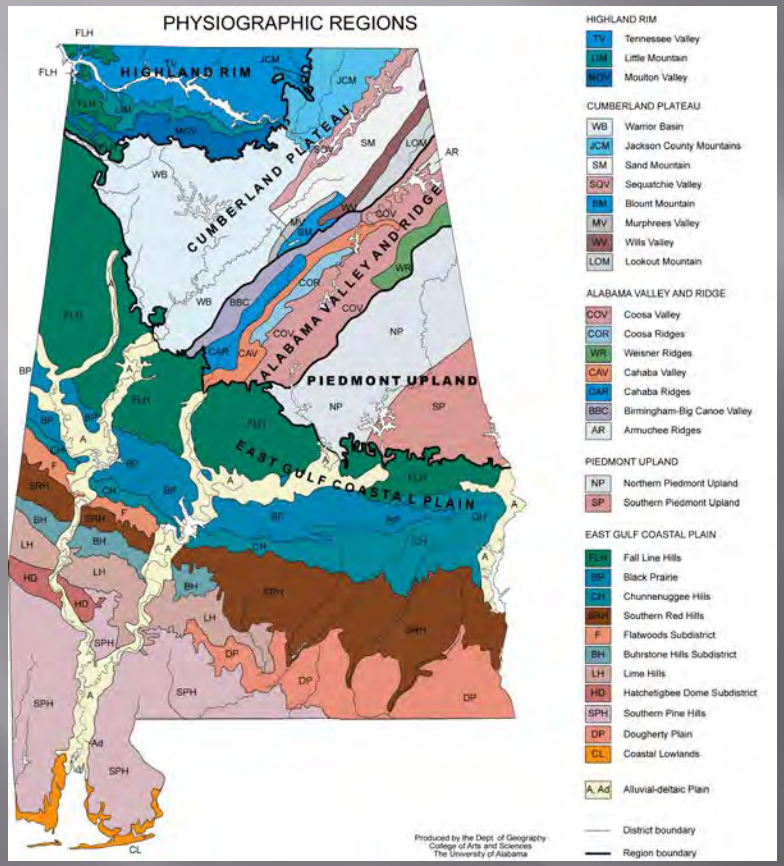
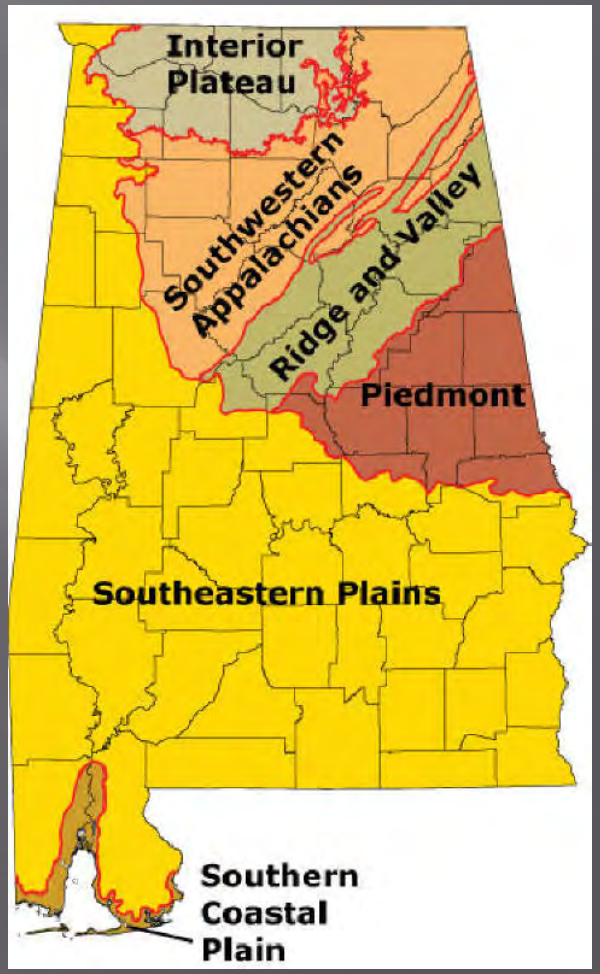
Brown Management Plan

presented by:

Physiographic Province





Brown Family's Objectives:

1. Reinvest Revenues from Active Management Strategy Over a 20 Year Horizon
2. Improve Wild Turkey Habitat and Overall Recreational Value
3. Explore Alternative Management Strategies to Produce a Better ROR on the Lands that are currently in Loblolly Plantations.
4. Return Longleaf Pine to the Tract Using Natural and Artificial Regeneration Methods
5. Develop a Sustainable Management Strategy for Improving and Regenerating the 400 Acres of Mature Mixed Pine-Hardwood.

Eastern Wild Turkey

- One section can keep a flock year round.
- “Work with what you have”
- Nesting and brooding portion of life cycle is most crucial.

