

**Environment and Natural Resources Trust Fund  
2018 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 135-D**

Slow the Spread of the Emerald Ash Borer

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**Category:** D. Aquatic and Terrestrial Invasive Species

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**Total Project Budget:** \$ 14,689,500

**Proposed Project Time Period for the Funding Requested:** 3 years, July 2018 to June 2021

**Summary:**

Reducing the yearly rate of spread of the emerald ash borer through outreach and strategic management grants could delay spread throughout Minnesota for decades and save billions of dollars.

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**Sponsoring Organization:** Minnesota Department of Agriculture

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**Location**

**Region:** Statewide

**County Name:** Statewide

**City / Township:**

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**Alternate Text for Visual:**

The graphic depicts spread of EAB in Minnesota vs the rest of the country and shows the current regulated area in Minnesota.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____ %



**PROJECT TITLE: Slow the Spread of the Emerald Ash Borer**

**I. PROJECT STATEMENT**

- The emerald ash borer (EAB) is spreading at a faster rate within Minnesota each year. The number of counties with known infestations has increased from 6 to 15 in just the last four years and the number of affected cities has increased from 16 to 29. Keeping EAB out of other areas of the state as long as possible will benefit the economy, environment and even human health of areas not yet infested.
- During the first five years of known EAB infestation in Minnesota (2009-2013), the spread rate was about 33% of the national average. However, the spread rate over the last four years (2014-present) is > 50% of the national average and growing. The goal of this project is to reduce the rate of spread back to 33% or less of the national average which would translate into additional decades before EAB is widespread in Minnesota.
- Previous work in Minnesota and Michigan has demonstrated that aggressive management actions can slow the growth of EAB populations and their rate of spread, particularly if new satellite populations can be prevented from forming. Populated areas with EAB infestations are at greatest risk for movement to new areas simply because a higher density of people provides more opportunities for wood movement. Populated areas (cities and towns) are also prime candidates for management work due to the relatively low number and high value of ash trees compared to natural forest settings.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1:** Prevent the movement of EAB through outreach to citizens. **Budget: \$300,000**

The best way to stop EAB from reaching new areas is to keep people from moving it. As the area infested by EAB grows, regulatory efforts become diluted. Moreover, outreach efforts have always been paramount with EAB since it is easily spread in firewood which can be moved by anyone. Minnesota has worked hard to educate the public about the firewood pathway for many years, likely contributing to the slower than average spread of EAB in the state. However, to keep the issue on the mind of citizens requires ongoing reminders. We will work to educate and remind citizens within the Minnesota media market about how EAB spreads. The materials to conduct this campaign have already been developed, so every dollar allocated to this function can be used to maximum affect in purchasing outreach. MDA will contract with a firm to provide this service.

<b>Outcome</b>	<b>Completion Date</b>
<i>1. Develop yearly advertising plan that targets key demographics for spreading EAB and identifies cost-effective ways to reach them and affect their behavior.</i>	<i>September 2018, 2019, 2020</i>
<i>2. Implement yearly advertising plan including online, print, billboard, television, radio and other media types.</i>	<i>October 2018 thru June 2021</i>
<i>3. Complete annual evaluation of advertising impact that considers cost, reach and impact.</i>	<i>October 2019, 2020 and July 2021</i>

**Activity 2:** Provide technical assistance to communities and promote monitoring-based management. **Budget: \$589,500**

Technical assistance regarding EAB is an ongoing need for communities in Minnesota, particularly those with newly discovered infestations. In addition, work funded by the ENRTF has demonstrated that monitoring for EAB can inform management efforts and reduce unneeded insecticide use and tree removal. This activity will work with communities to promote monitoring-based management which is critical to slowing population growth and spread of EAB. This activity will also quantitatively evaluate the impact of management work on the growth and



**Environment and Natural Resources Trust Fund (ENRTF)**  
**2017 Main Proposal**  
**Project Title: Slow the Spread of the Emerald Ash Borer**

spread of EAB populations in Minnesota. The MDA will work with the U of M who will provide biological and statistical expertise for this activity.

