

Planning for Restoration After Invasive Pests

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USDA Forest Service

Northeastern Area

State and Private Forestry



Asian Longhorned Beetle Infestations in North America



Ontario, Canada
First detected in Toronto in 2003

Massachusetts
First detected in Worcester in 2008

New York
First detected in Brooklyn in 1996

New Jersey
First detected in Jersey City in 2001

Illinois
First detected in Chicago in 1998
Declared eradicated in 2008

Map Key

- Maple Forests*
- Other Eastern Forests
- ALB Infestations

* Preferred ALB Host
0 62.5 125 Miles



U.S. Forest Service is an equal opportunity employer and provider.



McCarren Park



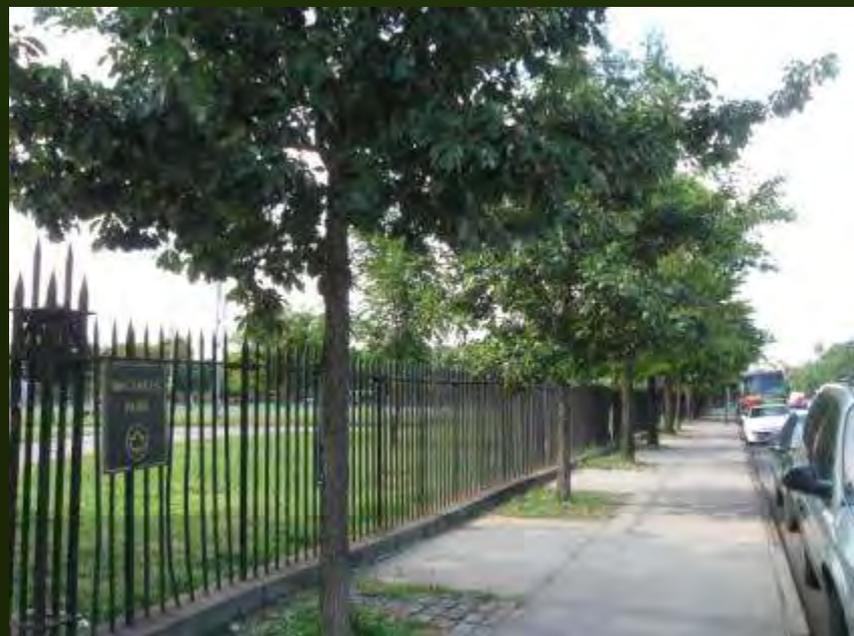
Total Trees Removed Due to ALB

State	Infested Trees	High-Risk Trees	Total Trees Removed
New York	6,275	12,124	18,343
New Jersey	730	21,251	21,981
Massachusetts			25,035*



New York Restoration

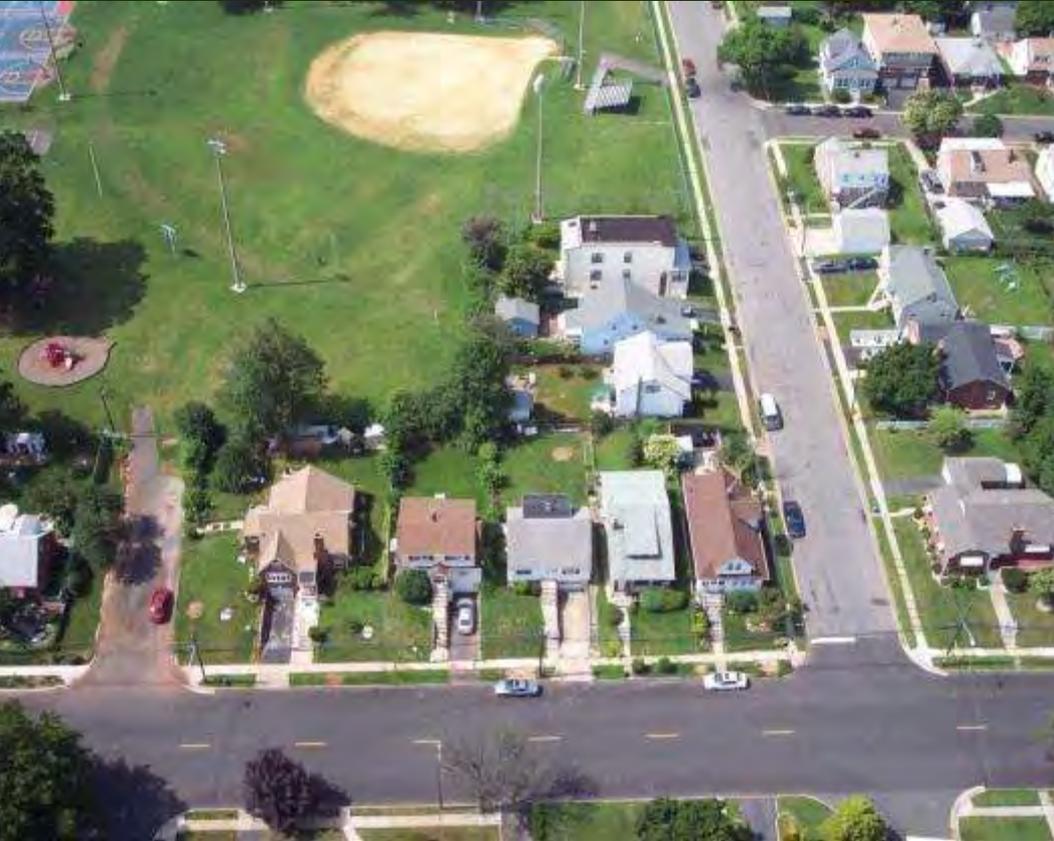
- **New York City Parks**
 - **Plant ROW & Parks**
- **Trees New York, Urban Forestry Council, Others**
 - **Plant Private Trees**
- **New York State, APHIS and U.S. Forest Service**
 - **Provided Grants - 5500 Trees**







