Advancing Plastics Circularity

Washington State Association of Counties

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Introductions

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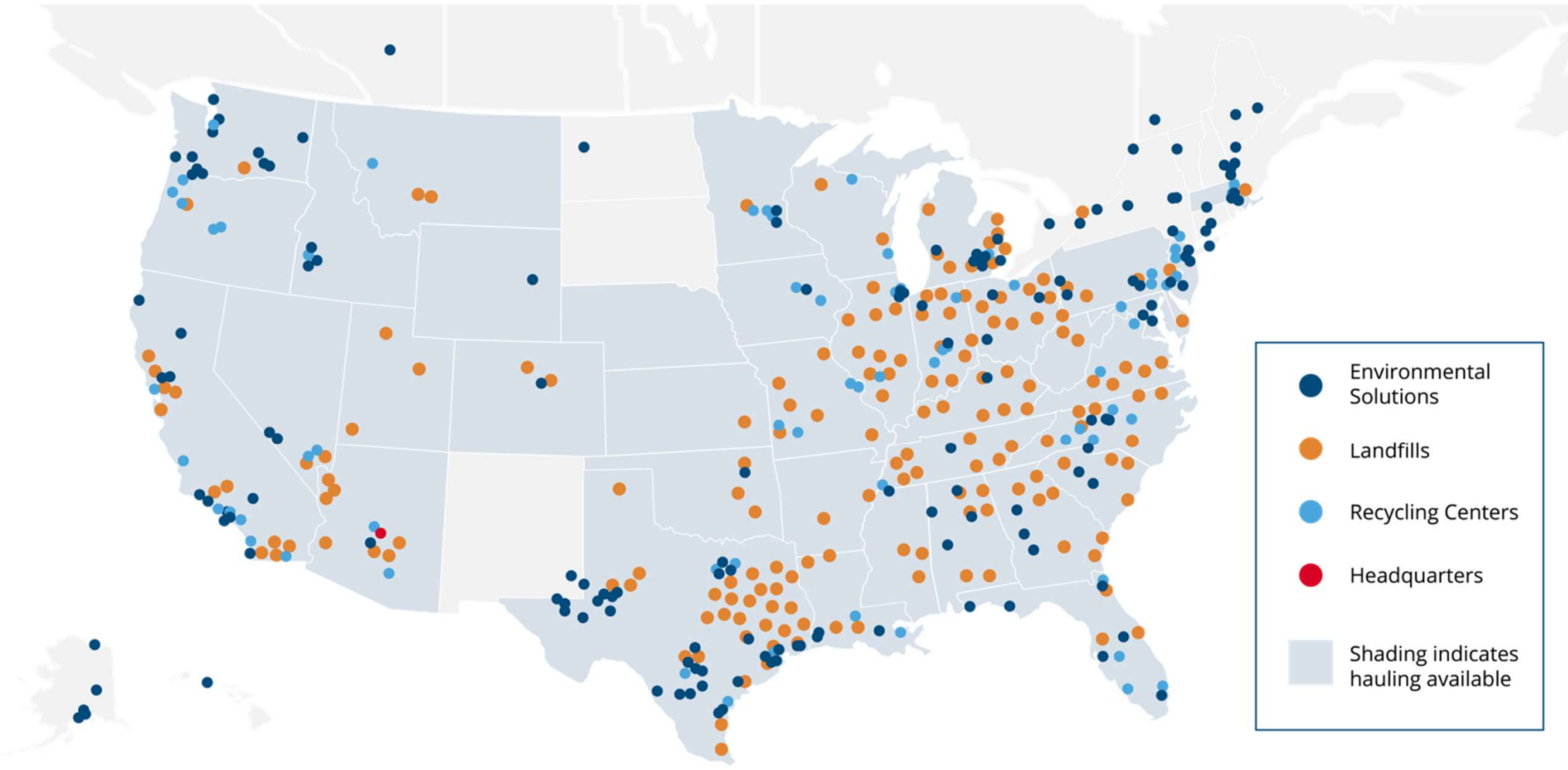
ABOUT US

