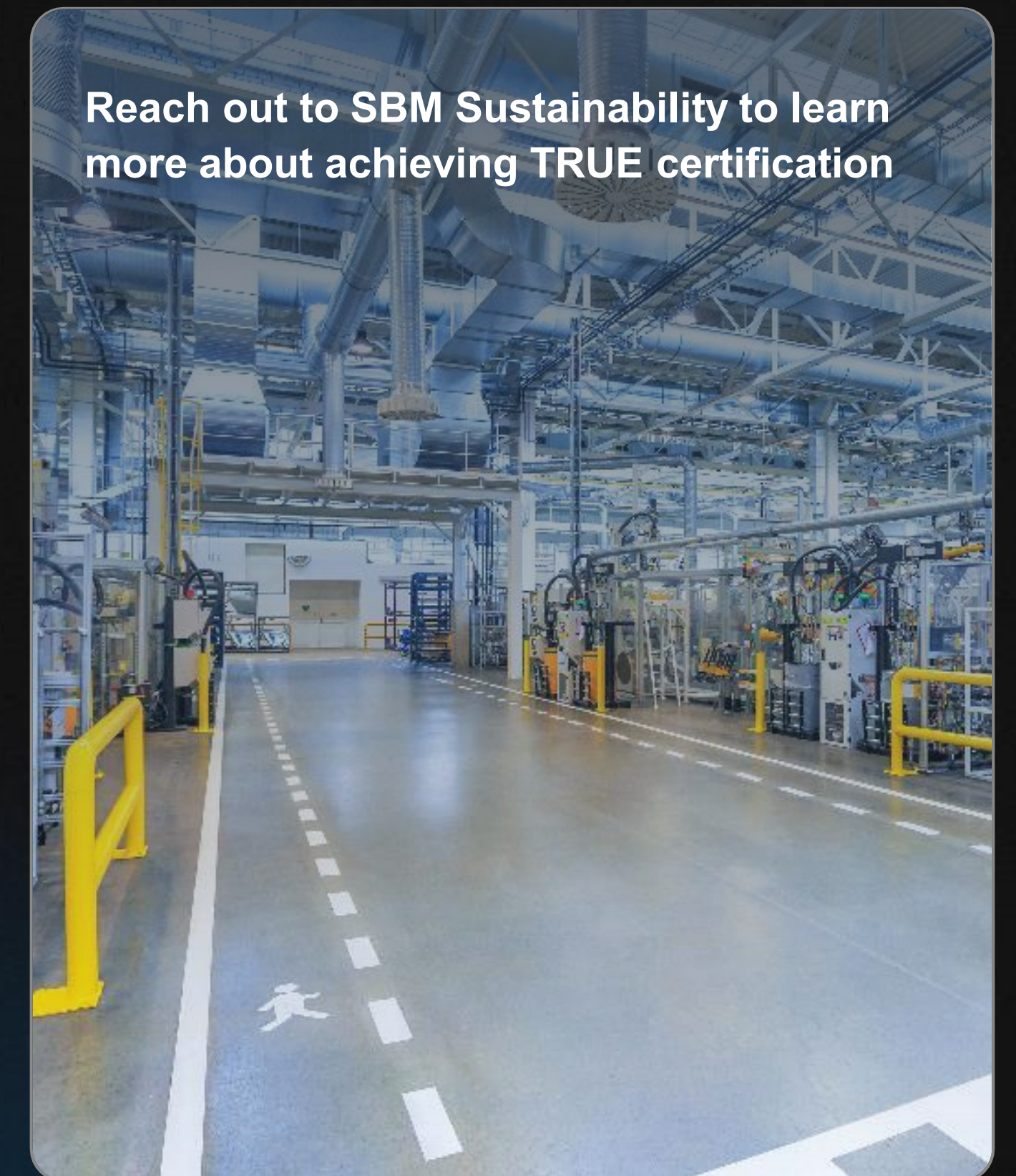
- I. Reuse of pallets
- II. Reuse of shipping containers/boxes/bubble wrap

- **Office Space/Human Resources**

- I. **Processes that are done electronically** that previously were paper driven

- **Landscaping**

- I. Grasscycling (letting clippings remain onsite)



CASE STUDY:

Finding Reuse

Project:

- Increase diversion beyond just recycle and compost

Challenges:

- Gathering data for Solid Waste Reporting, but don't have insight into many reuse programs run by the Business Units (BUs)
- The teams must rely on BUs' recollection of reuse programs and what programs can be identified by visual building assessments
- Business Units (BU) don't fully understand/recollect what processes or programs are considered reuse
- SBM and IFM don't necessarily know what items seen during building assessment are reusable

Solution:

- SBM identified different BU's that appeared to have large volumes of materials in either storage or movements
- SBM walked BU areas with BU managers to find more examples of reuse
- During meetings, guided questions and direction were used to help trigger what has been done to document the process and then identify ways to document actual volumes based on either monthly, quarterly or annual direction.

