ZERO WASTE – THE “3C” APPROACH

Transitioning from the 3R’s to the 3C’s

• 23 years experience
• 5000+ installations worldwide
• It’s the right thing to do!
• We are part of the solution!
• Everyone else is doing it!
• Customer Pressure!
• Government Pressure!
• We need to be green!
• We can make more money - Green Washing!

“REALITY OF RECYCLING”
99% OF THE TIME
Where are we as a society?

**Economic $$$$**

**Bottom Line**
- Revenue
- Cost Avoidance

**Social**
- “majority want to recycle”
- “it’s the right thing to do”
- “feel good thing”
- “better for the environment”

**Sustainability**
- **Low Hanging Fruit**
  - Aluminum cans
  - Reduced labor

- **The Not So Obvious**
  - Frequency and weights
  - Zero rating hauler contract

- **Optimization**
  - Hidden treasures
Where is your organization?

- **Beginners**: Recycling Expertise
- **Phase 1**: 0-25% (Low Hanging Fruit)
- **Phase 2**: 25-50% (The Not So Obvious)
- **Phase 3**: 50-100% (Zero waste)
- **Optimization**: 90%+

**Areas**

- **Collection**
- **Communication**
- **Culture**
- **Low Hanging Fruit**
- **Environment Stewards**

**Steps**

- Collection
- Communication
- Culture
- Optimization

**Phases**

- **Phase 1**: 0-25%
- **Phase 2**: 25-50%
- **Phase 3**: 50-100%

**Optimization**
The 3C approach
• Leadership “Stake in the Ground”
• Innovation
• Transparency
• Engagement
• EPP – Extended Producer Policy
• F.O.T.M. (Flavor of the month)
• C.A.V.E (Citizens Against Virtually Everything)
• How is your culture
Cultural shift

FOTM  (Flavor of the Month)

Cultural Statement
<table>
<thead>
<tr>
<th>Culture</th>
<th>Communication</th>
<th>Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership “Stake in the Ground”</td>
<td>Green Team implementation</td>
<td>Collection stream accuracy</td>
</tr>
<tr>
<td>Innovation</td>
<td>Senior management goals</td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>Metrics and KPI’s</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>What message does your equipment convey</td>
<td></td>
</tr>
<tr>
<td>EPP – Extended Producer Policy</td>
<td>Fresh and relevant updates</td>
<td></td>
</tr>
<tr>
<td>F.O.T.M. (Flavor of the month)</td>
<td>Sharing best practices</td>
<td></td>
</tr>
<tr>
<td>C.A.V.E (Citizens Against Virtually Everything)</td>
<td>Education &amp; training</td>
<td></td>
</tr>
<tr>
<td>How is your culture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What would you do?
Importance of graphics

Symbol

Text

Compost

Pictorial

Cluster

Custom Cluster

Brand Specific

Compost

Compost

Compost

CleanRiver
RECYCLING SOLUTIONS
Importance of graphics

You have 2-3 seconds to decide

Symbol

Text

Compost

Pictorial

Cluster

Custom Cluster

Brand Specific
Information overload

Less is more!
Unclear graphics

Confusion leads to high contamination levels
Clear, concise graphics reduces contamination
Graphics

Tailored graphics to your region and environment
Product specific graphics reinforce brand awareness and message.
Graphics

Educate

Communicate

Update
Signage to Educate & Promote Environmental & Safety Best Practices
Back-of-the-house Communication
**Culture**
- Leadership “Stake in the Ground”
- Innovation
- Transparency
- Engagement
- EPP – Extended Producer Policy
- F.O.T.M. (Flavor of the month)
- C.A.V.E (Citizens Against Virtually Everything)
- How is your culture

**Communication**
- Green Team implementation
- Senior management goals
- Metrics and KPI’s
- Collection stream accuracy
- What message does your equipment convey
- Fresh and relevant updates
- Sharing best practices
- Education & training

**Collection**
- Flow FOH to BOH
- Hauler contract review
- Volumes and frequency
- Esthetic vs. practical
- Financial restraints (lipstick on a pig)
- Color-coordination
- Servicing of equipment (time and labor)
- Future-ready equipment
The bolt-on approach to recycling

Minimal Design & Esthetics

Minimal Communication & Maximum Contamination
Future Ready Philosophy

9-8-7-6-5-4-3-2-3-4-?
Future Ready Philosophy

Start with waste
Future Ready Philosophy

Same Foot Print
Same Capacity
Need to right size
Add Recycling
Future Ready Philosophy

Same Foot Print
Same Capacity
Need to right size
Add Food Waste
Future Ready Philosophy

Same Foot Print
Same Capacity
Need to right size
Add Paper – High Value
Future Ready Philosophy

Same Foot Print
Same Capacity
Need to right size
Remove waste stream
Zero Waste system
CleanRiver’s Value Equation

How to make your waste diversion plan successful in the front of the house.

Success = \( \frac{\text{Moment of Diversion}}{\text{(↑Adoption)}} + \text{(↓Contamination)} \)

Engage around program design.
School Board Pilot

Purpose: Will the combination of culture, communication, and collection make an impact?

School #1
- Successful existing program including recycling and organics collection
- Green Team support
- Senior level buy-in
- School received right-sized containers with proper labeling and branding, and 1 month pre-launch communication blitz

School #2
- Struggling program – random containers and no communication support
- School received right-sized containers with proper labeling and branding
- Containers were changed out on a weekend with zero advance communication

CleanRiver® incurred all costs associated with this pilot project – containers, graphics, posters, transportation, labor, miscellaneous costs associated with audits, etc.
School Board Pilot

Pilot School #1 – Before and After
Population: Approx. 1,250 students

<table>
<thead>
<tr>
<th>Stream</th>
<th>Pre-Pilot Contamination</th>
<th>Post-Pilot Contamination</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organics</td>
<td>8.1%</td>
<td>4.4%</td>
<td>46%</td>
</tr>
<tr>
<td>Recyclables</td>
<td>22.4%</td>
<td>7.1%</td>
<td>68.4%</td>
</tr>
<tr>
<td>Waste</td>
<td>83.7%</td>
<td>21.7%</td>
<td>74.1%</td>
</tr>
</tbody>
</table>

Note: Organics was included in waste.

Pilot School #2 – Before and After
Population: Approx. 1,000 students

<table>
<thead>
<tr>
<th>Stream</th>
<th>Pre-Pilot Contamination</th>
<th>Post-Pilot Contamination</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recyclables</td>
<td>35.7%</td>
<td>9.8%</td>
<td>72.5%</td>
</tr>
<tr>
<td>*Waste</td>
<td>25.4%</td>
<td>11.4%</td>
<td>55.1%</td>
</tr>
</tbody>
</table>
Are you set up for success or failure?

Low Priority - Over Committed

Hauler Contracts → Financial Restrictions → Poor Planning

Poor Design → Wrong Equipment → Confusion

High Contamination → Custodial → Rogues & Orphans
Rogue & orphan containers

Standalone, single-stream containers that exist apart from other streams in the program.

- Rogue – Design is off-program
- Orphan – Design may be on-program but acts as a catch-all
Smarter recycling solutions

Future Ready

Engagement

Culture
Communication
Collection
Questions and Answers