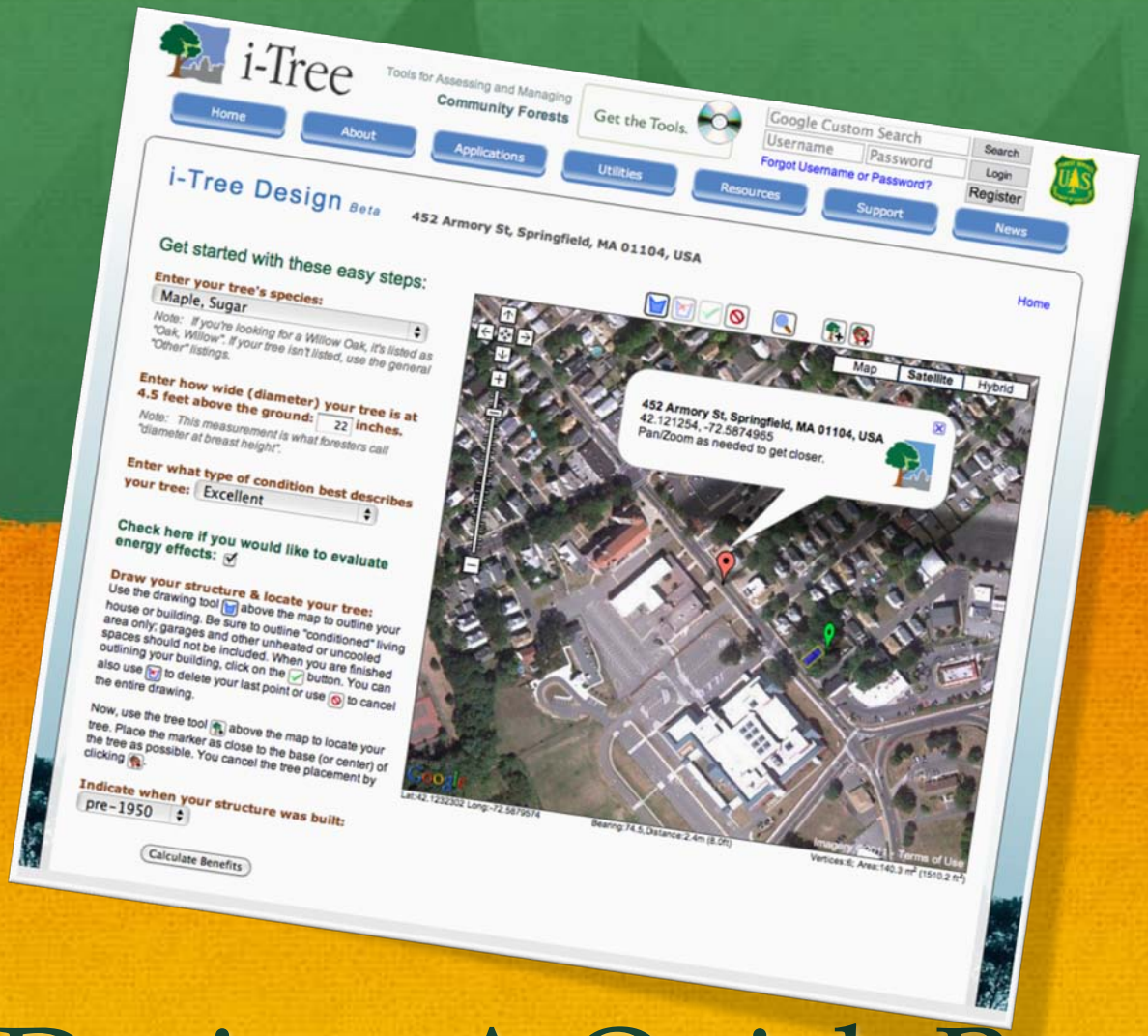
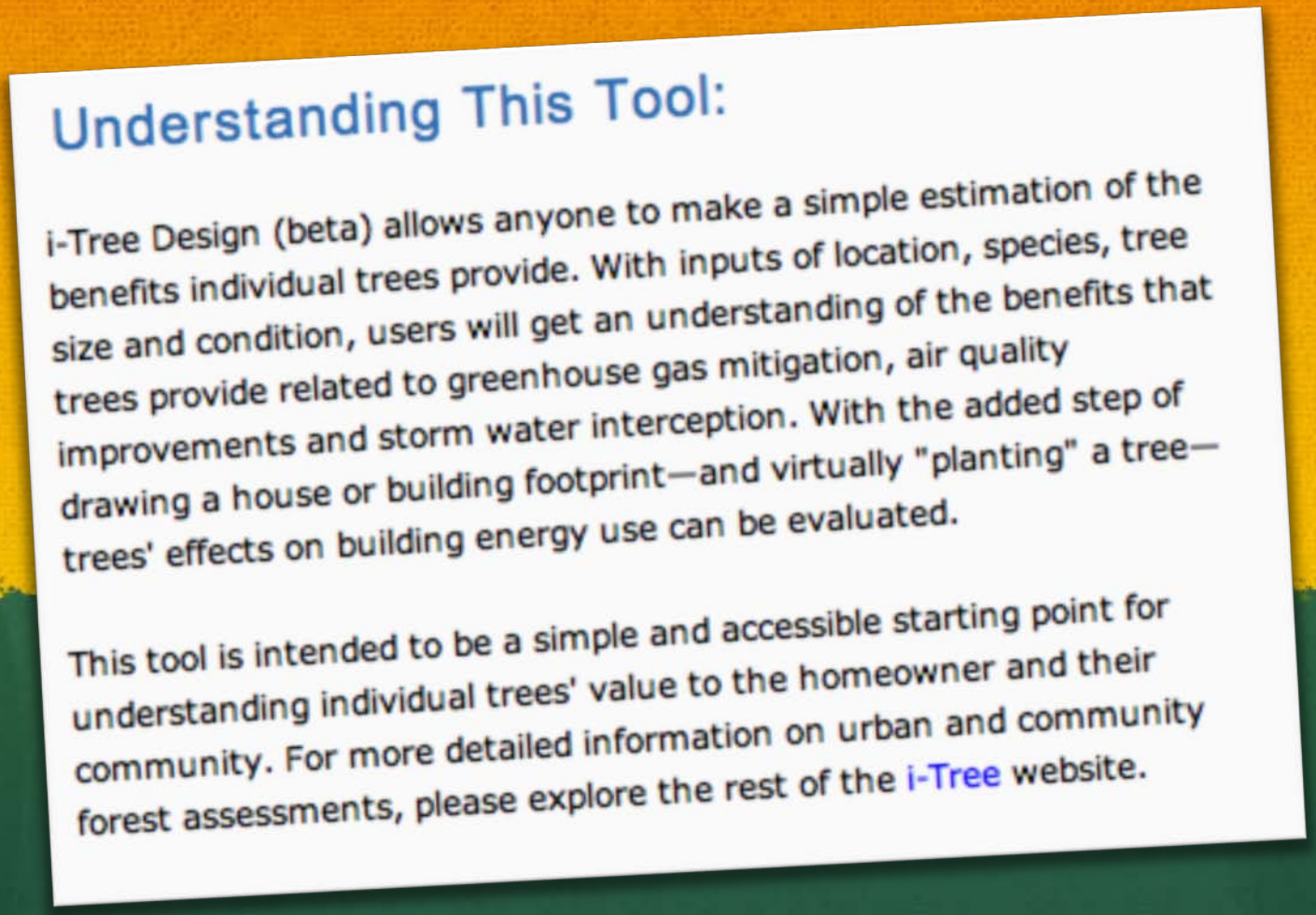
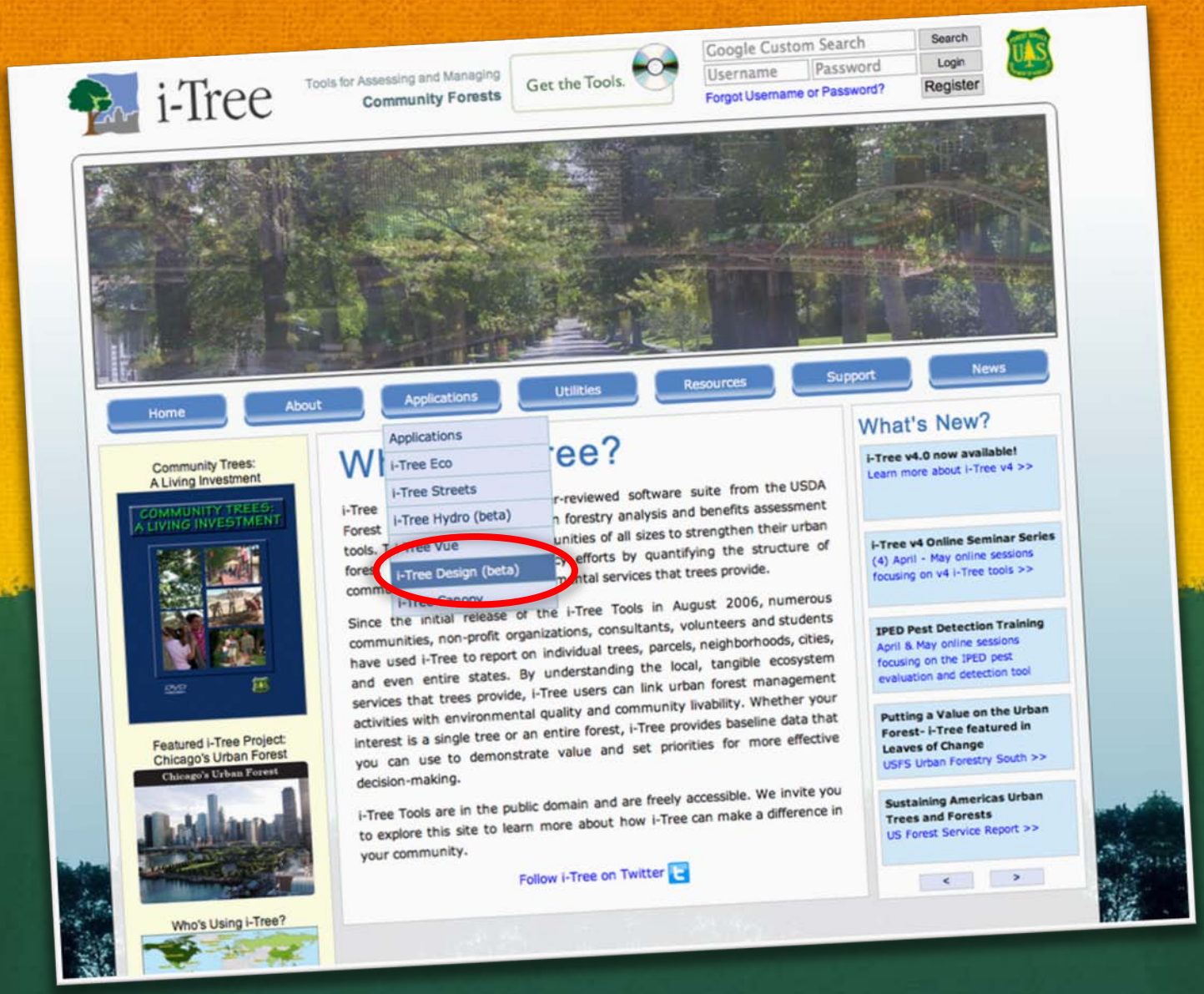


