

## Emerald Ash Borer (EAB) in Minnesota: Recommended Actions for the Environmental Quality Board

**Please note:** Potential lead state agencies are listed with each action in bold type along with associated costs and timelines, if available. Recommended actions that do not have a timeline defined are expected to occur continuously, as needed. Many recommended actions address multiple Report Recommendations categories but are listed under the category that is mostly closely associated with the action.

Report Recommendations	Recommended Actions using Current Resources	Recommended Actions using New Resources
<b>Slow the spread</b>		
<b>Detection and monitoring</b>	<ul style="list-style-type: none"> <li>Maintain a system to take reports of EAB (<a href="#">Arrest the Pest</a>), investigate reports, and publish confirmed EAB finds (<a href="#">EAB Status Map</a>). <b>MDA</b></li> <li>Conduct targeted detection and monitoring across the state. <b>MDA</b></li> </ul>	<ul style="list-style-type: none"> <li>Monitor the impact of management work on the rate of spread of EAB and adapt practices to maximize effectiveness. \$100,000 annually FY 21-23 (Pending approval by ENRTF). <b>MDA</b></li> </ul>
<b>Biological control</b>	<ul style="list-style-type: none"> <li>Coordinate the introduction and monitoring of biological control agents. \$100,000 (ENRTF) annually through FY 20. Introductions ongoing with USDA in-kind assistance. <b>MDA</b></li> </ul>	
<b>Limit human-facilitated movement of EAB</b>	<ul style="list-style-type: none"> <li>Maintain state resources to manage and enforce intrastate quarantines until 2030-2040. <b>MDA</b></li> <li>Prepare to expand quarantine efforts to include interstate movement when USDA regulations end by 2020-2021. <b>MDA</b></li> <li>Maintain current outreach efforts regarding firewood. Currently supported with \$60,000 annually from USDA APHIS. <b>MDA</b></li> </ul>	
<b>Training, education, and outreach</b>	<ul style="list-style-type: none"> <li>Educate and train tree care professionals, communities, and citizens on identification of ash trees, proper transportation of firewood, management of infested tree and safety concerns. Currently supported with approx. \$50,000 annually from federal funds. <b>MDA, DNR</b></li> <li>Educate Minnesotans on the importance of transitioning black ash forested wetlands. <b>DNR</b></li> <li>Certify or recertify 500 people per year as Tree Inspectors. <b>DNR</b></li> </ul>	<ul style="list-style-type: none"> <li>Provide safety trainings and outreach materials to tree care professionals and homeowners on the serious and unique safety challenges associated with removing EAB-killed ash trees. \$50,000 annually until 2030. <b>DNR, MDA</b></li> <li>Expand educational campaigns, advertisements, and other means to educate the general public and targeted audiences about the importance of slowing the spread of EAB and preparing private woodlands for EAB. \$100,000 annually until 2030. <b>DNR, MDA</b></li> </ul>
<b>Workforce solutions</b>		<ul style="list-style-type: none"> <li>Develop workforce solutions to increase the number of quality tree care providers to meet the increased demand in tree treatments, removals, and plantings by 2021-2025.</li> </ul>
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>Require that all state grants or other state funded tree planting to replace ash trees must create or maintain diverse urban and community forest canopies. <b>DNR</b></li> </ul>	