Progress:

- This walk with the BU managers allows the BUs to remember processes or programs they may have forgotten at previous meetings
- Although each of the client's sites have different operations, some reuse identified at one site provides knowledge of potential reuse happening at other sites

Next Steps:

- Determine how best to track reuse processes that are not currently being tracked
- Meet with the BU managers at the site previously assessed to discuss reuse items identified at second site that were seen at the first site but not listed as a reuse item

Additional Lessons Learned:

- Reuse programs that have been ongoing for long periods of time are often overlooked when reporting solid waste data
- Identification of reuse programs in BU areas can be improved by having BU manager accompany SBM Sustainability during walk-through

Tips to Achieve 90% TRUE Diversion: Warehouse/ Shipping & Receiving

Challenge: TRUE requires 90% diversion of waste from landfills and incineration/waste to energy. To meet this goal, it helps to understand reuse and reduce opportunities and the methods for identifying them.

Getting Started:

- **Meet with the Warehouse or Shipping/Receiving Manager**
 - I. Discuss and brainstorm any reduce or reuse programs already in place, as well as opportunities for new programs.
- **Track and document**
 - I. Once reuse and reduce programs are identified, determine the best way to document and track. Simplest methods are usually the best.

Diversion Program Examples:

- **Pallets**
 - I. Reuse of pallets to transport material around site
 - II. Reuse of pallets in outgoing shipments
 - III. Reuse of pallets on storage shelves
 - IV. Reuse of pallets to transport materials to and from the warehouse
- **Durable shipping containers**
 - I. Durable containers used by shipping and receiving
 - II. Durable containers used by a vendor to ship materials to the site
- **Boxes**
 - I. Requesting/ordering smaller boxes to fit materials better and reduce the need for excess packaging

Shipping/ Receiving Insight:

- **Utilize knowledgeable resources**
 - I. Shipping/receiving teams typically have insight into diversion programs directed by other teams on site. They can point you in the right direction to track and document those programs.
 - II. For example, they may:
 1. Coordinate special recycling shipments
 2. Coordinate shipments for donations
 3. Know of groups on site that use durable containers to send parts for maintenance



Reach out to SBM Sustainability to learn more about achieving TRUE certification

Strategy Reduction

Track Your Changes by Weight:

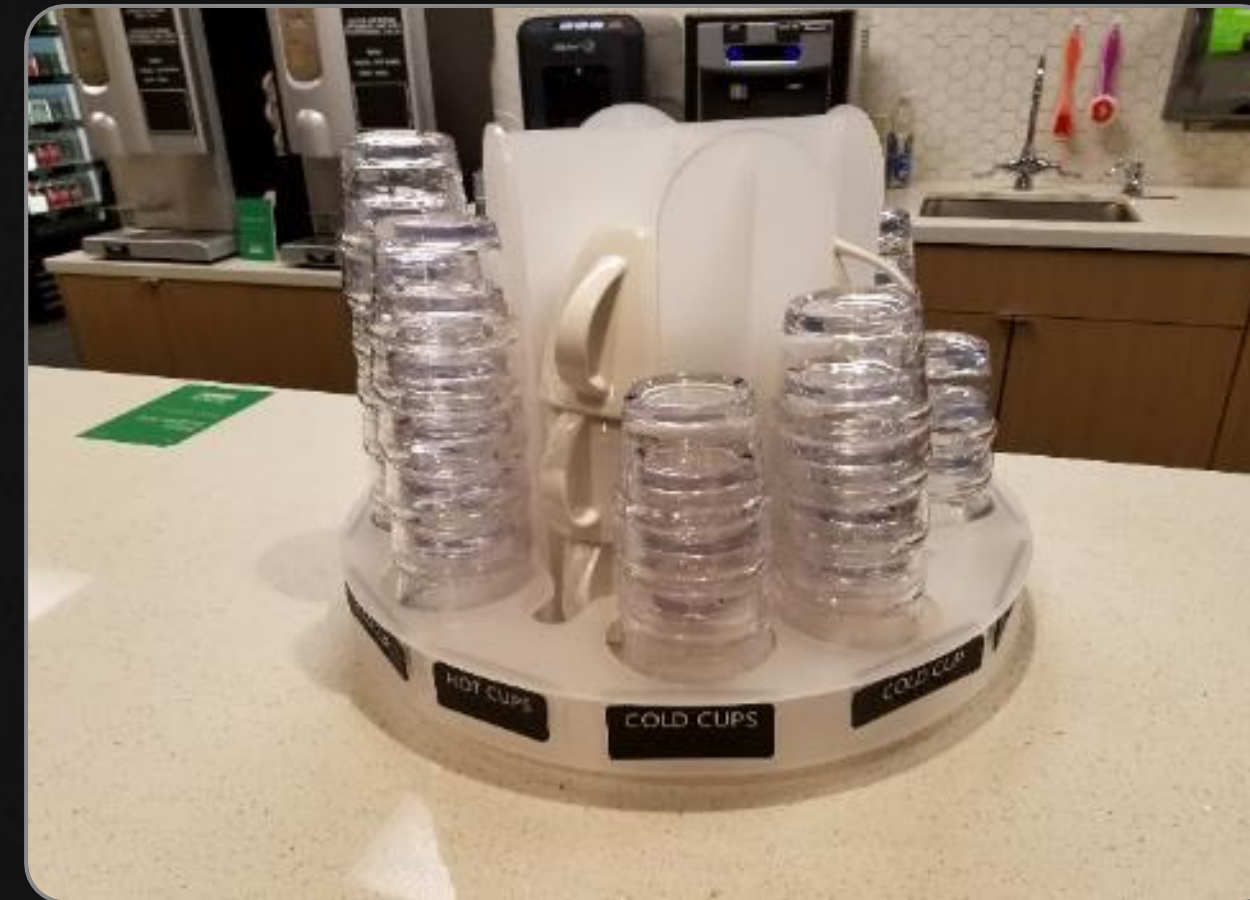
- I. Communicate your progress to employees, customers, etc.
- II. Document reduction and add to your sites solid waste report
- III. Must track the disposable replacement weight versus the weight of the replaced durables



Café Reduce

Move from Disposables to Durable Goods:

- I. Determine what is important
- II. Is this being driven by the company or employees
- III. Is it all or nothing?
- IV. Get purchasing case counts of TO-GO containers-- coffee cups, etc.--and weigh each item to establish the baseline
- V. Add up all TO-GO containers being used divide by case count
 - Multiply by monthly, quarterly or annual meals served



New program uses mugs, cups, silverware, plates and bowls, plus, bulk sugars, cream, and compostable stir sticks.

Reduce

Durable Reduction Calculation:

What is the hardest part of all this?

- I. Ability to track numbers
- II. Ability to collect accurate weights
- III. Ability to move forward getting the reusable counts and meals each month

Specifics	Calculations
Average Disposable Weight per Meal	1.25 Ounces
Meals Served per Month	26,400
Total Weight	$1.25 \times 26,400 = 33,000\text{lbs} / 16 \text{ .oz per lb. } 2,062$
Cost per Meal / To-Go container	\$0.46 cents
Cost per Durable Expected Reuse 250	$\$3.75/250 = \0.015 each meal
Estimated	$\$0.46 \times 26,400 = \$12,144$ $\$0.015 \times 26,400 = \369 \$11,700 SAVINGS
Cost per Ton to Landfill	$= 2,062/2,000 (1.03) \times \$145 = \$149$
Avoided Disposal Cost Plus Savings	$\$11,700 + \$149 = \$11,850$

Office Reduction

Covid actually helped with reduction of office paper...

- **HOW?** People did not want to touch items
- **RFP's:** as an example, typically they are an approximate amount of pages if printed, then they wanted them bound and 5-10 copies, Now we email 1 copy
- **Paychecks:** most have found a program that allows you to look at your paycheck stubs, in some applications employees might require the check. You figure out the number of printed pages x the number of people who receive electronic



Reduce (Cont.)

Office Reduction Calculation:

What is the hardest part of all this?

