



Let's Recycle Better, Together.

WASTE DIVERSION FROM AIRPORT OPERATIONS

WEDNESDAY, AUGUST 26
1:00 TO 2:15PM ET



Today's Panelists



Morgan Turner

Owner & Principal

**Airport Zero Waste
Consulting**



Meredith Danburg-Ficarelli

Co-Founder & COO

WATS
(Waste Analytics Software)



William Calabrese

*Manager, Environmental
Compliance & Sustainability*

**LaGuardia Gateway
Partners**

Stick Around For....



Product demo with:

Sarah Hawthorne

Business Development Manager

Join the Discussion

From your toolbar:



Share your experience
& opinions

Look for links
to resources

Type direct questions
for panelists

Waste Diversion from Airport Operations

PRESENTED BY MORGAN TURNER, TRUE ADVISOR



Morgan Turner

Owner, Principal

269-967-4722

morgan@airportzerowaste.com

www.airportzerowaste.com



Part 1 of 2

Waste at Airports

Challenges

Leveraging Data

AIRPORT WASTE STAKEHOLDERS



Airport Authority



Airlines



Concessionaires



TSA



Custodial



**Cabin Cleaning
Flight Catering
Ground Handling**



Passengers



Waste Hauler

AIRPORT WASTE STREAMS

- Municipal Solid Waste
 - Trash
 - Recyclables
 - Compostables
 - Recoverables
- Construction and Demolition Waste
- International Waste
- Hazardous and Other Special Waste

Trash



Recyclables



Recyclables



Compostables



Recoverables



Airport Drivers

- Regulation/Requirements
- Costs
- Other Airports

Airport Challenges

- Passenger Behavior
- Security Restrictions
- Labor
- Space
- Costs
- Partner Practices
- Decentralization

A BALANCING ACT

Airport Industry Drivers

- Carbon Accounting
- Waste Goals
- Circular Economy

WM Industry Challenges

- Contamination
- Material Markets
- Mergers and Acquisitions
- Data Availability

AIRPORT WASTE REQUIREMENTS

- Federal regulation
- State law
- City and county ordinances
- Airport policy

AIRPORT WASTE BEST PRACTICES



**Zero Waste/
Diversion Goals**



**Reduction/
Avoidance**



Reuse



Donation



Liquid Collection



**Recycling /
Composting**



**Waste to
Energy/Fuel**



**ESG Reporting &
Carbon Accounting**

AIRPORT WASTE CHALLENGES

- Contamination
 - Liquids
- Lost capture
- Pallets / bulky items
- Generic education, signage, reporting, and feedback

AIRPORT WASTE DATA

- Composition
 - Including contamination and lost capture
- Volume
- Sources
- Costs
 - Financial and other
- Foreign Object Debris (FOD)
- Service events and interruptions
- Green House Gas (GHG) emissions and other impacts



LEVERAGING WASTE DATA

- Quantify impacts
- Increase efficiency
- Collect rebates/credits
- Project and anticipate trends
- Prioritize diversion strategies
- Support Airport Carbon Accreditation and sustainability/ESG reporting



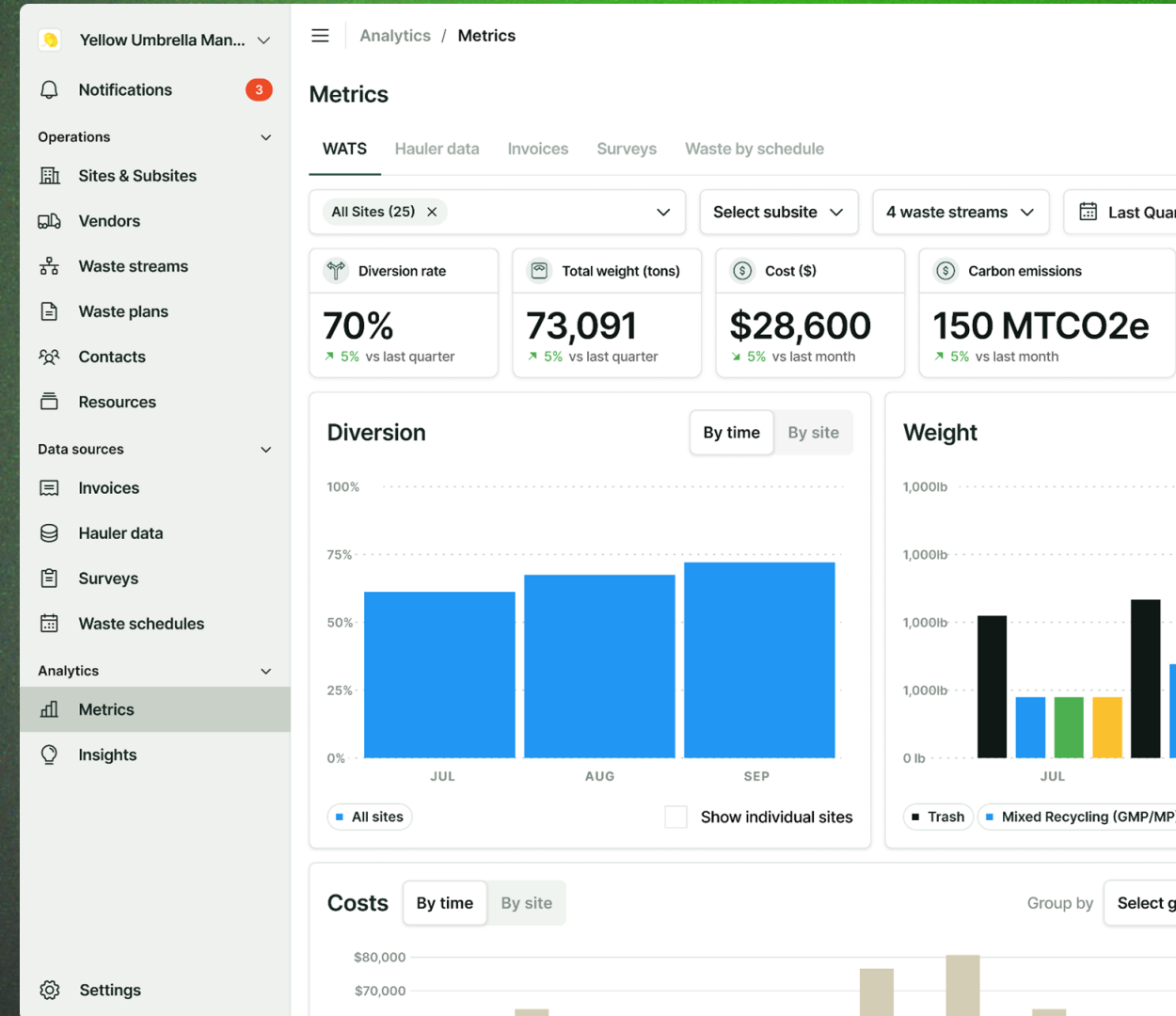
A better way to manage waste data

Airport Waste Diversion

Implementing a Pay as you Throw system with concessions

August 26, 2026

meredith@getWATS.com



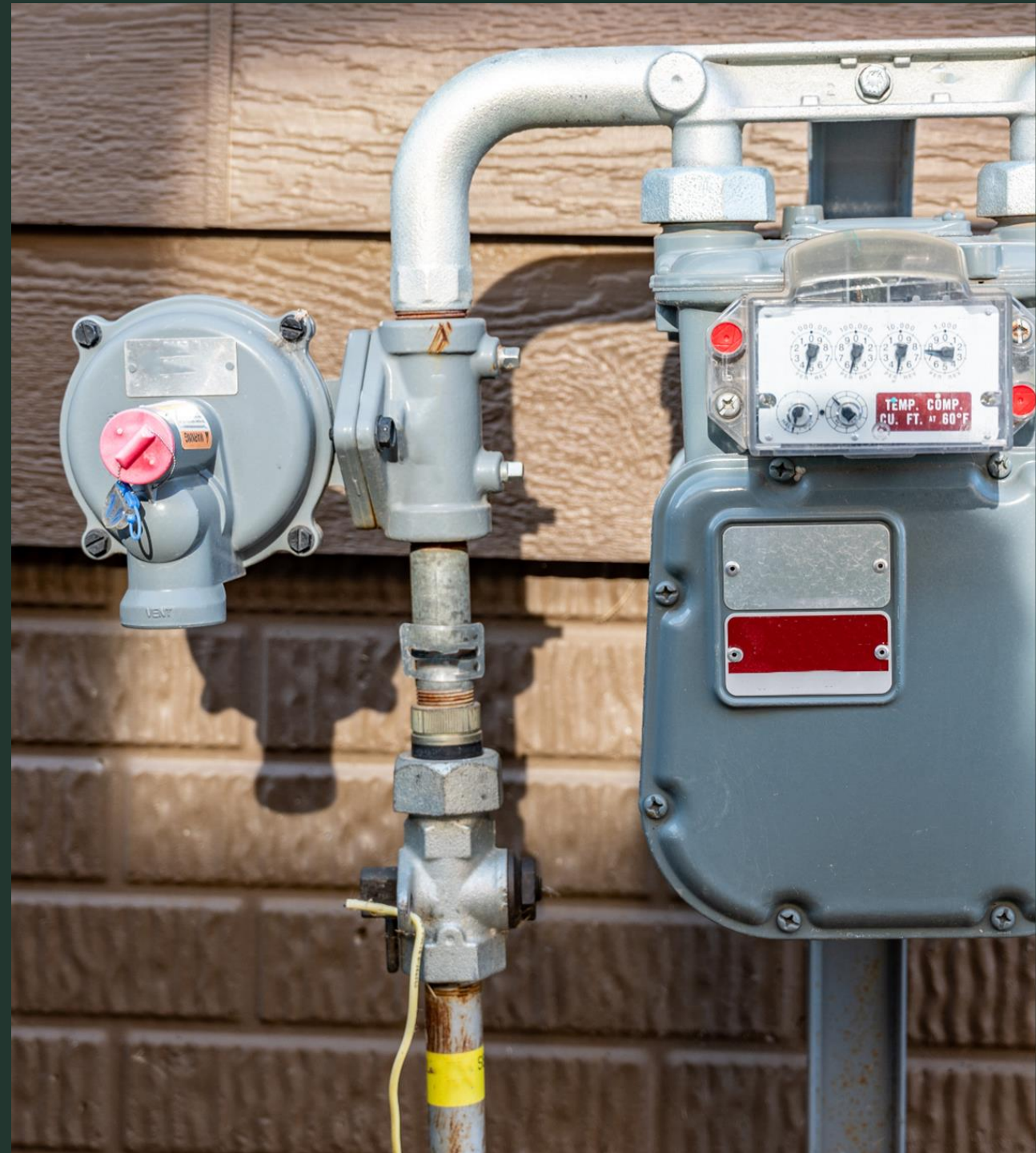
Introduction & Context

Waste is an outlier among utilities

Waste is similar to utilities like energy and water. It has...

