

History of Tyrone WMA

Tyrone WMA was purchased in five separate tracts. The largest and first tract was purchased in 1978 totaling 814 acres; the most recent tract was purchased in 2006 bringing the total acreage to 1080 acres.

Purchased in five tracts –

1st tract – 814 acres – Joseph Judge – 1978 - \$244,000

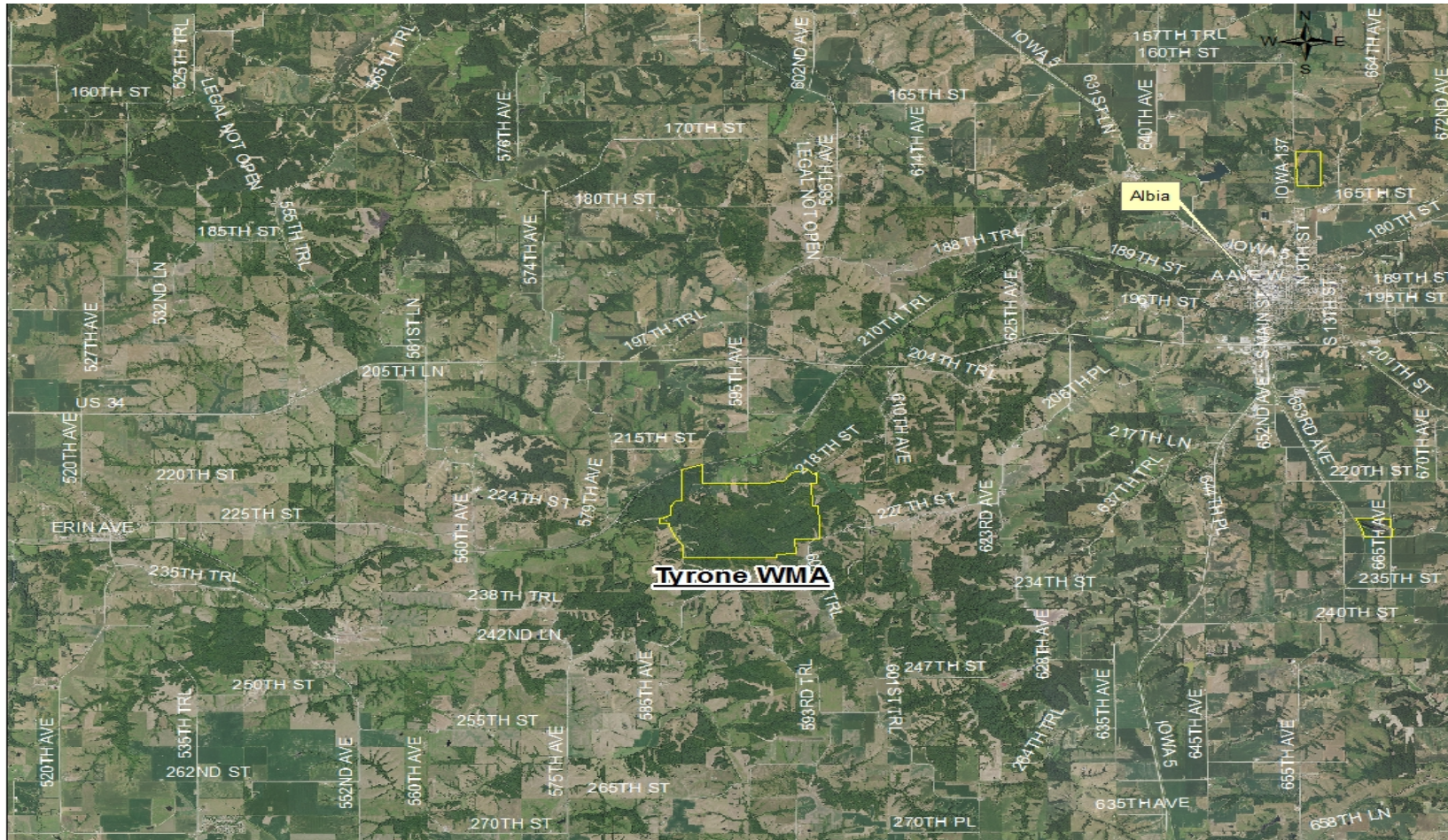
2nd tract – 52 acres - Luttrell – 1990 - \$9259.95

