CHEROKEE BOY SCOUT RESERVATION

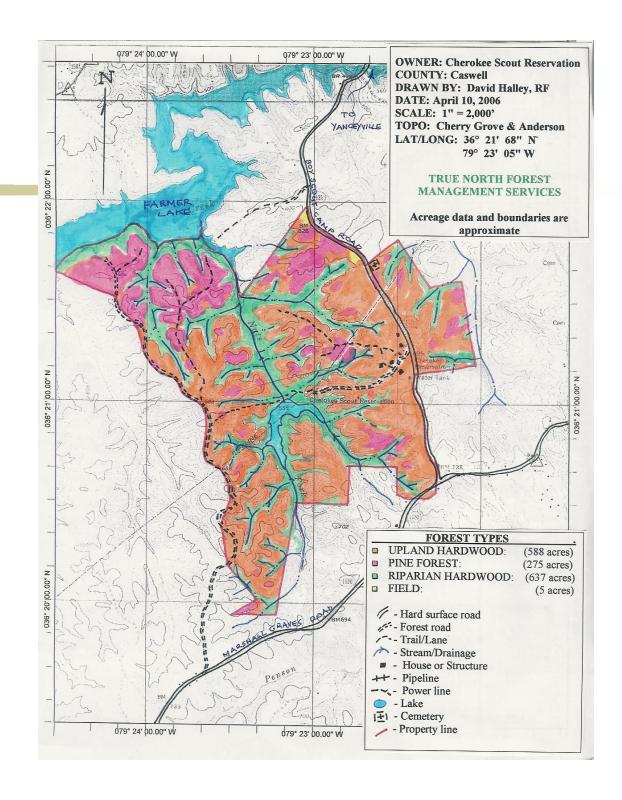
June 2016



Present Forest Conditions

FOREST TYPE	ACREAGE	% OF LAND
UPLAND HARDWOOD	724	46%
PINE FOREST	160	10%
RIPARIAN HARDWOOD	680	43%
FIELD	31	2%
TOTAL	1595	100%

Original Forest Types



History

- Donated by Bassett Furniture in 1966
- No forest management for 40 years
- Leased to NC Game Commission for Archery Only Hunting
- Started discussions in 2003
- Resistance
- Hired True North in 2006

Past Timber Management Practices

- Diameter Limit Harvests
- High-grading
- Selective Harvest
- Abandoned fields
- No Planned Reforestation

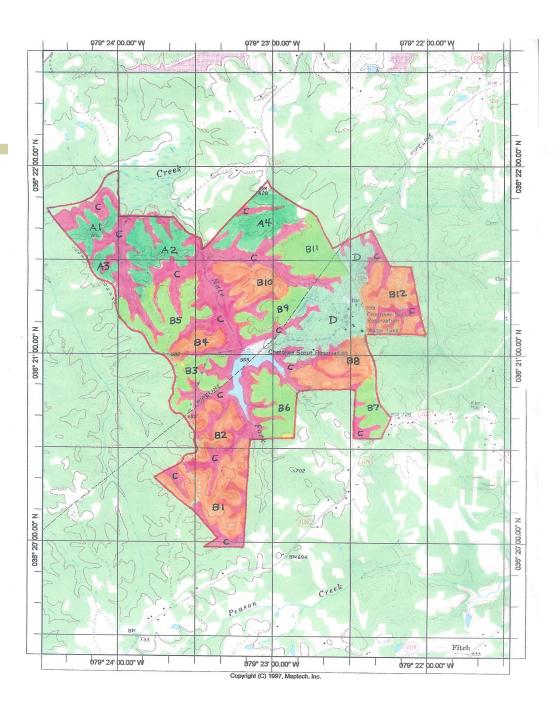
Objectives

- Improve, restore, and enhance the overall forest productivity
- 2. Enhance wildlife and songbird habitat
- 3. Protect and preserve water quality
- Increase opportunities for recreation and Environmental Education
- Become a model forest for ecologically responsible forest management

