

# Progress Report for the Consortium on Law and Values in Health, Environment, & the Life Sciences

## September 12, 2012

**Project Title:** Public/Expert Boundary Work in Environmental Risk Management: The Emerald Ash Borer

Professors Jennifer Kuzma and Kathryn Quick  
Research Assistants: Rachel Haase (MS-STEP graduate Spring 2012) and Erik Dunens (MPP graduate Spring 2012)  
Humphrey School of Public Affairs, Center for Science, Technology, and Public Policy

### **Project Summary:**

Two sets of questions have been the focus of this project:

1. Among different stakeholders, what are the perceptions of the EAB problem; levels of confidence, questions, or doubts about different management options to address the problem; and preferences about the roles for various stakeholders?
2. What are the implications of the convergences, divergences, and uncertainty about the problem and the intervention options for:
  - Public communication
  - Engaging stakeholders in problem-solving and
  - Management approaches to EAB?

In order to address these questions, data were collected through a variety of methods. We began with preliminary interviews with key actors working on or concerned about the EAB's emergence in Minnesota. Since May 2011, one or more members of the study team have observed 9 meetings focused on public outreach about the emerald ash borer (e.g., community meetings in towns where EAB has been discovered) or on coordination among agencies and scientists working on developing knowledge and deploying programs to stop the insects' spread in Minnesota (e.g., bimonthly inter-agency EAB Forums convened by the Minnesota Department of Agriculture, or the Minnesota Shade Tree Advisory Committee's workshop on best practices for interested jurisdictions). We have also conducted content analysis of various materials, including press releases, public comments in online and print media, and public outreach materials. From November 2011 to January 2012 we conducted 8 focus groups with 63 individuals to explore in greater depth their knowledge and preferences about the EAB. Finally, we convened a diverse group of 45 community stakeholders for a roundtable, "Facing the Emerald Ash Borer in Minnesota: Improving Communication and Engagement among Stakeholders," at the Humphrey School, April 20, 2012. We presented the results of our engaged scholarship research on this emerging, complex problem in the state, and facilitated problem-solving sessions for public managers, interest groups, and scientists on 5 areas for improving policy-making and implementation.

## **Results:**

### *Report:*

- The report “Facing the Emerald Ash Borer in Minnesota: Stakeholder Understandings and their Implications for Communication and Engagement” was distributed at the roundtable event on April 20, 2012 to participants which included researchers, government agency employees, extension educators, and members of the general public, among others. It has been used in discussions about invasive species education, engagement, and management at the EAB Forum, Winona Invasive Species Working Group, Minnesota Forest Resources Council, and Minnesota Department of Agriculture (see the Presentations section), and it has the potential to reshape engagement and communication strategies for the EAB and other invasive species in the state and the region.

### *Planned Publications:*

- An article exploring the perception and communication of risk as related to biological control of the emerald ash borer, specifically how the efficacy and uncertainty of biocontrol are communicated, thought of, and expressed by EAB specialists, members of the interested public (city managers, Master Gardeners), and members of the general public
- From unidirectional risk communication to coproduction of problem definitions and management resources: Comparing two approaches to the Emerald Ash Borer
  - Scholars in both risk analysis and public engagement critique unidirectional communication and recommend greater bidirectional consultation about risk, uncertainty, and complexity. Currently this is happening in a limited way in the context of EAB management in Minnesota and in a more expansive way in the context of EAB management in Grand Rapids, Michigan. The literature and our two cases suggest that moving out of the risk communication model to one of problem-solving engagement with additional stakeholders could be used to generate additional resources or capacities to address this problem.
- Implications of (not) aligning diverse views of an emergent, wicked public problem
  - What are the implications for management choices and for system resilience of divergent views about the nature of an emerging, potentially devastating threat to a common pool resource? One body of literature suggests a concerted campaign in which all involved focus their efforts behind one or two mutually agreed strategies. The premise of this approach is that it is an effective way to accomplish early intervention, avoid working at cross-purposes, transfer best practices and reduce the burden of individual actors needing to figure out how to proceed, and take advantage of economies of scale in managing resources. An alternative approach implies that a more variegated set of approaches is more supportive of long-term resilience of complex systems. The premise of this approach is that it permits more freedom to individual actors to adjust to their local circumstances, collectively provides opportunities to experiment and innovate, and diminishes the risks associated with a singular focus on optimizing a particular measure or outcome. These frameworks have potentially conflicting implications for designing a management and intervention strategy and for long-

term resilience. Thus navigating among these potentially conflicting frameworks is complex, particularly under conditions of limited resources, multiple stakeholders, and a sense of urgency to act. We examine these dynamics through a qualitative case study of perceptions of the nature, consequences, and preferred management options for addressing an emerging public policy problem: a non-native insect threatening urban forests and wildland habitats in Minnesota.

*Presentations:*

- Stakeholder roundtable, "Facing the Emerald Ash Borer in Minnesota: Improving Communication and Engagement among Stakeholders," at the Humphrey School, April 20, 2012. We presented the results of our engaged scholarship research on this emerging, complex problem in the state, and facilitated problem-solving sessions for public managers, interest groups, and scientists on 5 areas for improving policy-making and implementation.
- On June 7, 2012, Prof. Quick and Eriks Dunens presented the final report to 25 participants in the EAB Forum, a collaboration of federal, state, and local agencies working on this problem in Minnesota.
- On June 12, 2012, Eriks Dunens presented our work and contributed to a discussion about its implications for local coordination to the Winona Invasive Species Working Group.
- On July 25, 2012, Prof. Quick presented our full report and facilitated a dialogue about its implications with 23 members and additional staff of the Minnesota Forest Resources Council, a state council of diverse forest stakeholders appointed by the governor to promote long-term sustainable management of Minnesota's forests.
- In conjunction with the communications coordinator with the Minnesota Department of Agriculture, we will present our research at the Upper Midwest Invasive Species Conference in La Cross, WI, October 29-31, 2012.

*Educational Experience:*

- Through this project the Research Assistants learned how to organize and conduct focus groups, facilitation skills, and qualitative data analysis skills for the focus group data and media review. It also allowed the RAs to gain more experience with preparing reports for and making presentations to stakeholders.

**Future Project Plans:**

- The co-PIs and graduates will be submitting publications for peer-review as outlined above.
- The project initiated a tighter collaboration between Professors Quick and Kuzma and the Center for Integrative Leadership and the Center for Science, Technology, and Public Policy. Professors Quick and Kuzma plan to work together in the future on grant applications, for example to the Decision Sciences and Risk Management program at

NSF or the Science and Society program at NSF. We are completing the analysis and peer-reviewed publication of the results of this grant, and plan to use these for NSF grant applications on stakeholder engagement in decision making for S&T.