



Urban Tree Planting

Hector Marines-Chio

Regional Urban Forester | Wildland Firefighter



Background

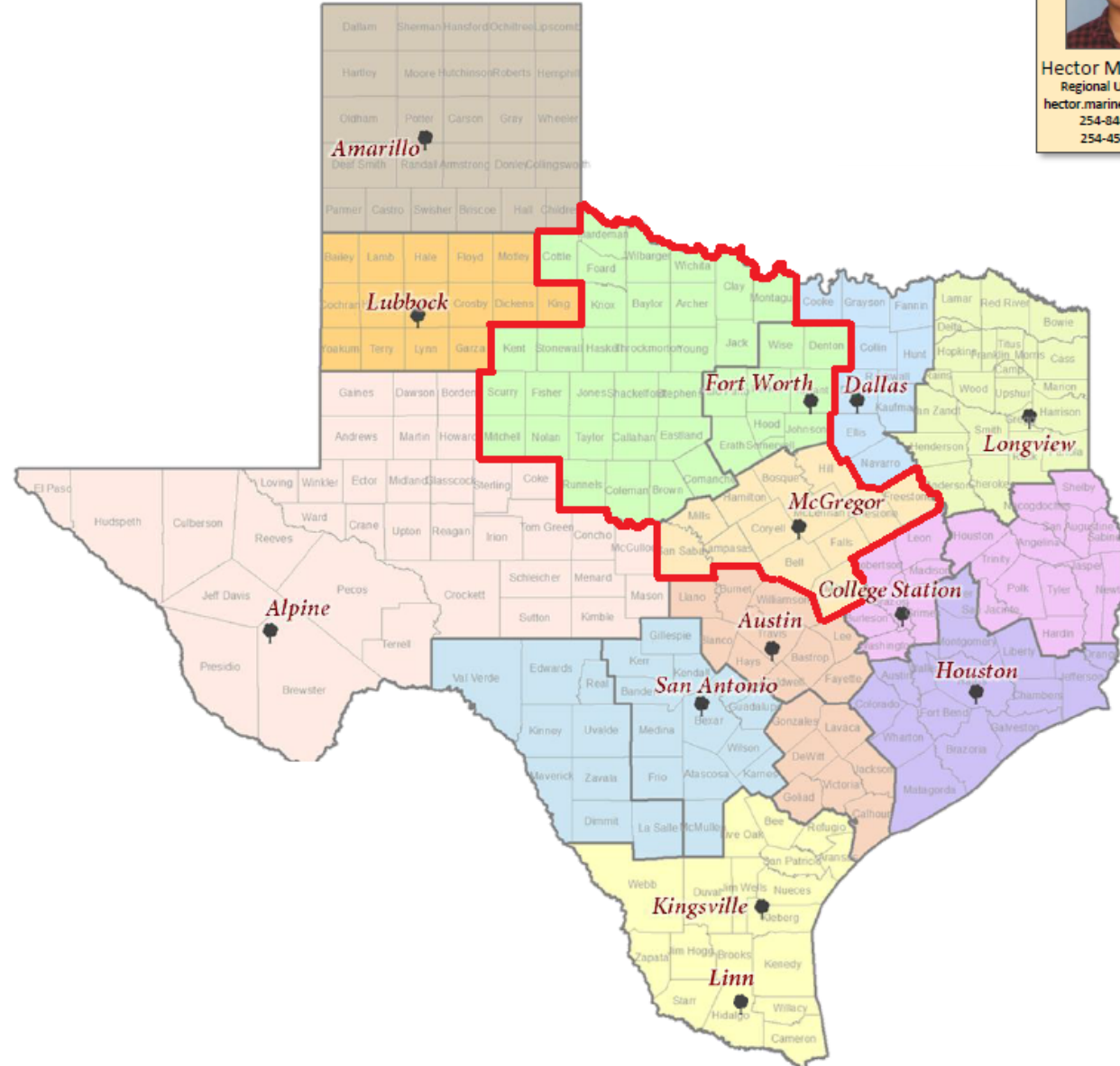
- Piedras Negras, Coah. MX
- Texas A&M University
 - BS Forestry
 - May 2022
- Texas A&M Forest Service
 - June 2022
- ENG, ESP
- Wildland Firefighter
- Dog: Rocín (3 years)
- Reading, camping, fishing





COMMUNITY FORESTRY PROGRAM

"Helping communities develop sustainable programs that provide Texans with healthy trees and forests."