Outcome	Completion Date
1. Hold workshops on EAB monitoring and management.	Winter/Spring/Summer, 2019, 2020, 2021
2. Coordinate tree condition assessments in management areas as a baseline measure of EAB impacts.	August 2018, 2019, 2020
3. Visually assess EAB infestation in selected infested areas to track the distribution of EAB populations.	Winter/Spring 2019, 2020, 2021
4. Assess EAB density in selected infested areas via branch and tree sampling to provide information on the size of EAB populations.	Winter/Spring 2019, 2020, 2021

**Activity 3:** Provide assistance to communities to manage and slow the spread of EAB. **Budget: \$13,800,000**

There are clear tactics that communities can use to mitigate the impacts of EAB and slow its spread. However, without funds to guide those efforts communities do not have sufficient incentive to undertake activities that will provide benefits beyond and sometimes even within their borders. Under this activity MDA will grant funds to communities who demonstrate the capability to implement EAB management programs that are likely to minimize the impact within and slow the spread of EAB out of that community. Grants will be administered by the MDA and the Minnesota Shade Tree Advisory Committee will act in an advisory role to award funds.

Outcome	Completion Date
1. Request for proposals issued.	October 2018, 2019, 2020
2. Proposals reviewed by MNSTAC subcommittee and grants awarded	December 2018, 2019, 2020
3. Project reports reviewed and site visits made	Summer 2019, 2020, 2021
4. Final grantee reports due	June 30, 2021

**III. PROJECT STRATEGY**

**A. Project Team/Partners**

This project is led by the MDA but aligns with initiatives advanced by the Minnesota Shade Tree Advisory Committee which is comprised of representatives from all public and private entities concerned with urban forestry in Minnesota. In addition, the technical components of the project will be conducted in close collaboration with the University of Minnesota.

**Not receiving funds:** Minnesota Shade Tree Advisory Committee will be a partner on the project though not receiving funds. The Minnesota Society of Arboriculture has also expressed interest in supporting the project.

**B. Project Impact and Long-Term Strategy**

Emerald ash borer is one of the most significant forest pests ever to reach the U.S. Slowing the spread of EAB throughout Minnesota will provide tremendous economic and environmental benefits to the state. There are currently an estimated 1.7 million ash trees in populated areas that are not yet infested by EAB. Each year those trees provide an estimated \$178 million in benefits to cities and their residents. Slowing the spread of EAB to 1/3 that of the national average adds an estimated 30 years to the time needed for EAB to spread throughout the state and provides an opportunity to reap 30 years of benefits from those trees (30 years \* \$178 million/year = \$5.34 billion).

**C. Timeline Requirements**

This project is a proposed three-year project and builds on efforts from previous LCCMR projects on EAB monitoring and detection (2013-2017) as well as EAB biological control (2011-present).

## 2017 Detailed Project Budget

**Project Title: Slow the Spread of the Emerald Ash borer**

### IV. TOTAL ENRTF REQUEST BUDGET 3 years

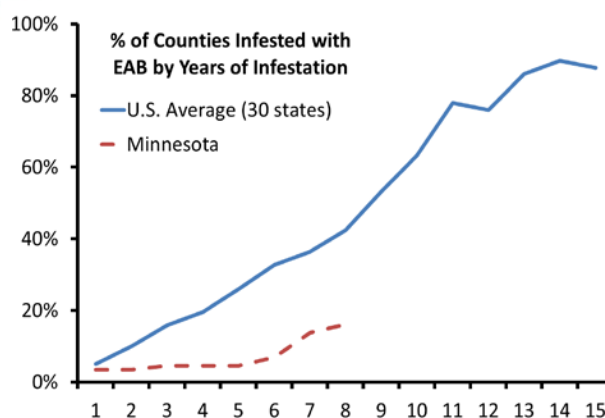
<u>BUDGET ITEM</u>	<u>MDA</u>
<b>Personnel:</b> <ul style="list-style-type: none"> <li>• MDA Project Administrator: \$300,000 (73% salary, 27% fringe) 1 FTE - MDA will hire an unclassified Project Administrator who will administer grants allocated by the project (Activity 3) as well as advertising contracts (Activity 1).</li> <li>• MDA Scientist: \$225,000 (69% salary, 31% fringe) 1 FTE - The MDA will hire an unclassified Scientist (100% FTE) who will be responsible for implementing Activity 2.</li> <li>• MDA Assistants: \$150,000 (67% salary, 33% fringe) The MDA will hire 2-4 unclassified staff equaling 1 FTE. These staff will be responsible for assisting with field components of Activity 2.</li> </ul>	\$ 675,000
<b>Professional/Technical/Service Contracts:</b> <ul style="list-style-type: none"> <li>• Advertising contract each year for EAB educational campaign - \$100,000 per year</li> </ul>	\$ 300,000
<b>Professional/Technical/Service Contracts:</b> <ul style="list-style-type: none"> <li>• The University of Minnesota will employ a data analyst who will assist the MDA with quantitative analyses to evaluate the impact of the project and identify opportunities to increase impact. Salary and Fringe approximately \$65,000 per year</li> </ul>	\$ 195,000
<b>Professional/Technical/Service Contracts:</b> <ul style="list-style-type: none"> <li>• Grants to municipalities or other entities for management of EAB infestations - \$4.5 million per year</li> </ul>	\$ 13,500,000
<b>Equipment/Tools/Supplies:</b> Supplies for conducting survey and sampling including collection bags and vials, handheld tools for dissecting branches, personal protective equipment, etc.	\$ 3,000
<b>Travel:</b> <ul style="list-style-type: none"> <li>• We will utilize Department lease vehicles which is the most cost effective means of travel with a per month lease cost of ~\$400. We will share vehicles with other projects and so only an estimated 6 months of lease time per year should be needed. Total cost per year = \$2,400 * 3 years</li> <li>• Meals for MDA Scientist - estimated 15 days (\$15/day meals) of travel per year with 5 nights of lodging (\$100/night) = (15 days*15/day + 5 nights * \$100/night) * 3 years</li> <li>• MDA Assistants - estimated 5 days of travel per year with lodging = (5 days*15/day + 5 nights * \$100/night) * 3 years</li> </ul>	\$ 11,100
<b>Additional Budget Items:</b> <ul style="list-style-type: none"> <li>• Unclassified staff personnel costs such as email, network and licensing fees (\$50/user/month). 3 FTE * \$50 * 36 months = \$5,400</li> </ul>	\$ 5,400
<b>SUBTOTALS</b>	\$ 14,689,500
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	
	\$ 14,689,500

