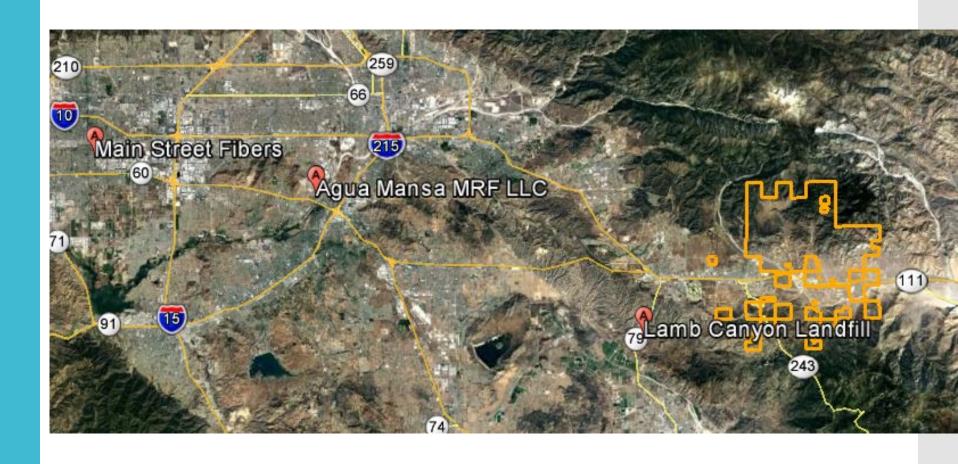
Recycling on the Morongo Indian Reservation

Casino Recycling Program Summary 2017 Dana Morey, Manager

Morongo Environmental Protection Department

Morongo Indian Reservation



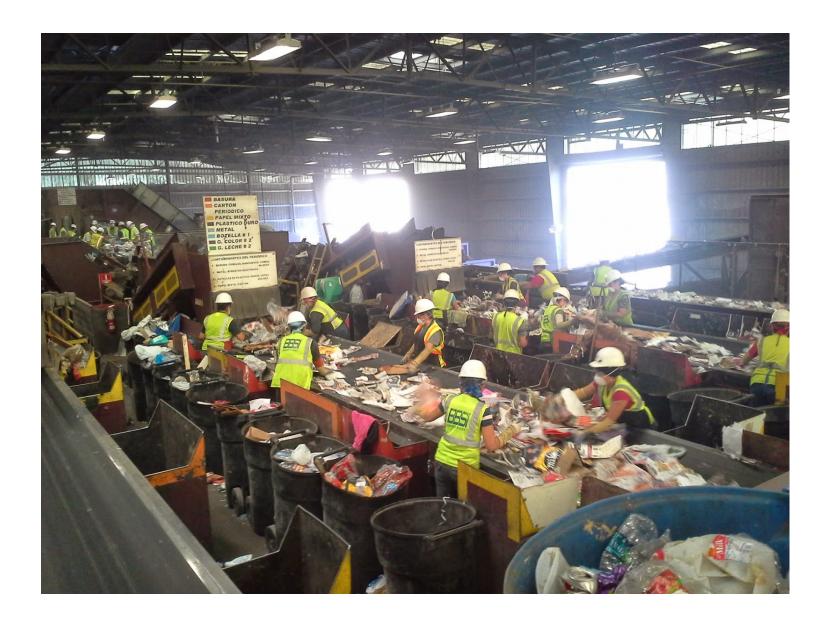
Residential Commingle d Curbside Recycling



Tribal
Enterprise/
Government
Facility
Recycling



Commingled
Destination –
MRF in
Riverside, CA



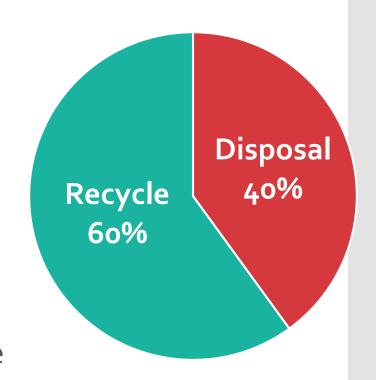
Morongo Casino Resort and Spa Recycling





Let's get started.

- Cardboard saves space, easy win
- How do we capture the rest?
- 2008 Cost Benefit Analysis
 - Total waste hauled
 - Utilized EPA/State waste characterizations for hotel/casino
 - Estimated a 60% recycle rate
 - Estimated cost savings
 - Potential recycling revenues
 - Estimated California Refund Value (CRV) returns



Who's with me?