McGregor



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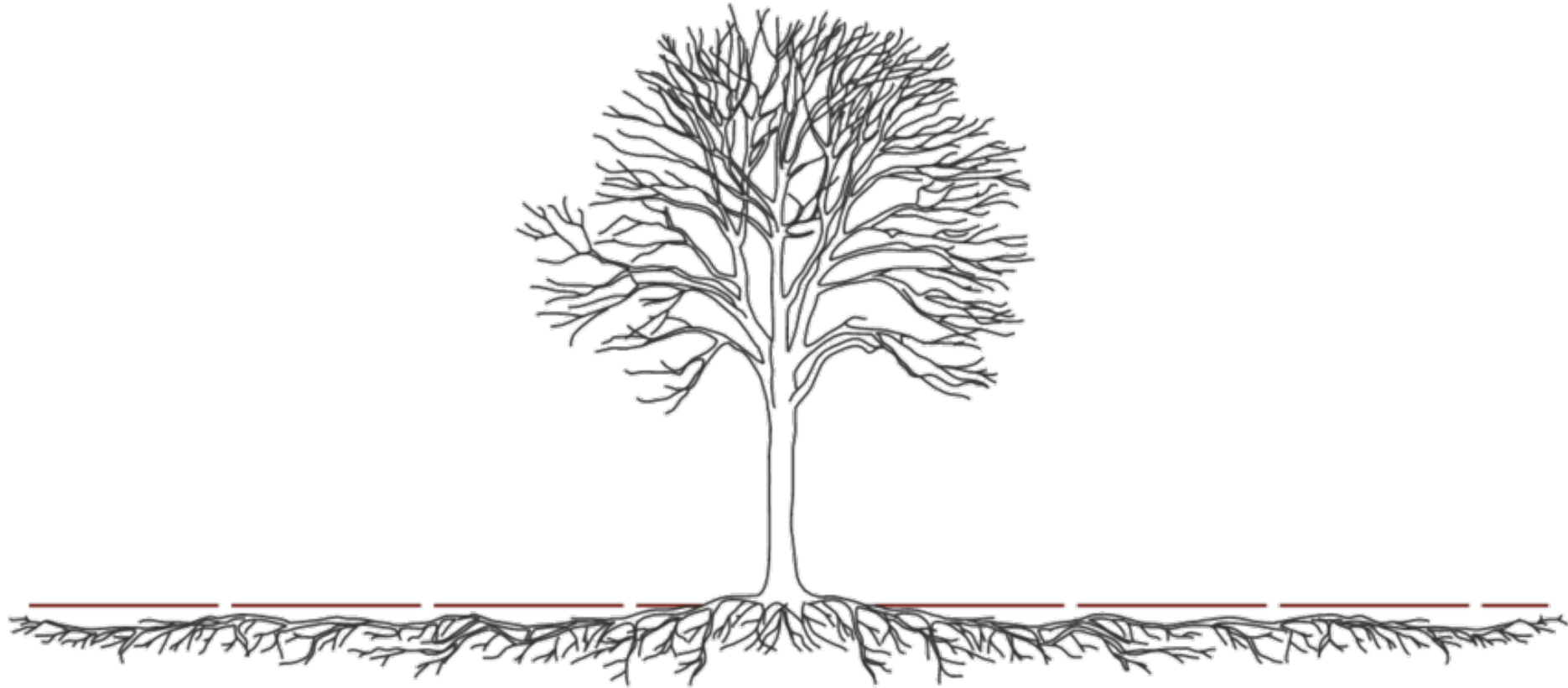
Topics

- Right Tree, Right Place
 - Location
 - Native Species
 - Purpose
- Financial Benefits
 - N, S, W, E
- Social Benefits
 - Underserved neighborhoods
 - Sense of community and belonging
- Physical Benefits
 - HTHL
- Special Considerations
 - Utilities
 - Tree demands
 - Allergies
 - Hazards



Right Tree, Right Place

- Know your soils, your ecoregion, and your goals
- Irrigation, excessive or insufficient, will make or break your tree
- Tree roots need 3x as much space as tree needs height
- Native tree species **ONLY**!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
- Are you planting trees for *aesthetics, shade, production, etc.*?
- Know your city ordinances



Ziemiańska, Monika & Suchocka, Marzena. (2013). The planning and principles of tree protection in the investment process ..