- I. Finding resources
- II. Ability to track numbers
- III. Ability to use formulas
- IV. Ability to move forward getting the Reduction annually

Specifics

Paper weight 5.12 pounds/500 sheets=.01 pounds

RFP (300 rfp, 120 pages per rfp, x 7 copies)

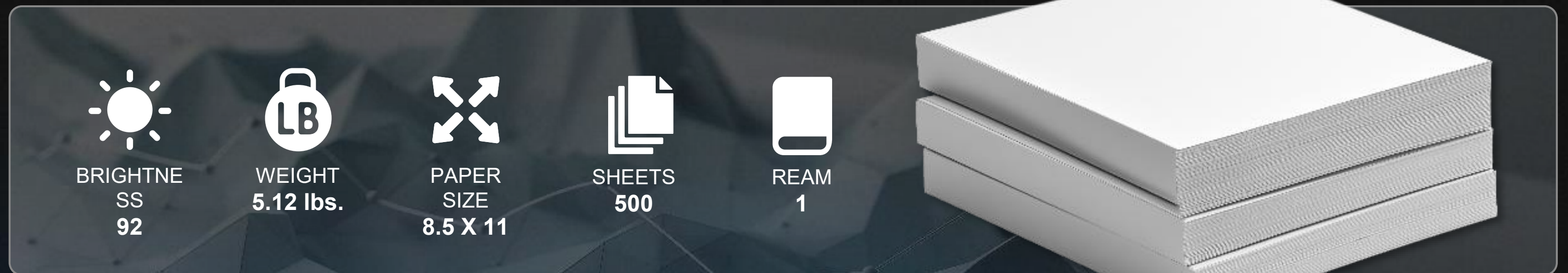
Payroll (9K staff, 26 x a year, 3 pages)

Calculations

of item x # of pages x # of annual copies= weight of pages

=300*120 (36,000)x 7 (252,000) x .01=2,581 lbs.

=9,000*26 (234,000)x 3 (702,000) x .01=7,188 lbs.



BRIGHTNE
SS
92

WEIGHT
5.12 lbs.

PAPER
SIZE
8.5 X 11

SHEETS
500

REAM
1

Check What Weight of Paper Your Company Uses

Lab Reduction

Reduction

- I. No longer buying disposables
- II. Reusing trays
- III. Glass/ Plastic Wash
- IV. Gowning
- V. Commercial cleaning is more efficient, eliminates each piece of plastic on given item



New program cleans trays versus direct to recycle, Launderers versus disposables, Dishes

Reduce (Cont.)

Lab/ PPE Reduction Calculation:

What is the hardest part of all this?

- I. Finding resources
- II. Ability to track numbers
- III. Ability to use formulas
- IV. Ability to move forward getting the Reduction annually

Specifics

Gowning / PPE

Coveralls (902 washed, 1-25 ct. box = 6.6 lb.)	= 902 * (6.6 / 25) = 238 lb.
Hoods (863 washed, 1-100 ct. box = 13 lb.)	= 863 * (13 / 100) = 112 lb.
Boots (824 washed, 1-50 ct. box = 9.33 lb.)	= 824 * (9.33 / 50) = 154 lb.
Frocks (813 washed, 1-24 ct. box = 11 lb.)	= 813 * (11 / 24) = 373 lb.
Gloves (1176 washed, 1-1000 ct. box = 19.8 lb.)	= 1176 * (19.8 / 1000) = 23 lb.
Safety Glasses (482 washed, 1 pair = 0.12 lb.)	= 482 * 0.12 = 58 lb.

Calculations

of items washed x weight of disposable avoided = total weight reduced

Total Weight Reduced = 958 lb. in 1 month

Uline Economy Elastic Coverall, Zip Front - White, Medium



Disposable and economical.

- Recommended for parts assembly, general maintenance and light manufacturing.
- Breathable polypropylene material provides a lightweight protective barrier.
- Protects against dust and grime.
- Non-allergenic, resists mildew.
- Zip front, fold-down collar, elastic wrists and ankles.
- [Sizing Chart](#).

Availability: In Stock
 Unit Weight: 6.60 lbs.
[Catalog Page 743](#)
[Email Item](#)

MODEL NO.	DESCRIPTION	QTY. / BOX	PRICE PER BOX		COLOR	SIZE	IN STOCK SHIPS TODAY
			1	5+			
S-15375W-M	Elastic, Zip Front	25	\$49	\$46	<input type="checkbox"/> White ▾	Medium ▾	<input type="text" value="1"/> <input type="button" value="ADD"/>

Reduce (Cont.)