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<b>Support Communities</b>		
<b>Technical assistance</b>	<ul style="list-style-type: none"> <li>Update the <a href="#">Minnesota Emerald Ash Borer Community Preparedness Manual</a> and <a href="#">Model EAB Management Plan</a> by 2021. <b>DNR, MDA</b></li> <li>Provide technical assistance to communities regarding EAB surveillance and management strategies. Currently supported with approximately \$40,000 from federal funds annually. <b>MDA, DNR</b></li> <li>Update a list of tree species that could be considered as replacement species in our changing climate by 2021. <b>DNR</b></li> </ul>	<ul style="list-style-type: none"> <li>Research and develop safety recommendations for working with and removing community ash trees. Information to be delivered in safety trainings and outreach materials listed in Slow the Spread category. \$100,000 for FY2021-2022. <b>DNR</b></li> <li>Assess and recommend strategies to maintain community tree canopy levels that meet climate change targets as ash decline. \$100,000 for FY2021-2022. <b>DNR</b></li> <li>Establish regional support and technical assistance for communities to support ash management at the local level. \$350,000 annually until 2040. <b>DNR</b></li> </ul>
<b>Incentives and financial resources</b>	<ul style="list-style-type: none"> <li>Provide community forests grants for planning, removal, and replacement through June 1, 2022. Currently supported with \$1 million from general fund and ENRTF through 2020. All funds allotted to communities. <b>DNR</b></li> </ul>	<ul style="list-style-type: none"> <li>Provide a community grant program to develop and implement ash management plans, and provide education and technical assistance to professionals and homeowners. \$8.5 million annually until 2030. <b>DNR</b></li> <li>Explore and pilot an urban ash tree carbon credit program. \$100,000 for FY2022. <b>DNR, MPCA</b></li> </ul>
<b>Emergency response</b>		<ul style="list-style-type: none"> <li>Develop an emergency fund to allow communities to take action when EAB is found and before grants are available. \$100,000 annually. <b>MDA</b></li> </ul>
<b>Transition Ash Forests</b>		
<b>Planning</b>	<ul style="list-style-type: none"> <li>Develop a response plan for EAB infestation in northern Minnesota designed to minimize spread to adjacent ash stands by 2022. <b>DNR, MDA</b></li> </ul>	<ul style="list-style-type: none"> <li>Promote EAB collaboratives within the <a href="#">Minnesota Forest Resource Council Landscape Committees</a> to address ash forest management across ownerships. <b>DNR</b></li> </ul>
<b>Technical assistance</b>	<ul style="list-style-type: none"> <li>Provide targeted outreach and forest management assistance to woodland owners that shares the most effective and current ash management strategies; designed to promote proactive decisions. Emphasis on newly detected EAB-infestation areas through 2030. <b>DNR</b></li> </ul>	<ul style="list-style-type: none"> <li>Provide technical support for and coordination of reforestation efforts, ash forest transition strategies, and best treatment options to all public and private woodland owners. \$150,000 annually until 2030. <b>DNR</b></li> </ul>
<b>Incentives and financial resources</b>		<ul style="list-style-type: none"> <li>Provide grants for planting, seeding, treatment, and ash harvest projects to public and private woodland owners. \$1 million annually until 2030. <b>DNR</b></li> <li>Incentivize private woodland owners to harvest after local infestation or transition ash stands in advance of EAB. \$250,000 annually until 2030. <b>DNR</b></li> </ul>

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<b>Manage ash wood material</b>		
<b>Planning</b>	<ul style="list-style-type: none"> <li>• Provide an up-to-date map of locations for ash wood use and disposal including manufacturers, biomass facilities, yard waste sites, etc.; identify gaps. <b>MPCA, DNR</b></li> <li>• Share reports and data with local governments to assist in waste management plans and community assistance prioritization. <b>MPCA</b></li> </ul>	<ul style="list-style-type: none"> <li>• Assist counties and their communities with plan development to manage ash wood material in the highest and best way within their respective jurisdictions. \$150,000 annually until 2030. <b>MPCA, DNR</b></li> <li>• Working with partners, identify priority measures to reduce costs and barriers to move ash to mills from both public and private forests by 2022. <b>DNR, MDA</b></li> </ul>
<b>Incentives for ash wood markets</b>	<ul style="list-style-type: none"> <li>• Convene discussions on the potential use of increased ash wood material in the waste and energy industries by 2022. <b>MPCA, DNR, Commerce.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Create production incentives for existing and new forest products businesses that promote the highest and best use of the influx of Minnesota ash wood. \$1.5 million annually for 2021-2026. <b>DNR, MDA, MPCA</b></li> <li>• Create consumer or building contractor incentives to encourage the purchase of ash products (flooring, cabinets, firewood, etc.) until 2040. <b>MPCA</b></li> <li>• Provide incentives for community facilities (schools, community centers, hospitals, etc.) to retro-fit or install new energy or heating systems that use ash wood. <b>Commerce, MPCA, DNR</b></li> <li>• Assess opportunities to repurpose decommissioned (or outgoing) coal or biomass energy-recovery facilities for ash biofuel, wood chips, torrefied and non-torrefied pellet, or other ash energy production that meet emission guidelines. <b>MPCA, Commerce</b></li> <li>• Incentivize the use of ash wood material by energy facilities that currently have the ability to utilize biomass by 2025. <b>Commerce, MPCA</b></li> </ul>
<b>Incentives for wood processing</b>		<ul style="list-style-type: none"> <li>• Provide business incentives or community grants to establish mobile ash wood processing systems that can be moved around the state as necessary and include equipment for:               <ul style="list-style-type: none"> <li>• Wood chipping and debarking to ready ash for transportation to mills or compost sites,</li> <li>• Wood processing (portable sawmills, portable molders and planers), and</li> <li>• Fuel preparation and composting;</li> </ul>               \$1.5 million annually for 2021-2026. <b>DNR, MPCA</b> </li> </ul>