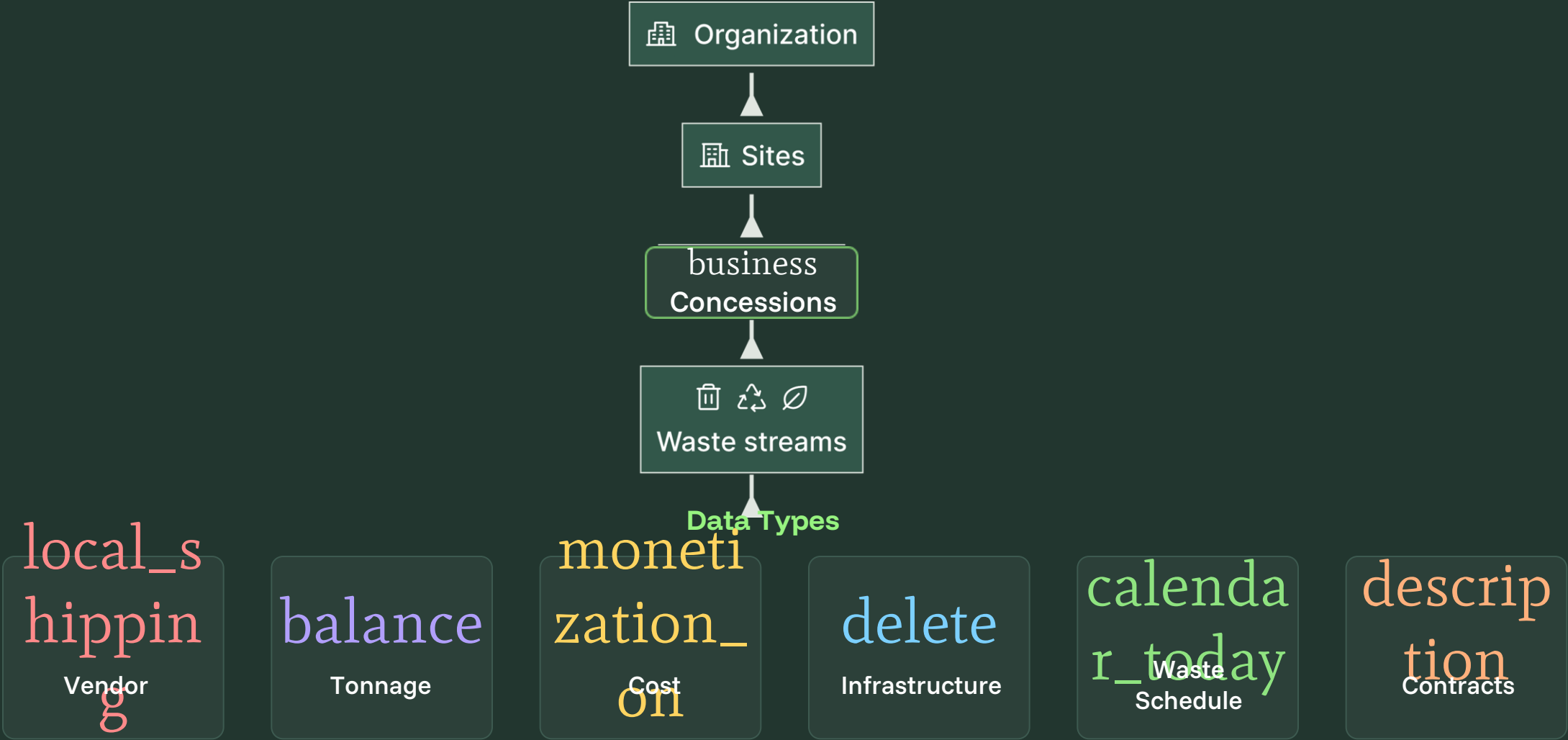
1. A line item in budget planning
2. Vendors with contracts and obligations
3. Monthly costs
4. Infrastructure...

BUT in sustainability, waste is often ignored in business strategy.

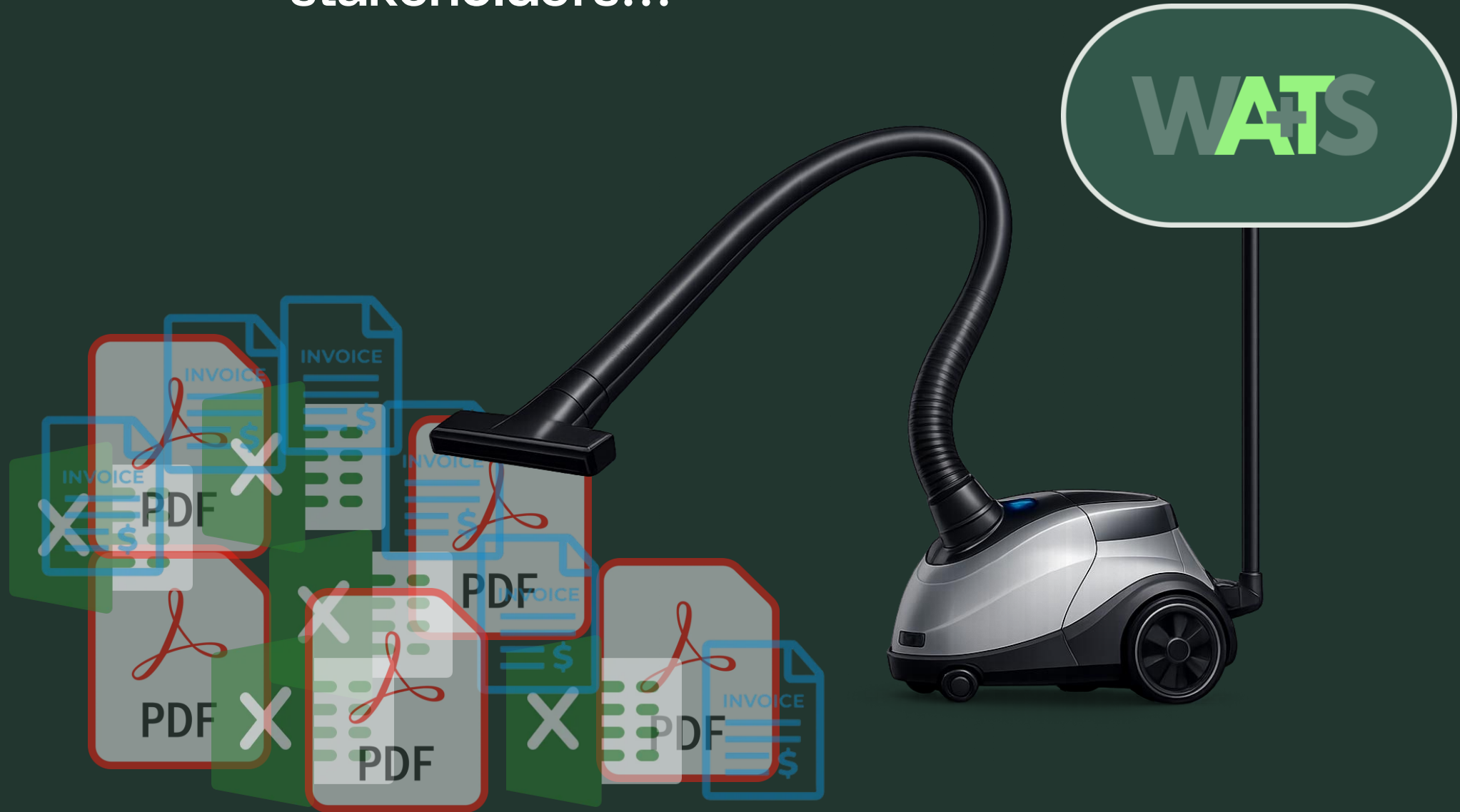


Data model

Organizations have sites. Sites have waste streams.
Waste streams have various data types.



Ingesting waste data from various stakeholders...

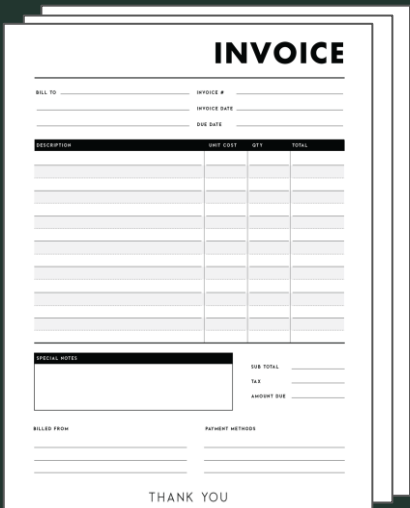


waste less. Save more.



Data Source Agnostic

Whatever waste data you have, WATS will ingest it



Monthly Tonnage

2025 RECYCLING ANALYSIS
Yellow Umbrella
221 Canal St
NEW YORK, NY

REPORTING PERIOD	RECYCLING (TONS)	ORGANICS (TONS)	C&D (TONS)	TRASH (TONS)	OVERSEEN DATE
JANUARY	3.05	0.00	0.00	19.77	20.82%
FEBRUARY	3.03	0.00	0.00	14.66	17.13%
MARCH	3.46	0.00	0.00	11.37	23.36%
APRIL	2.52	0.00	0.00	10.61	19.17%
MAY	3.30	0.00	0.00	8.53	25.74%
JUNE	3.57	0.00	0.00	11.02	24.48%
JULY	3.87	0.00	0.00	2.79	50.87%
AUGUST					#DIV/0!
SEPTEMBER					#DIV/0!
OCTOBER					#DIV/0!
NOVEMBER					#DIV/0!
DECEMBER					#DIV/0!
TOTALS	24.00	0.00	0.00	79.75	23.13%

**This report may include estimates and projections based on available data

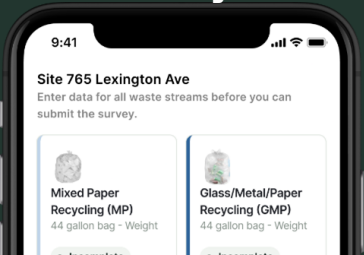
Audits



Collection

WASTE STREAM	EST. MONTHLY WEIGHT
Organics	4,392 lbs
Recycling	3,464 lbs
Food Donation	3,600 lbs
E-waste	1,083 lbs
Landfill	3,118 lbs
Construction	5,196 lbs

Surveys



Manifests, Scale Tickets

Sutter Metals
109 Carpenter Rd. NE
Lacey, WA 98516
Phone : (360) 456-4974
Website : suttermetals.com

SCALE TICKET

PAGE : 1

Material	Gross	Tare	Mpt Adj	Weight	Prison	\$ Adj	Amount
ALUMINUM 6063 PAINTED	1.225	416		609 LBS	\$ 0.70		\$426.30
SHREDDER STEEL	0.19	0.00	0.00	0.19 GT	\$ 90.00		\$17.10
FREIGHT	1.00	0.00	0.00	1.00 PER	\$ -50.00		\$50.00-
FOR 12/28 PICKUP	1			1 LBS			
Totals	1.225	416		609 LBS			\$493.40
	0.19	0.00	0.00	0.19 GT			\$17.10
	1.00	0.00	0.00	1.00 PER			\$50.00

Comments: OK TO PAY

Waste streams

WATS is waste stream and vendor agnostic. View all your data in one place.

