Urban Tree Inventories:
Moving from Ideas to Management

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What is the Purpose of a Tree Inventory?

To help create a plan for the urban forest

Why Plan?

- Establish focus and direction
- Provide framework for implementing an urban forest program
- Basis for consistent decision making
- Tool for determining budgets

Good plans make the difference between cost-effective, pro-active management and costly crisis management

5 Basic Planning Steps

- Vision
  - Where do we want to go?
- Assessment
  - What do you have?
    - Inventory
- Long-Range Plan
  - What do you need to get where you're going?
    - Identify needs
- Annual Work Plan
  - How do you get what you want?
    - Set goals and develop strategies to get the job done
- Evaluation
  - Are you getting what you want?
    - Re-evaluation

Urban Forest Management Plans
Step 1 - Vision

- Where do we want to go?
- How do you see your urban forest in 10-25 years?
  - Sets the direction for the plan
  - Get professional arborist help

For Example:
By the year 2025, Lexington's urban forest will be multi-aged with a diverse species population appropriate for the region. No one species will comprise more than 10% of the urban forest population, and no one genera will comprise more than 20%. Trees impacting the public rights-of-way and public buildings will be maintained to reduce liability. The residents of Lexington will be educated on the environmental and economical benefits as well as the proper care for trees. They will be motivated to maintain adequate stocking of trees.

Urban Forest Management Plans
Step 2 - Assessment

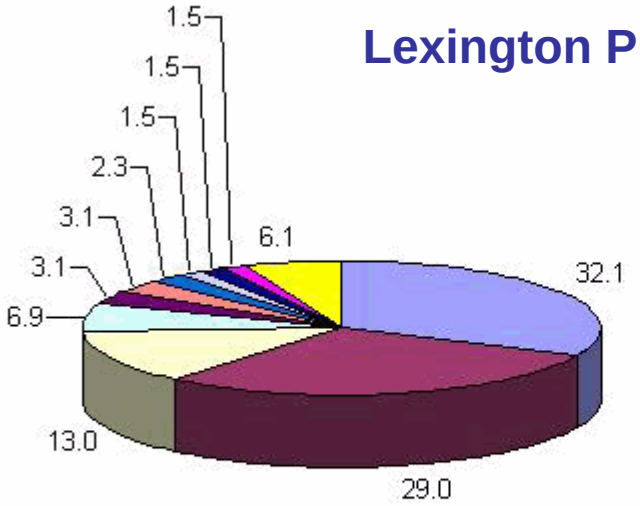
- What do you have?
  - Inventory
    - Publicly-owned trees
    - Private trees over ROW
  - Minimum requirements
    - Species
    - Diameter
    - Condition
    - Planting spaces
    - Value

Privately-owned trees impacting the ROW

Urban Forest Management Plans
Step 2 - Assessment

- Optional inventory data to collect
  - Address
  - Land use (i.e. commercial, residential, etc.)
  - Location (i.e. median, strip, cutout, lawn)
  - Maintenance recommendations
  - Infrastructure conflict (i.e. sidewalks, utilities)
  - Consult needed

Lexington Public Tree Species Distribution



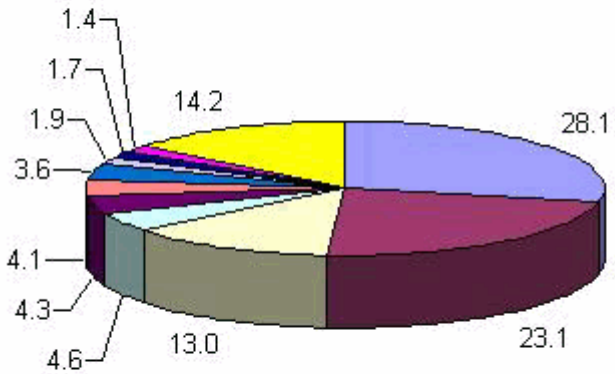
- Common crapemyrtle
- Water oak
- Pecan
- Black walnut
- Red mulberry
- Willow oak
- Sweetgum
- Sugarberry
- Callery pear
- Elm
- Other species

Crapemyrtle make up 1/3 of the public tree population.

