



RUTGERS

THE STATE UNIVERSITY
OF NEW JERSEY

What is Urban Forestry?

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Break into Groups – Social Scavenger Hunt

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Newark & Urban Forestry

WHAT EXACTLY IS URBAN FORESTRY ANYHOW?

- Urban communities were planting and managing trees, before the appointment of the first US Special Forestry Agent in 1876
- The boulevard planting style of street trees (shade trees) was popularized by Architect Baron Haussmann in the redesign of Paris for Napoleon III which began 1853.
- The design style is still with us, but how we built roads has advanced substantially



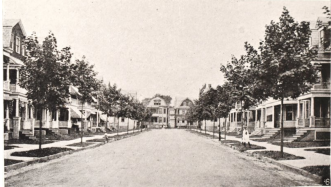
Image from "Shade Trees in Towns and Cities"; W. Solotaroff estimated date of image 1910, making the tree planting 1875

Lawrence H.W. The Neoecological Origins of Modern Urban Forests, Forest & Conservation History 37(Jan 1993) 26-36.
1987. From Private Alee to Public Shade Tree: Historic Roots of the Urban Forest. Arundin 1997, September, 4, 10.

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Newark Forestry Timeline

- **1882:** City of New York Health Commissioner: High death rate in summer months
- **1893:** NJ Tree Ordinance Law, Conferred the power to enact tree laws and establish Shade Tree Commissions.
- Shade Tree Commissions of up to 7 members were created as an almost independent authority to manage the local tree resource.
- Newark, South Orange, East Orange, and Passaic, NJ were early to the table with the first group of NJ Shade Tree Commissions **in place by 1904**



Street of Norway maples; N. Eighteenth Street, East Orange, NJ. 4 years post planting (image estimated 1910) Year 2 of their shade tree commission

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Newark Forestry Timeline

- East Orange organized as a tree commission in the spring of 1904 as the third such tree commission in the state of New Jersey.
- By 1911, there were 31 commissions around the state.
- William Solotaroff published his 1911 text as the Secretary and Superintendent of the Shade-Tree Commission of East Orange, NJ to meet national demand for information on how Newark and Orange were met with notable success. (As he tells the tale)



Street of Norway maples; N. Eighteenth Street, East Orange, NJ. 4 years post planting (image estimated 1910) Year 2 of their shade tree commission

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Newark Forestry Timeline

Same street, looking opposite direction of the previous image, those early trees may still exist

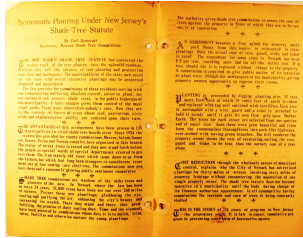


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Newark Forestry Timeline

- By 1928:
 - There were 135 tree boards
 - Newark, (started 1904) had planted **32,000 trees over 240 miles of streets...over 24 years.**
 - That's an average of 1,333 trees per year over a quarter-century!



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NJ Shade Tree & Community Forestry Assistance Act (N.J.A.C. 13:1L-17.1 et. seq.)

- December 5, 1996
- Establishes the expanded role of the State's Urban & Community Forestry program
- Provides the necessary basis for local governments to reduce or eliminate liability associated with local tree care programs and shade tree commissions
- Establishes the NJ Community Forestry Council
- Created the **Treasure Our Trees** license plate



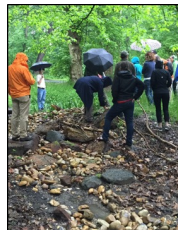
Image credit: tesniakinstitute.com

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What Are Community Forests?

A forest owned and generally managed by a community, the members of which share its benefits.



Slide Credit: NJ DEP Urban and Community Forestry Program

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What Are Urban Forests?

All the trees and forests within a local jurisdiction. They include urban parks, street trees, landscaped boulevards, gardens, river and coastal promenades, greenways, river corridors, wetlands, nature preserves, shelter belts of trees, and working trees at former industrial sites.



Slide Credit: NJ DEP Urban and Community Forestry Program

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What is Urban Forestry?

The art, science, and technology of managing trees and forest resources in and around urban community ecosystems for the physiological, sociological, economic, and aesthetic benefits trees provide society.

– Helms, The Dictionary of Forestry



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Urban Forestry

IT'S ABOUT TREES!



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Urban Forestry

AND PEOPLE! WHERE WE WORK, PLAY, LIVE, AND LEARN!



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Urban Forestry

IT'S ABOUT PEOPLE AND WHERE THEY ARE NOW AND HOW THEY CAME TO BE WITHIN THE CURRENT PLACE



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Urban Forestry

FORESTRY IS A DISCIPLINE/PROFESSION. URBAN IS A CONTEXT, AND A COMPLICATED ONE IF WE ARE HONEST ABOUT IT

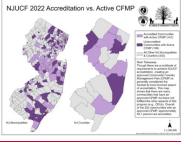
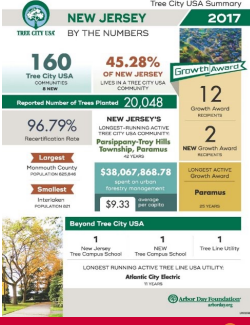
- Federal: USDA Forest Service
- State: NJ DEP Urban Community Forestry
- Municipal: City/Muni and DPW
- Local: Local Shade Tree Commissions, groups such as in this room