Longleaf Pine

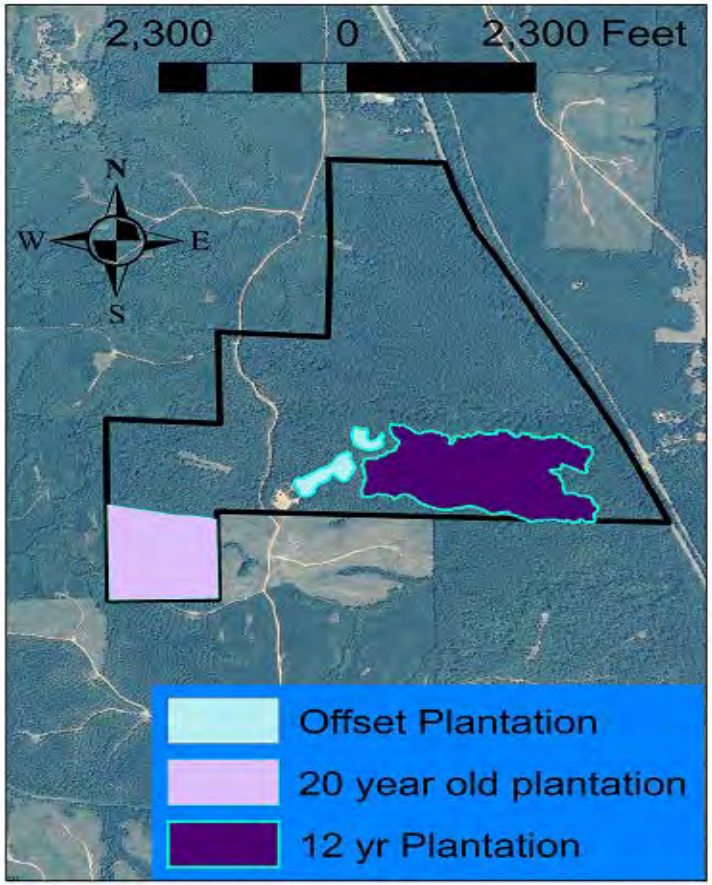
- Reed surveys Bibb in 1905
- Cone production stimulated by open conditions
- ‘grass-stage’ seedlings poor competitors
- Seeding Distance
- Proper seedbed needed
- Pine Straw Markets

Uncle Jimmy Whalen in a forest of longleaf yellow pine

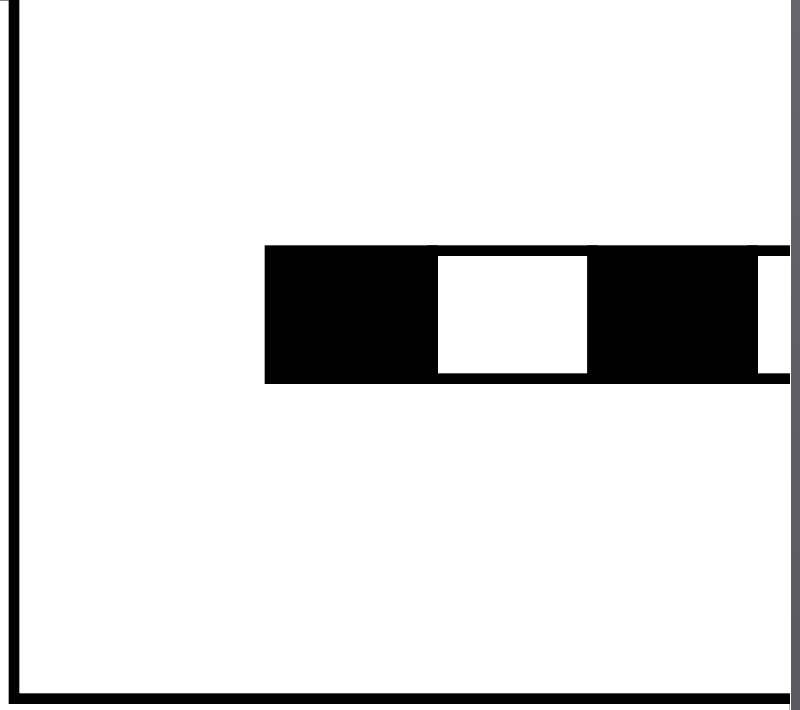
Oak & Hickory

- Important for many wildlife species
- Also species historically perpetuated by fire
- Forest service data shows these forests to be at risk from encroachment from following species
  - Red maple
  - Sweetgum
  - Yellow poplar
  - American beech

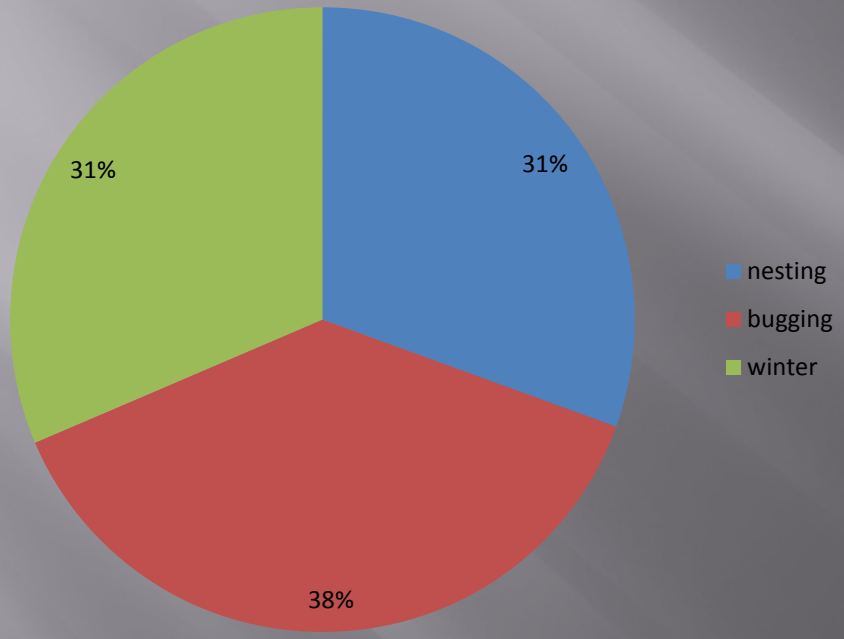
Current Stand Composition:



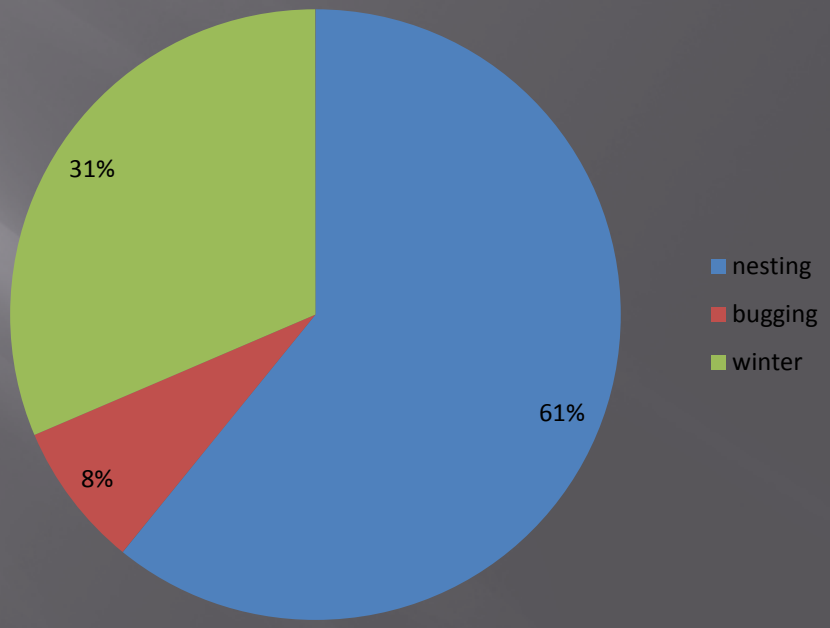
- 500 +/- acres
- 12 yr pine plantation – 65+/- acres
- 20 yr pine plantation – 46+/- acres
- Mixed pine hardwoods – 388 +/- acres



Adjacent Habitats (3.3 miles of edge)



Adjacent Habitat in 10 years (3.3 miles of edge)



Compartment Breakdown:

- Topography
- Soil type and moisture
- Operability
- Species composition

Compartment 2

- Thinning treatment for longleaf
- Improvement harvest for stand balance
- Prescribed Fire
- Chemical Treatment
- ‘day-light’ harvesting road
- ½ ac logging deck

Thinning treatment (20.5ac)

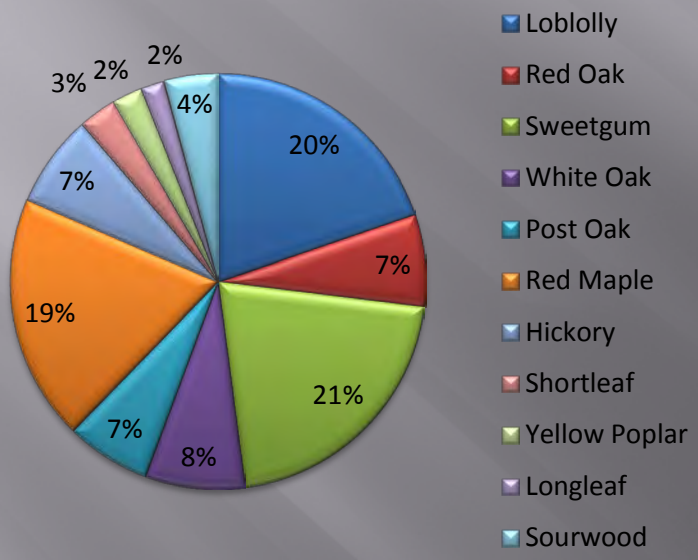
Product	Tons	Value
Saw	140	$ 2,094
CNS	82	$ 989
Ply	258	$ 6,461
Poles	70	$ 3,853
RWH	326	$ 13,035
Pop/Gum	31	$ 940
Mixed	91	$ 2,737
HW Pulp	427	$ 4,269
Pine Pulp	24	$ 166
	Total	$ 34,500

Designed Harvest

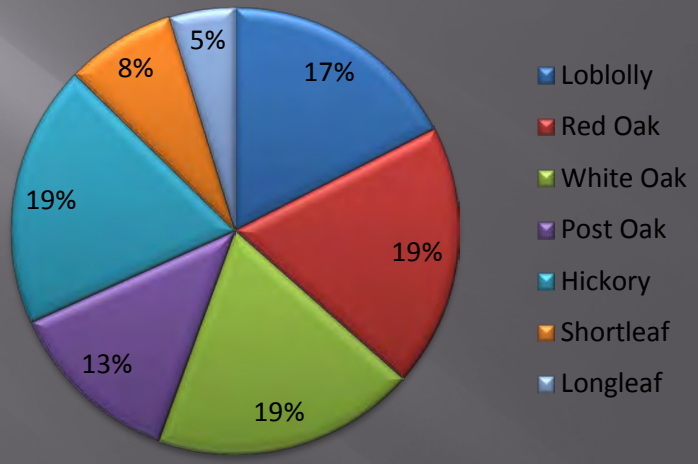
Compartment 2	BA	TPA	Pine Saw	Pine Ply	Pine Pulp	HW Saw	HW Pulp	Value
Tract Total	94	174						
Sweetgum	11	35						
Poplar	3	4				59		
Sourwod	2	7						
Red Maple	7	32				2	321	$ 5,040
Post Oak (15-21 DBH)	5	3				107	12	$ 3,330
Loblolly (5-12 DBH)	7	21	77		45			$ 1,377
20 DBH+	7	2		95		210		$10,535
Residual	52	70						$20,200

