SWAC C&D Subcommittee Meeting
MassDEP – Bureau of Air & Waste
October 26, 2017; 10:00 AM to 12:00 PM

Meeting Minutes:

Recorded by: Joshua Cook (RecyclingWorks in Massachusetts) and Mike Elliott (MassDEP C&D program Coordinator)

NOTE: Copies of the meeting minutes and presentation slides will be available on the MassDEP C&D Subcommittee webpage after the updates to the Mass.gov website are completed in the coming weeks. The MassDEP C&D Subcommittee webpage can be found at the following URL: http://www.mass.gov/eea/agencies/massdep/news/advisory-committees/cd-subcommittee.html. Until that time, copies can be requested via email from Mike Elliott at michael.elliott@state.ma.us.

The following agenda items were covered during the meeting:

1) <u>Welcome/Introductions</u>

a) MassDEP welcomed participants in the room and on the webinar.
   i) Participants in conference room: 17 (as recorded on meeting sign-in sheets)
   ii) Participants on webinar: 7 (as recorded on webinar attendee report)
   iii) Participants reflected a cross-section of stakeholders representing: C&D Processors; Waste Haulers; Recycling End-Market Outlets; Biomass Energy Recovery Plants; Consultants; State and Municipal Officials; Industry/Trade Associations

2) **<u>C&D Action Plan Survey Responses</u>**

a) In August 2017, MassDEP circulated a Survey Monkey questionnaire with 8 open ended questions about C&D material management in Massachusetts. 13 individuals responded to the survey. Respondents' identities were not revealed to MassDEP. The survey responses are summarized in the presentation slides and below. Most of the meeting was spent reviewing the survey responses and eliciting further comment on the subjects covered.

b) <u>Q1 Priority C&D Materials</u>:
   i) The survey responses list wood, asphalt shingles and gypsum wallboard as top 3 priority materials. C&D Fines & Residuals were also mentioned.
   ii) Comment: We have to worry about fines and residuals, there needs to be an outlet for fines and residuals. With diminishing capacity, this is a pressing concern.
   iii) Comment: A big problem with the fines is the sulfate levels. Landfills don't want fines due to sulfates and sulfates can't be removed once the material has been processed. There are fewer and fewer landfills that take fines/residuals, and the ones that do don't want sulfates, limiting the outlets for fines and residuals.
   iv) Comment: Vancouver, BC has a stipulation that before demolition is done, sheetrock must be removed. This cut down on the sheetrock going to landfills, and reduced sulfate contamination. Sulfates are a health issue due to potential to generate hydrogen-sulfide gas. In the extreme, it can be deadly. This is been regulated in Vancouver for 12-15 years. This strategy has been working there, and they have not had sheetrock in C&D waste. Processors imposed a fine on any C&D that showed up with sheetrock in it.
   v) Comment: There are some facilities in other areas that take sheetrock from demolition jobs, and remanufacture it into new sheetrock. This removes sulfates from landfill fines and residuals.

vi) Comment: Local outlets are restricting the material they take further, a lot of material is hauled to Norridgewock, ME. Norridgewock has been moving to keep sulfate levels down, and that spec is hard to meet. Seneca Meadows, NY may be restricting sulfates in materials, which will further constrain outlet for fines.

c) Q2 New Recycling End Markets:
   i) The survey responses suggest the need to:
      (1) Establish in-state biomass markets for C&D wood; and
      (2) Encourage MassDOT to allow use of Recycled Asphalt Shingles (RAS) in road base
   ii) Comment: From the processing standpoint, the major way to reduce volume of C&D material is to remove wood. There are really only two outlets (Tafisa in Quebec and Sappi in Maine; Sappi is taking less and Plainfield in Connecticut is limited), so additional outlets would provide additional management capacity. Materials need to be hauled hundreds of miles to disposal, instead of being disposed of or utilized in-state.
   iii) Comment: Would the state be able to do anything to accelerate siting and permitting of a biomass plant? 6-7 years is a long way out, and we have a problem now. If it is not addressed it will get worse.
   iv) Comment from Bill Murdock of Tafisa: Tafisa spec on incoming material is only going to get tighter. Some processors are not able to meet the spec. There is less wood going into Tafisa than two years ago - the demand is the same, but the standard needs to be met, so acceptance is down. Quality demands are not going to be loosened.
   v) In response to discussion about capacity of existing biomass market in Massachusetts, and receptiveness of processors to promote source separation of clean wood for use as fuel in biomass market, several comments were expressed:
   vi) Comment: There is no way to get C&D wood into the combustion end market. It is at full capacity.
   vii) Comment: Economics for this may not be there. Requires millions of dollars of investment, and it is unknown what the end market will look like. Biomass may not be the solution to wood waste at this time.
   viii) Comment: LEED doesn't recognize biomass energy recovery, so no incentive there.
   ix) Comment: There probably is a need for a biomass plant in MA, if only for green clean wood/wood chips.
   x) Comment: MassDEP needs to encourage siting a C&D wood biomass plant in MA. Offer tax credits/RECs to help attract a biomass plant. Treat like an emergency and waive rules to allow fast-track permitting and construction.
   xi) Comment: Local Rule policy is an impediment to siting a biomass facility in Massachusetts.

