



7203 Jackson Road Ann Arbor MI 48103-9506  
Phone: (734) 761-6722 X 105 Fax: (734) 662-1686  
Web Site: [www.semircd.org](http://www.semircd.org)

*Serving Lenawee, Macomb, Monroe, Oakland,  
St. Clair, Washtenaw and Wayne Counties*

## **FIREWOOD SAFETY TECHNOLOGY INNOVATION GRANT**

### **ANNOUNCEMENT AND REQUEST FOR PROPOSALS (RFP)**

RELEASE DATE: APRIL 21, 2009

#### **GRANT SUMMARY**

The emerald ash borer has killed millions of ash trees in Michigan and neighboring states. Firewood movement remains the likely cause of much of the spread of EAB and other invasive insects. Extensive quarantines have been created to effectively suppress the spread of this pest, but at significant cost to both the enforcing regulatory agencies and the industries forced to adapt their processing to new (and often expensive) standards.

The Southeast Michigan Resource Conservation and Development Council has been working since 2004 to help communities and businesses to safely find economic value in EAB-affected ash and other dead urban trees. At this time, the Council is allocating a single \$30,000 grant to assist with the development of an affordable system to treat firewood at risk of carrying invasive species. The grant will go to a research team, university, engineering firm, or wood processing equipment manufacturer to design plans for a simple, effective, affordable, "build-it-yourself" debarking system that can be used by the many small, independent firewood processors and dealers in the region. This program will create new opportunities for wood products businesses to remain competitive in a complicated regulatory environment, while also ensuring that their products are safe and free from risks of transporting EAB and other invasives.

As part of a federally-based grant program, this grant opportunity requires that the applicant provide matching support for this project in an amount at least equal to the amount of funds requested (1:1). Proposals should be submitted by May 22, 2009 to be considered for funding. Electronic proposal submissions, e-mailed as an MS Word attachment or PDF, are required. The grantee is expected to follow a tight timeline, with the selected project to begin shortly after the award announcement. The awarded project should be completed by December 1, 2009, but an earlier project completion date is both preferred and highly encouraged.

#### **BACKGROUND INFORMATION**

First discovered in 2002 in Michigan, the emerald ash borer (EAB) has killed millions of ash trees in the Great Lakes region. In response to the destruction, the Southeast Michigan Resource Conservation and Development Council (RC&D) began work on its Ash Utilization Options Project in early 2004, with assistance from its partners in the local Conservation Districts, county governments, and watershed councils. Through ongoing financial support from the USDA Forest Service Northeastern Area and technical support from the Michigan Department of Natural Resources, this project aimed to reduce wood waste disposal costs for communities, promote sustainable use of urban wood resources, and create economic development opportunities for the area. To date, this project has been very successful in creating new market opportunities for EAB-impacted ash wood and in building public support for urban wood utilization programs.

Through the Council's efforts, Southeast Michigan has become a model for the use of wood residues following an invasive species outbreak. The area has seen exciting new public-private partnerships develop, diminishing costs for local governments while helping businesses to expand. Much of the prior work of the Ash Utilization Options Project has targeted sawmill industries, wood energy projects, woodworkers, and urban foresters. There is currently a significant opportunity to continue this tradition of bringing positive alternatives to another group affected by invasive species and the restrictions they create – the firewood industry.

Firewood movement remains the likely cause of much of the spread of EAB and other invasive insects (see <http://www.dontmovefirewood.org/>). Federal and state quarantine regulations, while effective in limiting the spread of pests, can particularly cripple small industries that do not have access to sophisticated product treatment options. In addition, the USDA Animal and Plant Health Inspection Service (APHIS) and state-run agricultural agencies are faced with the difficult task of enforcing regulations on extremely limited budgets. Small firewood companies are some of the most difficult to identify and regulate; many are no more than roadside stands or “pickup truck” operations that are not likely to adopt expensive or complicated treatment regimes. While it might be easy to dismiss the impact of small operations, these are often the very businesses visited by travelers before a camping trip – and likely modes of transport that can lead to new outbreaks of invasive species. This grant opportunity specifically plans to target the smaller-scale operations, giving them a workable alternative that allows them to keep processing firewood efficiently and remain competitive, while being able to produce a safe product at little additional cost.

