Abstract

- Michigan State University (MSU) holds voluntary membership in the Chicago Climate Exchange (CCX)
- This research quantified carbon sequestered in MSU’s campus plantings
- MSU was established as "the first CCX urban forestry project to be validated." (CCX Offsets Report Vol1 #5 2009)

Methods

- MSU’s Campus Planning and Administration (CPA) plantings database was analyzed to determine which woody stems might be eligible to be included in a CCX approved carbon offset project.
- Trees had to be at least 1” diameter at breast height and planted on or after Jan 1, 1990
- Only carbon sequestered during the CCX contract period (2003 to present) was eligible for credit
- For purposes of this analysis only those trees in fair or better health condition were included

- The original CCX look-up tables included 100 tree species representing 43 genera; the MSU CPA database contained many more tree species.

Using M. A. Dirr’s Manual of Woody Landscape Plants University extension websites, and other sources, the original CCX lookup tables were expanded.

- Each woody stem was assigned a growth rate dependent upon its age & membership in one of six classes:
  - Fast, Medium or Slow-growing Hardwoods or Softwoods

Results

- For 2009, 4987 eligible trees representing 361 unique species within 75 genera were identified.

- These stems sequestered 46.1 metric tons of Carbon Dioxide.

- That’s equivalent to the Annual Emissions from 9 vehicles epa.gov/OMS/climate/420f05004.htm