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**RECYCLING BUSINESS
ASSISTANCE CENTER**

John Blaisdell, NC RBAC

Feedstock Collection Process--
Urban Wood Wastes

Urban Wood Waste

- Concentrating on Construction and Demolition (C&D) Debris because it's one of the largest and potentially the lowest cost wood resource
- Other sources of Urban Wood Waste:
 - Pallets
 - Manufacturing Scrap
 - Land Clearing Debris (trees, brush, stumps)

The Generator



The Hauler



Clean Construction Scrap Wood



The Processor



The Processor



The End Product-Ground Wood



The Hauling Company



The End Market



**Step 1.
Generator**

Pays hauler recycling fee of \$150 plus transportation fee of \$100 = \$250 for 5 tons of mixed construction debris

**Step 2.
Hauler**

Pays \$150 recycling fee to processor for 5 tons of debris at \$30/ton

**Step 3.
Processor**

Sorts/ processes 5 tons of debris into 4 tons of wood chips and 1 ton of residual

Pays \$20 hauling fee but receives \$40 from the hauler for 4 tons of chips at \$10/ton = net amount of \$20

**Step 4.
Hauler**

Transports boiler fuel to boiler and receives the \$40 for 4 tons of wood at \$10/ton

Transports 1 ton of residual to a landfill and pays \$35/ton = \$35

**Step 5.
End Market**

BOILER
Pays hauler \$10/ton

Landfill
Charges hauler \$35 for 1 ton of residual at \$35/ton

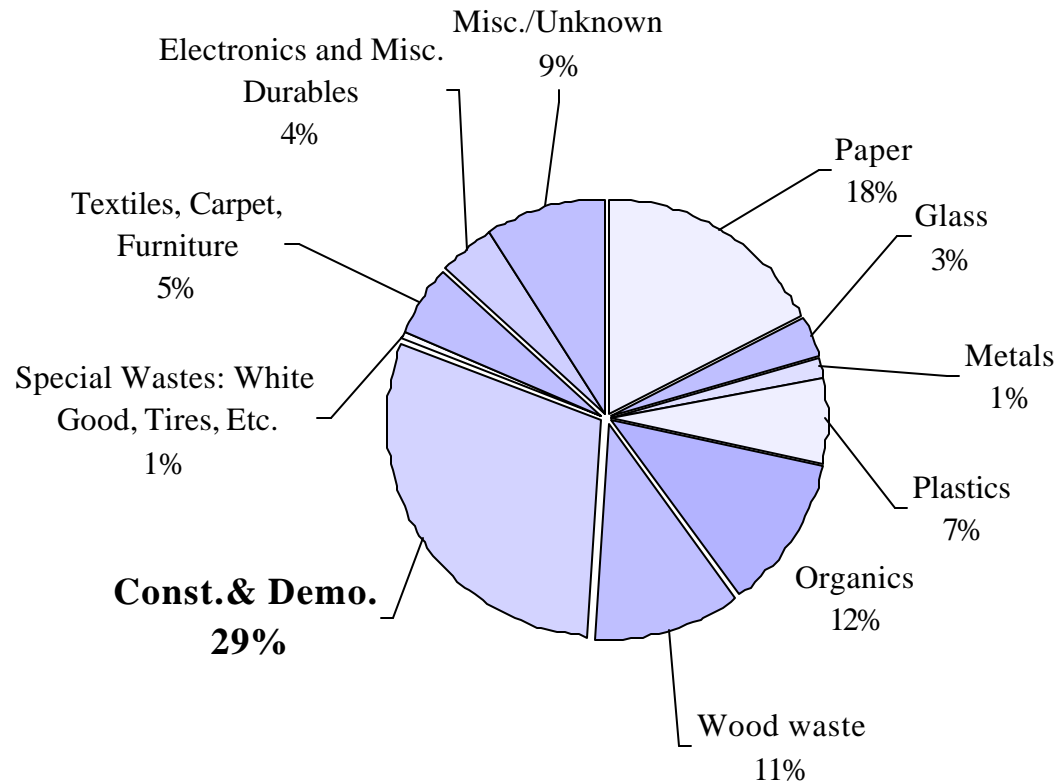
Pays \$35/ton to dispose of 1 ton of residual = \$35 plus transportation costs of \$10 = \$45 total

How much is available?