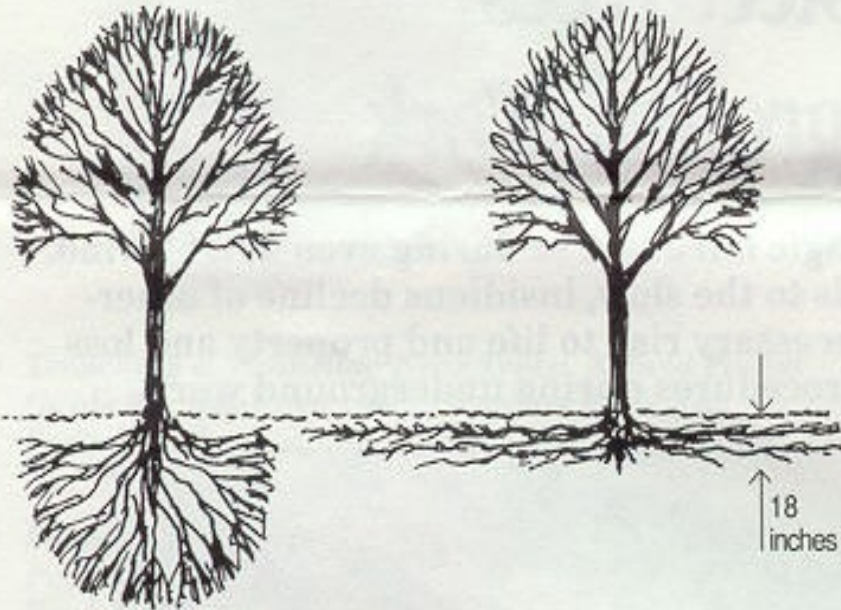
WRONG



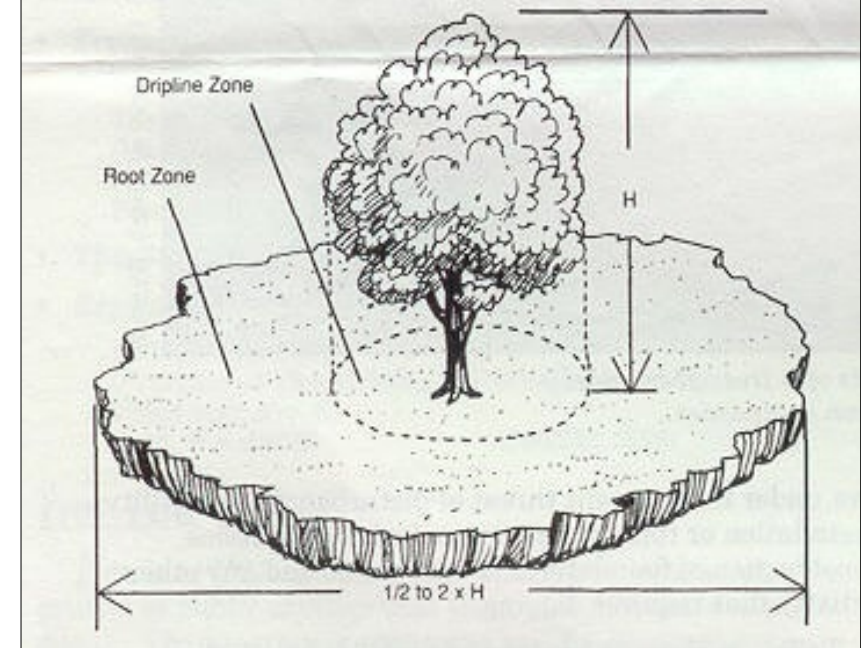
<https://depositphotos.com/portfolio-1202020.html?content=vector>