3rd tract – 150 acres - Summer – 1991 - \$35,310

4th tract – 37.4 acres – Morgan Lloyd – 1995 - \$10,745.40

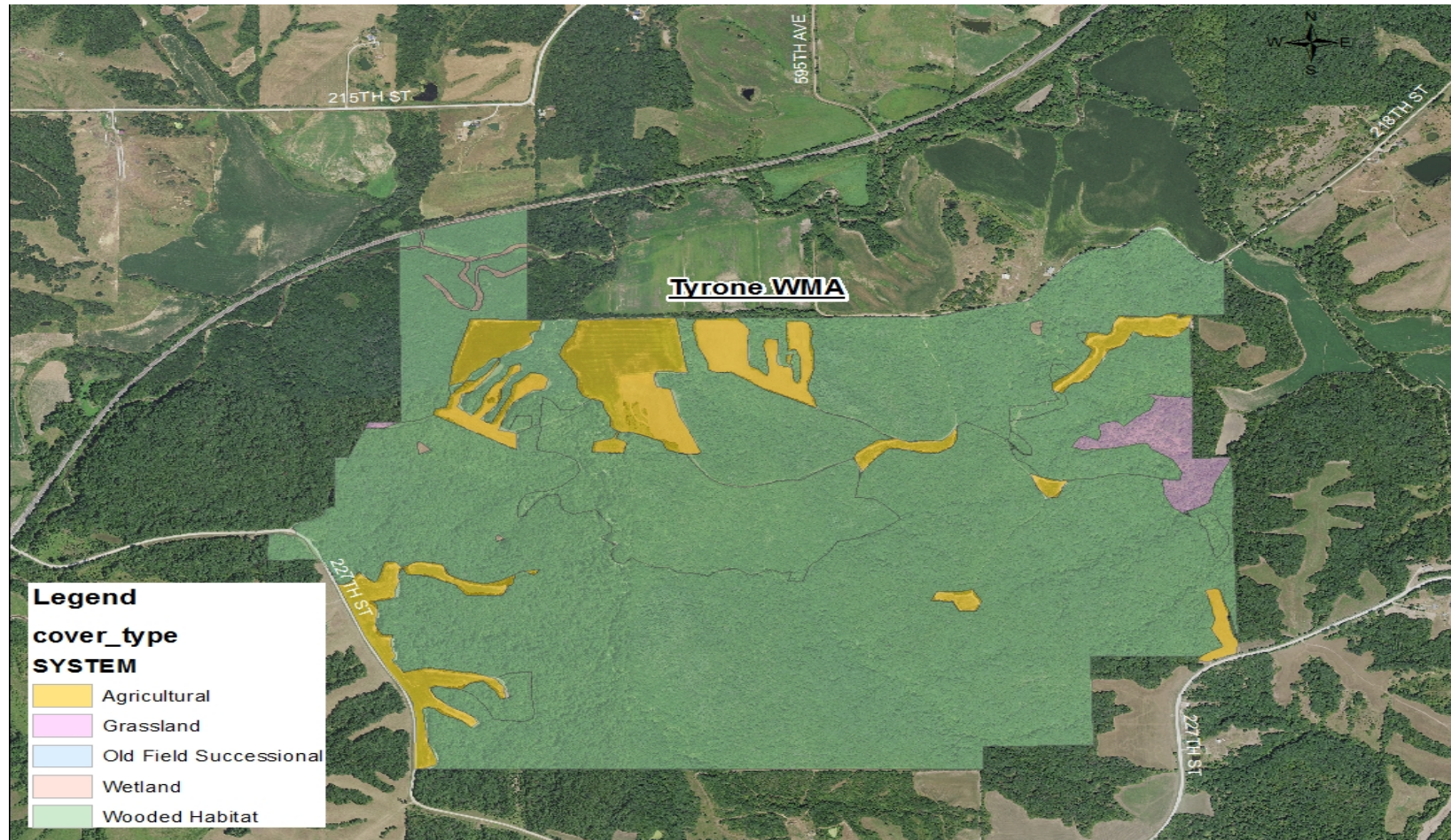
5th tract – 35 acres – Rathbun farms – 2006 – Unknown

