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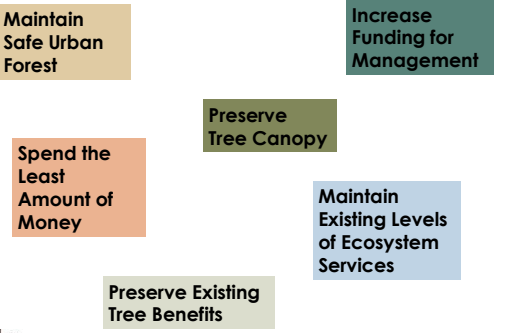


Forest Pest Planning: Tree Inventories

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Conservation and
Recreation





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- Maintain Safe Urban Forest
- Increase Funding for Management
- Preserve Tree Canopy
- Spend the Least Amount of Money
- Maintain Existing Levels of Ecosystem Services
- Preserve Existing Tree Benefits


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Tree Inventories

- What are they?
- What information is collected?
- What can I do with that information?
- How does that help my community deal with EAB and other forest pests?
- How do I get an inventory?

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How can you plan if you don't know what you have?

- How many trees do we have?
- How many are ash?
- Where are they?
- What is their condition?



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What is a tree inventory?

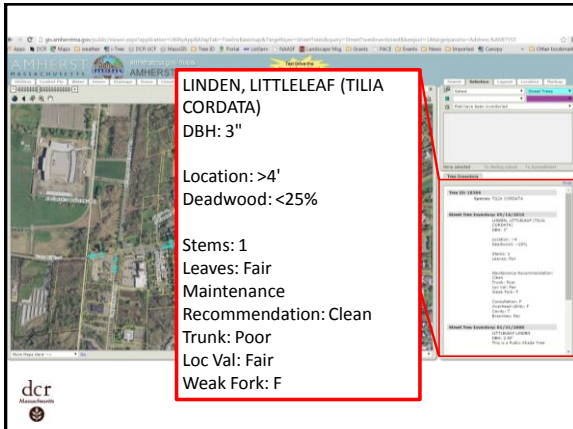
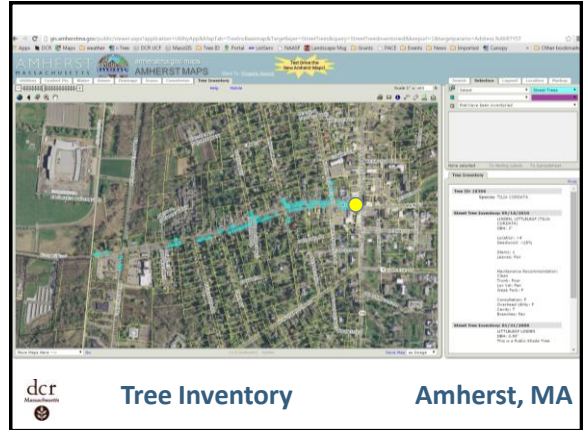
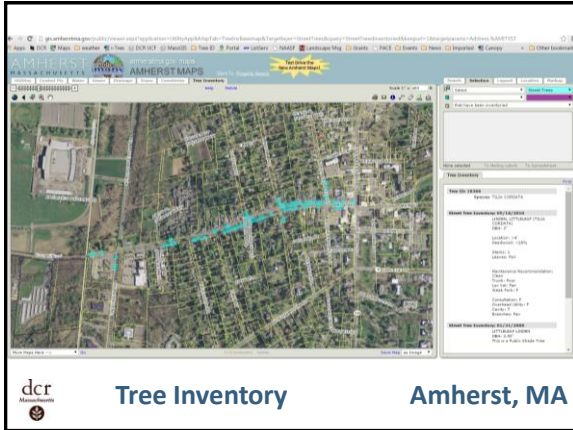
- A record of publicly-managed trees in a community

- Location
- Species
- Size
- Condition
- Other characteristics



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Types of inventories

- **Complete inventory**
 - All public trees
 - Planting spaces

Tree Inventory Amherst, MA

Types of inventories

- **Complete inventory**
 - All public trees
 - Planting spaces
- **Partial inventory**
 - Random sample
 - Specific geographic focus--downtown, major roads, etc.
 - Ash-only

Tree Inventory Amherst, MA

What's the Big Deal?