- Management/Support
 - Morongo Environmental Protection Department
- Program implementation
 - Casino Department Heads
 - Facilities & Housekeeping Departments
- Participation from All Team Members!
 - Weekly training at New Hire Orientation
 - Green Team
- Transportation
 - Morongo Public Works (self-haul)
 - Recyclers
- End Destination Facilities
 - Partner with Recyclers





t's official.

- Support from Tribal Council
 - Motion #61008-11
- Developed/ distributed MCRS Recycling Program Policy
- Signed contacts with vendors/ recycling facilities
- Received State Certification
 - California State Certified Community Service Program
 - Benefits:
 - Receive full California Refund Value (CRV) returns
 - Drawbacks:
 - Follow State Regs
 - Maintain records
 - Recertification every 2 years
 - Potential State Inspections/Checks

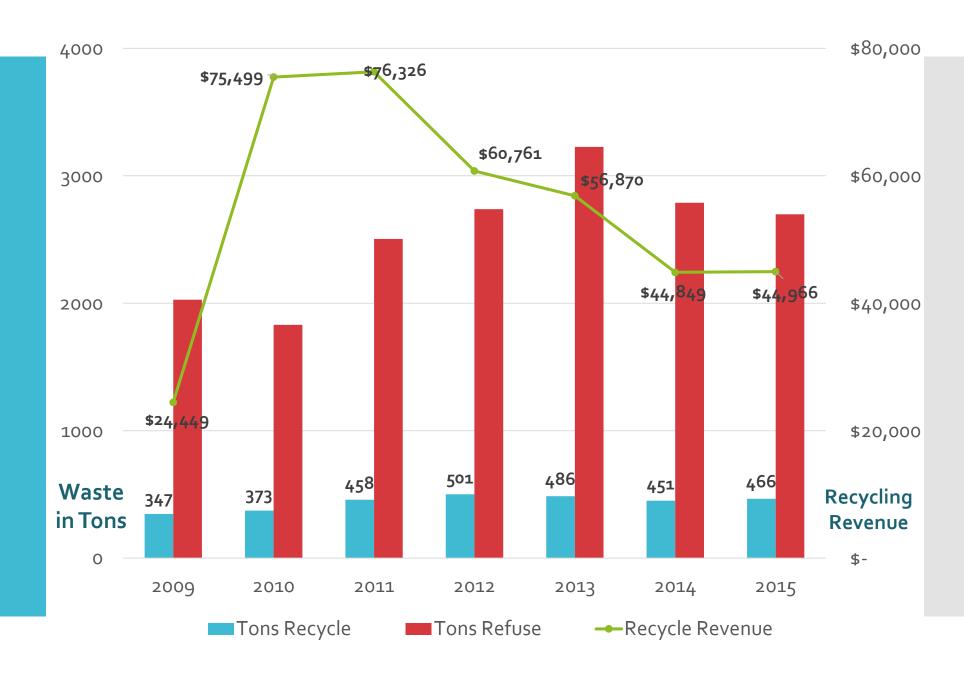
About those bills...

- Initial funding provided by EPA General Assistance Program (GAP) funds
 - Bins
 - Signs
 - Staff Time
 - Roll Off
- BIA funding
- Reuse what you have
- Recycle Revenue
 - Residential/Government Revenues used to support program
 - Casino revenues off-set waste disposal invoices



Evaluating Success

Average 15% Recycling Rate, by Weight

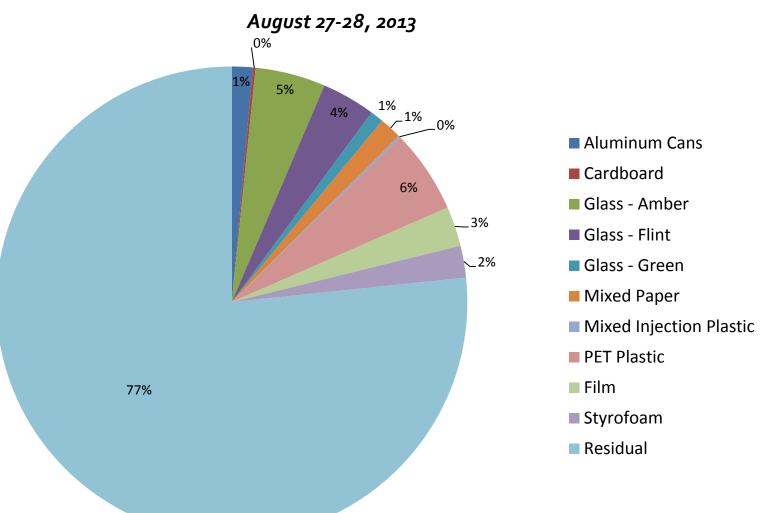


How can we improve?