Tyrone (WMA) is located in Sections 2, 3 and 4 of Franklin Township and Sections 33, 34 and 35 of Guilford Township, in Monroe County, Iowa



Cover Types on Tyrone

Tyrone WMA is comprised of 1,080 total acres with 969 of those acres being forested (90%). Tyrone cover type acreages consist of Woodland (945), Shrubland (23.7), Agricultural (78), Wetland/Pond (4.6) and Grassland (12.7).



Funding

- Funding for the acquisition and management of Tyrone WMA has been almost exclusively hunter generated monies, i.e. license fees and excise taxes on sporting equipment. A primary objective for management of the area is to improve habitat for game species such as White-tailed deer, wild turkey, squirrels and bobwhite quail.



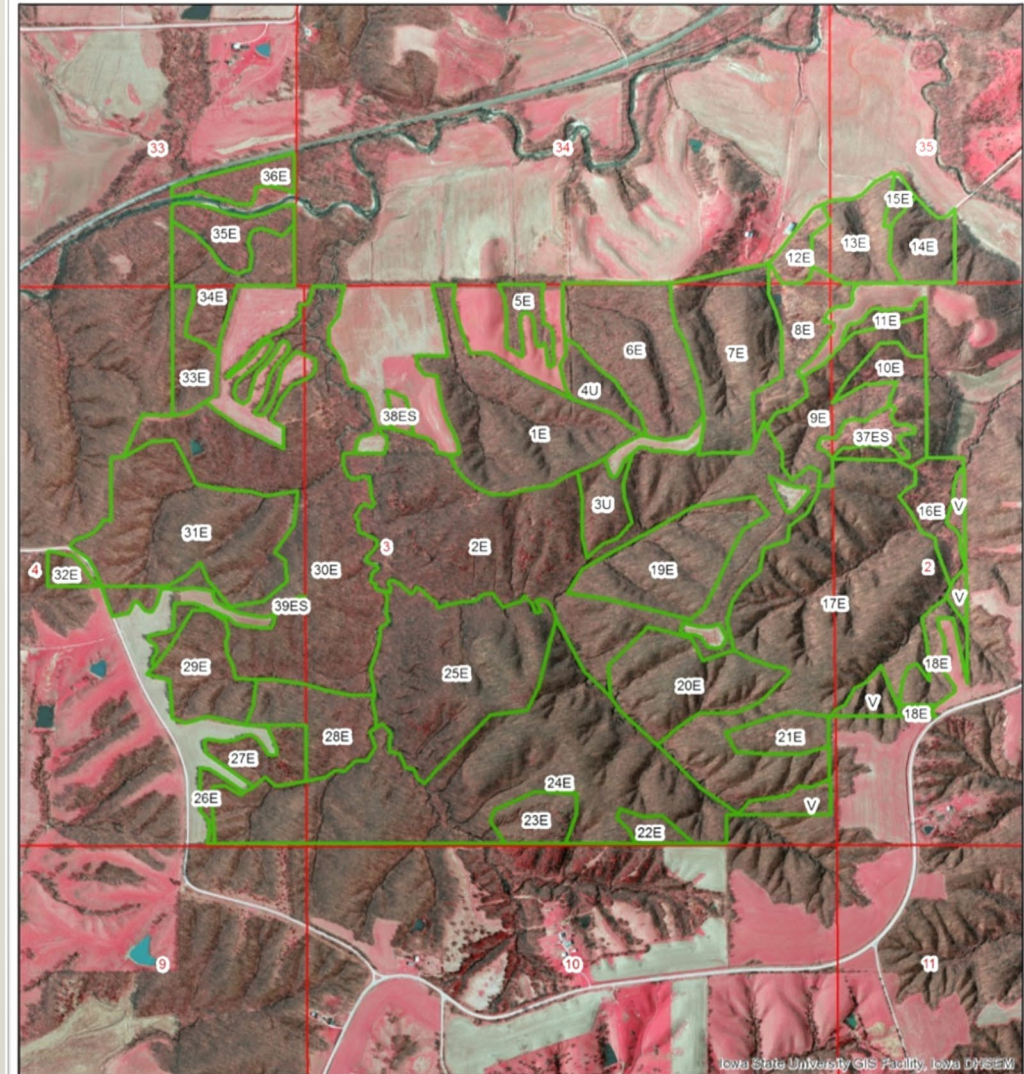
TYRONE FORESTRY GOALS

- Ecologically based forest management to improve forest health and maintain the forest ecosystem structure and function
- All other forest uses considered but not primary goals
- Activities geared towards plant and animal species that utilize Tyrone
- Species of greatest conservation need, common species, other game and/or nongame wildlife

Forest Wildlife Stewardship Plan

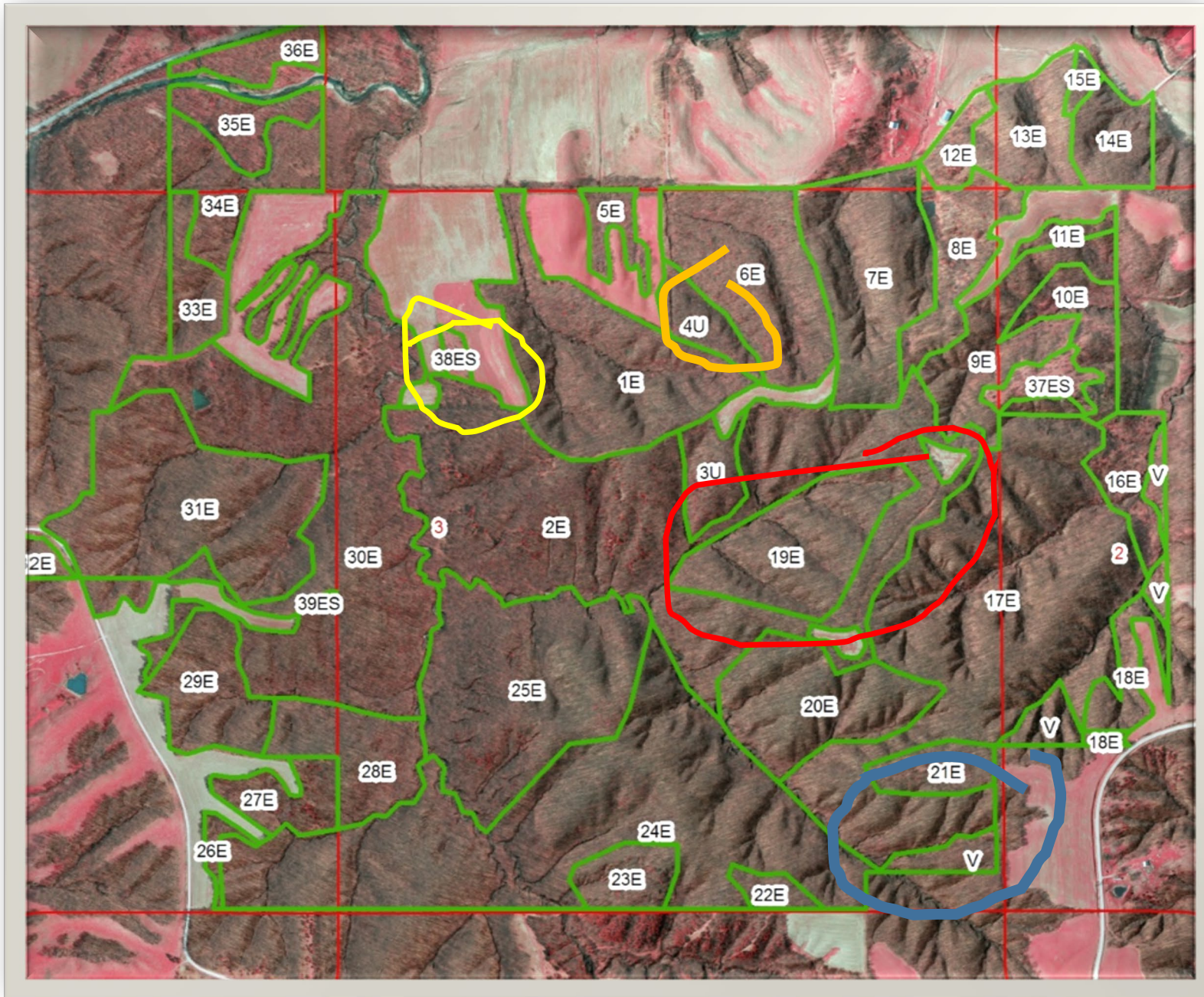
- Timber cruise, systematic plots
- Tree species, size, age, stand density, topography
- Management systems: even aged, oak-hickory
- Stand map
- Biologist and forester discuss the forestry options for each stand and how it will fit into overall management