Water oak is 29% of all public trees.

Lexington All Tree Species Distribution

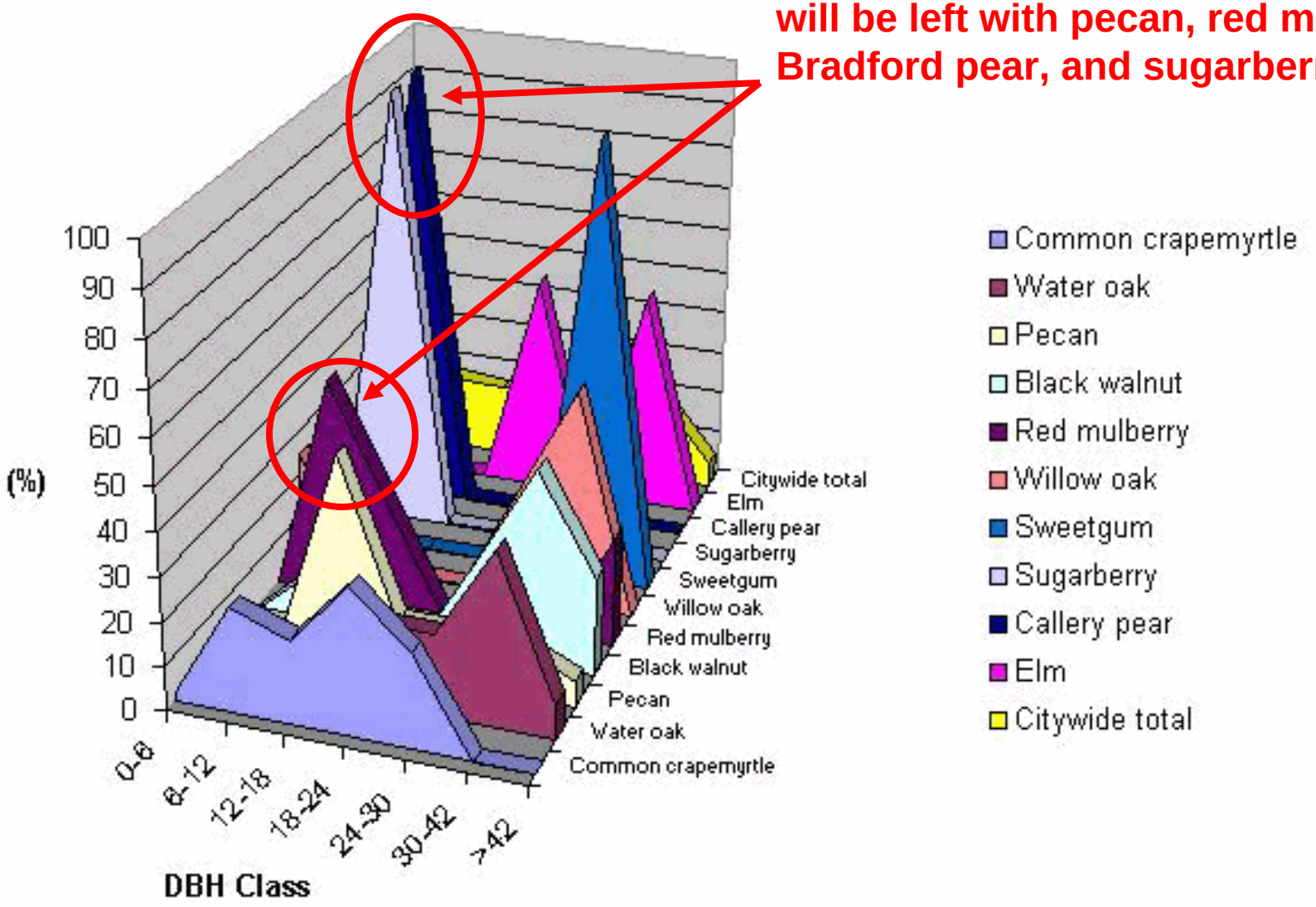
About one quarter of all trees impacting the ROW are water oak or pecan.



