

# Managing Woodlands for Resiliency and Carbon Sequestration

Wayne White and Bob Atchison

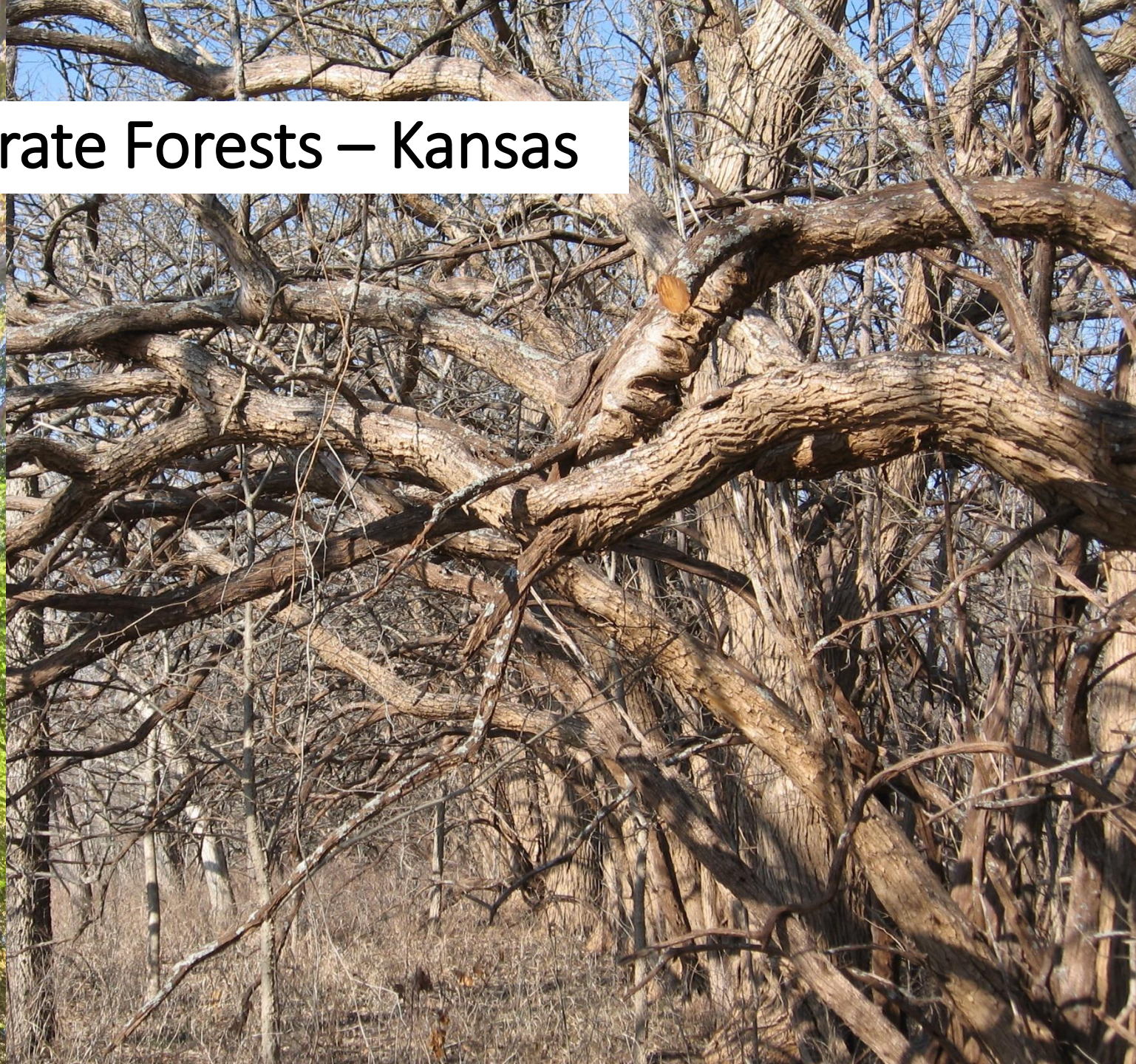
# Tropical Forests – Costa Rica



# Boreal