- Depends on overall generation of C&D.
Key Factors:
 - Population
 - Construction Activity
- Depends on recycling infrastructure

Estimated Breakdown of NC's Disposed Waste Stream

Figure 2: Estimated North Carolina Disposed Waste Stream - 1997



Source: 1998 North Carolina Markets Assessment of the Recycling Industry and Recyclable Materials: <http://www.p2pays.org/ref/02/01622.htm/index.htm>

Generation per year

1997

Residential

Construction 304,203

Renovation 704,053

Demolition 637,986

Non-Residential

Construction 163,176

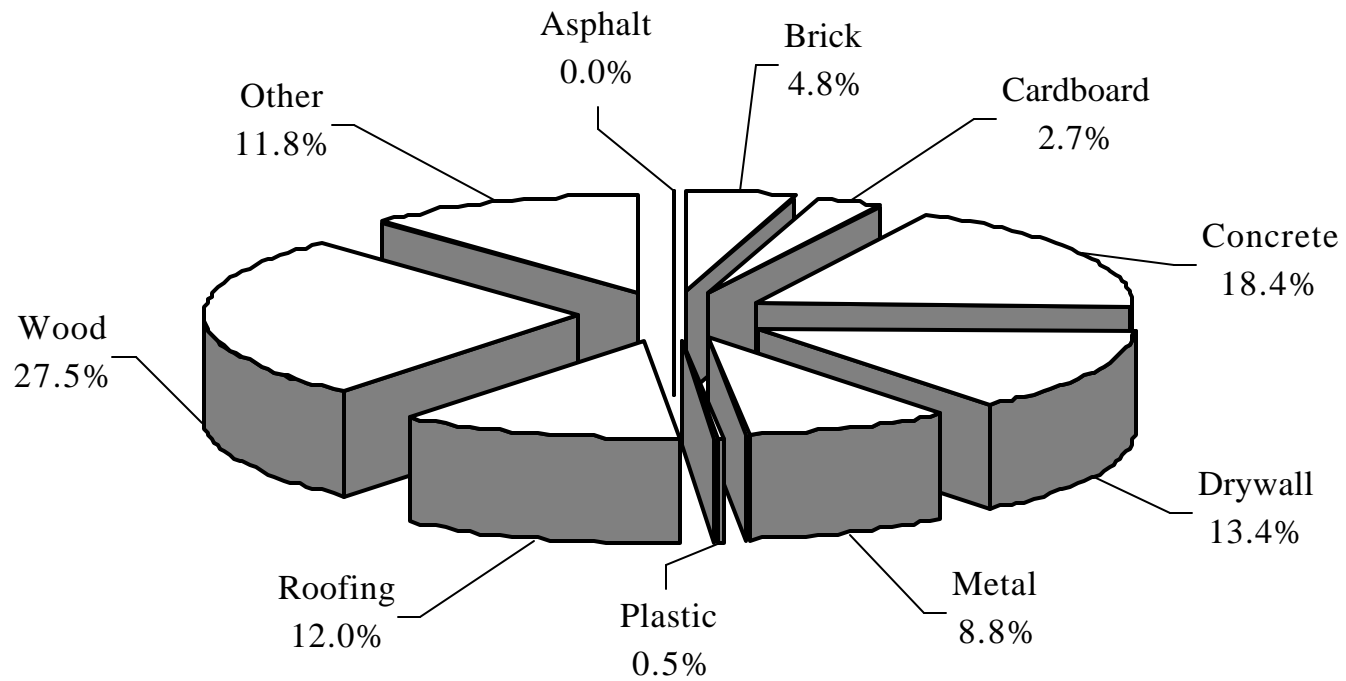
Renovation 392,496

Demolition 317,095

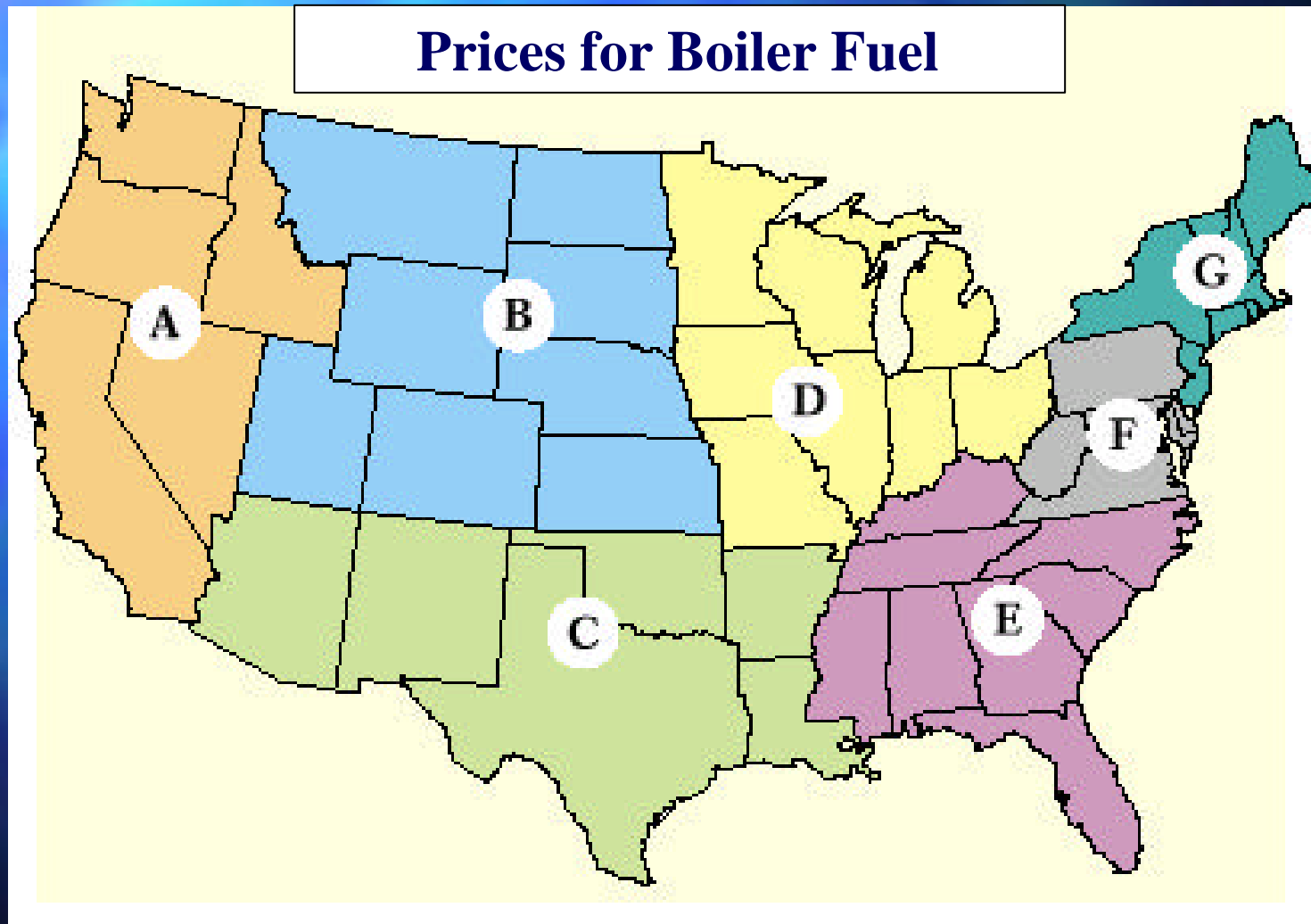
Total 2,519,000

Composition

Overall Composition of C&D Debris



Region	A	B	C	D	E	F	G	Avg.
Price/dry ton:	\$15.50	\$13.50	\$17.50	\$15.00	\$7.50	\$5.25	\$7.05	\$11.61



Source: *Construction Materials Recycler*: August 25, 2000



End Markets- Mulch



What would increase the amounts available in a given area?

- Increased processing infrastructure
- Landfill bans
- More expensive landfills
- Fewer landfills
- More active roll for local, state, and federal governments
- More end use demand

Other Issues

- Contamination-Cleaner Sorting
- Treated Wood
- Painted Wood
- Manufactured/Engineered Wood OSB, Plywood, MDF

Who do I talk to in my state about generation estimates and recycling infrastructure?

- EPA's Jobs Through Recycling Program:
<http://www.epa.gov/jtr>
 - State Solid Waste Management/ Recycling Contacts
 - Economic Development Agency Contacts
(Department of Commerce, etc.)
 - Recycling Directories:
<http://www.p2pays.org/dmrm>

More Information

- View this presentation online at:
<http://www.p2pays.org/presentations>
- Siting/expanding a recycling facility in North Carolina:
<http://www.p2pays.org/rbac>
- John Blaisdell, NC DPPEA (919) 715-6522 or john.blaisdell@ncmail.net