

UTILIZING ASH WOOD

or

How to make lemonade from a (tiny, hungry, metallic green) lemon

Presentation by: Jessica Simons



September 25, 2008

Out of the Ashes: What We Know About EAB

Hope Hotel & Conference Center

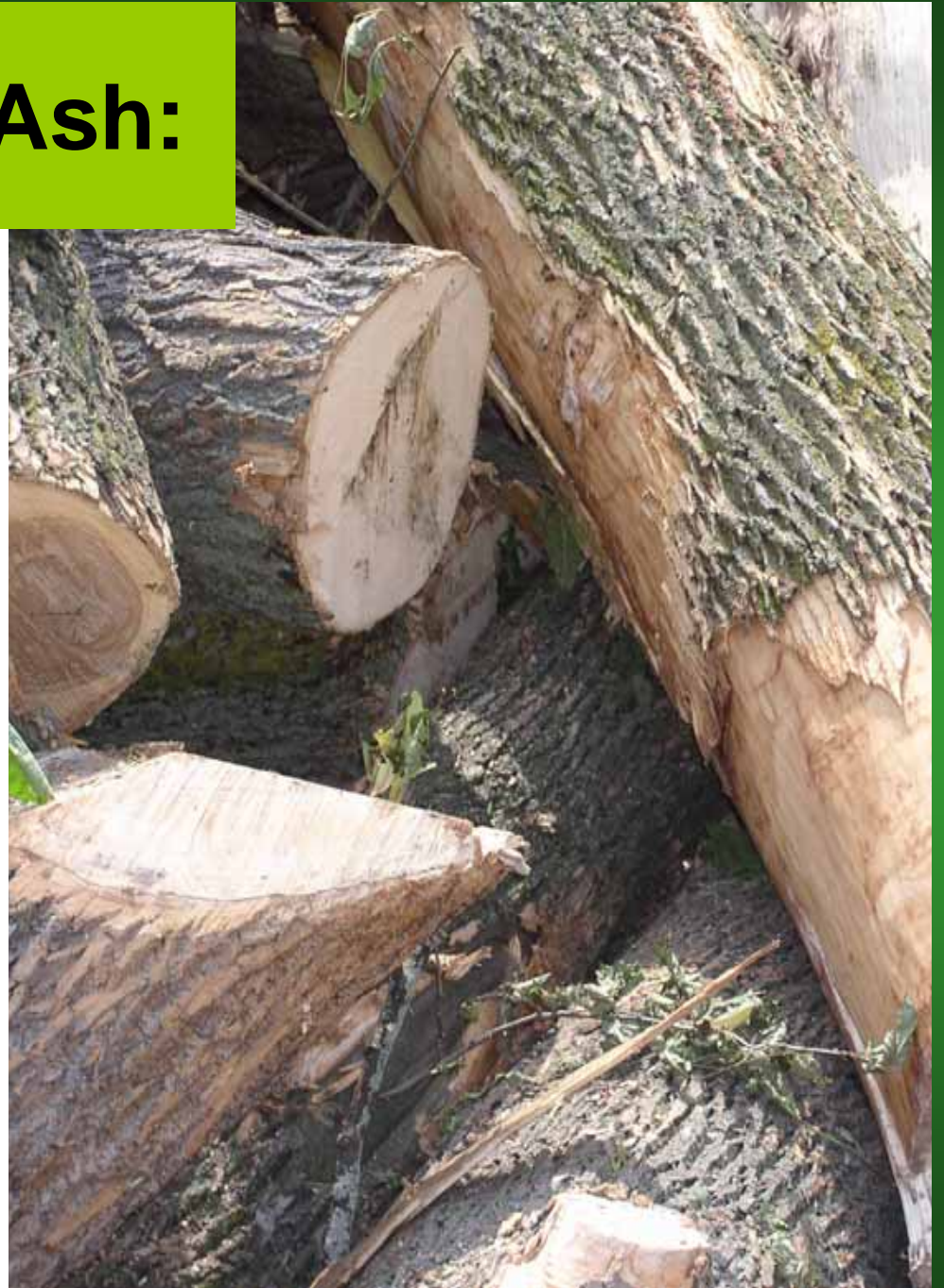
Dayton, Ohio

Southeast Michigan
Resource Conservation
& Development Council



Finding Value in Ash:

- **Opportunities**
- **Challenges**
- **Strategies**
- **Examples**
- **Resources**
- **Next steps**



Can Ash Be Used Safely?

- **EAB bores just into cambium layer**
- **Leaves inner wood untouched**
- **Removing ~1" under bark removes infested material**
- **Generally, safe if:**
 - kiln-dried
 - fumigated
 - bark-free
- **Compliance agreements available**





The Problem:

Recycling the dead trees in SE Michigan's communities could produce

4.7 million

board feet of lumber

each year, or enough wood to build

362

average-sized homes.

But, most treat this wood as waste.

The emerald ash borer added

~25 million

more dead trees to this ongoing wood residue problem.

- **Use EAB as catalyst for more total wood recovery**
- **Find the highest value for available wood**
- **Develop models for urban areas and response to pests**
- **Reduce disposal costs for communities**
- **Build and strengthen local wood industries**
- **Create positive outcomes from disasters like EAB**