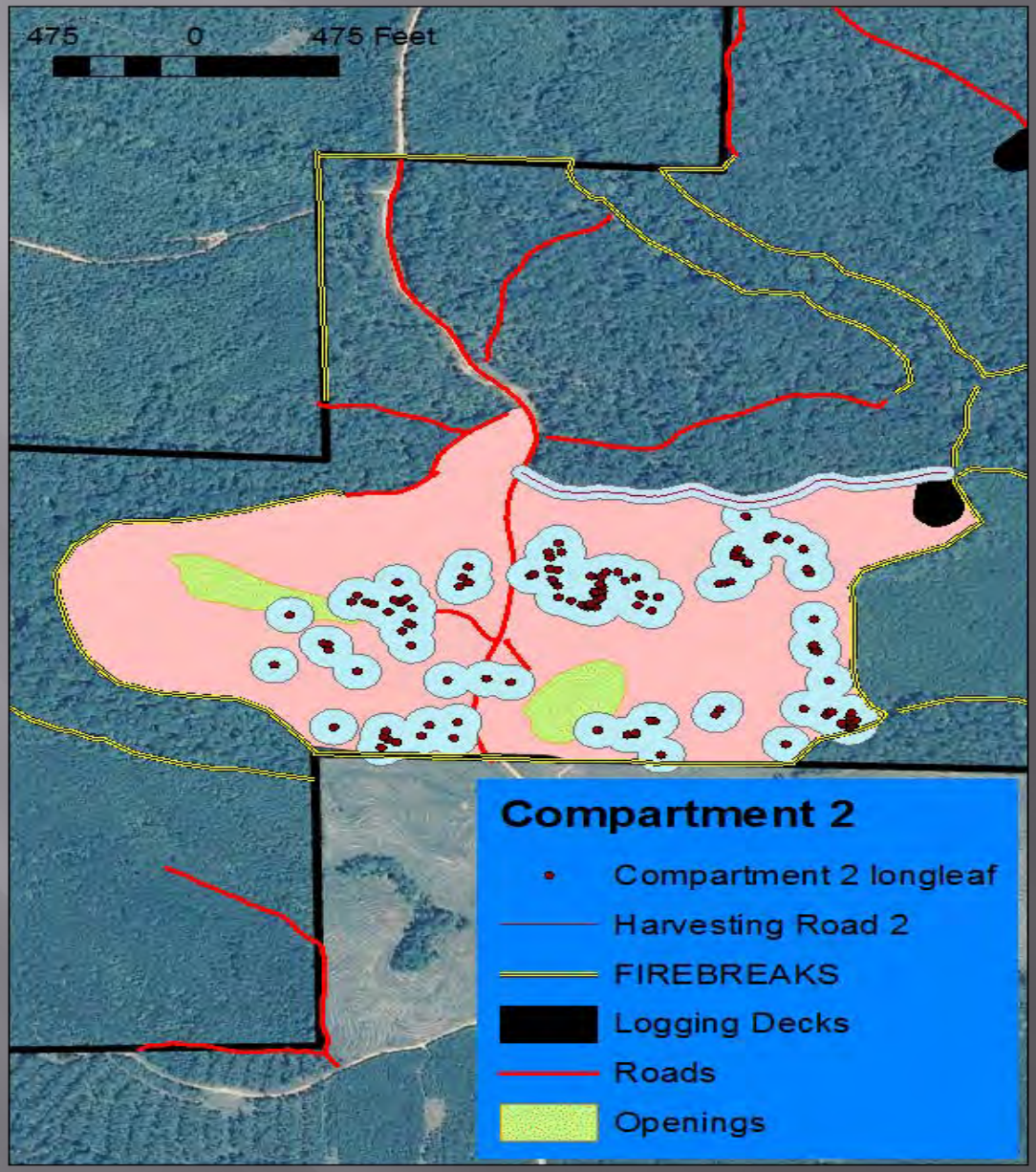
Species Composition Comparison

TPA %



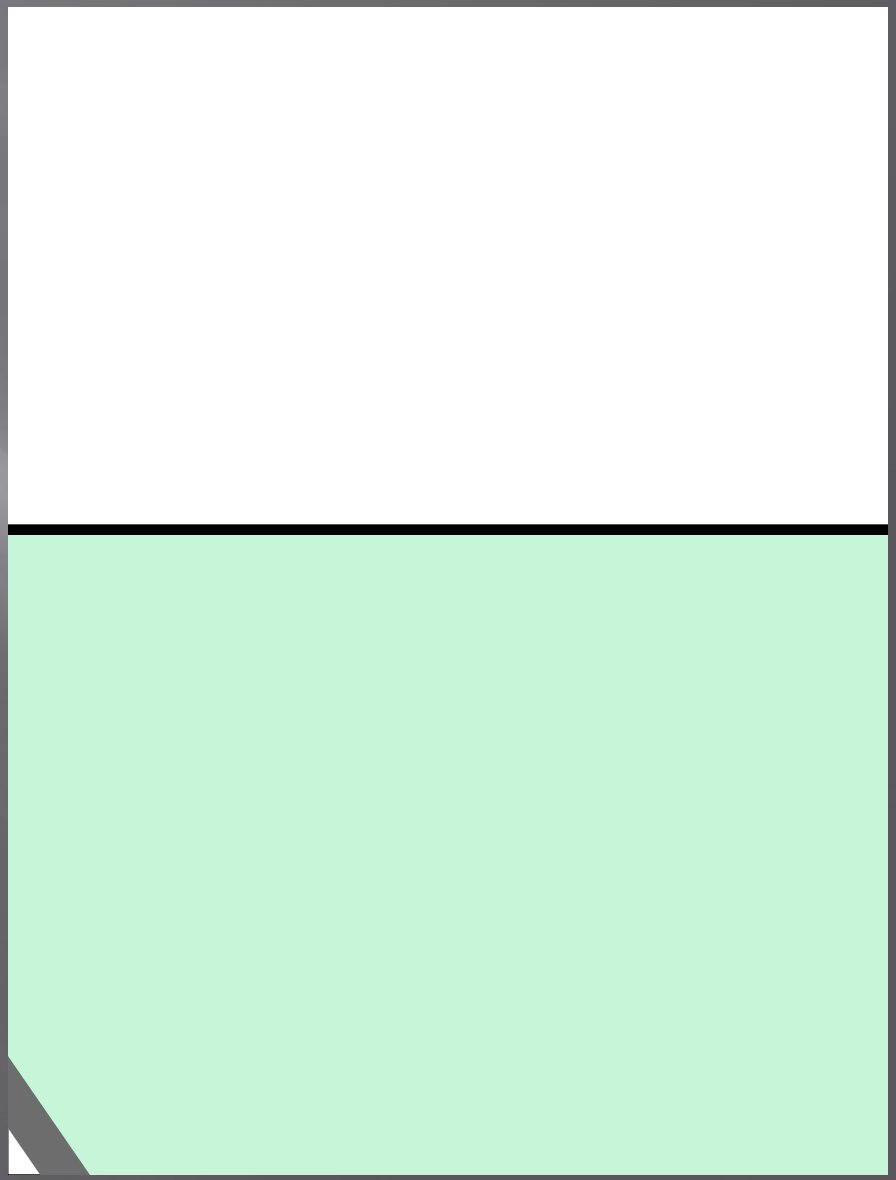
TPA %