- Water oak
- Pecan
- Common crapemyrtle
- Black walnut
- Winged elm
- Red mulberry
- Willow oak
- Flowering dogwood
- Chinaberry
- Tree of heaven
- Other species

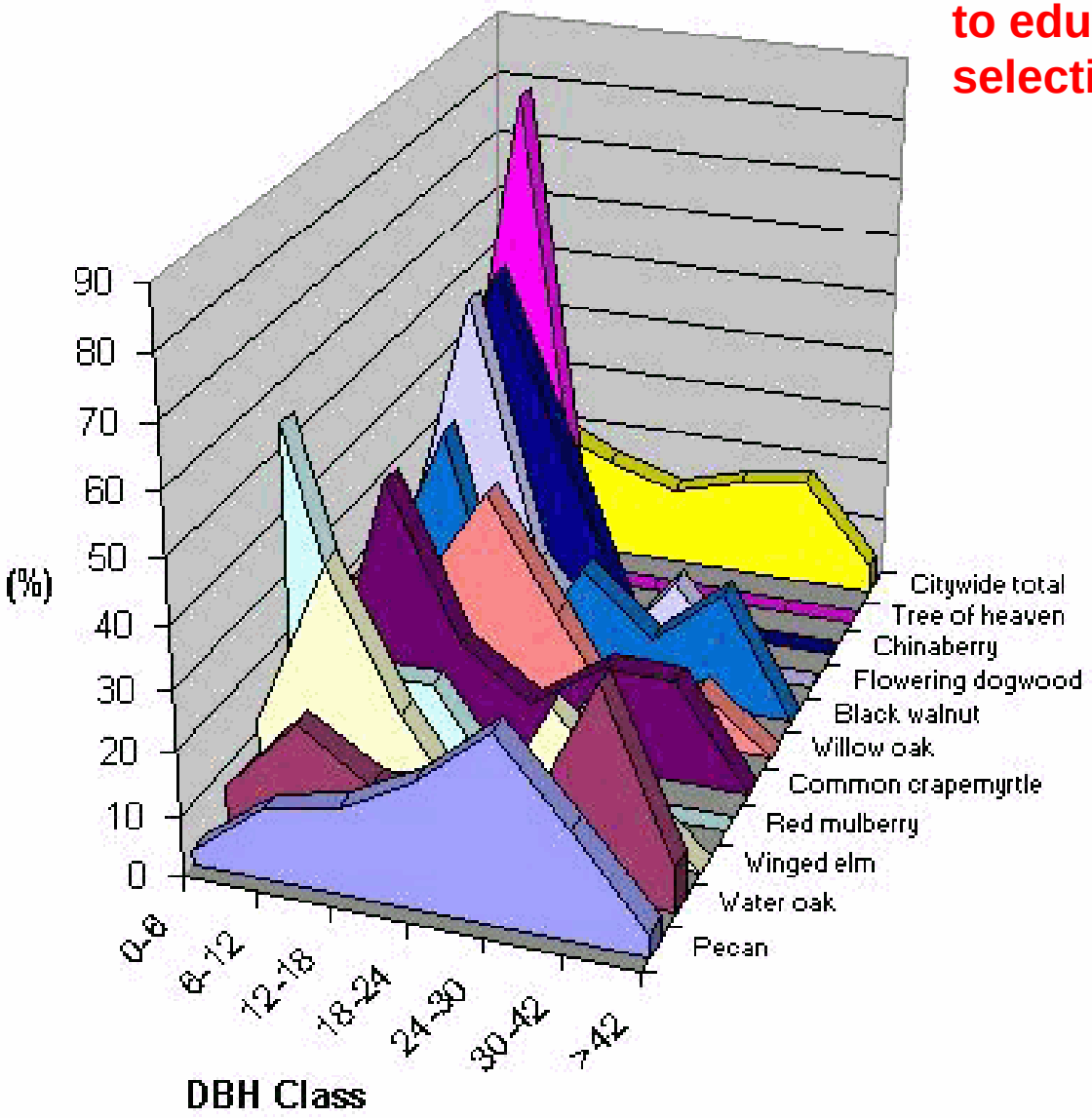
Lexington's Public Tree Size Class Distribution

After the older trees die off, Lexington will be left with pecan, red mulberry, Bradford pear, and sugarberry.

