Indiana Department of Natural Resources - Division of Forestry

DRAFT

RESOURCE MANAGEMENT GUIDE

State Forest: **Yellowwood** Compartment: **09** Tract: **07**
Tract Acreage: **59 acres** Commercial Forest Acreage: **59 acres**
Forester: **Kaylee DeCosta** (for Laurie Burgess) Date: **4/14/2011**

Location

This tract is located in Section 36 of Township 9N, Range 1E of Brown County. It is approximately 1½ miles northwest of Belmont and 1 mile north of State Road 46. Access is off of Scarce-of-Fat Road on the south end or Tuliptree Road on the north end via a gated firetrail that runs along Scarce-of-Fat Ridge through Mill Ridge.

General Description

This tract is 59.5 total acres of closed canopy hardwood forest in Yellowwood State Forest, all of which constitute commercial forest acreage. The forest resource is predominantly large sawtimber Mixed Hardwoods and Mixed Oak. The tract inventory species composition is listed below in Table 1 according to their dominance:

Table 1. Overview of Forest Resources

Sawtimber	Poletimber	Regeneration
Chestnut Oak	Chestnut Oak	American Beech
White Oak	Sugar Maple	Sugar Maple
Black Oak	Red Maple	Ironwood
Yellow Poplar	White Oak	Red Maple
Scarlet Oak	Northern Red Oak	Dogwood
Pignut Hickory	White Ash	Pignut Hickory
Northern Red Oak	American Beech	Sassafras
Red Maple	Shagbark Hickory	White Ash
Sugar Maple	Pignut Hickory	Blackgum
White Ash	Sassafras	Blue Beech
Bitternut Hickory		Pawpaw
American Beech		Oaks
Red Elm		Redbud
Shagbark Hickory		Black Cherry
Black Walnut		Downy Serviceberry
Black Cherry		

History

The land on the northern part of this tract was granted to Yellowwood State Forest on 10/30/1956 by the U.S. Government. The southern portion of this tract was granted to Division of Forestry on 9/10/1951 by members of the Bartlett, Wiedemann, and Dittlemore Families for $3,339.36. Forester Gosnell completed a quick cruise in 5/72 with the inventory indicating 2,026 harvest BF/A and 1,676 leave BF/A. On 8/21/85 road maintenance by YSF personnel

was conducted that consisted of cutting trees along Scarce-of-Fat Road to increase sunlight. This area was also opened up for public firewood cutting at that time. Forester Unversaw completed a timber inventory on 5/4/1989 indicating 1,975 harvest BF/A out of 7,614 present BF/A. A new haul road was constructed through this tract on 9/19/89. Timber was marked by Forester Unversaw on1/31/89. Vine Control TSI was completed in this tract by Forester Unversaw on 4/4/1990. A timber sale of 72,702 BF volume was sold to Chet Morgan for $16,721 on 4/25/90. The timber Harvest was completed on 8/9/1991. Post harvest work including water barring, grading, and seeding skid trail and log yards was completed on 10/15/1991. On 6/15/1992, Forester Eckart completed TSI in one 0.5 Ac. opening. The current timber inventory was completed by Forestry Intermittent K. DeCosta on 4/13/2011.

Landscape Context
This tract is surrounded completely by other tracts of managed State Forest. Some residential and open field areas exist within the landscape area at distances of about a mile.

Topography, Geology and Hydrology
One central ridge runs north-south through the center of this tract from which several short finger ridges extend. Topography ranges from nearly level to 70% slopes with East and West being the dominant aspects although all aspects are represented in the tract. The underlying soils range from 27 - 54 inches in depth to weathered siltstone interbedded w/sandstone and/or shale bedrock. Two mapped intermittent creeks serve as the tract's East and West boundaries. Several other unmapped ephemeral drainages occur throughout the tract. Water resources from this tract drain into Bartlett Hollow and via an unnamed creek that flows into the North Fork of Salt Creek. This river eventually drains into Lake Monroe.

Soils

BgF (Berks-Trevlac-Wellston complex, 20 – 70% slopes) Moderately steep to very steep slopes and well drained soils. This tract is comprised of approximately 70% of this soil type on sideslopes. Moderate to severe erosion hazards, severe equipment limitations, slight – moderate seedling mortality, and slight windthrow hazard exist in this soil type. Management considerations should include building haul roads on a contour and constructing water bars to prevent erosion.