When the EAB quarantines were first put in place and strictly limited the movement of all hardwood firewood, many firewood dealers (especially those near state lines, such as those in southeastern Michigan), found much of their traditional market area inaccessible. Since then, research programs have shown effective treatments for wood products to broaden the safe utilization options for local industry. One such study, the debarking trials funded by the USDA Forest Service Wood Education and Resource Center and performed by Michigan State University, Morbark Manufacturing, the Maumee Valley RC&D, and Bedrock Express, allowed for current EAB quarantine regulations to show more flexibility by permitting the movement of debarked hardwood firewood. Fumigation and heat-treatment (according to a specific kiln schedule and temperature standard) are other methods now acceptable for firewood movement to occur. Information on various state EAB quarantine regulations may be found at <http://emeraldashborer.info/firewood.cfm>; federal regulations are detailed at [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/regulatory.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/regulatory.shtml).

Unfortunately the rigorous standards required for fumigation, kiln drying, and debarking are not cost-effective for most small firewood operations. The cost of traditional debarking equipment, typically best suited for larger scale pulp and paper industries, is out of reach for most firewood dealers. Smaller scale debarkers do exist, but are either too expensive to purchase or too inefficient to operate (such as chainsaw-mounted models) to make a good business strategy for small companies. A simple, affordable, “build-it-yourself” debarking system would be an appealing alternative for businesses who cannot meet the cost or scale constraints of traditional debarking equipment. More use of debarking technology in the industry would not only assist in the effort to contain the emerald ash borer, but has the potential to limit the future spread of other dangerous invasive pests as well.

## **PROGRAM DESCRIPTION**

At this time, the Council is seeking proposals from groups interested in developing safe and affordable firewood debarking technology. The Council anticipates making a single \$30,000 award to a research team, university, engineering firm, or wood processing equipment manufacturer to design plans for a simple, effective, inexpensive, “build-it-yourself” debarking system that can be used by the many small, independent firewood processors and dealers in the region.

A successful project will create detailed technical plans for a firewood debarking system that is

- *Effective* – Debarking alone is approved by APHIS as a viable treatment option for deregulating hardwood firewood, but the current regulatory standard requires that at least one-half inch of sapwood under the bark is removed to ensure that no traces of the emerald ash borer remain. While additional treatments of firewood are possible to meet the regulatory standard (including chemical and heat options), we hope to create a one-step process that would quickly and easily meet the regulations and produce a safe product.
- *Affordable* – Many types of firewood debarking technologies and equipment already exist. However, these are typically too expensive, cumbersome, or complicated to fit into the business strategy for the average small-scale firewood processor. We hope to create a system that can be ready to operate for less than \$2,000.
- *Simple to build and easily replicable* – The new debarking system should be one that is clearly designed and made from standard construction materials (like those readily available from a typical hardware/home improvement

store). The final report must provide accurate and complete instructions (including photographs, technical diagrams, supply lists, and building plans) for the construction and operation of the debarker in such a way that it could be easily built and used by someone with basic mechanical and construction skills. By creating a “build-it-yourself” model, we hope that this system can be quickly replicated and put into use in much of the local firewood industry without having to move through typical manufacturing, distribution, and retail channels.

- *Freely distributed for public use* – Given that this grant program is operating through public funds, the resulting plans will be made available to the public at no cost. The intent is to distribute the debarker design plans as an educational bulletin through Michigan State University Extension. The publication is likely to be somewhat similar in scope and format to the University of Wisconsin/Wisconsin Department of Natural Resources’ instructional plans on dry kiln construction (<http://www.dnr.state.wi.us/forestry/publications/pdf/FR-396.pdf>).