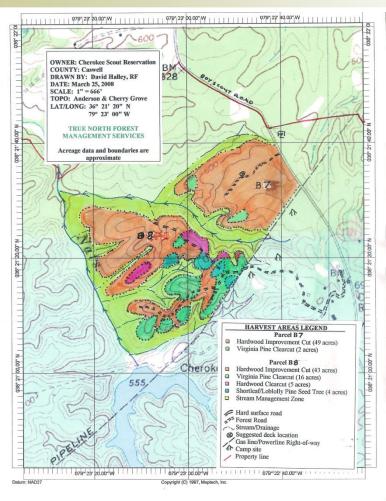
Management Prescriptions (Restoration Plan)

- Protect Riparian Forest Buffers (43%)
- Restoration: Modified Oak Shelterwood System
- 3. Timber Harvests -Small Group Openings
- 4. Convert low quality Virginia Pine to Loblolly and Shortleaf Pine
- Maintain and enhance existing Shortleaf Pine

Forest Management Unit Map



Each Management Unit is Unique



THARDWOOD IMPROVEMENT CUT – Modified Oak Shelterwood



THARDWOOD IMPROVEMENT CUT



Hardwood Improvement Cut - Stage 1

- Do before age 80 years
- Focus on removing:
 - Crooked, limby or poorly formed trees
 - Damaged or diseased trees
 - Low timber value trees (maple, sweetgum, beech)
 - Small diameter trees/Midstory trees
 - Trees growing too closely together
 - Retain your best crop trees Mother Trees

