

CONSTRUCTION AND DEBRIS (C&D) RECYCLING ROADMAP

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EXECUTIVE SUMMARY

The Construction and Demolition Recycling Association (CDRA) contracted the University of Florida to create a recycling roadmap for state and local governments on managing construction and demolition debris (C&D). Included in this document is a description of C&D characteristics including, sources of C&D generation, different types of processing strategies used in recycling facilities, the benefits of recycling C&D material, and suggestions for municipalities on developing recycling markets for C&D.

The C&D waste stream consists of seven common materials: portland cement concrete (PCC), asphalt pavement, wood, asphalt shingles, gypsum drywall, metals, and fines. Other materials, such as packaging materials, plastics, carpet, and ceiling tiles are also present in C&D, but in lower quantities and frequency. C&D is generated from four main sources: construction, demolition, renovation, and roads, bridges, and other infrastructure projects. The material composition and quantity varies among project types. C&D collected from these sources are may be either source separated or comingled and often sent to a recycling facility for material recovery. Recycling facilities utilize both manual and mechanical features to process incoming C&D. Facilities employ different processing strategies, such as dump and pick, single line, or dual line sorting. Recycling C&D material has a multitude of economic, environmental, and social benefits. As opposed to landfilling C&D, recycling C&D in 2014 resulted in 43.9 Million MTCO₂E avoided and the creation of 27.9 thousand jobs.

Municipalities play a crucial role in supporting the growth of C&D recycling markets, financially and legislatively. Local governments can develop financial support programs to promote recycling facilities purchase advanced processing equipment, cover fees associated with permitting a new recycling facility or incentivize projects to use recycled materials instead of virgin materials. Legislative and regulatory opportunities include establishing ordinances that require haulers to drop materials off at certified recycling facilities prior to disposal, creating procurement policies that provide end markets, instituting disposal bans for certain C&D materials, and requiring minimum diversion targets for construction and demolition projects.

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ABBREVIATIONS AND ACRONYMS

C&D	Construction and demolition debris
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
MRF	Material recovery facility
MSW	Municipal solid waste
SMM	Sustainable materials management

UNITS OF MEASURE

mmBTU	Million British thermal units
t	Metric tonnes = 1.1 tons
tCO ₂ eq	Tonnes carbon dioxide equivalence
tons	US short tons = 2,000 pounds