

III. EAB Community Response Plan Elements: Recommendations, Policies and Actions

Each community in the county will address EAB differently and according to their local circumstances. While each community will respond differently to EAB, all communities should be prepared. The elements described in this section will serve as a template and help your community develop the framework of its EAB community response plan. These elements are offered as suggestions. While all elements may not be included in your plan or appropriate to your community's goals and objectives, it is important to have at least considered them.

The elements along with the background information provided in other sections, will allow your community to put together specific recommendations, policies, and actions to manage their ash trees and help guide decision-making. When establishing recommendations, policies, and actions think carefully about your community's unique needs and weigh all the various options for every item. The plan your community develops should be specific to your community's needs and circumstances, while being flexible and including realistic tasks, goals, timelines, and budgets.

Below, **Figure 1**, is a checklist of the elements that should be considered in every EAB Response Plan and the sections below provide a short explanation of each item.

Tree Inventories

The first and most important step in preparing for EAB is to determine the potential risk to your community's urban forest resource. This can be quickly identified using information contained in a tree inventory. If your community has a tree inventory, it should be used or updated. If your community does not have a tree inventory, this should be one of your first priorities. For information on the different tree inventories types and methods refer to *Section V – Preparation, Detection, and Control*.

Tree Management Considerations

Your community will need to decide how it is going to manage its ash tree population both before and after EAB is detected. Management options vary and there is no one all-inclusive method. *Section V – Preparation, Detection, and Control* lists factors that should be reviewed and considered when determining management options and describes the most up-to-date management techniques available. However, along with determining management options there are additional items that need to be considered and are explained below. Your community will need to weigh the options carefully and select the combination of methods that works best for them.

Figure 1: EAB Community Response Plan Elements Checklist

Tree Inventories

- Does your community have a tree inventory? If yes, does it need to be updated?

Tree Management Considerations

- Detection and Control Methods
What method(s) will your community use to help monitor and detect EAB?
- Preemptive vs. Reactive
What method(s) will your community use to treat and/or remove trees?
- In-House vs. Contract
Will your community use contractors or conduct everything in-house?
- Prioritization of Management Schedules
How will your community determine what trees are treated or removed and in what order?
- Replacement Plan
What species and size will be used for replacements?
What locations will be planted? (Right tree in right place)
How much will replacements costs?
Who will ensure proper planting and maintenance of trees?
Will volunteers be used?
- Staffing, Training, and Equipment
What personnel and volunteer resources are available to help complete tasks in plan?
Do they need training to accomplish tasks?
What equipment/facilities are needed and is there a budget to purchase, lease, and/or repair them?
- Costs/Budget
How much will it cost your community to treat, remove, and replace infected ash trees?
How will the cost be covered?
- Trees on Private Property
How will your community deal with ash trees on private property and the wood waste generated from them?
- Ordinance Review
Does your community need to review, update, and/or create community tree ordinances and policies?

Wood Utilization

- Utilization/disposal methods
How will your community utilize and/or dispose of wood debris generated from EAB?
- Local users
Are there local businesses that can use the wood debris?
- Marshalling yard
What location will your community use as a marshalling yard?

Community Outreach and Education

- Will your community conduct any public awareness activities for EAB and/or its EAB plan?
Who is your target audience and what are your key messages?

Monitoring and Detection

The State of Wisconsin is and has been conducting survey and detection efforts across the state in hopes to detect EAB early. Although their efforts are substantial, it is still a good idea for every community to be conducting its own efforts. The earlier EAB is detected, the easier it will be to manage. Therefore, your community's EAB Response Plan should cover how it will monitor for EAB. This usually includes surveys which are explained further in *Section V – Preparation, Detection, and Control* of this plan. Another important aspect of monitoring and detection is to conduct community outreach programs that encourage residents to report suspected cases. For more information refer to *Section VII - Communication and Education*.

Preemptive vs. Reactive Management Methods

Communities will need to determine if they are going to preemptively remove trees, reactively remove trees, or conduct a combination of the two. As listed in *Section V – Preparation, Detection, and Control* there are pros and cons to both preemptive and reactive management methods. Please review these along with the items below to determine what is best for your community.

In-house vs. Contract³

The consideration of using in-house vs. contract labor will most likely come into question when considering removals or insecticide treatments of your plan. Your community will need to consider if these items can be conducted in-house, using a contractor, or a combination of both. For example, your community may choose to use in-house crews to remove ash trees up to a 10" DBH and hires a contractor for anything larger.

When determining if removals/treatments can be conducted in-house, your community will need to consider if it is a safe and economical choice. Listed below are items that will need to be considered:

- What is the size of the community's forestry staff and is it appropriate for the number of removals/treatments needed?
- Does your community have proper equipment? i.e. chainsaws, personal protective equipment, chippers, trucks/trailers, loaders
- Is the staff properly trained? Can they legally apply the insecticide if this option is chosen? Are they working around electrical hazards and are they trained for this?
- What size(s) of tree can staff safely remove?
- What is your budget for tree removal?
- What is the timeline for tree removals?
- Does your community have a Union and what are their conditions for contracting?
- What is the plan for utilization and disposal of chips?