New Jersey



- NJ Division of Forestry
- USDA
 - 5700 in 4 year
- Local Communities





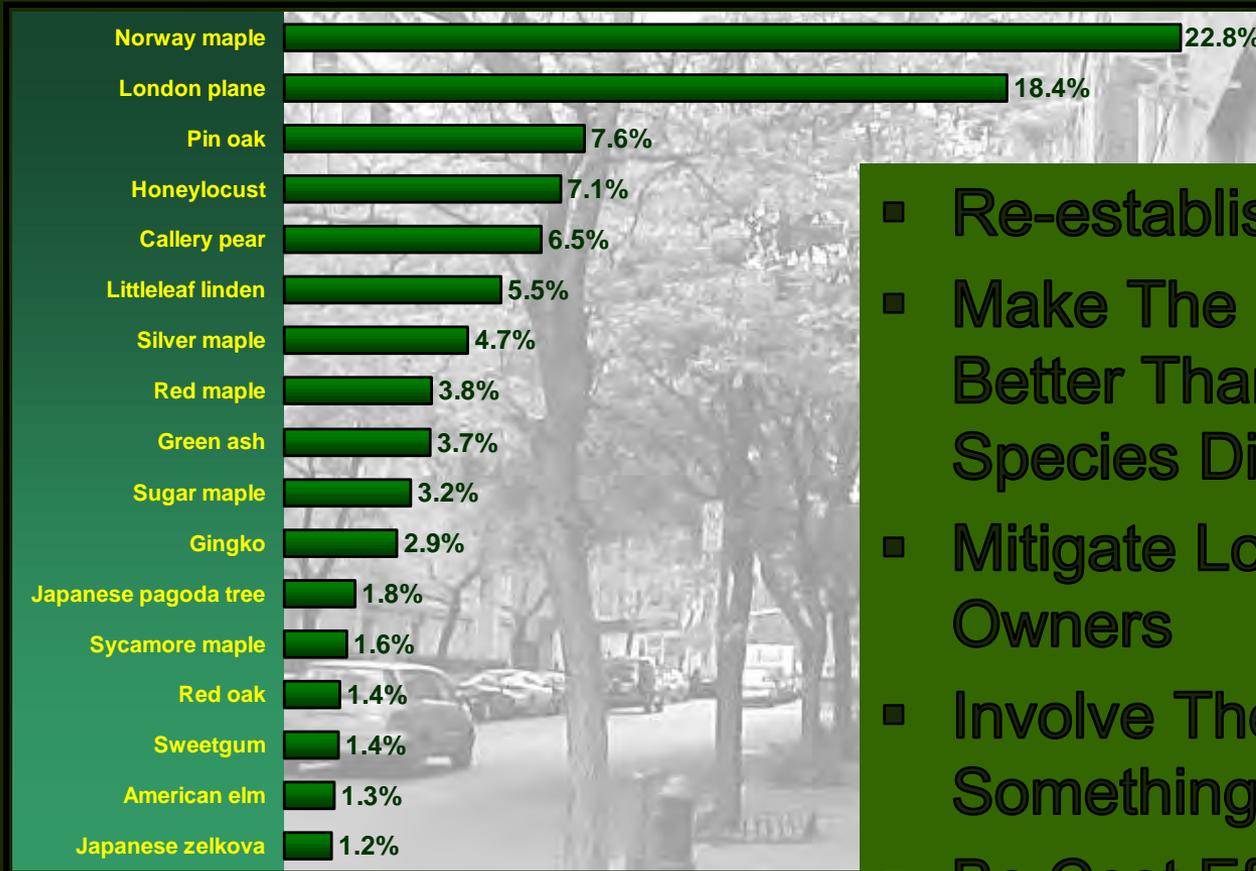
Worcester, MA Restoration

- **State**
 - USDA grants for contract planting – Private
 - 1500 Trees in first year
- **City**
 - Plant Trees on Public ROW & Parks
- **Worcester Tree Initiative**
 - Train volunteers & citizens, Give away 1000 – 1” trees





I. Over All Goals



- Re-establish Tree Canopy
- Make The Urban Forest Better Than It Was Before – Species Diversity, Locations
- Mitigate Loss To Property Owners
- Involve The Community In Something Positive
- Be Cost Efficient
- Establish Quality Trees For The Long Term

II. Planning and Preparation

- **Establish Planning Committee – Identify And Involve Key Partners**
- **Funding Sources**
- **Different Agency Guidelines**
- **Assessments - Use Existing Inventories, Aerial Photos & Other Info**
- **UTC And Canopy Goals ?**
- **Public/Volunteer Awareness And Involvement**
- **Develop Restoration Plan - Multiple Pronged Attack**