WaD (Wellston-Berks-Trevlac complex, 6 – 20% slopes) Moderately sloping to moderately steep. This soil type presents slight risks for erosion hazard and equipment limitation. Comprises approximately 25% of tract along the ridgetop areas.

Be (Beanblossom) This soil type is deep and moderately well drained, gently sloping, or nearly level. It is subject to occasional flooding and so presents equipment limitations. This soil type comprises approximately <5% of this tract along the south creek bottom area.

Access
Access into this tract is off a gated fire trail that runs along Scarce-of-Fat & Mill Ridges. This fire trail can be accessed from the north through Tuliptree Road or from the south through Scarce-of-Fat Road. This road is in good condition and has had recent stone improvements from

recent harvests in other tracts. An existing haul road runs along the central ridge in the tract. This roadway could be reused with some rehabilitation. Log yards are also present in this tract.

Boundary
This tract is bordered completely by other tracts of State Forest so no private land boundaries exist.

Wildlife
A Natural Heritage Database review was completed on the tract: one Timber Rattlesnake was recorded within the tract in 1990. Other records of Rare, Threatened or Endangered species nearby include several other Timber Rattlesnakes and it is likely that they are present within the tract. Timber Rattlesnakes are benefitted by the woody debris left from timber harvests as it provides cover for them and habitat for their prey such as small mammals. One skeletal Eastern Box Turtle shell was also found in this tract. The current inventory was conducted during the early spring of 2011 so some breeding bird residents were not yet present. The following bird species were detected during the inventory:

American Goldfinch	Eastern Bluebird	Carolina Wren
Yellow-throated Warbler	Downy Woodpecker	Blue-gray Gnatcatcher
Carolina Chickadee	American Crow	Yellow-bellied Sapsucker
Pileated Woodpecker	Brown-headed Cowbird	White-breasted Nuthatch
Tufted Titmouse	Turkey Vulture	Wild Turkey
Red-bellied Woodpecker	Louisiana Waterthrush	

Other species most likely utilizing this tract include White-tailed Deer, Grey and Fox Squirrels, Eastern Chipmunk, Raccoon, Opossum, Coyote and other small mammals. One wildlife pond was noted on the border of this tract. Wildlife ponds provide important breeding habitat for native amphibians as well as critical water reservoirs for forest mammals during droughty summer and fall periods. These wildlife ponds were mostly created by the Division of Fish & Wildlife in the 1960's. All levels of Legacy Trees and Snags exceeded maintenance levels in the Wildlife Habitat Feature Summary. The only deficiency was for larger diameter snags in the "Above Optimal" category as highlighted in red below. An increase in snag density is expected to occur in the next few years due to expected natural mortality from the sustained drought that occurred in the area in the Summer/Fall of 2010.

	Maintenance Level	Optimal Level	Inventory	Above Maintenance	Above Optimal
Legacy Trees *					
11"+ DBH	535.5		1206	670	
20"+ DBH	178.5		253	75	
Snags (all species)					
5"+ DBH	238	416.5	785	547	369
9"+ DBH	178.5	357	357	179	0
19"+ DBH	29.75	59.5	41	12	-18

*** Species Include:** AME, BIH, BLL, COT, GRA, REO, POO, REE, SHH, ZSH, SIM, SUM, WHA, WHO

Communities

A Natural Heritage Database review was completed on the tract: no RTE plant records were found within the tract. One nearby record indicated a Great St. John's Wort to the southeast in 1925 although it is not likely that this plant persists today. If it is discovered within the tract, its location will be protected from management activities. *Multiflora Rose* was noted in a few areas although it does not appear to be spreading. A few quality Black Cherry trees were also noticed in the creek bottom area although they were not captured in the inventory. The following plants were noted during the inventory:

Spring Beauty	Blue Phlox	Common Blue Violet
Cut-leaved Toothwort	Bloodroot	Squawroot
Jack-in-the-Pulpit	Christmas Fern	Wood Sorrel
May apple	Wild Comfrey	Maiden's Hair Fern
Prairie Trillium	Cleavers Bedstraw	Spring cress

A mixture of grasses, mosses, and blueberry plants seemed to dominate the south aspects of the timbered slopes. Maple-leaved viburnum, greenbrier, and spicebush were also commonly observed throughout the tract.