Forests – Ontario



# Temperate Forests – Kansas

















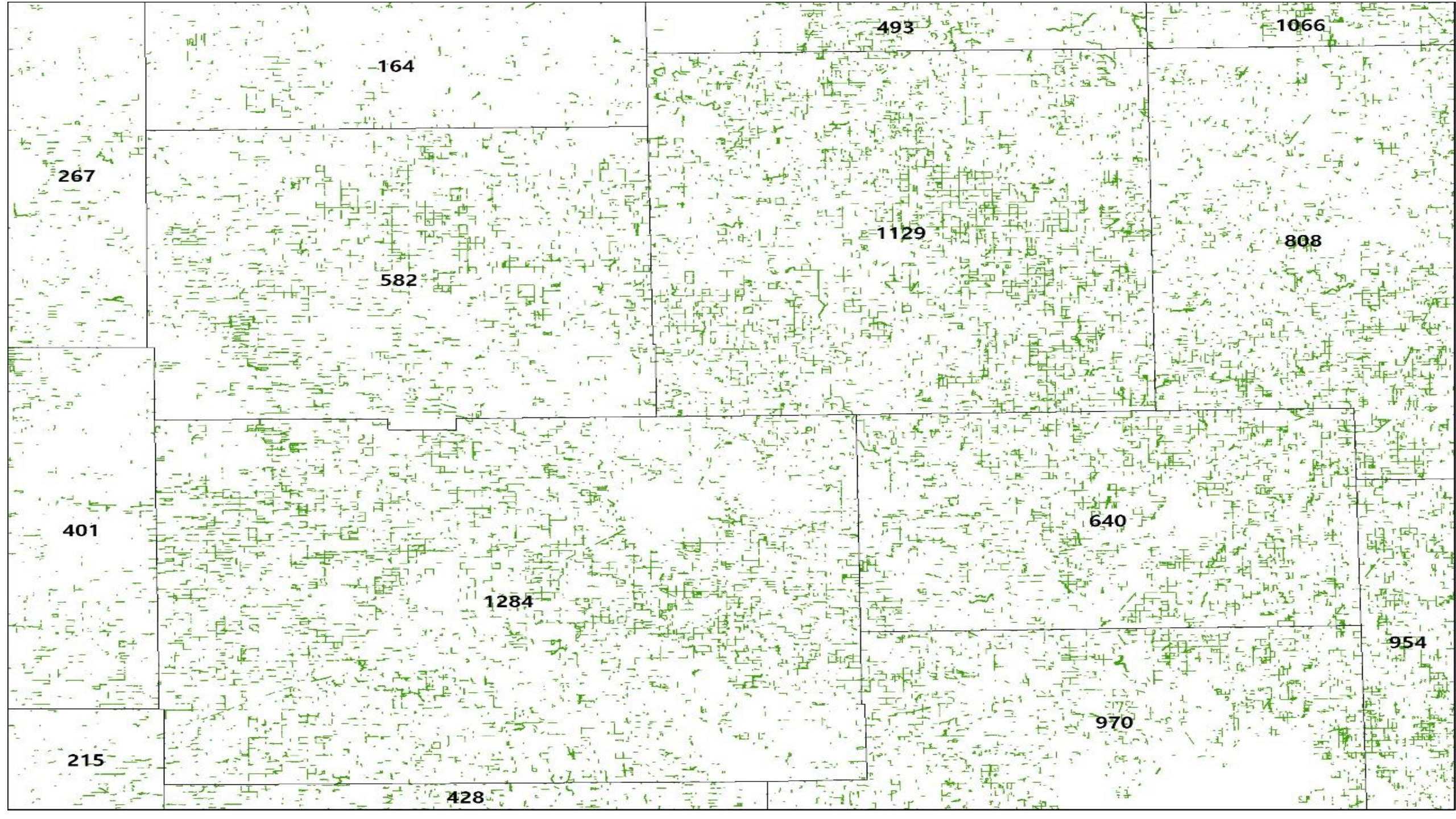












267

164

493

1066

582

1129

808

401

1284

640

215

