

VI. Wood Utilization¹⁷

EAB has the potential to generate a significant amount of wood debris in any one community. Most likely this will be a gradual increase initially, but later increasing rapidly as EAB populations increase. It will also depend on the number of ash trees in your community, how many were treated before hand with insecticides, and the management approach taken for tree removals (i.e. preemptive vs. reactive removals). The big question every community will face is: What do you do with the wood debris? When facing this question items that will need to be considered are: how can the wood debris be utilized and/or disposed of, are there local businesses that can use the wood debris, and where will the wood debris be stored (marshalling yards).

The following subsections will help in answering these questions. In addition, a survey was conducted of Sheboygan County communities to determine how they currently handle wood debris, if they have a potential location for a marshalling yard, and if they would be interested in partnering with other communities. This information could be helpful when setting up recommendations for wood utilization and/or marshalling yards. To see the results of the survey, refer to *Section IV – Assessments* of this document.

Utilization/Disposal Methods

The most common use of ash trees is mulch and firewood. Ash can also be milled on site into lumber using a portable sawmill, transported to a mill, or transported to a marshalling yard within a quarantined area. Other products include railroad ties, paneling, flooring, moldings, pallets and baseball bats. Ash can also be used for many other products that we see everyday and take for granted like picnic tables in a park, bleacher seating, tree and survey stakes, sideboards for trucks and handles for tools like hammers and rakes.

By finding creative ways to use wood generated from ash tree removals, communities can often lessen the economic impact of EAB while strengthening local wood product industries. This can be accomplished through partnering with neighboring communities, with local sawmills, and/or local businesses. Whatever option is pursued, local residents generally respond positively to wood reuse programs knowing that their community trees are not going to waste.

When putting together wood utilization recommendations/policies the following items should be considered:

- Decide whether your community has specific needs for wood products, i.e. mulch, lumber or other products.
- Contact local stakeholders to determine available resources, limitations, partners, and timelines. Some stakeholders to be considered are WDNR staff, local foresters/arborists, wood industry representatives, and recycling centers.
- Develop a list of potential wood processors/industries and their interest. Begin discussion with how they might partner with your community.
- Identify and create collection yards.
- Be aware of regulatory conditions when dealing with EAB generated waste.
- Create educational programs related to using EAB affected trees.

¹⁷ Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.

Local Users

When determining alternative uses for ash trees it is a good idea to know who the local users are in your area, what type of raw material they need, and what type of product they produce. The WNDR has a listing of companies using round wood, *Wisconsin Primary Wood Using Directory*. This includes sawmills, veneer plants, particle board plants, log cabins, pulp mills, and chip plants. The directory lists the products they produce and the raw material that they need. Another list, *Wisconsin Secondary Wood Using Directory*, is of companies that use products produced by the primary wood using industry to make a product. This includes furniture, parts, pallets, moldings, kitchen cabinets, etc. The directory lists the products they produce and the raw material needed. Both directories can be found at <http://www.woodindustry.forest.wisc.edu/>. In addition, there is a listing of *Wisconsin Wood Residue Brokers*, firms that buy sawdust, bark and shaving and market it to other manufactures. The list can be downloaded from the University of Wisconsin Extension web site, <http://forest.wisc.edu/extension/publications/103.pdf>. Refer to **Tables x** for a listing of primary and secondary wood users and wood residue brokers in Sheboygan County.

Besides the companies that process wood and wood products, there are portable sawmill operators who could possibly come to a municipality and cut lumber for use. The problem is that there is no listing of these operators as most do not provide this service as their primary source of income, however the local DNR forester in your area may be aware of these operators.

Table x: Primary Wood Users in Sheboygan County

Company Name	Address	Phone	Tree Species Processed	Products Sold
Geneva Log Homes, Inc. / Greatwood Log Homes, Inc / Wilderness Log Homes, Inc.	N5821 County Road S Plymouth, WI 53073	920-893-8416	Pine, W. Cedar, W. Red Cedar	Log Homes
James Schulz	W6347 CTR SS Random Lake, WI 53075	920-994-4626	Ash, Basswood, Cedar, Hard Maple, Red Oak, Soft Maple, Red Oak	Green Lumber, Sawdust
Orville Knoener	W3496 STH 32 Elkhart Lake, WI 53020	920-565-2654	Ash, Cedar, Hard Maple, Red Oak, Soft Maple, White Oak, White Pine	Ad Lumber, Firewood, Green Lumber, Sawdust
Pine Ridge Log Homes	W6529 Valley Lane Plymouth, WI 53073	920-892-4104	Red Pine, White Pine, White Cedar	Log Homes
Pioneer Restorations	W9230 Tower Drive Adell, WI 53001	262-626-8364	---	Log Homes
Serenity Farm & Landscape	2803 Old Park Rd Sheboygan, WI 53081	920-457-0314	---	Firewood

Source: Wisconsin Primary and Secondary Wood Using Industry Database, <http://www.woodindustry.forest.wisc.edu/>.