Recreation

This tract is easily accessible to the public from the small parking areas at the ends of both Scarce-of-Fat and Tuliptree Roads. This area is also part of the handicap accessible hunting area. Other recreational opportunities include hiking, hunting, mushrooming, and wildlife/nature viewing.

Cultural

No cultural sites were observed during the inventory. In the event cultural resources are discovered their location(s) will be documented & submitted to the Division's archaeologist. All cultural sites will be buffered from any forest management operation.

Tract Subdivision Description and Silvicultural Prescription

Tract Summary Data

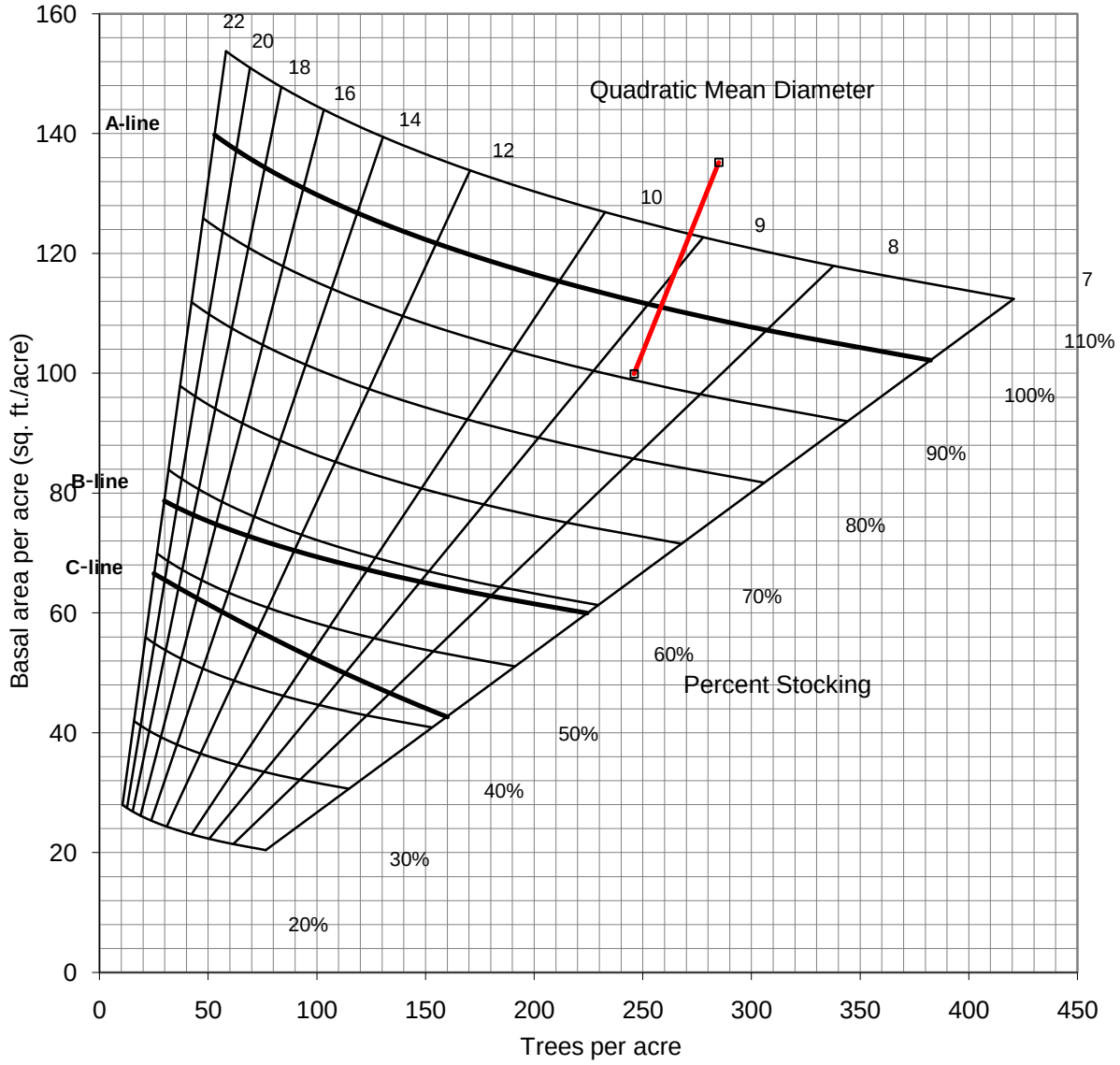
Total Trees/Ac.= **285** Overall % Stocking = **120% (Over-stocked)**

