

Material Recovery Facility (MRF) Perspective

Background on Lakeshore Recycling Systems

Collection (residential & commercial)

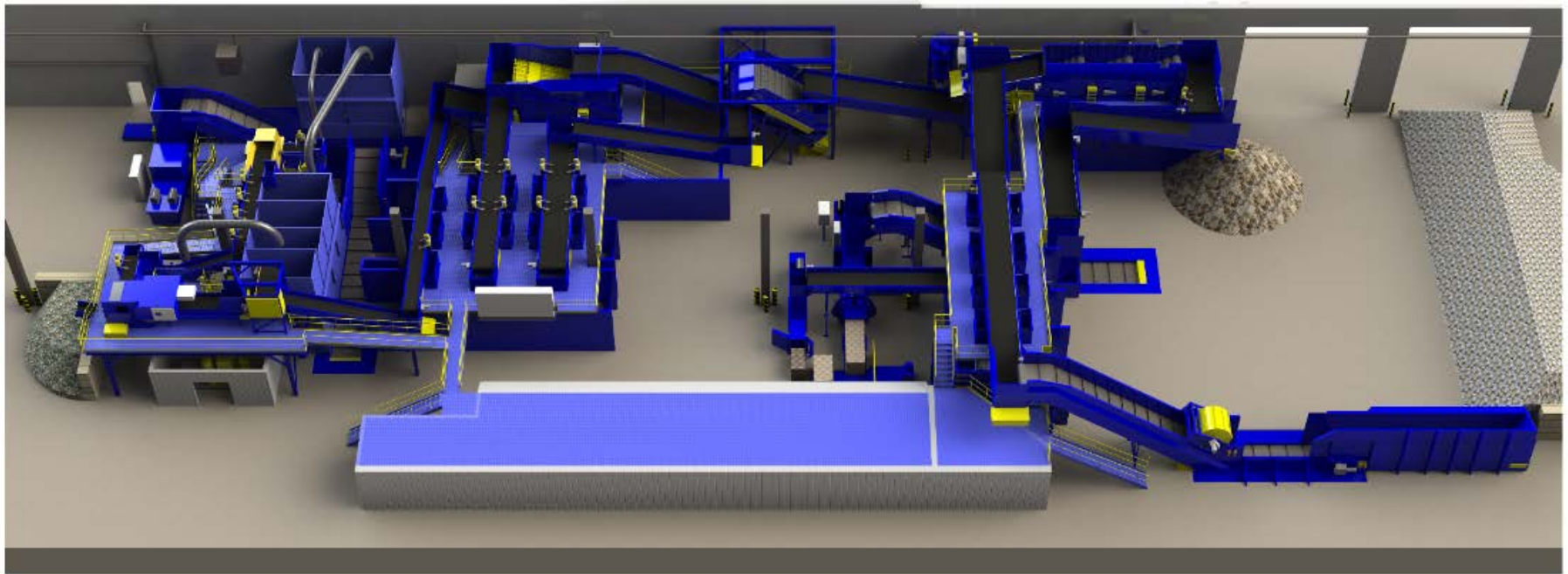


Recycling Collection

- Initial curbside recycling required the driver to sort material at the curb
 - Very little contamination
- Single-stream Recycling
 - Created operational efficiencies
 - Automation
 - Created more contamination



