SWAC C&D Subcommittee Meeting

MassDEP Bureau of Air & Waste

October 18, 2018: 10:00 AM – 12:00 PM

One Winter Street, Boston
Agenda

• Welcome/Introductions
• CY2017 C&D Annual Report Summary Data
• Proposed Minimum Performance Standard for C&D Processors
• C&D Action Plan Development
• CDRA updates by Bill Turley
• MassDEP Updates
• Next Steps/Closing
Massachusetts C&D Handling Facilities
Tons of C&D Accepted and Handled by Facility in 2017*

*Quantities are "as reported" to MassDEP in CY2017 C&D Annual Facility Reports

Note: The MassDEP definition of C&D materials recycling is separate and distinct from the protocol used by the facility in calculating their C&D waste management credits. For example, when calculating the C&D materials recycling rate, MassDEP does not allow credit for any landfill dependent uses (e.g. alternative daily cover, grading & shaping, road stabilization, etc.), whereas the LCGC (via permits) only provides counting C&D toward C&D waste management credits. Please be mindful of the differences when using MassDEP data to calculate LCGC credits.
Incoming Materials Trends

![Graph showing trends in Inbound C&D Material Analysis](image)
Development of C&D Action Plan

• 2018 C&D Subcommittee Meetings – continue refining themes under consideration
  – March 28, 2018
  – June 14, 2018
  – October 18, 2018

• Draft plan in 2019
  – Translate themes into draft objectives
  – Incorporate C&D Action Plan into draft SWMP for public review and comment

• Final plan in 2020
Development of C&D Action Plan

• Themes emerging from CY2016-2018 input

1. Jobsite Waste Management
   • Promote waste re-use, reduction and separation at the job site

2. Enhance Collection & Processing
   • **Improve C&D Facility Performance**
   • Ensure C&D Waste diverted to high performing C&D Processors

3. Develop End Markets
   • Expand existing/new wood markets
   • Identify outlets for C&D Fines

4. Optimize Regulatory/Policy Incentives
   • Improve implementation of existing/new C&D waste bans
   • Encourage C&D re-use/recycling
   • Promote interagency cooperation
Improve C&D Facility Performance
Establish Minimum Performance Standards (MPS)

• Establish Minimum Performance Standards (MPS) for process separation of waste ban and recyclable materials at C&D Handling Facilities
  – Measure process separation rate as compared against total inbound material accepted
  – Initially set MPS at 15%; ratchet up MPS over time to improve performance
  – In addition achieving MPS, C&D Handling Facility must also demonstrate separation of all C&D waste ban materials (i.e. ABC, metal, wood, clean gypsum wallboard) and OCC
Improve C&D Facility Performance
Establish Minimum Performance Standards (MPS)

- Objectives of MPS:
  - Create incentive to send Category 1 - Mixed C&D Waste preferentially to high performing C&D processors with mechanical processing and well-staffed sorting lines.
  - Reduce “leakage” of inadequately processed C&D waste to disposal
  - Divert banned materials from disposal to greatest extent possible
  - Maximize separation of recyclable materials for further processing or recycling/reuse
Process Separation Rate

- Process Separation Rate (PSR) is compared against total inbound material

\[
\text{Process Separation Rate} = \frac{\text{Recycled} + \text{Biomass} + \text{Diverted}}{(\text{Total Inbound Material Accepted} - \text{Inbound Processed Fines & Residuals})}
\]

- Diverted material: means separation of a specific type of C&D waste (e.g. wood) and transfer for further processing to qualify for a target end-market (e.g. biomass fuel)
  - Landfill dependent uses (ABC, Roadbase, Shaping & Grading) gets no credit as Diverted
- Inbound Bulky/DTM included in “Total Inbound Material Accepted” (in denominator)
- Inbound Processed Fines & Residuals can only be generated by C&D Processor meeting/exceeding MPS

- Distinct from Recycling/Reuse Rate which is only compared against Inbound Mixed C&D Waste Handled

\[
\text{Recycling/Reuse Rate} = \frac{\text{Recycled} + \text{Biomass}}{(\text{Inbound Mixed C&D Waste Handled})}
\]

