

# What is a Tree Worth?

- **Bill Clark** (moderator): *Introduction to the panel*
- **Ken Mirvis**: *“Trees and energy use”*
- **Ken Sheytanian**: *“Trees and property values”*
- **Mari Ryan**: *“The health value of trees”*
- **Peter Del Tredici**: *“How trees make our world more habitable”*
- **Louise Forrest**: *“How trees help us relate to the larger world”*
- **Elizabeth Pratt**: *“What is a tree worth to a child?”*
- **Susan Falkoff**: *“Protecting Watertown’s urban forest”*
- **Panelists and Audience**: *Questions, answers and discussion*

***Adjourn (8:45pm sharp)***

# What is a Tree Worth?

- A sometimes tree-hugger's journey
  - from global climate change...To wearing the TFW t-shirt... To Jill Jonnes' "*What is a tree worth?*" (Wilson Quarterly, Winter 2011)
- Annual savings/tree? \$50? \$200 \$800 \$1000
  - Annual savings per yard of trees?
  - Other values of trees?
- How to assess, protect, increase Watertown's investment in trees?

# What is a Tree Worth?

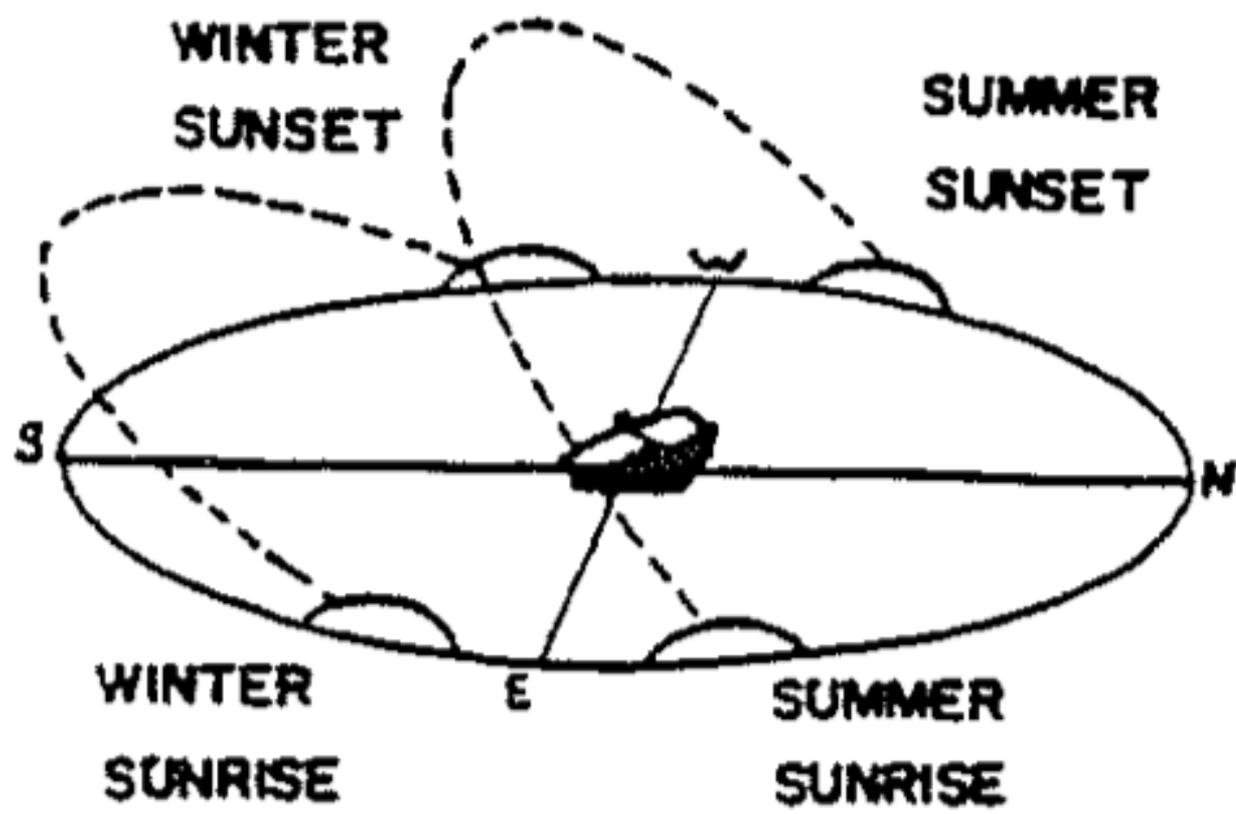
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**Ken Mirvis**

