

**Environment and Natural Resources Trust Fund**

# 2023 Request for Proposal

## **General Information**

**Proposal ID:** 2023-078

**Proposal Title:** Reducing Woodsmoke Emissions Exposure From Recreational Fires

## **Project Manager Information**

**Name:** Jon Hunter

**Organization:** American Lung Association in Minnesota

**Office Telephone:** (651) 268-7601

**Email:** jon.hunter@lung.org

## **Project Basic Information**

**Project Summary:** This project will identify, test, and implement a public engagement effort with a high likelihood of reducing health impacts from recreational fire smoke while enabling ongoing enjoyment of backyard recreation.

**Funds Requested:** $197,000

**Proposed Project Completion:** June 30, 2025

**LCCMR Funding Category:** Small Projects (H) **Secondary Category:** Air Quality, Climate Change, and Renewable Energy (E)

## **Project Location**

**What is the best scale for describing where your work will take place?** Region(s): Metro

**What is the best scale to describe the area impacted by your work?** Region(s): Metro

**When will the work impact occur?** During the Project and In the Future

## **Narrative**

**Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.**

Spending time with family and friends in the backyard around an open fire is enjoyed by many people in the Twin Cities, but woodsmoke can impact the health of people in our communities. Woodsmoke contains tars, gases, soot and chemicals like carbon monoxide, polycyclic aromatic hydrocarbons (PAHs), dioxins, volatile organic compounds, and fine particles that impact the health of people who inhale them.   
  
Short term exposure to fine particles increases the risk of respiratory infections, triggers asthma attacks and exacerbates and increases the risk of lung disease. Woodsmoke from backyard fires not only affects the individual around the fire but other neighbors in the surrounding area. Some individuals are more vulnerable to the effects of inhaling woodsmoke. This includes young children, whose lungs are not fully developed, the elderly and individuals living with asthma, lung disease, or heart disease.  
  
Our challenge is to identify what actions people will adopt that enable continued enjoyment with family and friends while preventing or reducing exposure to harmful smoke. This project focuses on the Twin Cities metro area, where wood burning is most commonly done for recreation rather than heat and the population density exposes more people to the emissions.

**What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.**

This project will identify and pilot several potential actions that individuals and families could take to avoid or reduce woodsmoke emissions and exposure. The most effective action, as measured by a combination of likelihood of wide adoption and level of emission reduction, will be implemented through a broader outreach campaign.   
  
The project will be implemented through three phases. First, we will research and select several potential actions that could be used to reduce or eliminate the amount of woodsmoke generated during a recreational fire. This process will include public engagement to identify people’s perceptions of recreational wood burning and potential barriers to changing current practices. Second, the actions with the highest potential for broadly reducing exposure to emissions will be piloted and evaluated to gauge their real-world effectiveness and rate of adoption. Third, the most promising action will be refined and scaled up for a larger public engagement effort to create a replicable model, demonstrate its effectiveness, and promote its use in other communities.

**What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state’s natural resources?**

Through the activities of this project, we will determine people’s perceptions of wood burning during backyard fires and the benefits and barriers to reducing or eliminating woodsmoke emissions. The project will also pilot several actions to gauge how broadly they might be adopted and how effective they would be at reducing exposure to woodsmoke emissions. Ultimately, the project will identify and implement a public engagement effort with a high likelihood of reducing health impacts from recreational fire smoke that can be expanded on in future years and replicated in other communities interested in improving neighborhood air quality.

## **Activities and Milestones**

### **Activity 1: Research into barriers and benefits of reducing recreational wood burning. Identification of potential pilot projects.**

**Activity Budget:** $52,000

**Activity Description:**The project team will identify and evaluate a comprehensive list of previous efforts in Minnesota and other states that have been used to attempt to reduce the amount of smoke generated during recreational fires. Examples of these activities include education on properly storing firewood to ensure it is dry while burning, exchange programs for old outdoor wood burning equipment, and promoting alternatives to wood burning.   
  
The project will work with community partners and opinion-research experts to identify people’s perceptions of recreational wood burning. This will include exploring the potential barriers for current users to changing their wood burning practices and identifying which benefits derived from cleaner recreational experiences might help encourage people to work to overcome the barriers.   
  
Based on the evaluation of previous campaigns and the identified barriers and benefits from community members, a list of potential campaign projects will be developed to test and evaluate in Activity 2.