- Inbound Mixed C&D Waste Handled (denominator)
  - Fraction of Total Inbound Material Accepted
  - Sum of Inbound Cat-1 Mixed C&D Waste plus Source Separated Material received less the amount Transferred to another C&D processor
Failure to meet MPS

- Must transfer Inbound Cat-1 Mixed C&D Waste to C&D Processor that meets/exceeds MPS requirement for further processing
- Not allowed to dispose, or arrange for disposal, Waste Residuals from inadequately processed Cat-1 Mixed C&D Waste (e.g. kick-sorted)
- MassDEP may exercise options under Enforcement Response Guidelines
# CY2017 Process Separation Rate (PSR)

**Facility Ranking for Large C&D Handling Facilities (>50 TPD)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Facility</th>
<th>CY2017 PSR</th>
<th>Rank</th>
<th>Facility</th>
<th>CY2017 PSR</th>
<th>Rank</th>
<th>Facility</th>
<th>CY2017 PSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ReEnergy Roxbury LLC</td>
<td>49%</td>
<td>10</td>
<td>NBWS-New Bedford</td>
<td>14%</td>
<td>19</td>
<td>Oxford Transfer Station,</td>
<td>1%</td>
</tr>
<tr>
<td>2</td>
<td>Stoughton Recycling Technology</td>
<td>39%</td>
<td>11</td>
<td>UWM Holdings, Inc.</td>
<td>13%</td>
<td>20</td>
<td>Holliston Transfer Station</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>A.K.S. Recycling, Inc.</td>
<td>37%</td>
<td>12</td>
<td>Mich-Lin Transfer Station</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>E.L. Harvey C&amp;D Processing</td>
<td>32%</td>
<td>13</td>
<td>Raynham Regional Processing Facility</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>New England Recycling</td>
<td>30%</td>
<td>14</td>
<td>K&amp;W Materials and Recycling</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>TBI Recycling Facility</td>
<td>28%</td>
<td>14</td>
<td>NBWS - Rochester</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Wood Waste of Boston</td>
<td>28%</td>
<td>15</td>
<td>Trojan Recycling</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>UMM-Southbridge</td>
<td>22%</td>
<td>16</td>
<td>Champion City Recovery,</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Devens Recycling Center LLC</td>
<td>17%</td>
<td>17</td>
<td>Tri County Recycling</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>S&amp;J Exco, LLC</td>
<td>16%</td>
<td>18</td>
<td>NBWS - Sandwich</td>
<td>2%</td>
<td></td>
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Development of C&D Action Plan

Theme: Promote waste re-use, reduction and separation at the job site

• MassDEP Source Separation Pilot Project Initiative
• RecyclingWorks C&D Technical Assistance for Generators
• Promote C&D Material Re-use (e.g. Habitat-for-Humanity Re-Stores)
• Promote USGBC/LEED Green Building Standards
Development of C&D Action Plan

Theme: Improve recovery rates at C&D Handling facilities

• Establish minimum performance standards at all C&D Handling Facilities
• Support capital investment in process efficiency and effectiveness (e.g. RLF, RBDG)
Development of C&D Action Plan

Theme: Expand existing/new wood markets

• Optimize existing markets for reuse, recycling or energy recovery of clean wood

• Explore siting in-state energy generation facility that uses C&D biomass
  – Conventional technology
  – Innovative technology

• Develop common C&D material product specifications (improve reliability for end-markets)
Development of C&D Action Plan

Theme: Identify outlets for C&D Fines

• Identify other BUD material uses
  – Remove sulfates and heavy metals to improve value as aggregate

• Evaluate disposing C&D fines at ash monofill landfills
Development of C&D Action Plan

Theme: Promote interagency cooperation with MassDOT, DCAM, DPS etc.