- Aid in **systematic tree care**
- Know the **current condition** of public trees
- **Reduce liability** and **improve long-term management**
- **Prioritize maintenance needs** and **focus limited resources**
- **Justify** and **leverage** tree management funds
- Be prepared for **emergencies**
- **Engage the public** in urban forestry

Inform a response plan to EAB

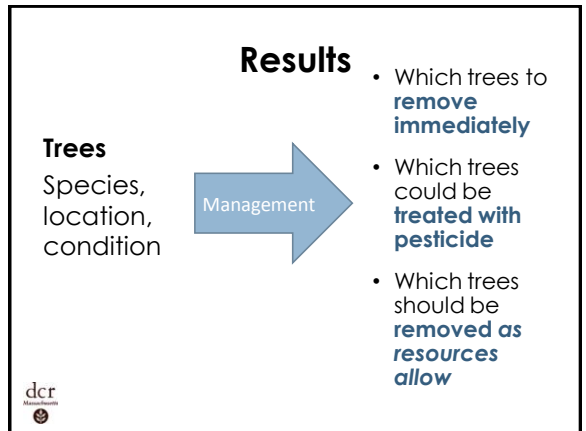
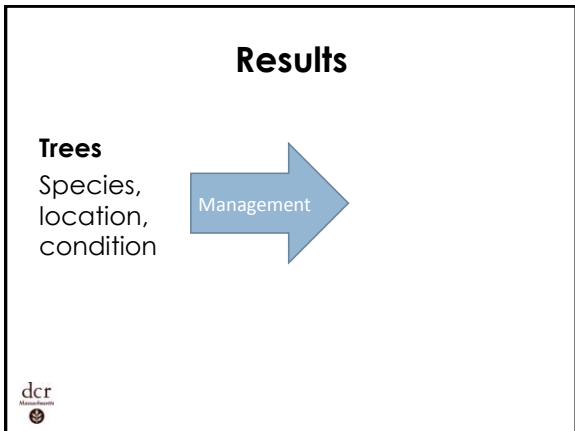
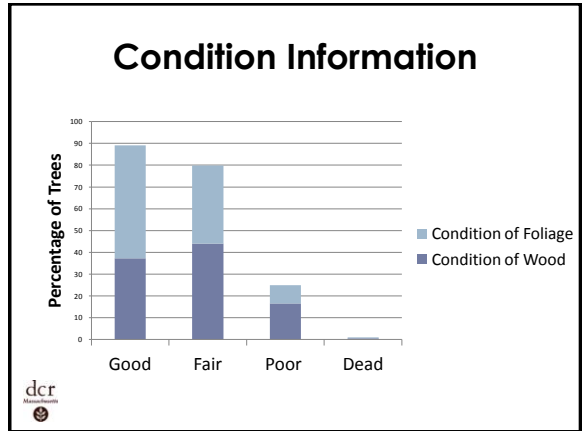
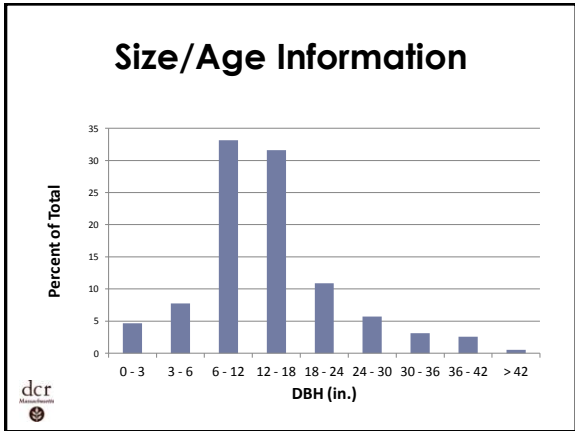
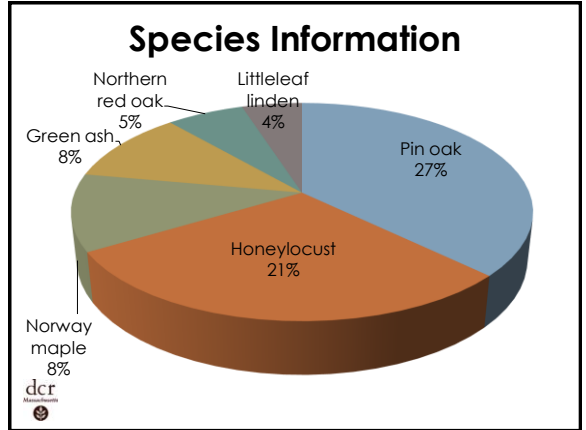
Tree Inventory Amherst, MA

What's the Big Deal?