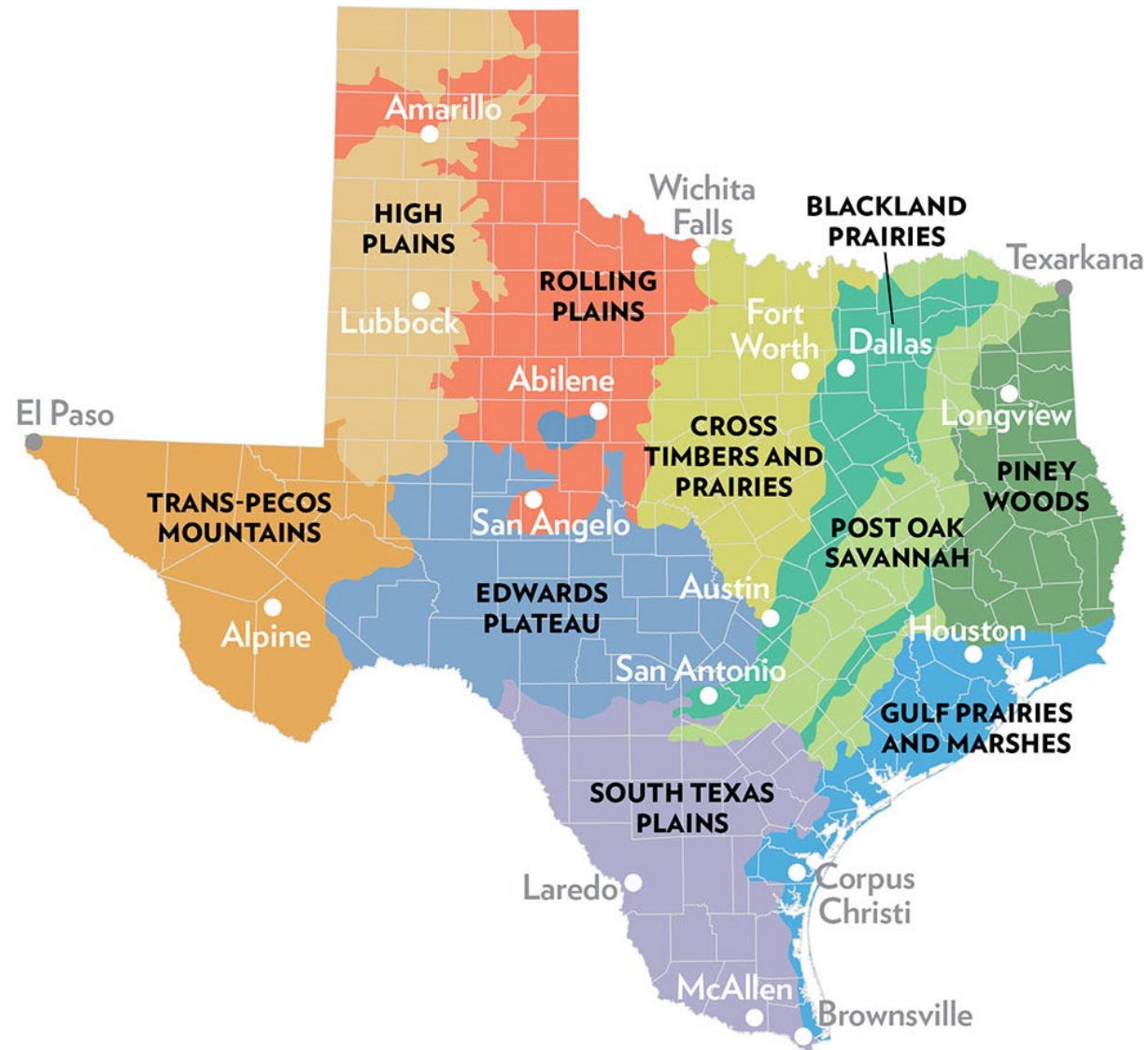
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1. Tree roots are *not* an underground reflection of the crown.



