

USDA Forest Service

URBAN FOREST CONNECTIONS

webinar series

Second Wednesdays | 1:00 – 2:15 pm ET

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THE POWER OF TREE CANOPY DATA TO PLAN, PRIORITIZE, AND INSPIRE STEWARDSHIP

PART I: RESEARCH FOUNDATIONS



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GREATER KANSAS CITY
REGIONAL
FORESTRY
INITIATIVE

USDA Forest Service
Urban Forest Connections
October 14, 2015

MARC
Mid-America Regional Council



Grant objectives

- Regional forestry assessment
- Regional policy and planning framework
- Community education
- Adoption and implementation of framework goals and recommendations



Stakeholder comments

- “It’s like apple pie and motherhood”
- Education is top priority (Dubrovnic)
- Funding!
- “Take care of what we’ve got”
- Integration at project, program, policy levels
- Policy-level support is critical
- “Let’s take the elevator to the top!”



GREATER KANSAS CITY REGIONAL FOREST

249,450,000 trees
cover **18.6%**
of our region's land



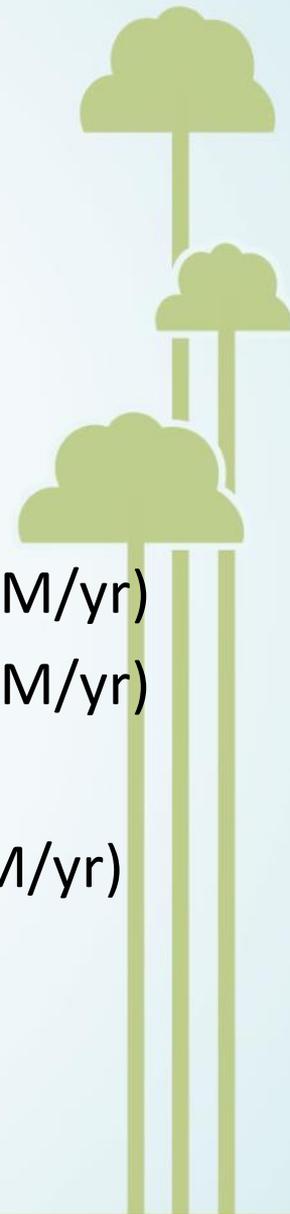
Regional Assessment

FEATURE

- Number of trees
- Tree cover
- Pollution removal
- Ozone removal
- Carbon storage
- Carbon sequestration
- Building energy reduction
- **Total value per year**

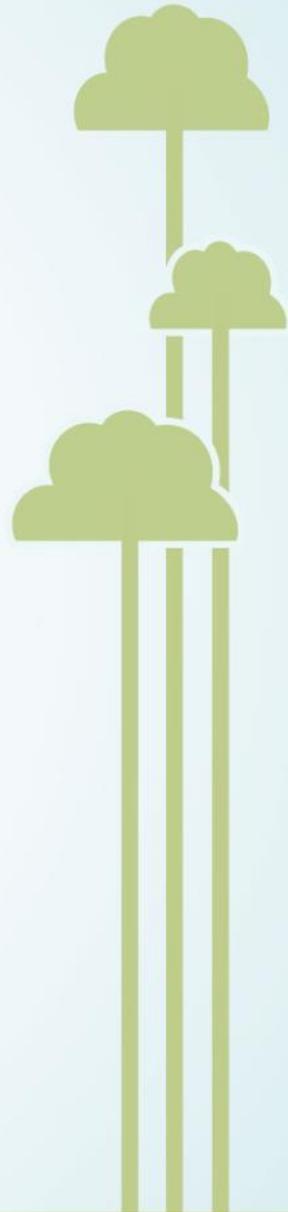
MEASURE

- 249,450,000
- 18.6%
- 37,000 tons/yr (\$286M/yr)
- 23,040 tons/yr (\$207M/yr)
- 19.9M tons (\$411M)
- 1.0M tons/yr (\$20.7M/yr)
- \$14M/yr
- **\$320.7M/yr**



Emerging Policy Issues

- Heat island abatement
- Air quality
- Green infrastructure conservation at the landscape, watershed and site scales
- Complete and green streets
- Orchards, urban ag & rain gardens