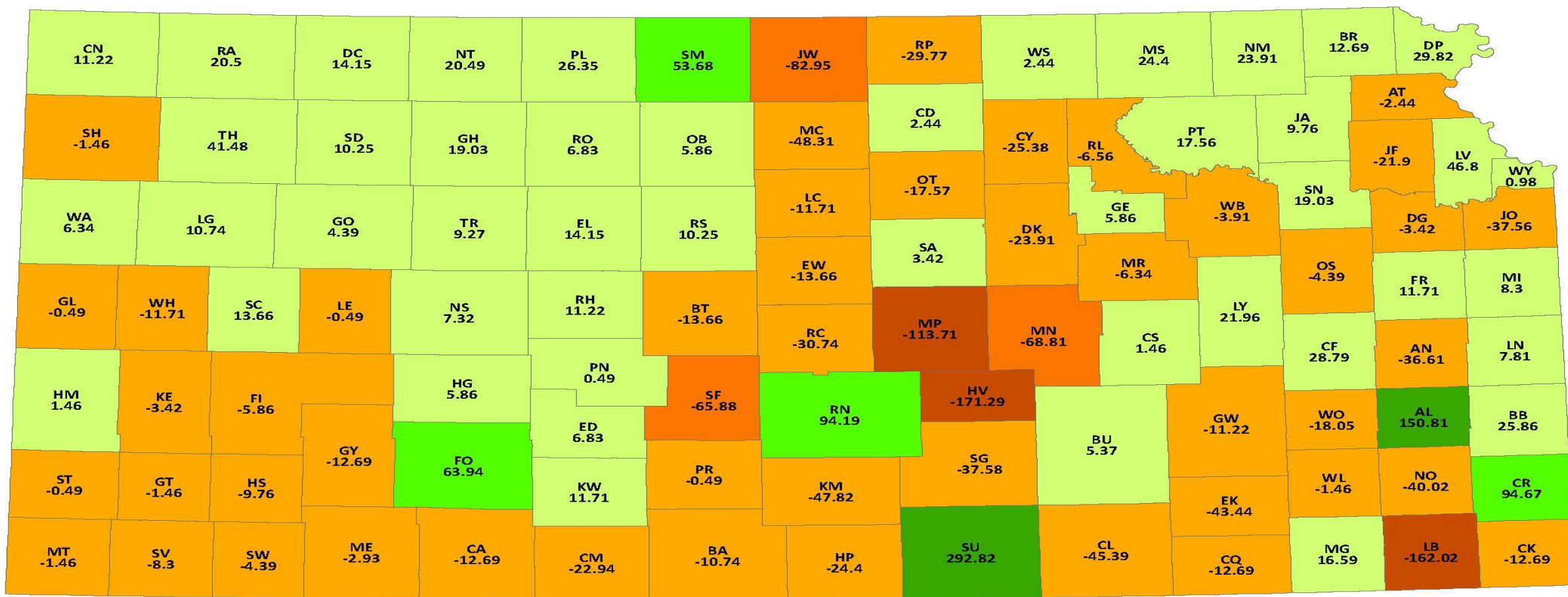
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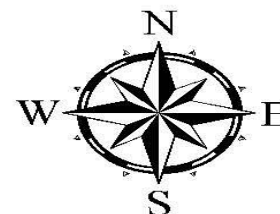
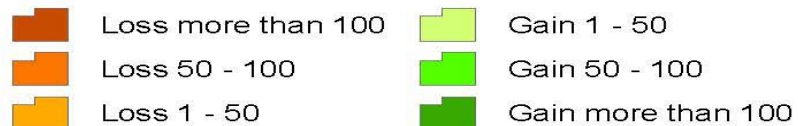
428