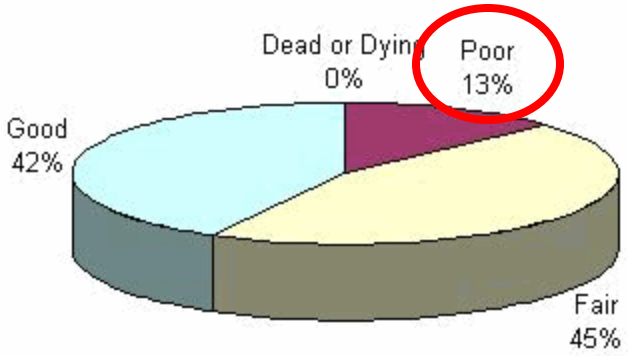


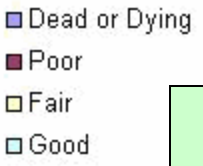
Lexington's Private Tree Size Class Distribution

These data reveal an opportunity to educate homeowners on species selection for long-term benefits



Structural Condition of Public Trees in Lexington

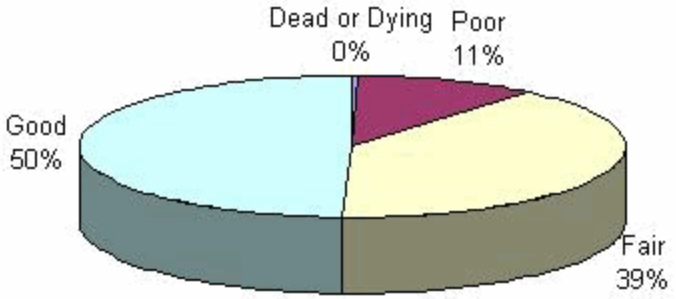




13% of all trees on the ROW are in poor condition and need to be removed.

Structural Condition of All Trees in Lexington

These data indicate another opportunity to educate the public on proper tree care



Urban Forest Management Plans
Step 3 – Long-Range Plan

- Based on the inventory
  - What do you need to realize your vision?

By the year 2025, ***Lexington's urban forest will be multi-aged with a diverse species population appropriate for the region. No one species will comprise more than 10% of the urban forest population, and no one genera will comprise more than 20%. Trees impacting the public rights-of-way and public buildings will be maintained to reduce liability. The residents of Lexington will be educated on the environmental and economical benefits as well as the proper care for trees. They will be motivated to maintain adequate stocking of trees****.**

Urban Forest Management Plans
Step 3 – Long-Range Plan

- Define the needs
  - Implement a hazard tree assessment and action program
  - Develop a public education program stressing
    - Benefits of trees (both $ and environmental)
    - Planting long-lived species in the right place
    - Proper tree care to maximize benefits
  - Create annual planting schedule to replace removed trees around courthouse and other historic, public buildings

Urban Forest Management Plans
Step 4 – Annual Work Plan

- Set goals to address the needs
  - Need: Implement a hazard tree assessment and action program
  - Goals:
    - Have professional assess all trees in poor condition by June 1 – Kuehler - cost: $0
    - Prioritize the removals by August 1 – Kuehler - cost: $0
    - Remove all trees posing immediate threat by December 31 – Kuehler - cost: $1200 per tree