OPPORTUNITY



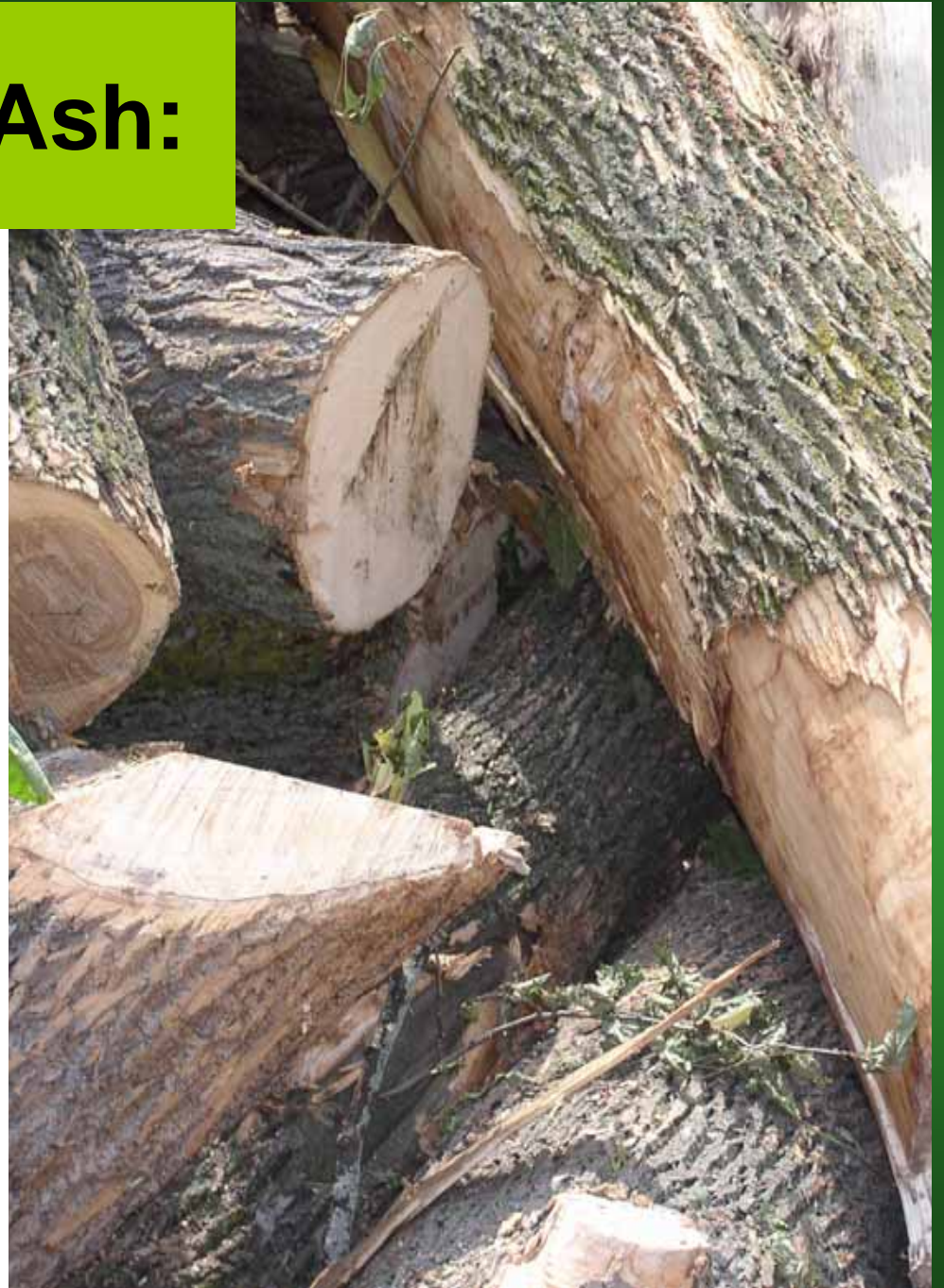
Uses for Ash Trees

- Lumber
- Railroad ties
- Firewood
(local use only!)
- Tool handles
- Baskets
- Mulch
- Fine woodworking
- Biomass energy



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Location



- **Most forest industries won't use urban wood**
 - **Smaller / urban companies more likely**
- **Harvest often difficult & dangerous**
 - **Bonus: can market products based on urban/reclaimed status**



Weak Existing Markets

- **Low ash prices**
- **“Big box” mentality**
- **Strategies:**
 - **Pursue niche markets**
 - **Create local demand**
 - **Include other species in timber sales**



Scale

- **Single log pick up is inefficient**
- **Need systems for collection, sorting, & merchandising**
- **Could use cooperation w/ many public & private groups**

Timeline



- Short timeline for removals when EAB is discovered
- Best chance for use if groundwork is done in advance

Expense



- Removals, disposal, and replanting create huge economic burdens
- “One-source solutions” are appealing, but may leave out other creative options

Transportation



- Gas prices & traffic = difficult & expensive
- Few companies have log trucks
- Cooperation may create needed capacity



Lack of Support

But there's NO MARKET!

Cities:

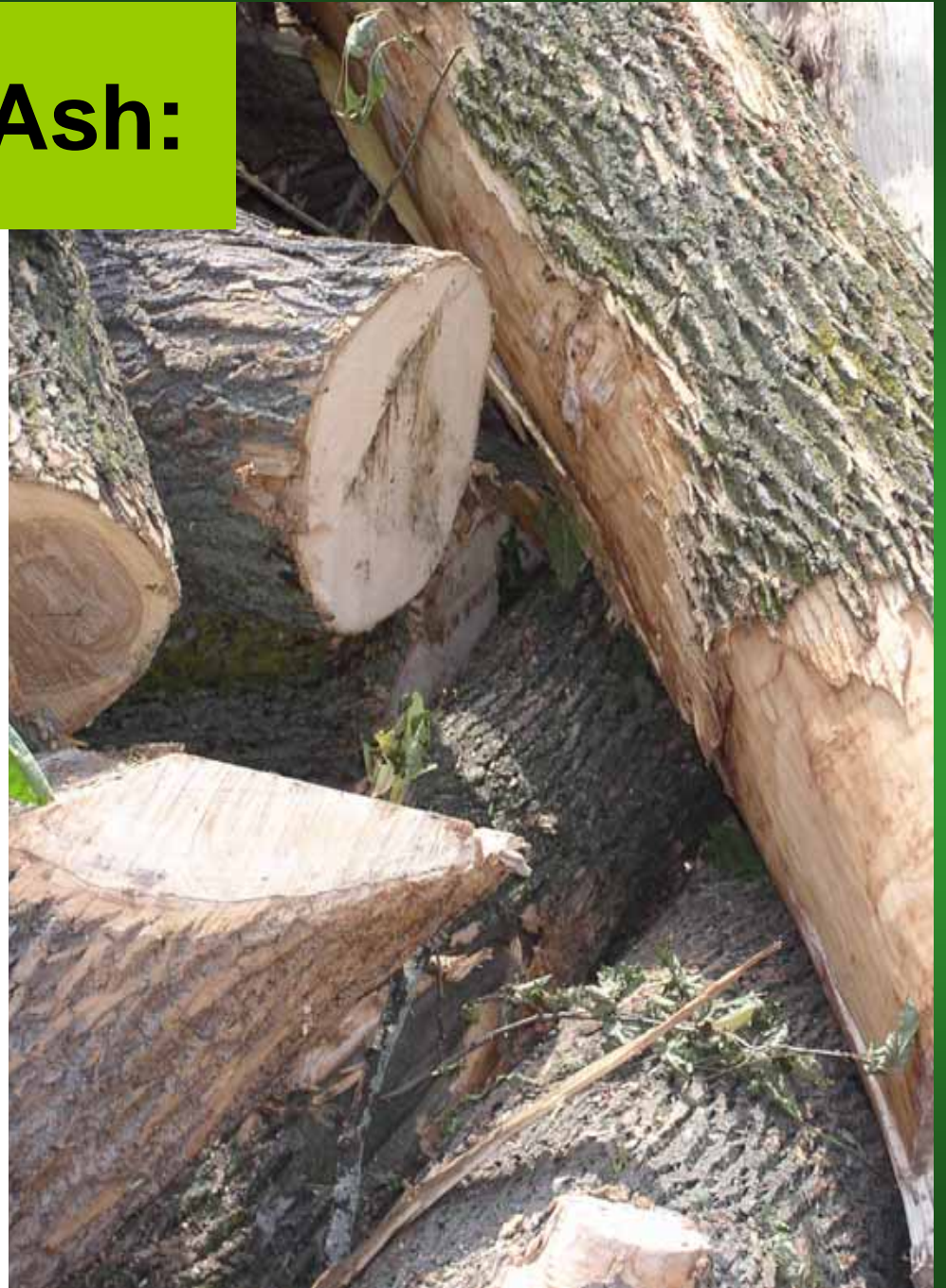
- Short-staffed / over budget
- Reluctant to try new ideas
 - New models may help

Forest industries:

- Concerned about quality
- Hesitant of new log sources
- Bad history w/non-loggers

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Reality Check:

- **Cities can often :**
 - Reduce wood disposal costs
 - Save on lumber costs for internal projects
- **BUT, are rarely successful *profiting* from using municipal trees**
- **Usually lack skills to negotiate with markets/industry**



First Steps:

What do you have?

- **Inventory ash resources:**
quantity, EAB levels, tree quality
- **Inventory capacity:**
partners, equipment, expertise

What do you need?

- **What products bring most benefit?**

What does your community need?

Plan will differ depending on products:

Lower Value

Firewood

Mulch

Compost

Biomass fuel

Higher Value

Railroad ties

Landscape timbers

Rough-sawn lumber

(truck sideboards,
trail borders,
barricades, etc.)

Highest Value

Artistic pieces

Planed lumber

Finished products


(flooring, paneling,
furniture, etc.)

High volumes used
Plenty of resource
Low processing/skill
Lower value



Low volumes used
More limited resource
High processing/skill
Higher value

Before You Remove Your Trees...

- 
- A photograph showing a long, single-file line of cut logs stacked on a dirt and wood-chip-covered ground. The logs are cut at regular intervals, showing their circular cross-sections. The bark is dark and textured, while the inner wood is a lighter, yellowish-brown color. The background is slightly out of focus, showing more logs and some dry vegetation.
- **Have in writing:**
 - How any logs will be handled
 - How disposal (if any) will occur
 - How site cleanup will occur
 - **Check your local quarantine regulations**

Contact Potential Partners



- **Collect information on:**
 - **Scale/Capacities**
(Processing and/or transportation capability)
 - **Wood Needs**
(Types, quantities, and condition of wood)
 - **Location**
 - **Payment Types (\$ or trade)**

Create Wood Disposal Yards



- Early in EAB program, eight yards opened to contain affected wood
- Originally federally funded, now private
- Effective way to collect and sort materials
- Variety of value-added products can be created at yards

- **Conduct outreach w/ stakeholders and connect partners**

- **Discuss product safety**

- **Provide resources and technical assistance**

- **Guides/brochures**
- **Fairs/events**
- **Tours**
- **Demonstrations**
- **Trainings**

