Goal - WRP/WRE is to restore, protect, and enhance wetlands on eligible private or tribal lands while maximizing wildlife habitat benefits.

Agricultural Conservation Easement Program

Wetland Reserve Easements

Agricultural Lands Easements

Presented by:

Randy Childress

Assistant State Conservationist for Easements

CDN Meeting

9/24/2020

Primary Objectives of WRP/WRE

- Provide habitat for migratory birds and other wetland dependent wildlife including threatened and endangered species.
- Improvement of water quality
- Flood water storage and ground water recharge
- Protect and enhance open space and aesthetic quality
- Protection of native flora and fauna

Arkansas Easements

Arkansas is No. 2 in the Nation in WRP/WRE enrollment

Total Easement Acres Enrolled – 284,245 Acres

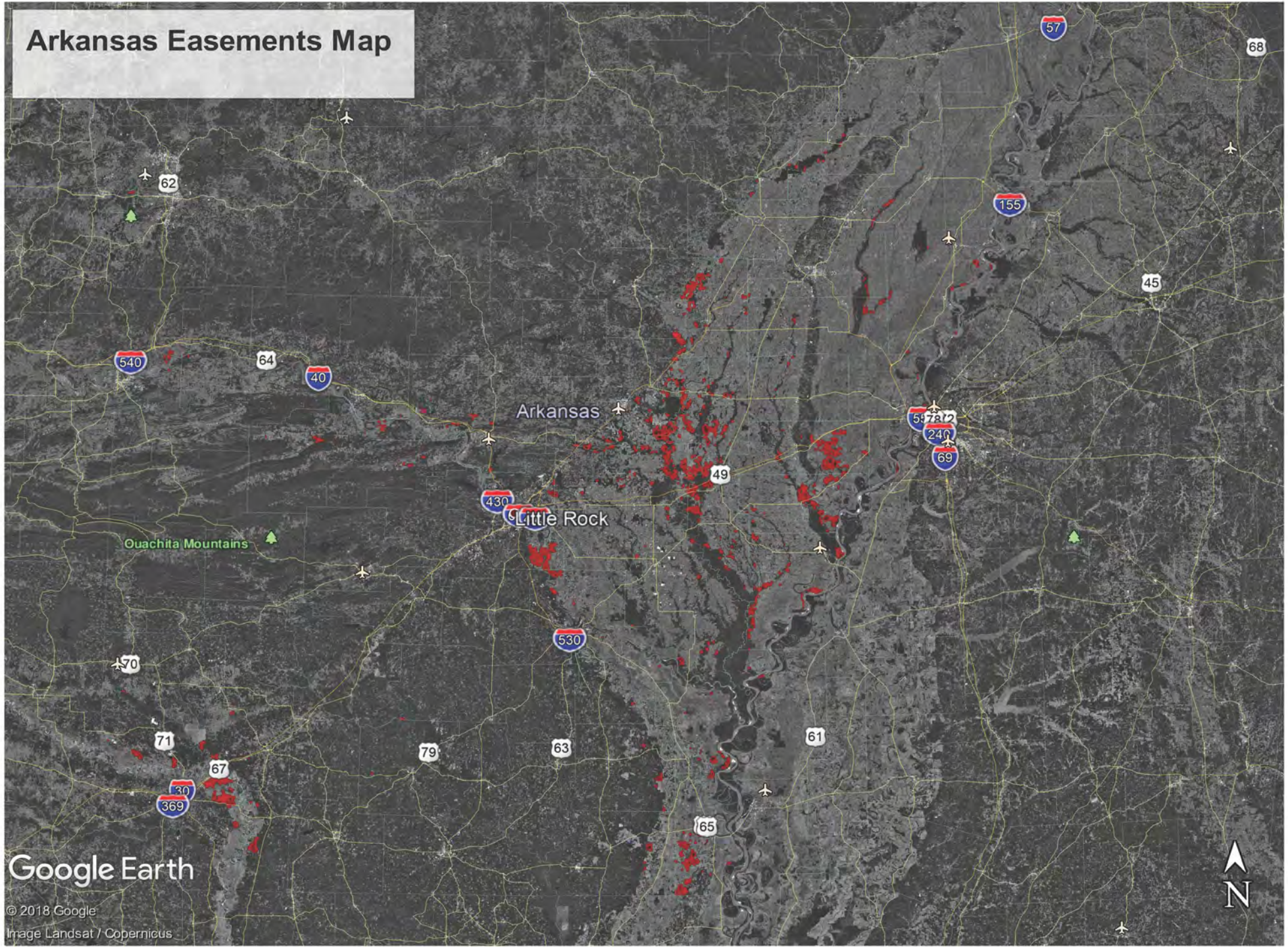
Total No. of Easements – 827

Arkansas has enrollment in:

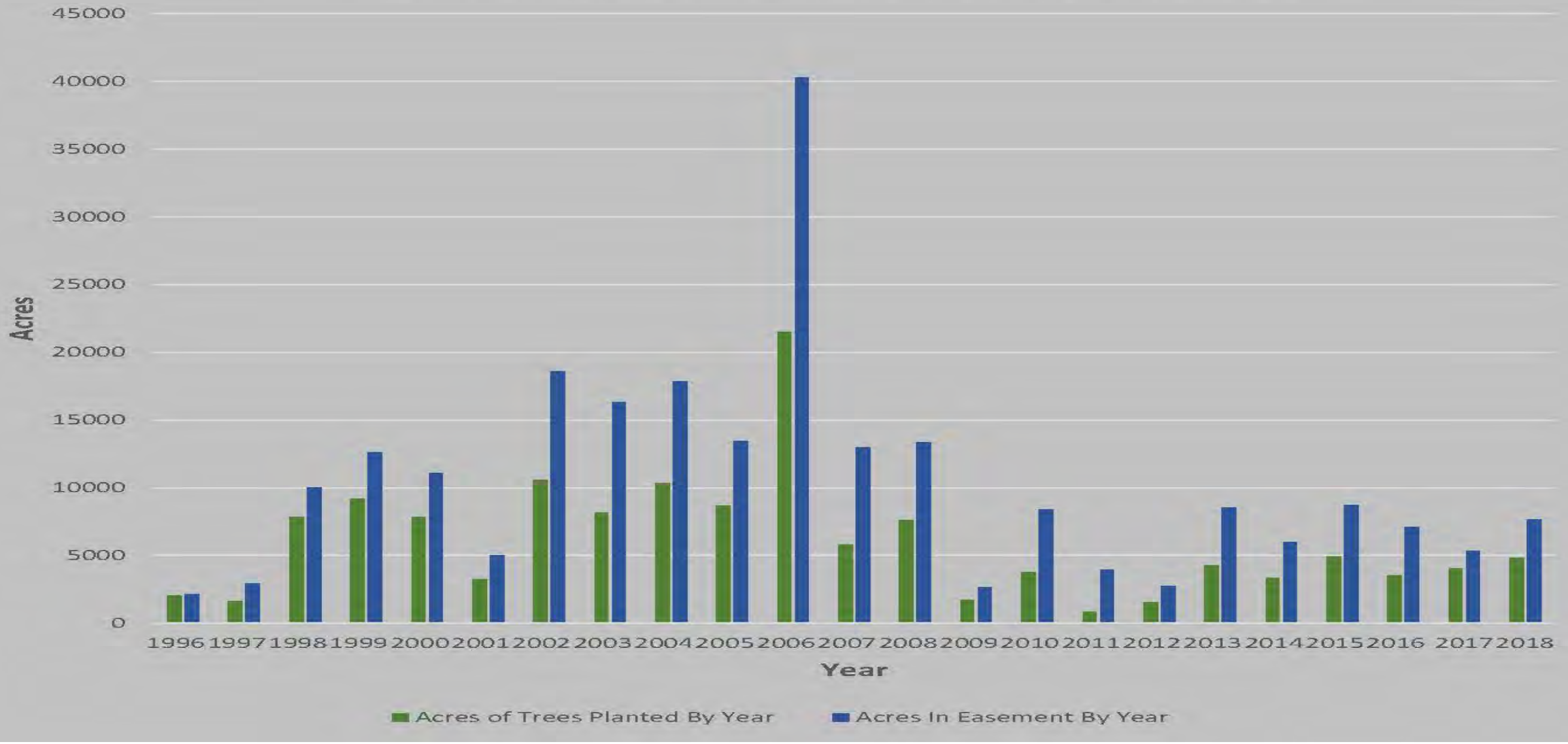
- HFRP – Healthy Forest Reserve Program
- GRP – Grassland Reserve Program
- WRP – Wetland Reserve Program
- EWPP-FPL – Emergency Watershed Protection Program – Flood Plain Easements
- WRE – Wetland Reserve Program