Yellow Umbrella Man... ▾

Notifications 3

Operations ▾

Sites & Subsites

Vendors

Waste streams

Waste plans

Contacts

Resources

Data sources ▾

Invoices

Hauler data

Surveys

Waste schedules

Analytics ▾

Metrics

Insights

Waste streams 18

Q Search

Standard



Cardboard



Glass/Metal/Plastic



Organics



Trash

Specialty



Bulk Recycling



Construction and De



E-Waste



Hazardous Waste



Batteries



Medical Waste

Donations

Vendors 36

Q Search

All Sites (23) X

NAME	SITES	EMAIL
 ABC Hauling Hauler	All Sites	
 Action Carting Hauler	50 5th Ave 900 8th Ave +3 more	frizzo@inters
 All Shredding Corp. Specialty Waste	50 5th Ave 221 Canal St +3 more	info@allshred
 Athens Services Hauler	50 5th Ave	cs@athensse
 Better Hauling Company Hauler	50 5th Ave 765 Lexington Ave +3 more	hello@bhc.co
 Biocotech - food waste machine Processor	50 5th Ave 72 13th Street +2 more	
 Burrtec Hauler	236 E. Broadway	pari@gmil.co
 CheckSammy Specialty Waste	765 Lexington Ave	rmay3@wm.c
 Common Ground Compost Waste Auditor	--	
 Cooper Tank Recycling Specialty Waste	765 Lexington Ave	info@coopert
 Curbside Compost Hauler	72 13th Street 765 Lexington Ave	info@curbcon
 EWASTE+	72 13th Street	

Make waste data usable

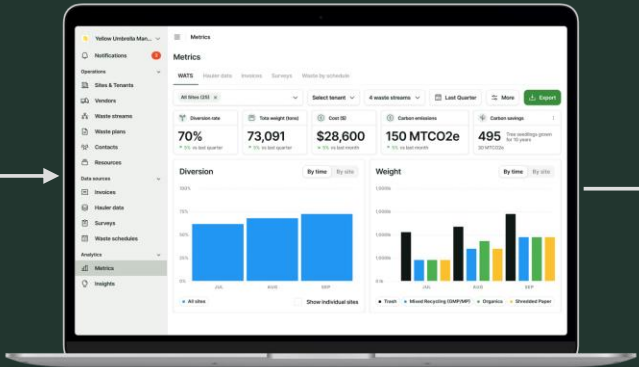
Step 1: Collect



Step 2: Digitize



Step 3: Normalize



Step 4: Optimize





Comparative Data

WATS calculates waste volume from each site's containers and service schedules to identify opportunities and fill data gaps.

Yellow Umbrella Mana...

Notifications 3

Operations

Sites & Subsites

Vendors

Waste streams

Waste plans

Contacts

Resources

Data sources

Invoices

Hauler data

Surveys

Waste schedules

Analytics

Metrics

Waste plans / 765 Lexington

Waste plan for 765 Lexington

Copy link

Export

WASTE STREAM	VENDOR	FREQUENCY	CONTAINER	SCHEDULE	EST. MONTHLY WEIGHT
Organics	Blue Earth Compost	Weekly	1 Toter 64 gallon	M T W T F	4,392 lbs
Recycling	ABC Hauling	Weekly	1 Rear End Loader 4 yard	M T W T F	3,464 lbs
Food Donation	Rescuing Leftover Cuisine	Weekly	10 Tray	M T W T F	3,600 lbs
E-waste	4th Bin	Quarterly	1 Tilt Truck 1 yard	M T W T F	1,083 lbs
Landfill	ABC Hauling	Weekly	1 Rear End Loader 2 yard	M T W T F	3,118 lbs
Construction	Cooper Tan Recycling	On Call	1 Rear End Loader 2 yard	M T W T F	5,196 lbs
					20,853 lbs

Automatic Data Ingestion

Automated data extraction using OCR and machine learning technologies.

**A Better Hauling Co.**
Yellow Umbrella Management
765 Lexington Avenue

Invoice
Invoice Number: 000086312
Account Number: 06438
Invoice Date: 05/01/2022
Invoice Total: \$8,175.60
Total Balance Due: \$8,175.60

Service Date	Work Order	Description	Qty	Rate	Amount
4/1/2022 - 4/30/2022	000014954	Cubic Yards Organics	367.05	\$12.00 / yd	\$4,404.60
4/1/2022 - 4/30/2022	000014985	64 Gallon Organics Tote Pickup	80.00	\$10.00	\$800.00
4/1/2022 - 4/30/2022	000014985	64 Gallon Recycling Tote Pickup	65.00	\$12.00	\$780.00
4/7/2022	000014037	1 Self Contained Compactor, 25 YD	4.20	\$90.00 / ton	\$378.00
4/7/2022	000014041	Compactor Dump and Return	1.00	\$100.00	\$100.00
4/15/2022	000014216	1 Self Contained Compactor, 25 YD	5.15	\$90.00 / ton	\$463.50
4/15/2022	000014234	Compactor Dump and Return	1.00	\$100.00	\$100.00
4/22/2022	000014556	1 Self Contained Compactor, 25 YD	5.63	\$90.00 / ton	\$506.70
4/22/2022	000014580	Compactor Dump and Return	1.00	\$100.00	\$100.00
4/30/2022	000014892	1 Self Contained Compactor, 25 YD	4.92	\$90.00 / ton	\$442.80
4/30/2022	000014905	Compactor Dump and Return	1.00	\$100.00	\$100.00
Invoice Total					\$8,175.60

✓ File details

Site: **765 Lexington Avenue**
Vendor: **A Better Hauling Co**
Client: **Yellow Umbrella Management.**

✓ Invoice details

Account number: **06438**
Invoice number: **000086312**
Received date: **05/01/2022**
Total amount: **\$8,175.60**

✓ Line items summary

Items 11

SERVICE DATE	WASTE STREAM	CONTAINER	QUANTITY
04/01/2025	Organics	4 cubic yards	367.05
01/10/2025	Organics	64 gal Tote	80
01/10/2025	Recycling	64 gal Tote	65
01/10/2025	Trash	25 yd comp...	4.20

Automatic Data Collection

Unique email address for each client enables automated data acquisition direct from your vendors.





Data Coverage

Report with confidence

Yellow Umbrella Man... ▾

Search

Home

Operations ▾

Sites & Tenants

Vendors

Waste streams

Surveys

Contacts

File schedules

Data sources ▾

Files

Survey data

Waste schedules

Analytics ▾

Data coverage

Metrics

Insights

Anomalies

Waste plans

Analytics / Data coverage

Data coverage

Analyze your waste tonnage data per active sites and waste streams for completeness based on reporting data source. Identify gaps and take relevant next steps.

All sites (25) ▾

All waste streams ▾

All vendors ▾

All data sources ▾

Year to date

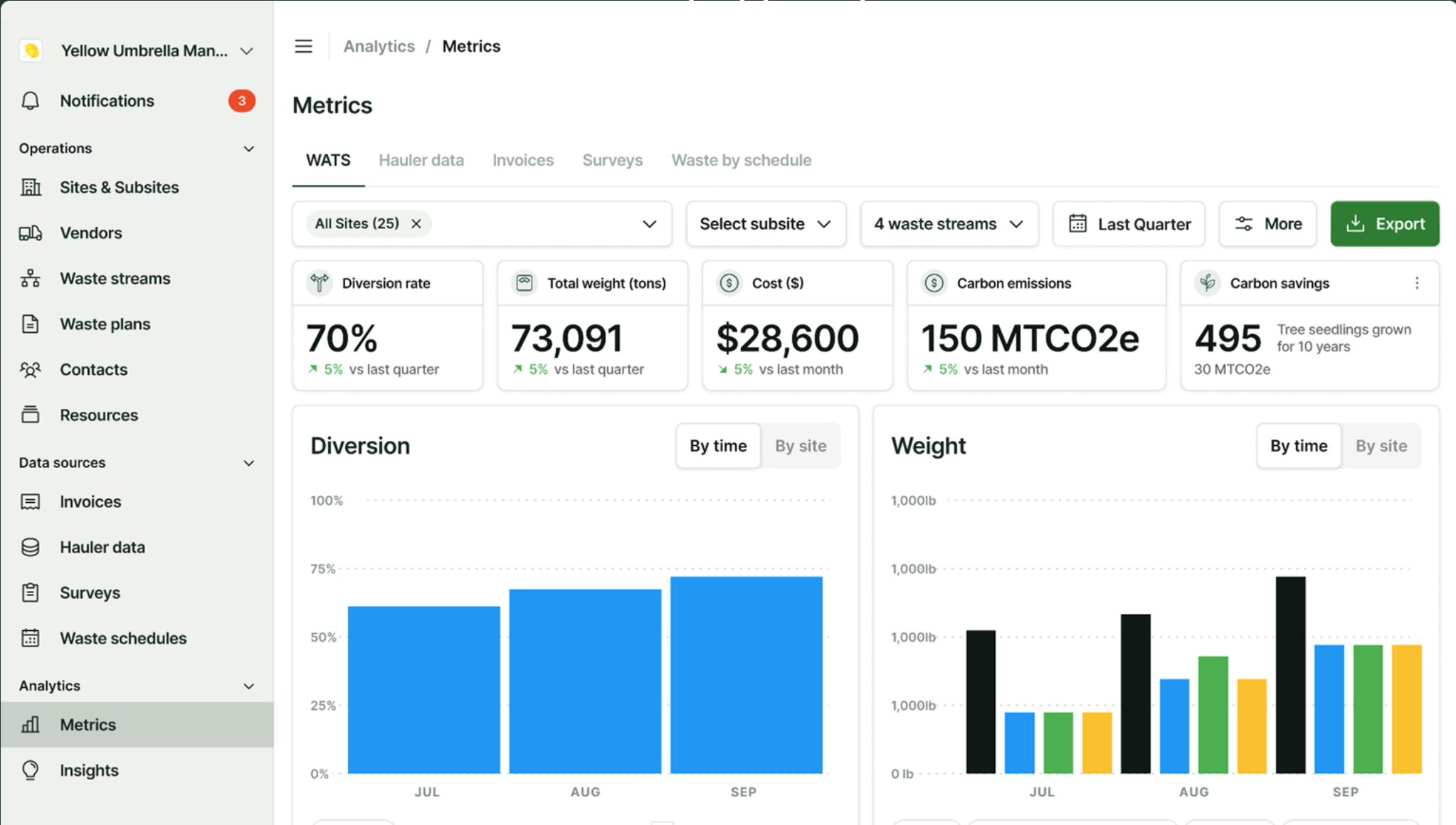
70% Data coverage

SITE	WASTE STREAM	VENDOR	REPORTING DATA SOURCE ⓘ	DATA COVERAGE	MONTHS
▾ Aberdeen (2)				71%	
	Trash	Rubicon	Invoice	63%	✓ Jan ✗ Feb ✗ Mar 🕒 Apr 🕒 M
	Recycling	Waste management	Waste schedules	55%	✗ Jan ✓ Feb ✗ Mar ✗ Apr ✗ M
	Compost	Common Ground	Hauler data	100%	✓ Jan ✓ Feb ✓ Mar ✓ Apr ✓ M
	C&D	Waste management	Invoice	100%	✓ Jan ✓ Feb ✓ Mar ✓ Apr ✓ M
	E-Waste	Greenchip	Hauler data	38%	✗ Jan ✗ Feb ✗ Mar ✗ Apr ✗ M
> Astoria (2)				77%	
> Anchorage (2)				77%	
> Bayonne (2)				77%	
> Baltimore (2)				77%	



