



AMP™ - MSW Processing Technology

Automated, Intelligent Sortation Services

NERC 2025 | Cameron Douglas

CAPTURE MORE VALUE

AMP **designs, builds, and operates** advanced, cost-competitive facilities to sort single-stream recycling and **municipal solid waste (MSW)** using artificial intelligence and automated sorting technologies



AMP

At a glance

- Founded in 2014, headquartered in Colorado
- Automation systems deployed across the United States, Canada, Europe, and Japan
- Building and operating next-generation AMP ONE facilities for MSW, single stream, and MRF residue
- End-to-end service provider, not an equipment manufacturer

AMP Powers Facilities Globally

400+

AI systems
deployed globally
across 3
continents

100+

Facilities using
AMP technology

5

AMP Operated
Facilities

200B

Objects recognized
by AI

3 Levels of Solution for MSW

Systems that can be used independently or together

AMP SPOKE

Harvest material from MSW

Process MSW at transfer stations or landfills and bring material to a Hub or an existing MRF

Outputs:

- Organics
- Single Stream
- Residue

AMP HUB

Sort to End Products

Fully automated facilities autonomously sort recyclables for sale

Outputs:

- Plastics 1-7, Pyrolysis, and More
- UBC, Ferrous
- Paper, OCC

AMP CARBON

Valorizing organics

Pyrolysis of organic material provides organics diversion alongside carbon credit sales and power

Outputs:

- Biochar
- Electric power

Transfer station and landfill infrastructure for diversion

Obtain diversion with minimal change to existing facilities

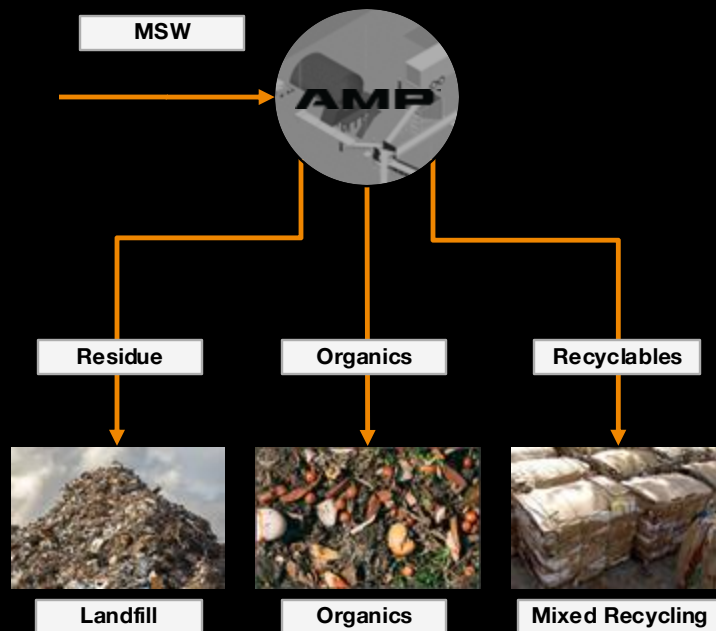
AMP SPOKE

Harvest material from MSW

Process MSW at transfer stations or landfills and bring material to a Hub or an existing MRF

Outputs:

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An additional MRF for additive volume from Spokes