Create Educational Plan



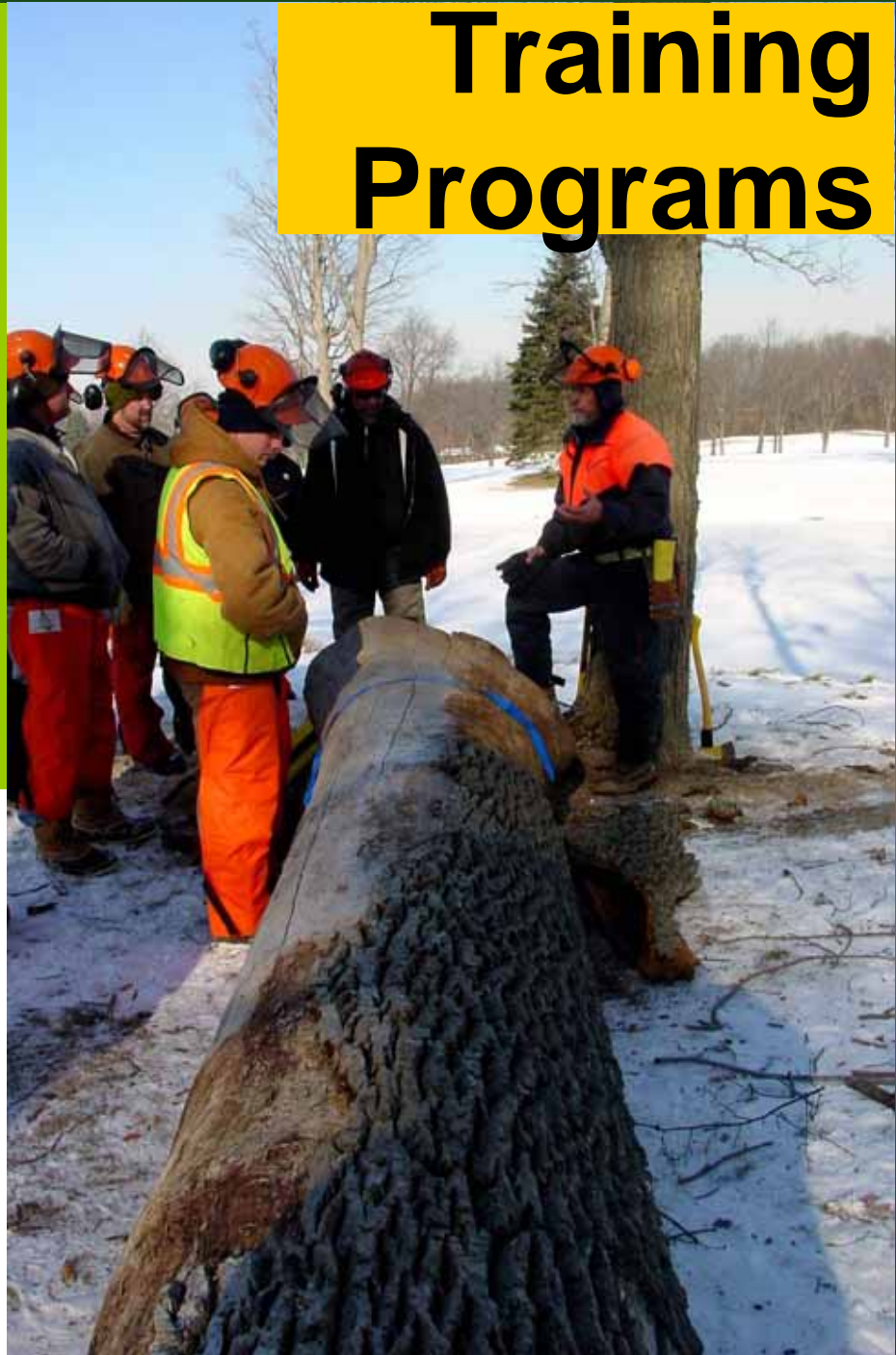
Training Programs

Help industry & cities:

- Better understand value of urban wood
- Learn new skills
- Improve business practices
- Network with other industry members

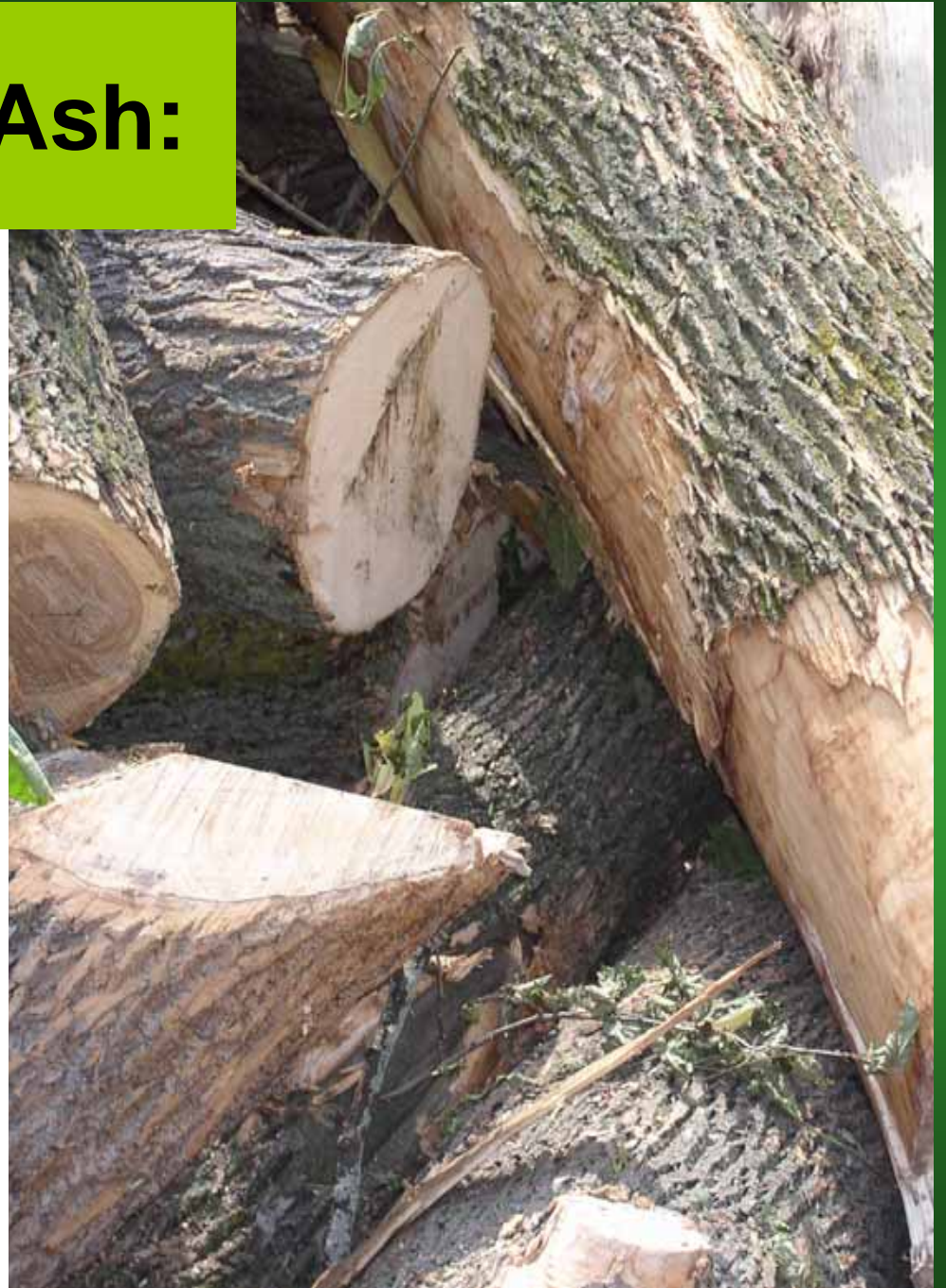
Since 2004:

- 41 full days of workshops
- 175 participants
- Over 275 trees removed



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UM Nichols Arboretum & Matthaei Botanical Gardens



THE ANN ARBOR NEWS

Managing editor, features Judy McGovern can be reached at 734-994-6863 Fax: 734-994-6879 E-mail: jmcgovern@annarbornews.com

E

Entertainment,
Food, E5
TV listings, E9

CONNECTION

WEDNESDAY, MARCH 1, 2006



ILLUSTRATION BY GUY LAWRENCE FOR THE ANN ARBOR NEWS. PHOTO BY JACOB THE ANN ARBOR NEWS.