**Activity Milestones:**

|  |  |
| --- | --- |
| **Description** | **Completion Date** |
| Document and evaluate previous local and national public education/engagement efforts to reduce recreational woodsmoke. | September 30, 2023 |
| Identify perceptions of recreational wood burning and potential barriers to changing current practices. | November 30, 2023 |
| Identify top actions with the highest potential to reduce smoke exposure from recreational wood burning. | December 31, 2023 |

### **Activity 2: Test strategies and pilots projects to reduce woodsmoke emissions**

**Activity Budget:** $60,000

**Activity Description:**Following Activity 1, several pilot projects will be created to explore a variety of ways that may accomplish the ultimate goal of reducing exposure to woodsmoke emissions from recreational fires. In general, each pilot is expected to provide a person with the tools and encouragement necessary to commit to a voluntary action that reduces emissions. Pilots will be informed by research on best practices that increase the likelihood of successful adoption and continued implementation. The exact efforts will be determined during Activity 1, but examples of these types of best practices include the use of visual queues, prompts, or other reminders near where an action occurs to remind a person of their desired activity or having people sign a voluntary commitment to take an action.   
  
Before pilot projects are tested in the real world, additional opinion research through focus groups, surveying, or other methods will be used to evaluate the perceptions of the pilot concepts and their potential likelihood of success.   
  
The refined pilot projects will be implemented through community partnerships. Projects will be evaluated for their effectiveness, which will be measured through a variety of metrics such as how broadly they were adopted and the amount of woodsmoke reduced.

**Activity Milestones:**

|  |  |
| --- | --- |
| **Description** | **Completion Date** |
| Develop pilot projects to test actions identified during Activity 1 for ease and effectiveness. | March 31, 2023 |
| Use community engagement and opinion research to refine pilot project concepts before testing. | May 31, 2023 |
| Test and evaluate pilot project actions to measure emission reduction potential and ease of adoption. | August 31, 2023 |

### **Activity 3: Expand and implement most successful program to reduce recreational woodsmoke pollution.**

**Activity Budget:** $85,000

**Activity Description:**Following the evaluation of the pilot projects in Activity 2, the most promising action will be refined and scaled up for a larger public engagement effort to create a replicable model, demonstrate its effectiveness, and promote its use in other communities. The selected process will be broadly implemented around the Twin Cities metropolitan area.   
  
Following successful implementation, we will:   
a. Analyze the effectiveness of the project based on success indicators.   
b. Create a comprehensive report that documents project methods and findings.  
c. Communicate information about the program and findings to community members, the public and other important audiences.   
d. Document best practices and areas for improvement.   
e. Create a package of materials and information that enable others to easily implement the project in other communities.

**Activity Milestones:**

|  |  |
| --- | --- |
| **Description** | **Completion Date** |
| Project with highest likelihood at reducing exposure to woodsmoke emissions scaled up for full implementation. | October 31, 2023 |
| Evaluation of full implementation completed. | May 31, 2025 |
| Final report created and project outcomes packaged for easy replication in new communities. | June 30, 2025 |

## **Project Partners and Collaborators**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Organization** | **Role** | **Receiving Funds** |
| Megan Kuhl-Stennes | Minnesota Pollution Control Agency | Ms. Kuhl-Stennes is the Neighborhood Air Lead with MPCA, which includes working to help reduce exposure to local sources of air pollution. She serves as an advisor for the project. | No |

## **Long-Term Implementation and Funding**

**Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?**Project results will be analyzed and shared publicly in a final report to show program effectiveness, lessons learned, possible next steps, and insights on replication in other communities. The framework for this project will also be shared with partner organizations and others working around the country looking to address air pollution from recreational fires.   
  
The project itself will be complete at the end of the LCCMR project period and will not require any additional funding. Project partners may seek out additional funding sources to continue promoting effective strategies identified by the project to further reduce exposure to harmful air pollution.

## **Project Manager and Organization Qualifications**

**Project Manager Name:** Jon Hunter

**Job Title:** Senior Director, Clean Air

**Provide description of the project manager’s qualifications to manage the proposed project.**Jon Hunter is a senior director in the Clean Air program at the American Lung Association, where he oversees three staff. He has worked on air quality issues since beginning with the Lung Association in 2010. The organization’s clean air program activities in Minnesota are 100 percent grant funded through private and federal partnerships. Jon is responsible for funding development and program administration for the Clean Air team. His program experience includes developing and executing public education campaigns; facilitating pass-through funding opportunities that support reductions in air pollution; developing project partnerships; and providing technical assistance to project partners, companies, consumers, vehicle fleets, retail fuel stations, and others.   
  
Jon is the co-chair of Clean Air Minnesota, a coalition of air quality leaders convened by Environmental Initiative who are working voluntarily and proactively to reduce man-made sources of fine particulate matter and ground-level ozone. Jon and other Lung Association staff have been active with Clean Air Minnesota’s woodsmoke reduction team since the workgroup’s initial creation, working to implement voluntary efforts that improve air quality.  
  
Prior to joining the Lung Association, Jon worked on a variety of environmental, water, and energy topics with other nonprofit organizations. He graduated in 1999 with a B.A. in physics from Hamline University in St. Paul, MN.

**Organization:** American Lung Association in Minnesota

**Organization Description:**The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease. One of our strategic imperatives is to champion clean air for all. We work to protect public health from air pollution to ensure that all Americans have air that is safe and healthy to breathe.  
  