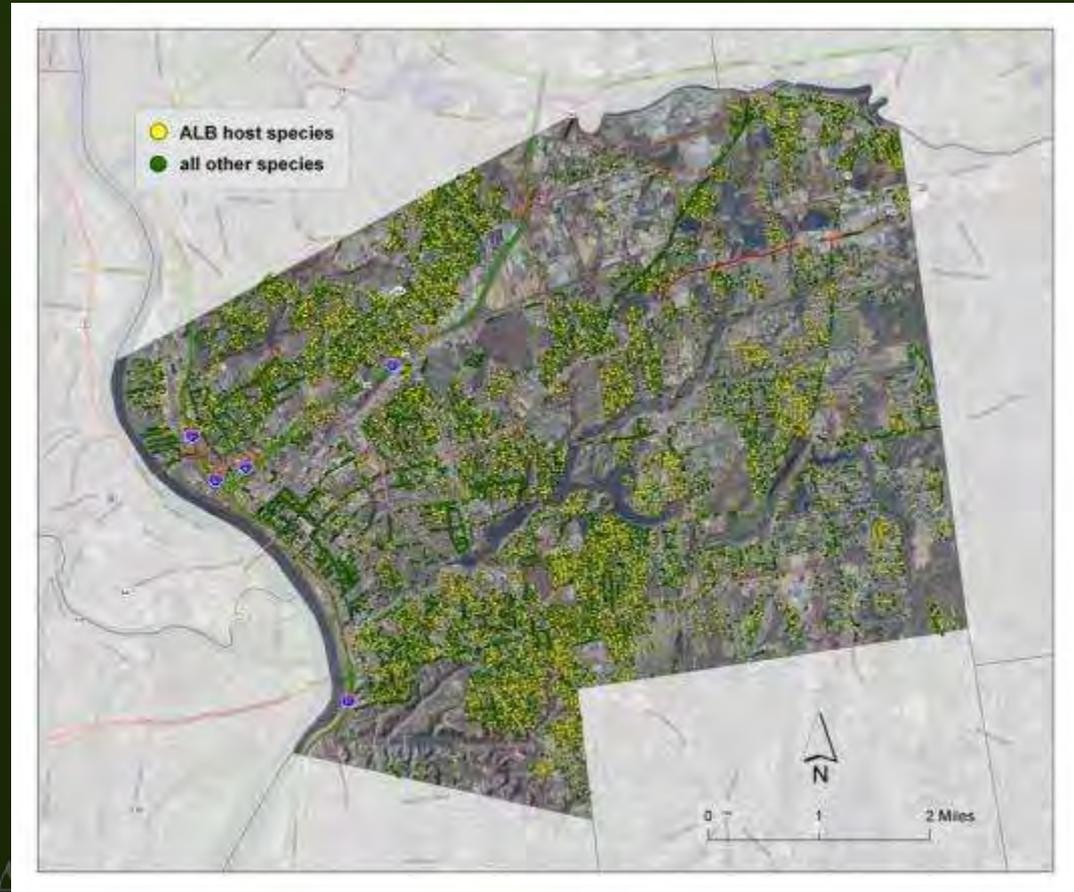
II. Planning and Preparation

- **Establish Planning Committee**
Identify & Involve Key Partners
 - **City of Worcester**
 - **WTI**
 - **Mass. DCR**
 - **APHIS**
 - **U.S. Forest Service**
 - **Businesses**