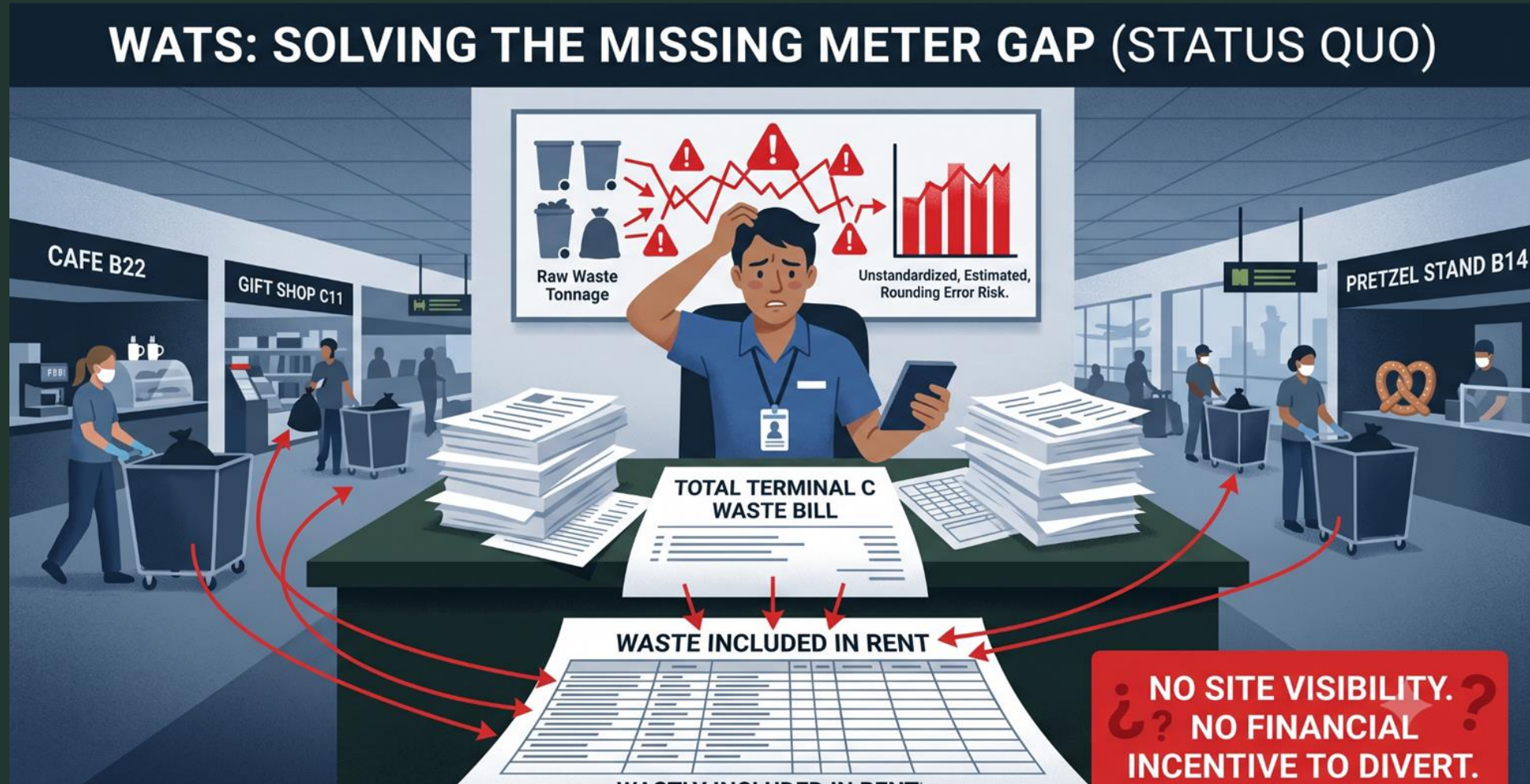
Real-time analytics & metrics

WATS automatically translates unstructured data into an easy to understand



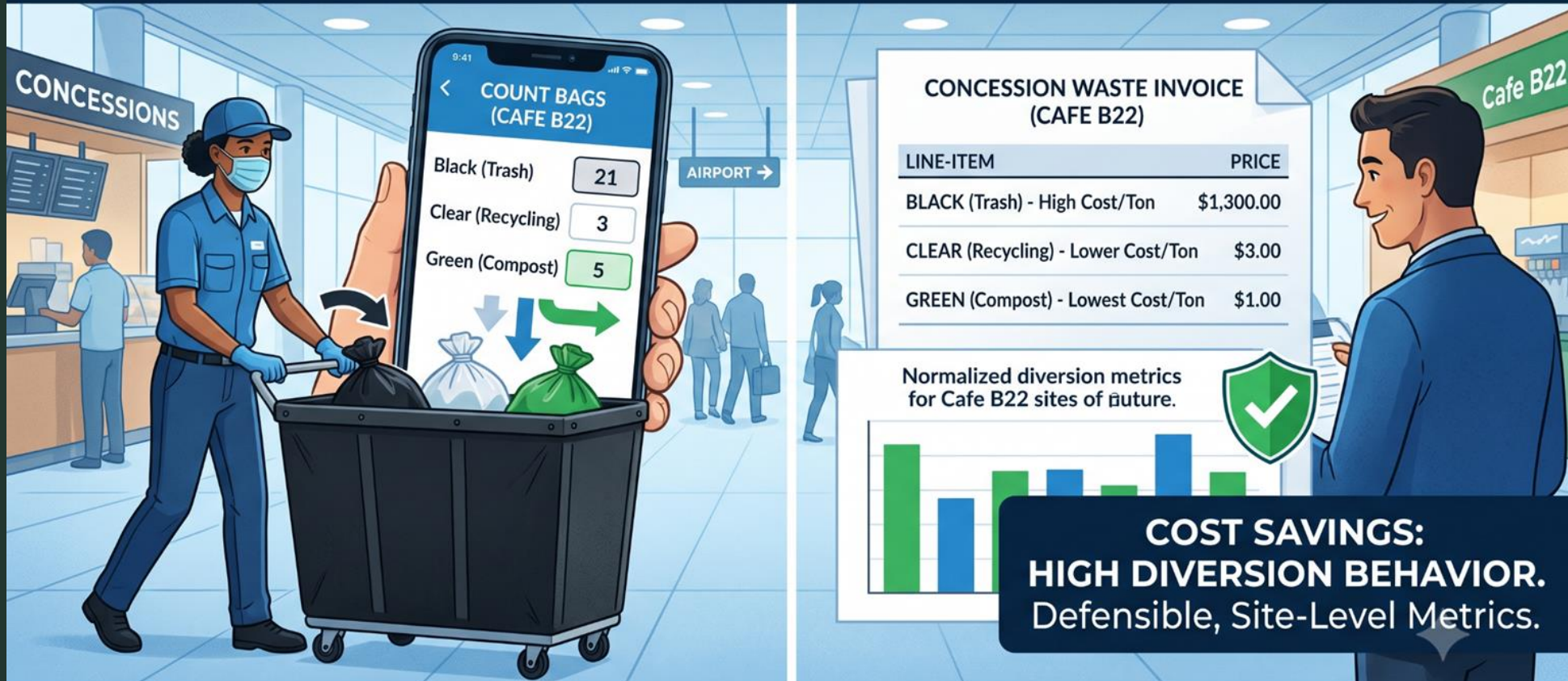
The Status Quo

Lacking Transparency, Context, Incentives



Measuring Diversion Behavior and Volume

DATA-DRIVEN INCENTIVES (THE TRANSPARENT SYSTEM)



TURN *messy* OPERATIONS INTO AUDITABLE INTELLIGENCE

Concession-level measurement

Enter name once, and WATS remembers it for the rest of the janitor's day

9:41

Enter your name

Karl

Start survey

AA getWATS.com

< > ⬆️ 📖 📄

Concession-level measurement

Customizable concession/tenant/sub-entity creation

9:41

Enter your name

Karl

Start survey

AA getWATS.com

9:41

Select tenant 0 of N Completed

Search

Starbucks >

Dunkin' Donuts >

Shake Shack >

Hudson News >

Panda Express >

Chick-fil-A >

Blue Smoke >

Café Gourmet >

Submit survey

AA getWATS.com

Concession-level measurement

Customizable infrastructure (container type, bag color, and of course waste stream!)

9:41

Enter your name

Karl

Start survey

AA getWATS.com

9:41

Select tenant 0 of N Completed

Search

Starbucks >

Dunkin' Donuts >

Shake Shack >

Hudson News >

Panda Express >

Chick-fil-A >

Blue Smoke >

Café Gourmet >

Submit survey

AA getWATS.com

9:41

Starbucks

Enter data for all waste streams before you submit tenant data.

 **Trash**
44 gallon bag - Count
Incomplete

 **Glass/Metal/Paper Recycling (GMP)**
44 gallon bag - Count
Incomplete

 **Compost**
44 gallon bag - Count
Incomplete

Save tenant data

Go back

AA getWATS.com

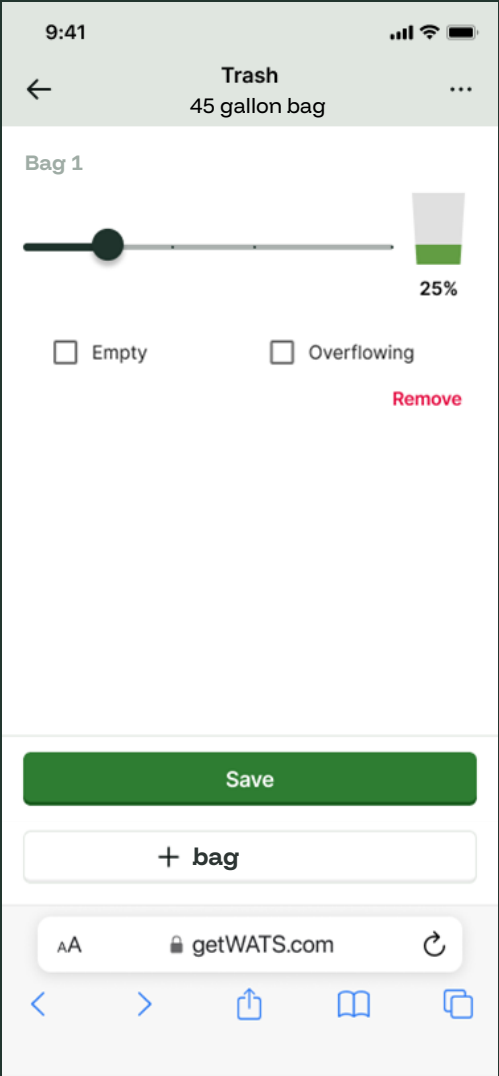
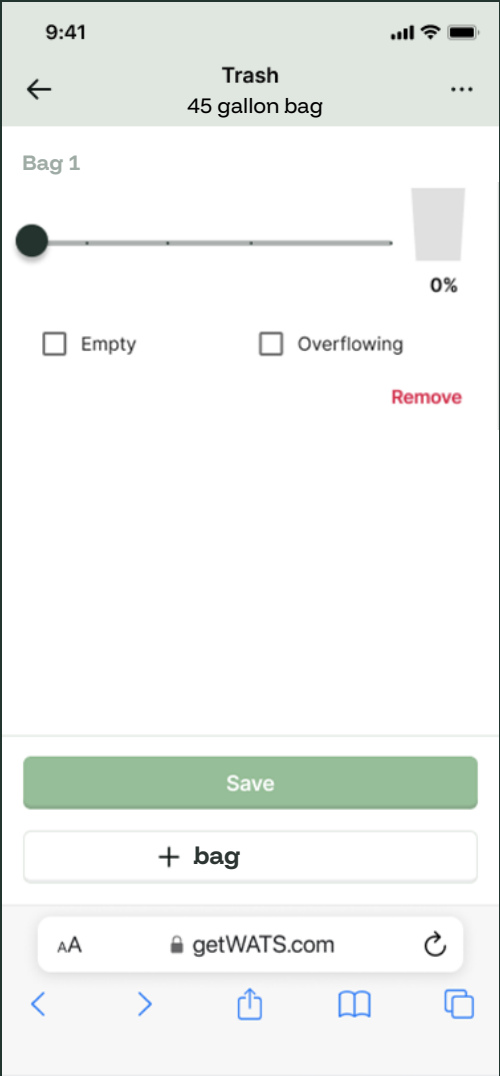
Concession-level measurement

WATS Surveys can measure fill level, container count, or weight

The screenshot shows a mobile app interface for a trash bag survey. At the top, the status bar displays the time 9:41, signal strength, Wi-Fi, and battery. The app header shows a back arrow, the title "Trash", and a menu icon. Below the header, the subtitle "45 gallon bag" is displayed. The main section is titled "Bag 1" and features a horizontal slider for fill level, currently set at 0%, with a trash can icon to the right. Below the slider are two checkboxes: "Empty" and "Overflowing". A red "Remove" button is positioned to the right of the "Overflowing" checkbox. At the bottom of the form is a green "Save" button. Below the "Save" button is a button labeled "+ bag". The bottom of the screen shows a mobile browser address bar with the URL "getWATS.com" and standard navigation icons.