# Kansas Windbreak Changes 2005 to 2015



## Windbreak Changes (miles)



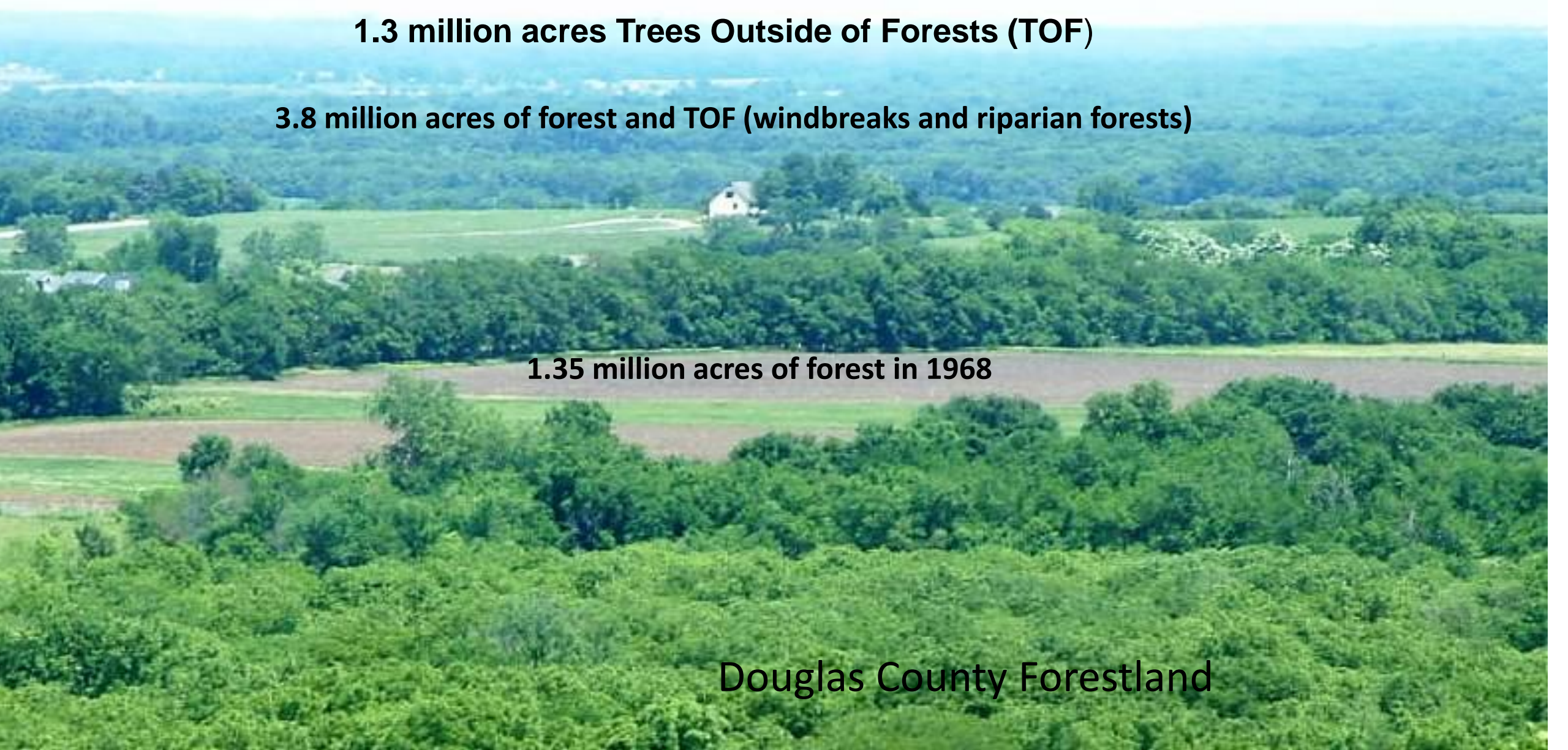
**2.5 million acres of forestland – 2017 USDA FS Northern Research Station  
(1 acre, 10% stocked, 120' wide) Forest Inventory & Analysis**

**1.3 million acres Trees Outside of Forests (TOF)**

**3.8 million acres of forest and TOF (windbreaks and riparian forests)**

**1.35 million acres of forest in 1968**

**Douglas County Forestland**



A photograph of a dense forest with tall, slender trees and a thick undergrowth of green plants. Sunlight filters through the canopy, creating a dappled light effect on the forest floor.