REPUBLIC SERVICES

$13B REVENUE	**39K** EMPLOYEES	**900** LOCATIONS IN NORTH AMERICA
207 ACTIVE LANDFILLS	**77** RENEWABLE ENERGY PROJECTS	**71** RECYCLING CENTERS
16K TRUCKS	**5TH** LARGEST VOCATIONAL FLEET IN U.S.	**21%** OF FLEET POWERED BY RNG
5 HAZARDOUS WASTE LANDFILLS	**12** COMPOST FACILITIES	**47** STATES

NATIONAL FOOTPRINT



208
Business Units/Operations Centers

207
Landfills

71
Recycling Centers

20
Treatment Storage and Disposal Facilities

Our 2030 Sustainability Goals

SAFETY

Safety Amplified ›

0 Zero employee fatalities

Incident Reduction ›

‹2.0 Reduce our OSHA Total Recordable Incident Rate (TRIR) to 2.0 or less by 2030

HUMAN CAPITAL

Engaged Workforce ›

88%

Achieve and maintain employee engagement scores at or above 88% by 2030

COMMUNITIES

Charitable Giving ›

20M

Positively impact 20 million people by 2030

CLIMATE LEADERSHIP

Science Based Target ›

35%

Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030 (2017 baseline year)

★ APPROVED BY SBTi[1] ★

Circular Economy ›

40%

Increase recovery and circularity of key materials by 40% on a combined basis by 2030 (2017 baseline year)

Renewable Energy ›

50%

Increase beneficial reuse of biogas by 50% by 2030 (2017 baseline year)

We have made thoughtful and significant commitments to achieve our 2030 Sustainability Goals:

- Aligning our efforts with **climate action plans** across country
- Major acquisitions to **address hazardous waste and emergency response needs** of our municipalities
- **Reducing GHG emissions** through accelerated fleet electrification
- Expanding our **beneficial reuse of biogas** through LFGTE partnerships
- Industry-leading innovation to address **plastics circularity**
- Commitment to our **communities**, to impact more than 20M people by 2030

Accelerating our commitment to our customers, our municipalities and our planet

Circular Economy

We are dedicated to preserving natural resources by recovering and recycling key materials from the waste stream

Recycling

5M tons

- $54M invested in infrastructure in 2021
- 71 recycling centers
- 5M tons processed
- Commodities update
- Min. content standards
- Truth in labeling
- EPR

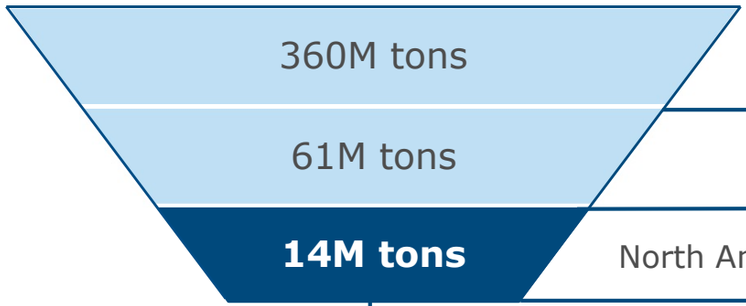
Organics

2B lbs

- Promotes a circular economy
- Reduces GHG emissions
- 19 Organics facilities
  - 12 compost, 3 FW pre-processing, 4 YW processing
- 2 billion pounds processed in 2021
- California’s SB 1383, 75% diversion by 2025
- Food recovery

Plastic Production Overview

Plastic Production Expected to Triple by 2050



8M TONS OF FLEXIBLE PACKAGING

- 90%+ Landfill or Incinerated

6M TONS OF RIGID PACKAGING

- 67% Landfilled or Incinerated
- 28% Downcycled
- **5% Recovered**

Current plastic value chain is fractured and inefficient resulting in low supply of recycled plastic