i-Tree Design: A Quick Review

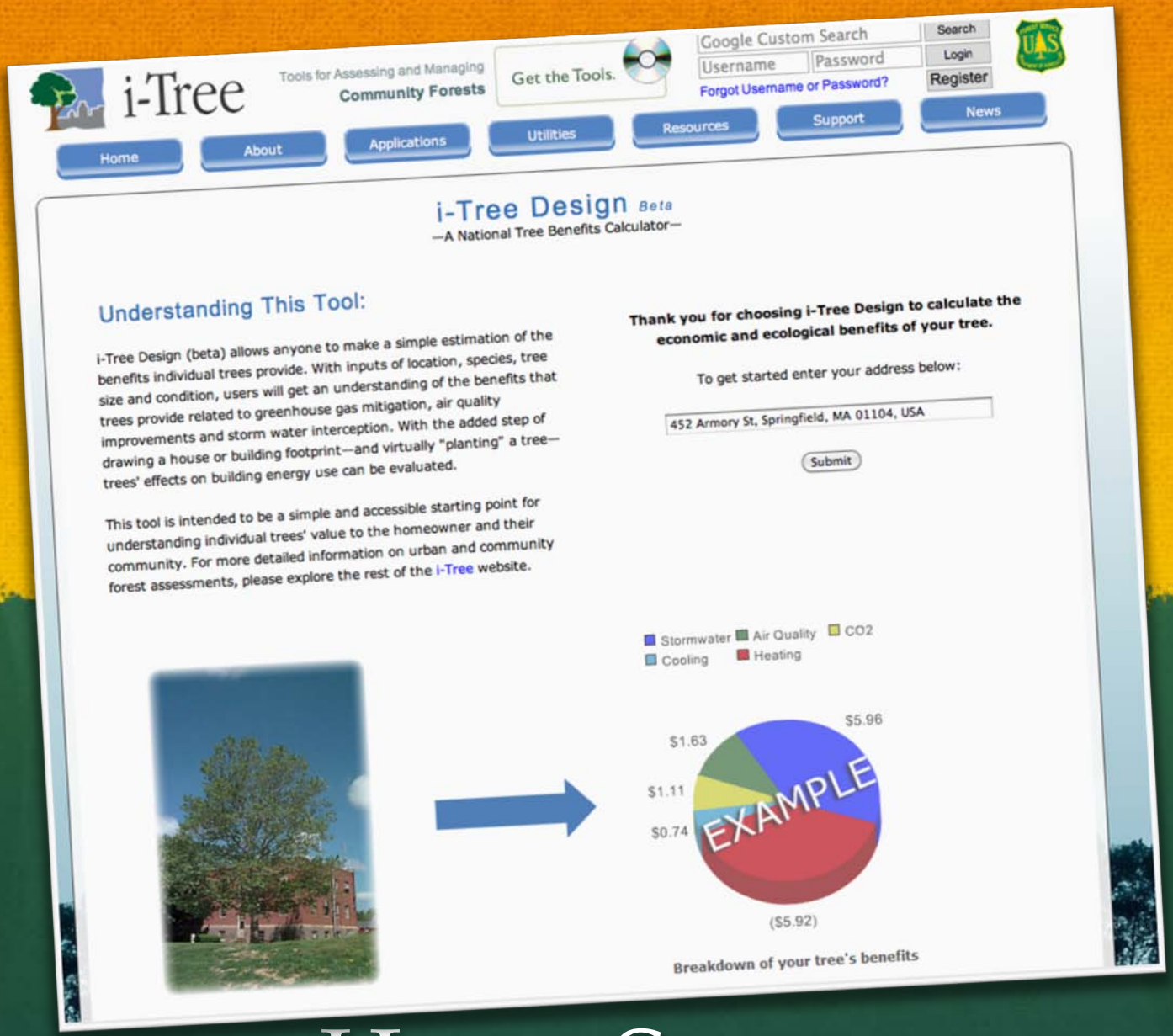


About Design

i-Tree Home Screen



i-Tree Home Screen


i-Tree
Tools for Assessing and Managing
Community Forests
Get the Tools.
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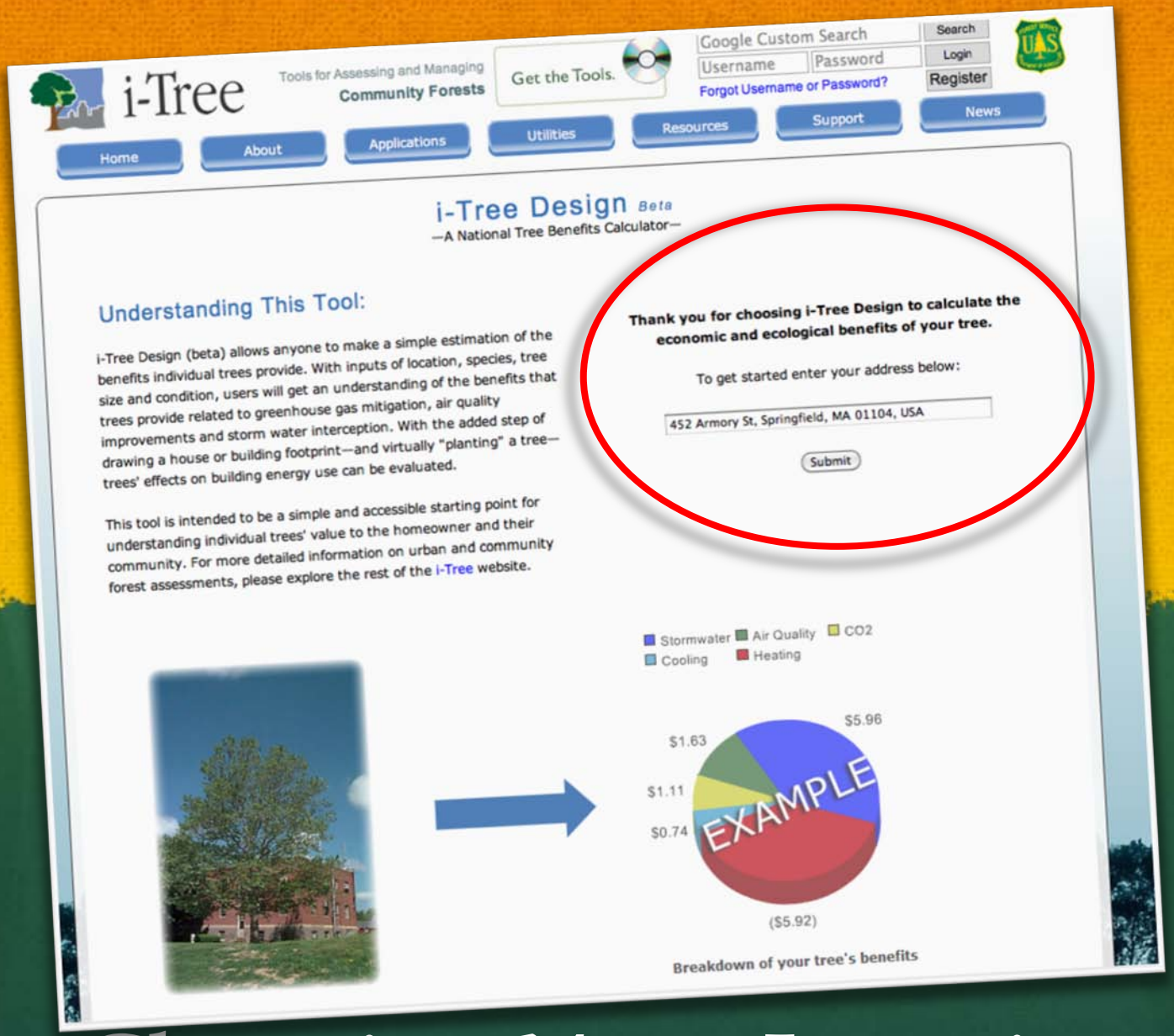
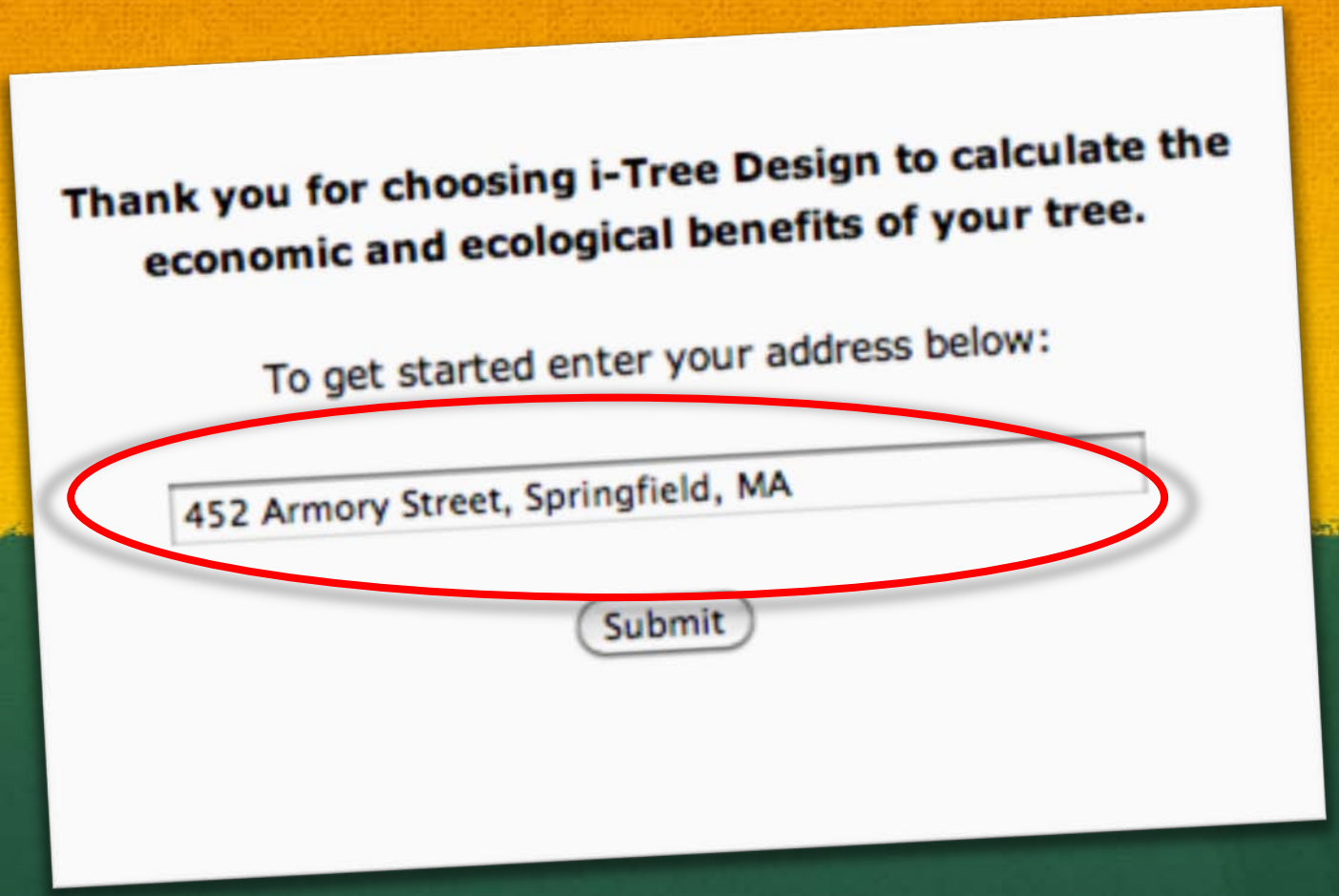
Password
Login
Register
Forgot Username or Password?
Home
About
Applications
Utilities
Resources
Support
News
i-Tree Design Beta
—A National Tree Benefits Calculator—
Understanding This Tool:
i-Tree Design (beta) allows anyone to make a simple estimation of the benefits individual trees provide. With inputs of location, species, tree size and condition, users will get an understanding of the benefits that trees provide related to greenhouse gas mitigation, air quality improvements and storm water interception. With the added step of drawing a house or building footprint—and virtually "planting" a tree—trees' effects on building energy use can be evaluated.
This tool is intended to be a simple and accessible starting point for understanding individual trees' value to the homeowner and their community. For more detailed information on urban and community forest assessments, please explore the rest of the i-Tree website.
Thank you for choosing i-Tree Design to calculate the economic and ecological benefits of your tree.
To get started enter your address below:
452 Armory St, Springfield, MA 01104, USA
Submit
Stormwater
Air Quality
CO2
Cooling
Heating
$5.96
$1.63
$1.11
$0.74
EXAMPLE
($5.92)
Breakdown of your tree's benefits