• MassDOT: explore use of processed, post-consumer, tear-off RAS as aggregate
• DCAM: partner on C&D management plan for surplus site projects
• DPS: amend Massachusetts building code to allow enforcement of waste bans by municipal building officials;
  – Promote source separation
  – Direct mixed C&D waste to C&D processors
Development of C&D Action Plan

Theme: Improve implementation of existing/new waste disposal bans

• Clarify definitions and standards
  – Conduct outreach to contractors/developers/haulers

• Increase enforcement of existing waste bans (e.g. OCC, wood, metal, etc.)

• Evaluate adding new waste ban materials (e.g. mattresses/furniture)
Theme: Implement Regulatory/Policy Incentives that encourage C&D reuse/recycling

• Develop generic BUD for coated concrete
• Work with product manufacturers to encourage product take-back/recycling (e.g. gypsum wallboard, ceiling tiles, carpet, etc.)
• Leverage MEPA GHG reduction provisions to improve C&D material management
CDRA Updates

- Presented by Bill Turley, CDRA Executive Director
  - Recycling infrastructure legislation
  - Vinyl recycling
  - Revised gypsum protocol
  - Safety webinar Nov. 13 11 am EST
  - C&D World 2019
MassDEP Updates
Source Separation Pilot Initiative

• Objective: Incentivize C&D jobsite source separation projects that can be translated into case studies
• Prioritize large projects in congested urban areas
• Exploring three parallel pathways:
  – Partner with interested developers/contractors
  – Partner with DCAM on Surplus Sites Management
  – Provide Technical Assistance (RecyclingWorks)
• Schedule & Deliverables: post successful C&D source separation case studies on RW website by year-end CY2018 and on continuous basis
Recycling Works C&D Site Technical Assistance

RecyclingWorks Program Update: Construction & Demolition Site Technical Assistance

RecyclingWorks now provides Construction and Demolition (C&D) Site Technical Assistance for commercial and industrial projects to help increase recycling rates and reduce project costs. RecyclingWorks can assist with C&D waste source separation and waste diversion for project developers and/or contractors in Massachusetts. Technical assistance can include:

- Developing building specs related to waste diversion
- Identifying potential reuse/recycling outlets for materials
- Writing a Waste Management Plan
- Assessing the cost of reuse/recycling versus disposal
- Setting up a reporting and record-keeping system to track project costs and/or material disposition
- Developing a training program for workers, contractors, and sub-contractors

For more information on Construction and Demolition best practices, refer to RecyclingWorks' C&D Material Guidance. For C&D site technical assistance, call the RecyclingWorks hotline (888) 254-5525 or email info@recyclingworksma.com.
MassDEP Recycling Business Development Grant Program

RBDG: Intended to enhance waste reduction and recycling programs for Massachusetts based businesses.

• Grants awards range from $50K to $400K for eligible projects
• Match: grantee must contribute 25% of project investment
• Performance based component extends over 18 – 24 months

CY2018 Grant Cycle

• Application found at: https://www.mass.gov/how-to/recycling-business-development-grants
  – CY2018 target materials include: Construction and Demolition wood - Clean Wood
• Two deadlines:
  – June 29, 2018 (3 applicants under C&D wood category)
  – October 5, 2018 (2 applicants under C&D wood category)
MassDevelopment Financial Programs

• **Tax-Exempt Bonds**
  Tax-exempt bonds to manufacturing and qualifying solid waste facilities.

• **Commercial Real Estate Loan**
  Loans and bank loan participations up to $7,500,000 for facility acquisition, renovation, construction, and permanent financing of manufacturing property and buildouts.

• **Equipment Loans**
  Loans or bank loan participations up to $2,000,000.

• **Mortgage Insurance Guarantee**
  A guarantee to your bank, allowing you to receive a higher advance rate on a real estate loan.

• **Working Capital Loan Guarantees**
  Newest product allows banks to make larger working capital loans to manufacturing companies by providing a guarantee of up to 25% of the amount outstanding on a revolving line of credit.
Announcements/Open Discussion

• EBCNE 13th Annual C&D Regional Summit
  – Sheraton Hotel, Framingham
  – Thursday, January 31, 2019
  – 8:00 am to 12:00 noon

http://ebcne.org/calendar/
Any other business to discuss?
For More Information:

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