Commonly Recycled Rigid Plastics

Plastic Type	Example	Recyclable?	Common Reference
PET (#1)	 • Water bottles soft drinks, cups	✓	
HDPE (#2)	 • Milk jug, juice bottles, shopping bags	✓	OLEFIN
PVC (#3)	 • Pipes, siding, flooring	✗	
LDPE (#4)	 • Squeeze bottles, shrink wrap, plastic bags	✗	
PP (#5)	 • Microwave dishes, ice cream tubs, chip bags	✓	OLEFIN
PS (#6)	• Plastic utensils, coffee cup lids	✗	
Other (#7)	 • Water cooler jugs, plastic lumber	✗	

Two primary types of recyclable rigid plastic packaging – PET(#1) & OLEFINS(#2,5)

Enabling CPGs to Meet Voluntary Commitments

Brand commitments and legislation will place premium on post-consumer content

Current Inefficiencies in Supply Chain

Problem Statement:

- Current single-stream recycling facilities generate 3-4 broad streams of plastics, with comparatively high levels of plastics cross-contamination (MRF bales are "dirty")
- Plastics manufacturers are narrowly focused on specific types of plastics based on their respective targeted products (e.g. PET bottlers view HDPE as 'residue' in the stream)
    - Plastics manufacturers currently sort these broader streams of plastics for desired plastic content but throw away other forms of valuable plastic

MRF Bale

Processing to extract target material

60% Yields Premium Bale

Up to 40% landfilled as "non-targeted" residual

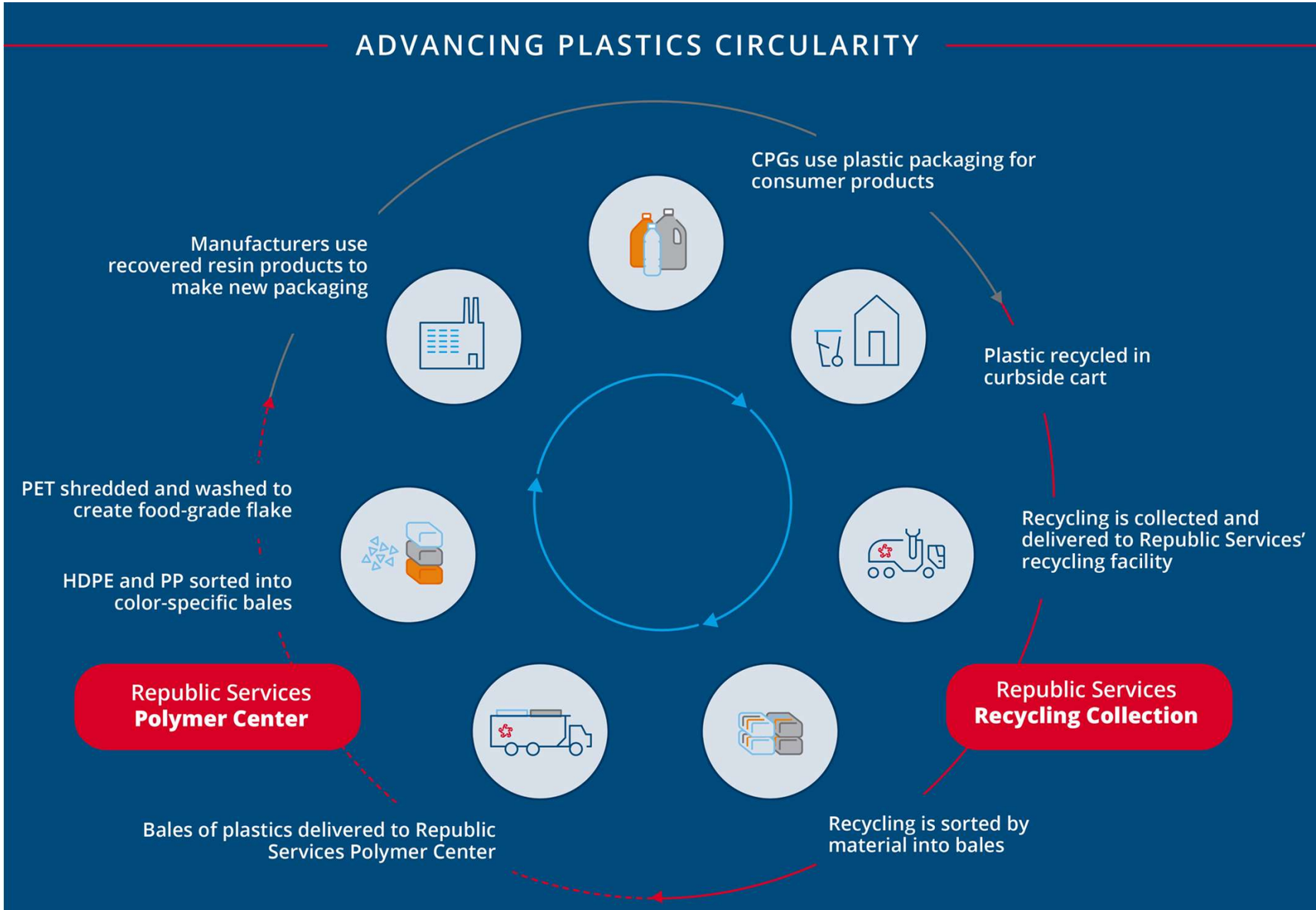
Recognizing a growing need in the market, while addressing our customer's desire to ensure greater circularity of plastic materials