Inset, an ash borer, an insect menacing ash trees throughout Michigan and forcing communities to cut down the trees to prevent the spread of infestation. Above, Mike Hommel, superintendent of Matthaei Botanical Gardens and Nichols Arboretum sits atop boards made from ash trees felled at the Arb. The lumber will be used to make picnic tables and to repair historic barns at Matthaei. Conservation officials are welcoming suggestions about what to do with trees cut down in urban areas.

City of Monroe



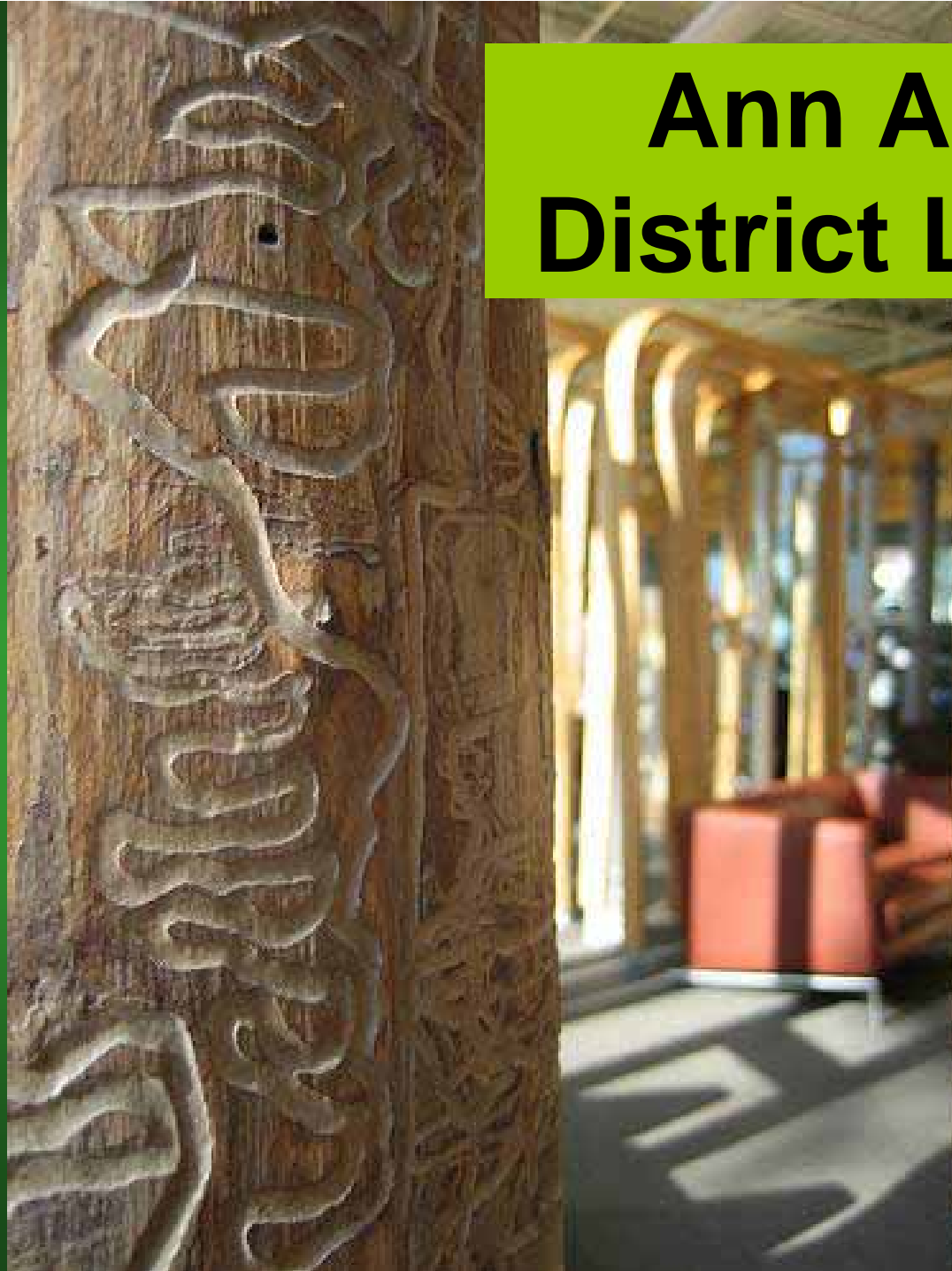
City of Grosse Pointe Park



Ann Arbor District Library



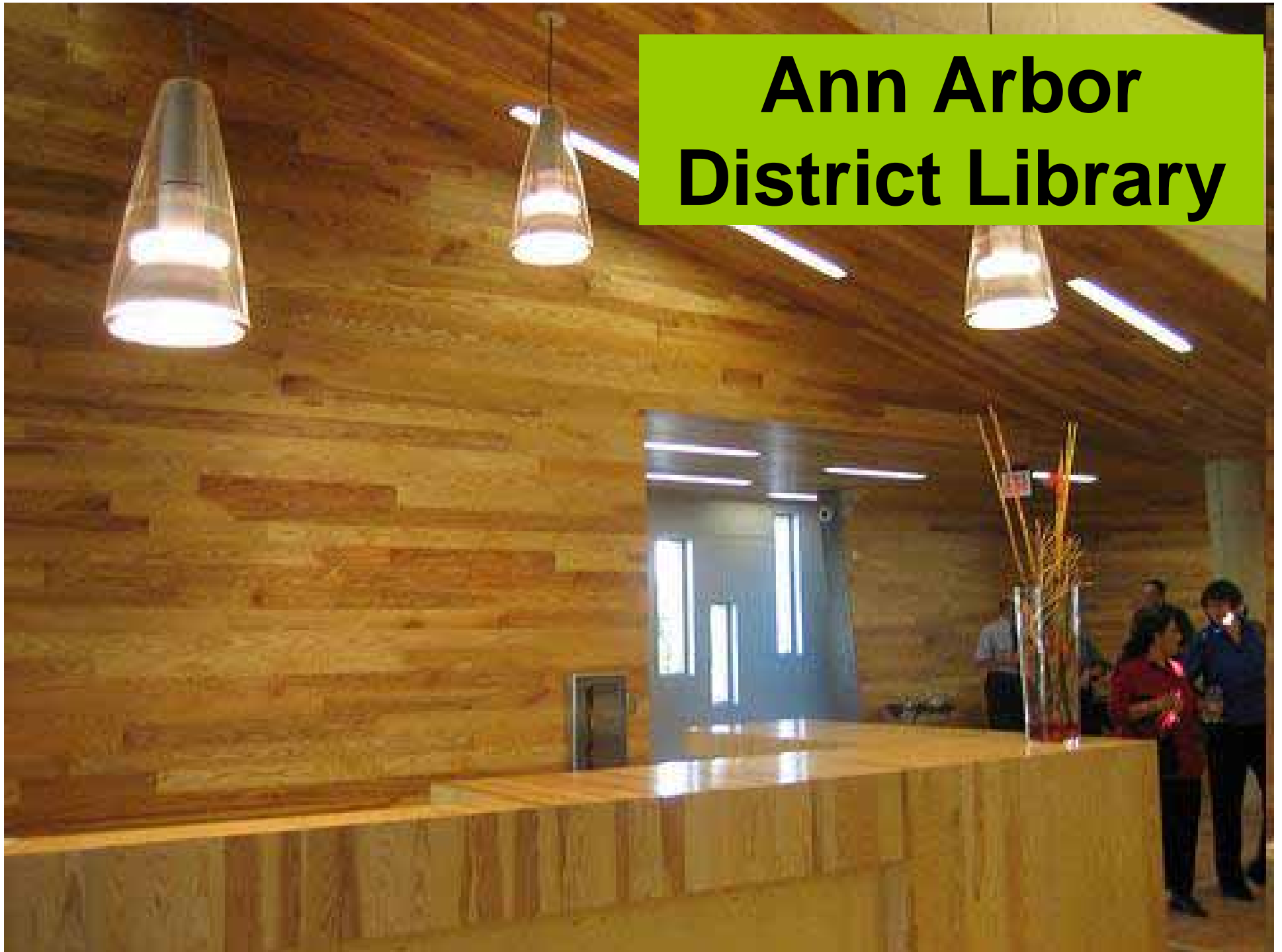
Ann Arbor District Library



Ann Arbor District Library



Ann Arbor District Library



A3C Architects Collective



Art & Woodworking



Urbanwood.org

Southeast Michigan's
Reclaimed Wood Marketplace

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THE STORE
THE MILLS
THE WOOD
NEWS
EVENTS

[Mill Login](#)

Welcome to Southeast Michigan's Reclaimed Wood Marketplace

Purchasing lumber or other products from Urbanwood does more than give you beautiful, high-quality wood. Urbanwood partners make smart use of local resources. Our network of local [sawmills](#) turns dead urban trees into products that bring lasting value and character to your home.

Our partners are also working to create the Urbanwood Tree Grants program to help fund public replanting efforts in Michigan's communities. Your support and your purchase can make a difference!

Urbanwood products: a sustainable choice that supports communities in Southeast Michigan.