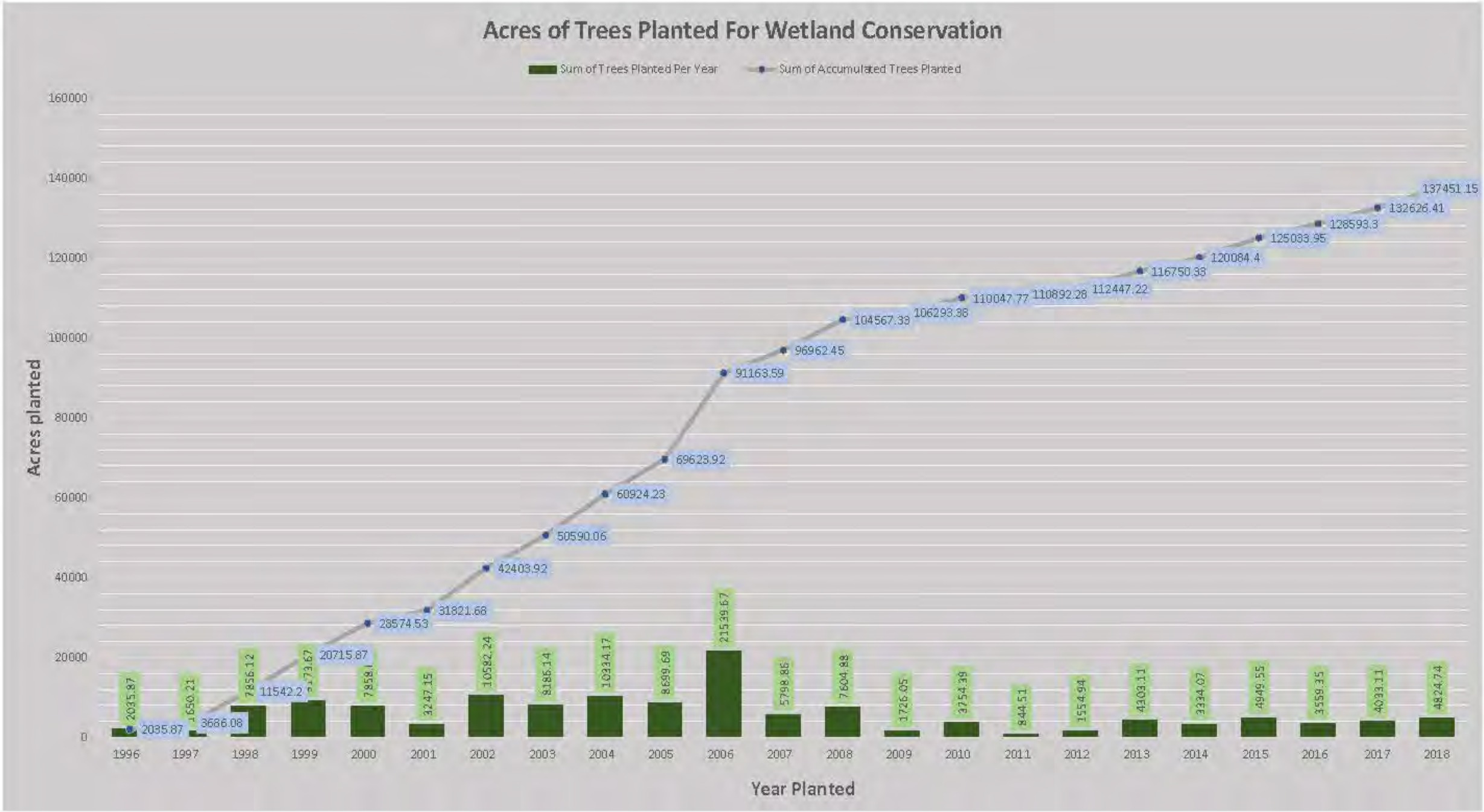
Natural Resources Conservation Service

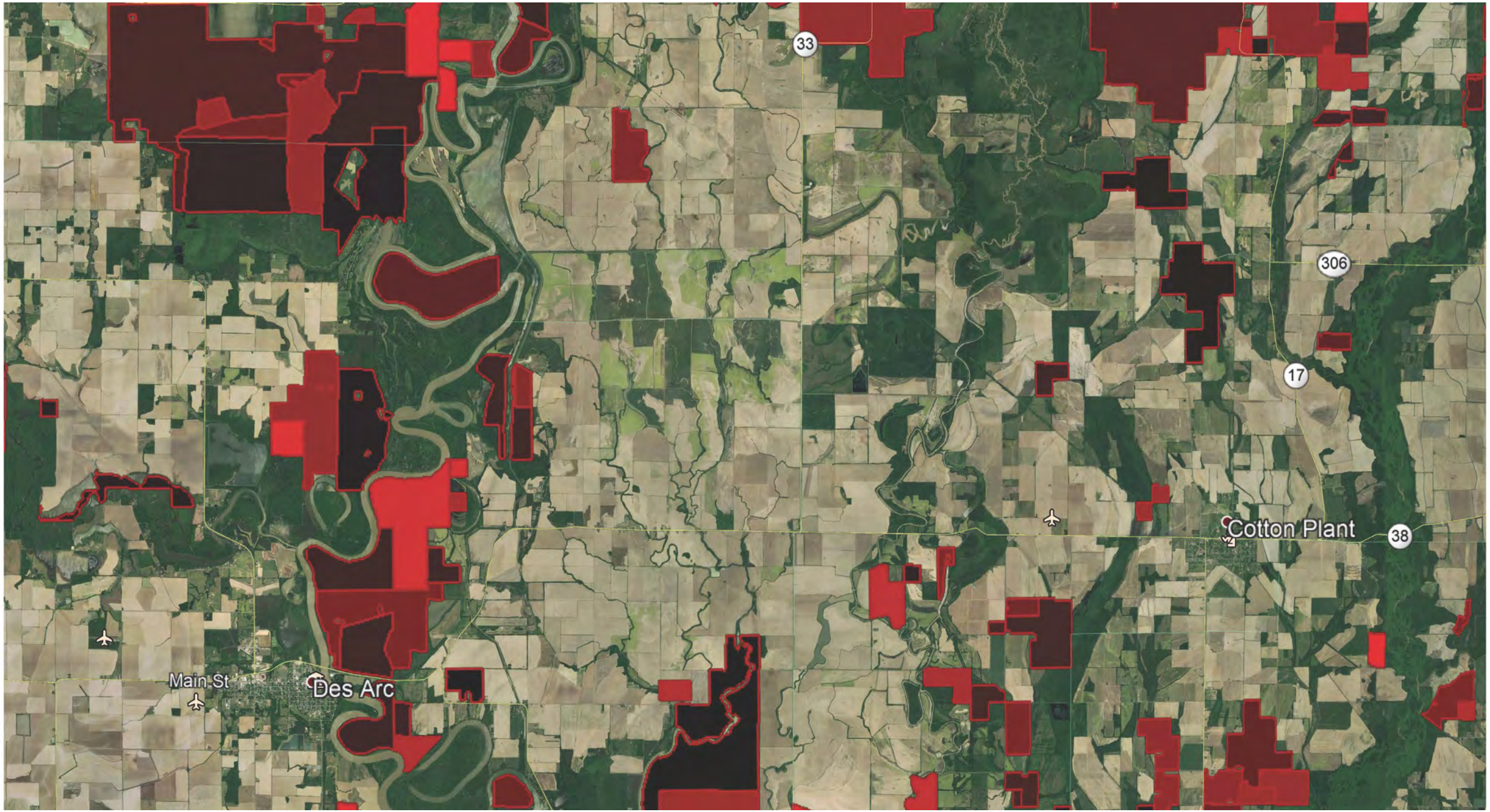
nrcs.usda.gov/


Arkansas Easements Map
Arkansas
Little Rock
Ouachita Mountains
Google Earth
© 2018 Google
Image Landsat / Copernicus
N

Easement Acres Compared To Acres of Trees Planted




Acres of Trees Planted For Wetland Conservation
Sum of Trees Planted Per Year
Sum of Accumulated Trees Planted
Acres planted
Year Planted
160000
140000
120000
100000
80000
60000
40000
20000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2035.87
2035.87
3686.08
11542.2
20715.87
28574.53
31821.68
42403.92
50590.06
60924.23
69623.92
91163.59
96962.45
104567.33
106293.38
110047.77
110892.28
112447.22
116750.33
120084.4
125033.95
128593.3
132626.41
137451.15
7856.12
7859.1
3247.15
10582.24
8186.14
10334.17
8699.69
21539.67
5798.86
7604.88
1726.05
3754.39
844.51
1554.94
4303.11
3334.07
4949.55
3559.35
4033.11
4824.74


33
306
17
38
Cotton Plant
Main St
Des Arc

LANDOWNER GUIDE

HABITAT IMPROVEMENTS IN HARDWOOD PLANTATIONS ON WETLAND RESERVE EASEMENTS

CAN I MANAGE MY WRP/WRE BOTTOMLAND HARDWOOD PLANTATION?

Many landowners with Wetland Reserve Program (WRP) easements and/or Wetland Reserve Easements (WRE) are interested in improving habitat for wildlife on their property.

Under certain conditions, the Natural Resources Conservation Service (NRCS) may allow treatment of WRP/WRE forest plantations if stands are adequately developed, and planned treatments are compatible with long-term program objectives.

Primary program objectives are to protect, restore, and enhance the functions of wetlands to benefit habitat for migratory birds, other wetland dependent wildlife and threatened and endangered species.

Although the sale of forest products may produce revenue for landowners, any authorization by the NRCS to conduct forest treatments in WRP/WRE plantations will be based on achieving program objectives.

This brochure provides information to assist landowners in conducting a self-evaluation to determine if their plantation is ready for a more in-depth assessment by a natural resource professional, as well as the steps necessary to obtain NRCS approval to carry out prescribed management actions.

USDA United States Department of Agriculture
Natural Resources Conservation Service
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TRI-STATE CONSERVATION PARTNERSHIP

IS MY PLANTATION READY FOR TREATMENT?

The optimal timing of the first habitat treatment in WRP/WRE plantations depends largely on rate of tree growth. Tree growth is influenced by several factors such as soil quality, elevation, species planted, and stem density (number of trees per acre) of both planted and naturally occurring trees. Most stands will not be ready for treatment until at least 15 years or older, and on many sites, 20 years or older.

EVALUATION METHODS