d) Q3 Waste Bans:
   i) The survey responses include:
      (1) No new bans unless reliable, sustainable, local markets are developed.
      (2) Existing waste bans are generally working, but need improved enforcement of specific materials.
      (3) Prevent out-of-state transfer by rail or truck, undermines credibility of bans.
   ii) Comment: We need viable markets. You don't see steel going to landfills, because there are viable markets for steel. If there is an economical outlet for a material it will be sent there instead of disposal.
   iii) Comment: Subsidy for low value material could help.

e) Q4 Source Separation:
   i) The survey responses include:
      (1) Offer state funds to offset labor costs, biggest impediment to source separation
      (2) Mandate source separation on large construction/demo projects
      (3) Provide more education
      (4) Encourage better dumpster management (e.g., signage, color coding, collection strategies, etc.)
      (5) Not economically feasible except for high value products (e.g., old-growth wood, pre-WWII brick, or products that cannot be efficiently recovered at processor (gypsum, ceiling tiles, etc.)
   ii) Comment: It's all dependent on the geographic area. If you are in an area with a lot of space for dumpsters, it works. If you are in a city there may not be space for source separation.
   iii) Comment: Ceiling tiles can be source separated at the job site, picked up palletized via a trailer. They can be picked up unpalletized at additional cost.
   iv) Comment: Source separation costs more than processing mixed C&D waste.
   v) Comment: Some builders are successfully implementing source separation, and winning bids, and winning LEED project bids. Need to emulate this model.
   vi) Commenter countered that a lot of source separated material shows up at processor with contamination that needs to be sorted, and incurs a processing cost.
   vii) Comment: There's a distinction between loads generated at a construction site versus a demolition site. Valuable recyclable material can be more easily recovered from debris originating from a construction site versus a demolition site.
f) Q5 LEED Standards:
   i) The survey responses include:
      (1) Implementation of LEEDv4 will help (e.g., requirements for source separated materials, recycled material content)
      (2) LEED recycling credits are problematic and not economically feasible
      (3) Education
   ii) Comment: Get contractor feedback: solicit information about LEED projects and how the waste credits are working.
   iii) Comment: LEED projects are happening and will continue to happen. The question is whether the C&D Waste Management credits, which are minimal, are worth pursuing on any given project.
   iv) Comment: Irrespective of waste management credits, a prerequisite of any LEED project is to have a Waste Management Plan; that encourages material re-use and separation.
   v) Comment: MassDEP should adopt LEED.
   vi) Comment: DCAM has some diversion targets already built into procurement specs; in the interest of leading by example, MassDEP can explore greater adoption of LEED standards with DCAM.
g) Q6 Product Stewardship:
   i) The survey responses included:
      (1) Mandate by regulation and enforcement
      (2) Offer tax credits and other incentives
   ii) Comment: after some discussion about what constitutes product stewardship (PS), the consensus of the room was that it doesn't need to require the original manufacturer taking

back waste/excess material to be re-used as feedstock for new product, but it should require manufacturers to recover and divert materials from waste stream.

iii) Comment: Asphalt shingles, ceiling tiles, etc. may be best candidates for PS since they have high re-use value. For materials that have less value, it either needs to be mandated or have other incentives to make it more attractive.

iv) Comment: They do it with paint now; it would be great if they could do it with sheetrock.

h) Q7 Policy/Program Tools:

i) The survey responses include:

