USDA Forest Service

Urban Forest Connections
webinar series

Second Wednesdays | 1:00 – 2:15 pm ET
www.fs.fed.us/research/urban-webinars

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PART II: CONNECTING WITH THE COMMUNITY

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UTC Data Driven Strategies for Canopy Protection

DDOT Urban Forestry Administration
UTC - If one is good...

Identifies Distribution of Existing Canopy
Understand a Changing Canopy

...then 2 are even better.
Identifying the Drivers of Canopy Change

Some Change is Largely Understood
Identifying the Drivers of Canopy Change

Other Change is Less Well Understood

UTC Change & Private Tree Removal Permits
Unregulated Canopy Loss

- Insight into vulnerable tree populations
- Heightened vigilance among arborists and community leaders
Enhanced Tree Protection & Enforcement

- UTC data over time identifies areas less compliant with tree removal regulations.
- Informs areas where outreach and education may be useful.
LiDAR

- Provides vegetation height
- Allows UFA to interpolate stem diameter using traditional forestry volumetric equations
- Enforcement becomes possible even after trees have been removed
• Ormerod Equation yielded most accurate stem diameter estimates.

• Remaining trees still standing on site provided proof of concept material.
Canopy Change Detection
LiDAR Reveals Change in 3 Dimensions

- Urban Tree Canopy studies can be biased toward canopy loss.
- Using LiDAR, we can detect the smaller, more incremental growth accrued by younger, growing trees.
Detailed Understanding Of How Our Canopy Is Changing...

...and how our program is responding to meet these challenges. For instance, recent tree plantings show canopy expansion.
For more information on Urban Tree Canopy in DC, please visit:
http://arcg.is/1C1fSpU

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