The Polymer Center

For the first time, a single U.S. company will manage the plastics stream from curbside collection to production of recycled feedstock for consumer packaging.

Rigid plastics collected from residential and commercial customers and sorted at local recycling facilities will be delivered to the Polymer Center for processing, including shredding and hot washing or sorting by color.

The new system provides a reliable, high-quality supply of recycled plastics that helps CPG brands achieve their sustainability goals.



Filling the Gap - Operations Overview

Sort

1

Inbound Bale from Recycling Centers

2

Pre-Processing (de-label, optical sort)

Process

3

Shredding / Grinding

4

Friction Washing

5

Sink / Float

6

Drying

Product

High Quality Color Sorted Olefins

Hot wash PET Flake

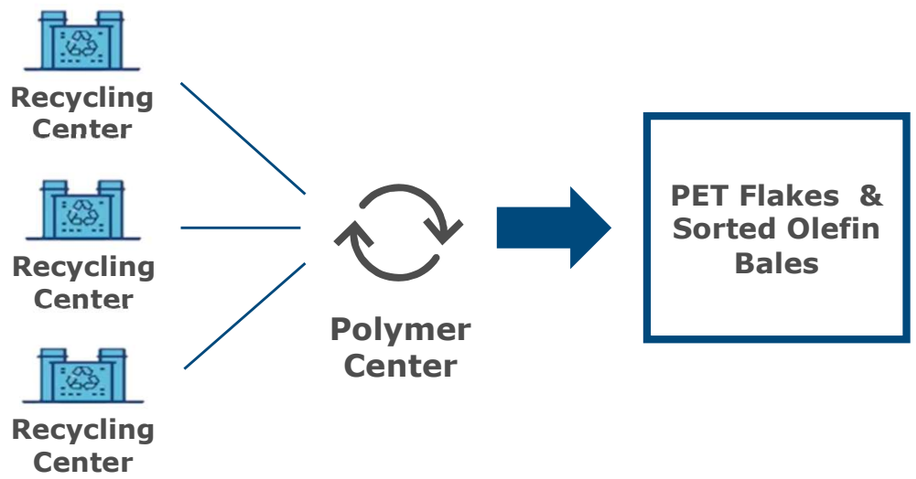
Cap & Ring Flake

Allows Republic MRFs to focus on aggregating plastics at lower cost (to Municipalities), and moves the high-quality sorting of plastics to the Polymer Centers

