



## Coping with Emerald Ash Borer: Building Capacity at the Local Level

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### What is the Issue?

Emerald Ash Borer (EAB), an invasive insect that kills ash trees, was detected in New York State in 2009 and is now found in locations throughout the state. Ash trees in New York have shown little resistance to EAB, and experts think all untreated ash trees will be killed in the near future. EAB poses a particular threat in urban areas. The risk of falling limbs from dead trees jeopardizes public health, roads, and electrical infrastructure. Mitigating these risks requires trees to be either removed or treated with insecticides.

Responding to EAB largely happens at the local level. It requires money, labor, and expertise, and local capacity to respond may be limited. In an effort to build local capacity, EAB task forces were created in a number of New York communities to promote decision making to address EAB. We conducted a case study of 6 New York counties in which task forces worked to facilitate management responses to EAB. We report key findings about the capacity of local communities to respond to EAB and the role played by the EAB task forces.

### Methods

We chose 6 New York State counties in which EAB had been reported or was imminent: Albany, Erie, Monroe, Onondaga, St. Lawrence, and Ulster. In each county, we identified individuals who might play a role in responding to EAB: arborists; town, village, city, and county highway supervisors; private land managers (golf courses and nature reserves); park managers; school district buildings and grounds managers; and town supervisors and village or city mayors. In the summer of 2016, we interviewed 28 individuals from these groups across the 6 counties to find out how different stakeholders were responding to EAB, the constraints they faced, and how any interactions with the local task force had shaped their response. In the fall of 2017, we followed up with a telephone survey of all individuals (936 in total) who fell in these categories in these counties. Some 520 responded. The survey allowed us to quantify the ways that different counties and stakeholders had responded to EAB – and how they were constrained.

### EAB Awareness and Concerns

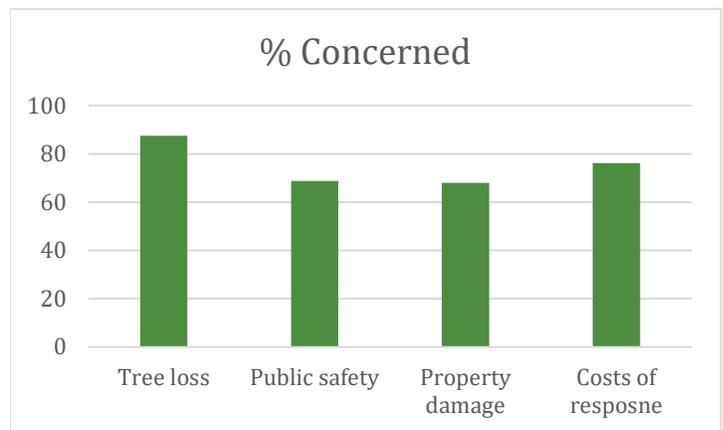
The vast majority of people in the counties we studied were aware of EAB (90-97%) and believed it had been found in their county (75-100%). They were also very concerned about it, as the following comments indicate:

*"There was an absolutely glorious ... 80 feet tall, maybe, tree right in front of the library of the town that died. There were maybe 40 beautiful ash trees all along the main east-west street ... and they all died."*

*"These trees ... it's devastating what happens to them.... These trees literally shatter, and I think there have been some deaths in other states where EAB has taken a hold."*

Two-thirds or more of stakeholders were moderately or very concerned about four consequences of EAB: tree loss, costs of responding to EAB, public safety, and property damage.

Figure 1. Types of concerns about EAB.

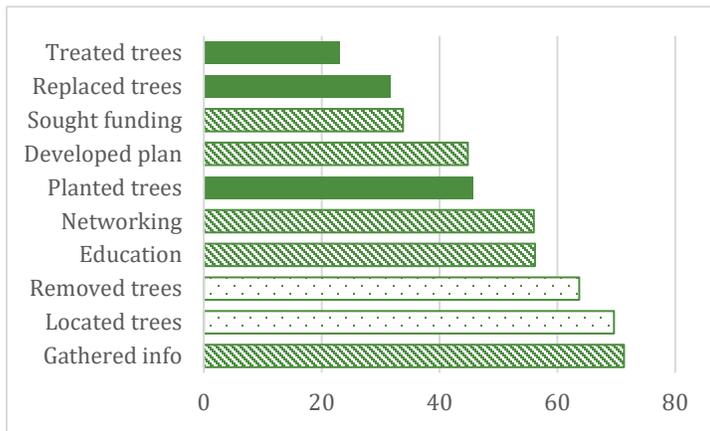


### EAB Response

The actions that communities took most frequently to respond to EAB often had to do with addressing immediate needs – locating and removing ash trees (dotted bars in Figure 2 on the next page). Next most common were actions to build capacity to respond to EAB: gathering information about EAB (the most common action of all), educating the public about it, networking with other organizations, developing a response plan, and seeking funds to respond (striped bars). The actions that stakeholders were LEAST