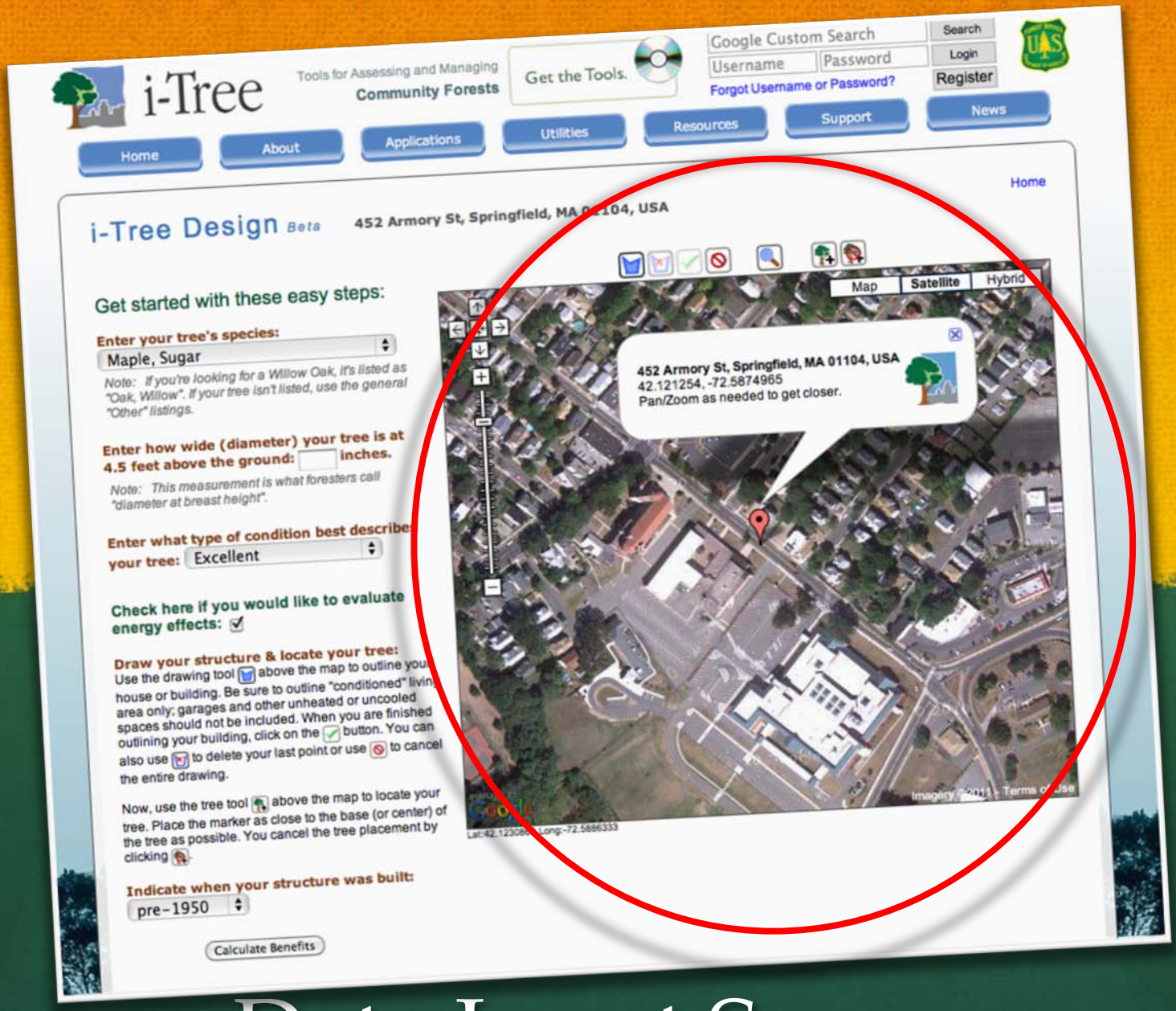
Home Screen



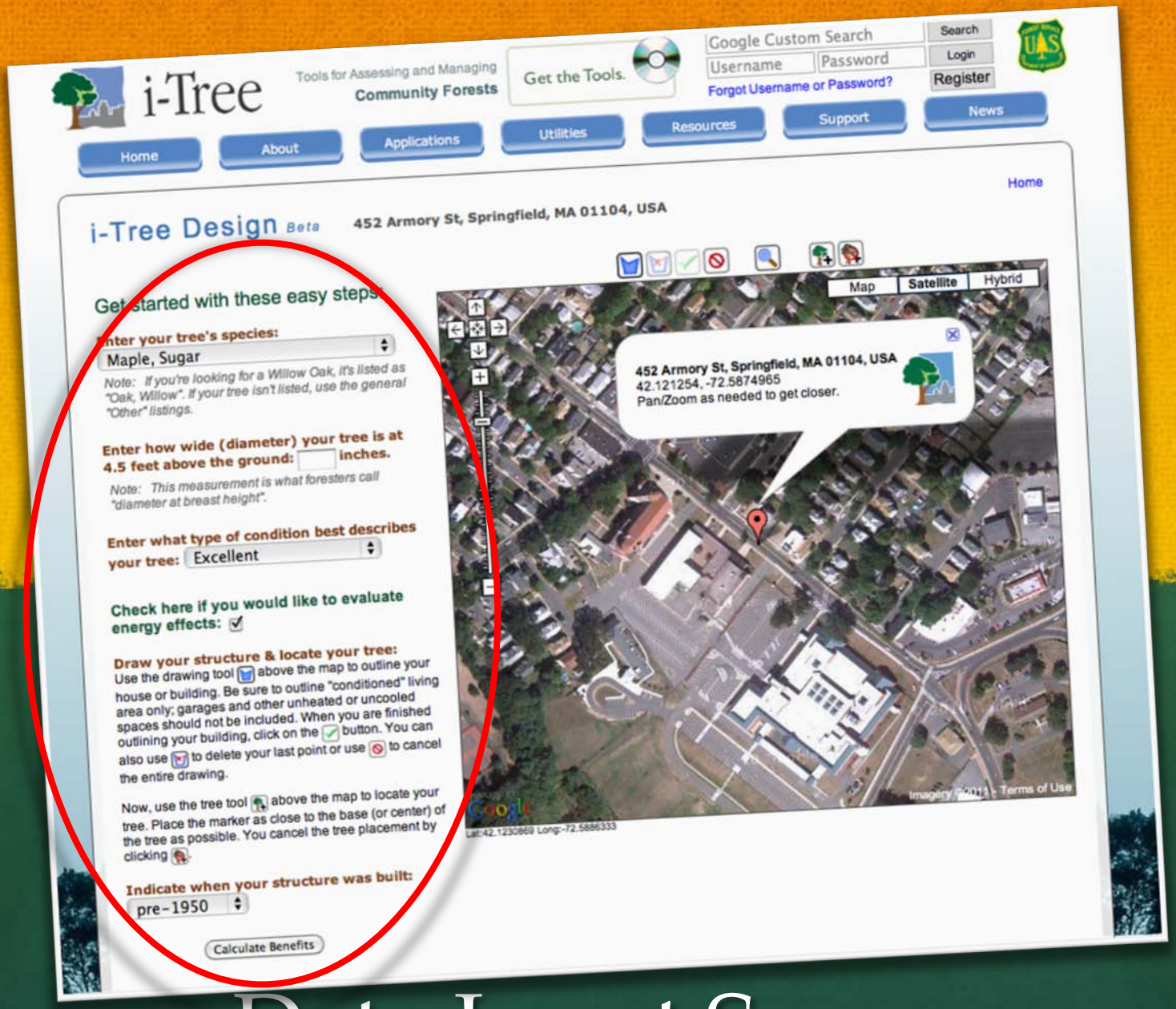
Choosing Your Location



Choosing Your Location



Data Input Screen



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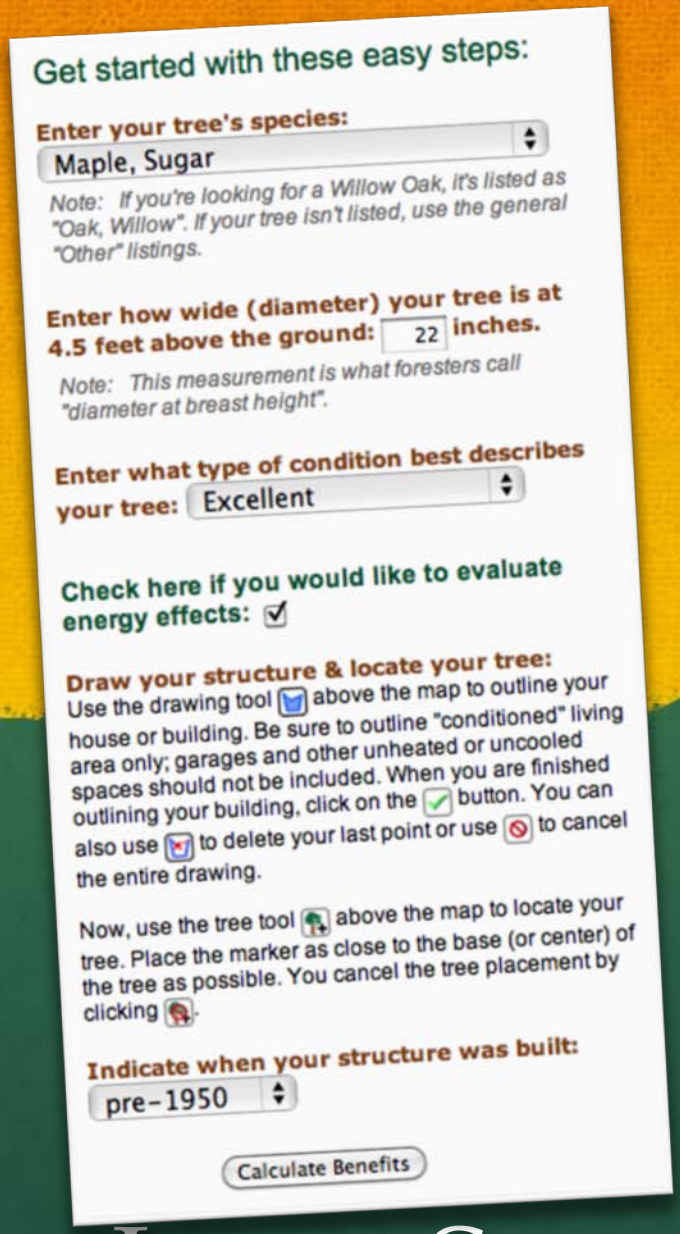
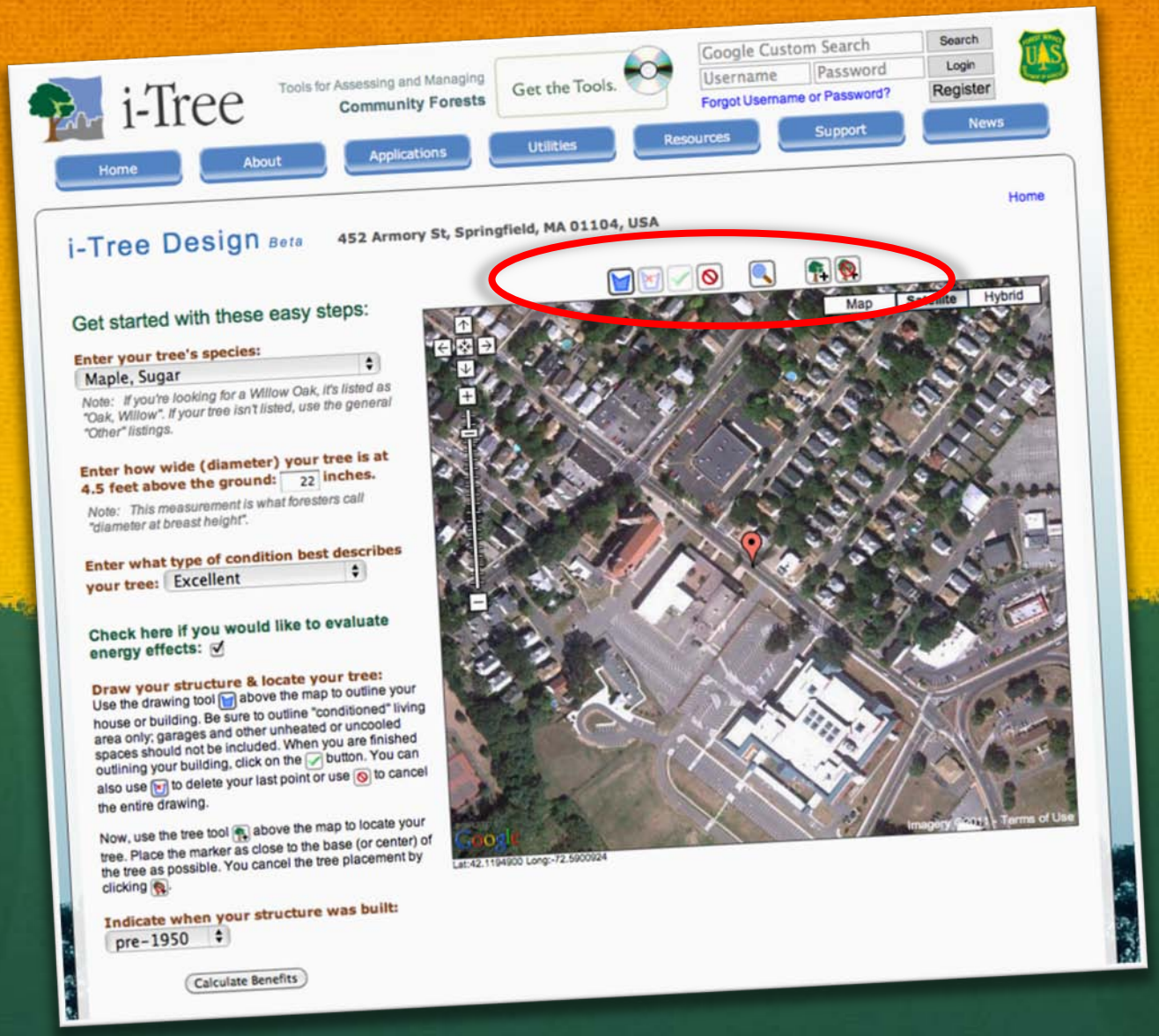