Tyrone WMA Forest Stand Map
2016 CIR Imagery
Location: Iowa Monroe Guilford 33,34,35 and Franklin 2,3,4
Map prepared: 2/26/2020 by Jeremy Cochran



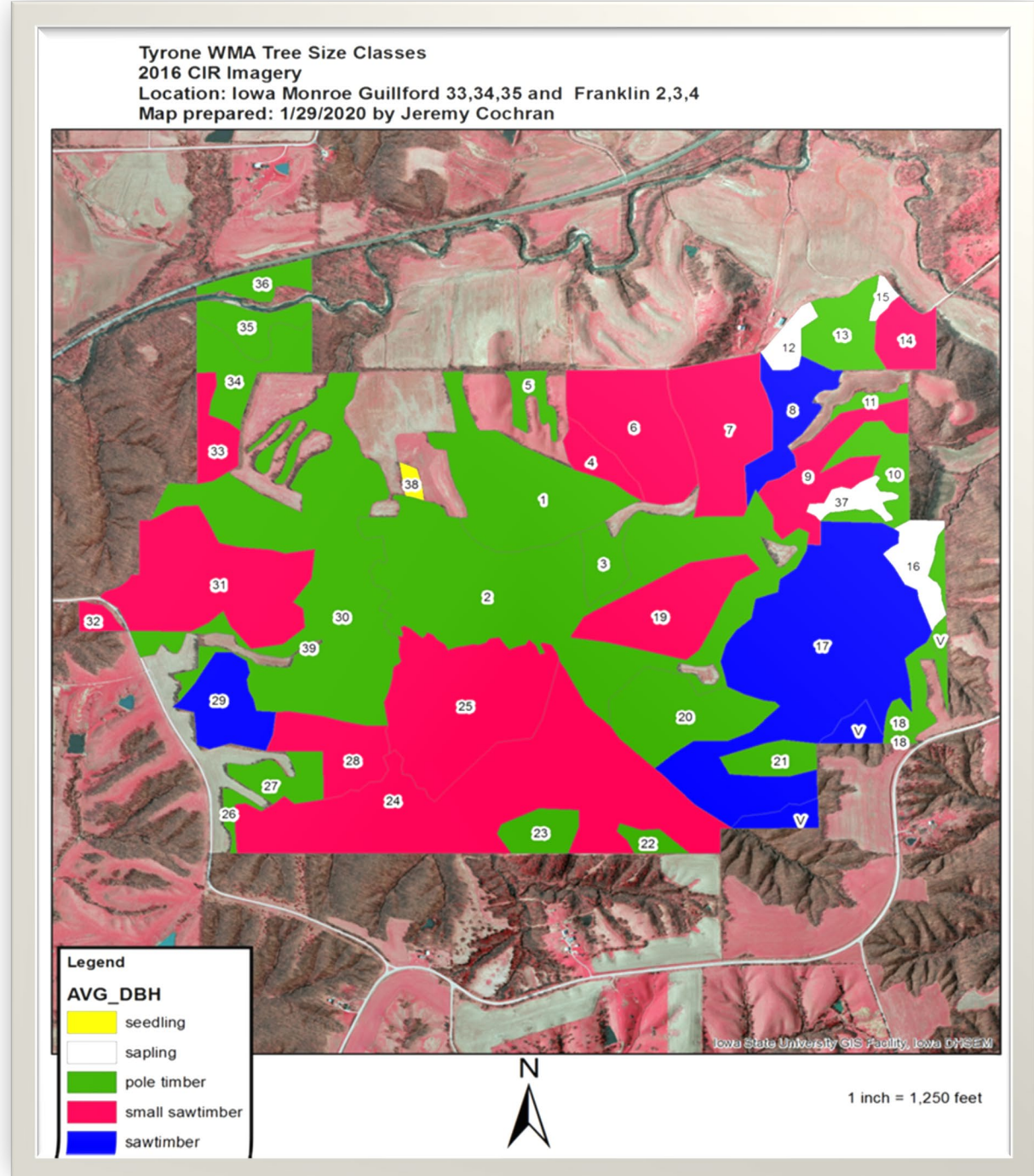
Forest stand map

- Each stand has a unique number followed by a letter that identifies the management system
- Examples:
 - 19E (even age)
 - 38ES (early succession)
 - 4U (uneven age)
 - V (viewshed)



