

# Environment and Natural Resources Trust Fund 2009 Phase 2 Request for Proposals (RFP)

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**LCCMR ID: 085-C1**

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**Project Title:** Survey of Firewood Movement and Targeted Audience Outreach

**Total Project Budget:** \$ \$549,450

**Proposed Project Time Period for the Funding Requested:** July 2009 to July 2012

**Other Non-State Funds:** \$ \$105,000.00

**Priority:** C1. Aquatic and Terrestrial Invasive Species

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**Region:**

**County Name:**

**City / Township:**

Statewide

**Summary:** Prevent the introduction to and spread throughout Minnesota of emerald ash borer (EAB) by determining what groups pose greatest risk of spreading EAB and providing tailored outreach to those groups.

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**Main Proposal:** 1008-2-037-proposal-LCCMR 2009 Firewood Movement Proposal.doc

**Project Budget:** 1008-2-037-budget-LCCMR 2009 Firewood Movement Project Budget.xls

**Qualifications:** 1008-2-037-qualifications-LCCMR 2009 Firewood Movement Project Manager Qual

**Map:**

**Letter of Resolution:**

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# MAIN PROPOSAL

## PROJECT TITLE:

**Prevention of emerald ash borer arrival and spread through studies of firewood movement into and within Minnesota and targeted outreach to reduce that movement.**

## I. PROJECT STATEMENT

The goal of this collaborative project is to reduce the spread of the invasive exotic emerald ash borer (EAB) into and throughout Minnesota through educational programs, hands on interactions with the public, and identification of the groups of people that could spread EAB and characterizing their motivations for engaging in such activities.

EAB was discovered in summer 2008 in Wisconsin and its spread to Minnesota needs to be intercepted and the spread in our State reduced. Minnesota has the third largest population of ash trees in the US (867 million ash trees on forestland). Ash is used as pulpwood in paper mills and wood products plants in Minnesota, and for products like baseball bats and axe handles. Black ash also holds significant cultural importance to Native Americans and is used for basket making. Moreover, Minnesota also has an estimated 3 million urban ash trees, the cost to remove and replace those trees as they are killed by EAB could exceed \$2 billion over 10 years. There is a precedent for the high costs of tree removal and replacement. Tree removal and replacements costs in Ohio were estimated by the Ohio DNR to be \$3 billion over the next 10 years. The history of EAB spread is linked to the movement of firewood. Localized infestations discovered in Ohio in 2003 likely originated from infested firewood, ash logs, and/or nursery stock moved from Michigan. Since its interception in Michigan and neighboring Windsor, Ontario, in June 2002, EAB has spread to 40,000 square acres and killed over 40 million ash trees ([www.emeraldashborer.info](http://www.emeraldashborer.info)).

Although MN has a state law to prevent the movement of unapproved firewood into any [state park](#), [state forest](#) or [day-use area](#). ([M.S. 89.551 Sec. 2 Subd.3b](#)) and there is a firewood labeling program (MN Stat. 2006, Chapter 239, Weights and Measures), many people do not realize the impact of firewood movement on the spread of EAB, and many pathways are not covered under the law, including informal firewood sales, movement of firewood to County and private parks and forests, movement of firewood by vacation home owners, and others. Some outreach regarding EAB has been accomplished through other projects. However, our goal is to more aggressively spread the message about the economic and environmental costs of EAB throughout Minnesota, and promote the role every citizen can play in preventing movement of EAB into Minnesota. We will develop educational campaigns on EAB identification and firewood movement. We will use surveys to discover the effectiveness of the programs and use survey results to develop better tools.

This effort is recognized as critical and strongly supported (letters available) by Minnesota Society of Arboriculture, Minnesota Turf and Grounds Association, Minnesota Nursery and Landscape Association, Minnesota Golf Course Superintendent's Association and Minnesota Association of Cemeteries.