Table x: Secondary Wood Users in Sheboygan County

Company Name	Address	Phone	Tree Species Purchases	Materials Purchased	Products Sold
A J S & Associates	200 Industrial Dr Random Lake, WI 53075	920-994-4300	Hard Maple, Soft Maple, Sap Gum, Tupelo	Plywood, Lumber	Handles, Beer Tap
Arts Display Inc	721 Riverfront Dr Sheboygan, WI 53081	920-452-2061	Basswood, Cherry, Hard Maple, Red Oak, Walnut	Pre-finished Stock Sawdust, Shavings, Wood Waste, Solid Wood	Picture Frames Toilet Seats
Bemis Mfg Co	300 Mill St Sheboygan Falls, WI 53085	920-467-4621	Ash, Birch, Hickory, Pecan, Hard Maple, Soft Maple		
Derus Patterns Inc	339 Forest Ave Sheboygan Falls, WI 53085	920-467-2735	Honduras Mahogany, Hard Maple, Sugar Pine	Plywood	Wood Patterns
Ellingers Agatized Wood Inc	923 S 21st St Sheboygan, WI 53081	920-457-7746	Ponderosa Pine	Sawdust, Hardwood Shavings	Cutting Boards, Salad Bowls, Trays
General Contractory Inc	1946 N 15th St Sheboygan, WI 53081	920-458-5799	---	---	Cabinets
Greatwood Log Homes Inc	STH 57 Elkhart Lake, WI 53020	920-876-3378	---	---	Log Buildings
Lakeshore Display Co Inc	2031 Washington Ave Sheboygan, WI 53082	920-457-3695	Mahogany, Yellow Poplar Ash, Aspen, Basswood, Birch, Yellow Poplar, Cherry, Hard Maple, Soft Maple, Mixed Hardwoods, Red Oak	Fiberboard, Surfaced Kiln Dried Lumber	Displays, Advertising
Lakeshore Pallet Inc.	5504 County Highway V Sheboygan Falls, WI 53085	920-467-4404		Hardwood Dimension, Softwood Dimension, Oriented Strand Board Plywood	Pallets, Skids, Panels Dimension
Leick Furniture Inc	2219 S 19th St Sheboygan, WI 53081	920-451-4060	Red Oak	Particleboard, Rough Green Lumber	Household Furniture
Millersville Box Co	931 Millersville Ave Howards Grove, WI 53083	920-565-3331	Aspen, Soft Maple, Mixed Hardwood	Cants	Pallets, Skids
Natural Habitat Structures	N4981 CTH S Plymouth, WI 53073	920-893-5308	Spruce, Western Pine	Plywood, Surfaced Kiln Dried Lumber	Mobile & Modular Homes Cabinets, Public Building Furniture, Other Furniture
Nemschoff Chairs Inc	2218 Julson Ct Sheboygan, WI 53082	920-457-7726	Cherry, Hard Maple, Soft Maple, Red Oak, Walnut	Hardwood Dimension	Household Furniture
Oak Shop	N5017 Big Bend Ln Sheboygan Falls, WI 53085	920-467-6187	Red Oak, White Oak	Rough Green Lumber	
Ongna Wood Products Inc*	W3535 Cth OO Sheboygan Falls, WI 53085	920-564-3123	Ash, Aspen, Hard Maple, Soft Maple, Red Oak, White Oak, SPF(Canadian)	Plywood, Lumber	Boxes, Crates, Pallets, Skids
Otter Creek Landscape & Wreath	N6625 STH 57 Plymouth, WI 53073	920-893-8700	Ponderosa Pine	Particleboard, Plywood, Lumber	Wreaths
Richardson Brothers Co	635 CTH PP Sheboygan Falls, WI 53085	920-467-4631	Cherry, Hard Maple, Red Oak	Hardwood Dimension	Boat Interiors
Scholten Pattern Works Inc	3321 Paine Ave Sheboygan, WI 53081	920-457-5651	Mahogany, Sugar Pine	Oriented Strand Board, Plywood, Surfaced Kiln Dried Lumber	Wood Patterns
Schu Industries Inc	616 North St Random Lake, WI 53075	920-994-9528	Birch, Cherry, Hard Maple, Soft Maple, Red Oak	Fiberboard, Plywood, Laminates, Rough & Surface Kiln Dried Lumber	Public Building Furniture
Sheboygan County Woodworking	W3106 STH 32 Elkhart Lake, WI 53020	920-565-3099	Hard Maple, Soft Maple, Red Oak, Ponderosa Pine	Particleboard, Fiberboard, Hardboard, Surfaced Kiln Dried Lumber	Advertising Displays
Sheboygan Madewell Chair Co	512 N 15th St Sheboygan, WI 53081	920-457-7878	Birch, Cherry, Hard Maple, Red Oak	Rough Kiln Dried Lumber	Household, Office, and Public Building Furniture
Sheboygan Substrates	2924 S 31st St Sheboygan, WI 53082	920-452-1503	---	---	Molded Woodfiber Components
Sohres Building Systems	1019 Erie Sheboygan, WI 53081	920-458-0409		Particleboard, Fiberboard, Hardboard, Plywood, Surfaced Kiln Dried Lumber	Cabinets
T Weber & Companions	W8406 S CTH A Adell, WI 53001	920-994-9451	---	---	Models/Crafts
The Grove Charcoal Co	PO Box 386 Cedar Grove, WI 53013	920-668-8080	Mixed Hardwoods	Rough Air and Kiln Dried Lumber	---