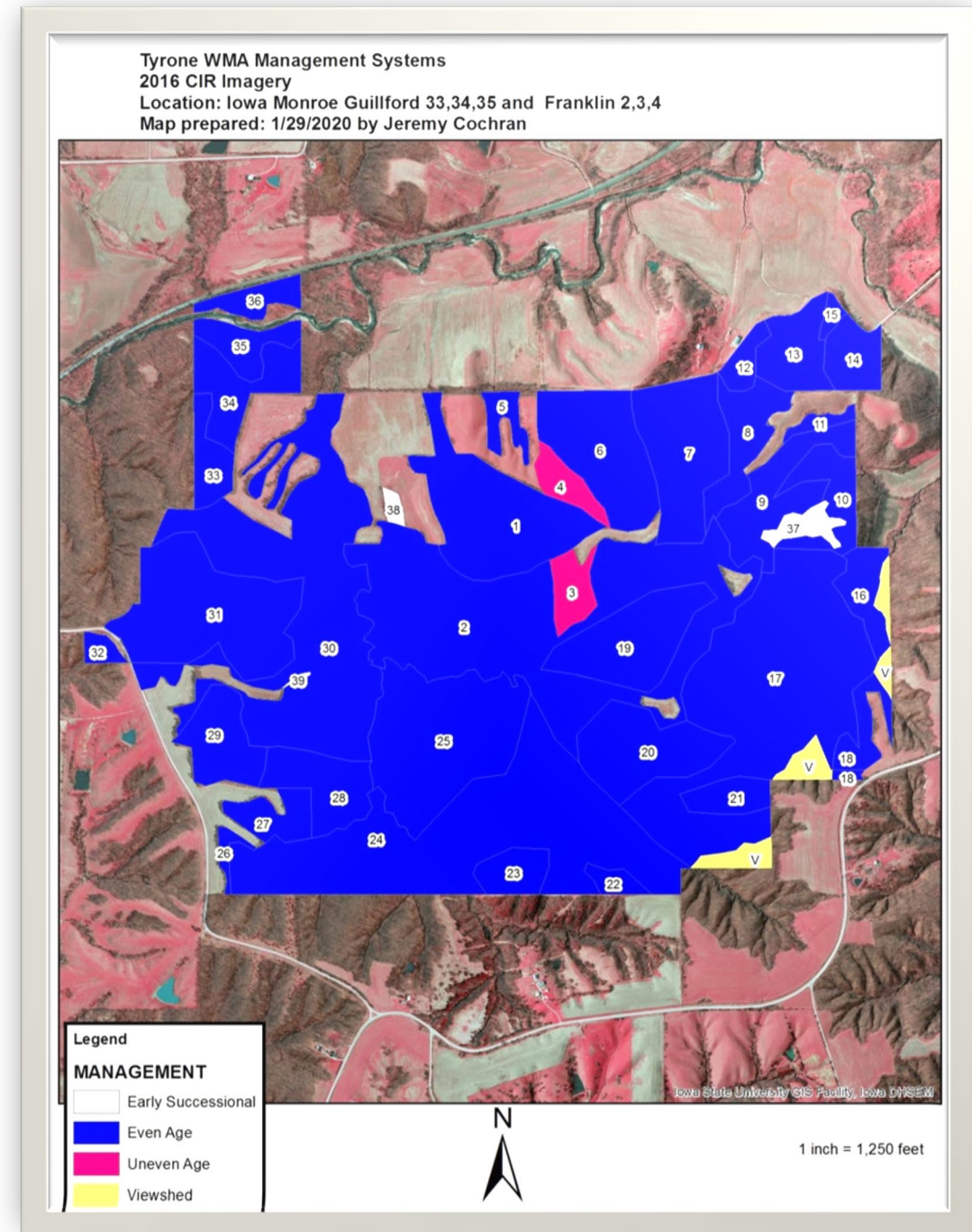
Tyrone Tree Size Classes

<u>Tree Size Class</u>	<u>Acres</u>	<u>% of Total Area</u>
Seedlings (<1" DBH)	2	0
Saplings (2" DBH)	22	2%
Pole size (4-12" DBH)	418	43%
Small sawlog size(14-16"DBH)	378	39%