*Chair, Watertown Environment and  
Energy Efficiency Committee*

**“Trees and Energy Use”**



**SOLAR PATHS**





Evergreens  
on the north  
side





Evergreens  
on the north  
side



\$862 in annual savings



# Evergreens

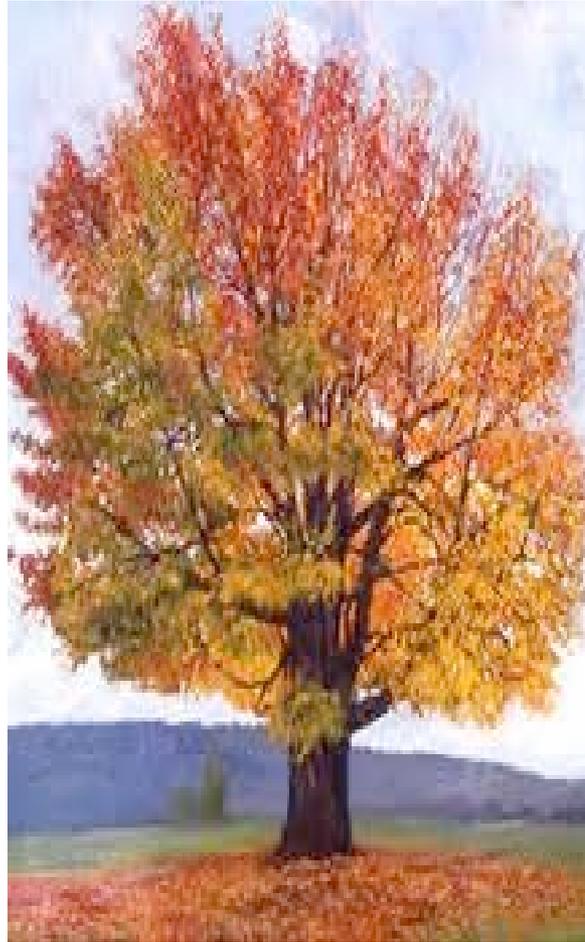
East: \$549

West \$451





Deciduous  
on the  
south side



\$83 in annual savings

**Ken Sheytanian** (CBR, GRI, LMC)  
Realtor, *National Association of Realtors*  
*Century 21 Commonwealth*

**“Trees and property values in  
Watertown”**

Property  
Values

and

Tree Cover



**Mari Ryan** (MBA, MHP)  
*Certified Worksite Wellness Program  
Consultant  
CEO, Advancing Wellness*

**“The health value of trees”**

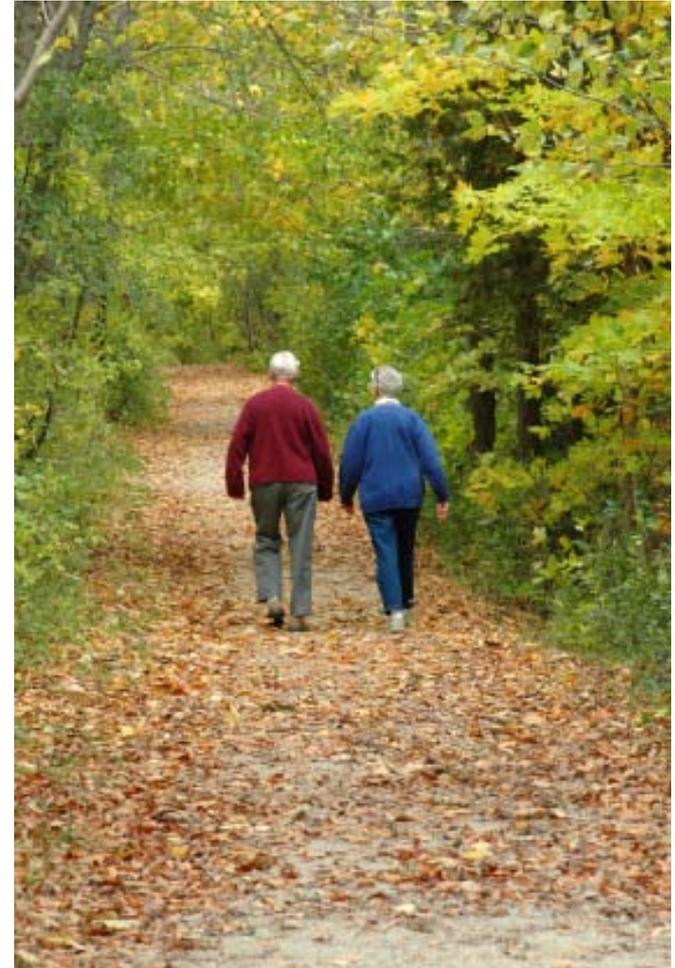
A large, leafy tree stands in a grassy field under a clear blue sky. The tree is the central focus, with its branches spreading out. The ground is covered in green grass and some small shrubs. The sky is a vibrant blue with a few wispy clouds. The overall scene is bright and clear.

# The health value of a tree

- Trees reduce the pollutants that trigger respiratory disorders by trapping or removing lung-damaging dust, ash, pollen and smoke
  - Asthma incidence increases in urban communities where trees are eliminated
  - Million Trees NYC is planting “Trees for Public Health” in six neighborhoods with higher than average asthma rates among young people
  - American Lung Assoc. estimates that ozone-associated health care costs Americans about \$50B annually

# The health value of a tree

- Greenspace and shaded sidewalks encourage outdoor physical activity
  - Studies have shown a correlation between community forests and the amount of physical activity exerted by residents
  - Health care costs associated with obesity top \$100B a year



# The health value of a tree

- Stress and noise have an impact on our physical and psychological health
  - Trees can affect our mood and relieve stress
  - Trees have a restorative quality that helps people feel and function better
  - Patients who could see trees outside their hospital windows had shorter recovery times and required fewer pain killers
  - Office workers who could see trees from their desks reported higher levels of satisfaction with their jobs and better overall health



- **Girls and greenery**

- Higher self-discipline in girls can be achieved through increased exposure to nature, resulting in pursuit of healthy, more successful behavior

- **Kids and concentration**

- Kids who spend more time outside end up paying more attention when inside

- Better concentration, following directions and completing task
- The greener the setting the more the relief