Single-stream Recycling System



Tip Floor / Pre-sort Line



Sorting System



Mixed-Paper Screen



Ferrous Magnet



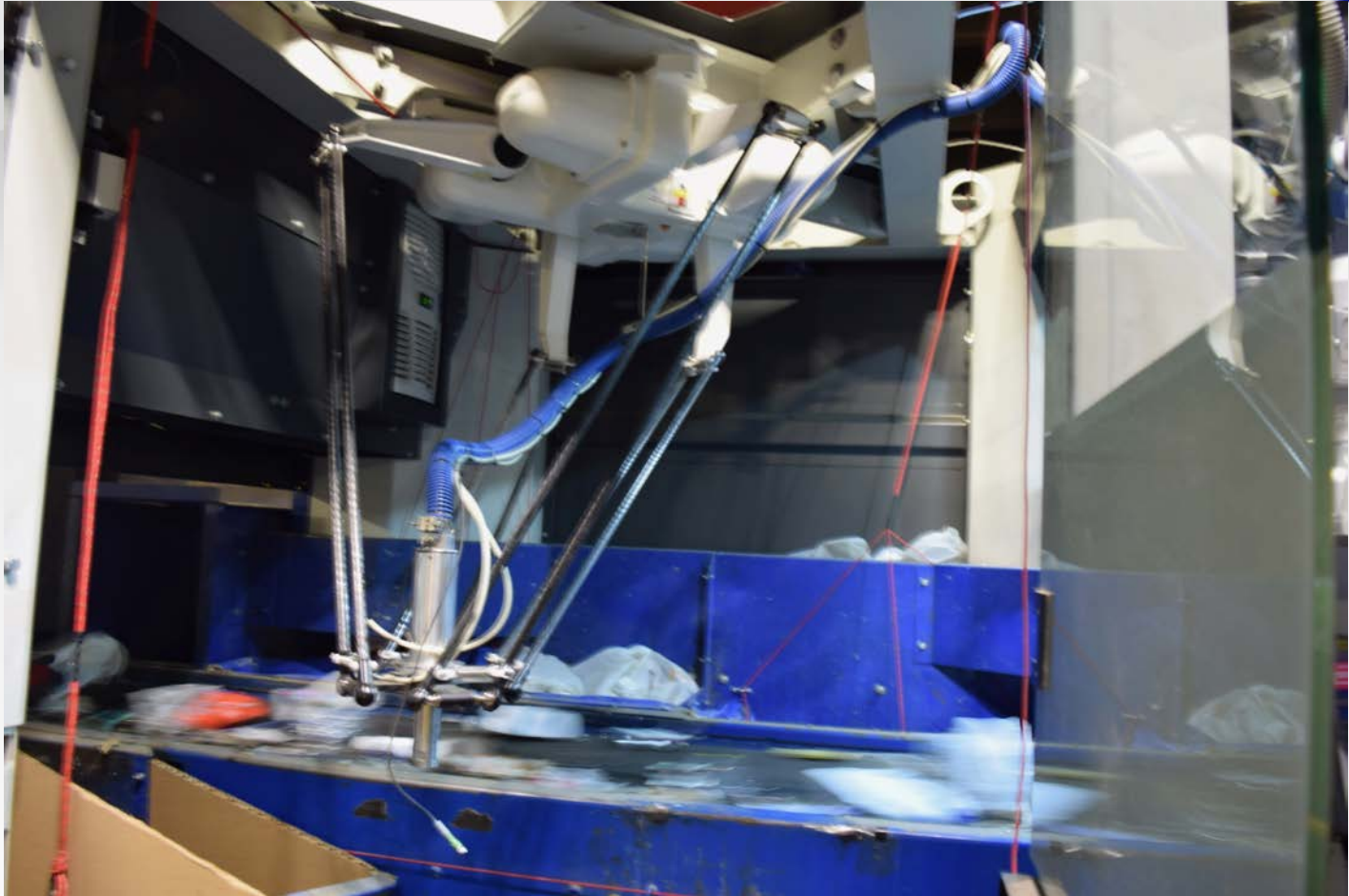
Optic Sorter (for PET)



Robotics (for HDPE & cartons)



Robotics



Eddy Current (Aluminum cans)



Baled Material (sent to markets)



Challenges with Curbside Recycling

Overall Recycling Challenges

- Contamination
- Operation Green Fence (2013)
- National Sword (2017 - 18)
 - New requirements of 99.50% clean baled material
- Increased consumer products
- Poor commodity markets
 - Recent changes since end of 2017
 - Higher processing costs

Changing Consumer Packaging

- Consumer packaging
 - ❖ Increased flexible packaging
 - ❖ Increased single use plastics



Challenges facing today's facilities

- Lightweighting
- Amazon effect
 - Less cardboard packaging use
 - More non-recyclable plastic use
- Increased single use plastics
 - Plastic bags
- Lack of technology to sort new consumer products
 - Investment in recycling infrastructure is required
- Poor communication / education



Recycling Opportunities

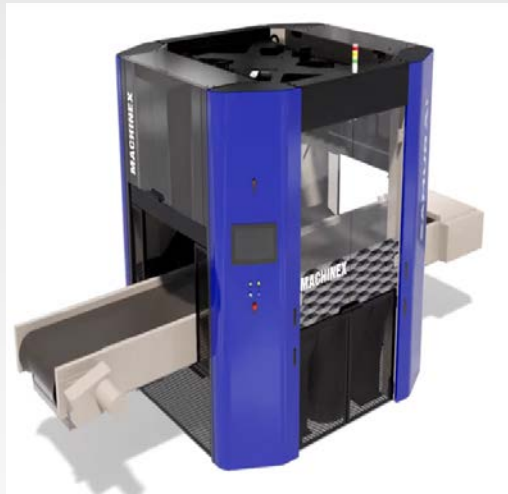
- Increased Education / communication
- Cart inspection programs
(Oops stickers for improper recycling)



Recycling Opportunities

- New technologies

Robotics



Optic Sorter



Recycling Opportunities

■ Policy changes

- San Francisco County and City's Mandatory Composting & Recycling Ordinance
- Minimum Recyclable Content Standards
- Extended Producer Responsibility
- Plastic Bag Bans
- National Bottle Deposit Bill
- Plastics Tax

New California Bill Aims to Improve Recyclable Plastic in Beverage Containers

October 4, 2019 • By Keith Loria

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In the past year, California residents used more than 12 billion plastic beverage bottles, according to data collected by CalRecycle, with many of those containers having little recyclable materials.

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That led Assemblyman Phil Ting (D-San Francisco) to introduce a bill that would require plastic beverage containers in the state to have at least 10 percent post-consumer recycled plastic content beginning in 2021, and at least 25 percent by 2025. Additionally, by 2030, plastic beverage containers sold in California must contain a minimum of 50 percent post-consumer recycled plastic.

AB 792, as it's known in the legislature, would apply to bottles currently covered under the California Redemption Value program, including those used for soda, fruit drinks, and water.



Image Credit: subjug/Getty Images

Questions?