Sawlog size (≥18" DBH)	149	15%
Total	969	100



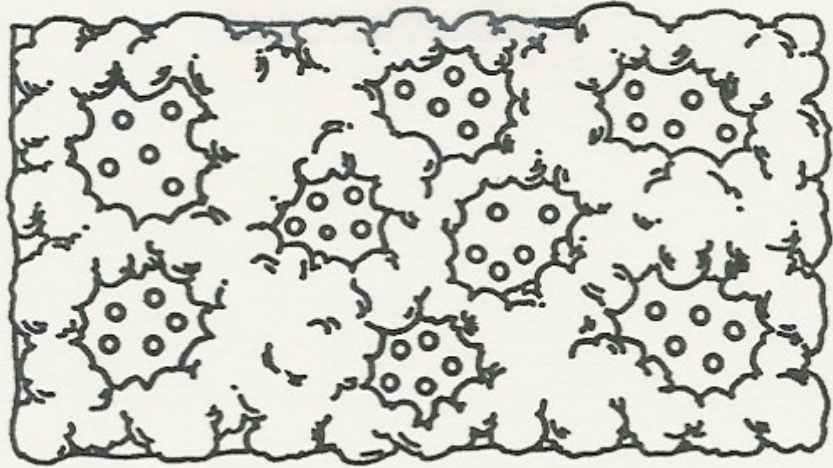
Tyrone Management Systems

<u>Management System</u>	<u>Acres</u>	<u>% of Total Area</u>
Early Successional	7	<1%
Even Age	934	96%
Uneven Age	15	2%
Viewshed	12	1%
Total	969	100

