



VERMONT FOREST PEST PLANNING ROADSIDE ASH TREE INVENTORY

Bakersfield



ABOUT THE PROJECT

The Vermont Forest Pest Planning Case Studies were developed to share the process that nine Vermont communities undertook to inventory their town's ash trees and develop an Emerald Ash Borer Preparedness Plan. These towns varied widely in population, size, and resources, which makes each town's experience and lessons learned unique.

Dorothy Allard, Bakersfield Conservation Commission (BCC) member, was aware of the threat that the emerald ash borer (EAB) posed to her town of Bakersfield and the state in general. Dorothy and the other members of the BCC knew that action needed to be taken and began communicating with the bordering towns of Richford and Enosburg. Together, the three towns created a multi-town EAB planning commission, using each other as a resource during the ash tree inventory process.

The goal of Bakersfield's inventory was to document where the ash trees were on 20 miles of major town thoroughfares; the roads where dead ash trees could pose higher risk to drivers' safety. The focus was determined based on the amount of volunteer involvement and funding. The information collected from the inventory is being used by the road commissioner and Selectboard to make decisions about how to deal with the removal of ash trees after the arrival of the EAB.

Members from the BCC surveyed the selected areas by walking the roads and recording the data on field forms, including road name, side of the road, and diameter class. A GPS waypoint was also taken for each tree, with closely bunched stands being designated as a single waypoint. Dorothy then downloaded the GPS co-ordinates and created a map in ArcGIS on a town road map with an orthophoto layer for reference.

Dorothy found that inventory work is a great motivator for getting outside and getting some exercise. Furthermore, Dorothy encourages you that the time to start is now. "It doesn't take as long as it seems it is going to take once you start. Do it! It's [EAB] going to be here, we'll have to deal with it so it's better to be prepared."

FAST FACTS

LOCATION: The town of Bakersfield is located in northern Franklin County.

POPULATION: 1,215

LAND AREA: 44.6 miles²

MILES OF TOWN-MAINTAINED ROADS: 41.2

MILES OF ROAD INVENTORIED: 20

ASH TREES INVENTORIED: 412

TIME: 2 miles/hour, about 10 volunteer hours

PROJECT PARTNERS: Bakersfield Conservation Commission; Multi-town planning commission (Richford, Enosburg, Bakersfield); Road Crew, Selectboard

FINANCIAL RESOURCES: Urban & Community Forestry Program \$500 EAB Incentive

EQUIPMENT: Survey sheets, Garmin GPS unit, clipboards, maps

PLANNING RESOURCES: EAB planning templates and resources on VTinvasives.org



Look UP! Vermont
Our ash trees are at risk

<p>Our Community ASHets</p> <p><i>Why are our Ash Trees important?</i></p> <ul style="list-style-type: none"> Several popular items are made from ash wood—baseball bats, hockey sticks, tool handles, furniture, and even guitars. They provide many public health benefits like respiratory and cardiovascular support. 200 million insects and spiders depend on ash, including the swallowtail butterfly. 4% of these food exclusively on ash. The decomposition of ash leaf litter contributes nutrients, especially nitrogen, which is used by other plants and organisms. <p>Annual Benefits Provided by a 12" Ash Tree</p> <ul style="list-style-type: none"> Increases in property value Biomass reduction Energy savings Clear air Carbon sequestration 	<p>EAB is Coming for Your Trees</p> <p><i>What is Emerald Ash Borer?</i></p> <ul style="list-style-type: none"> Emerald Ash Borer (EAB) is an invasive sawfly beetle that was accidentally introduced to the U.S. in 2002. EAB has killed over 100 million ash trees in the Midwest already. EAB will attack all species of ash native to Vermont: white, green and black. <p><i>What to look for?</i></p> <p>Backs peeled off by woodpeckers</p> <p>Crowns dieback</p>	<p>Help us Protect our pASHion</p> <p><i>What can you do?</i></p> <ul style="list-style-type: none"> Look UP for signs and symptoms of EAB. Become a Forest Post First Detector. Learn more at www.vtinvasives.org <p>Communities come together to protect their trees</p>
<p>Where are the ash trees in our town?</p>		
<p>THIS IS THE POSTER USED BY THE BAKERSFIELD CONSERVATION COMMISSION ON TOWN MEETING DAY TO PRESENT THE RESULTS OF THEIR INVENTORY.</p>		
<p>EAB Infestation in Toledo, Ohio Before – June 2006</p> <p>After – August 2009</p> <p>EAB Impacts to Community and Private Trees</p> <ul style="list-style-type: none"> Once EAB infests a tree, the tree will die within 2-3 years and the number of dead trees surrounding a property multiplies. Dead trees quickly become hazards to people and property. Staff, equipment, funding and contracts will have to be assembled and additional trees will need to be selected or disposed of. The death of ash trees increases the amount of light reaching the forest floor, which facilitates the establishment or spread of invasive plants. 		



HOW THEY DID IT

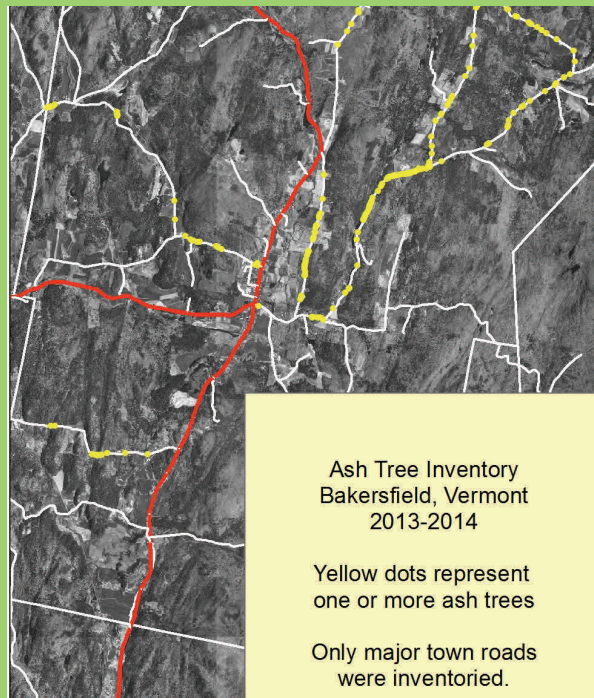
Roadside walking survey

1. Teams of 2 walked along both sides of 20 miles of roads.
2. Data was recorded for all ash with a diameter and breast height (DBH) of 6"+ within the road right-of-way. (The ROW is 3 rods on all roads, which is 24.9' from the road center line.)
3. Data was analyzed and trees were mapped using GIS.

Parameters Collected

Diameter at breast height in increments: 6-12", 12-18", 18-24", 24"+

Location—GPS waypoint marked for each tree and manual record of road name and side of road the tree is growing.



What surprised me was the variability in the number of ash trees from road to road and being an ecologist, I assumed that I could have predicted where they were going to be. I could to a certain extent but some parts of town that were totally forested had no ash and others were jam packed with ash.

-Dorothy Allard, Bakersfield Conservation Commission

LESSONS LEARNED

- A laminated sheet with ash tree identification characteristics is helpful to have in the field.
- It's important to involve the Selectboard and Road Commissioner in the inventory and planning process. As Dorothy shared, "They know what's going on, and ultimately, it is up to them to decide what to do."
- Dorothy collected the data in a manner similar to how the Road Commissioner collected data for the town culvert inventory. Dorothy "tried to mimic [the culvert inventory] so it was easier to understand and interpret."
- Working with other towns can be fun and important for not reinventing the wheel. They learned important lessons together and shared information and resources.