2. Roots spread far and wide!







Financial Benefits

Trees have different capabilities depending on their foliage, bark, root depth, and shade tolerance

- Deciduous and Evergreen trees need to be placed at different cardinal directions for energy efficiency
- Root depth can lead to soil compaction risks as well as physical damage from pedestrians or mowers
- Shade tolerant does not mean full sun tolerant
- Increased property value

Planting for Energy Efficiency

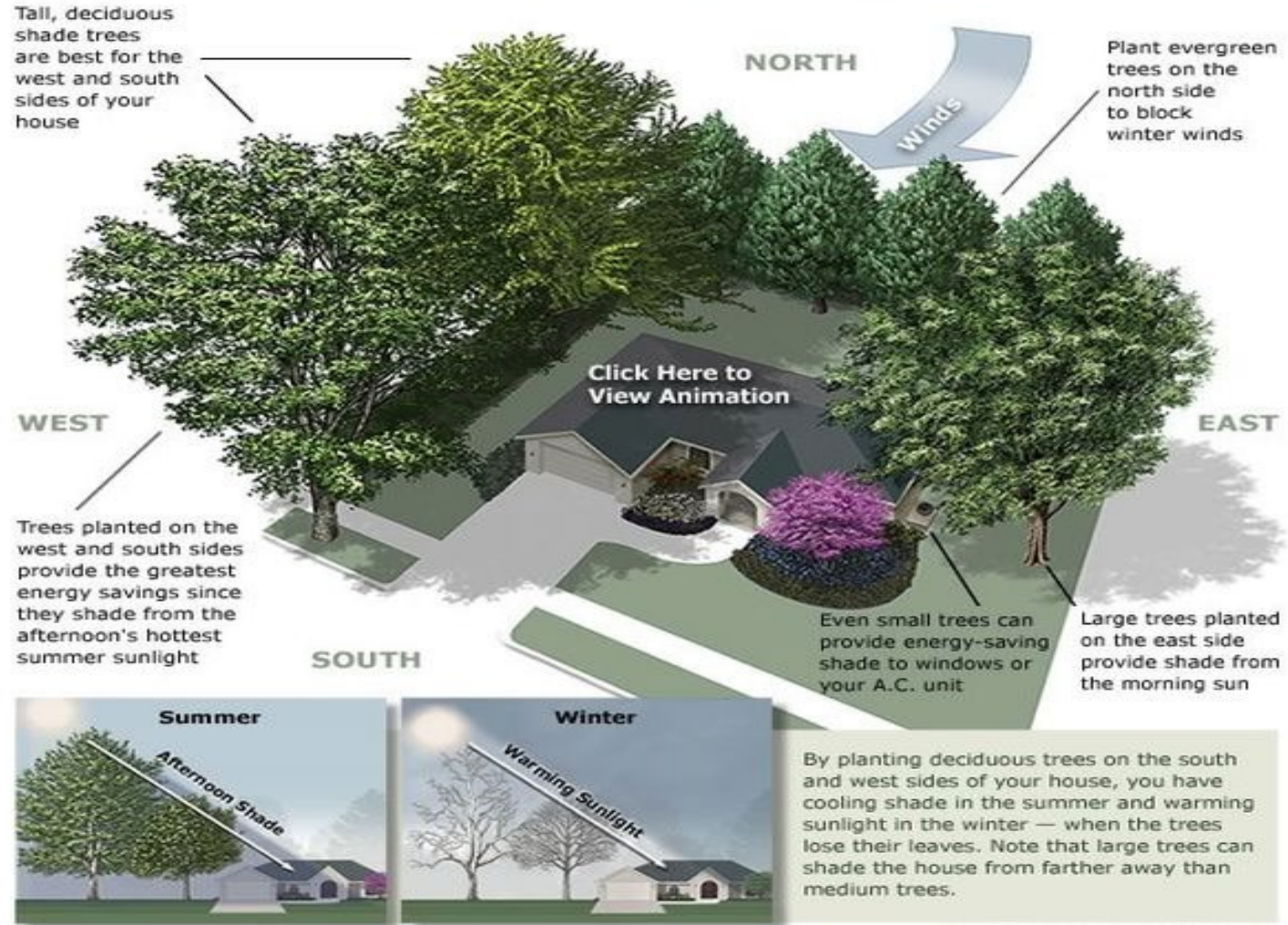
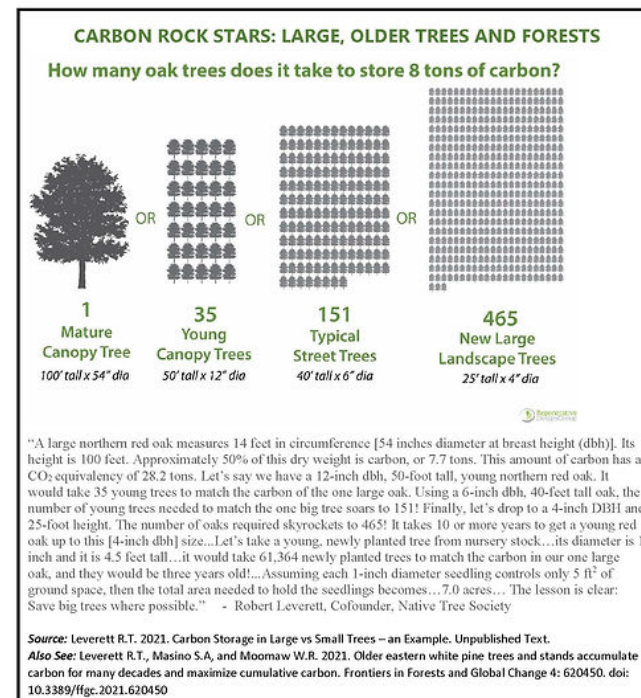
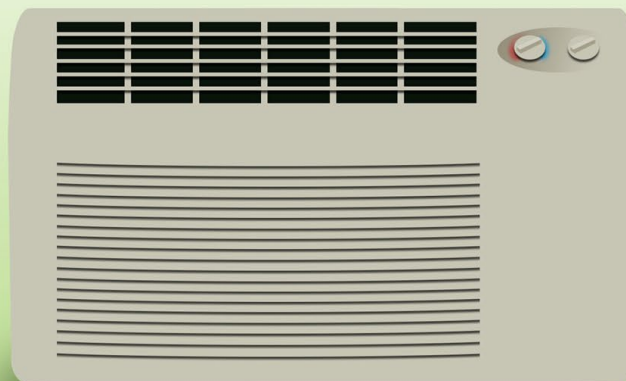