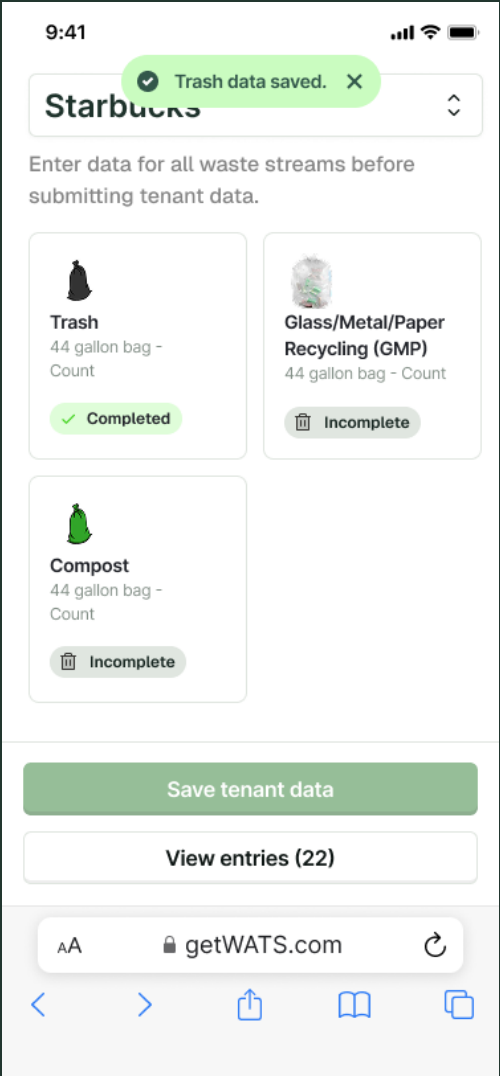
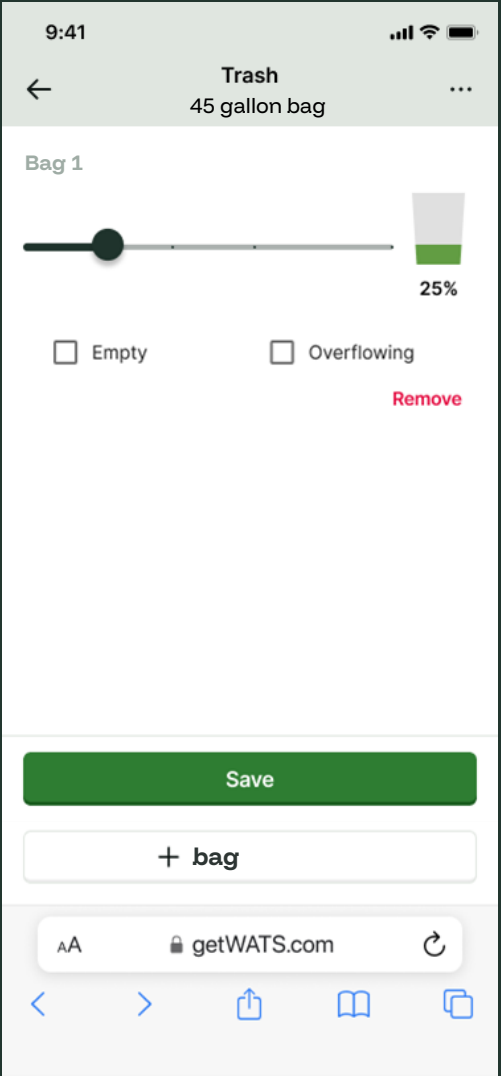
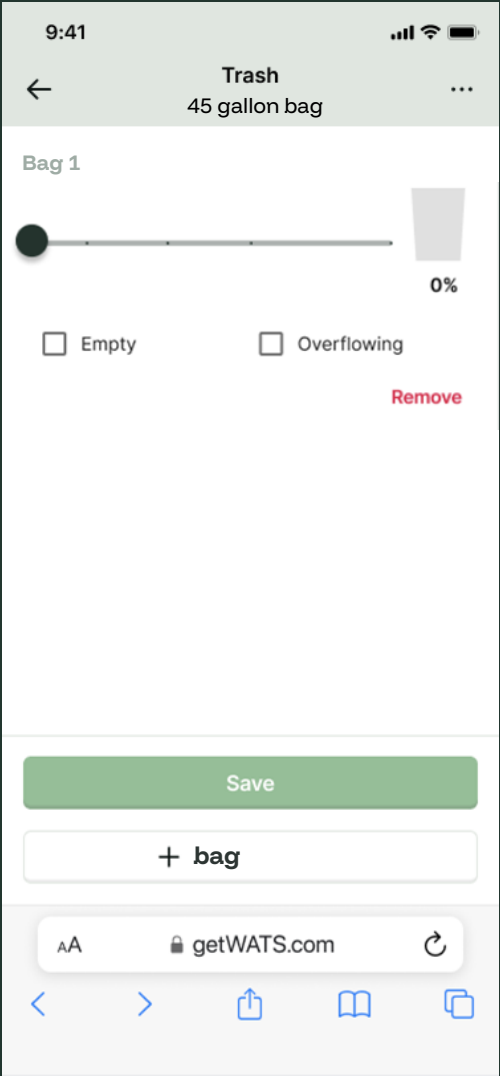
Concession-level measurement

WATS Surveys can measure fill level, container count, or weight



Concession-level measurement

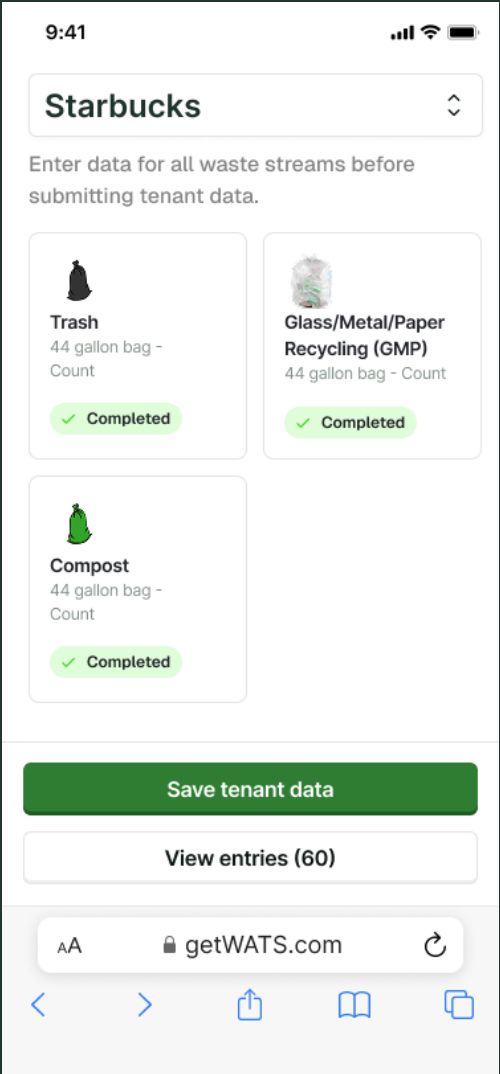
Add additional bags with the “+bag” button at the bottom of the screen





Concession-level measurement

Final validation screen confirms that all data has been captured



Concession-level measurement

Final validation screen confirms that all data has been captured

9:41

Starbucks

Enter data for all waste streams before submitting tenant data.



Trash
44 gallon bag - Count

✓ Completed



Glass/Metal/Paper Recycling (GMP)
44 gallon bag - Count

✓ Completed



Compost
44 gallon bag - Count

✓ Completed

Save tenant data

View entries (60)

AA getWATS.com

9:41

✓ Data saved for Starbucks! ✕



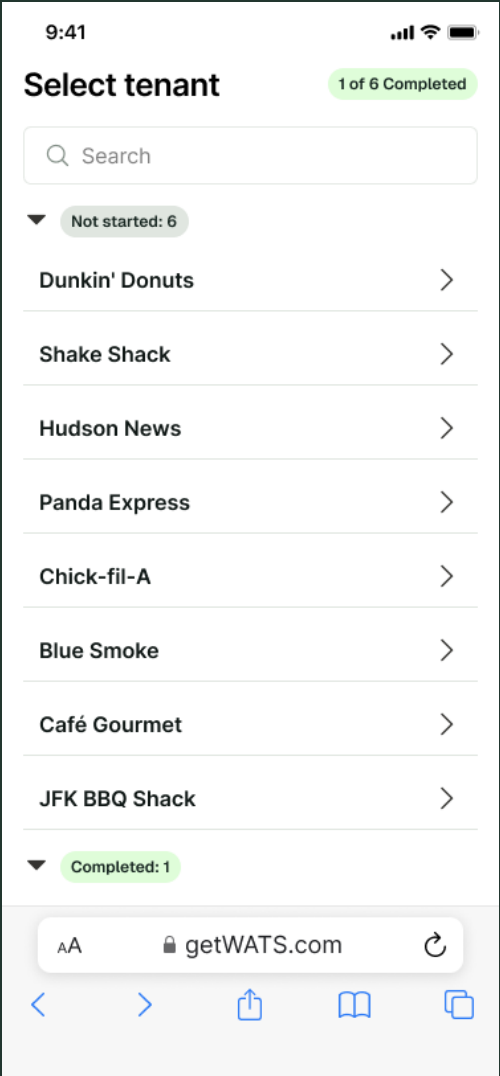
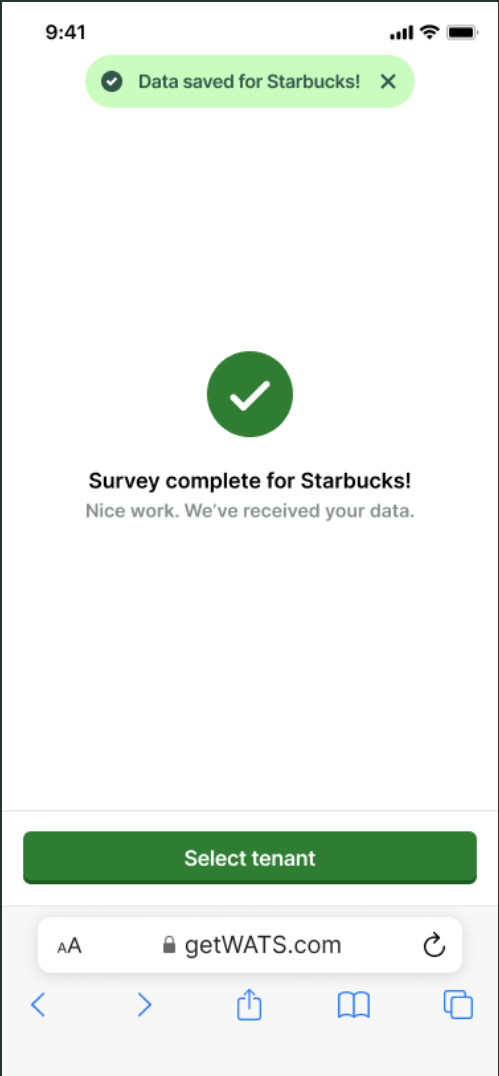
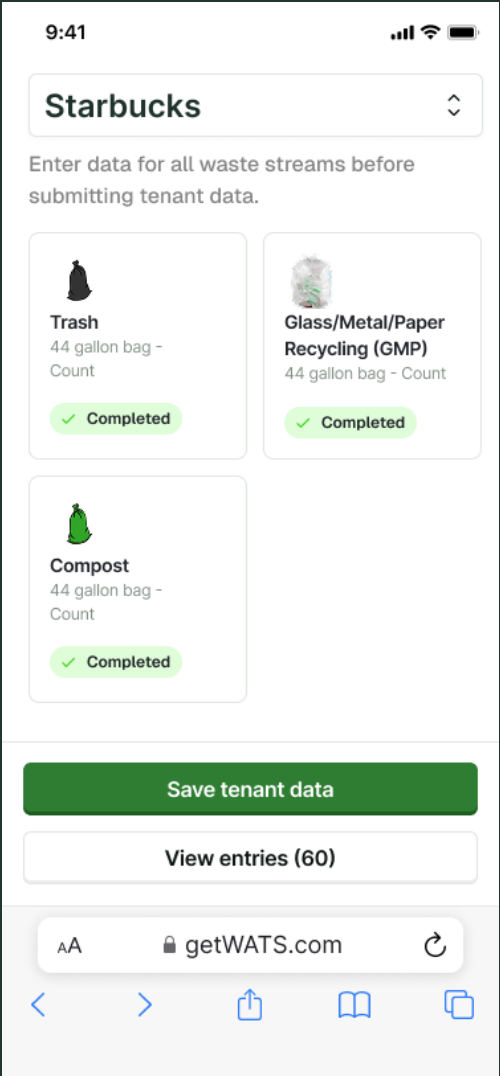
Survey complete for Starbucks!
Nice work. We've received your data.

