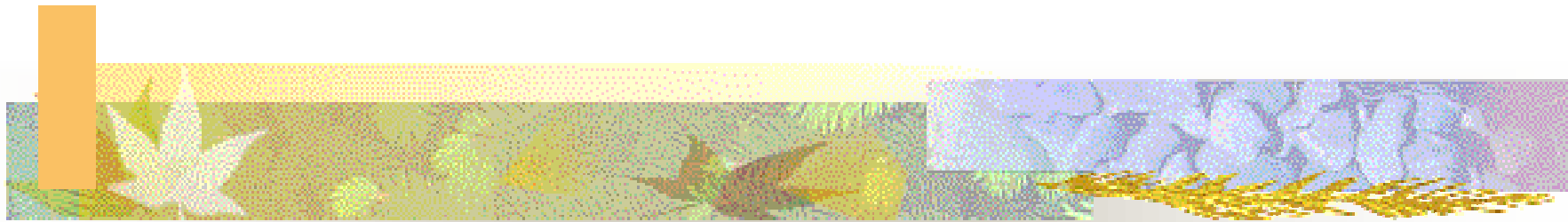


# What's Stopping the Recycling of Recovered CCA-Treated Lumber?



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# Objectives

1. Categorize and quantify Southern yellow pine CCA treated lumber being taken out of service from residential decks in NC, SC, and GA.
2. Identify perceived barriers and incentives to recovery.
3. Present recommendations to improve the recycling of CCA lumber.

# Overview

- Why?
- Methodology
- Decking basics & estimation
- Qualitative responses
- Recommendations





## Why Do We Want to Recover and Recycle?

- Growing concern over both quantities and disposal of spent CCA lumber
- Reduce the demand on the nation's landfills
- New economic opportunities via the creation of recycling businesses
- Conservation of both public and private softwood forests
- Public relations



# Methodology

- Mail survey questionnaire – deck contractors in GA, NC, and SC
- Qualitative data collection from pre-selected cities
- Case studies



# Responses

- Sample Frame – 2833 primarily deck contactors
- 580 returned questionnaires, 400 useable responses – response rate = 20%
- No non-response problems



# Why are Decks Being Replaced?

- Decayed wood
- Aesthetics
- Physical degradation of wood components
- Structurally unsound deck
- Larger size deck preferred



# Deck Basics

- Estimated age of decks at removal – nearly 13 years
- 1,057 bf per removed deck
- Average size of decks increasing – 198 to 280 square feet
- 36% DIY built



# Estimation of Lumber in 3 States

- Over 47,000 decks removed
- 50 mmbf of CCA lumber removed - 1999
- With DIY, 67.5 million bf CCA lumber removed - 1999




# Deck Demolition & Deconstruction Costs

- 1999 Disposal – \$190 per deck
- Deck Deconstruction – \$371 per deck



# Primary Disposal Methods

- MSW (87%)
  - Recover material (part-of-the-time)
  - Burn
  - C&D landfills
- 



# CCA Lumber Recovery

- Potential lumber recovery – 44%
- 64/400 (16%) respondents reported recovering CCA lumber part of the time
- Only 2 recovered on a full-times basis



# CCA Lumber Recovery Factors

- Lack of recovery facilities
- Lack of recovery programs
- Cost





## Needed for CCA Lumber Recovery - Qualitative Responses

- Financial Incentives
- Recovery Facilities
- Recovery Programs
- Educational Programs



# Potential Products - Qualitative Responses

- Engineered wood products
- Outdoor applications
- Miscellaneous wood products
- Decking and decking related uses
- Processed materials



## Case Studies – State Officials

- CCA lumber disposal is a priority in NC, not a priority in GA or SC
- Is not considered a hazardous material
- There are no recovery facilities



# Landfill Managers - Interviews

- CCA lumber is a small part of the waste stream
- Primary disposal through burial
- No plans for the recovery of CCA lumber
- Unaware of recovery programs for CCA



# Contractor Interviews

- Recovered used CCA lumber on a limited basis
- Echoed previous findings: need facilities, programs, & products
- Spent lumber could be used in special projects



# Research Summary

- Average deck size increasing
- Age at removal – 13 yrs
- 67.5 million bf of CCA lumber removed in sample states
- Estimated one-billion bf lumber removed from decks  
– Nationally



# Future Research

- Development of product lines
- Other processing options
- New or alternative treatment methods
- Directly address issues of financial costs



# Summary

- Recovery occurs on a limited basis
- There are no recovery facilities
- There are no recovery programs
- State officials differ on the need for recovery