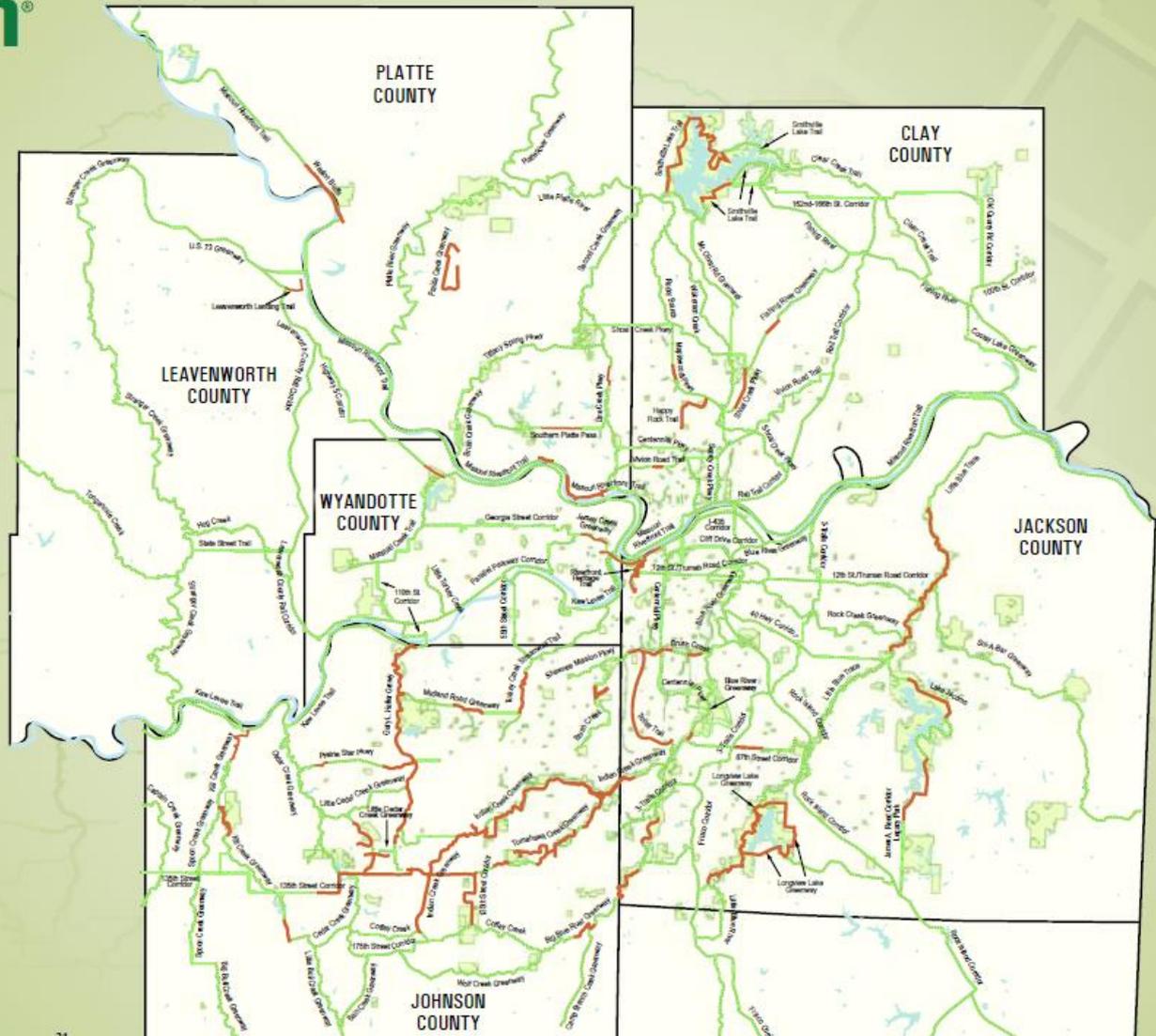
metrogreen® SYSTEM MAP



View the detailed and
interactive MetroGreen®
system map at
www.marc.org/metrogreen



-  existing
-  proposed
-  parks
-  water



REGIONAL FORESTRY INITIATIVE

POLICY & PLANNING FRAMEWORK



Framework: Our Approach

- Raising the bar
- Regional integration
- Flexible local implementation



Overarching concepts

- Green infrastructure is an integral element of community infrastructure
- Builds upon long local *history* of commitment to trees in *flexible* ways



TREE CITY USA (2010)

34

Communities in the Greater Kansas City Region

Blue Springs

Bonner Springs

DeSoto

Fairway

Gardner

Gladstone

Grain Valley

Independence

Kansas City, KS

Kansas City, MO

Lake Quivira

Lansing

Leavenworth

Leawood

Lee's Summit

Lenexa

Liberty

Louisburg

Merriam

Mission

Mission Hills

North Kansas City

Olathe

Osawatomie

Overland Park

Paola

Parkville

Prairie Village

Raytown

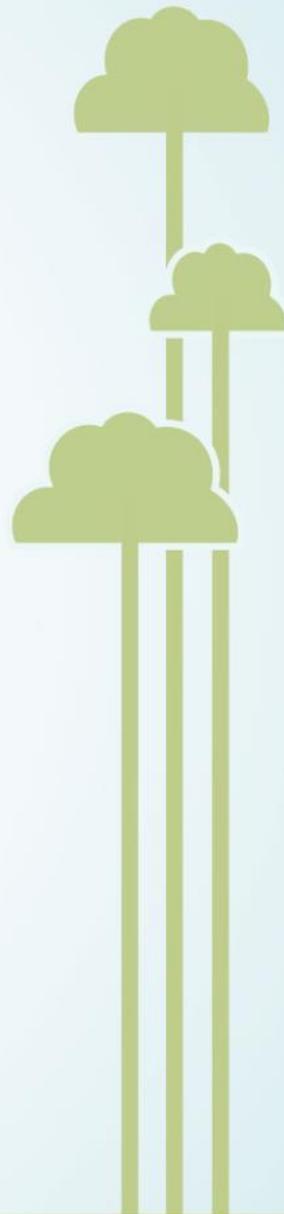
Roeland Park

Shawnee

Spring Hill

Westwood

Westwood Hills



Framework: Regional Elements

- Regional canopy coverage goal
- Integration through Regional Plan for Sustainable Development
 - Air and water quality
 - Transportation
 - Energy
 - Land use
 - Green infrastructure