(1) Encourage MassDOT to allow use of RAS in road-base
(2) Encourage construction of energy plant permitted to accept C&D biomass as fuel
(3) Improve compliance and enforcement
(4) Impose fees on transfer of out-of-state material
(5) Improve data collection and reporting

ii) MassDEP expressed a willingness to re-engage with DOT to examine the use of RAS material in road/road base applications.

iii) Comment: After a suggestion to also include use of crushed concrete in discussion with MassDOT, a processor commented that MassDOT already has a spec for recycled concrete/asphalt/natural gravel and a spec for 10% Processed Glass Aggregate (PGA) but these specs are not generally used.

iv) Comment: Pass regulation mandating the abatement of drywall prior to demolition/renovation.

i) Q8 Other Comments:

i) The survey responses include:

(1) Listen to and support industry concerns
(2) Focus on markets, followed by enforcement of existing regulations
(3) Find an in-state home for C&D fines and residuals
(4) Offer state funds or tax credits

ii) Comment by gypsum recycler: The northeast has 3 wallboard manufacturers within 100 miles. They don't currently accept demo wallboard, but they may be persuaded to re-consider if the material is 100% sure that it is not contaminated. Gypsum market is tightening up more than it used to, so there is some interest in recycled wallboard. He described a current pilot underway in NYC area that involves supplying reclaimed gypsum to USG.

3) **CY2016 C&D Facility Annual Report Summary Data**

a) MassDEP presented bar chart of CY2016 C&D Facility Annual Report Summary Data.

i) MassDEP reported the following summary data"

(1) Total material accepted at C&D Handling Facilities: 1,625K tons
(2) Inbound mixed C&D waste: 1,140K tons
(3) Inbound source separated materials (e.g., C&D wood, ABC, metal, etc.): 73K tons
(4) Inbound processed fines & residuals: 139K tons (2X increase over 2010 data)
(5) Inbound Bulky/Difficult-to-Manage (DTM): 271K tons (26X increase over 2010 data)
(6) Recovered/Recycled: 256K tons of 848K tons of C&D material processed ≈ 30% (processors: 33%; transfer stations: 12%)
(7) Landfill Dependent Use (e.g., ADC, Roadbase): 223K tons
(8) Disposed in landfill/combustion: 815K tons

ii) Given dramatic increase in Bulky/DTM over past few years (which is not technically C&D waste), MassDEP announced that it is revising how it calculates recovery/recycling rate to better reflect processing of C&D waste by removing the Bulky/DTM from the quantity of C&D material processed.
iii) In an effort to help individuals calculate LEED C&D waste management credits, MassDEP revised the back-up data table to include more detail on quantities of different categories of inbound materials, and quantities of different categories of landfill dependent use.
iv) The annual trend of the C&D facility summary data appears to have plateaued around a 30% recovery/recycling rate. To continue progress toward the 50% goal by 2020, MassDEP will continue to promote all options including source separation.

4) <u>Announcements/Open Discussion</u>

a) John Fischer, the Section Chief of the Commercial Waste Reduction and Waste Planning Branch, introduced Ally Phillips, a contractor who has been hired part-time to help MassDEP-BAW with development of the next 10-year solid waste master plan. Among other things, Ally will focus on: stakeholder outreach, data collection, policy research.
b) By way of update on the 2017 Recycling Business Development Grant (RBDG) Program, MassDEP reported that 12 applications had been received by the June 30 deadline. Of those 6 were submitted under the C&D material specific categories that were identified through the recently completed DSM "2016 C&D Debris Market Study", which included:
   i) C&D Wood
   ii) Post-Consumer Bulky Rigid Plastic

   As of the date of the meeting, the RBDG review process had not yet been completed, so no award announcements were available, but they will be announced soon.
c) Bill Turley (Executive Director of CDRA) updated the group on four topics of interest:
   i) C&D Fines Characterization Study
      (a) Board authorized follow-up studies on specific materials from the characterization study
   ii) Through an email survey about to be launched, CDRA will be updating its list of all states' C&D regulations
   iii) Funding to look at EU wallboard recycling protocol; consider how it could be applied in NA markets.
   iv) Updating shinglerecycling.org on CDRA website.
   v) CDRA will host its 25th Annual meeting in Nashville, Feb. 10-13
d) Dan Moon reported that the EBC Annual C&D Summit will be held at the Sheraton Framingham on Wednesday, January 24, 2018.

5) <u>Closing/Next Steps</u>

a) <u>Next meeting:</u> TBD but in about 5 months time (ca. March 2018)