If you feel your WRP/WRE plantation may need management, you should conduct basic assessments of ground vegetation and percent of live crown to evaluate if treatment may be warranted. Ground vegetation and percent live crown are relatively simple evaluation methods that can be conducted simultaneously to assess stand conditions.

1 GROUND VEGETATION

The quantity of ground vegetation present on the forest floor during the growing season (late spring and summer) can provide basic information on stand condition. As trees advance in size and their crowns grow together, shading of the forest floor results in reduced growth of ground vegetation.

A basic assessment of ground vegetation can be accomplished by walking through your stand and evaluating the density of vegetative cover present on the forest floor. Since many stands have a patchy distribution of ground vegetation, it is important to determine an average density across the stand.

WHAT IT MEANS

If your estimated average ground cover is LOW or MEDIUM, your stand may be ready for treatment and you should seek further evaluation (see section on How Do I Get Additional Assistance and Approval from NRCS). If estimated as HIGH, your stand is likely not ready for treatment and should be reevaluated after a few years.

While conducting your general ground vegetation assessment, you should also consider the second evaluation method, Percent Live Crown.

LOW — A general absence of forest floor vegetation

MEDIUM — Greater presence and diversity of vegetation and/or patches, but walking access is generally un-impeded or only slightly impeded

HIGH — Dense vegetation over majority of area but may have some sparser spots. Walking access may be impeded and in some areas, difficult.

ADDITIONAL CONSIDERATIONS

3 NON-COMMERCIAL & OTHER TREATMENT ALTERNATIVES

Some stands may benefit from treatment prior to reaching an age, size, or condition that will support a commercial harvest. For example, stands with extremely high tree densities or homogeneous plantations containing very few tree species. In cases where non-commercial treatment is identified as a possible alternative, cost to implement treatment may be the responsibility of the landowner.

Two examples of non-commercial treatment methods prescribed in these circumstances are Group Removal (depicted above) and Patch Cuts. Group Removals, as described in NRCS's plantation treatment document (see next panel), are intended to create openings in the stand large enough to allow development of understory vegetation that generally could not develop under a uniformly thinned stand. These group openings would generally be 1/10 to 1/4 acre in size.

Patch Cuts are larger than Group Removals, for example 1/2 to four acres in size. Establishing patch cuts helps diversify forest stand structure by creating more substantial areas of ground cover, promoting the growth of younger trees, and allowing development of additional tree species.