Select tenant

AA getWATS.com

Concession-level measurement

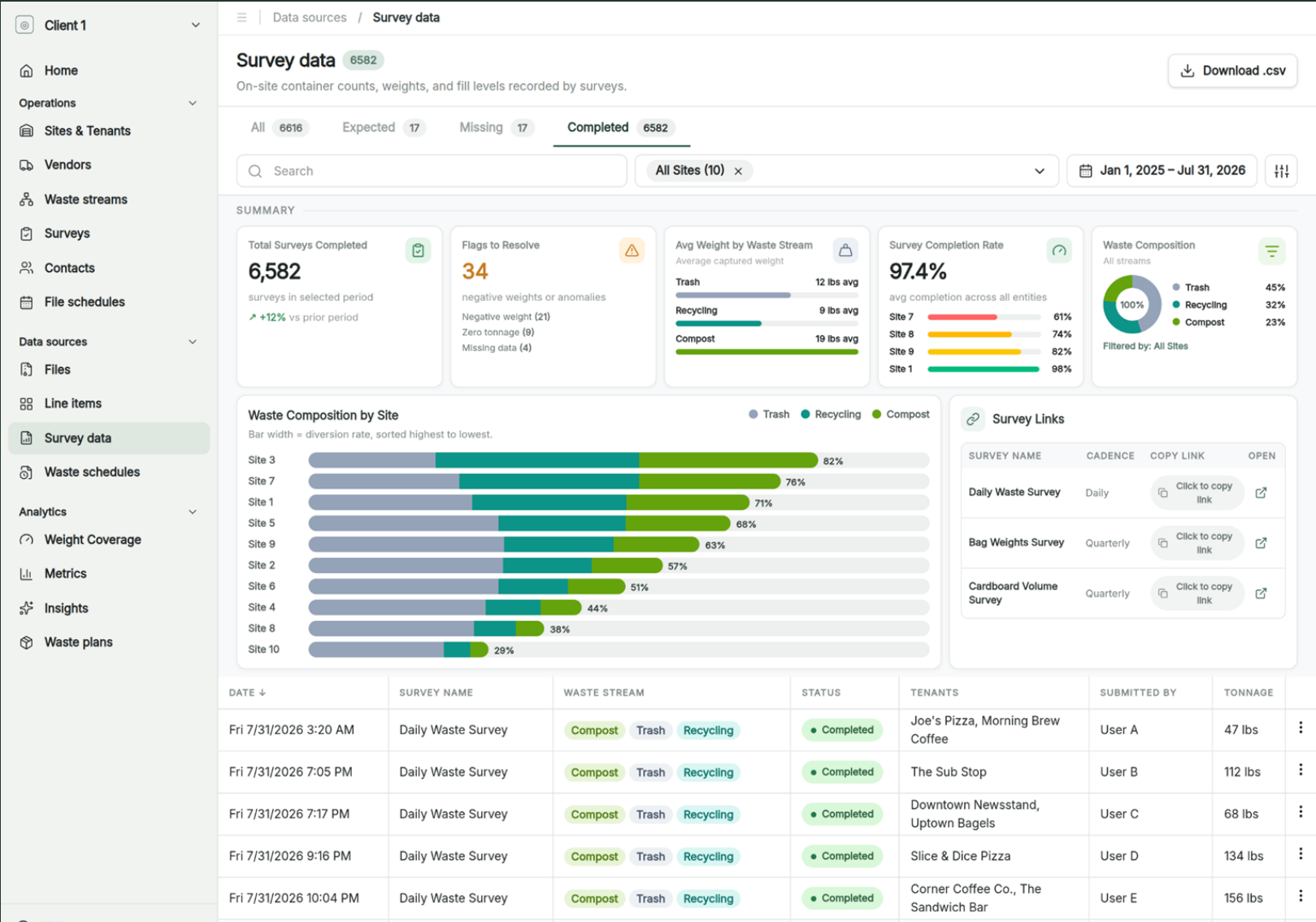
Easy navigation back to the concession selector screen





Analytics

At-a-glance metrics identify missed surveys, top performers, and more



Prorate costs by entity and based on waste generation

Operations / Finance

Waste Cost Allocation

July 2026 · Terminal Invoice

INVOICE TOTAL \$108,287.70

TOTAL INVOICE

\$108,287.70

July terminal statement

TENANTS BILLED

14

Across the property

CONCESSION SHARE

\$58,475.36

54.0% of terminal invoice

HIGHEST COST TENANT

Noodle House

\$7,798.15 · 13.3% of concession share

Rates used to calculate each tenant's weighted share

Trash: \$124.80/ton Recycling: \$88.40/ton Compost: \$113.50/ton

Entity Cost Proration

Allocate invoice total to terminal entities

Total: \$108,287.70

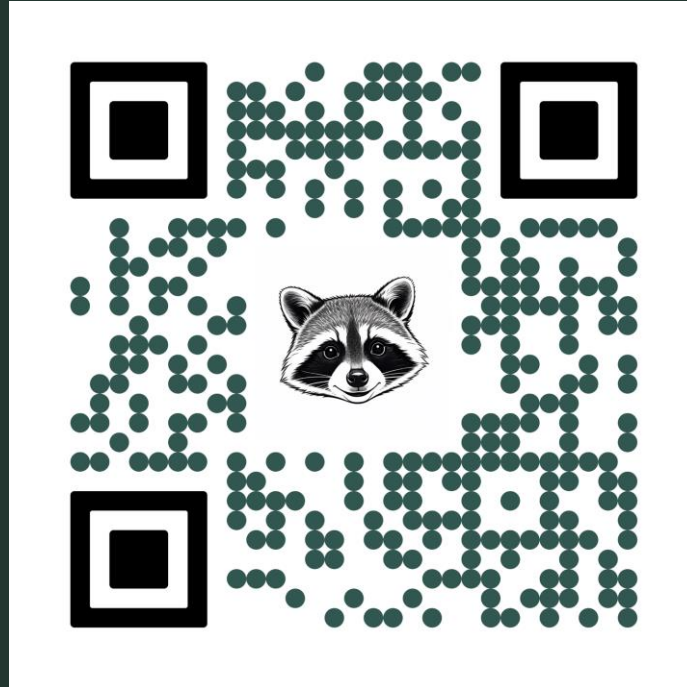
ENTITY NAME	ALLOCATION %	DOLLAR AMOUNT	VISUAL BAR	REMOVE
Concession Waste	54 %	\$58,475.36	54.0%	
Lounge Waste	18 %	\$19,491.79	18.0%	
Office Waste	12 %	\$12,994.52	12.0%	
Terminal Waste	16 %	\$17,326.03	16.0%	
Total Allocated: 100.0%			Allocated: \$108,287.70	

Tenant allocation

Tenant allocation based on concession share: \$58,475.36

Cost ranking ▾

TENANT	TOTAL WASTE	TRASH	RECYCLING	COMPOST	WEIGHTED SCORE	EST. MONTHLY COST	% OF TOTAL
Noodle House	300 lbs	165.0 lbs	75.0 lbs	60.0 lbs	17.02	\$7,798.15	13.3%
Joe's Pizza	278 lbs	152.9 lbs	69.5 lbs	55.6 lbs	15.77	\$7,226.29	12.4%
Slice & Dice Pizza	243 lbs	145.8 lbs	48.6 lbs	48.6 lbs	14.00	\$6,417.85	11.0%



Let's talk!