Average 15% Recycling Rate by Weight

What are we missing?

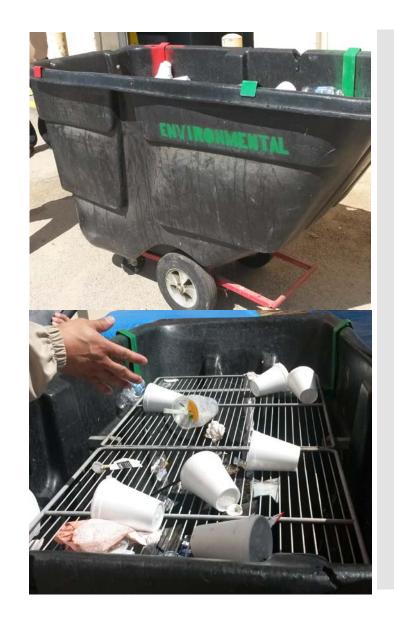
Casino Floor Waste Characterization



How can we improve?

Improve recycling value of our beverage containers!

- 2015 Beverage Container Separation Pilot Project
 - Based on San Manuel's casino recycling program!
- Pilot Waste Collection Areas
 - Casino Floor
 - Hotel Housekeeping
- Sort & Drain
 - Plastic #1 CRV bottles
 - Aluminum cans and bottles
 - Glass by color (clear, brown, green/blue)
- Benefits
 - Reduced liquid contamination
 - Materials more valuable, receive full CRV
- Costs
 - Labor
 - Decreased value of commingled recycle loads



How can we improve?

Pilot Project Collection 2015



Expanded Glass, Cans, & Plastic Bottles Sorting 2016

Expand collection and sorting! Transportation provided by recycler!







RIP Commingled Recycling

Unintended consequences of sorting.

- On-Going Commingled Confusion
 - "If you are unsure, throw it in the blue bin" not true...
 - Evolving "What's Recyclable" Lists
 - Not profitable → no longer recyclable
 - · Ie. Styrofoam, plastic film
- Contamination Increased
 - Valuable stuff now sorted out
 - Food/ liquids in recycling bin
 - Non-recyclable items in the bin
 - At worst 97% Contamination
- Program ended officially May 2016



Recycling 2.0, Back to the Basics



Glass, Cans, & Plastic Bottles

- Collect Beverage Bottles and cans in designated bins
- Plastic #1
- Aluminum Cans
- Glass Clear, Green/Blue, Brown





Glass, Cans, & Plastic Bottles





Mixed Paper (select locations)

- Collection bins primarily in offices and hotel
- Collect clean and dry mixed paper in designated bins
- Recyclable
 - Computer paper, Newspapers, File folders, Magazines, Envelopes, Brochures, Flyers, Chipboard (tissue boxes, toilet paper rolls)
- Not recyclable
 - Paper cups, Laminated signs, Frozen food boxes, Food contaminated paper





Recycling Sort Stations



Cardboard Recycling

- Easy win!
- Cardboard should be baled
 - Saves space
 - Increase value of materials
- Remove plastic wrap and foam packing blocks before baling
- No food contamination







Plastic Film Recycling

- Collection bins primarily in the Warehouse
- Collect clean and dry plastic film in the designated bin
- Acceptable Material:
 - Shipping plastic wrap
 - Clear plastic bags





Other Recycling Opportunities

- Wardrobe
 - Recycle old uniforms
- Hotel Housekeeping
 Recycle old linens
- Engineering and Slots Departments
 Recycle scrap metal
 Recycle carpet
- Housekeeping Soap Reuse Program Clean the world
- Electronic Wastes
- Pallets







