2020 NRC Zero Waste Conference

Mandi McKay
Sustainability Manager
Snapshot

- 3rd largest craft brewery
- 10th largest brewery overall
- Independent/family-owned
- ~1200 employees
- Pioneer/mentor in craft
- Pioneer in craft sustainability
- Platinum TRUE certified
Zero Waste Philosophy

- ZWIA Definition of Zero Waste
- ZWIA Zero Waste Business Principles
- Sustainability: Triple Bottom Line
- Continuous Improvement beyond solid waste
- Close loops whenever possible
Recycle / Compost

99.8% Diversion Rate

Total lbs waste / BBL
Onsite Composting: Hotrot
Historical Perspective

Sierra Nevada Annual Diversion Rate
(excluding spent grain/yeast)
Historical Perspective

Sierra Nevada Annual Diversion Rate
(excluding spent grain/yeast)
New Metric - Lbs waste* / BBL

*Excluding spent grain & yeast

2020 Target: 4.6 lbs/BBL
Economics of Recycling

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<th>Year</th>
<th>Cost</th>
<th>Revenue</th>
<th>Net Cost</th>
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<td>2010</td>
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<td>2011</td>
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Economics of Recycling
Biogas Recovery

Brewhouse → Wastewater → Biogas Recovery → Boilers/Microturbines
CO$_2$ Recovery
Internal Engagement

• New employee orientation & onboarding

• Zero Waste 101

• Monthly waste KPI

• Excess & Obsolete

• Purchasing Criteria / Guidelines

• GHG Reporting
Advocacy
• Bottle Bills

• Reduction of non-recyclable, single-use packaging

• Regional composting infrastructure

• Brewers Association
Thank you!