Regional Hub and Spoke

Polymer Center Model

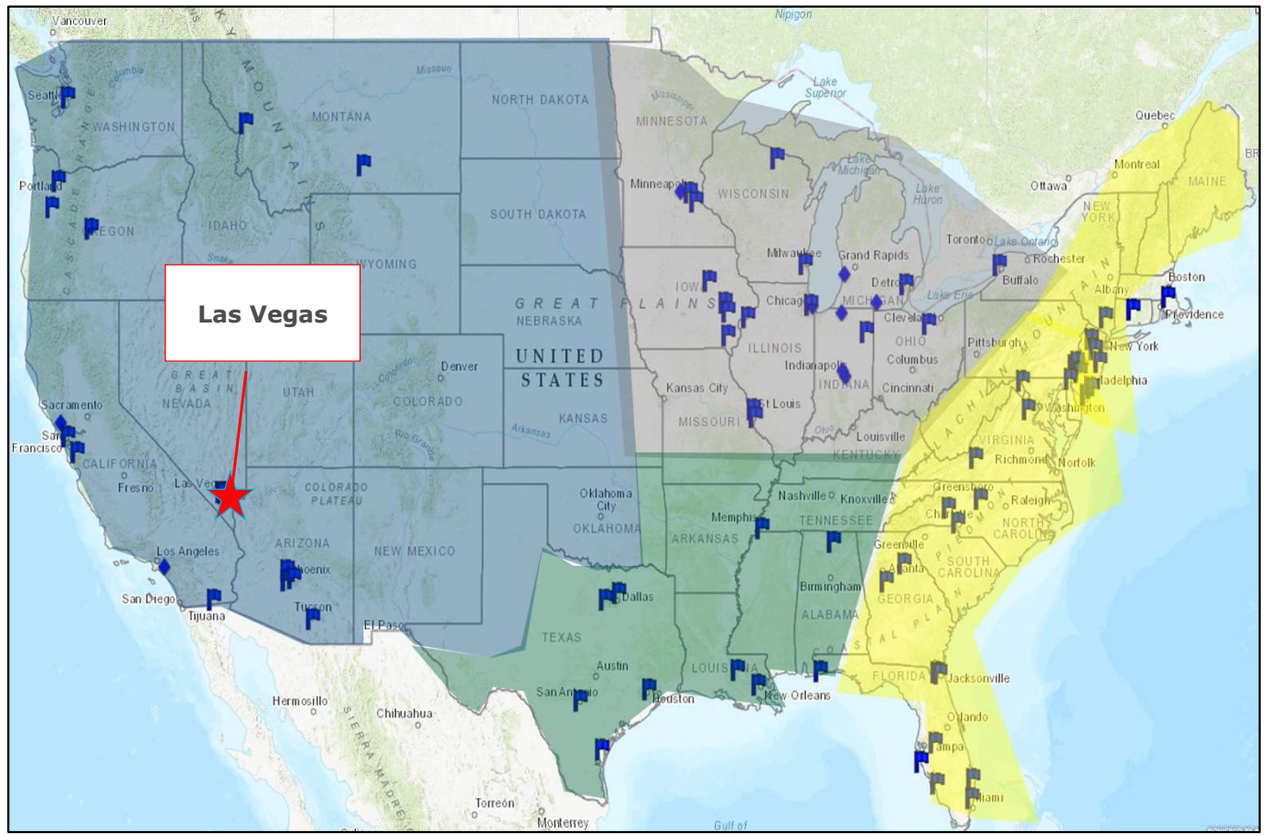
- Hub/spoke model to aggregate volume at scale and capture upside of processed plastic resin
- Simplifies plastics handling at existing recycling centers by shifting complex processing into a centralized facility (ie: inverse of manufacturing to distribution warehousing model)
- Configurable lines to address stream complexity