15.3 million acres of forests – Missouri 2017

12.9 million acres of forests – Missouri 1972

# Kansas Forest Action Plan



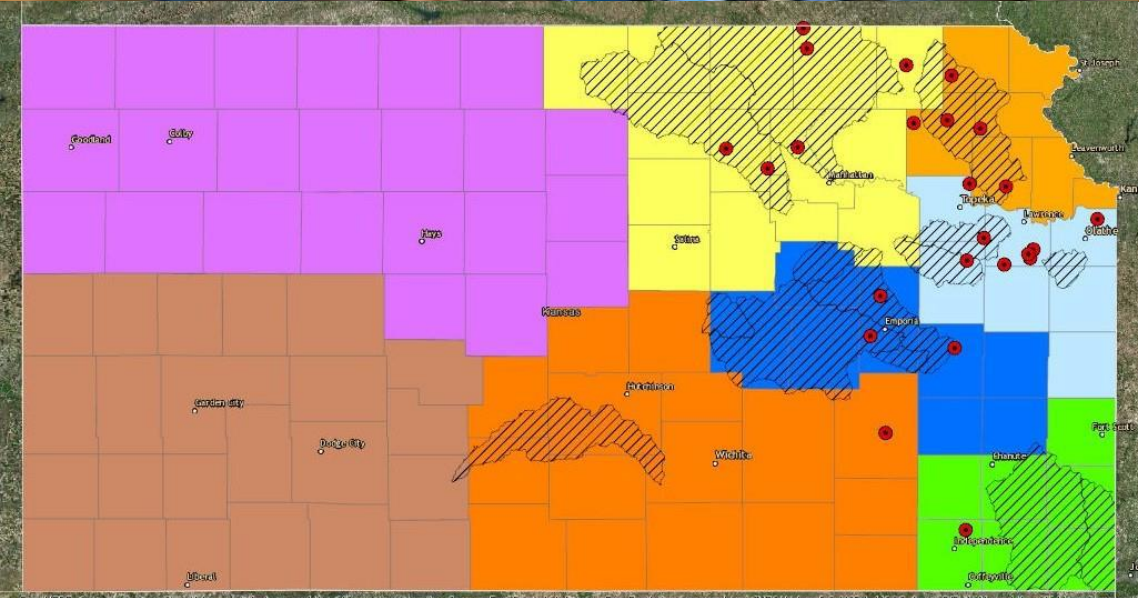
## Issues Strategies

1. Wildfire
2. Forest Health
3. **Sustaining Water Quality & Quantity**
  1. Classify functioning condition of riparian forest
  2. Work through local watershed groups to sustain, manage, & establish riparian forests
  3. Target outreach
  4. Prepare management plans
4. Maintain Economic Benefits
5. Biodiversity & Wildlife Habitat
6. Agroforestry
7. Conserve Woodlands