HOW DO I GET

ADDITIONAL ASSISTANCE AND APPROVAL FROM NRCS?

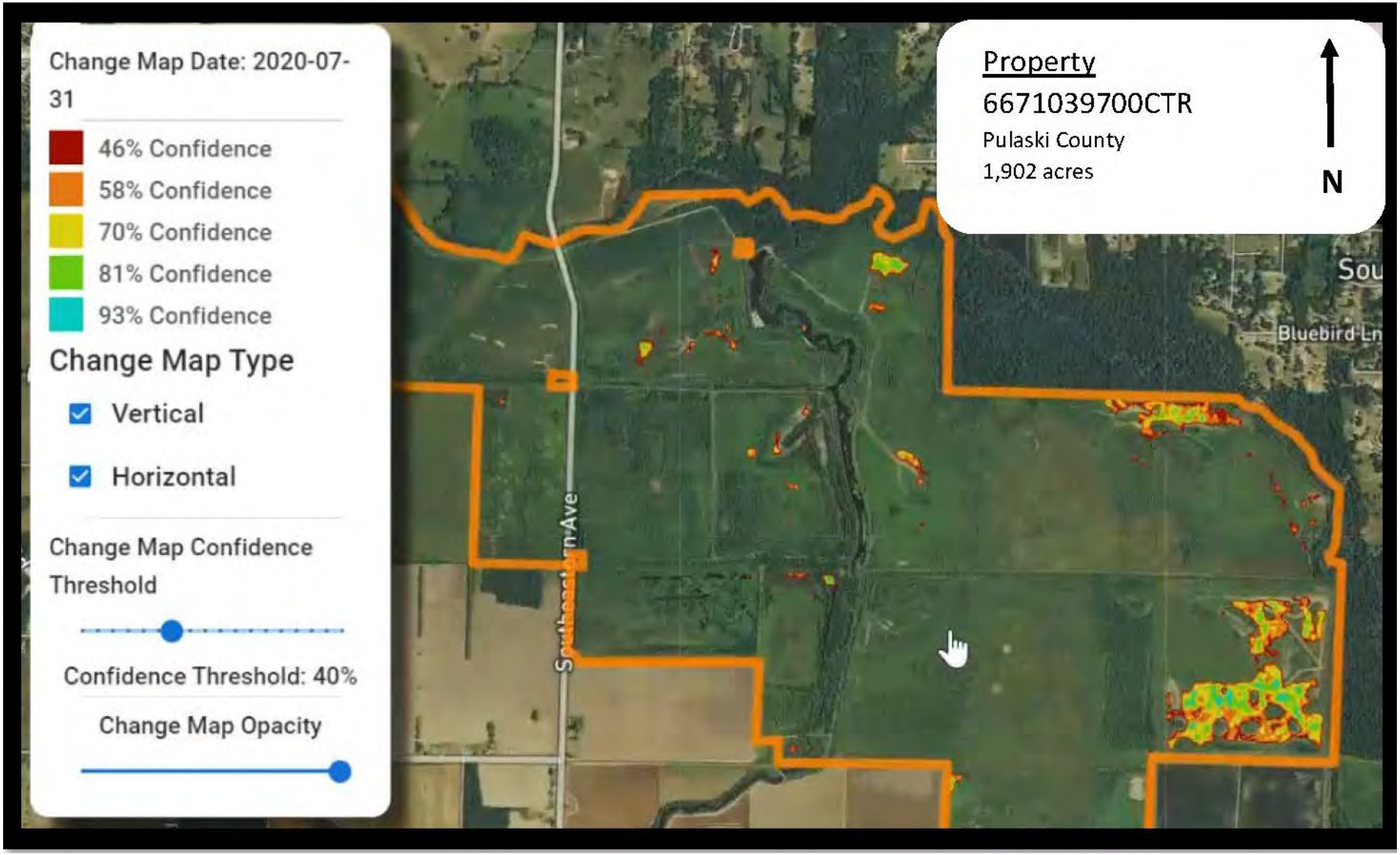
If you conduct the Ground Vegetation and Percent Live Crown assessments and feel your WRP/WRE stand may be ready for treatment, you should seek a more detailed evaluation by contacting your local NRCS office. NRCS staff can answer questions and assist with technical guidance in evaluating your timber and potential treatment alternatives, if warranted.

Once you have coordinated with your local NRCS office, you should work with a forester or wildlife biologist to conduct a timber evaluation, utilizing a more in-depth stand assessment process as outlined in the NRCS document "Tools for Assessment and Treatment of Reforested Bottomland Hardwood Stands on Wetland Reserve Easements". If treatment is warranted, a simple forest management plan or treatment prescription, compatible with the objectives of the WRP/WRE program, can be developed and provided to the NRCS for consideration and issuance of a Compatible Use Authorization (CUA). NRCS policy requires an approved CUA for any management or maintenance activity on the easement. If you have questions, your local NRCS District Conservationist can provide more specific information.

CONTACT YOUR LOCAL NRCS OFFICE

WEBSITE: https://offices.sc.egov.usda.gov/locator/app?agency=nrcs

PHONE: Arkansas (501) 301-3100
Louisiana (318) 473-7751
Mississippi (601) 863-3947