Visit [Recycle Ann Arbor's ReUse Center](#) to see the latest products in stock. We're located at 2420 South Industrial Hwy. in Ann Arbor, Mich.



(734) 222-7880
Open Mon - Sat

News

- [Have you visited the Urbanwood Store yet? - September 8, 2008](#)
- [See the Urbanwood Partners in Action - August 3, 2008](#)
- [Humor for the Day: Another Use for Reclaimed Hardwood - June 4, 2008](#)

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Species: Ash
Product Type: Other
Quantity: 1
Price each: \$1450.00
Character Description: Rustic
(some knots)
Moisture: Kiln-dried
Finishing/surfacing: S2S
Thickness: 7/4
Widths available: 12 in. +
Mill: [John Haling](#)
ID: JHAL080922.1

Harvesting Story

This ash tree was removed from a back yard on Franklin St. in Ann Arbor, MI. It was killed by the emerald ash borer.

Notes

This ash slab has been sanded and several coats of oil-based urethane have been applied. Natural edges and visible staining from metal in the tree add to the beauty of this one-piece slab. This is a one of a kind.

Sales Experience at ReUse Center

- Surpassed 2007 sales (>\$11K) by June 2008
- Wide product diversity
- No typical wood grades
- Not competing as commodity
- Character + story =
VALUE



www.michiganwoodenergy.org

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WOOD

The local, clean, renewable,
affordable, **sustainable**
fuel choice. 

- **Learn about wood energy options, view resources**
- **See report of 2,000 potential sites for wood energy in MI**
- **Use calculator to estimate savings at your site**

Potential Savings Through Wood Energy:



2008 Wood biomass feasibility study

Annual operating savings = ~\$1.5 million

Annual wood use = 30-66K tons

1.5-3% of 14-county wood supply

Possible payback within 10 years

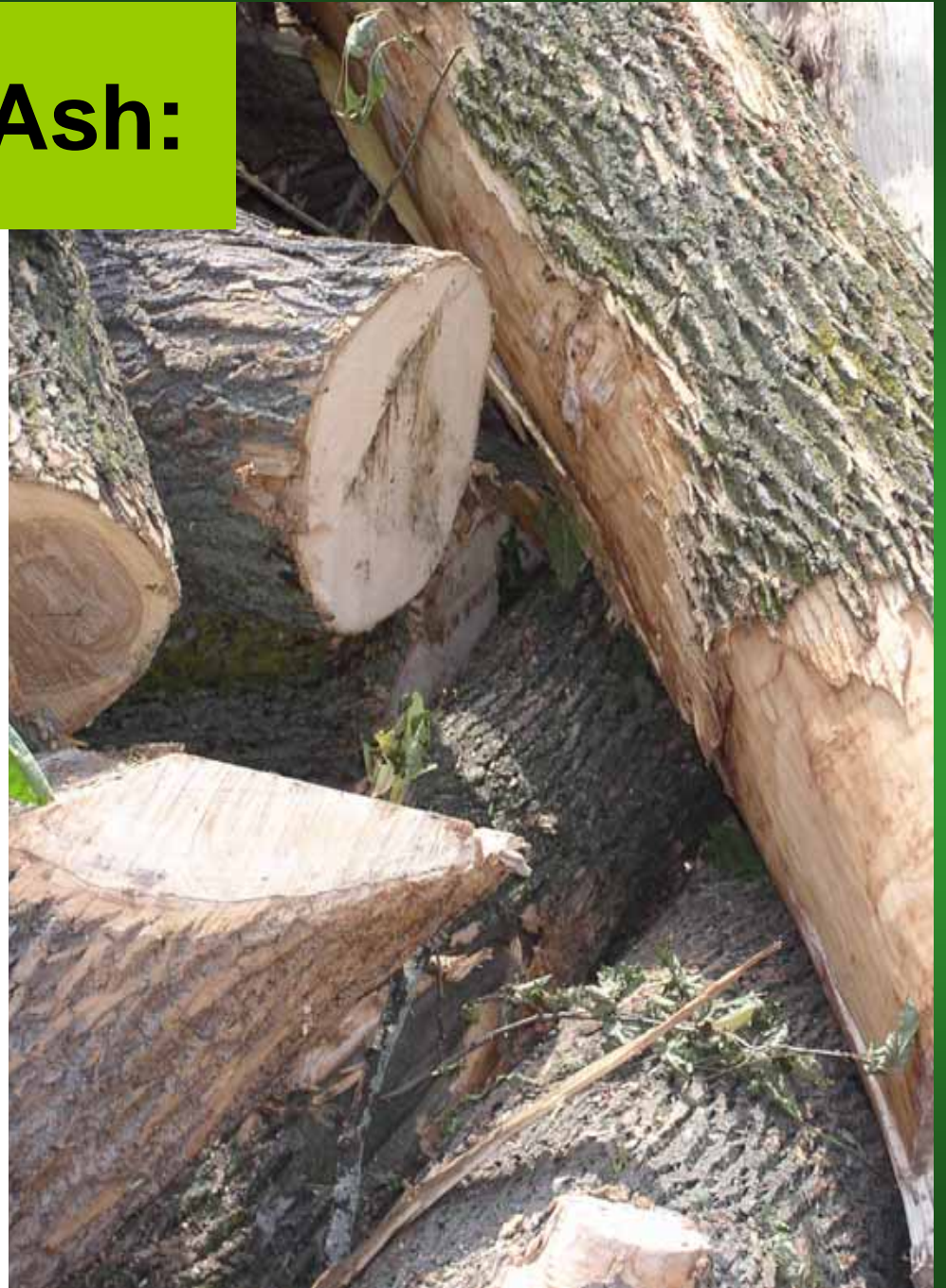
Project to Watch:

- **City of Taylor
Heritage Park Petting Farm**
- **\$65K boiler installation grant**
- **Likely savings of \$11K/yr**
- **Will use 500 tons of chips/yr**



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ASH Utilization Options Project

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[Projects](#) [Training](#) [Research](#) [Events](#) [Resources](#)

A PROJECT OF THE
SOUTHEAST MI RC&D

Welcome to the Ash Utilization Options Project of Southeast Michigan

The [Southeast Michigan RC&D Council](#) is addressing the emerald ash borer infestation (EAB) in Southeast Michigan in a positive way by implementing an Ash Utilization Options Grant from the USDA Forest Service [Wood Education and Resource Center](#).

Through [demonstration projects](#), [training sessions](#), a [research program](#), and education and outreach efforts, the Council is helping communities and businesses to develop value-added products from urban trees removed due to the emerald ash borer and other causes.

Be sure to visit our [resources](#) page for helpful information, including links to urban wood use initiatives in other states, guides for homeowners, and resources for communities.



News

Register Now for "Out of the Ashes: What We Know About EAB"

[\(Learn more\)](#)

View the August 2008 Ash Use Newsletter

[\(Learn more\)](#)

New Urban Wood Mini-Grants Available

[\(Learn more\)](#)

Check Out a Book... And the Ash Wood at the New Ann Arbor Library

[\(Learn more | See photos\)](#)

Urbanwood.org --



Ash Trees and More: Your Source for Urban Wood Use News

A report from the Southeast Michigan RC&D Council's Ash Utilization Options Project
Primary project funding is from the USDA Forest Service Wood Education & Resource Center

August 2008

Greetings from the Southeast Michigan RC&D Council!

Let's start with the bad news... the emerald ash borer keeps marching on. [Michigan's Upper Peninsula](#), [Wisconsin](#), and [Missouri](#) have all found new outbreaks and are quickly implementing response strategies.

But, there is good news: We're learning more about these pests every day, developing new ways to slow the spread, and doing a much better job of [sharing information](#). We hope that this newsletter will be of help to those of you who have been fighting the bug for a while already, as well as to those of you who are just entering the battle. As you read on, you'll find some of the few positive stories following the EAB crisis. By finding good uses for dead ash, along with other removed urban trees, we can bring value back to our communities in these tough economic times. If ideas from this newsletter pique your interest, be sure to check out the [Ash Utilization Options Project](#), [Michigan Wood Energy](#), and [Urbanwood](#) websites for even more information.

So, what are you planning to do with your dead trees?

In this issue...

- Urbanwood Marketing Program Takes Off
- New City Milling Mini-Grants Available
- City of Taylor Ready to Use Wood Energy
- Ann Arbor District Library Opens Traverwood — A Showplace for Ash Wood
- Look for "It Grows on Trees II" at a Gallery Near You
- RC&D Receives Grant to Launch Safe Firewood Program
- Rising From Ashes in Chicago

Helpful Guides

My Ash Tree is Dead... Now What Do I Do?