Exceptionally high recovery and purity

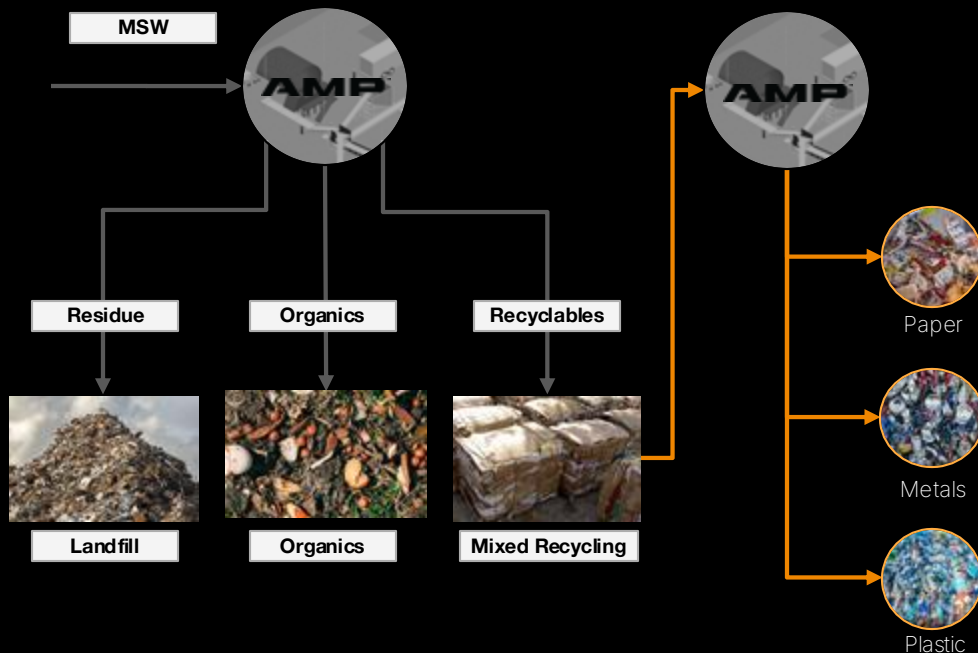
AMP HUB

Next generation MRF

Fully automated facilities
autonomously sort recyclables for
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Outputs:

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Biochar presents a low cost path for organics diversion

Technologically simple pathway compared to conventional organics pathways

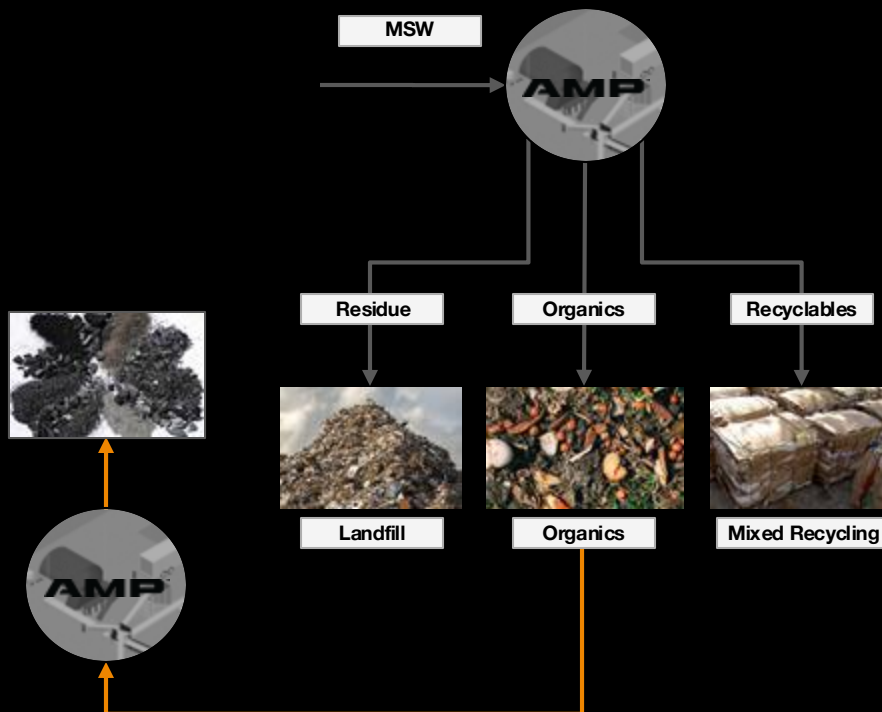
AMP CARBON

Power from organics

Pyrolysis of organic material provides organics diversion alongside carbon credit sales and power

Outputs:

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AMP Vision™

Enabling a new generation of facilities able to overcome historical MSW sorting challenges

- The “eyes” powering AMP’s industry-leading technology
- Detect material AND contamination, item-by-item
- Dynamically monitor and control the performance of every piece of equipment and the resulting purity of every bale produced.
- Sees and sorts things that traditional opticals can’t at a fraction of the cost