Our team educates people about how fuel and energy choices affect the environment and air quality. We provide resources and work on projects that help people identify voluntary ways they can reduce their emissions. In collaboration with public and private partners, we promote cleaner fuel options and practices through customized education and outreach programs  
  
Our work to reduce woodsmoke pollution includes educating the public about the health impacts of wood smoke, providing information on how to protect yourself from woodsmoke emissions, and how to reduce your wood smoke pollution.

## **Budget Summary**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category / Name** | **Subcategory or Type** | **Description** | **Purpose** | **Gen. Ineli gible** | **% Bene fits** | **# FTE** | **Class ified Staff?** | **$ Amount** |
| **Personnel** |  |  |  |  |  |  |  |  |
| Senior Director |  | Overall project management and project design. Staff and partner support. |  |  | 30% | 0.3 |  | $31,750 |
| Program Manager |  | Project research, design, and execution. Outreach and education. |  |  | 30% | 0.5 |  | $39,500 |
| Program Specialist |  | Project research and implementation. Community engagement. |  |  | 30% | 0.5 |  | $35,200 |
|  |  |  |  |  |  |  | **Sub Total** | **$106,450** |
| **Contracts and Services** |  |  |  |  |  |  |  |  |
| TBD | Professional or Technical Service Contract | The consultant will provide project design coaching as partners work to research and evaluate potential emission reduction initiatives, pilot and evaluate selected efforts, and finalize the primary implementation project. |  |  |  | 0.01 |  | $10,000 |
| TBD | Sub award | Stipend for a community-based organization or neighborhood association to support pilot testing and final project implementation. Work is anticipated to include community engagement to support pilot design, test and evaluate concepts, and demonstrate the success of the final initiative. |  |  |  | 0.1 |  | $20,000 |
| TBD | Professional or Technical Service Contract | Consultant to design and execute focus groups or other means of opinion research to develop and evaluate pilot project concepts and design. |  |  |  | 0.1 |  | $30,000 |
|  |  |  |  |  |  |  | **Sub Total** | **$60,000** |
| **Equipment, Tools, and Supplies** |  |  |  |  |  |  |  |  |
|  | Tools and Supplies | Supplies for pilot and final project implementation. | Depending on the pilot projects selected, various supplies will be needed to support the actions taken by participants. These will serve as queues or reinforcement for the selected activities to ensure their proper implementation. |  |  |  |  | $29,500 |
|  |  |  |  |  |  |  | **Sub Total** | **$29,500** |
| **Capital Expenditures** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Acquisitions and Stewardship** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Travel In Minnesota** |  |  |  |  |  |  |  |  |
|  | Miles/ Meals/ Lodging | Transit rides or approved mileage reimbursement rates for in-town travel. | Travel to meetings, community outreach events, and other engagement activities. |  |  |  |  | $50 |
|  |  |  |  |  |  |  | **Sub Total** | **$50** |
| **Travel Outside Minnesota** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Printing and Publication** |  |  |  |  |  |  |  |  |
|  | Printing | Educational materials (4000 @ $0.25 each) | Handouts and other educational materials for participant recruitment and support through pilot projects and final implementation.. |  |  |  |  | $1,000 |
|  |  |  |  |  |  |  | **Sub Total** | **$1,000** |
| **Other Expenses** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
|  |  |  |  |  |  |  | **Grand Total** | **$197,000** |

### **Classified Staff or Generally Ineligible Expenses**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category/Name** | **Subcategory or Type** | **Description** | **Justification Ineligible Expense or Classified Staff Request** |

### **Non ENRTF Funds**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Specific Source** | **Use** | **Status** | **Amount** |
| **State** |  |  |  |  |
|  |  |  | **State Sub Total** | **-** |
| **Non-State** |  |  |  |  |
|  |  |  | **Non State Sub Total** | **-** |
|  |  |  | **Funds Total** | **-** |

## **Attachments**

### **Required Attachments**

#### ***Visual Component***

File: [3fe3a523-00e.pdf](https://lccmrprojectmgmt.leg.mn/media/map/3fe3a523-00e.pdf)

#### ***Alternate Text for Visual Component***

image of a family enjoying a backyard without woodsmoke....

#### ***Financial Capacity***

File: [3d7cd39b-63c.pdf](https://lccmrprojectmgmt.leg.mn/media/financial_capacity/3d7cd39b-63c.pdf)

#### ***Board Resolution or Letter***

|  |  |
| --- | --- |
| **Title** | **File** |
| Board Letter | [013f72e1-479.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/013f72e1-479.pdf) |

## **Administrative Use**

**Does your project include restoration or acquisition of land rights?**   
 No

**Does your project have potential for royalties, copyrights, patents, or sale of products and assets?**   
 No

**Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?**   
 N/A

**Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?**   
 N/A

**Does your project include original, hypothesis-driven research?**   
 Yes

**Does the organization have a fiscal agent for this project?**   
 No