Table x: Secondary Wood Users in Sheboygan County cont.

Company Name	Address	Phone	Tree Species Purchases	Materials Purchased	Products Sold
West Shore Industries	5300 STH 42 N Sheboygan, WI 53083	920-565-4715	Cherry, Hard Maple, Soft Maple, Red Oak, White Oak	Particleboard	Counter Tops, Tables
Wilderness Log Homes, Inc.	N5821 CTH S Plymouth, WI 53073	920-893-8416	Eastern White Pine	Cants, Softwood Dimension, Oriented Strand Board, Plywood, Green Lumber	Log Homes Partitions, Fixtures, Paneling
Wind Mill Woodworking Inc	200 Balsam Rd Sheboygan Falls, WI 53085	920-467-2402	MDF	Fiberboard	Cabinets, Other Millwork, Partitions, Fixtures, Paneling
Wisc Woodcraft LLC	1234 Kentucky Ave Sheboygan, WI 53082	920-458-1068	Birch, Hard Maple, Soft Maple, Red Oak, E. White Pine, S. Yellow Pine, Redwood, SPF(Canadian), W. Pine, Yellow Poplar	Particleboard, Fiberboard, Hardboard, Oriented Strand Board, Plywood, Veneer, Rough and Surface Kiln Dried Lumber	Displays, Point of Purchase
Wisconsin Box Co	1025 North Ave Cleveland, WI 53015	920-693-2260	---	Plywood	Crates

* Have obtained a DATCP Compliance Agreement.

Source: Wisconsin Primary and Secondary Wood Using Industry Database, <http://www.woodindustry.forest.wisc.edu/>.

Table x: Wood Residue Brokers in Sheboygan County

Company Name	Address	Phone	Products	Broker
Millersville Box Co.	931 Millersville Ave. Sheboygan, WI 53083	920-565-3331	Shavings Sawdust, Shavings,	Byproduct of own operation
Teunissen Shavings	W3488 Hwy RR Cedar Grove, WI 53013	920-668-6734	Particleboard	X

Source: "Wisconsin Wood Residue Brokers", Scott Bowe and Terry Mace, University of Wisconsin-Extension, Forestry Facts No. 103, February 2010.

Marshalling Yards¹⁸

When EAB is confirmed in a county or nearby, it will be placed under quarantine. In the case of Sheboygan, it was placed under quarantine, because EAB was found in nearby in Newburg, WI. A quarantine will limit the movement of firewood, ash nursery stock or ash logs or timber out of the quarantine. For more information on quarantines and regulations that will be put in place, refer to *Section VI - EAB Authority and Responsibility*.

In order to deal with the increase in wood debris and the restrictions on its movement, a marshalling yard may need to be established. A marshalling yard is a disposal site whose purpose is to help prevent ash wood which could potentially house EAB from being transported out of a quarantined area. Marshalling yards are set up with utilization in mind and are used to merchandise or dispose of wood materials which may or may not be infested. They can be used as staging sites for wood processing, such as chipping, grinding, debarking and sawing, and related marketing activities. The yards also serve as temporary or emergency storage sites when trees are removed. In addition, they allow municipalities, tree service companies, utilities and individuals to drop off cut ash material for processing and disposal in a manner to prevent artificial spread. Marshalling yards or wood recycling centers may also accept various species, not just ash, and can make wood disposal more efficient and economical.

When determining where to put a marshalling yard the following should be considered:

¹⁸ Wisconsin Department of Natural Resources, Emerald Ash Borer Toolkit, Section 08, c, 2. Marshalling Yards.doc

- The site can be located on public or private property within the quarantined area.
- The site can be contracted or provided by a municipality.
- Size requirements depend on potential wood volume, proximity of other yards, and merchandising activities that will take place. i.e. If there are other disposal sites nearby and the site will only be used for chipping operations, a smaller site (3 to 5 acres) is likely to be enough. However, if there are no other disposal sites in the area, a large volume of local wood and there are multiple utilization objectives, a larger site (~10 acres) would better accommodate processing and storage.
- The property should be fenced to prevent items other than wood from being disposed at the site as well as to protect the public from accessing potentially dangerous equipment.