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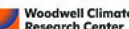


Activate Windows
Go to Settings to activate Windows.

100 = 1,000



Prepared in 2021 by:

 BSC GROUP
  LYNNEAR SOLUTIONS
  Regenerative Design Group
  Woodwell Climate Research Center

For the Apple Country Natural Climate Solutions Project, a collaboration of the Towns of Bolton, Harvard and the Devens Regional Enterprise Zone.

Funded by the Massachusetts Municipal Vulnerability Preparedness Program.



A close-up photograph of a person's hand cupped together, catching falling rain. The background is a soft-focus green, suggesting foliage, with many raindrops visible in mid-air, creating a sense of movement and freshness. The lighting is bright, highlighting the texture of the skin and the clarity of the water.

VALUE

100
mature trees
catch

200,000
gallons of
rainwater/year



Social Benefits

Trees usually go unnoticed in our society until we have lost them

- Urban Heat Island Effect
- Sense of belonging and community
- Approachability of a building
- Social gatherings
- Identity of a community



5. The Surrender of Santa Anna by William Henry Huddle, 1886.



Physical Benefits

Trees filter contaminants and pollutants from our air. Losing trees means losing lives.

- Increased pollutant infiltration
- Clean water
- Shaded areas for longer and more enjoyable outdoor activities/work
- Encourage walkable cities
- Animal and migration habitats
- Lower cortisol levels
- Quicker hospital recovery, less pain meds