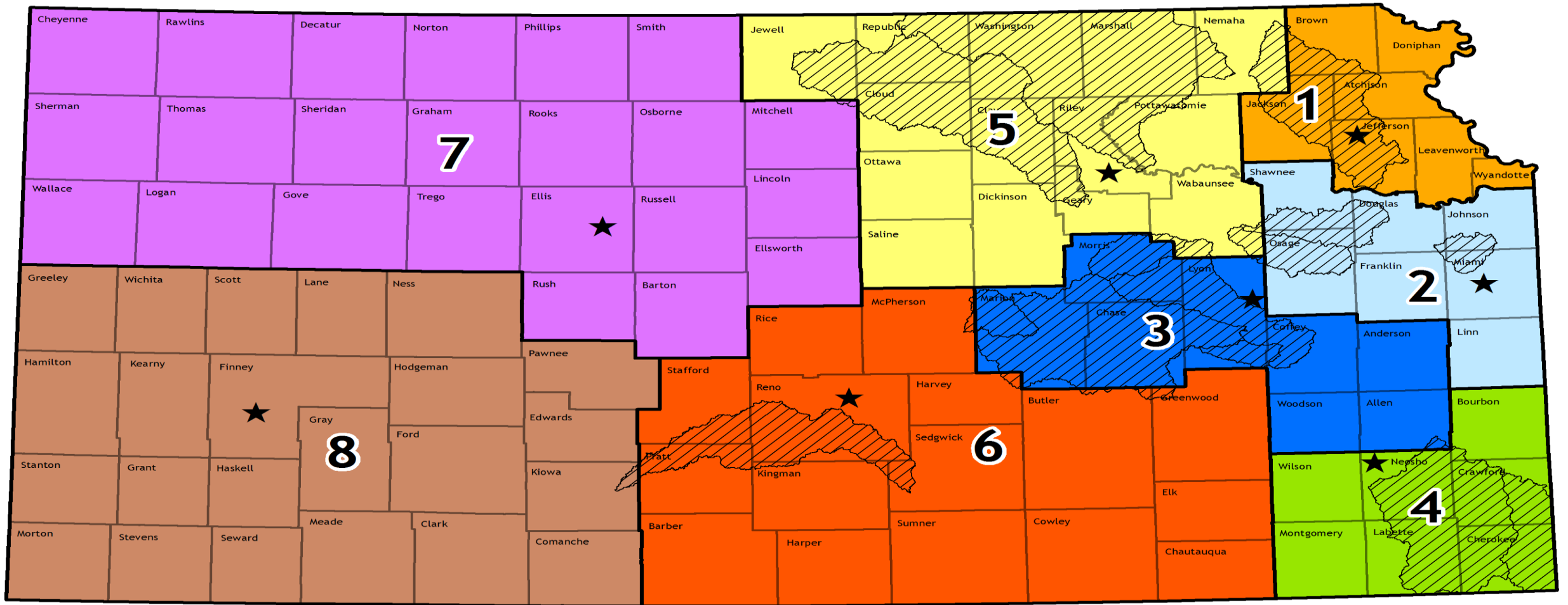
# Kansas Water Quality Advocate Network



Landowners/farmers in priority watersheds who have shown leadership implementing best management practices become advocates for water quality through peer-to-peer outreach.

- Receive training
- Create peer-to-peer relationships hosting & visiting neighbors
- Encourage farmers and ranchers to implement BMPs
- Increase awareness of networks, programs & assistance based on the specific interests

# Kansas Forest Service Districts, Foresters and RCPP Watersheds



1 – Ryan Rastok, Oskaloosa    2 – Katy Dhungel, Paola    3 – Howard Freerksen, Reading  
 4 – Ashley Stiffarm, Chanute    5 – Thad Rhodes, Manhattan    6 – Dennis Carlson, Hutchinson  
 7 – Jami Seirer, Hays    8 – John Klempa, Garden City

# RCPP PRACTICES & PAYMENT

## Conservation Practices

- 314—Brush Management
- 315—Herbaceous Weed Control
- 338—Prescribed Burning
- 342—Critical Area Planting
- 380—Windbreak/Shelterbelt Establishment
- 382—Fence
- 390—Riparian Herbaceous Cover
- 391—Riparian Forest Buffer
- 393—Filter Strip
- 394—Firebreak
- 472—Access Control
- 484—Mulching
- 490—Tree/Shrub Site Preparation
- 512—Forage & Biomass Planting
- 550—Range Planting
- 595—Integrated Pest Management
- 612—Tree/Shrub Establishment
- 660—Tree/Shrub Pruning
- 666—Forest Stand Improvement

## Cost-Share Components (not all listed)

Mechanical Mowing	\$11.62/AC
Herbicides (banding)	\$31.06/AC
Weed Barrier Fabric (sq)	\$1.79/EA
Mechanical Tree Establ	\$151.56/AC
Tree/Shrub Site Prep (med)	\$212.72/AC
Tree/Shrub Site Prep (heavy)	\$240.54/AC
Direct Seeding	\$741.19/AC
Tree Planting (Mach & Tubes)	\$7.20/EA
Tree Planting (Hand/Tubes)	\$4.07/EA
Tree Planting (Machine)	\$2.14/EA
Riparian Forest Buffer Cont	\$1,809.32/AC
<b><u>Riparian Forest Buffer B Root</u></b>	<b><u>\$1,125.74/AC</u></b>
Barbed Wire Fence (multi)	\$1.31/LnFt
<b><u>Forest Stand Improvement</u></b>	<b><u>\$253.58/AC</u></b>
Competition Control, Heavy	\$389.22/AC
Thinning for Wildlife	\$732.32/AC

**Additional WRAPS Funding  
will cover 90% of costs**