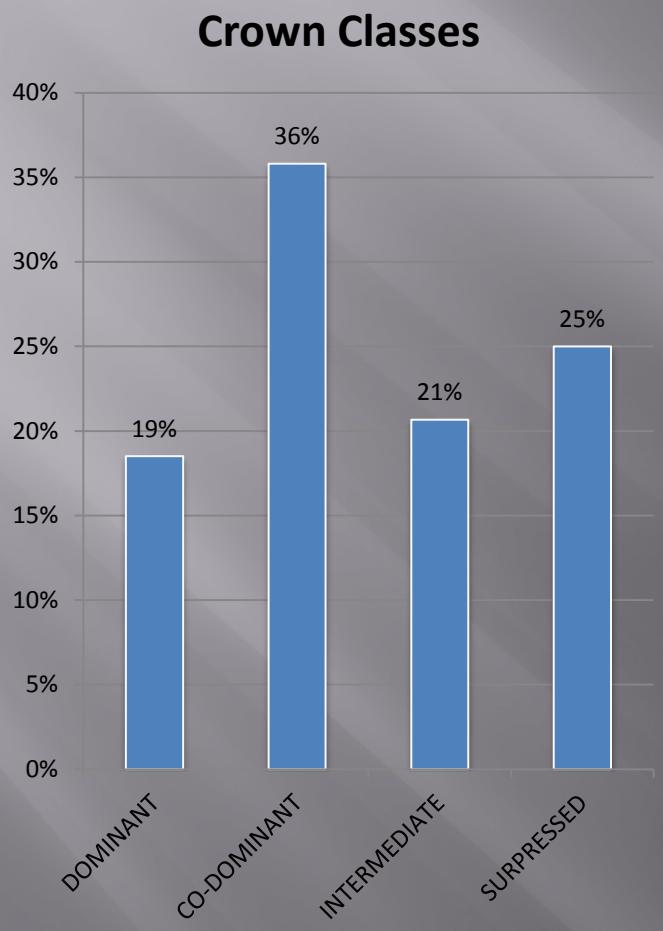

475 0 475 Feet
Compartment 2
Compartment 2 longleaf
Harvesting Road 2
FIREBREAKS
Logging Decks
Roads
Openings