The Polymer Center model provide leverage and scale for capturing upside value for recycled plastics

Contemplated Geographic Reach

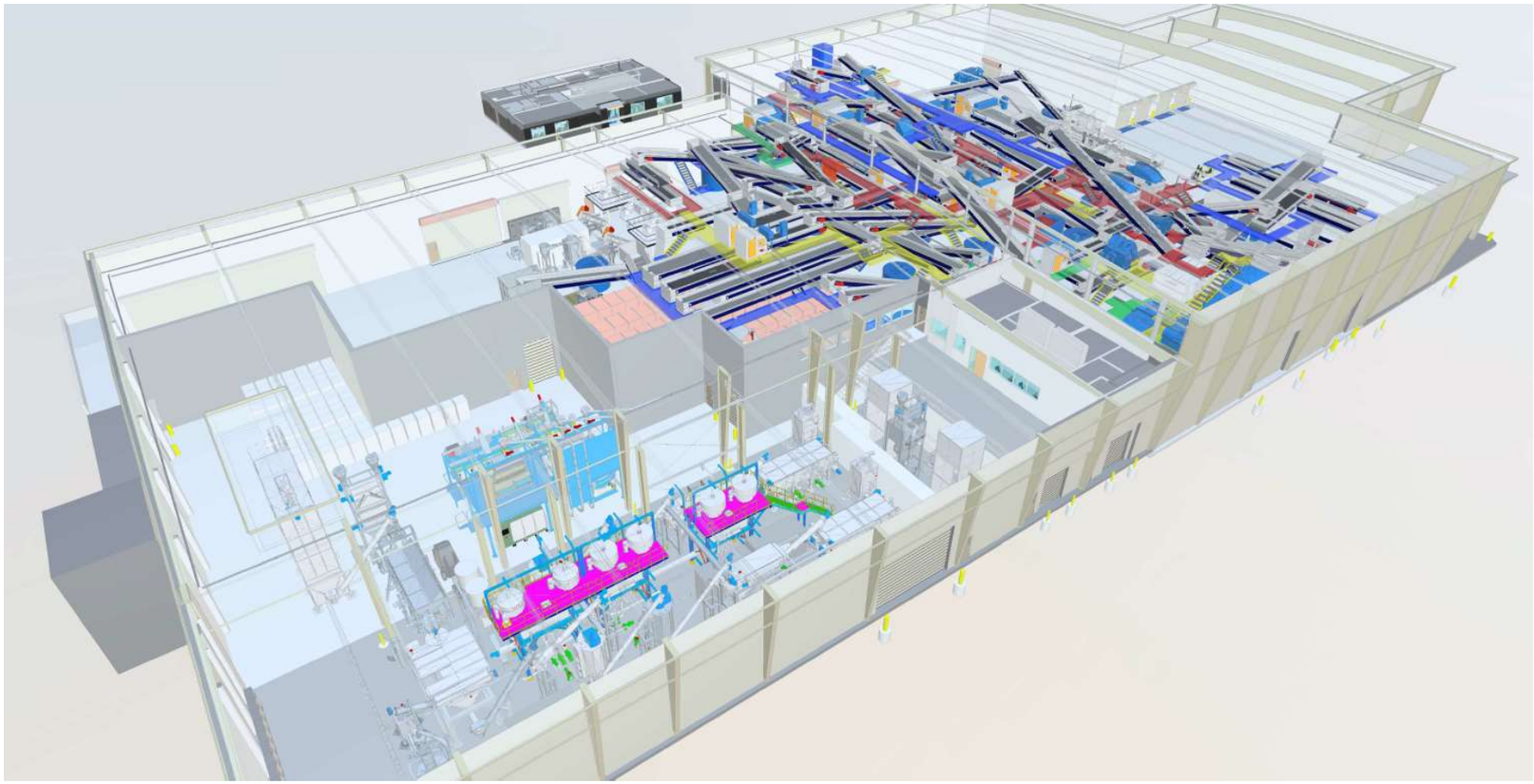
PC Locations Recycling Centers Recycling Center / Transfer Station