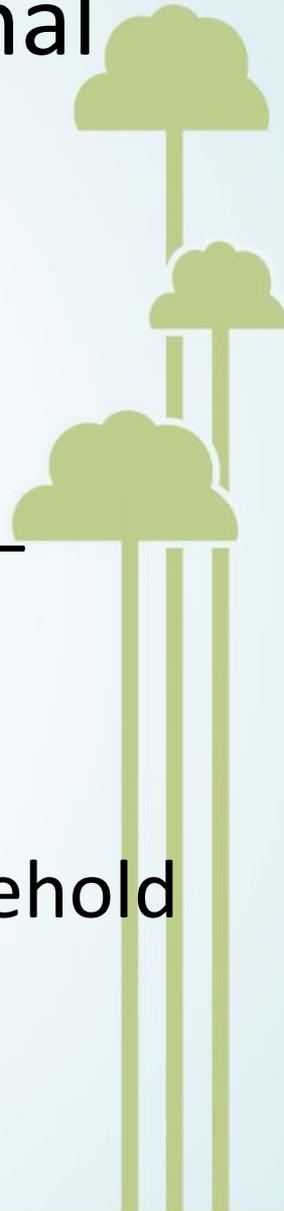


A preliminary, aspirational regional canopy coverage goal

10% increase (28.6%) over 25 years

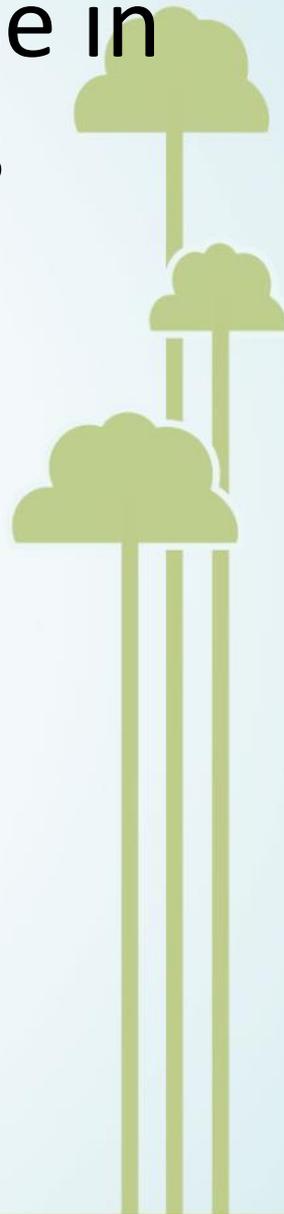
Goals in other communities range from 25 – 40%

Equivalent of approximately one tree/household every other year



Ecosystem benefits of 10% increase in canopy coverage over 25 years

- Adds \$151M ecosystem services/year
- A total of \$8B after 25 years
 - Air Pollution Removal: 1.0 million tons (\$7.8 billion)
 - VOC Emissions: 3.1 million tons
 - Carbon sequestration: 9.4 million tons (\$194 million)



Goal could be achieved by planting:

- Transportation rights-of-way (25% of land)
- Along streamways and parks (4% of riparian area in MetroGreen corridors)
- Parking lots (15% of land in region's parking lots)



Framework: Local Elements

- Practical, flexible implementation in 4 categories:
 - Policy/planning
 - Design
 - Operations & maintenance
 - Education/engagement



POLICY AND PLANNING FRAMEWORK

STRATEGY	REGIONAL ACTION (EXAMPLE)	LOCAL ACTION (EXAMPLE)
POLICY & PLANNING	<i>Plan Integration</i>	<i>Adopt Tree Protection and Replacement Ordinances</i>
URBAN DESIGN	<i>MetroGreen</i>	<i>Implement conservation-focused stormwater BMPs and sustainable site design</i>
OPERATIONS & MAINTENANCE	<i>Workforce Development</i>	<i>Create public – private partnerships for tree care</i>
ENGAGEMENT & EDUCATION	<i>Public Relations / Outreach</i>	<i>Implement Regional Tree Fund; Support Heartland Tree Alliance</i>

LOCAL CASE STUDIES:



SELECTED LOCAL CASE STUDIES

- *City of Kansas City, MO* *Tree Replacement Policy*
- *City of Liberty, MO* *TreeLiberty*
- *City of Overland Park, KS* *Ordinances/Design Stds.*
- *City of Raymore, MO* *Tree Protection Plan*
- *Heartland Tree Alliance* *Education, Volunteers*
- *Johnson County, KS* *Biodiversity Policy*



PROJECT PARTNERS



THANK YOU

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