Peter Del Tredici

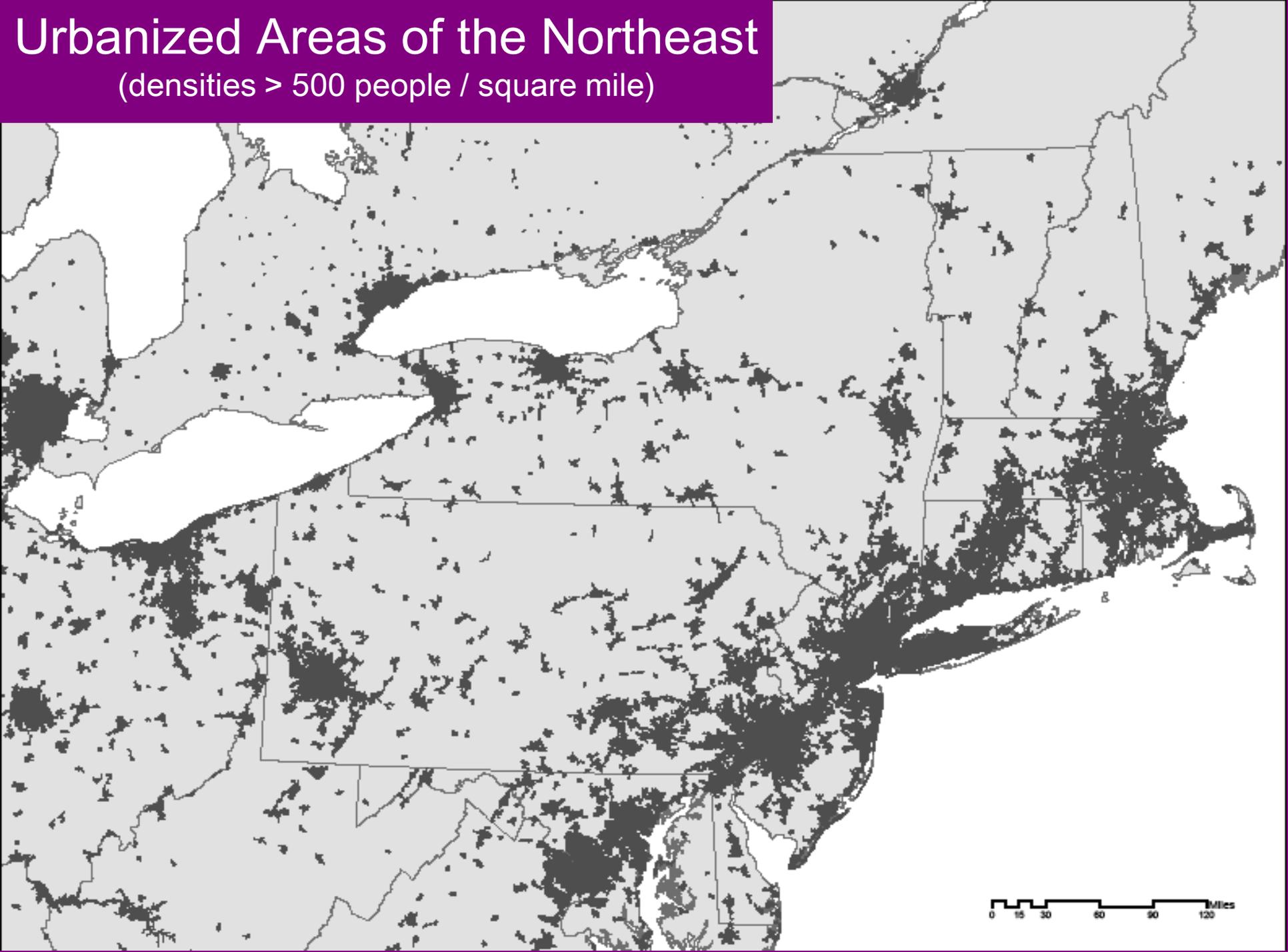
*Arnold Arboretum*

*Harvard Graduate School of Design*

**“How Trees Make Our World  
More Habitable”**

# Urbanized Areas of the Northeast

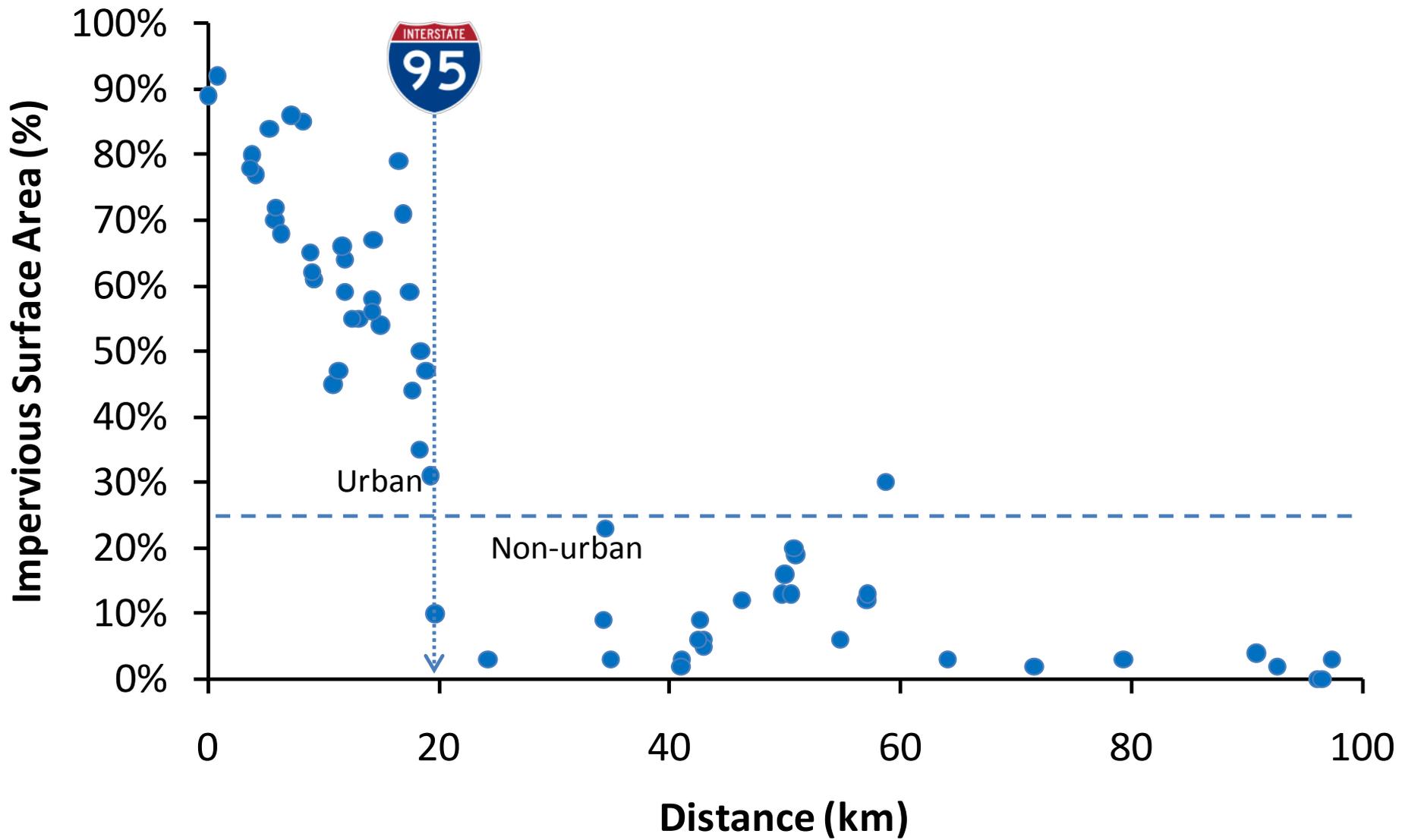
(densities > 500 people / square mile)



# **Environmental Functions of Urban Trees**

- **Oxygen production (we all need this)**
- **Carbon fixation and storage**
- **Soil build-up over time through the deposition of organic matter**
- **Water circulation from soil to atmosphere (promotes rainfall)**
- **Promote increased ground water infiltration by increasing soil porosity**

- **Erosion control on steep slopes**
- **Stream and river bank stabilization**
- **Food and habitat for wildlife**
- **Excess nutrient absorption in wetlands (mainly N & P)**
- **Heat reduction in both paved & unpaved areas**
- **Soil and air pollution tolerance in urban areas (salt, fossil fuel by-products)**
- **Buffer against wind and noise**