Respond quickly and efficiently to EAB



Save \$\$\$



Inventory Data Collection

Who

- Municipal staff **Training!**
- Consulting arborist or company
- Any of the above in combination with volunteers **Training!**

How

- Paper
- Electronic inventory
 - Smartphone, tablet, or PDA
 - GPS unit



Inventory Data Collection

- **On foot**
 - Collect detailed information
- **Windshield**
 - Collect general information
 - Estimate size



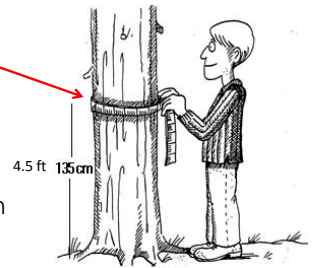
VT Roadside Ash Rapid Assessment			
Road name: _____ From: _____ To: _____			
Team: _____		Date: _____	
DBH	Ash Tally		
	Town	Private	Utility
0-6"			
6-12"			
12-18"			
18-24"			
24-30"			
30-36"			
36-42"			
42"			
Notes:			



What information to collect?

Collect only data you will use!

- Species
- Diameter
- Condition
- Location
- Planting space
- Management recommendation
- Conflicts—utilities or sidewalks



Species

- **Comprehensive**
 - Most useful
- **Ash-only**
 - Quick
 - If EAB is your main concern, this may be for you



Condition

Should be evaluated by **professionals** or by **well-trained individuals**

- Good
- Fair
- Poor
- Dead or dying



Location

- GPS
- Street address



Planting Space



Planting Space



Management Recommendation

Should be evaluated by **professionals** or by **well-trained individuals**

- Prune
- Remove
- Risk assessment



Utility Conflicts

- Wires
 - Local utility may prune or remove trees that threaten wires
 - Cost savings



Computer Systems

- Software/hardware to maintain the inventory
- Device for data collection
- Compatible with existing software in use at DPW?



Inform Management


Remove and replace all ash

Remove some, treat some (to buy time for removal)

Remove some, treat some to preserve; treat some to buy time until removal

Treat all trees in good/fair condition

Other scenarios...




Active Forest: demo forest

Tree Size Class Distribution

Please use your street tree inventory data to enter the number of ash trees of each size class in your forest in the table below. Size span should be entered the diameter of the trunk at breast height (DBH), or at 4.5 feet above the soil line. Use the default values for tree size range or change the size class to correspond with the summary statistics you have on hand.

Size Span (inches)	Number of Trees
1 - 3	35
3 - 6	14
6 - 12	80
12 - 18	126
18 - 24	40
24 - 30	14
30 -	0

Save Changes Add Span




Emerald Ash Borer Cost Calculator

EAB Cost Calculator

Option 1	Option 2	Option 3
Remove All	Remove All	Remove All
Replace All	Replace All	Replace All
Treat All	Treat All	Treat All
Remove Unsafe Ash	Remove Unsafe Ash	Remove Unsafe Ash
Replace Unsafe Ash	Replace Unsafe Ash	Replace Unsafe Ash
Save 80%	Save 80%	Save 80%
Replace <12	Replace <12	Replace <12
Save 50%	Save 50%	Save 50%
URBAN SLAM	URBAN SLAM	URBAN SLAM

EAB Cost Calculator

Remove All
Replace All
Remove Unsafe Ash
Replace Unsafe Ash
Save 80%
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URBAN SLAM




EAB Cost Calculator


EAB Cost Calculator

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URBAN SLAM	URBAN SLAM	URBAN SLAM

EAB Cost Calculator


Annual Cost Comparison in Today's Dollars Over Time With a 3% Discount Rate






Inform Response Plan/ Preparedness Plan

Written document outlining **objectives** and **approaches** to address and **mitigate** the **impact of EAB** on the urban forest




DEPARTMENT OF NEIGHBORHOOD SERVICES
PUBLIC WORKS DIVISION
FORESTRY

EMERALD ASH BORER RESPONSE PLAN




EAB Preparedness Plan
Waltham Vermont
June, 2014




Analyze Inventory Data

What are your Trees Doing for you and your Community?

- i-Tree
 - Stormwater Runoff
 - Energy Savings
 - Air Pollution Reduction
 - Carbon Sequestered
 - Property Value Increase (Aesthetic Value of Trees)





How to Pay for an Inventory

- DCR Urban and Community Forestry Challenge Grant

- Annual grant program
- \$1,000 - \$30,000
- Matching grant
- Deadline November 1, 2016



- Conduct in stages or target

- Volunteers



More information



- **Julie Coop, Urban and Community Forester, 617-626-1468, julie.coop@state.ma.us**

- **Mollie Freilicher, Community Action Forester, 413-3577-2966, mollie.freilicher@state.ma.us**

www.mass.gov/dcr/urban-and-community-forestry

