

# C&D Management in the Northeast

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## C&D Management in the Northeast in 2013

- Materials from building construction, renovation, & demolition
- Processors: focus on “mixed” C&D
  - ❖ Facilities handling mainly ABC from road & bridge projects not included\* - would dwarf tonnages
  - ❖ Facilities handling mainly land clearing wood also not included\*

\* to the extent that was possible

## C&D Management

- Previous study covered 2006 disposal, landfill uses, & recovery
- New study presents 2013 data – most recent year available
- Landfill uses not considered recovery
  - Shaping & grading
  - Roads
  - Alternative daily cover (ADC)

## C&D Management

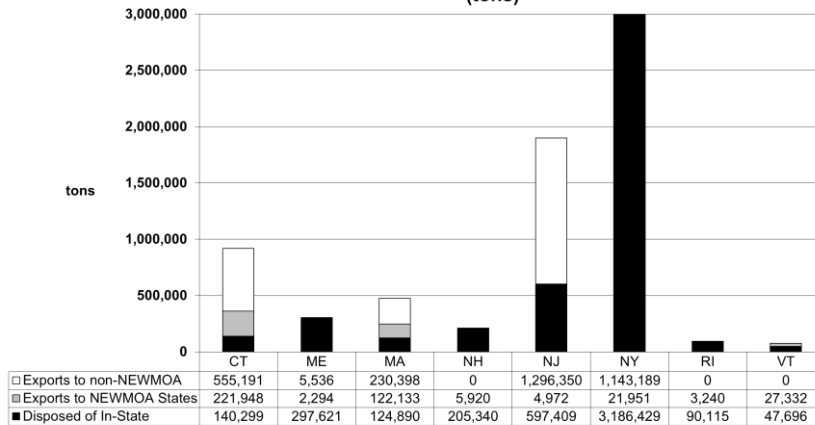
- CT, ME, MA, NH, NJ, NY, RI, & VT
- Data from facilities that report to states
  - ❖ For example, data on recycling direct from job sites is not collected by states
- Data collection effort started in 2015
  - ❖ State resources limited
    - Follow-up with non-reporters
    - Enter data in their database systems
    - QA/QC data

# Disposal



# Shipped for Disposal

Figure 2: 2013 C&D Generated by State and Disposed (tons)



## Where exported to?

**CT:** MA, NY, & OH  
**MA:** ME, NH, & OH  
**NJ:** OH & PA  
**NY:** OH & PA  
**VT:** NH & NY

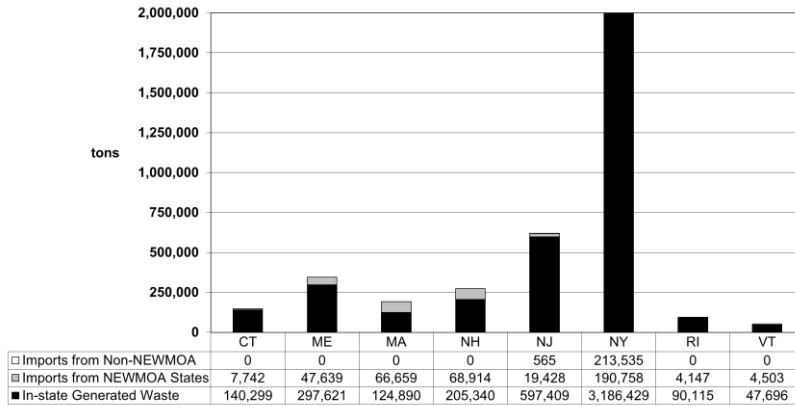


## Changes From 2006

- Much less in 2013: CT, ME, MA, & VT
  - ❖ CT exports to non-NEWMOA states almost 1/2
  - ❖ MA exports to NEWMOA states almost 2/3 less
  - ❖ ME & VT less in-state disposal
- Less: NH (in-state disposal)
- About the same: NJ
  - In-state disposal ↑ & non-NEWMOA exports ↓
- More: NY & RI
  - ❖ In-state disposal ↑

## Disposed in State (includes imports)

Figure 3: 2013 Total Quantity of C&D Disposed of In-State (tons)