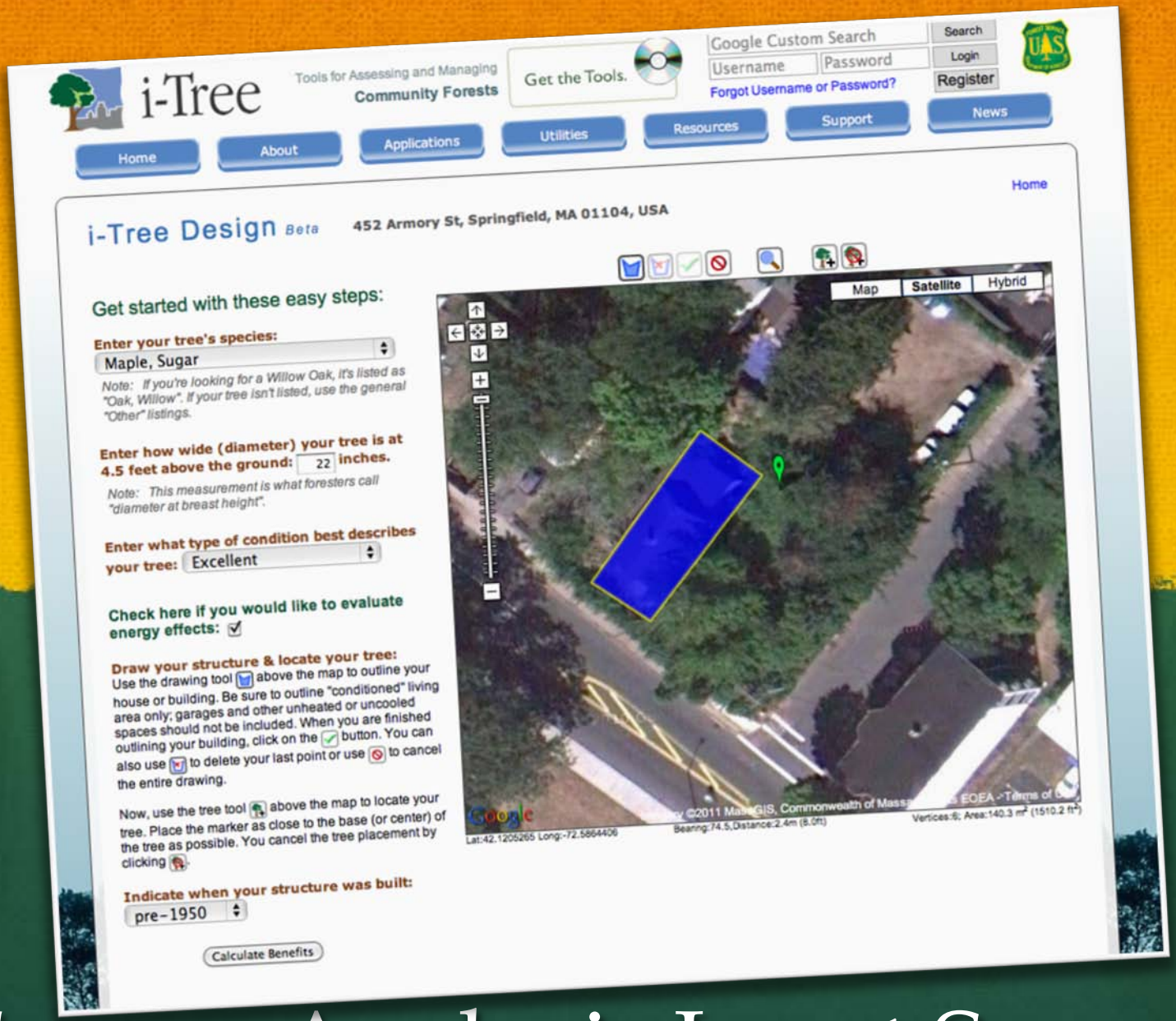


Data Input Screen



Energy Analysis Input Screen

Energy Analysis Input Tools



Energy Analysis Input Screen

i-Tree

Tools for Assessing and Managing Community Forests

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Calculate another tree

i-Tree Design *Beta* 452 Armory St, Springfield, MA 01104, USA

Overall Benefit | Storm Water | Energy | Air Quality | CO2 | About Model

Breakdown of your tree's benefits

Click on one of the tabs above for more detail

This 22 inch Sugar maple provides overall benefits of: $190 every year.