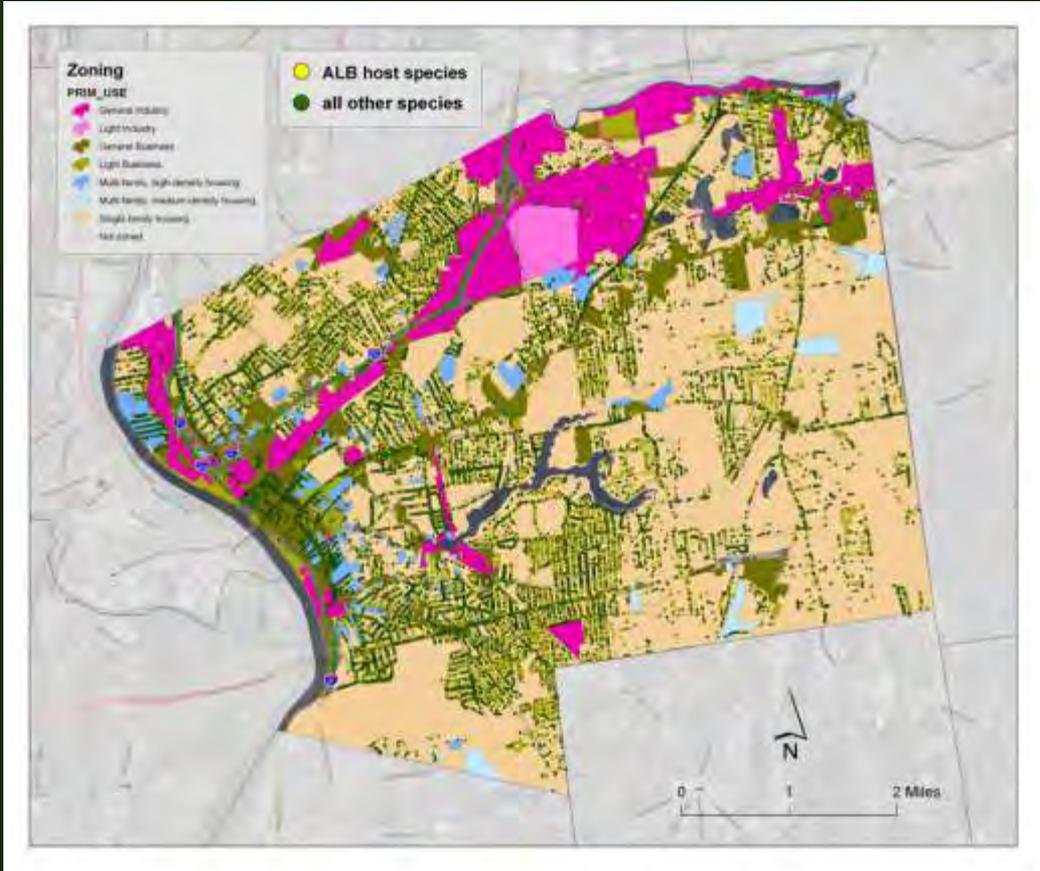
II. Planning and Preparation

- Assessments - Use Existing Inventories, Aerial Photos

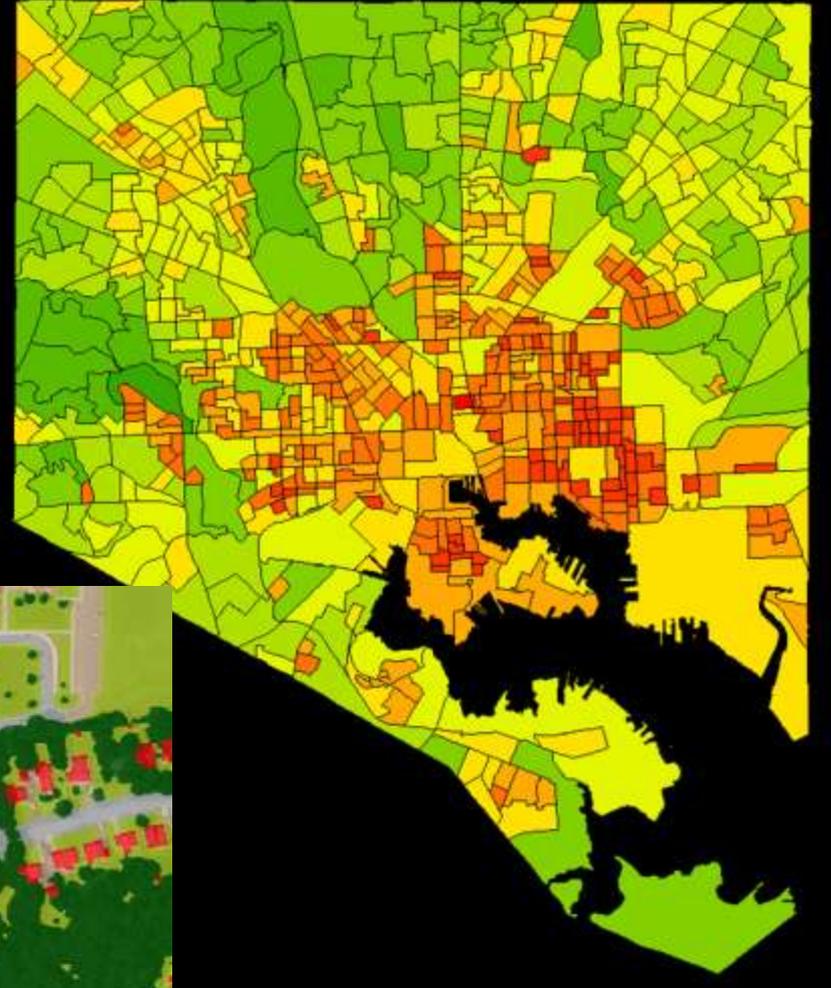


II. Planning and Preparation

- Assessments - Use Existing Inventories, Aerial Photos

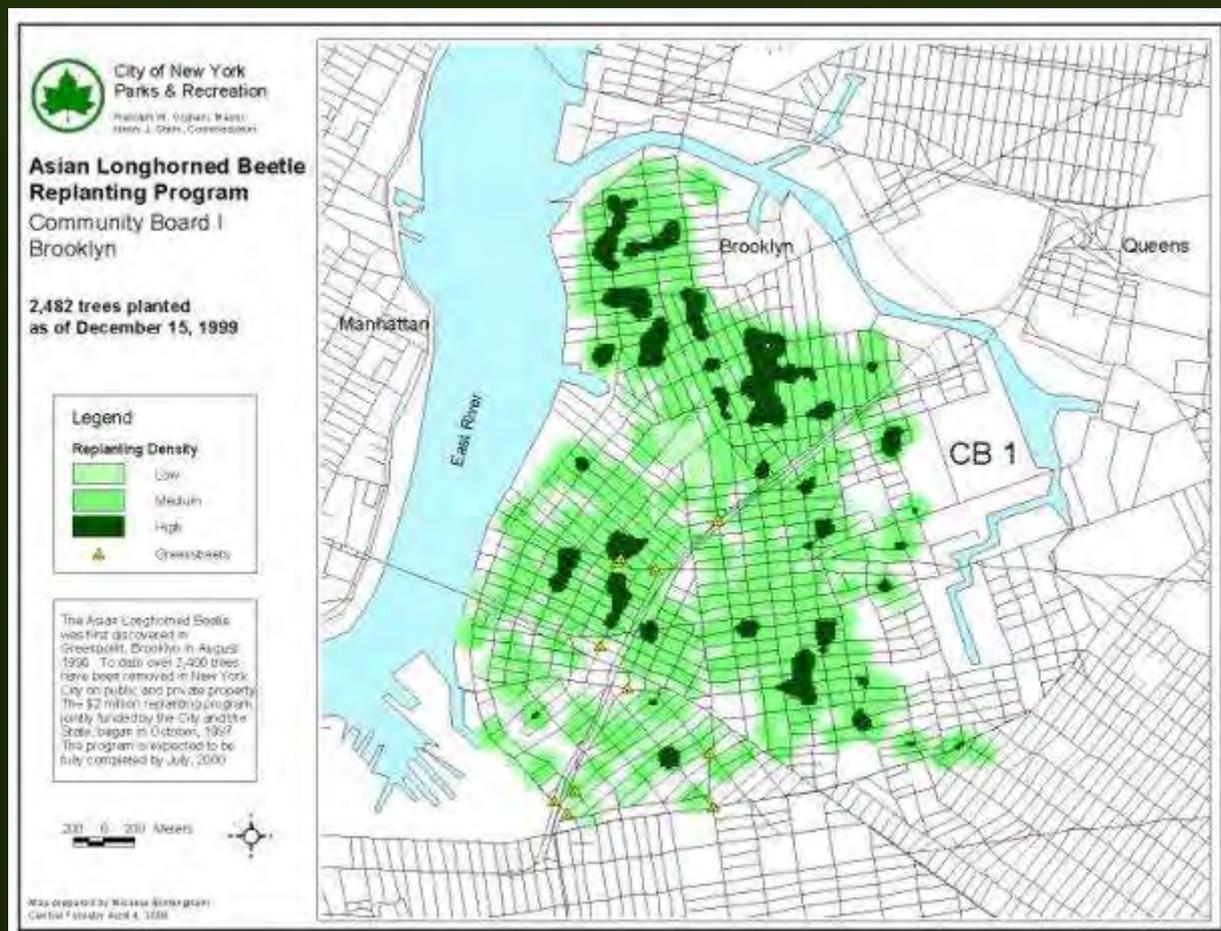


- Set Tree Canopy Goals



II. Planning and Preparation

- Tree Canopy Goals



II. Planning and Preparation

Funding Sources

- **APHIS**
- **U.S. Forest Service**
- **State Funds**
- **Stimulus**
- **Grants**
- **Businesses**
- **Non-Profits**

Guidelines Vary

- **Replacement of removed trees in same area?**
- **Public/Private?**
- **Fair Wage Issues?**



II. Planning and Preparation

- Public/Volunteer Awareness, Involvement



II. Planning and Preparation

- **Develop Restoration Plan**
Multiple Pronged Attack