## Where imported from?

**ME:** MA

**MA:** CT

**NH:** MA

**NY:** CT & Ontario



## Changes From 2006

- Disposal at facilities in ME, MA, NJ, & VT  
~50% less in 2013
  - ❖ ME: from out-of-state down 210K tons & also less in-state material
  - ❖ MA, NJ, VT: reductions mostly from in-state material
- Disposal in NH down ~25% (in-state material)
- Disposal in NY & RI up (in-state material)

## Notes: Disposal

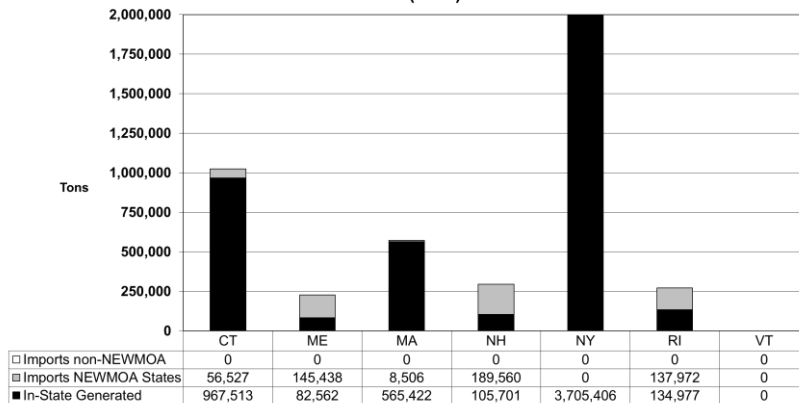
- Data from disposal facilities
  - ❖ Not from exporting transfer station/processor  
(Unless additional detail known)
- Out-of-state imports might be missed
  - ❖ Comes into another in-state facility beforehand  
(Disposal facility records as in-state material)
- CT: most processed C&D debris reported as exported for disposal – some might be landfill uses

# Processing



# Inputs to Processors

Figure 4: 2013 C&D Inputs at Processors (tons)



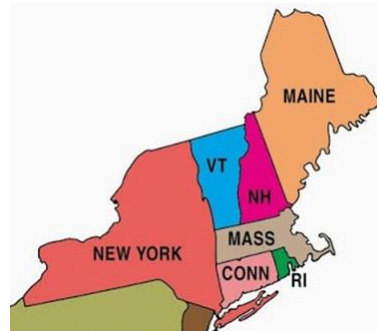
## Where imported from?

**CT:** MA & NY

**ME:** MA

**NH:** MA

**RI:** MA



## Changes From 2006

Less processed in 2013

- CT: in-state generated 200K tons less
- MA: in-state 350K tons less
- NH: in-state 80K tons less
- NY: In-state 500K tons less

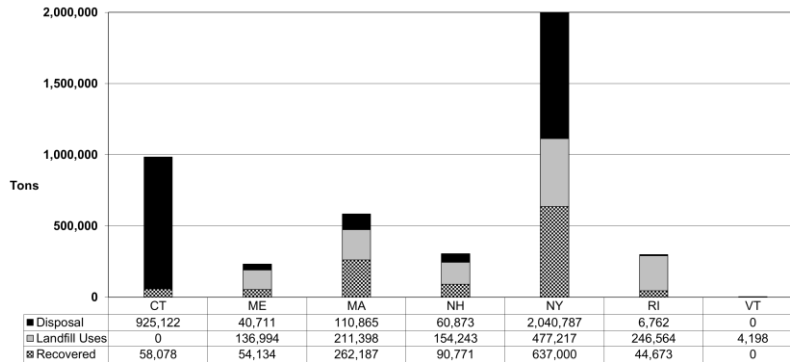
Slightly more processed in 2013

- ME & RI: in-state less & imported more



## Processor Outputs

Figure 5: 2013 C&D Processor Outputs (tons)



## Changes From 2006

- Disposal in 2013
  - ❖ Processors in CT & MA sent 200K tons less
- Landfill Uses in 2013
  - ❖ More sent from processors in ME, NH, & RI
    - 100K tons more from ME processors
  - ❖ Less from processors in MA & NY
    - 350K tons less from MA processors

## Changes From 2006

### Recovery in 2013

- Less from processors
  - ❖ ME (-65K tons)
  - ❖ NH (-60K tons)
  - ❖ NY (-800K tons)
- Similar tonnages in CT & RI
- MA processors
  - ❖ More tonnage (+195K)
  - ❖ Higher percent of incoming material recovered