The timeline for this project is expected to be aggressive due to several follow-up programs that are planned. The RC&D Council (along with partners at the Michigan State University Department of Forestry, several local County Conservation Districts, and others) will conduct additional testing of the new system for efficacy against EAB (both with and without a borate chemical treatment) and provide educational outreach and demonstrations to local firewood industries in debarker construction and operation, given APHIS approval. The grantee may also be asked to provide some technical assistance as the RC&D Council proceeds with these testing, educational, and outreach activities.

Jessica Simons, the RC&D Council’s natural resources specialist, will act as primary contact for this grant.

## **EVALUATION CRITERIA & SELECTION PROCEDURES**

Parties seeking funding under this grant program must submit a completed application packet for funding consideration. A review committee appointed by the RC&D will evaluate each application thoroughly based on the following criteria:

1. Impact of proposed project on improving the safety and affordability of firewood treatment processes, especially in regards to the emerald ash borer
2. Scientific/technical merit of project, strength of work plan, and relevant experience level of applicant
3. Capacity to provide technical support to the RC&D Council’s efforts on testing the equipment for efficacy against EAB, training industry members, and educating the community about the program
4. Ability to secure non-RC&D Council matching funds and overall project budget feasibility
5. Background in managing grants and successfully completing grant-funded projects

*The review committee will not evaluate incomplete applications. Applicants may be asked to modify objectives, work plans, or budgets prior to the final approval of a selected proposal. Applicants may also be asked to complete additional application forms or other documents, as necessary. Subsequent grant and/or contract procedures will be in accordance with all RC&D Council policies and procedures. A summary statement of the review and evaluation by the committee may be provided to applicants upon request.*

## **GRANT PERIOD & EXPECTED DELIVERABLES**

The grant award will be distributed in thirds, with the first check issued at the time of the grant award announcement, the second check issued upon the RC&D Council’s receipt of the grantee’s mid-project update report (based on the approved timeline from the applicant’s proposal), and the third check issued as a reimbursement of final project expenses upon the Council’s receipt of the grantee’s final report. The final report should provide detail on the following:

- All project expenditures (outlining how both grant funds and matching funds were used),
- A brief description of the methodology used for design and preliminary testing of the debarking equipment,
- A description of the engineers and/or design team involved, and
- Digital files for the complete guidelines and instruction manual for construction of the firewood debarking equipment, suitable for reprinting as an educational bulletin for industry and to be used in forthcoming training programs.

The recipient of the grant award will be expected to follow a tight timeline, with the project to be started shortly after the award announcement. Projects should be completed by December 1, 2009, but time extensions may be granted with prior approval from the RC&D Council. An earlier project completion date is both preferred and highly encouraged.

### **MATCHING FUNDS REQUIREMENT**

As part of a federally-based grant program, this grant opportunity requires that the applicant provide matching funds for this project in an amount at least equal to the amount of funds requested (a 1:1 matching ratio). That means for every \$1 granted by the RC&D Council, at least \$1 must be provided to the project by the grant recipient. Applications with greater match amounts are encouraged. These funds must not be derived from any federal funding sources. Matching funds may consist of additional cash toward the project or may be in-kind services (staff time, equipment, etc.) used to meet the project goals. Matching items must be directly applicable to the funded project, so items purchased and/or services rendered prior to the date on your grant acceptance notification letter will not qualify. All matching funds used must be documented and reported to the Southeast Michigan RC&D Council. Invoices, pay stubs, cancelled checks, or other forms of traceable evidence of payment must be retained and made available upon request for any items counted as grantee match.

### **ELIGIBILITY FOR GRANTS**

Any research team, educational institution, organization, or business with suitable skills and expertise to successfully meet the objectives described in the Program Description is eligible to apply for funding under this grant program.