Change Map Date: 2020-07-31
46% Confidence
58% Confidence
70% Confidence
81% Confidence
93% Confidence
Change Map Type
Vertical
Horizontal
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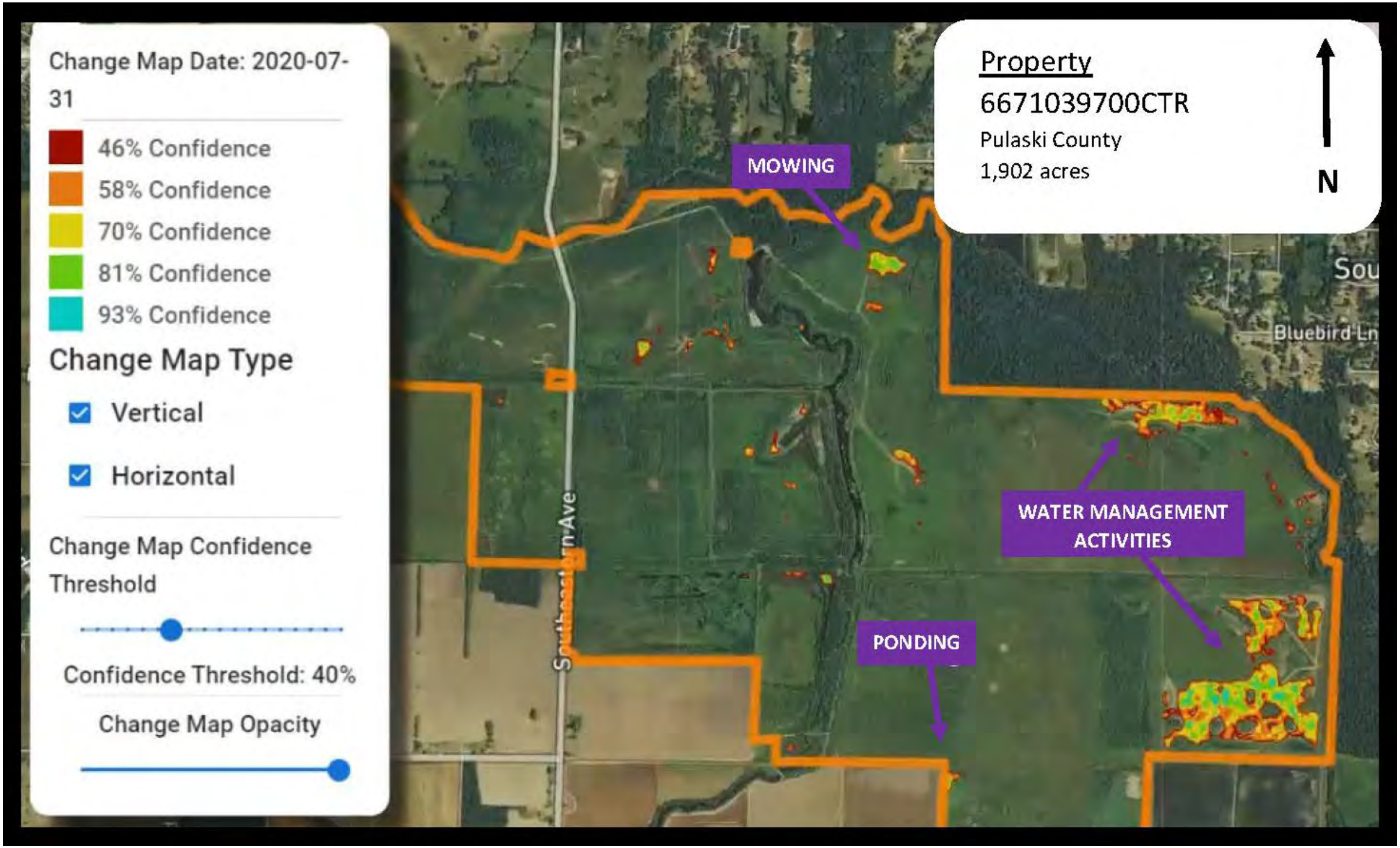
Confidence Threshold: 40%
Change Map Opacity
Property
6671039700CTR
Pulaski County
1,902 acres
N
Bluebird Ln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Property
6671039700CTR
Pulaski County
1,902 acres
N
MOWING
WATER MANAGEMENT ACTIVITIES
PONDING
Bluebird Ln

WETLAND RESERVE EASEMENTS EVALUATION

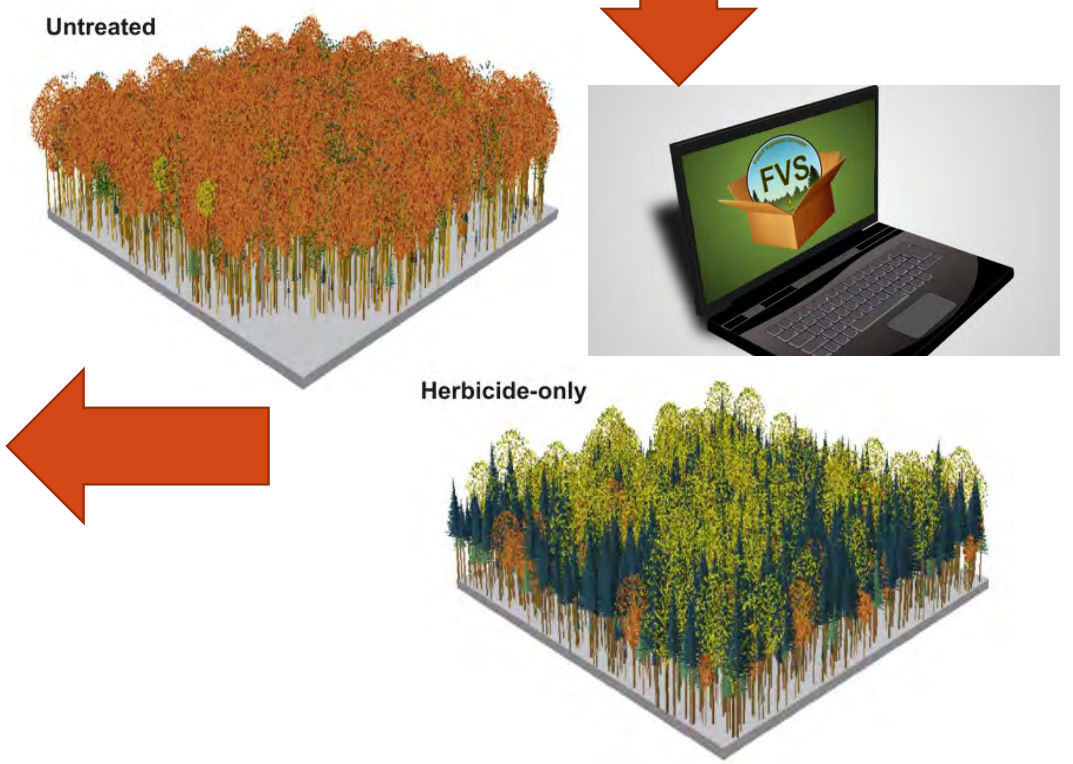
Arkansas Forest Resources Center

College of Forestry, Agriculture, and Natural Resources

USDA Natural Resources Conservation Service

Objectives

1. Assess current conditions of oldest easements
2. Model management interventions
3. Develop recommendations and potential prescriptions



Silviculture Prescription – POW Camp Compartment # XX

A. Location and Compartment Information

Lat long; county; compartment area; road access; ownership

B. Compartment Description – Narrative

Description of general compartment characteristics; roads inside compartment; species composition in general; ecoregion and it's disturbance history; topography; soil type; site index; understory vegetation description