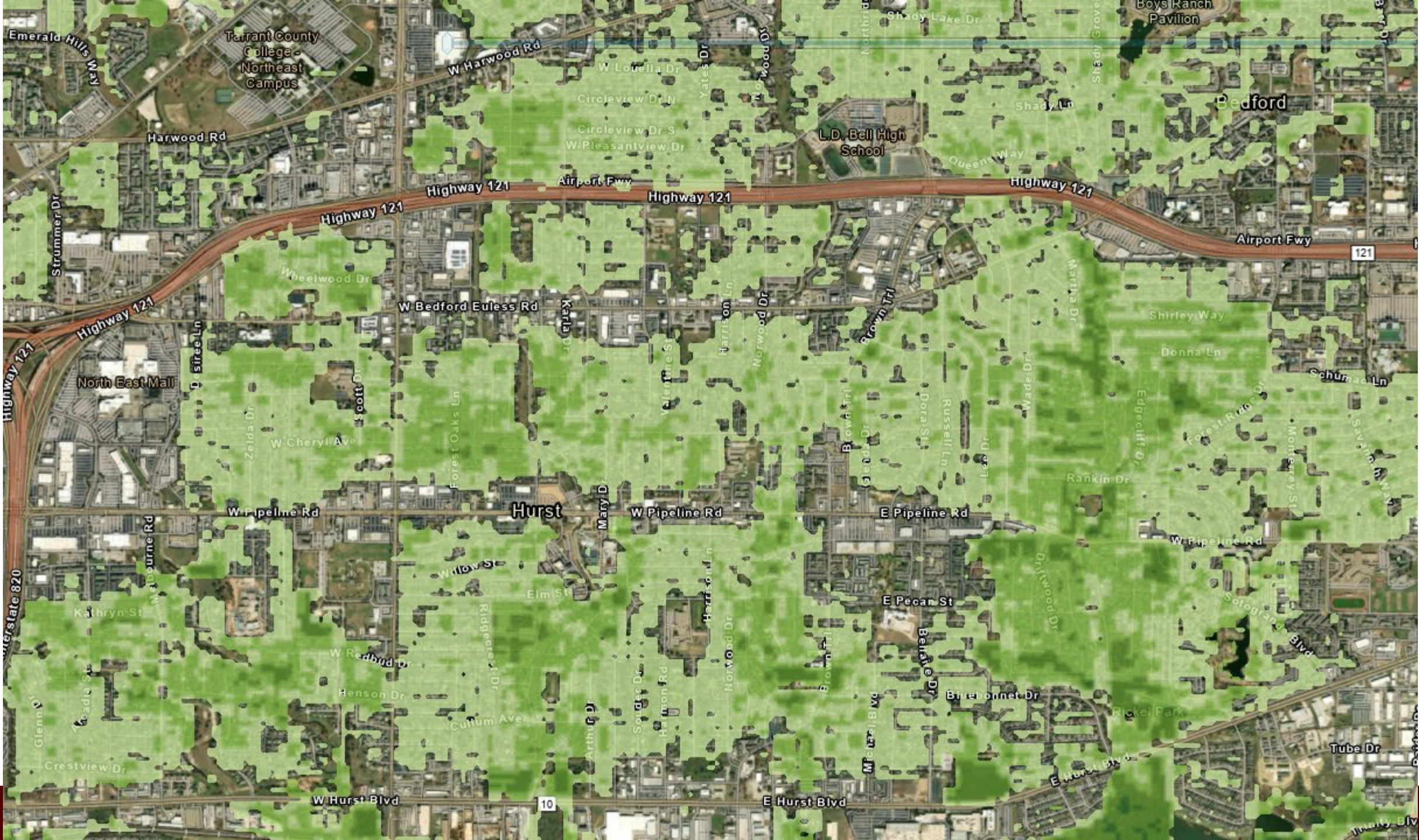


If it's too hot to walk barefoot, it's an urban heat island



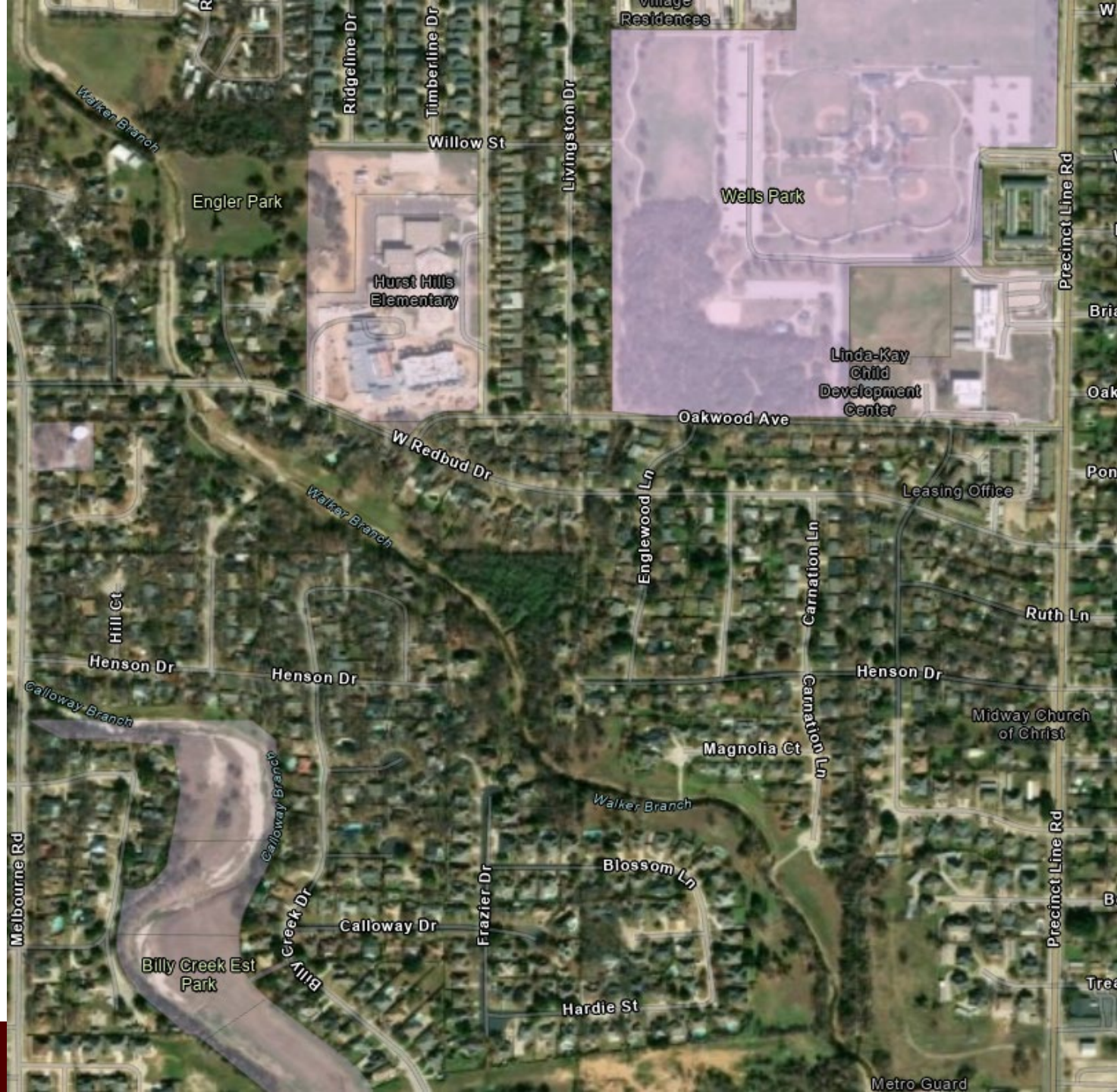
Special Considerations

- Utility impeding/imminent domain
- Tree demands
 - Branching and rooting structures
 - Leaf drop
 - Water needs
- Allergies
 - Pollen
 - Fruits and nuts
 - Scent
- Hazards
 - Branch drop, tree failure, windthrow, liability, insurance













QUESTIONS?

TFSWEB.TAMU.EDU

CONSERVE. PROTECT. LEAD.



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