Sawtimber & Quality Trees/Ac.= **61** BA/A= **135.2 sq.ft./Ac.**

Present Volume = **8,557 Bd. Ft./Ac.**

Harvest Volume = **2,165 Bd. Ft./Ac.**

Growing Stock Volume = **6,392 Bd. Ft./Ac.**



Silvicultural Prescription

This inventory was completed on April 13, 2011 by Forestry Intermittent K. DeCosta. 23 prism points were completed over 59.5 acres (1 point for every 2.59 acres). Inventory summary results are presented above. This tract is overstocked and a light timber harvest is recommended. This tract is dominated by mixed oak on western aspects and mixed/cove hardwood species on eastern aspects. Chestnut Oak dominates the ridgetop and upper slopes with white oak and black oak in co-dominant positions. Tree quality varies by site and aspect ranging from poor to medium on the ridgetops and south facing slopes whereas fair to high quality timber is present on east facing and lower slopes. A timber harvest is proposed to improve and thin the current stand to release and promote the growth of high quality croptrees. Trees that are mature, poorly formed, suppressed or have excessive crown damage or have overall low vigor should be removed. Selecting these trees for removal will release from above and below quality croptrees and increase their growing space. Group selection openings of mostly smaller size may be warranted in a few locations that have poor species composition, windthrow damage, or low residual basal

area. White Ash should be removed where feasible in a sanitation cutting to reduce habitat for enlarging Emerald Ash Borer populations that are already present in northern Brown County. The proposed timber harvest could be sold in conjunction with Tract 4 to the south following the inventory of that tract. This combined harvest would utilize the existing haul road that runs along the central ridge of both tracts and reduce the reentry period needed for resource management of both areas. The only invasive species noted in this tract during the inventory was multiflora rose. This species is prevalent through much of the forest stands in Brown County and does not appear to be spreading or to pose a threat to native species although monitoring of its population is recommended. Based on the timber inventory a modest timber harvest of up to 130,000 BF is possible in a harvest that utilizes mostly singletree improvement and group selection cuts however with the hard drought that was experienced in the area in the fall of 2010 harvest levels could increase by the time marking commences.

Volume Estimates: Yellowwood SF Comp. 09 Tract 07

(April 2011 Inventory Data)

Species	Harvest	Leave	Total
Chestnut Oak	37,380	92,740	130,120
White Oak	7,720	102,480	110,200
Black Oak	23,840	67,070	90,910
Yellow Poplar	23,960	34,730	58,680
Scarlet Oak	10,060	23,530	33,590
Northern Red Oak	3,520	16,370	19,890
American Beech	3,730	9,940	13,670
White Ash	11,690	0	11,690
Bitternut Hickory	0	10,160	10,160
Pignut Hickory	2,130	7,910	10,040
Shagbark Hickory	0	4,610	4,610
Sugar Maple	2,740	1,380	4,120
Red Maple	2,040	2,890	4,930
Red Elm	0	3,870	3,870
Black Walnut	0	2,640	2,640
Tract Totals (Bd. Ft.)	**128,810**	**380,320**	**509,120**
Per Acre Totals (Bd. Ft./Ac.)	**2,165**	**6,392**	**8,557**

Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Timber Marking	FY 2011-2012
Timber Sale	FY 2011-2012
TSI and Invasives Retreatment (if needed)	FY 2011-2012
ReInventory and Management Guide	2021

Attachments

Included in Tract File:

- Topo Map of Tract Features
- Tract Soils Map
- INHD Review Map
- Stocking Guide Chart
- Ecological Resource Review
- TCruise Reports

To submit a comment on this document, click on the following link:
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You **must** indicate the State Forest Name, Compartment Number and Tract Number in the "Subject or file reference" line to ensure that your comment receives appropriate consideration. Comments received within 30 days of posting will be considered.