**Louise Forrest**

*CitySprouts Garden Coordinator*

*Cambridge Public Schools*

*Episcopal Priest*

**“The value of trees for our  
learning how we relate to  
the larger world”**

# Costa Rica Forest

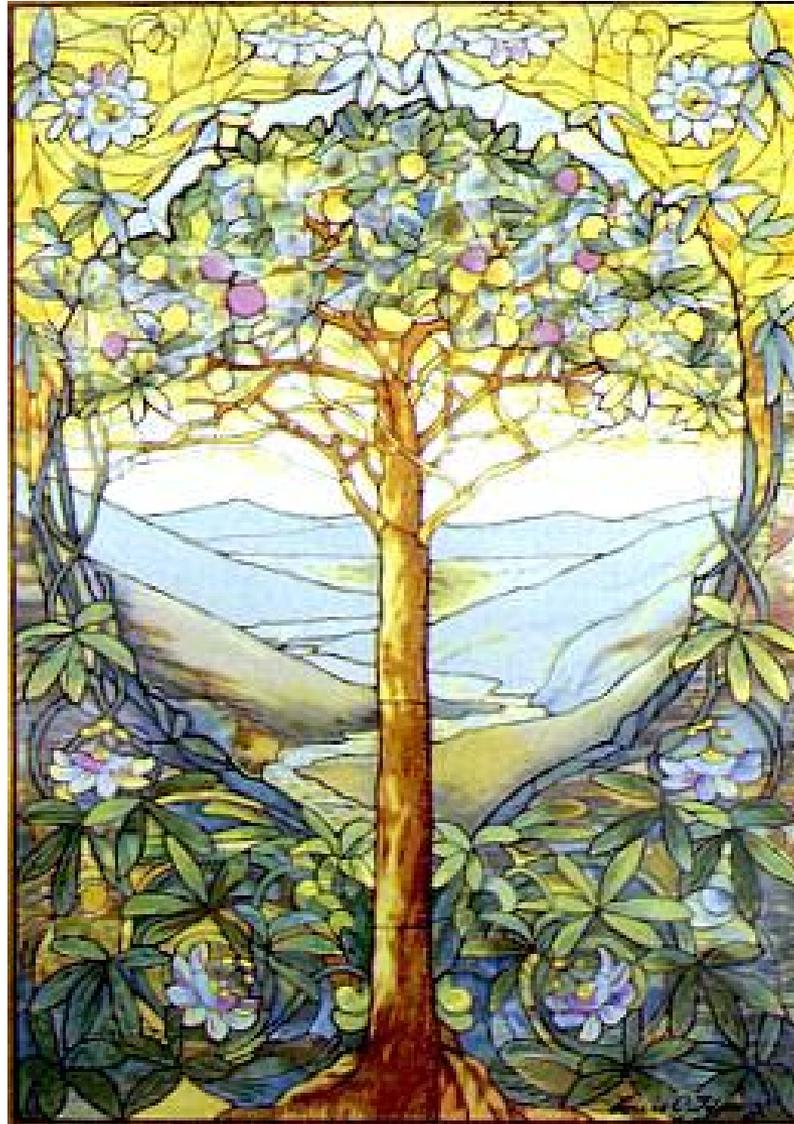


# Tree as Archetype

**The Book of Revelation 22:1-3**

**Then the angel showed me the river of life-giving water, sparkling like crystal, flowing from the throne of God and of the Lamb down the middle of its street.**

**On either side of the river grew the tree of life that produces fruit twelve times a year, once each month; the leaves of the trees serve as medicine for the nations.**



# Relating to neighbors through our trees: an American Elm



# Relating to Neighbors through Trees: A Red Maple



A young girl with blonde hair, wearing a pink long-sleeved shirt with a floral pattern, a pink tutu, pink pants, and a blue cape, stands on a wooden swing set. She is holding the ropes of the swing. The background is a dense forest with many green trees and ferns. The scene is brightly lit, suggesting a sunny day.

**Elizabeth Pratt**

*Watertown Parent /TFW member*

**“What is a tree worth to child?”**

# *What makes a child love trees?*



They climb them.  
They hide in them.  
They swing in them.  
They play with sticks.

Trees inspire  
**creative play.**



# “Last Child in the Woods”

“When a park is graded to create a playing field, children gain soccer capacity, but they lose places for self-directed play. Indeed, research suggests that children, when left to their own devices, are drawn to the rough edges of such parks...the natural vegetation. A park can be neatly trimmed and landscaped, but the natural corners and edges where children once played can be lost in the translation.”