Thank you.
Got questions?

meredith@getWATS.com

[getWATS.co
m](http://getWATS.com)



LaGuardia
GATEWAY PARTNERS

**BUSCH SYSTEMS WEBINAR
WASTE DIVERSION FROM AIRPORT OPERATIONS**

LaGuardia Airport: Terminal B



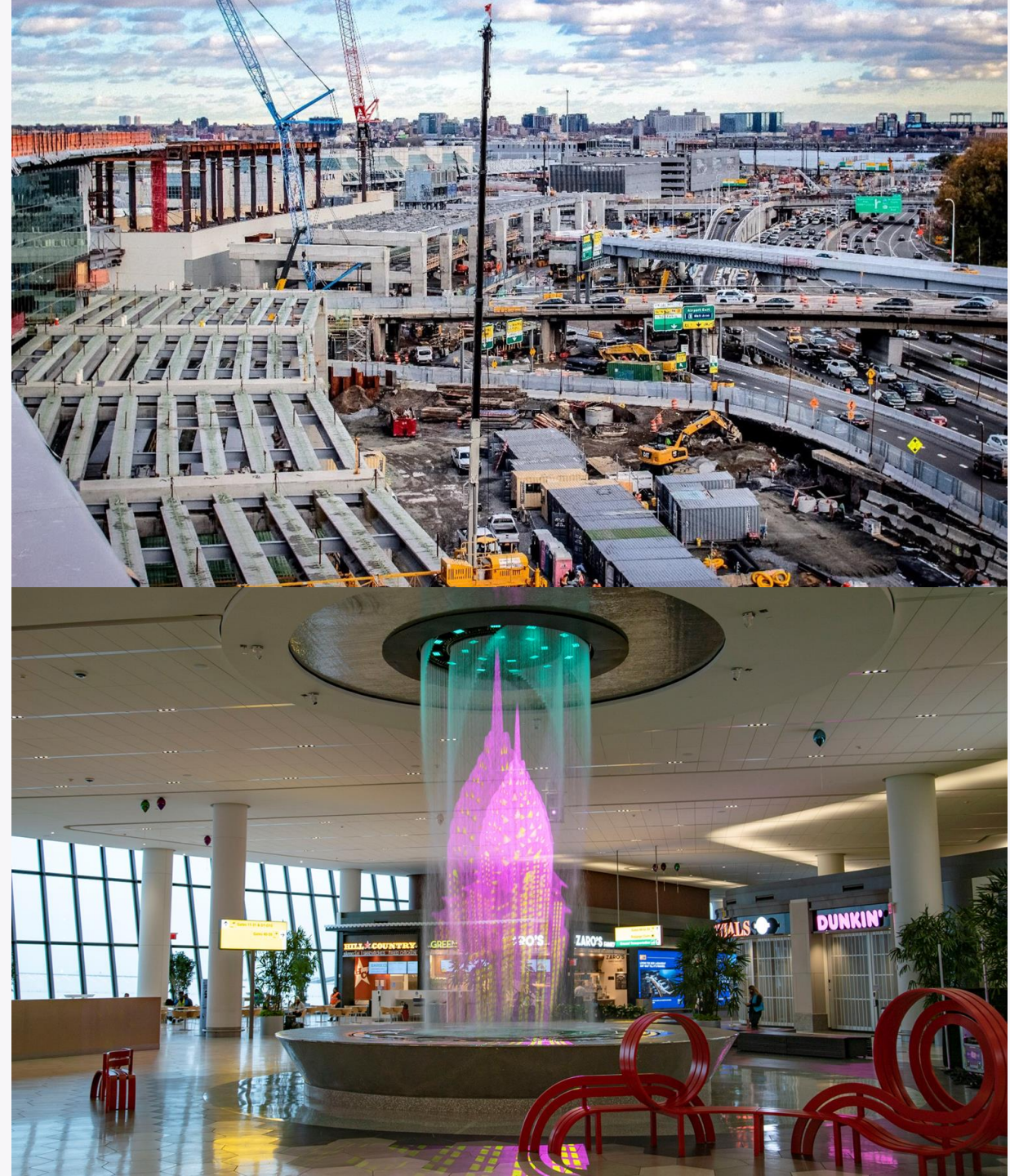
LaGuardia Gateway Partners

WHO WE ARE

The Port Authority of New York and New Jersey selected LaGuardia Gateway Partners (LGP) to deliver an extensive capital redevelopment project at LaGuardia Airport's Terminal B to provide a world-class terminal facility and operation for passengers and airlines. LGP has a 35-year lease to manage the terminal.

LGP IS COMPOSED OF

- Vantage Airport Group, Meridiam, and JLC Infrastructure for development and equity investment,
- Vantage Airport Group led the redevelopment program and management of Terminal B,
- Skanska Walsh as the design build joint venture and HOK and WSP for design.



Awards & Recognition

A FEW TERMINAL B ACCOLADES

- LEED Gold for Building and Design
- LEED Gold for Operations and Maintenance
- Envision Platinum
1st project to achieve in their v3 framework
- 2x Skytrax 5-Star Rating (2023, 2025)
1st Terminal in North America to achieve 5 stars
- Skytrax World's Best New Airport Terminal 2023



5 Stars for the "World's Best New Terminal."



Terminal B Operation

FLIGHT INFORMATION



Airlines

American
United
Southwest
JetBlue
Air Canada
Porter
Frontier



Daily Number of Flights / Passengers
~500 / 46,000



Terminal Concession Partners
70+ restaurants, shops, lounges



What's Driving Waste Diversion at LGA Terminal B

STAKEHOLDER GOALS & REQUIREMENTS

LGP ESG Goals

- Tracking and reducing emissions across all scopes

PANYNJ Lease Requirements

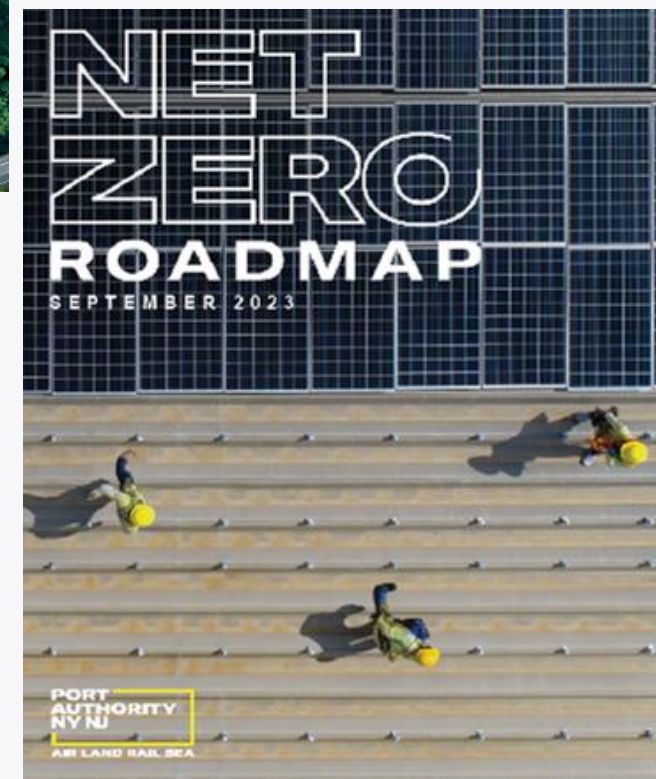
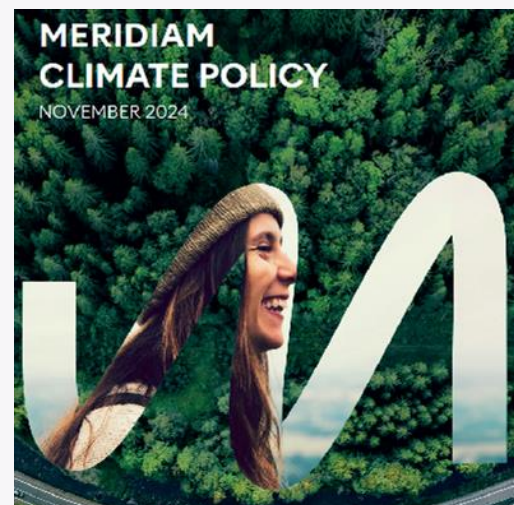
- Mandated 40% diversion goal
- Maintain existing single stream recycling and expand organics collection

LEED O&M

- Certified LEED Gold for O&M in 2023

NYC Requirements

- Commercial Waste Zone phase-in pilot impacted LGA in 2025, set price caps and service standards



Construction Phasing

OUR GOAL

Reduce the impact of construction on existing operations while accelerating the schedule for completion

OUR APPROACH

- Maintain and enhance existing operations during a six-year timeline from project start to completion
- Build a new terminal while operating the existing one
- Improve upon existing waste operations in Central Terminal Building



Improve Data and Understanding of waste streams

Terminal B's Waste Audit

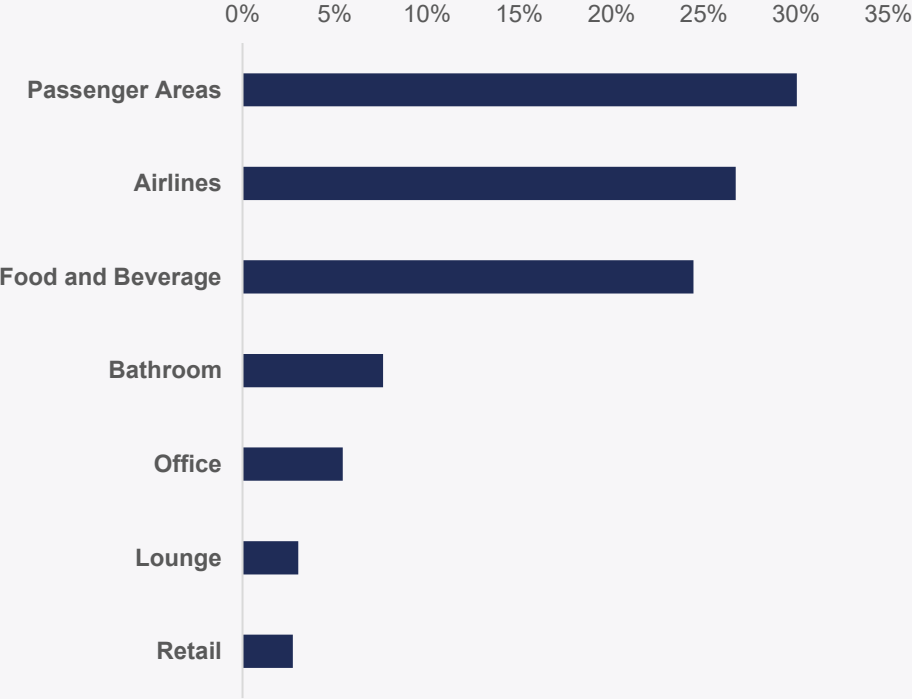
- **First audit held in 2023 as first step to understand opportunities** for diversion strategies. Methods were aligned with LEED O&M requirements.
- **Comprehensive in scope**, assessing all major waste drivers and stakeholders:
 - Airlines, Bathrooms, F&B, Lounges, Office, Passenger Areas, and Retail
- **Common Ground Compost brought on board to lead audit, with volunteer support** from LaGuardia Gateway Partners employees, including much of the executive team. Timing was held to align with Earth Month as engagement tool.