C. Maps and Aerial Imagery

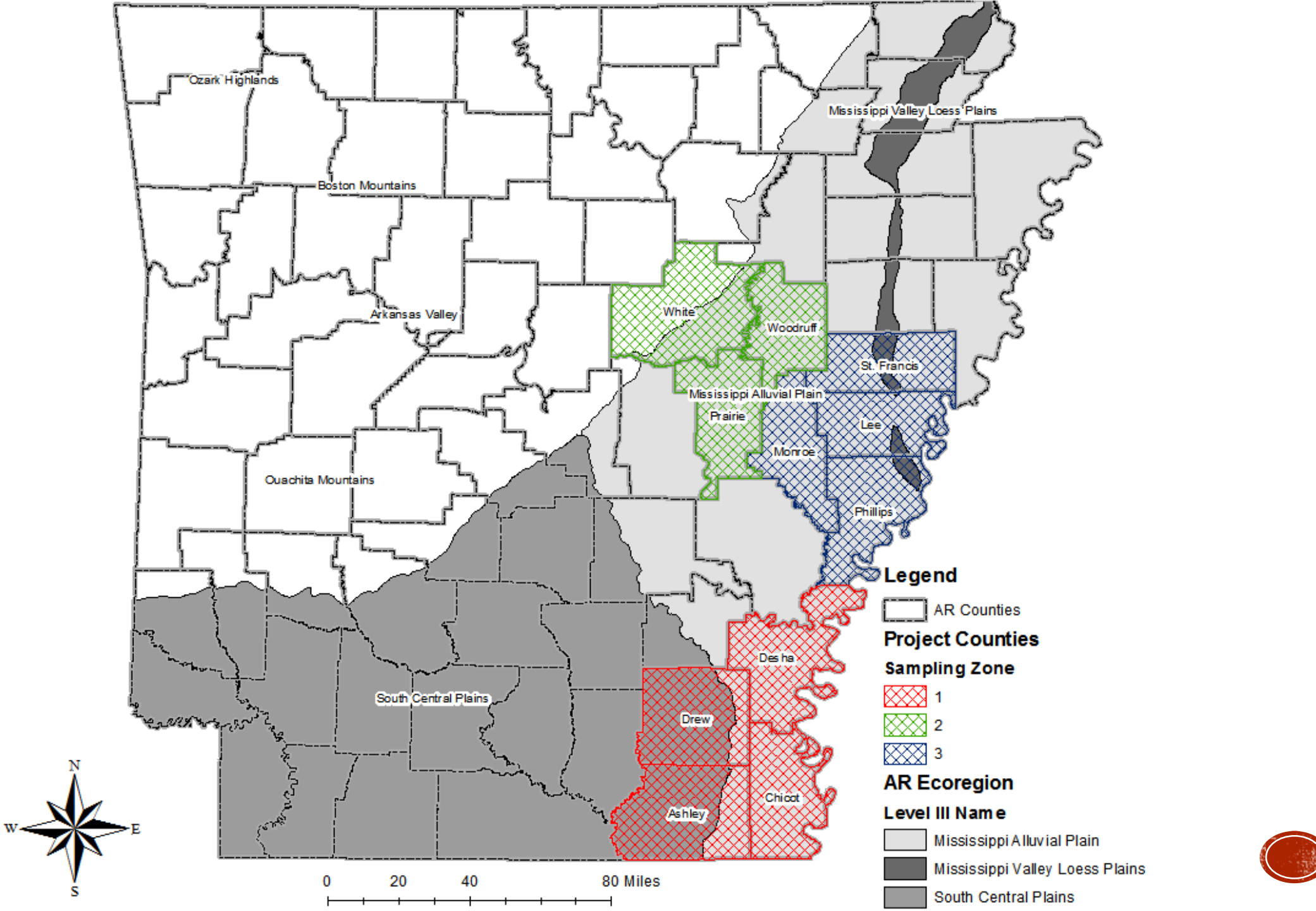
List boundary, soil, topo, aerial imagery, and any other maps you attach

D. Management Objectives

Landowner objectives; financial considerations; concerns and special considerations

E. Assessment of Current Conditions

Description of sampling design used; data quality issues or concerns; number and distribution of cohorts; graphs and tables summarizing tree species composition and structure; disturbance history of compartment; successional stage; pest and invasives presence; wildlife habitat quality; aesthetic value; cultural resources


Ozark Highlands
Boston Mountains
Arkansas Valley
Ouachita Mountains
South Central Plains
Mississippi Valley Loess Plains
White
Woodruff
St. Francis
Mississippi Alluvial Plain
Prairie
Lee
Monroe
Phillips
Desha
Drew
Chicot
Ashley
N
W
E
S
0
20
40
80 Miles
Legend
AR Counties
Project Counties
Sampling Zone
1
2
3
AR Ecoregion
Level III Name
Mississippi Alluvial Plain
Mississippi Valley Loess Plains
South Central Plains

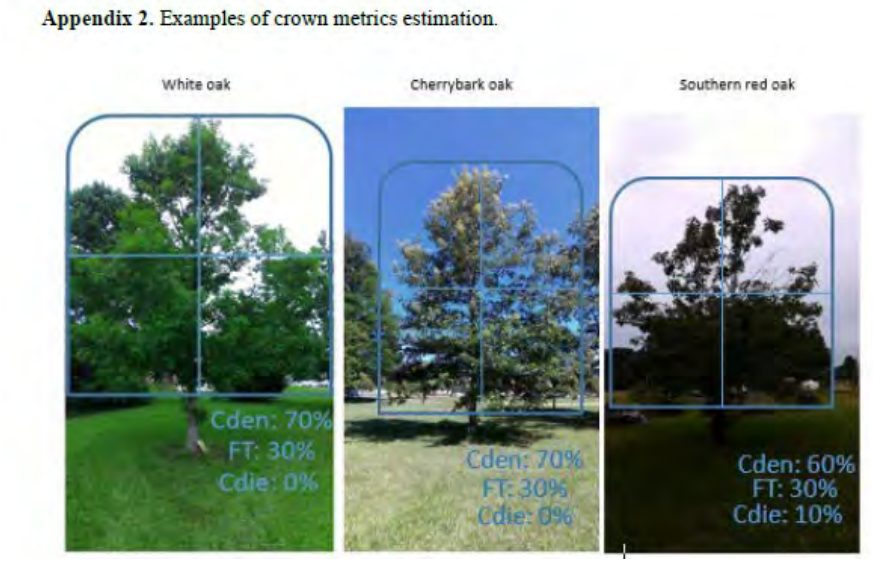
Sampling

- 32 easements within 9 counties
- **110 planted fields were inventoried using 856 tenth-acre plots**
- **17,519 trees measured & 2500 tree cores collected**

County	Easements
Ashley	4
Chicot	3
Desha	4
Drew	4
Monroe	4
Prairie	4
St. Francis	1
White	3
Woodruff	5
TOTAL	**32**