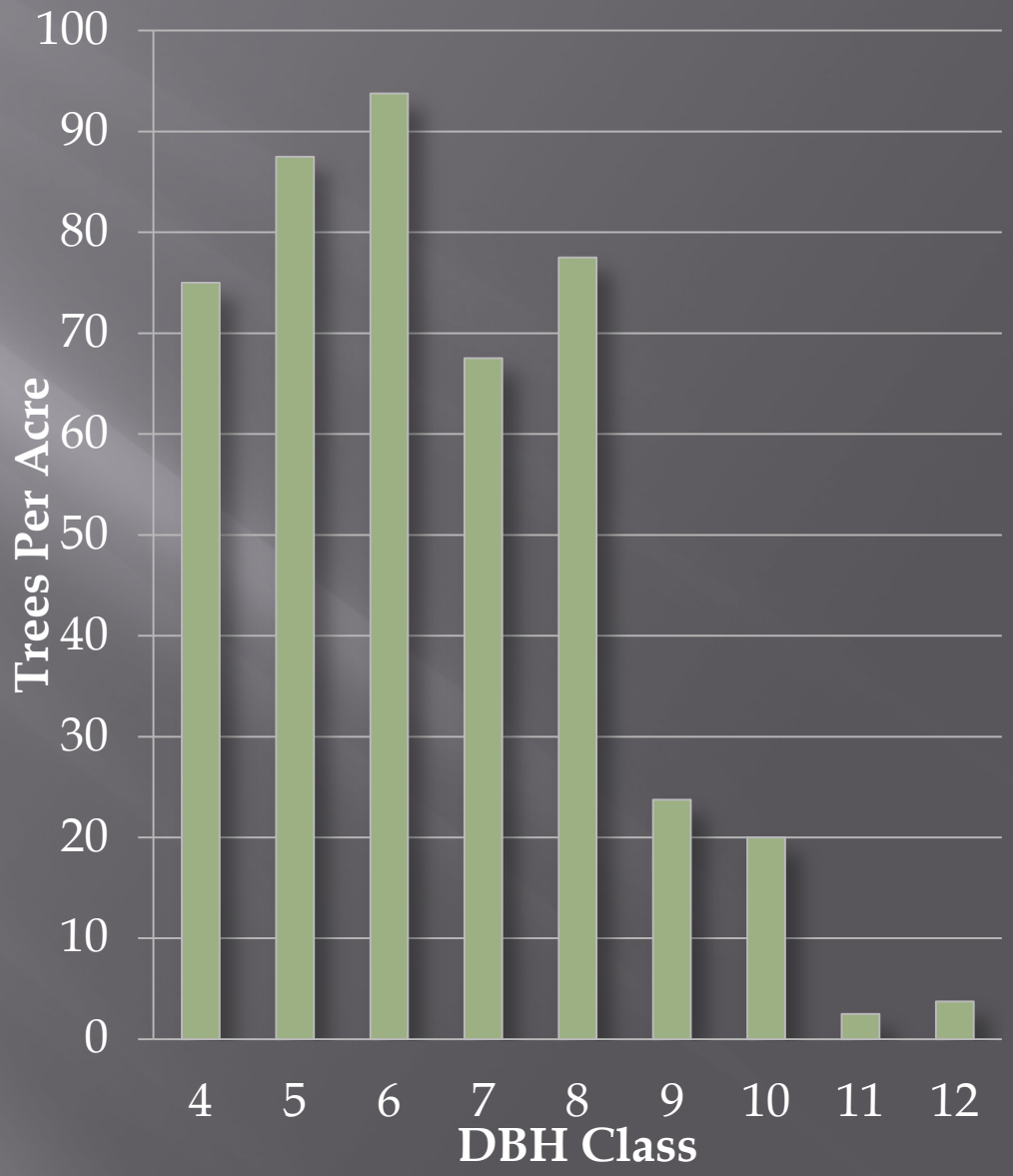
Compartment 1

- 43.5 +/- acres of 20 year old loblolly pine plantation
- BA = 94 sq. ft.
- TPA = 474
- 3000 tons of pulpwood
- Valued at $21,000.00