Low Quality



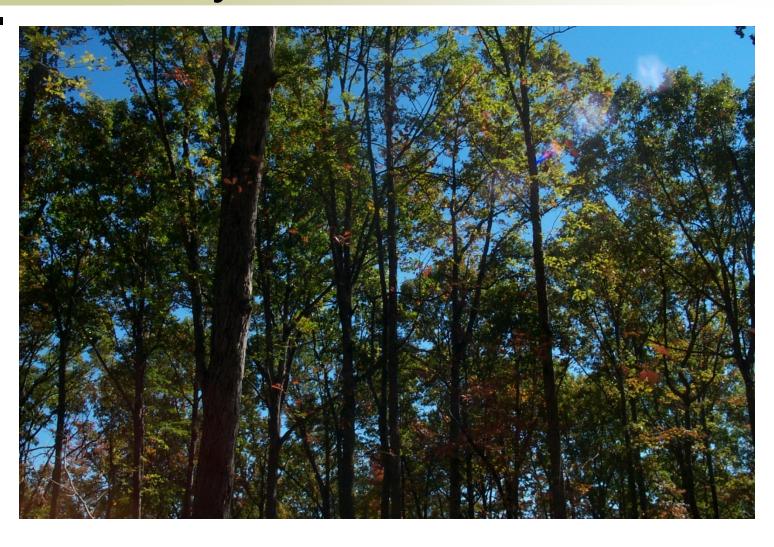
Low Value – Beech, Maple, Sweetgum



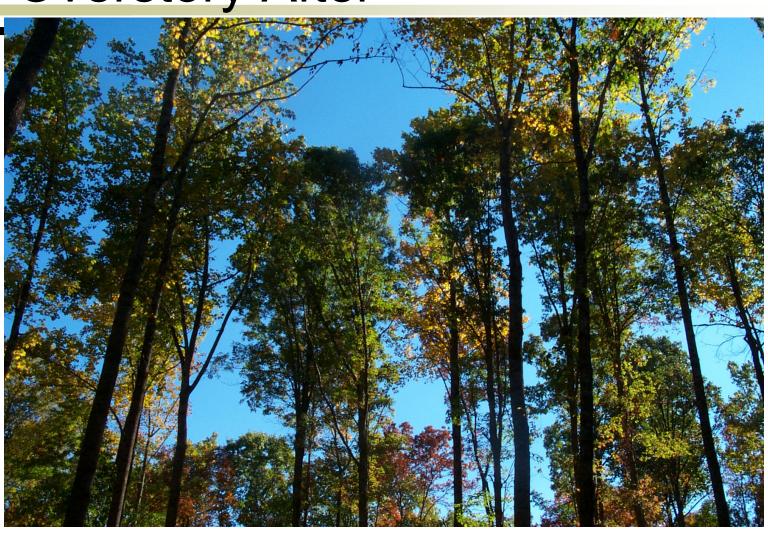
Growing too Closely Together



Overstory Before



Overstory After



Understory Before



Understory After



Understory After



THARDWOOD IMPROVEMENT CUT – Marked (Before cut)



THARDWOOD IMPROVEMENT CUT – Following cut



THARDWOOD IMPROVEMENT CUT – Right After Cut



THARDWOOD IMPROVEMENT CUT – Regrowth in 1 year



Control What Grows in Your Next Forest



Control What Grows in Your Next Forest



Controlled Burning: "Mother Nature's Herbicide"



PROMOTE ADVANDED RENERATION OF OAK

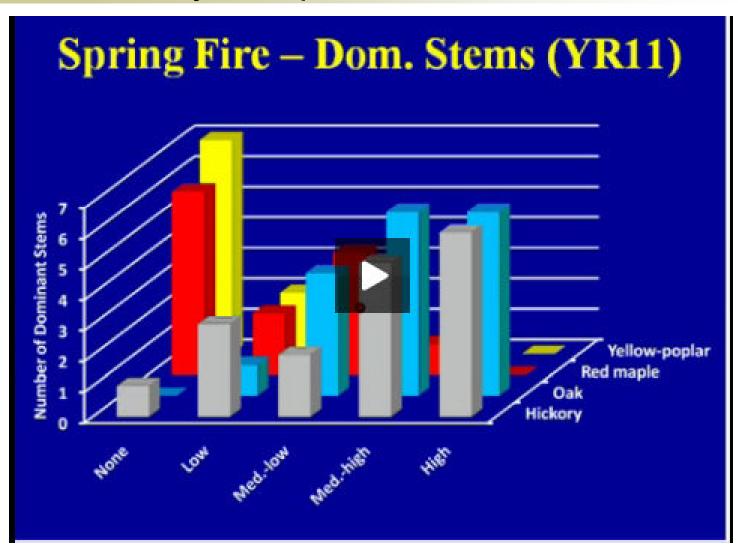


Oak Root Development



Oaks differ from other hardwoods by location of their root collars and accompanying dormant buds. On oaks, these are belowground while in other hardwoods these are at or above ground.

Fire Intensity is Important



Release Burning Strategies for Oak

- Thinning paves the way for fire do its job
- Wait 4-5 years following thinning (roots)
- Make sure you have oak regeneration
- Wait for oak to develop (>0.75" RCD)
- Burn in late spring (during leaf expansion)
- Strive for moderate to high intensity burn.
- Reevaluate in 3 to 5 years before removing overstory. Maybe second burn

SMALL GROUP OPENING



Small Group Openings

- > 0.5 acres
- Small 1 to 5 acres
- Clean cut harvest or fell all trees > 1"
- Seed trees in middle (<10 ft BA)</p>
- Pick your worst hardwood stands first
- Scattered them around Pieces of a puzzle
- Crop Tree Release Age 15 to 20 yrs old

SMALL GROUP OPENING



SMALL GROUP OPENING



Group Selection Opening



True North Hardwood Management Strategy

- Harvest < 5% of stand in form of small group selection openings (puzzle pieces)
- Marked hardwood improvement cut to improve existing forest and advance regeneration of oak
- Treat large maple, poplar and sweetgum stump sprouts
- Spring burn: Medium to high intensity burn to improve oak regeneration 4 to 6 years after improvement cut
- Come back in another 8-10 years to harvest additional 20% of stand in small openings.