Clean the World®

Recycling Waste Streams

2008 Recycle Streams

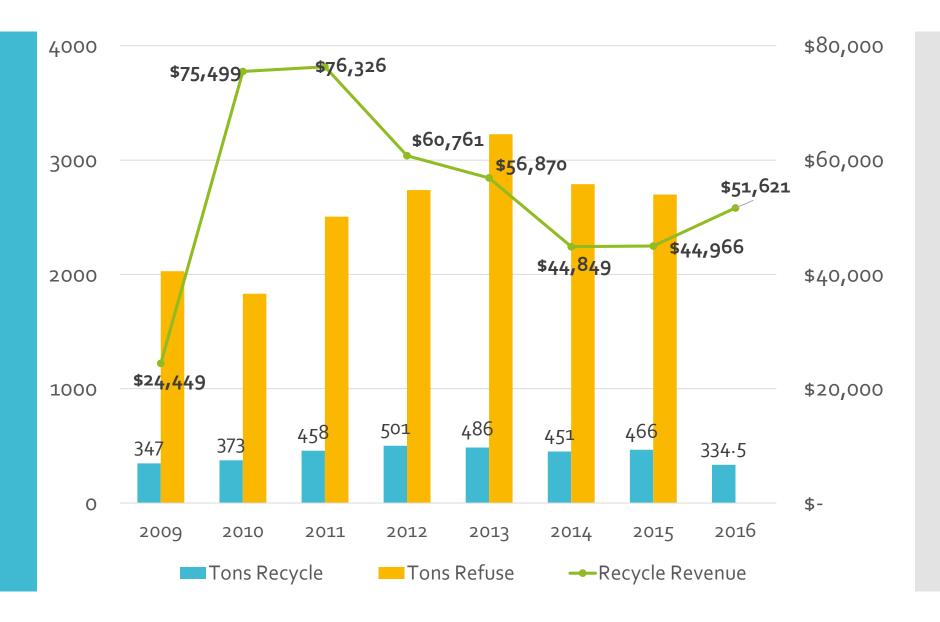
- Commingled recycling
- Cardboard Bales
- Pallets
- Electronic Wastes
- Special Projects
 - Scrap Metal

2016 Recycle Waste Streams

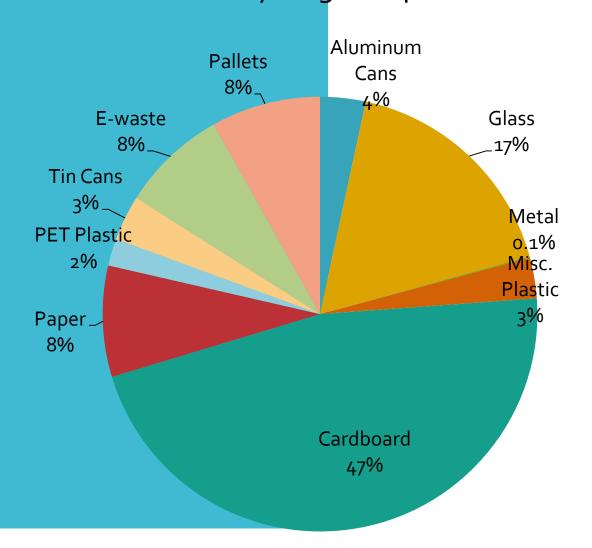
- Plastic Bottles
- Aluminum Cans
- Glass
- Plastic Film
- Mixed Paper
- Cardboard Bales
- Pallets
- Electronic Wastes
- Special Projects
 - Scrap Metal
 - Soap
 - Linens/Uniforms

Evaluating Success 2016

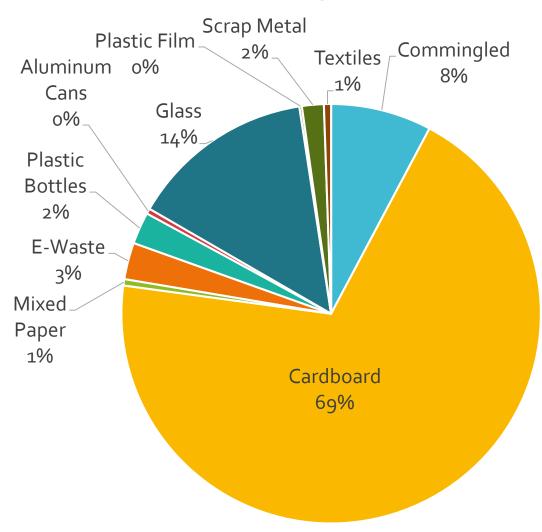
Average 12% Recycling Rate, by Weight



2010 Recycling Composition



2016 Recycling Composition



Are you ever done? Nope.

- Program maintenance is very important!
- Learn, reevaluate, change, expand
- Staff Training
 - Turnover
 - Non-Casino employees
- Recycle Markets
 - Changing materials, processes, technologies
- Vendors change
 - Close up shop
 - No longer competitive
 - Stop paying...
- Bins and signs "grow legs" and disappear



Learn from my experiences...

- Recommend an actual waste audit at the beginning! The more info you have, the better your program will be!
- Be cautious of relying only on savings and revenue
 - All waste management is going to cost something
 - Markets change
- Find your "on-site" champion and empower them!
 - Thanks to Tonya Collier, Facilities Manager; Emilio Mariscal, Facilities Assistant Manager; Ron Hendershot, Hotel Manager; Julio Rivera, Facilities Supervisor
- It's ok to change and update your program. Be Flexible! Listen, learn, and update!