likely to take, in most cases, were those that would help to restore trees or prevent their loss: planting non-ash trees, replacing dead ash trees, or treating ash trees with insecticides (solid bars).

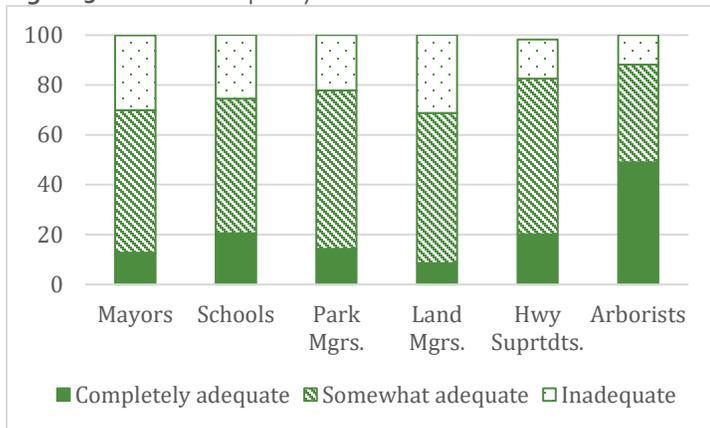
**Figure 2.** Actions taken to respond to EAB



## Capacity to Respond to EAB

Actions taken to respond to EAB can be constrained by capacity to respond. For most stakeholders, 80% or more believed their capacity to respond to EAB was not completely adequate. The one exception was not a surprise—nearly half of the arborists believed their capacity to respond to EAB was completely adequate.

**Figure 3.** Perceived capacity to address EAB



A key question is WHY stakeholders thought that their capacity was constrained. The majority of stakeholders believed that the availability of information about EAB and people with expertise to answer questions about EAB helped them respond to EAB. They also believed that networks to which they belonged were helpful. Many thought that their capacity to respond was aided by public awareness about EAB, people who provided leadership on the issue, and coordination with other organizations also responding to EAB. But a number of factors also constrained their response – chief among these were the availability of funding and staff, state and local laws and regulations, and the level of political support within their

locality. These gaps are most likely to need to be addressed to improve EAB response.

Local stakeholders' perceptions of their capacity to respond to EAB were related to the actions they took. Two-thirds of those who thought that their capacity was somewhat to completely adequate had taken 5 to 10 of the actions listed in Figure 2. More than half of those who thought their capacity was inadequate took only 0 to 2 actions. So capacity is important.

## EAB Task Forces, Capacity, and Action

The EAB task forces were associated with local stakeholders taking action to respond to EAB. Stakeholders who had received written information from an EAB Task Force (18% of our sample) were more likely to take actions to build capacity to respond to EAB, including:

- gathering information about EAB,
- educating the public about EAB,
- networking with other organizations,
- developing an EAB response plan, and
- trying to find additional funds for EAB response.

Those who were more engaged with the task forces – and had attended at least one task force meeting (15% of our sample) – were more likely to take all of these actions, too, plus two actions that would reduce EAB-related problems:

- locating ash trees and
- removing ash trees.

Despite their benefits, awareness of the task forces was low. Only one-third of local stakeholders were aware of the task forces. Of those who were aware, half (48%) had not attended task force meetings or events in the past two years and 38% had never received information from a task force.

## Building on Strengths & Addressing Gaps

EAB poses a pressing problem for communities in New York and elsewhere. The speed with which ash trees are killed by EAB can lead to an unmanageable problem for communities that do not act in advance. We found substantial awareness of and concern about EAB. Many localities have taken action to address EAB, but most responses address only the most pressing needs. One reason for this is a lack of capacity to respond to EAB. Those engaged with the EAB task forces, however, take more actions to respond to EAB. Because engagement with the task forces is limited, connecting more people with the task forces could help communities better cope with EAB.