## Notes: Processing

- Double-counting eliminated, as feasible
  - ❖ TS/processor transfers to another processor
- NJ: Does not collect origin of material from recycling processors (cannot distinguish C&D from other sources)
- NY: Includes all C&D materials processors – a lot of large facilities – tried to remove
- RI: Largest facility may not provide accurate data
- VT: No processors in 2013

# Recovery

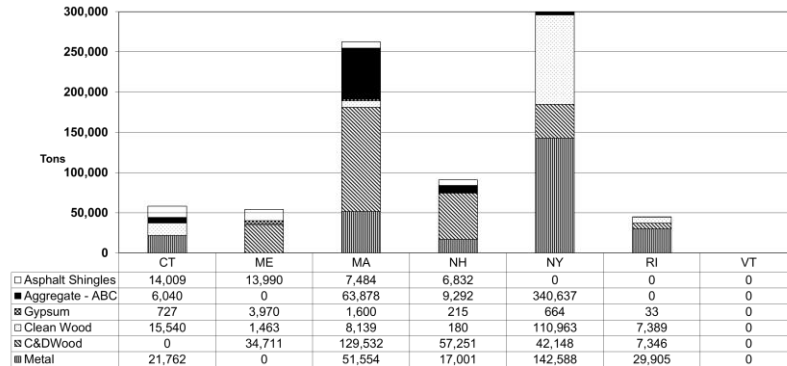


## Categories

- Asphalt shingles
- Aggregates (ABC)
- Gypsum drywall
- Wood
  - ❖ “Clean”
  - ❖ “C&D” adulterated
- Metal

## Recovery from Processors

Figure 6: 2013 C&D Processor Recovered Outputs (tons)



## Changes From 2006

- Asphalt Shingles: only material recovered at higher tonnages regionwide in 2013
- Aggregates\*^: ↑ CT & MA & ↓ NH & RI
- Gypsum Wallboard: ↑ CT & MA & ↓ NY
- Clean Wood: ↑ ME, MA, RI & ↓ CT & NY
- Metal\*: ↑ MA & RI & ↓ CT, NH, & NY

\*ME facilities do not report

^NY data uncertainty

## Changes From 2006

### C&D Wood:

- Significant decreases in
  - ❖ ME: 95K tons → 35K tons
  - ❖ NH: 126K → 57K
  - ❖ NY : 136K → 42K
  - ❖ RI : 22K → 7K
- MA processors – recovery up by 109K tons

## Report on 2006 (published 2009)

- State sections
- Estimated generation & discussed markets
- Key findings:
  - ❖ Overall, 10% of generation was recovered
    - In some states, majority of C&D debris was processed but most became ADC or was disposed of
    - In some states, a lot of C&D debris went directly to disposal, so processors handled higher quality inputs & recovered higher percentage of what they received
  - ❖ Metal only material recovered by processors at a high percent of generation (53% nationwide)

## NEWMOA C&D Debris Activities

- **Common Data Collection (2012)**
  - ❖ Processing facilities
  - ❖ Consistent terms & data categories
  - ❖ Implemented by NH
- **Policy Options - Gypsum Wallboard(2010)**
  - ❖ Ban disposal
  - ❖ Require recycling on state-financed projects
  - ❖ Require waste management planning
  - ❖ Improve data – improve transparency
  - ❖ Extended producer responsibility (EPR)

## Related Activities

- **Beneficial Use Determinations (BUDs)**
  - ❖ Includes landfill uses of C&D debris
  - ❖ Database of BUDs issued by 27 states
    - For use by states and EPA
    - Not exhaustive
    - No longer funded
- **Soil Reuse Management**
  - ❖ Workgroup: Solid Waste & Waste Site Cleanup
  - ❖ Forum to share information & ideas
  - ❖ State Information Resource:
    - [www.newmoa.org/cleanup/projects/soil-info.cfm](http://www.newmoa.org/cleanup/projects/soil-info.cfm)

## NEWMOA

- Non-profit, non-partisan interstate association
- Solid waste, materials management, hazardous waste, waste site cleanup, toxics reduction, pollution prevention, & sustainability programs
- CT, ME, MA, NH, NJ, NY, RI, & VT
- Formally recognized by EPA in 1986
- [www.newmoa.org](http://www.newmoa.org)



## Contact

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