Urban Forestry and Implications for Emerging Voluntary Carbon Markets



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NORTHERN NEW ENGLAND FORESTS
RESEARCH SYMPOSIUM

Urban Forestry Context

- Protocols for Urban Forestry VCM projects:
 - One project ever registered on CCX
 - ✓ Climate Action Reserve released first version of Urban Forestry Project Protocol in 2010; no registered projects
- Multiple co-benefits of urban trees:
 - storm water mitigation
 - ✓ urban habitat creation
 - ✓ avoided emissions from heating and cooling
 - ✓ property values increases
 - ✓ air quality enhancement
 - ✓ crime rate mitigation
 - √ community revitalization
 - ✓ volunteerism





Methodology

- Initial scoping through Alliance for Community Trees member list
- Case studies identified
- Site visits
- 40+ interviews
- Coding



Sacramento Tree Foundation & Harbison-Mahoney-Higgins Builders

✓ Local business pays non-profit to offset specific emissions through private tree

planting program



Photos courtesy of the Sacramento Tree Foundation



Michigan State University & the Chicago Climate Exchange

✓ Carbon sequestered by campus trees used internally to help meet institution's climate

commitments

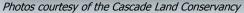


Image from Google Earth

The Cascade Land Conservancy's Carbon Mitigation Program

✓ Donors pay non-profit to carbon mitigation that finances restoration of municipal forests



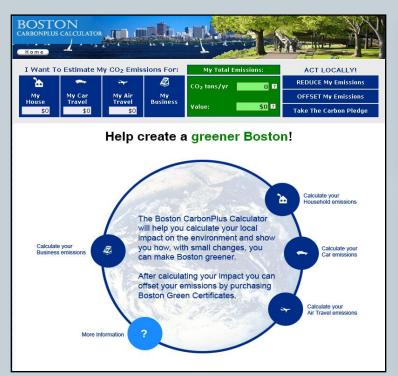






The CarbonPlus Calculator

✓ U.S. Forest Service offers a customized, online carbon calculator to cities to educate users and raise funds for tree planting by local non-profits





http://blog.rlove.org/2006_10_01_archive



http://www.nyrp.org/email/newsletter/mtnyc/2009/mar/index

TreeFolks & the City of Austin

 Partnership between local government and an established non-profit aligns carbon neutrality goals with the creation of carbon offsets through local greening initiatives



Photo courtesy of the City of Austin



Photo courtesy of TreeFolks

Urban Forestry Barriers from Interviews

BARRIERS	FREQUENCY
Complexities of developing a high quality offset/project	35
Lack of organizational capacity to develop and administer a project	17
Inadequate Marketing Resources	13
The perception that carbon offsets can't cover the costs of urban and community forestry	12
Lack of models	12
Uncertainties about offsets and the voluntary carbon market	12
Lack of federal regulation	11
Concerns about up-front costs and effort	10
Concerns about accounting and ensuring funds are directed to the right place	9
Challenges of working within a bureaucratic system	8
The state of the economy	8
Concerns about existing protocol (CAR)	8
Lack of uniformity and standards	8
The limited potential of urban forests to sequester carbon	7
Employee turnover	2
The pitfalls of being an early adopter	2
Difficulties around maintaining good relationships with partners	2

Urban Forestry Opportunities Identified from Interviews

OPPORTUNITIES	FREQUENCY
Supporting local initiatives and targeting local populations	23
Institutional sustainability goals and initiatives	23
Interest within the urban forestry community and from the public	17
Highlighting the co-benefits of urban trees	15
Resources are increasingly available	15
Using existing or creating new partnerships	15
Without uniform standards, ability to use creativity and liberty in project design	12
Existing organizational capacity	11
Promoting sustainability education and behavior change	7
The pre-compliance market	6
Leveraging and raising funds for urban and community forestry	6
Fostering small-scale and bottom-up approaches to climate change	6
Greening new spaces	4

General Findings

- Price per ton of carbon offset or mitigated ranges from \$.05 mtCO₂e (CCX) to \$130 mtCO₂e (CLC)
- Opportunities to work with strengths of tree planting groups
- Lessons from forest certification: intermediaries or group certification?



Products

- Case Studies
- Website (<u>www.uvm.edu/forestcarbon</u>)
- Quick Guide for practitioners
- Article on the CarbonPlus Calculator
- Article on opportunities & barriers
- Popular piece for ACT newsletter
- Possible ACT web training

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- The Alliance for Community Trees

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www.uvm.edu/forestcarbon

*Unless otherwise noted, all photographs were taken by Elise Schadler