VERMONT FOREST PEST PLANNING

ROADSIDE ASH TREE INVENTORY

Hartford

PLANT LIVE GROW

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.

Hartford is a self-declared "gateway to Vermont for recreation and commerce alike". With an EAB infestation just over the border in Concord, NH, Hartford is also a very likely place for EAB to first land in Vermont. Forest Pest First Detector and Tree Board member Amalia Torres enlisted the help of Brad Goedkeep, Hartford's Tree Warden, Bob Little Tree, an educator and First Detector, and Jim Esden, Forester with the VT Department of Forests and Parks as a technical advisor to start planning for EAB. After some initial organizational meetings, Brad reflects that we really "needed to understand the scope of the problem before making recommendations." This prompted them to complete their village tree inventory and survey their roadsides.

Over the course of the spring and summer, and with the help of Antioch University student intern Jennifer Roland and volunteers Clare Forseth and Linda Louzier, they donned safety vests, put flashing lights on their vehicles, and inventoried 1,348 village street trees (all species) and 80% of their roadside ash trees using two different protocols described in the "How They Did It" section (see back page). When the dust settled the total count was 63 ash trees along the streets of Hartford's 5 villages and over 1,700 in the town right-of-way (ROW) or that could impact the town ROW along the 130 miles of town-maintained roads.

Hartford's roads, and the trees along them, are maintained by the Department of Public Works. As the Tree Warden, Brad works with Public Works to deal with hazardous trees. In order to estimate costs he reached out to them to better understand the mechanisms the town uses to deal with hazardous tree removals. Even if this tree removal was spread over a 10-15 year period there was no way the department could handle the number of hazardous tree removals with the current budget and workload. The pest planning group therefore made their initial recommendations on what the town had to do to increase its capacity to deal with EAB, compiled the information for decision makers into an EAB Preparedness Plan, and have started outreach to town officials, public works employees, and utility representatives.

FAST FACTS

LOCATION: Hartford is located in Windsor Co. at the crossroads of Interstates 89 and 91 on the border of NH.

POPULATION: 9,952

LAND AREA: 45.9 miles^2

MILES OF TOWN-MAINTAINED ROADS: 130

MILES OF ROAD INVENTORIED: approximately 104

ASH TREES INVENTORIED: 63 Village and 1,700 back roads

TIME: 100+ volunteer hours

PROJECT PARTNERS: Tree Warden, 2 First Detectors, graduate student intern, Hartford Tree Board

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

EQUIPMENT: Back road: survey sheets, clipboards, maps, amber magnetic safety lights for vehicles and orange safety vests, Biltmore stick. Village: iPad mini, ForestMetrix software, Biltmore stick

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

THE HARTFORD EAB TEAM OF BOB LITTLE TREE, AMALIA TORRES, AND BRAD GOEDKEEP (L-R) WERE AWAREDED A VT TREE STEWARD AWARD BY VT FORESTS & PARKS COMMISSIONER MICHAEL SNYDER (FAR LEFT) FOR THEIR HARD WORK PREPARING HARTFORD FOR EAB.

HOW THEY DID IT

Village walking inventory and back road windshield survey

1. Data on village street trees was collected by a student intern and volunteer who walked to each tree and entered the data into an iPad Mini loaded with ForestMetrix inventory software. For the back road inventory, the town was divided into 6 sections. Each volunteer team of 2 took 2 sections and collected ash tree data by car (some roads they did walk) over the course of three summer months using a paper form.
2. All 1,348 trees in the public right-of-way (ROW) of the 5 villages of Hartford were inventoried. (The ROW is 3 rods on all roads, which is 24.9′ from the road center line.) For the back road inventory data was recorded for all ash within the ROW.
3. For the village inventory the data was analyzed using ForestMetrix and trees were mapped using GIS. For the back road inventory each tree was marked on a paper map with an ID that corresponded to the inventory data.

Parameters Collected

Village:

Tree health: tree, wood, leaf and crown condition

Town of Hartford Ash Survey

section #		name of surveyer/s

date	tree #	dbh (inches)	condition (1,2,3)	in town row? (y/n)	road hazard (y/n)	utility hazard (y/n)	comment

section #	section of main map that your survey corresponds to
date	date tree was recorded
tree #	number the tree on the map, this will indicate its exact location, then register that number here as the tree number.
dbh	diameter at breast height in inches, make an educated estimate
condition	1=good, 2=average, 3=bad
in town row?	is the tree within 25' from the center line of the road? Yes or no
road hazard	when the tree dies, will it fall into the road? If so, mark it yes
utility hazard	when the tree dies, will it fall into power lines? If so, mark it yes
comment	ex: private property, notify owner, partly on private property partly in row, etc

VOLUNTEERS USED THIS PAPER INVENTORY FORM TO RECORD ASH TREE DATA FOR THE BACK ROADS.

Tree species

Diameter at breast height (DBH) in increments: 0-3″, 3-6″, 6-12″, 12-18″, 18-24″, 24-30″, 30-36″, 36-42″, 42″+

Location: GPS waypoint, street name, location type (sidewalk, etc)

Back road:

DBH: 6-12″, 12-18″, 18-24″, 24″+

Hazard: utility or road hazard

Condition: 1=good, 2=average, 3=bad

Location: tree numbered and labeled on the map

EAB wiping out ash is scary. The inventory and planning process is not going to go fast so be patient and chip away at it. Education is key and will be more and more important into the future. -Bob Little Tree, Forest Pest First Detector

LESSONS LEARNED

- Safety is really important. All surveyors should have orange reflective vests and amber light for their cars.
- Strike a balance between collecting too much data and not collecting enough data for making a reliable estimate. While the Hartford approach was very labor intensive, their data is very accurate, which increased the credibility of their management recommendations in working with entities with budget authority.

Case study prepared by the Vermont Urban & Community Forestry Program, a joint initiative between UVM Extension and the Vermont Department of Forests, Parks and Recreation, using a template created by the Vermont Green Infrastructure Initiative.