Asian Longhorned Beetle Restoration Plan For The Regulated Area Around Worcester Massachusetts

I. Background

In August of 2008, the Asian Longhorned Beetle (ALB) was discovered in Worcester, MA. Repeated attacks by ALB will lead to dieback of the tree crown and, eventually, death of the tree. The beetle prefers maple species (*Acer* spp.), including *boxelder*, *Norway*, *red*, *silver*, and *sugar maples*. Other preferred hosts are *birches*, *Ohio buckeye*, *elms*, *horsechestnut*, and *willows*. Currently, the only effective means to eliminate ALB is to remove infested trees and destroy them. The current regulated area covers 62 square miles including Worcester, Shrewsbury, Holden, West Boyleston and Boyleston.

Worcester currently has a well-regarded urban forestry program, which plants, protects, maintains and manages the urban tree population. Management and protection of the urban forest is considered important to public welfare, because of the many environmental services that a healthy tree canopy provides. A complete inventory of public street trees was completed in Worcester in 2005.



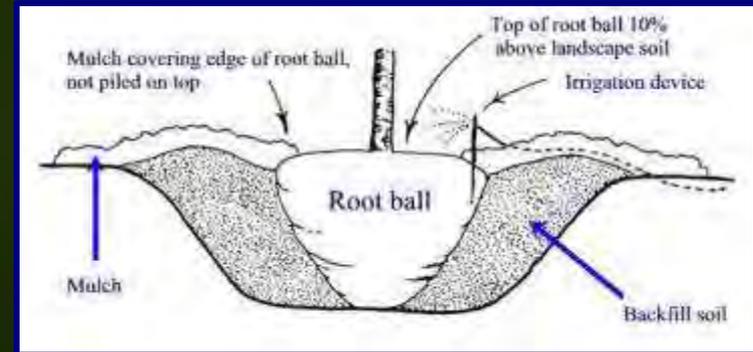
III. Tree Planting Considerations

- **Good Specs. & Standards**
Planting & 3 Year Maintenance
- **Public Vs. Private Property**
- **Species Selection - Non Host**
- **Planting Methods - Tree Size**
- **Supply Of Trees**
- **Contacts With Property Owners**
- **Selecting Contractors**
- **Public Awareness - What Will Happen**
- **Document Planting**
- **Evaluate Success**
- **Learn From Others**



III. Tree Planting Considerations

- **Good Specs. & Standards
Planting & 3 Year Maintenance**



III. Tree Planting Considerations

- **Public Vs. Private Property**
 - Who will plant? - Size
 - Maintenance?