Remember to always discuss removals/treatments with local utility companies, County road commissions, and the Wisconsin Department of Transportation when appropriate.

When considering the use of a contractor for a portion or all of your tree removals/treatments, it is important to understand the bid process and have clear

³, Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.

expectations for the contractor. Be very specific when developing the bid/contract language. **Appendix x** provides elements of a tree removal contract and bid language that can be considered for a community bid. For additional samples of tree removal, chipping, and stump grinding specifications please refer to the *Emerald Ash Borer Toolkit for Wisconsin Communities* by WDNR. When choosing a contractor it is recommended that communities choose companies who are fully insured, have experience and educational backgrounds in forestry, arboriculture, or related fields, and are members of an industry association. Do not be afraid to ask for reference or talk to other communities that use contractors for tree removal and tree care activities.

Prioritization of Management Schedules⁴

Regardless of whether your community is removing trees proactively or reactively, there should be a process for prioritizing the order of tree removal. The key to this process is using a current inventory of ash trees. The inventory and database will help determine location, size and condition of trees; and track and prioritize removals/treatments.

When prioritizing removals, these general rules apply:

1. Hazardous trees
2. Dead, dying, diseased trees
3. Poor structure/condition trees
4. Trees causing infrastructure damage
5. Trees planted or growing in undesirable locations
6. All other trees

In addition, utility contractors should be encouraged to remove ash trees within their easements as part of regular line clearance activities.

When considering and prioritizing insecticide treatments, the following items should be kept in mind.

- Insecticide options are hard to apply on a large scale and can be expensive.
- Focus on healthy trees that are significant to the community or landscape.
- Trees must be healthy for treatment to be effective. Canopy loss should be no more than 25 to 50%

Replacement Plans

Another important element of your EAB Response Plan will be to plan for how trees are going to be replaced. Unfortunately, in many situations replanting is often delayed or eliminated because of budgetary problems, but that should not be considered an option due to the many benefits that trees provide to the residents that live, work, and play in your community. Trees remove pollutants from the air, help improve summer and winter temperatures, reduce storm water runoff, increase property values, attract business and tourism, and provide social and psychological benefits. They are also one of the few components of the urban forest and a community's infrastructure that actually increases in value each year.

⁴ Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.

When establishing your community's replacement plan the following items should be considered.

- Diversity of the tree species and size of planting stock. Refer to *Section V – Preparation, Detection, and Control* for the importance of diversification in your urban forest. The size of planting stock also needs to be considered because it will affect costs and the labor needed to plant it, i.e. a 5" caliper tree will cost more than a 2" caliper. It will also require machinery to move it.
- Cost of replacements (Refer to the *Costs/Budget* section below in help with determining costs)
- Planting the right tree in the right place. Trees species should be selected according to the location. Factors that should be considered include soil and light conditions, the mature size of the tree selected, size of planting location and space, and the location of overhead and underground utilities. Make sure the tree species selected are appropriately sized so that they do not interfere with power lines when they reach mature size.
- Proper planting and mulching. Many trees do not survive due to improper planting techniques, such as planting too shallow or too deep, digging hole too small, not backfilling correctly, and improper mulching. For a tree planting diagram see [Appendix x](#).
- Maintenance. An equally important component as proper planting is to ensure the long-term survival of the tree. The first three years trees will require maintenance such as watering, pruning, and mulching.
- Volunteers. Utilizing volunteers is a good way to make sure community resources go farther while providing residents with an opportunity to make a positive difference in their community. In addition, a volunteer tree planting campaign can provide your community with the opportunity to educate residents on proper tree planting and maintenance techniques that they can apply to the project and at home.

Staffing, Training, and Equipment

When developing your community's EAB Response Plan, it is important to understand the personnel resources needed to accomplish tasks within it. This includes every task in your community's plan, from surveys, to removals, to replanting. Items that need to be considered are:

- The number of staff available to complete each task.
- The number of hours/days per week each staff can devote.
- Is the staff properly trained to complete tasks safely and efficiently?
- Will the staff need additional training to accomplish tasks?
- Can volunteers be used for tasks and will they require any training?

In addition, facilities and equipment to complete tasks will need to be considered. Inventory facilities owned or leased by your community and identify if it sufficient to accomplish the tasks at hand. Also, identify if there is a budget to purchase, lease, and/or repair needed equipment, facilities, or space. Understanding the personnel, volunteer, and equipment/facilities needs will help to determine if some tasks need to be contracted out and in creating a timeline for implementing each task?

Costs/Budgets⁵

With the arrival of EAB, communities will see an impact to their tree removal and disposal costs. In order to minimize the effect, communities will need to evaluate and implement cost-effective options. This includes not only looking at removal and treatment costs but also by finding cost-effective and creative ways to utilize products from tree removals. By doing this communities can often lessen the economic impact of the pest's damage, provide local wood resources for needed projects, stimulate community interest in recycling and reuse, and strengthen local wood products industries. For more information on utilization techniques refer to *Wood Utilization* within this section.