Cups Reduction Calculation:

What is the hardest part of all this?

- I. Finding resources
- II. Ability to track numbers
- III. Ability to use formulas
- IV. Ability to move forward getting the Reduction annually

Specifics

Disposables reduced through use of durables

Disposable cups (141,592 washed in 1 year,
1-1000 ct. box = 25 lb.)

Calculations

of durable items washed x weight of disposable item = weight of disposables reduced

$$= 141,592 \times (25 / 1000) = 3,540 \text{ lb.}$$

Uline Crystal Clear Plastic Cups - 12 oz



Top quality, Uline value.

- Strong, ultra-clear virgin plastic.
- [Lids](#) available. Sold separately.

MODEL NO.	DESCRIPTION	SIZE	QTY. / CASE	PRICE PER CASE		IN STOCK SHIPS TODAY
				1	4+	
S-22275	Clear	12 oz.	1,000	\$83	\$77	1 <input type="button" value="ADD"/>

[Additional Info](#)
[Accessories](#)
[Shopping Lists](#)
[Request a Catalog](#)

DIMENSIONS:

- Height: 4 1/4"
- Diameter:
 - Top: 3 5/8"
 - Bottom: 2 1/4"

Availability: **In Stock**

Unit Weight: **25 lbs.**

[Catalog Page 391](#)

[Email Item](#)

Bulk Break Area Dispensing

Reduce Breakroom Waste:

Eliminate Single-Service Coffee Condiments With Dispensers

- Eliminates stocking small quantities of product
- Cleaner look
- Eliminates the waste associated with the individual packets
- Product called Perfect Servings is an option

Single Use Mini-cup Creamer; Buy In Bulk!

- Creamer pump bottle approximately 300 servings per bottle
- One pump equals one liquid creamer single-serving cup
- Creamer offers an ambient, 30-day shelf life after opening and a nine-month shelf life before opening



=



Container Count	Ounces	Cost*
360	136.8	\$42.49
1	50.7	\$21.49





CASE STUDY:

TRUE (Zero Waste) Certification

A Journey from Gap analysis to Certification

Challenge:

- Guiding a client new to TRUE from the initial Gap Analysis through to achieve certification.

Lessons Learned:

- Credits that seem easy may not be feasible. Conversely, credits that appear challenging may be quite attainable.
- Certification is an interdepartmental collaborative effort between the site team, waste haulers, and janitorial service provider.
- A client champion is critical to accomplish changes necessary for achieving credits and driving new programs.

Progress:

- Gold level certification is currently under review with the TRUE team.
- **Bonus:** Site has won a state award for recycling as a result of the programs implemented for TRUE.

Reach out to SBM sustainability to learn more about achieving TRUE

certification

SBM Confidential

Credit Category	GAP ANALYSIS			APPLICATION	
	Not Likely or Not Applicable	Possible Need additional information	Already in Place or Achievable	Not Included	Included
Redesign	1	0	3	1	3
Reduce	1	2	4	2	5
Reuse	2	0	5	2	5
Compost (Re-earth)	1	4	2	2	5
Recycle	1	1	1	0	3
Zero Waste Reporting	0	1	3	1	3
Diversion	2	2	1	3	1
Zero Waste Purchasing	0	4	5	6	3
Leadership	2	1	3	4	2
Training	1	1	6	2	6
Zero Waste Analysis	0	0	5	0	5
Upstream Management	3	0	1	0	0
Hazardous Waste Prevention	1	1	3	1	4
Closed Loop	2	2	0	0	3
Innovation	0	3	0	1	2
Pilot Credits	0	1	1	1	1
82	17	22	43	26	51

CASE STUDY:

TRUE (Zero Waste) Certification (Cont.)

Challenge:

- Guiding a client new to TRUE from the initial Gap Analysis through to achieve certification.


Path to Zero Waste Certification:

- Complete a Baseline Waste Assessment to determine current diversion rate as defined by TRUE.
- Identify existing programs that can be included in the diversion rate.
- Implement new programs to drive diversion rate up.
- Complete a gap analysis to determine credits that are already achieved and those credits that are achievable.
- Commence with TRUE Certification.