III. Tree Planting Considerations

Species Selection - Non Host

Common Name	Scientific Name	STATE	SIZE
American Hophornbeam	Ostrya Virginiana)	NJ	M
'Thundercloud' Purple Leaf	Prunus Cerasifera 'Thundercloud')	NJ	M
Sargent Cherry	Prunus Sargentii)	NJ	M
'Autumnalis' Higan Cherry	Prunus Subhirtella 'Autumnalis')	NJ	M
Katsura Tree	Cercidiphyllum Japonicum)	NJ	M
Goldenraintree	Koelreuteria Paniculata)	NJ	L
Rotundiloba Sweetgum	Liquidambar Styraciflua 'Rotundiloba')	NJ	L
Black Gum	Nyssa Sylvatica)	NJ	L
Sawtooth Oak	Quercus Acutissima)	NJ	L
White Oak	Quercus Alba)	NJ	L
Swamp White Oak	Quercus Bicolor)	NJ	L
Overcup Oak	Quercus Lyrata)	NJ	L

Common Name	Scientific Name	STATE	SIZE
Bur Oak	Quercus Macrocarpa)	NJ	L
Willow Oak	Quercus Phellos)	NJ	L
English Oak	Quercus Robur)	NJ	L
Silver	Tilia Tomentosa)	NJ	M
Japanese Zelkova	Zelkova Serrata)	NJ	M
White Fir	Abies Concolor)	NJ	L
Baldcypress	Taxodium Distichum)	NJ	L



III. Tree Planting Considerations

- **Planting Methods**
 - **Contractual**
 - **City Staff**
 - **Property Owner - Coupons**
 - **Volunteer Organizations**

- **Tree Size**
- **Cost**



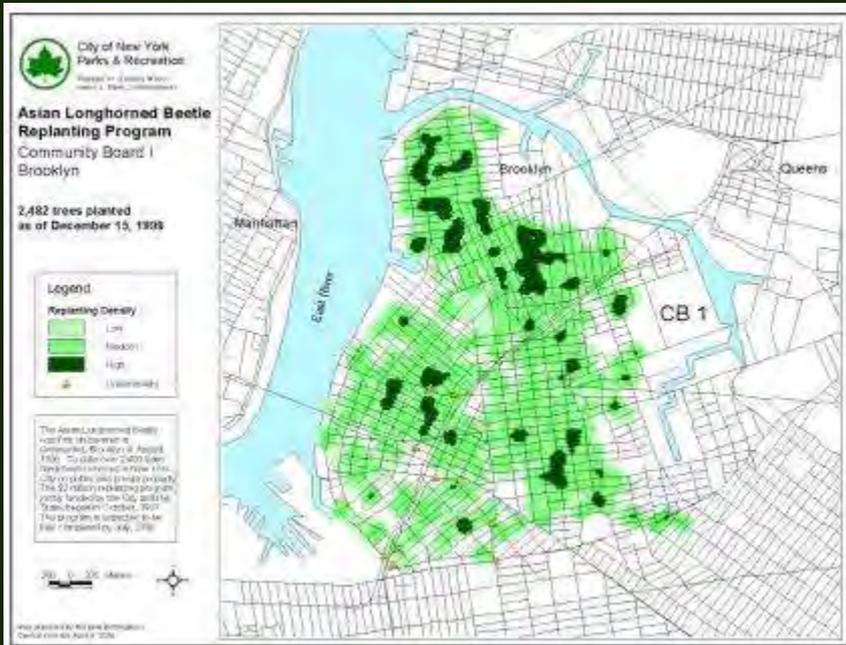
III. Tree Planting Considerations

- Supply Of Trees
- Working with Contractors



III. Tree Planting Considerations

- Document Planting
- Evaluate Success
- Learn From Others



Contact:

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