Compartment 1





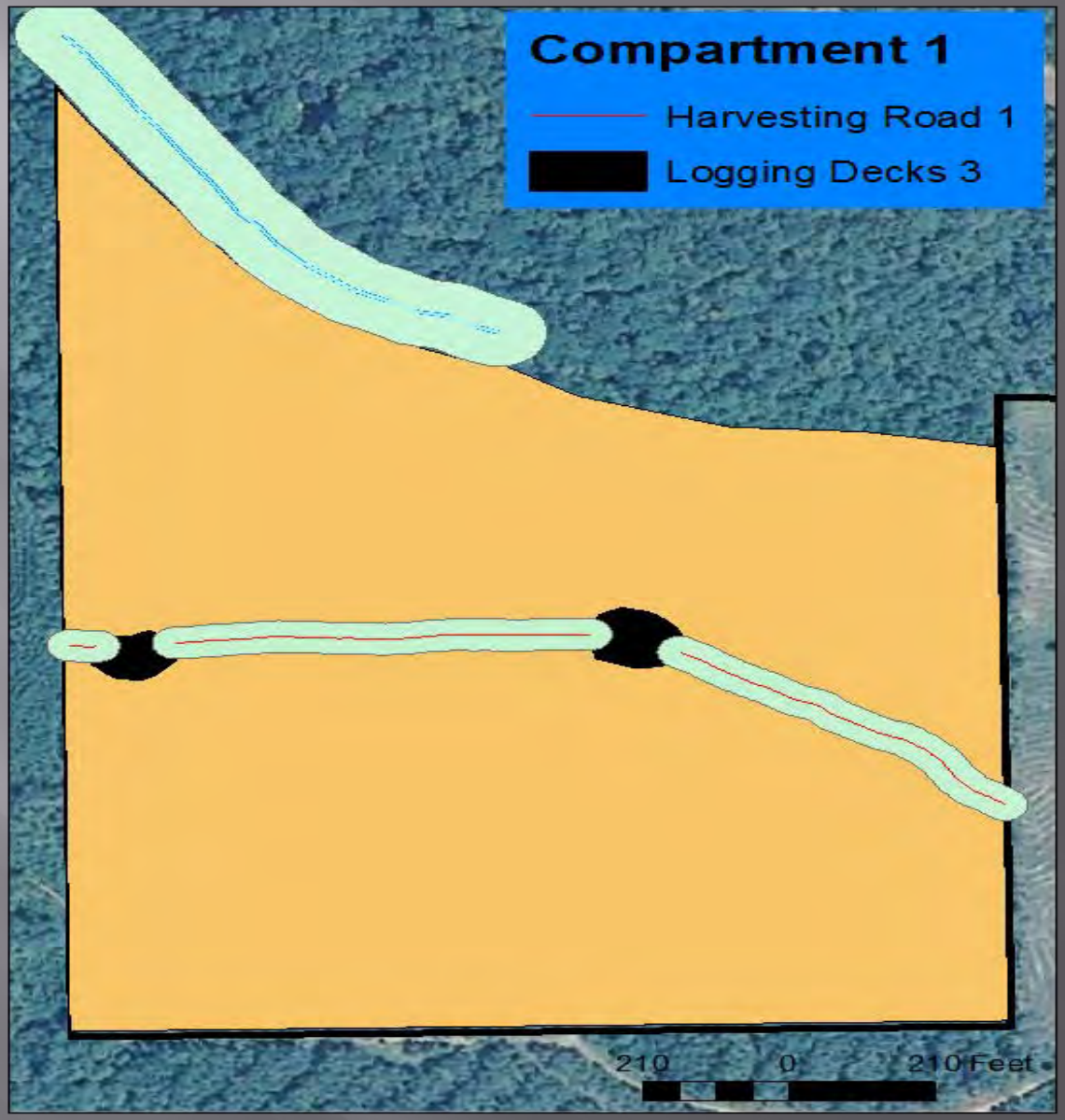
Concerns

- Thinning window has been missed and stressed stems in stand are be poorly equipped to respond
- High risk of bug and disease infestation
- Lurvene soils are deep and well drained thus better suited to longleaf pine

Plant longleaf pine

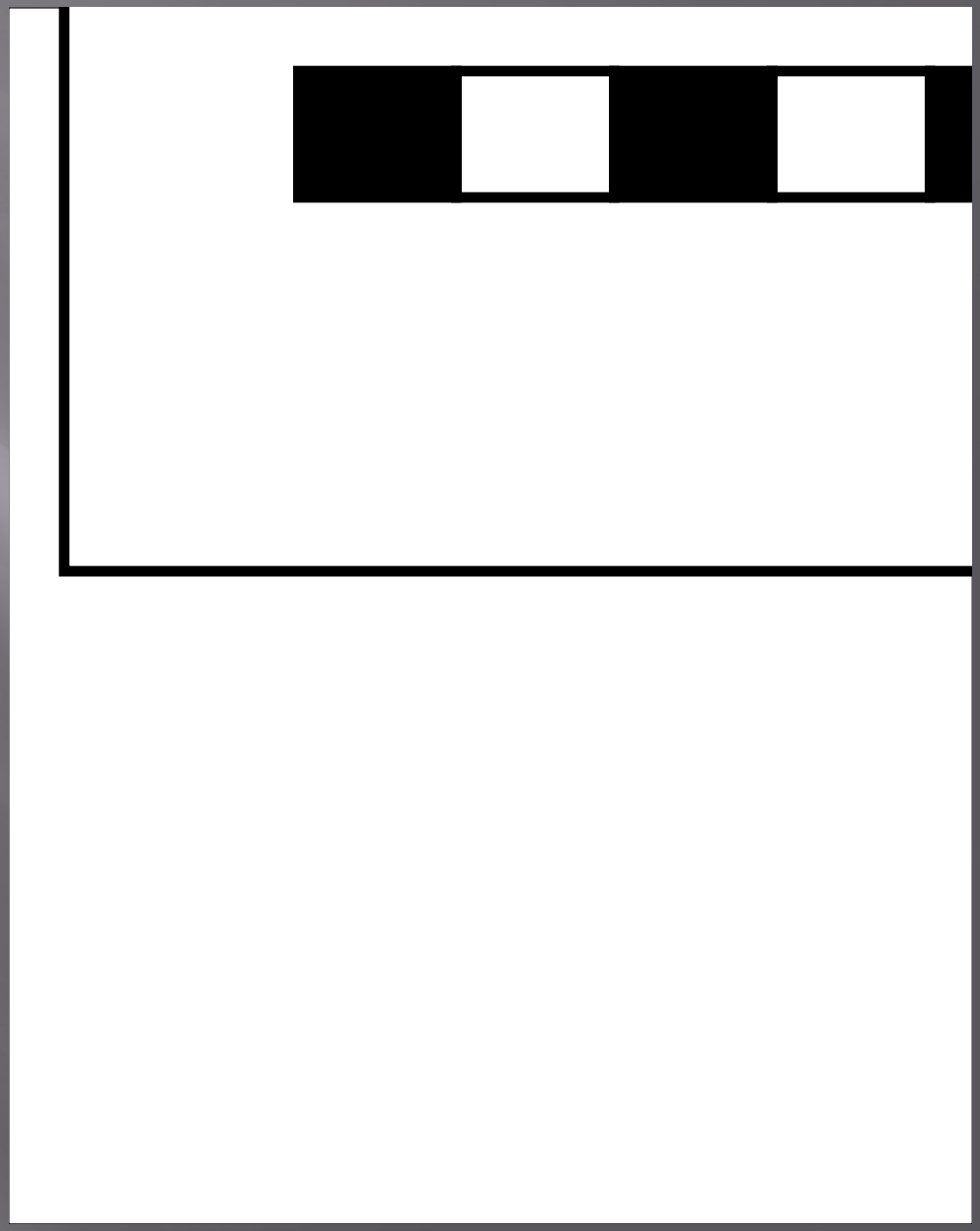
- ‘burn down’ chemical treatment
- Site prep burn
- Containerized seedlings
- 8X6 spacing
- 6 rows then 10 foot corridor
- 770 TPA
- Goal = 100 BA

Activity	Year	Value	IRR =	17.20%	Business	NPV
Chem Site Prep	0	$ 68			$ 51	
Seedlings	0	$ 105			$ 79	
Hand Plant	0	$ 71			$ 53	
Fertilizer	14	$ 63			$ 5	
Taxes	20	$ 5			$ 21	
Harvest	6	$ 50			$ 14	
Harvest	7	$ 75			$ 19	
Harvest	8	$ 90			$ 19	
Harvest	9	$ 105			$ 19	
Harvest	10	$ 125			$ 19	
Harvest	11	$ 140			$ 18	
Harvest	12	$ 150			$ 17	
Harvest	13	$ 170			$ 16	
Harvest	14	$ 185			$ 15	
Harvest	15	$ 215			$ 15	
Harvest	16	$ 200			$ 12	
Harvest	17	$ 185			$ 9	
Harvest	18	$ 170			$ 7	
Harvest	19	$ 150			$ 6	
Harvest	20	$ 140			$ 4	$ 0.48