<http://www.emeraldashborer.info/files/E-2940.pdf>



Cost-Effective Tree Removal and Utilization Strategies to Address Invasive Species Attacks

<http://semircd.org/ash/news/Cost%20Effective%20Tree%20Removal.pdf>

Read the Research

<http://semircd.org/ash/research/>

- Southeast MI wood residue inventory
- Urban tree timber survey
- Preservative treatments of ash wood
- Pesticide treatments of ash logs
- Heat treatments of ash logs
- Wood boiler opportunities in Michigan
- Wood disposal yard analysis *(coming soon)*

Learn more!

Visit the urban wood use resource library:
<http://semircd.org/ash/education/resources>

For guides on:

- Emerald ash borer
- Inventorying, marketing, and utilizing trees
- Woodlot management (incl. measuring/selling timber)
- Processing, handling, and marketing wood products
- Woody biomass energy
- Finding sawmills, woodworkers, and other partners

Add your photos to the Ash Wood Hall of Fame:
www.flickr.com/groups/ashwood



Ash Wood Use Hall of Fame

Group Pool | Discussion | 1 Member | Map | Join This Group

Slideshow



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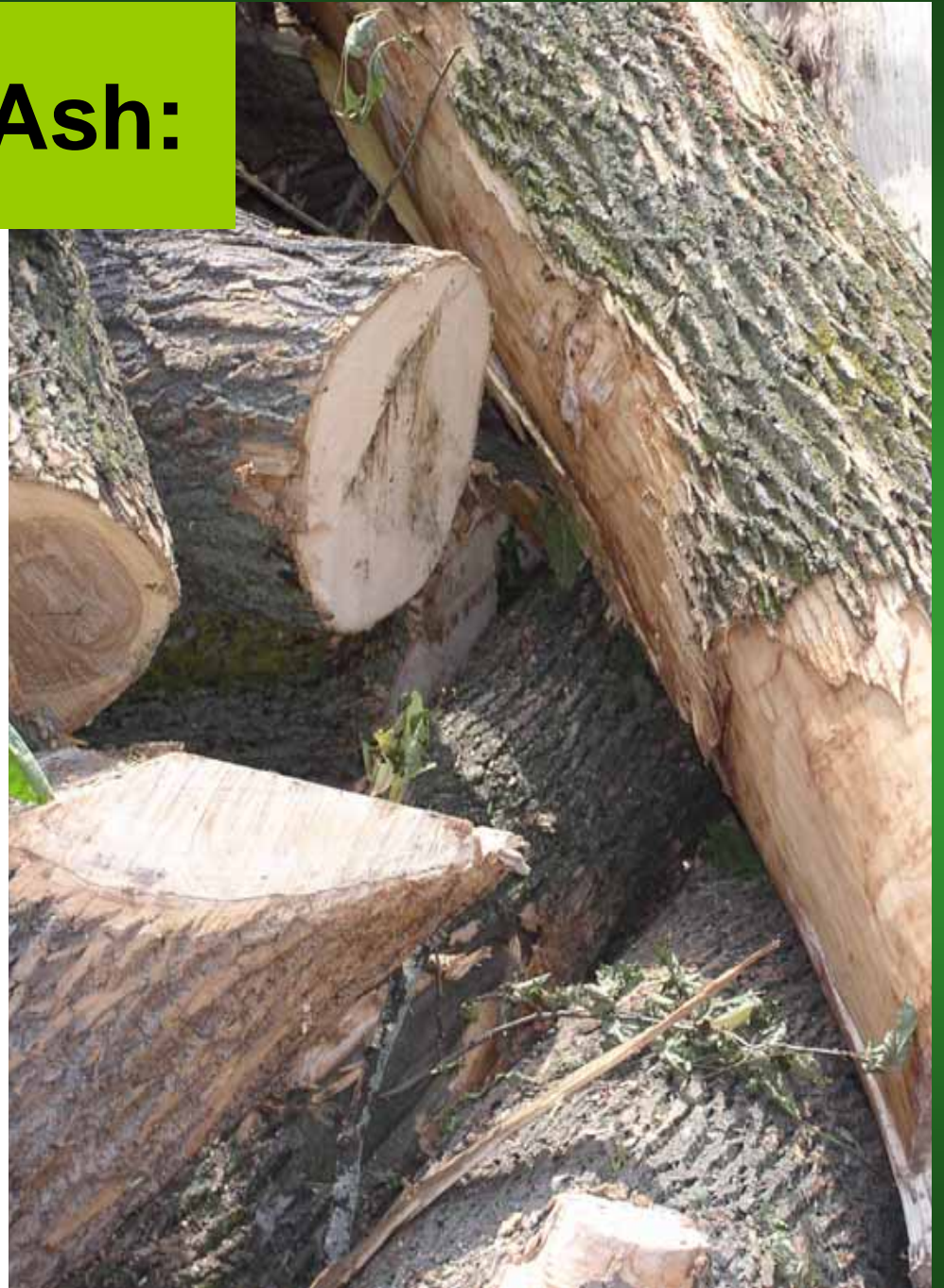
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Firewood Project

- Create free plans for "build-it-yourself" firewood debarking system
- Allow small dealers affordable treatment option at very low cost
- Will be tested at MSU
- RC&D and partners to host trainings



Coming soon:

New listservs

arborists@lists.urbanwood.org

woodusers@lists.urbanwood.org

BATTLING THE EMERALD ASH BORER

WOOD RECYCLERS RESPOND TO BEETLE INFESTATION

About 15 million of trees have died d...

Ashes to ... what?
...ionists seek ways to recycle diseased, r...

We are seeing progress:

- More entrepreneurs creating urban wood markets
- New developments within existing industry
- More partnerships with municipalities & industry
- New jobs created
- Greater public awareness of value of urban wood

southeas...
sible for the death of... million ash...
Michigan's 700 million ash... parts of Indiana, ...
trees to As...
...delphia...
...recy...
...Tree Service or...
...challing



These projects are made possible by generous grants and significant technical support from



**Wood Education
& Resource Center**

**Northeastern Area
Rural Development Through
Forestry Program**

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