Shortleaf Pine Management –



Before (2009)/After (2015)



Precommercial Thinning



Heavy Shortleaf Pine Seed Tree



Marked Seed Trees



Planted small opening in SLP



Accomplishments

- Harvests (2006, 2007, 2008, 2010, & 2013)
 on all 12 Management Units
- 411 acres of Hardwood Improvement Cuts
- 176 acres of Virginia Pine converted to Shortleaf pine (47 ac) and loblolly (129 ac)
- Small Group Openings (25 acres)
- Precommercial thinning in Shortleaf (47 ac)
- Understory Oak Burns (76 ac)
- Extensive road building and improvements

GROSS INCOME BY PARCEL

Parcel	Species	Acreage	Tons/Acre	\$/acre
A1	Pine	33	54	\$332
A2	Pine	56	71	\$478
A3	Pine	15	38	\$267
Total		104		\$401
B1	Hardwood	67	35	\$122
B2	Hardwood	33	33	\$103
B3 & B4	Hardwood	53	16	\$98
B5	Hardwood	65	32	\$253
B6 & B7	Hardwood	89	41	\$334
B8	Hardwood	67	43	\$324
B9	Hardwood	32	84	\$640
B10	Hardwood	48	64	\$690
Total		454		\$304

Portable Sawmill/Adirondacks



Forest Stewards Guild Model Forest

Cherokee Boy Scout Reservation

Forest Statement By David Halley, RF

Cherokee Boy Scout Reservation is a 1,700-acre Boy Scout camp in Caswell County, North Carolina. A majority of the property was donated by BassettFurniture Company to the Old North State Boy Scout Council in 1966. See a map here. For the most part, the council spent the first 20 years of its ownership developing an overnight summer camp and a 26-acre swimming lake on about 200 acres of the property. Most of the other portions of the property were left alone.

Around 2003 the council started discussing the use of the remainder of the camp and exploring the possibility of managing the forests. Some of the council and staff initially resisted the idea, but after several years of discussion, promotion by the board of director's president and presentations by potential consulting foresters, the council decided to proceed with developing a forest management plan that would guide the sustainable and ecologically responsible management of the forests on the property. In 2006 the council hired my forestry consulting firm. True



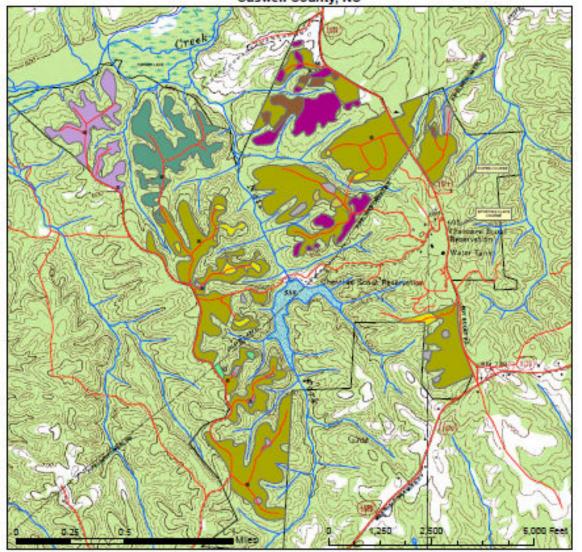




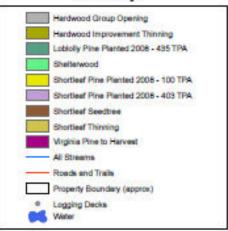


Cherokee Boy Scout Reservation Forest Management Map Caswell County, NC

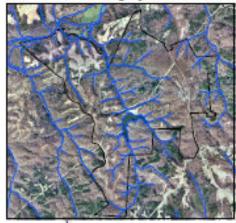




Stand Key



Aerial Imagery 2008





Contact Info

True North Forest Management Services

David Halley: 919-815-3468

halleydave@aol.com

www.truenorthforestry.biz