Richard Louv



# What can Watertown do to encourage the next generation to love trees?



1. Plant more trees (and save the existing ones).
2. Provide shade at playgrounds and fields.
3. Think about trees from a child's view (let them climb, leave the sticks, let them hide, hang swings from trees, plant shrubs as forts, plant a garden with them).
4. Encourage recess and outdoor class time.
5. Build on Watertown's strengths - our children are less structured.
6. Plan adventure playgrounds/natural play gardens for abandoned lots.
7. Implement curriculum about trees.

**Susan Falkoff**

*Town Councilor*

**“Protecting Watertown’s urban  
forest”**

# Changes the town has made

## Trees need soil to grow

Watertown has begun enforcing prohibitions on this type of paving and the dpw will plant grass on any planting strip by request of the homeowner.

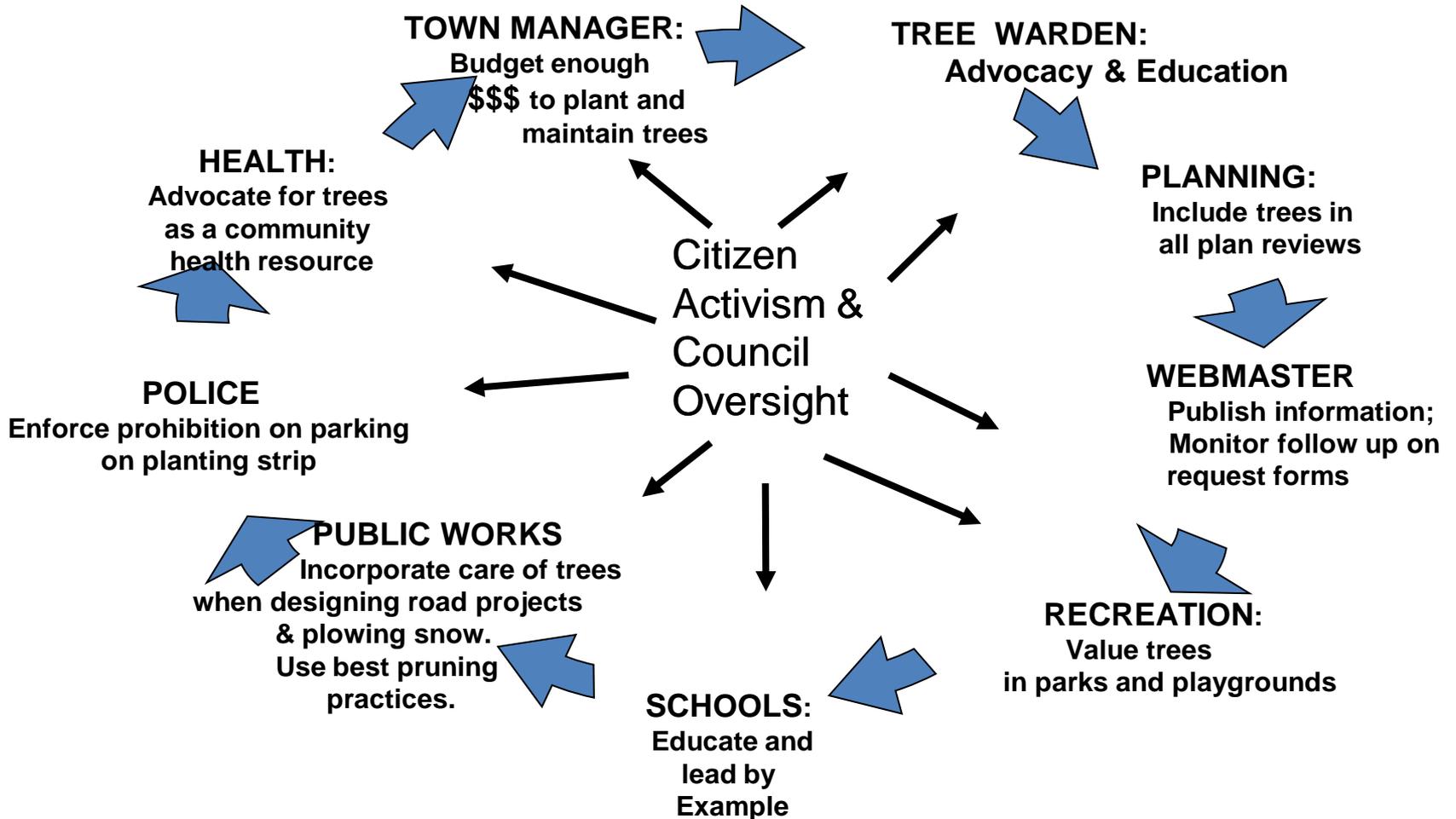


## Road salt harms trees



DPW has changed plowing practices to use less salt and be more careful that it doesn't spread onto planted areas

# BETTER AWARENESS of the Value of trees and IMPROVED COORDINATION between town departments would lead to less miscommunication & fewer Problems



DEAR MIKE DRISCOLL,  
PLEASE  
DON'T CUT  
DOWN THE  
TREES!  
LOVE, SONCA



ALIT BELL AND

Stefan and Sonja's  
classmates:

TIMOTHY

RYLIE

THEO

ELLA OMAR

EDWARD

RYKER

ETHAN CIARAN

LANA

EMMANUEL PEREZ

MIREAD

KATIE WILL

CONNOR

STAMANTHA



Citizen  
Activism  
at work!

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# Further Information

- Trees for Watertown web site
  - Lots of information on trees and their protection
  - Copy of the slides used in this presentation, plus readings, web sites recommended by the presenters
  - <http://treesforwatertown.org/>
- Watertown Tree Warden web site
  - Current happenings; Resources and information
  - <http://www.ci.watertown.ma.us/index.aspx?nid=352>
- iTree (calculate the savings from your own trees)
  - <http://www.itreetools.org/> → Applications → iTree Design

# Recommended readings & references

- Jill Jonnes. “*What is a tree worth?*” *Wilson Quarterly*, Winter 2011