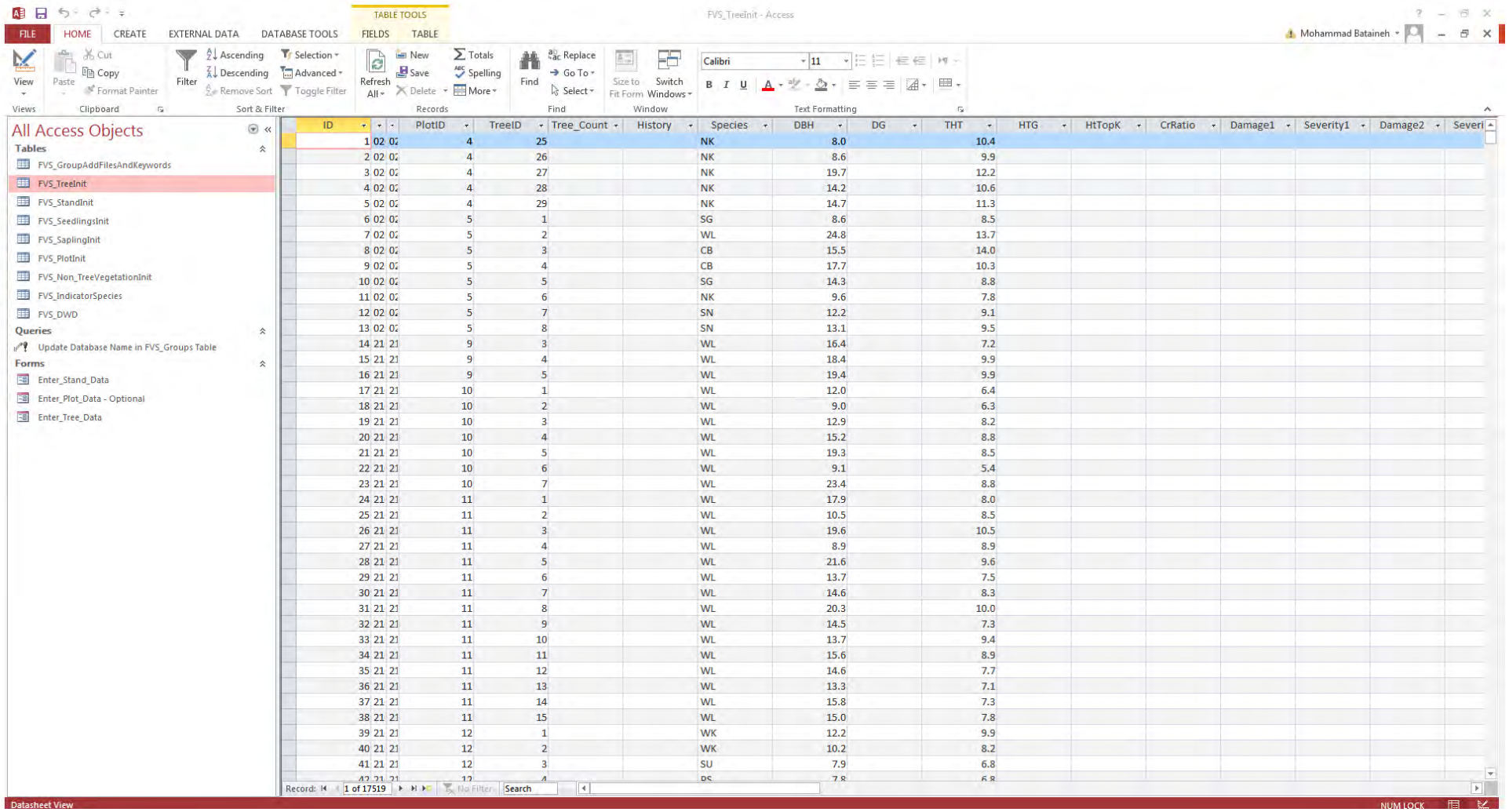
Measurements

- Included
  - **Diameter**
  - **Height**
  - **Vigor**
  - **Crown metrics**

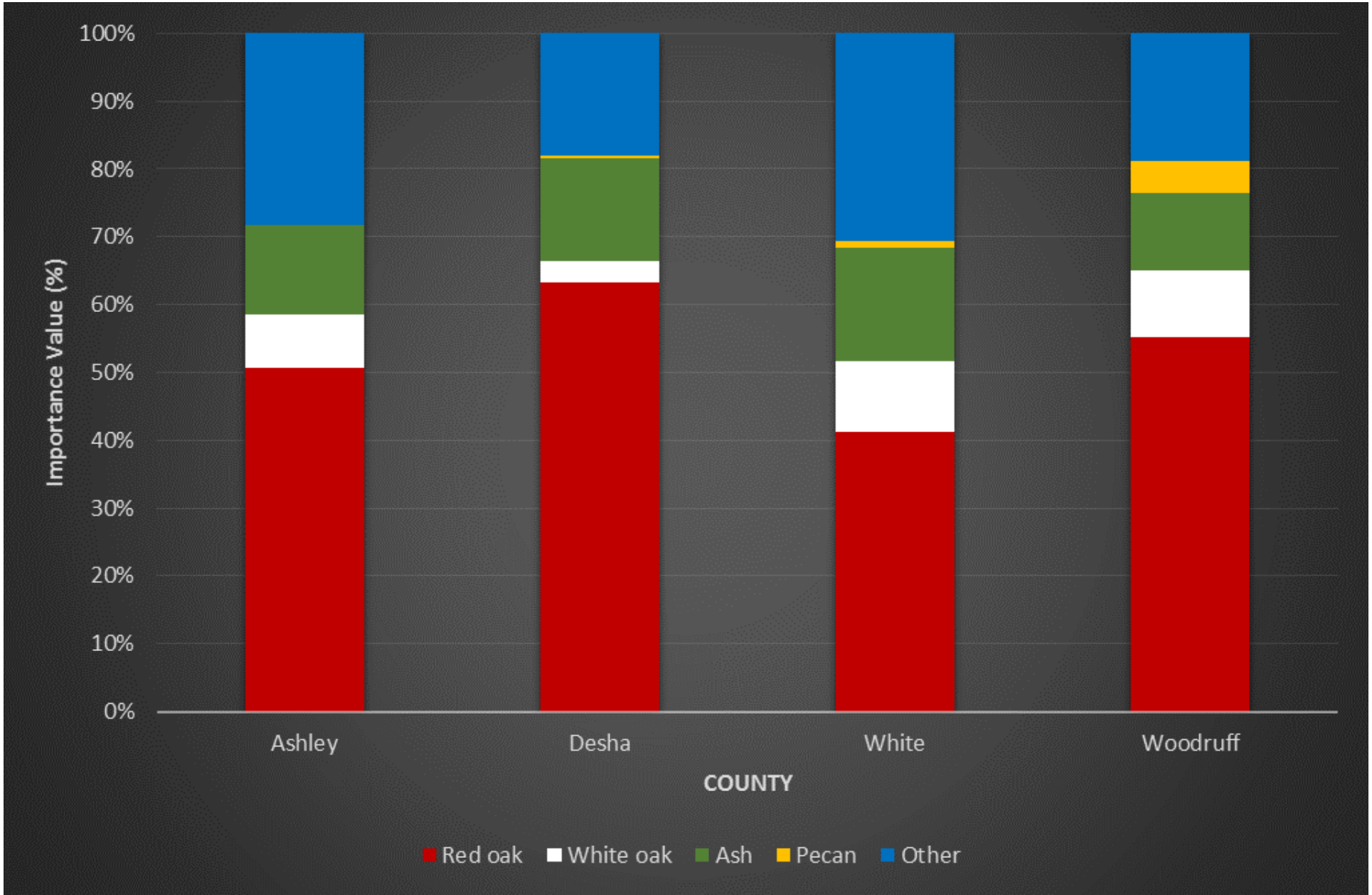


Linking habitat criteria to tree and stand metrics

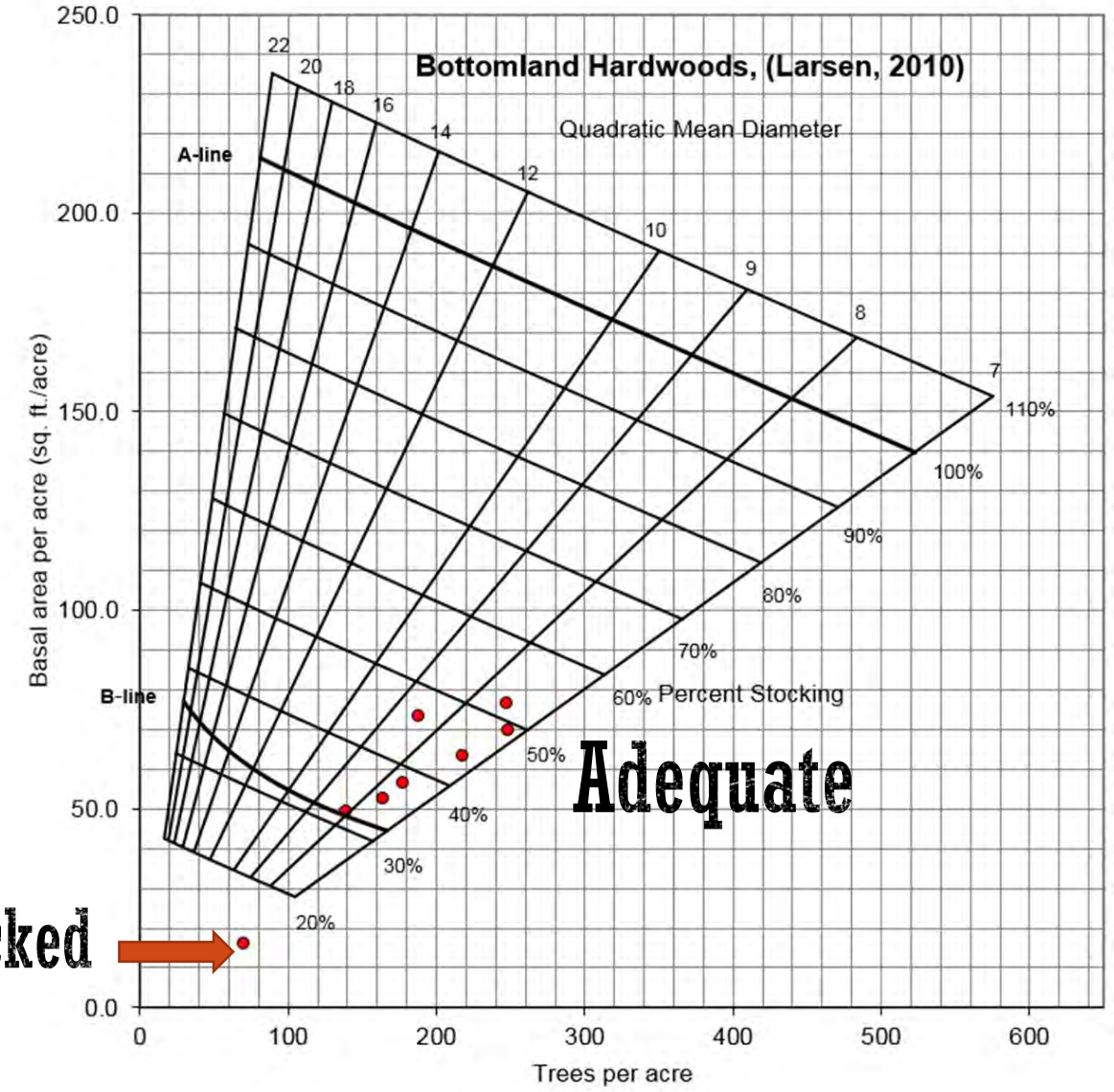
Most comprehensive and extensive WRE data set yet collected



Example of differences in species composition



Differences in stocking

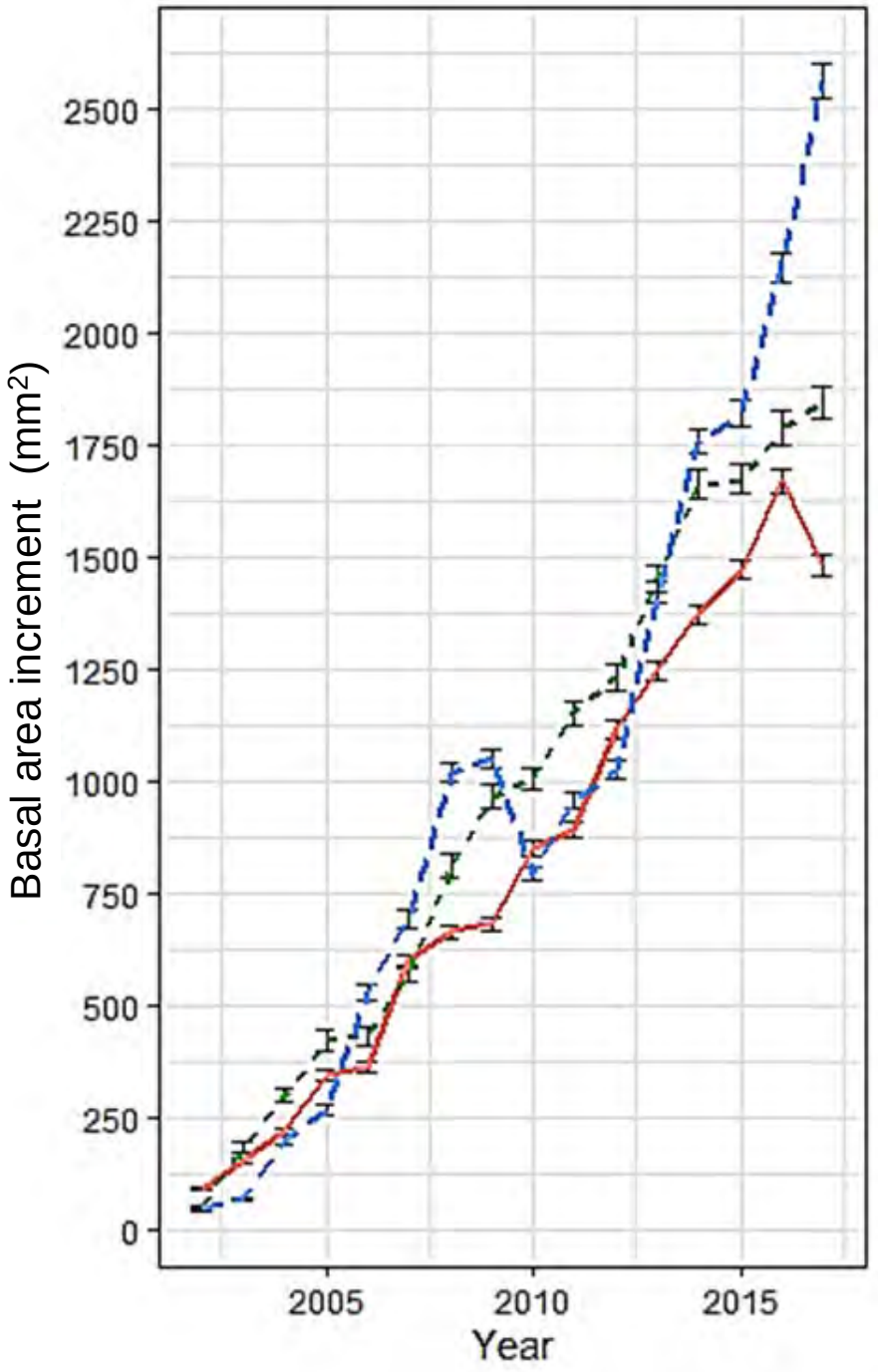


Adequate

Understocked

Comparing oak growth

- Willow oak had lower growth within first five years of planting but surpassed cherrybark and Nuttall within 20 years of planting
- Cherrybark oak higher growth early in plantation development but lower growth than other oaks in 2015, with an apparent decline in 2017
- Nuttall oak had an intermediate growth among planted oaks



Coming soon

Aerial assessment

Forest growth modeling