Key Issue #2: Expanding Utilization of Technology

Increased use of technology was cited by many thought leaders as the primary area of progress in urban and community forestry in the last decade. However, technology is also an area ripe for continuing important progress in the next ten years. We may not be able to foresee the emerging technologies in the coming decade, but we do know that new technologies will emerge to significantly improve urban forest development, maintenance, and health. Also, given the explosion of tools that enable greater public engagement through social media and smart phones apps, it is likely that new technologies will emerge to enable greater public interest in and stewardship of urban forests. Many thought leaders noted that development of tools that enable identification of ideal urban forest placement for both forest and human health is a strong need for building public awareness.

IDEAS FOR ACTION - Gaps, Needs, Opportunities

- Expand the utilization of the three UCF primary tools – the i-Tree tools suite3, the Stewardship Mapping and Assessment Project (STEW-MAP)4, and Urban Tree Canopy Assessment5 – developed in the last ten years for communities, agencies and organizations – have built significant capacity to analyze and quantify numerous aspects of our urban forests. In the next ten years, the hope is that tools like these will be used to assist better placement of urban forests to maximize their functions and benefits at the neighborhood, city and regional scale.
- Develop more technologies to address pests and other climate change threats; share best practices among communities and researchers nationally.
- Translate the data collected by communities in Urban Tree Canopy Assessments (UTC) into actions, so that they will be implemented, monitored, and outcomes measured.
- i-Tree data collected during assessments needs to be available to UCF managers, stewards and planners for continued and expanded planning and monitoring.
- Encourage more communities to conduct urban tree canopy assessments, and support the development of consistent methods for urban tree canopy assessments.
- Connect the i-Tree suite of tools to schools, particularly at the middle and high school level, to enable youth to conduct actual assessments in localities and to foster partnerships between schools, municipalities and NGOs.
- Establish a single platform to enable broad access to these technology tools. One possibility might be to use the “EcoPiazza” UF communication website that Ed Macie and others of the USDA Forest Service is developing.
- Develop tools that can use “big data” (large data sets such as UTC canopy data sets for an entire city) for improving the ability to manage complex urban ecosystems. For example, Milwaukee is utilizing aerial photography to identify ash trees across the city, ground-truthing the location of those trees, and developing treatment strategies to address the threat of Emerald Ash Borer at the city-scale.