## II. DESCRIPTION OF PROJECT RESULTS

**Result 1:** Implementation of EAB identification and firewood outreach campaign      **Budget:** \$ 412,250

The goal will be to increase citizen awareness of EAB and how it is spread by firewood. Segments of the population at greatest risk for spreading EAB through infested wood will be identified by the survey portion of this project (Result 2) and these findings will be incorporated into outreach efforts. Firewood movement is an issue for both businesses and individual citizens and so this outreach effort will be a multi-faceted to capture more than one type of group.

Deliverable	Completion Date
1. Maintain and build trained networks of citizen volunteers	Trainings completed each year
2. Public meetings for concerned citizens	Meetings held each year

3. Targeted mailings to groups at high-risk for allowing spread	Mailings completed each year
4. Media ads targeted by demographic	Media ads completed each year
5. Mailings / presentations to businesses at risk for allowing spread	Mailings completed each year

**Result 2:** Survey of firewood movement into and within Minnesota to identify audiences and messages for effective outreach **Budget: \$ 137,225**

1. Determine the most important agents and pathways by which EAB is likely to be distributed within Minnesota. These include commercial firewood trade, informal firewood sales, campers, vacation home owners, and tree-care specialists.
2. Model socio-economic behavior of the various agents to determine how their behaviors could increase the likelihood of movement of firewood and invasion by EAB & other invasive pests
3. Using these models, predict the efficacy of various policies to alter behavior & reduce invasion risk
4. Evaluate these efficacy predictions in concert with the work conducted under result 1

Deliverable	Completion Date
1. Surveys of important agents	Year 1
2. Development of socio-economic models and predictions	Year 2
3. Evaluation of policies and predictions	Year 3

### III. PROJECT STRATEGY AND TIMELINE

#### A. Project Partners

Project Partner	Affiliation	Involvement
Mark Abrahamson and Mike Schommer	Minnesota Department of Agriculture	Will oversee and collaborate on all aspects of the project
		Will administer contracts for media ads and other large expenditures
Vera Krischek	University of Minnesota	Will develop outreach materials and deliver them to professional and consumer audiences
David Andow		Will develop surveys and models to explain survey results and improve outreach efforts

#### B. Project Impact

This project will potentially reduce the rate of spread of emerald ash borer and other forest pests throughout the entire state of Minnesota by reducing the movement of infested firewood. Projected costs for urban tree removal and replacement alone due to EAB are estimated at \$2.1 billion for Minnesota over a 10 year period. Delaying the arrival of EAB even one year would result in a savings of \$84 million. Potential ecological costs from EAB are also high. Minnesota has one of the highest inventories of ash in the U.S. with an estimated 867 million ash trees on forestland. Much of this inventory is comprised of black ash in northern Minnesota which grow on sites too wet to support other tree species. The loss of this resource will irreversibly change the landscape of Minnesota.

#### C. Time

This is a three year project due to the need to identify firewood movement patterns in Minnesota and identify strategies amenable to the public to reduce that movement. Also, in order to effectively communicate our messages to the public, those messages will need to be repeated over a number of years to ensure adequate message penetration. Minnesota Department of Agriculture will oversee the project to ensure integration of the work with other efforts in Minnesota directed towards emerald ash borer and / or firewood. An unclassified staff would be added at MDA during the project to assist in developing and administering contracts with vendors for components of the outreach and survey campaigns at a cost of \$42,450 over the lifetime of the project. In addition, \$315,000 is allocated for funding mailings, radio advertisements, billboards, public meetings, etc. Development of the tools to be used for survey and outreach will be the responsibility of two graduate students who will require \$96,000 each in total over the three years of the project.

#### D. Long-Term Strategy (if applicable)

This proposal is not part of a larger, established project.