Compartment 1
Harvesting Road 1
Logging Decks 3
210
0
210 Feet

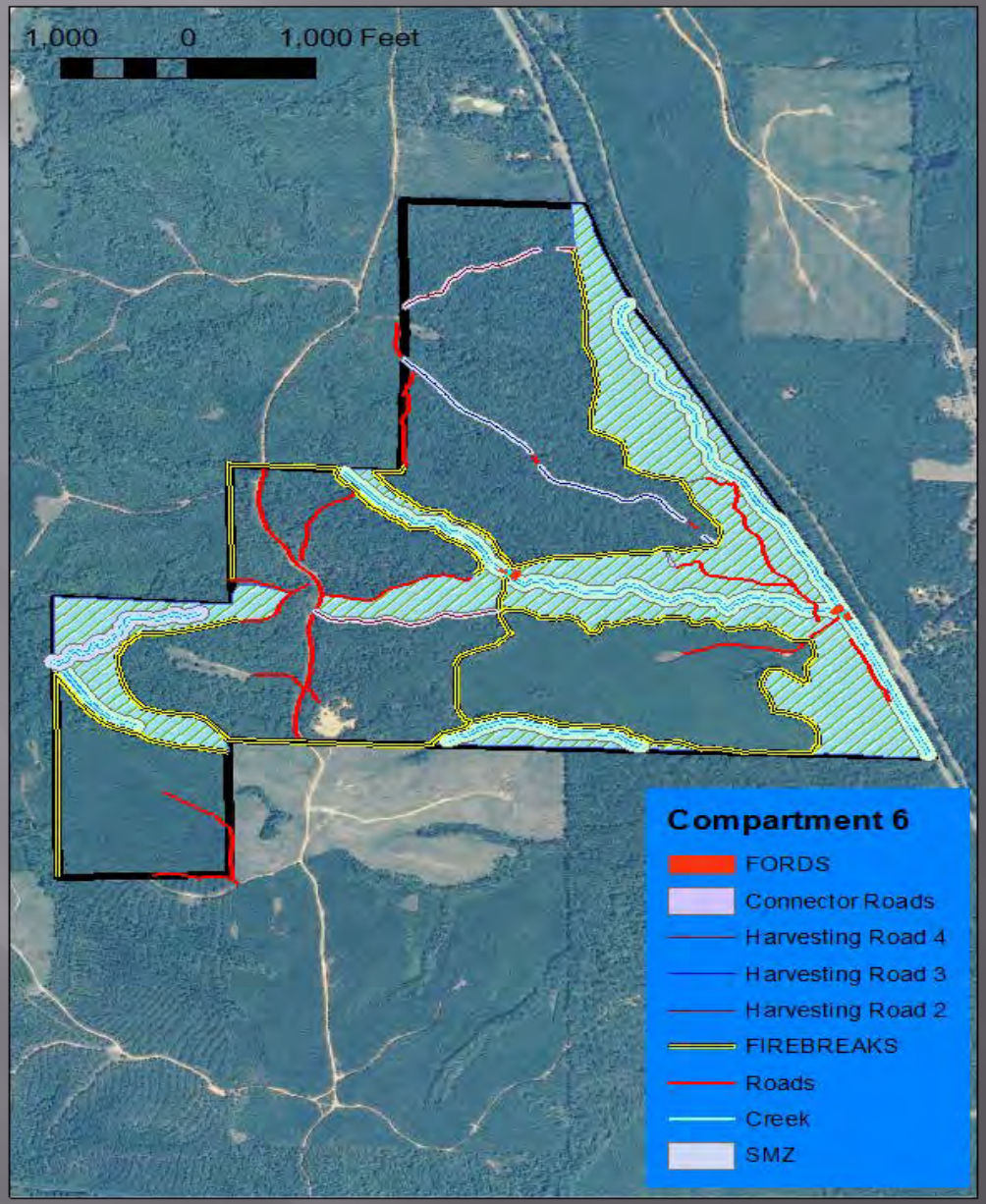
Compartment 6

- 131 +/- acres
- BA = 88 sq. ft.
- TPA = 130



Compartment 6

- Continued Fire Exclusion to promote soft masting species
- Removal of all pine species
- Low volume stream fords
- Connecting log roads to firebreaks to improve recreational attributes


1,000 0 1,000 Feet
Compartment 6
FORDS
Connector Roads
Harvesting Road 4
Harvesting Road 3
Harvesting Road 2
FIREBREAKS
Roads
Creek
SMZ

Prescribed Fire

- First fires should be heading fires applied during the winter time
- Fire interval no longer than 3 years
- Negative correlation between fire intensity and fire frequency
- Should produce a dominant covering of grasses legumes and forbs (brood habitat)

Chemical Control

- Compartments 2, 4, and 5
- Brown family will administer application using existing equipment
- Ensures eradicated species do not benefit from disturbance

Wildlife Plantings

- ‘day-lighted roads and residual decks planted yearly
- Mix of Cool and Warm Season plantings
- Chufa to supplement wild turkey nutrition in lacking masting years
- Implement strip disking to stimulate the growth of native herbaceous plants

Investments

Investment	End Holdings
T Bill	$ 699,411
S & P	$ 901,967
T Bond	$ 1,175,253

Questions?