  - <http://www.wilsonquarterly.com/article.cfm?AID=1772&AT=0>
- Peter Del Tredici, *Wild Urban Plants of the Northeast: A Field Guide*
  - Field guide to 222 most common plants that grow spontaneously in urban areas of the northeast (Cornell Univ. Press, 2010)
- George W.D. Symonds, *The Tree Identification Book*
- Michael Dirr, *Hardy Trees and Shrubs*
- New Testament, *Book of Revelation* 22:1-3 re: Tree of Life
- Richard Louv’s *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*
- Cornell University Urban Horticulture Institute:
  - Free publications on street trees ; <http://www.hort.cornell.edu/uhi/>
- New York City Parks Department Street Tree Inventory Project:
  - Great overview of what a really excellent urban street tree program looks like
  - [http://www.nycgovparks.org/sub\\_your\\_park/trees\\_greenstreets/treescount/index.php](http://www.nycgovparks.org/sub_your_park/trees_greenstreets/treescount/index.php)

# Recommended readings & references

- *Talk About Trees* (children's education about trees)
  - <http://www.talkabouttrees.org/plans.html>
- *Living Memorials Project* (trees bringing people together)
  - [http://www.livingmemorialsproject.net/toolbox/plant/healing\\_trees/healing.htm](http://www.livingmemorialsproject.net/toolbox/plant/healing_trees/healing.htm)
- *Children & Nature Network*:
  - [www.childrenandnature.org](http://www.childrenandnature.org)
- Cornell University Urban Horticulture Institute: Lots of great publications on street trees free to download
  - <http://www.hort.cornell.edu/uhi/>
- New York City Parks Department Street Tree Inventory Project:
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  - [http://www.nycgovparks.org/sub\\_your\\_park/trees\\_greenstreets/treescount/index.php](http://www.nycgovparks.org/sub_your_park/trees_greenstreets/treescount/index.php)
- EPA Fact sheet on salt
  - <http://www.epa.gov/region1/topics/water/pdfs/winterfacts.pdf>
- Calculate the savings from your own trees
  - <http://www.itreetools.org/> → Applications → iTree Design
- Watertown Tree Warden
  - <http://watertown-ma.gov/index.aspx?NID=352>