When determining the effects that EAB will have on your budget, consider the cost for removal/disposal, replacement, and treatment of ash trees. Determining tree removal/disposal costs can be accomplished by using your community's tree inventory and through tree removal estimates and bids. The inventory should have an actual or estimated total number of ash trees along with their size, and health/condition. (For more information on inventories please refer to subsections within this section, *Section IV - Assessments*, and *Section V – Preparation, Detection, and Control*) Combining this information with an estimated removal costs allows your community to estimate the total removal cost for ash trees on public property. Estimated costs can come from previous or current estimates/bids your community has obtained. If this is not available WDNR put together a document to help communities to determine tree removal and replacement costs, refer to [Appendix x](#).

Example: Total number of ash trees in Town A: 500
Average diameter of ash trees in Town A: 12"
Estimated removal costs for a 12" tree in Town A: \$340
Town A's estimated total ash removal costs: \$170,000

Another method for calculating costs is to use the EAB Cost Calculator created by Purdue University. With the EAB Cost Calculator anyone can:

- Compare the annual and cumulative costs over a 25 year period for any management strategy that includes a mixture of tree removal, replacement, and insecticide treatment.
- Compare size of the forest remaining over a 25 year period for any management strategy that includes a mixture of tree removal, replacement, and insecticide treatment.
- Generate printed reports of projected costs of up to 3 management strategies at a time.

To run the calculator the following information will be needed:

- An inventory of the number and size of your community's ash trees.
- An estimate of costs for removing and treating trees based on the size of each tree.
- An estimate of costs for replacing each ash tree that is removed.

The EAB Cost calculator can be found at
<http://extension.entm.purdue.edu/treecomputer/index.php>

⁵ Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.

Local disposal costs will also need to be estimated as part of the total removal costs. Keep in mind that disposal costs may be lowered by partnering with neighboring communities or industries that can utilize the trees.

Replacement costs can be determined by estimating the number of trees to be removed due to EAB and the cost of the replacement tree. To get replacement costs, contact local nurseries to get price estimates on the size and species of tree your community would like to use in replanting. Remember to go back with a diversity of species. Also, the cost of planting the trees may need to be considered in some instances, especially if using contracted labor.

Trees on Private Property⁶

The majority of a community's trees are typically located on private property. In the case of ash trees a general rule of thumb is 10 private ash trees for every 1 ash street tree. In most situations, the responsibility of tree removal on private property will belong to the property owner. However, where a hazardous condition exists with a private tree that impacts a public right-to-way (ROW), communities should address the problem. This may be accomplished through discussions with the property owner or through corrective actions taken by the community to resolve the issue. Authorities related to private tree removals are often contained in municipal ordinance and codes. For more information on ordinances refer to the section below. In addition, to assist private property owners with ash tree removals, your community may wish to offer curbside pickup, chipping, and disposal of infested trees.

Ordinances

As your community prepares its EAB Response Plan, it would be a good time to review, update, and/or create community tree ordinances and policies. Local ordinances and policies can help prevent or control damage from emerald ash borer. Ordinances and policies should be based on local circumstances, management needs, goals and capacity. Keep in mind that ordinance provisions and policies that work well in one municipality might be poorly suited for another. The typical tree ordinance outlines the authorities and persons responsible for tree planting, care, and removal of trees on public property and in some cases on private property. Some basic components of a tree ordinance include:

- Goals
- Tree Board Establishment
- Authorities/Responsibilities
- Basic Performance Standards
- Enforcement/Penalties

Through a code/ordinance a community may exercise authority to enable the declaration and abatement of public nuisance trees. For example, a code/ordinance could require infested trees on private property to be removed to prevent further spread of the insect or disease. Removal costs are subsequently billed to the property owner directly or add to their property taxes.

⁶ Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.

Although ordinances should be broad enough to cover local circumstances, management needs, and goals, there are some specifics that should be considered specifically for EAB. They are:

- Establishment of authority for the municipality and forester (or other assigned person) for EAB control and management.
- Adopt ordinance language allowing EAB to be declared a public nuisance and authorizing control on both public and private property
- Adopt ordinance provisions or establish formal policies about firewood movement or storage.

For a listing of communities in Sheboygan County who have a tree ordinance in place please refer to section *Section IV – Assessments, Support Resources*. In addition, the *Emerald Ash Borer Toolkit for Wisconsin Communities* by WDNR gives sample language of ordinances that can be used as a template.

Wood Utilization⁷

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?
- Where will the wood debris be stored (marshalling yards)?

For more information on wood utilization, local users, and marshalling yards refer to *Section VI – Wood Utilization*.

Community Outreach and Education

Due to the importance of public awareness in slowing the spread of EAB, an outreach and education component should be fundamental to every EAB plan. *Section VII - Communication and Education* of this plan provides a general overview of different public outreach efforts that communities can conduct. When determining what method is best for your community consider who your target audience is and what key messages do you want to get across.

⁷ Emerald Ash Borer Community Preparedness Plan, Michigan Department of Natural Resources and Michigan Department of Agriculture.