Result:

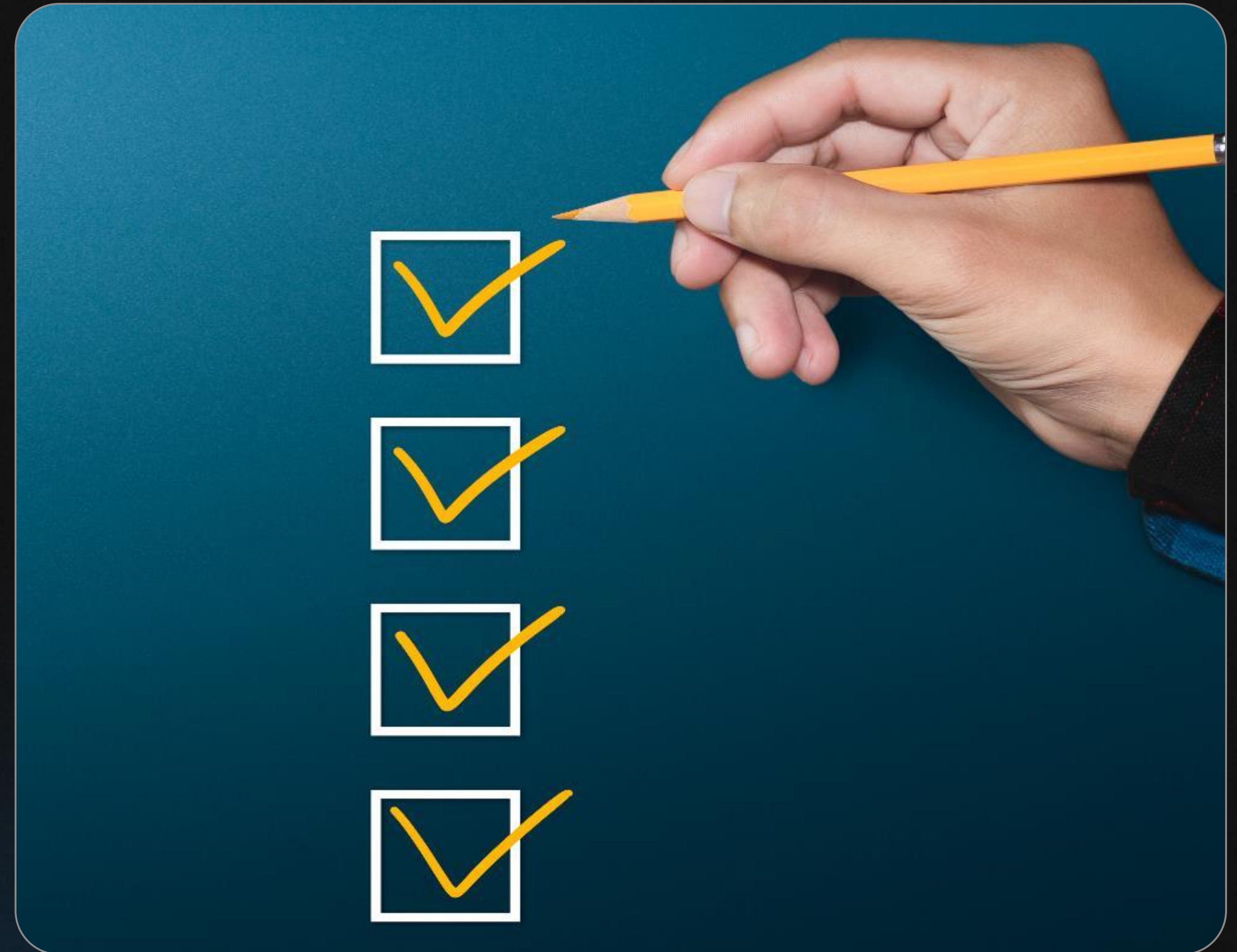
- 91% waste diversion from landfill and incineration achieved
- 50 out of 51 credits submitted with application were approved.
- Gold level certification awarded.
- Bonus – Site has won a state award for recycling as a result of the programs implemented for TRUE.



 * Indicates new program

Take Action

- I. Conduct a building walk looking beyond your normal, recycle, compost and landfill
- II. Are you capturing all items?
- III. Adjust your Solid waste tracker to add in reduction
- IV. Reach out if you need ideas or help




Thank You



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