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>
<b>Other Non-State \$ To Be Applied To Project During Project Period:</b> NA	\$ -
<b>Other State \$ To Be Applied To Project During Project Period:</b> NA	
<b>In-kind Services To Be Applied To Project During Project Period:</b> <ul style="list-style-type: none"> <li>• MDA oversight of project, 5% FTE MDA Scientist = \$15,000</li> <li>• MDA supervision of staff, 5% FTE MDA Supervisor = \$18,000</li> </ul>	\$ 33,000
<b>Funding History:</b> <ul style="list-style-type: none"> <li>• M.L. 2011, First Special Session, Chp. 2, Art.3, Sec. 2, Subd. 06b = \$500,000</li> <li>• M.L. 2014, Chp. 226, Sec. 2, Subd. 04d = \$447,000</li> <li>• M.L. 2013, Chp. 52, Sec. 2, Subd. 06c-A = \$600,000</li> </ul>	\$ 1,547,000
<b>Remaining \$ From Current ENRTF Appropriation:</b> <i>M.L. 2017, Chp. xx, Sec. xx, Subd. Xx - anticipated \$729,000</i>	\$ 729,000

# SLOW THE SPREAD OF THE EMERALD ASH BORER

Prevent the movement of emerald ash borer (EAB) through outreach to citizens



Provide technical assistance to communities and promote monitoring-based management

Provide assistance to communities to manage and slow the spread of EAB



## **Slow the Spread of the Emerald Ash Borer**

### **Qualifications**

#### **Project Manager**

##### **Mark Abrahamson, Plant Protection Assistant Director, Minnesota Department of Agriculture**

Mark has coordinated statewide efforts regarding emerald ash borer in Minnesota since 2006 and has served as the Project Manager for previous projects funded by the ENRTF including “Improving Emerald Ash Borer Detection Efficacy for Control”, “Mountain Pine Beetle Invasive Threat to Minnesota’s Pines” and “Brown Marmorated Stink Bug Monitoring and Biocontrol Evaluation”.

### **Organization Description**

The Minnesota Department of Agriculture’s Plant Protection Division has primary responsibility for the emerald ash borer and other new terrestrial invasive pests. Minnesota Department of Agriculture is responsible for plant protection (Minnesota Statute 18G.01) and is the lead agency on emerald ash borer in Minnesota. The MDA has worked to prevent and slow the spread of EAB within Minnesota since before it was discovered in St Paul in 2009. Since 2009, the MDA has worked at all levels of government to promote and assist with regulatory, monitoring and control efforts against EAB, including the implementation of biological control beginning in 2011. The Minnesota Department of Agriculture granted over \$1.8 million in state fiscal years 2010 and 2011 to communities to prepare for and respond to emerald ash borer infestations.