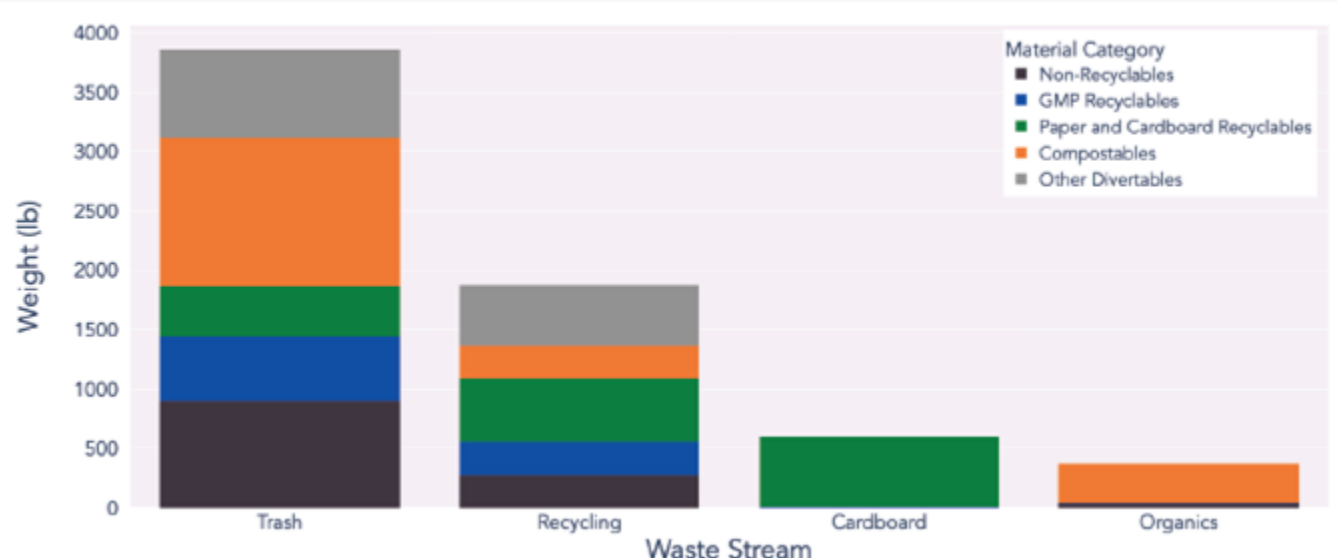
Improve data and understanding of waste streams

Terminal B's Waste Audit

Total Volume by Location



Material Categories by Waste Stream



Strategy 1: Consistency In Signage and Bins for Passengers

Implement Recycle Across America Signs, Oscar AI, and Reduce Bin Styles



Strategy 2: Commercial Back of House Improvements

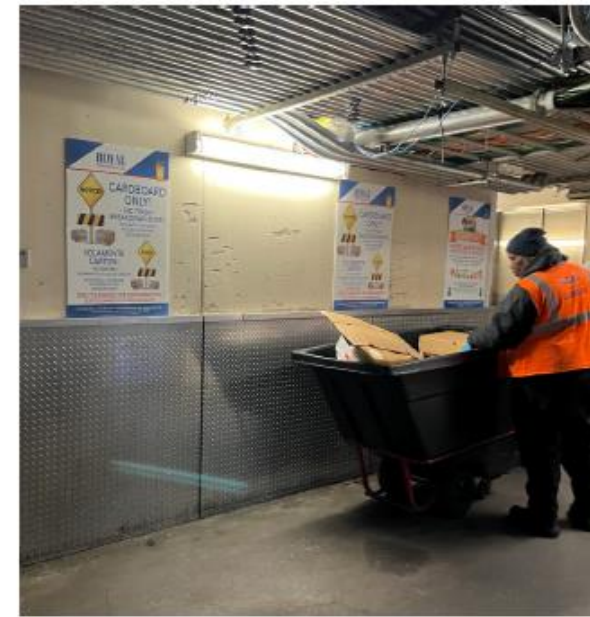
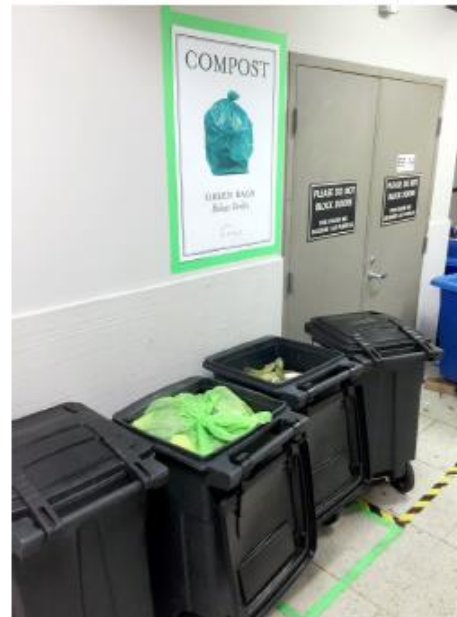
Terminal B's Waste Audit Outcomes

- **Develop training**, begin with managers, then all food and retail staff
- **Hold staff trainings and walkthroughs** of kitchens and service corridors regularly
- **Customize bins and bags** –same three-bin set-up in every kitchen, require inventory of all bag types
- **Early focus on enforcement** of simple bag color rules:

Clear = Garbage

Blue = Recycling

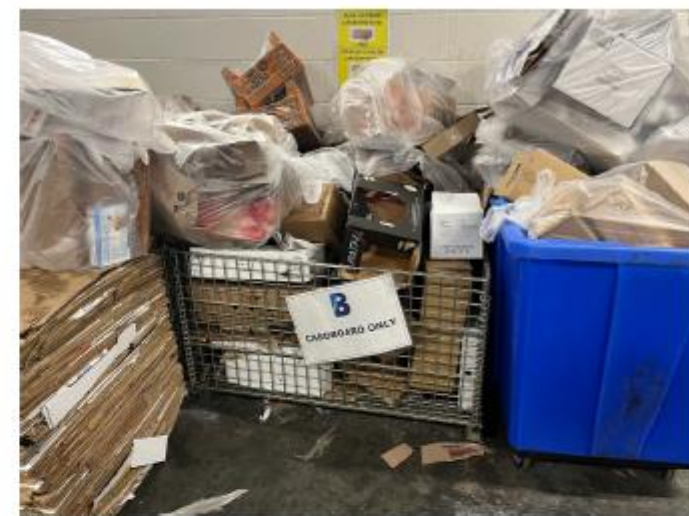
Green = Organics



Strategy 3: Monitor Compactors and Assess Carter Services

Implementing Real Time Feedback

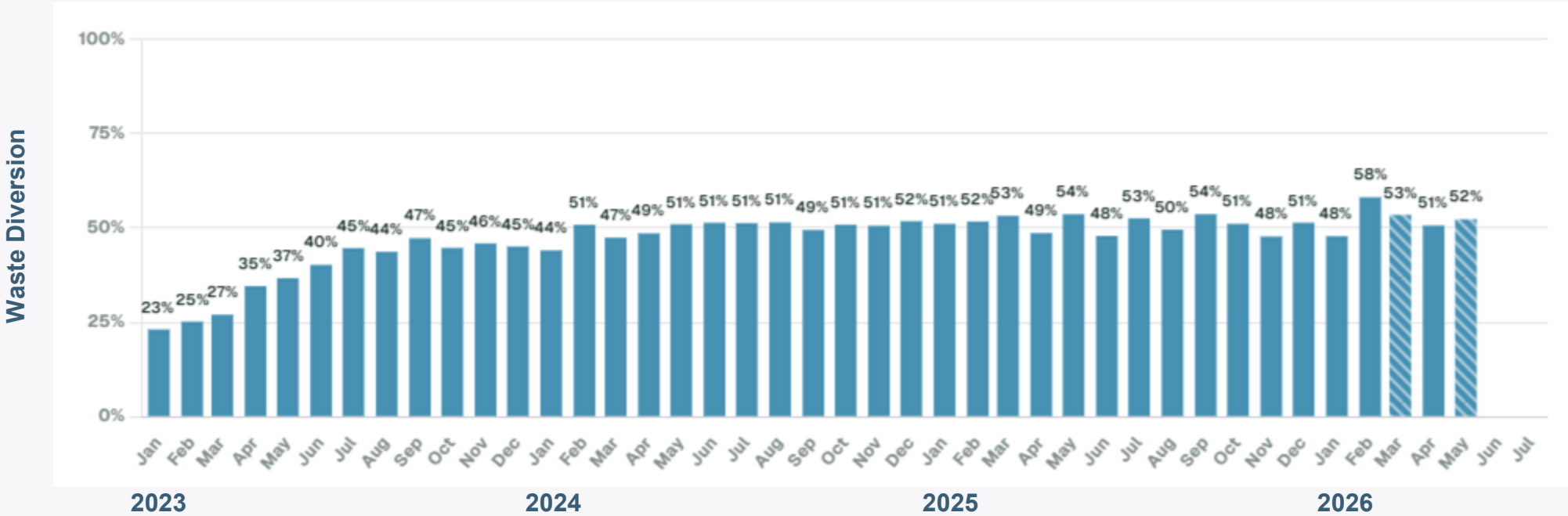
- **Added dedicated Royal employee on-site** focused on compliance and loading dock operations
- **Installed remote monitors** to compactor pressure gauges
- **Improving protocols for loading dock use**, with outreach to airlines as a focus



Outcomes and Future Opportunities

23% to >50% consistently within 18 months

- **Conducting annual waste audits** focused on concession waste for ongoing targeted feedback, outreach, and training
- **Exploring opportunities for packaging requirements** through green leases and improved airplane waste operations





Thank You

Waste Diversion from Airport Operations

PRESENTED BY MORGAN TURNER, TRUE ADVISOR

Part 2 of 2

Hot Topics

AIRPORT WASTE HOT TOPICS

- Reuse
- Extended Producer Responsibility
- Single-Use Plastics Restrictions
- Standardized Metrics
- Third-Party Certification

SUP

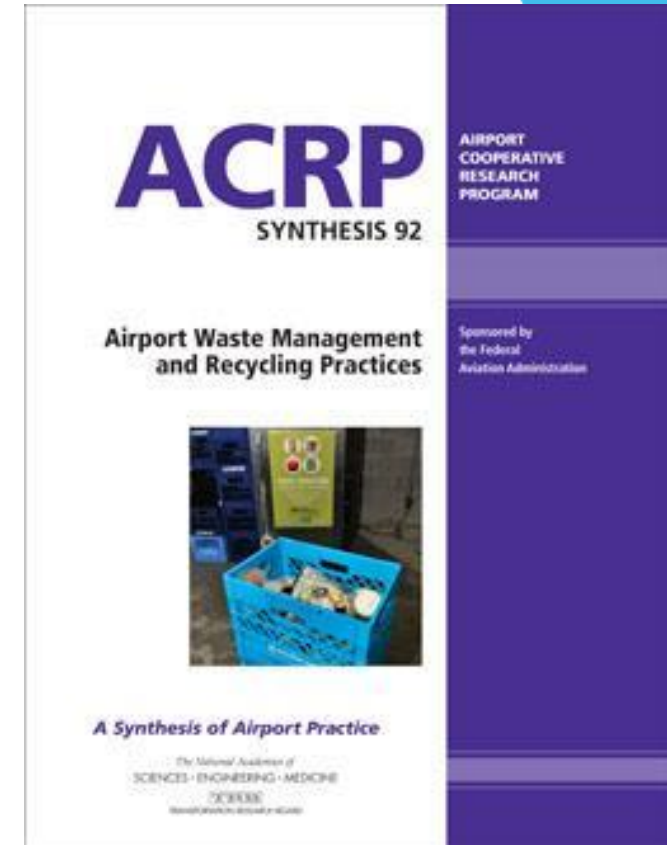






To Learn More

- Airport Sustainability / ESG Reports
- Airport Waste Management / Diversion Plans
- *ACRP Synthesis 92:
Airport Waste Management and Recycling Practices*



Thank you!

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Q & A



Morgan Turner

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Co-Founder & COO

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*Manager, Environmental
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Partners**



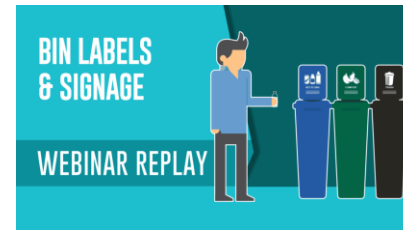
Today's Program Online



- Recording
- Presentation slides
- Resources

Link will be emailed in coming days

Archive of Past Programs



Full Archive:

buschsystems.com/category/webinar



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Post-Webinar Survey:

- Prompt at end of program, or
- Look for Email tomorrow

Upcoming Webinars



HOTELS & LODGINGS
SEPTEMBER *Stay tuned for more details*

SPORTS ARENAS & STADIUMS
OCTOBER *Stay tuned for more details*

Thank You to Our Panelists!



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Stick Around For....



Product demo with:

Sarah Hawthorne

Business Development Manager