AMP JET™

The new generation of optical
powered by AMP AI

Best Value for Performance

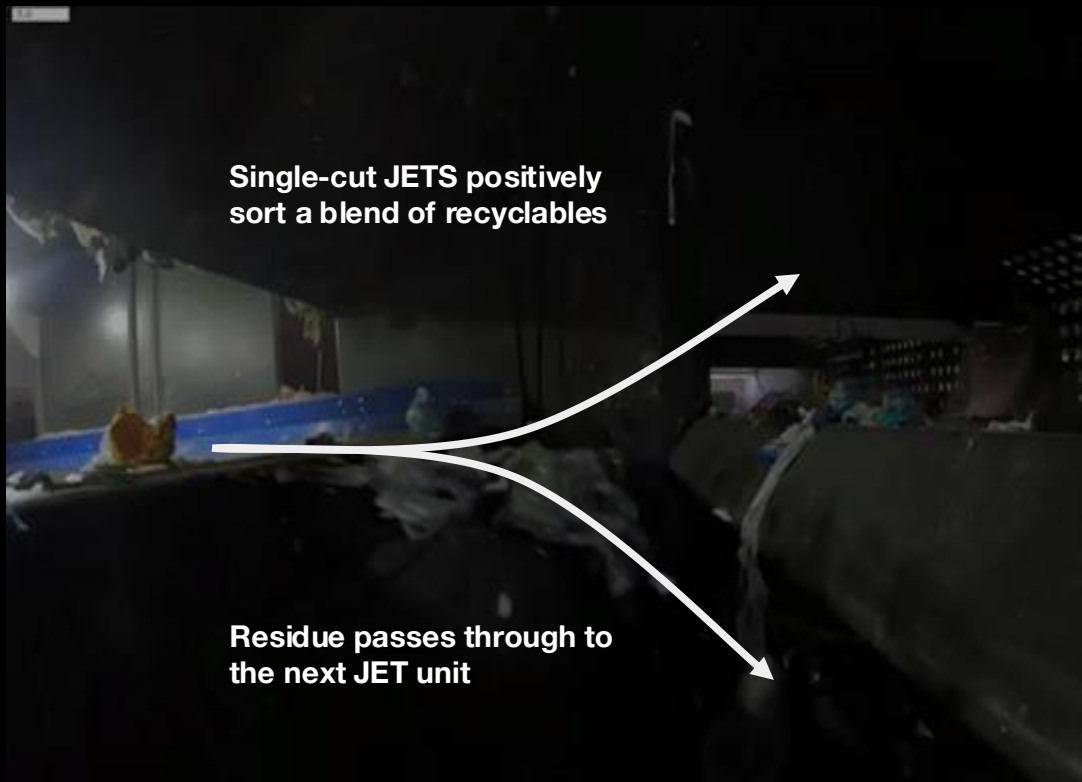
- Typical 25 tph design includes 15+ jets
- More technology means more touches on material, for more efficient sortation at a lower cost

High Throughput

- Clears jams before they happen
- Reconfigure process flow with zero downtime

Robust Design Resilient to MSW

- Better than NIR for handling grime and moisture, detects contamination
- AI detects all material types and their conditions better than NIR, which is primarily for resins



AMP JET™ + AMP Vision™

Continuous Improvement

- Sortation optimized for distinct commodities and form factors
- AMP team remotely calibrates the Jet, adjusting firing parameters in real time with tight feedback loops
- Detect material jams and equipment malfunctions in real time
- Customer benefits from continuous learning and optimization



EPR Compliance without additional efforts or cost.

Customer's can make informed improvements via our detailed monthly reports, with:

- Waste Characterization
- Diversion
- Recovery
- Mass Balances

Infeed Composition

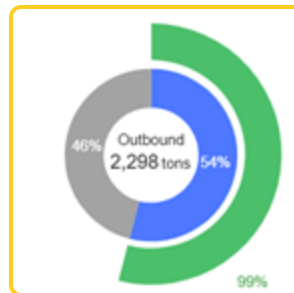
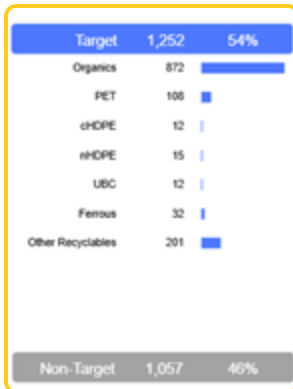
Calculated by AMP's AI via AMP Vision™
Informs adjustments to offtakes to select.

Received Materials

Informs adjustments to inbound schedules to maintain steady flow.

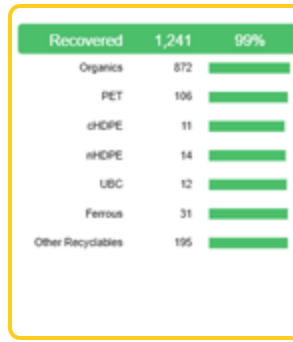
AMP Activity Report

Material Received	Compacted Waste	Diversion	Goods Produced	Recovery Rate	Uptime
2,398 tons	980 tons	57.8%	1,241 tons	99.0%	92.5%



Infeed vs Outbound

Visualization of recovered vs available target material



Daily Received Material



Daily Shipped Goods



Key Metrics

Overall facility performance

Recovered targets

Calculated by AMP's AI via AMP Vision™

Measured success per offtakes and available material.

Captured waste

Compacted residue, unprocessables, WTE

Shipped Goods

Informs adjustments to outbound schedules to maintain steady flow.

AMP ONE EDGE



Significantly Lower Labor Costs

Unparalleled sortation without the inconsistency of manual sorters



90%+ Target Material Recovered

Best-in-class recovery rates without touching a human hand



High Speed, High Flexibility

Highly configurable to target the value in your material stream



Capture More Value

Reduce the value lost to landfills or lower-value mixed bales



Extended Producer Responsibility

Fulfill existing and upcoming EPR requirements with future-proof technology



Scalable Growth

Compact and modular design, easy to scale capacity over time

Thank You

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