Urban Forest Management Plans
Step 4 – Annual Work Plan

- Set goals to address the needs
  - Need: Develop a public education program stressing
    - Benefits of trees (both $ and environmental)
    - Planting long-lived species in the right place
    - Proper tree care to maximize benefits
  - Goals:
    - Start volunteer tree board by March 31 - Cook – cost: $0
    - Have public tree care workshop emphasizing benefits, species selection, proper care techniques by October 30 – Cook, Smith - cost: $300
    - Get GFC, local professionals, other groups involved in education efforts by August 31 – Cook, Smith – cost: $300

Urban Forest Management Plans
Step 4 – Annual Work Plan

- Set goals to address the needs
  - Need: Create annual planting schedule to replace removed trees around courthouse
  - Goals:
    - Work with historic society to purchase, plant and mulch five historic trees around courthouse by December 31 - Kuehler – cost: $300
    - Organize public tree-availability event for next Arbor Day by September 30 - Smith – cost: $200

Urban Forest Management Plans
Step 5 – Evaluation

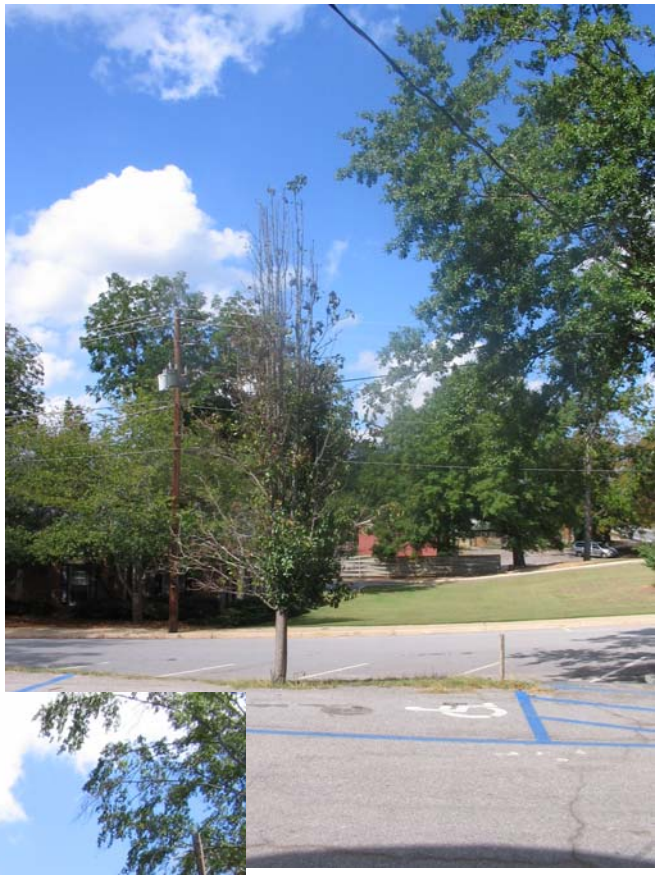
- Are you getting what you want?
  - Review annual work plan
  - Was everything completed?
  - If not, re-evaluate
  - Set new goals for the following year to get you closer to your vision
  - You may need to re-define your vision and/or needs over time.

Review

Develop a vision

We want our community to look like this

Inventory



We’ve got this

Long-Range Plan

Define the needs

Annual Work Plan

- Set goals
- Set timeline
- Assign responsibility
- Define costs

Goal	Completion date	Who	Cost
Start tree board	March 31	Cook	$0
Assess hazard trees	June 1	Kuehler	$0
Order 100 trees from GFC	July 31	Smith	$200
Remove 10 hazard trees	December 31	Kuehler	$12,000

Evaluation

- Check work plan to see what was completed
- Set new goals for next year

Goal	Completion date	Who	Cost
Start tree board	March 31 ✓	Cook	$0
Assess hazard trees	June 1 ✓	Kuehler	$0
Order 100 trees from GFC	July 31 ✓	Smith	$200
Remove 10 hazard trees	December 31 ✗	Kuehler	$12,000

Conclusion

- Seek professional help early on
- Inventories should be connected to a plan
- Get citizens, businesses, elected officials involved
- Keep the plan simple and easy to work

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