While some functional benefits of trees are well documented, others are difficult to quantify (e.g., human social and communal health). Trees' specific geography, climate, and interactions with humans and infrastructure is highly variable and makes precise calculations that much more difficult. Given these complexities, the results presented here should be considered initial approximations to better understand the environmental and economic value associated with trees and their placement.

Benefits of trees do not account for the costs associated with trees' long-term care and maintenance.

If this tree is cared for and grows to 27 inches, it will provide $201 in annual benefits.

Sugar maple
Acer saccharum

Overall Benefits

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Calculate another tree

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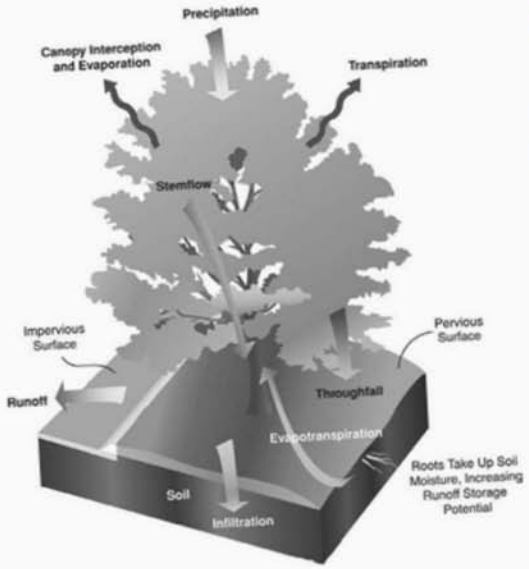


Your 22 inch Sugar maple will intercept 2,774 gallons of stormwater this year.

Urban stormwater runoff (or "non-point source pollution") washes chemicals (oil, gasoline, salts, etc.) and litter from surfaces such as roadways and parking lots into streams, wetlands, rivers and oceans. The more impervious the surface (e.g., concrete, asphalt, rooftops), the more quickly pollutants are washed into our community waterways. Drinking water, aquatic life and the health of our entire ecosystem can be adversely affected by this process.

Trees act as mini-reservoirs, controlling runoff at the source. Trees reduce runoff by:

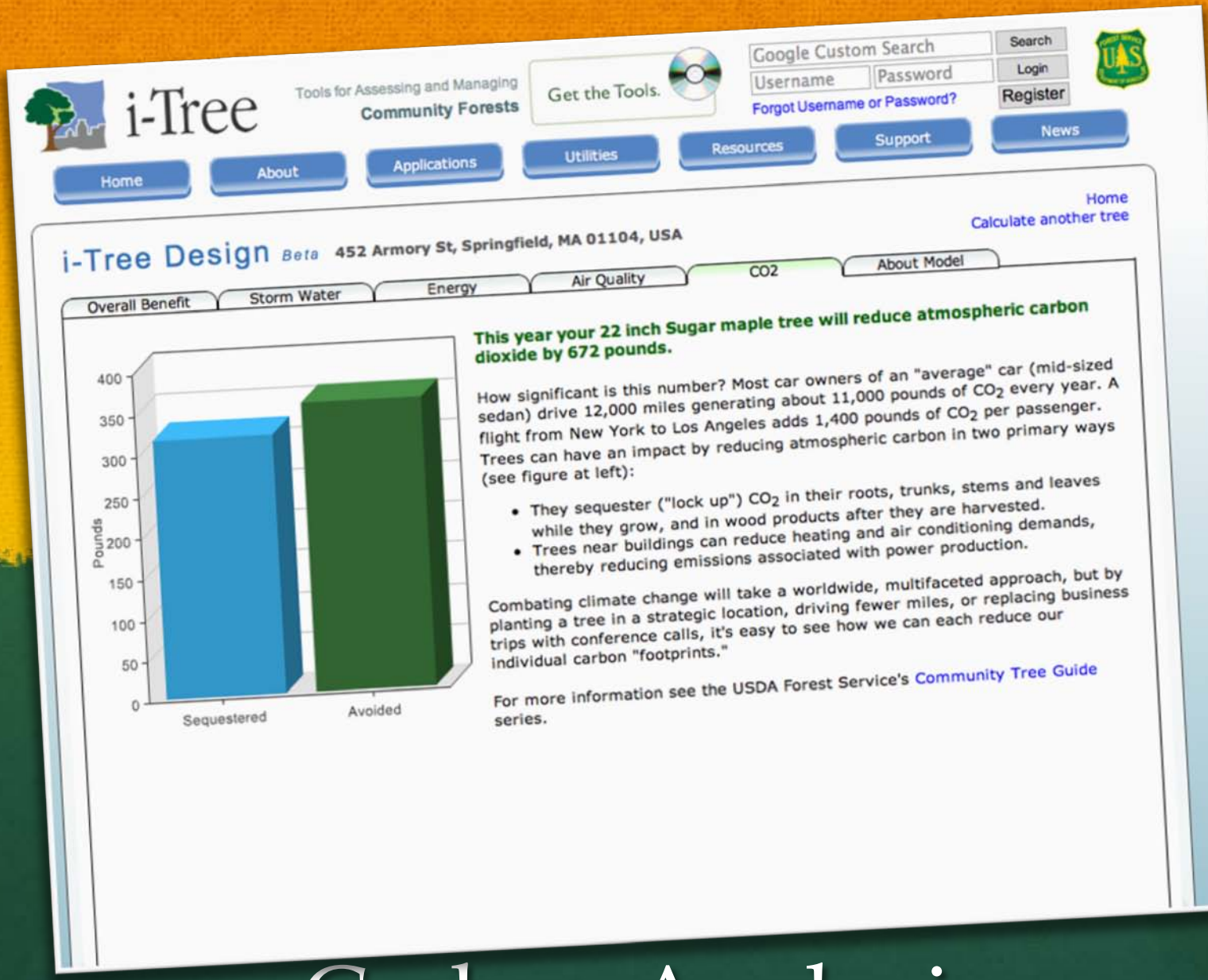
- Intercepting and holding rain on leaves, branches and bark
- Increasing infiltration and storage of rainwater through the tree's root system
- Reducing soil erosion by slowing rainfall before it strikes the soil

For more information see the USDA Forest Service's Community Tree Guide series.