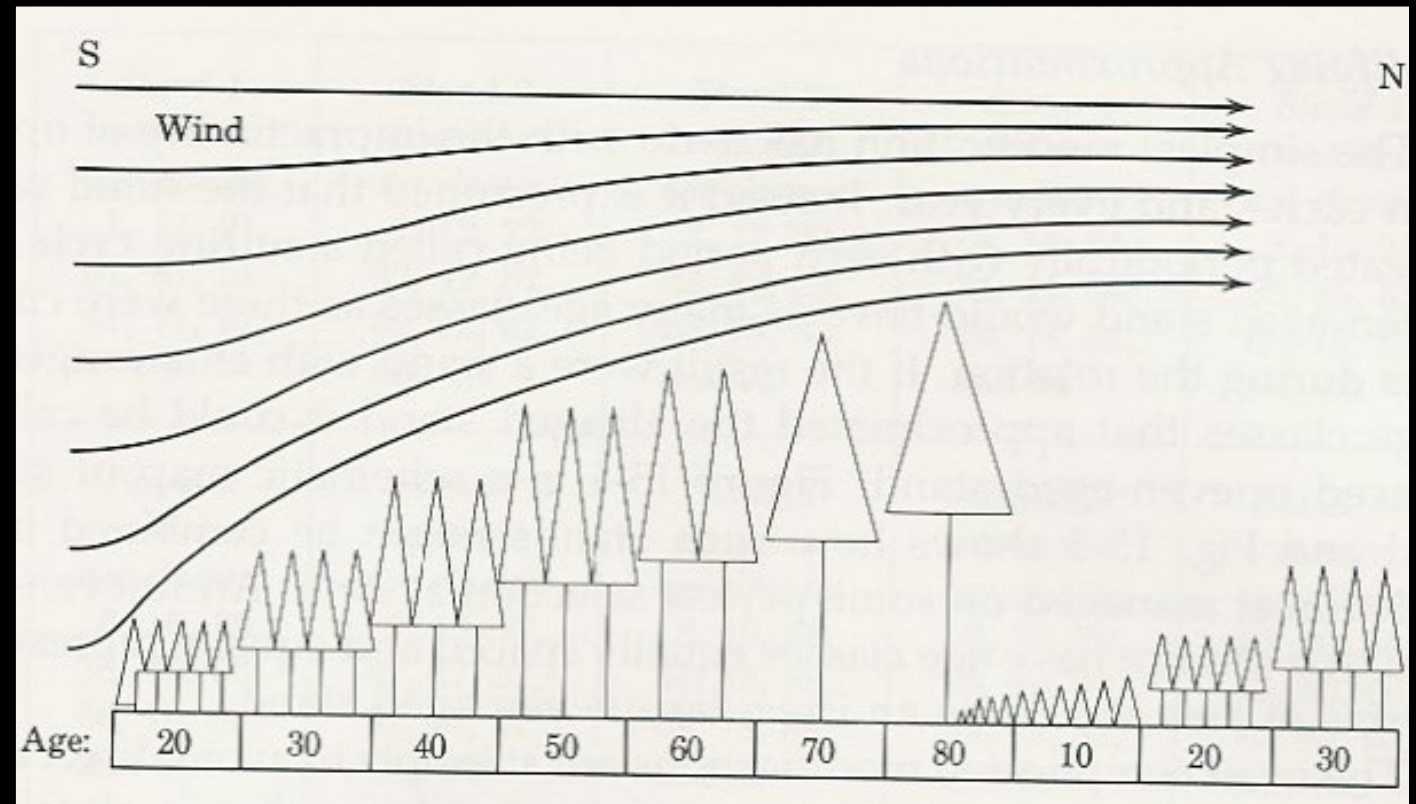


Even age management

- Stand of trees close to the same age (\pm 20% of rotation)
- At some point the stand is cut to start over (shelterwood, clearcut)
- Cutting is essential for oak regeneration
- Rotation age for Tyrone is 125 years
- Excellent wildlife habitat for MANY reasons and MANY species



Group shelterwood



Even age management

- Regenerating stand (seedling size) similar to early succession (1-10 years old)
- High stem density, diversity, thick and brushy
- Blue-winged warblers, black-billed cuckoos, eastern towhee, American woodcock
- Nearly unlimited herbaceous growth for deer browse
- Nesting, brooding, and foraging for turkeys



Even age management

- Saplings and poles (10-60 years old). Trees generally 1-12" diameter.
- Black and white, Kentucky, and worm-eating warblers.
- Canopy nesters scarlet tanagers, ground nesters oven birds, black and white warblers.
- Trees too young to produce significant mast.
- Stem density still relatively high.
- Stand loses up to 90% of trees through this stage due to competition, insects, diseases, and timber stand improvements.
- Closed canopy. Ground layer somewhat sparse, often heavily shaded.



Even age management

- Mature stands (60-125+ years old). Trees generally >14" diameter.
- Highest acorn production.
- Lowest number of trees per acre (only 40-60 TPA)
- Well-developed understory, often heavily shaded