### **REQUIRED MATERIALS FOR THE GRANT APPLICATION**

Grant application materials can be recreated on your computer as long as they follow the exact format as the enclosed forms. Handwritten application materials will not be accepted. An editable, MS Word version of the application can be obtained by contacting the RC&D Office. The following materials must be submitted to the RC&D Council as a complete package for consideration under this program:

- \_\_\_ RFP PART A – PROGRAM INFORMATION FORM
- \_\_\_ RFP PART B – PROJECT BUDGET, FUNDING SOURCES, & TIMELINE
- \_\_\_ RFP PART C – SPECIFIC PLAN FOR UTILIZATION OF GRANT FUNDS
- \_\_\_ RFP PART D – REFERENCES

**Proposals should be submitted by May 22, 2009 to be considered for funding.**

**Electronic proposal submissions, e-mailed as an MS Word attachment or PDF, are required.**

### **SEND THE COMPLETED GRANT APPLICATION PACKAGE TO:**

Jessica Simons  
Southeast Michigan RC&D Council  
E-mail: [jessica.simons@semircd.org](mailto:jessica.simons@semircd.org)  
Phone: (517)851-2372

***About us –***

---

The Southeast Michigan Resource Conservation and Development Council is a non-profit organization that helps the people of southeast Michigan care for, conserve, and protect their natural resources in a way that will improve the community's economy, environment, and quality of life. RC&D provides a framework for partnerships between local citizens, governments, and technical experts to solve resource concerns and to manage and utilize resources wisely. Although Resource Conservation and Development Councils exist nationwide, each one is organized and directed by local people to meet local needs. The Southeast Michigan RC&D Council is made up of representatives appointed by 18 sponsor organizations (including Conservation Districts, county governments, and watershed councils) within the council area of Lenawee, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne Counties. More information about the Ash Utilization Options Project may be found on the Council's website at: [www.semircd.org/ash](http://www.semircd.org/ash). The website also features a link to sign up for the project's periodic e-newsletter.

Funding for this grant program is provided by the USDA Forest Service Wood Education and Resource Center (WERC). The WERC mission is to facilitate interaction and information exchange with the forest products industry to enhance opportunities for sustained forest products production in the eastern hardwood forest region of the United States. WERC's primary goals are to improve the knowledge, skills, and capacity of the forest industry management and workforce; increase communication, cooperation, and collaborative problem solving within the forest products industry; and improve efficiency in forest product manufacturing and wood utilization. For more information, please visit: <http://na.fs.fed.us/ea/werc/werc.shtm>.

Significant technical assistance for this project is also provided by the Michigan Department of Natural Resources.

**RFP PART A - PROGRAM INFORMATION FORM**

<b>FOR RC&amp;D USE</b>  <hr/> <b>GRANT APPL. #</b>
---

Date: \_\_\_\_\_

Name of Company/Organization submitting application: \_\_\_\_\_

Name of Owner or Chief Operating Officer: \_\_\_\_\_

Contact Person (if different than above): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ County: \_\_\_\_\_

Daytime Business Telephone #: \_\_\_\_\_ Business Fax #: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Project Title or Purpose of Grant: \_\_\_\_\_

Amount Requested from RC&D Council: \$ \_\_\_\_\_

Amount of Matching Funds from Applicant: \$ \_\_\_\_\_

Total Project Costs (Grant + Match): \$ \_\_\_\_\_

Source of Matching Funds: \_\_\_\_\_

Project Start Date: \_\_\_\_\_ Project Completion Date: \_\_\_\_\_

Note: Any funds awarded from this grant program must be matched with funds from the applicant. (See grant guidelines for additional information on grant matching requirements). Please complete attached budget and project plan outlines.

Authorized Signature: The signature below is that of the person authorized to testify as to the accuracy of this application.

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_

**FOR RC&D COUNCIL USE ONLY**

Date Reviewed: \_\_\_\_\_ Grant Approved: \_\_\_ Yes \_\_\_ No Grant Amount Approved: \$ \_\_\_\_\_

Signature of Review Committee Chairman: \_\_\_\_\_

Signature of RC&D Council Officer: \_\_\_\_\_