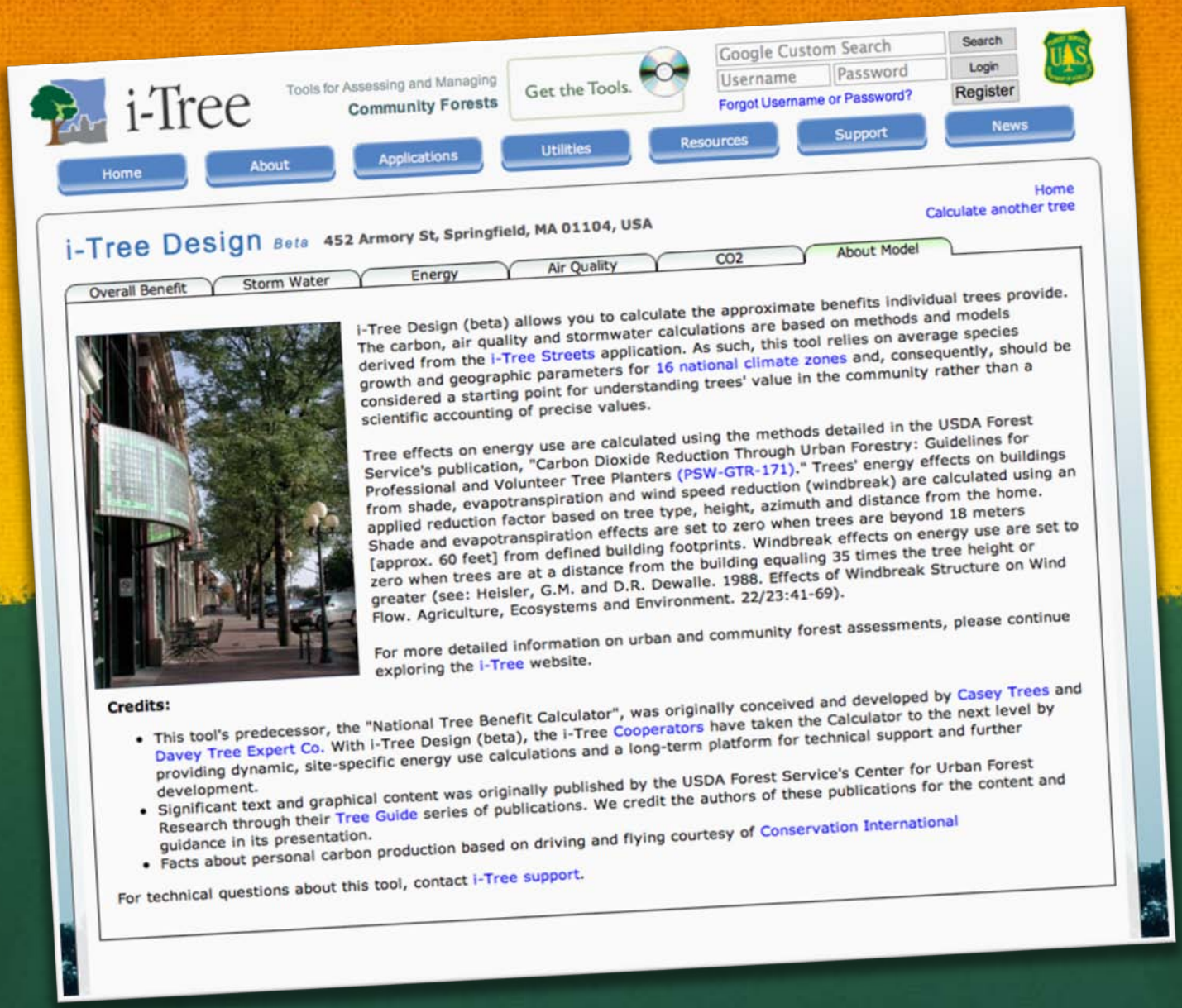
Stormwater Benefits

Energy Benefits

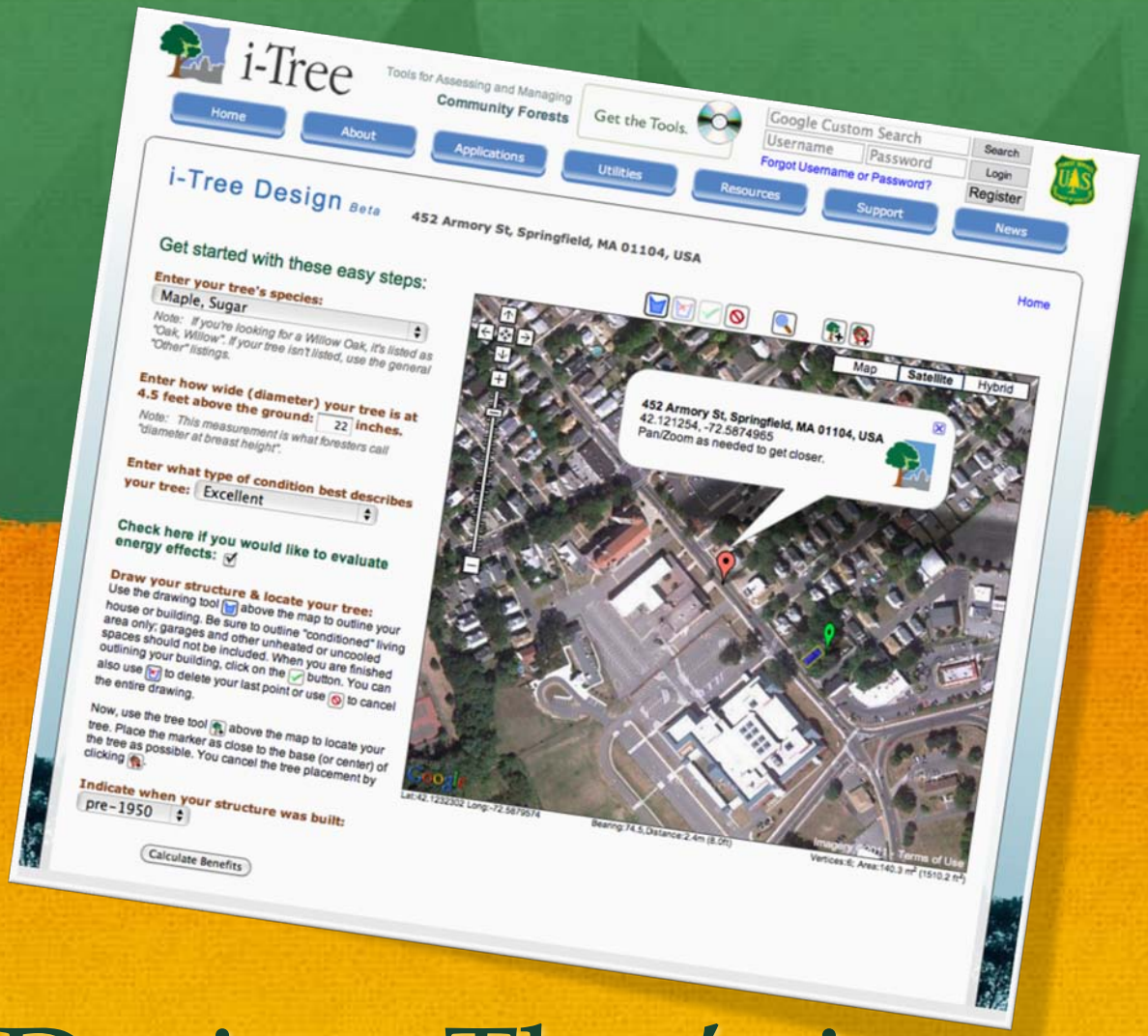
Air Quality Benefits



Carbon Analysis



Reference & Support Page



i-Tree Design: That's it.