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Urban Forestry

- NUJCF Accreditation
- Int tree city program
- Tree City USA
- Tree Line USA
- Tree Campus USA
- Energy Saving Trees
- Alliance for Community Trees
- TD Green Streets and Green Space Grants
- SFI Urban Forestry accreditation

NEW JERSEY
Tree City USA
BY THE NUMBERS

160 Tree City USA COMMUNITIES
+10%
Reported Number of Trees Planted **20,048**

45.28% OF NEW JERSEY LIVED IN A TREE CITY USA COMMUNITY

96.79% Researcher's Rate

NEW JERSEY'S LONGEST-RUNNING ACTIVE TREE CITY USA COMMUNITY: Parsippany-Troy Hills Township, Parsippany, NJ

\$38,067,868.78 Assets in Urban Forests (2017)

\$9.33 Average Annual Spending per Resident

12 Growth Award recipients

2 NEW Growth Award recipients

1 NEW Jersey Tree Campus School

1 Tree Line Utility

LONGEST-RUNNING ACTIVE TREE LINE USA UTILITY: Atlantic City Electric

NUJCF 2022 Accreditation vs. Active CFMP

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But it is About Trees and Their Management as a Cycle

- Single tree/ group of trees
- Stand/typology of trees
- Community of trees/forest

- Where do they come from
- How do they get here
- Who is responsible for what
- Where do they go

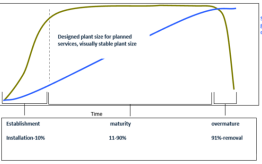
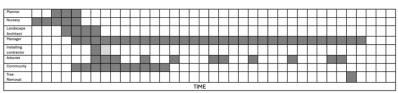



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Tree as a Cycle

- Single tree/ group of trees
- Stand/typology of trees
- Community of trees/forest

- Where do they come from
- How do they get here
- Who is responsible for what
- Where do they go

Prescribed plant size, Consistent Services (S), Value retention

Designated plant size for planned work, Usually stable plant size

Time

Establishment (10% maturity)

Maturity (10% maturity)

Senescence (10% maturity)

Time

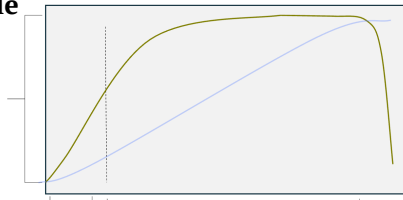
Actions: Planting, Pruning, Watering, Fertilizing, Mulching, Staking, etc.

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Tree as a Cycle

The level of value/service is linked to:

- Species
- Space
- Site quality, and
- Management
 - including pruning



The rate of growth to useful designed size is linked to:

- Species
- Space
- Site quality, and
- Management

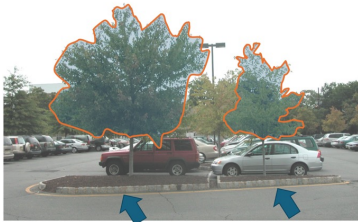
The time span of useful value/service is linked to:

- Species
- Space
- Site quality, and
- Management

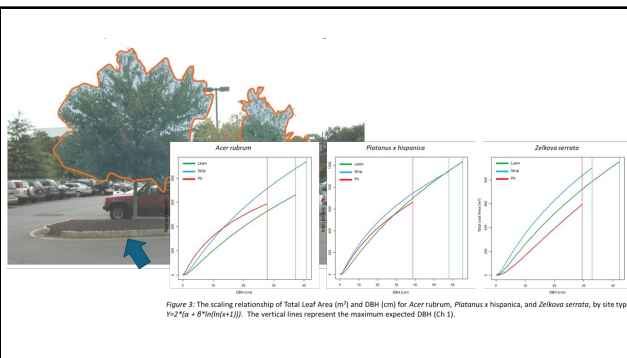
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Viable Soil Volumes Impact Establishment Success

YOU ALSO NEED TO DEFINE ACCEPTABLE GROWTH TO EVALUATE SUCCESS – OR – SPACE FOR TREES IS NEEDED BELOW GROUND



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Values, Services, and Aspirations

- Environmental
 - Air
 - Water
 - Land
 - Wildlife
- Social
 - Health
 - Education
 - Recreation
- Economic
 - Business
 - Energy Savings



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Challenges

- Authority over ~ 20% of canopy, but trying to manage an entire population
 - Structure, behavior, and trajectory over a whole community of plants
 - Disease and pest
 - Redevelopment and storm damage
 - Risk
 - Public sentiment // political positions
 - Tough sites
 - High aspirations
 - Budgets
 - Staffing

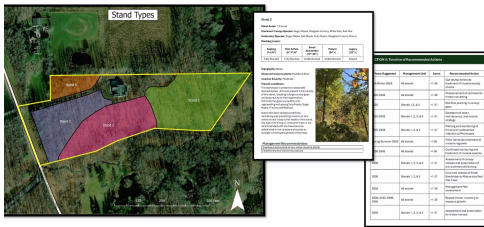


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Forest Management Plans

- 8 acre property in Ohio, but 4 stands defined



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