Note: 3rd party tons estimated using RSG's market share of plastics

Polymer Centers cover existing RSG recycling infrastructure

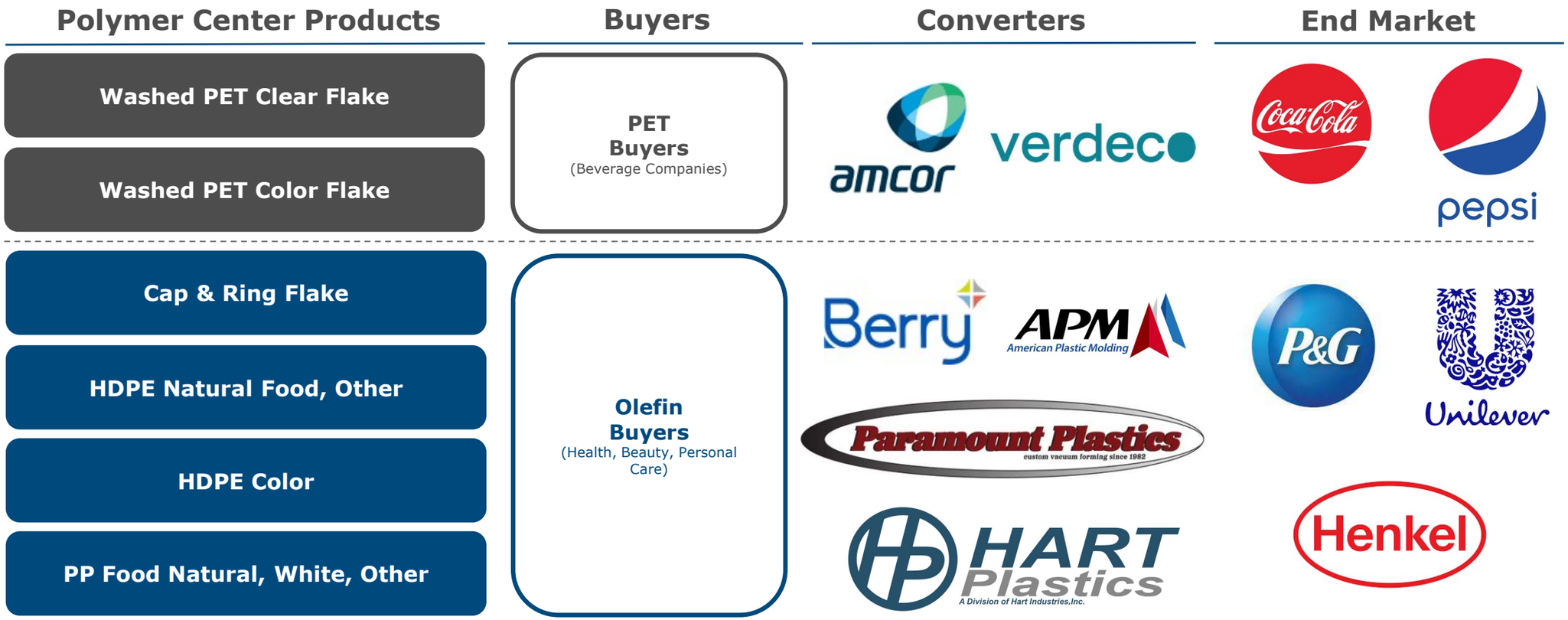
Las Vegas Facility



Approx. Facility Specs

- 100k sq. ft. building
- 10 acres of land
- Interstate access
- Rail access
- 40’ of interior clearance height
- Industrial/ Manufacturing Zoning

Product Marketplace



Polymer Center accepts low-grade mixed plastics and produces discrete high-grade resin types for specific end-market applications, including CPGs

Questions