## Project Budget

### IV. TOTAL PROJECT REQUEST BUDGET

<u>BUDGET ITEM</u>	<u>AMOUNT</u>	<u>% FTE</u>
<b>Personnel:</b>		
U of MN Graduate Student for wood movement studies [salary + 35% fringe] -- 3 yrs at \$32,000 / yr	\$ 96,000	100%
U of MN Graduate Student to coordinate EAB outreach activities [salary + 43% fringe] -- 3 yrs at \$32,000 / yr	\$ 96,000	100%
MDA Unclassified Staff to administer contracts for outreach and survey work [salary + 43 % fringe] -- 3 yrs at \$14,150 / yr	\$ 42,450	25%
<b>Contracts:</b>		
<b>Outreach campaign advertising costs: \$65,000 each year</b> Paid advertisements on radio, tv and in print = \$50,000 Outdoor billboards and signage in travel corridors = \$15,000	\$ 195,000	
<b>Other:</b>		
<b>Production costs for survey and outreach campaigns: \$40,000 each year</b> Trade show booths at camping / outdoor shows = \$5,000 Electronic and hardcopy materials targeted toward various audiences = \$20,000 Informational and training meetings for industry and citizens = \$15,000	\$ 120,000	
<b>TOTAL PROJECT BUDGET REQUEST TO LCCMR</b>		
	\$ 549,450	

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>Other Non-State \$ Being Leveraged During Project Period:</b>		
Outreach grants from USDA APHIS ~\$35,000 per yr for 3 yrs	\$ 105,000	
<b>In-kind Services During Project Period (salary + fringe):</b>		
Mark Abrahamson 10% of time = \$9,000 per yr x 3 yrs = \$27,000		
Mike Schommer 3.5% of time = \$4,000 per yr x 3 yrs = \$12,000		
Vera Krischek 3.5% of time = \$4,000 per yr x 3 yrs = \$12,000		
David Andow 3.5% of time = \$4,000 per yr x 3 yrs = \$12,000	\$ 63,000	
<b>Past Spending:</b>		
Brochure printing = \$25,000 (multiple years)		
2007 billboard advertising = \$30,000		
2008 radio advertising = \$35,000		
2008 survey of north shore park visitors = \$5,000	\$ 95,000	

## Project Manager Qualifications and Organization Description

### PROJECT MANAGER QUALIFICATIONS: Mark Abrahamson

#### Education

- M.S. Entomology, SUNY-Syracuse, Syracuse, NY, December 1997
- B.S. Biology, UW-Eau Claire, Eau Claire, WI, December 1995

#### Professional Experience

- Entomologist at Minnesota Department of Agriculture since 1999
  - Emerald Ash Borer (EAB) Project Manager, 2006 -
    - Lead the EAB Readiness Team which consists of representatives of federal and state agencies, universities, industry groups, county and municipal governments, non-profits and other stakeholder groups. The mission of the EAB Readiness Team is to minimize the impact of EAB in Minnesota through planning and coordination of actions. This group is the central organizing force behind efforts to prepare Minnesota to deal with EAB. A plan outlining the team and its actions is available here:  
[www.mda.state.mn.us/news/publications/pestsplants/pestmanagement/eabreadinessplan.pdf](http://www.mda.state.mn.us/news/publications/pestsplants/pestmanagement/eabreadinessplan.pdf)
  - Firewood Project Manager, 2008 -
    - Lead the Interagency Firewood Taskforce which had a similar membership to that of the EAB Readiness Team. Due to overlapping members and initiatives, the Firewood Taskforce has since been folded into the EAB Readiness Team as a subcommittee, but its mission of coordinating outreach and other activities related to firewood movement in Minnesota remains the same. Firewood information pertinent to Minnesota is available here:  
[www.mda.state.mn.us/plants/pestmanagement/saveourash.htm](http://www.mda.state.mn.us/plants/pestmanagement/saveourash.htm)
  - Plant Pest Survey Coordinator, 1999 – 2007
    - Manage all aspects of state-wide sampling program for insect, disease and weed pests of Minnesota field crops.

### ORGANIZATION DESCRIPTION: Minnesota Department of Agriculture

The Minnesota Department of Agriculture has statutory authority to abate, suppress, eradicate, prevent, or otherwise regulate the introduction or establishment of plant pests that threaten Minnesota's agricultural, forest, or horticultural interests or the general ecological quality of the state (Minnesota Statutes Chapter 18G, 2007).