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<b>Lead, engage and collaborate</b>		
<b>EAB taskforce</b>	<ul style="list-style-type: none"> <li>Designate an EAB taskforce with membership from relevant agencies and stakeholder groups that identifies measurable goals related to these actions, measures progress towards meeting those goals, and regularly reports back to the EQB Board Members. <b>All</b></li> </ul>	<ul style="list-style-type: none"> <li>Implement the recommendations of the <a href="#">2019 Emerald Ash Borer in Minnesota Report</a>; identify and explore new strategies as they emerge. <b>All</b></li> <li>Explore ways to minimize the loss of carbon sequestration, mitigate expected impacts, and adapt to the changing climate, while addressing state climate change and fossil fuel reduction goals. <b>MPCA</b></li> </ul>
<b>Expand Research</b>		<ul style="list-style-type: none"> <li>Expand research and communicate research findings for the following topics:               <ul style="list-style-type: none"> <li>Ash wood materials such as ash biofuel, biochar, engineered wood products, and torried and non-torried wood pellets. <b>DNR, MPCA</b></li> <li>Reforestation techniques that favor non-ash species. <b>DNR</b></li> <li>EAB impacts to or interactions with black ash forests, floodplains, upland hardwood forests, and hydrology. <b>DNR, MDA</b></li> <li>Best management practices and techniques, including in wet areas, as the changing climate presents less frosts and hard freezes. <b>DNR, MDA;</b> \$500,000 annually for FY 2022-2024.</li> </ul> </li> </ul>

### Agencies:

**Commerce** – Minnesota Department of Commerce  
**DNR** – Minnesota Department of Natural Resources

**MDA** – Minnesota Department of Agriculture  
**MPCA** – Minnesota Pollution Control Agency

### Key Partners:

This list of recommended actions designates the lead state agencies responsible for the activity. However, lead agencies will rely on several key partners for further development and successful implementation of the work.

EAB work has advanced to-date thanks in large part to the support of several key partners. Lead state agencies intend to continue engagement and work with these key partners to ensure efficient and effective solutions to Minnesota’s EAB crisis.

This is not an exhaustive list – additional partners, as appropriate, are anticipated as EAB work moves forward.

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| <ul style="list-style-type: none"> <li>• University of Minnesota</li> <li>• University of Minnesota Extension</li> <li>• Minnesota Forestry Association</li> <li>• Minnesota Forest Industry</li> <li>• Minnesota Nursery and Landscape Association</li> <li>• Minnesota Society of Arboriculture</li> <li>• Minnesota Shade Tree Advisory Council</li> </ul> | <ul style="list-style-type: none"> <li>• Minnesota Forest Resources Council</li> <li>• Local Governments</li> <li>• Tribal Governments</li> <li>• Federal Government</li> <li>• Energy Producers and Public Utilities</li> <li>• Natural Resources Research Institute</li> </ul> |
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