

Indiana Department of Natural Resources
Division of Forestry

DRAFT
RESOURCE MANAGEMENT GUIDE

State Forest: Yellowwood
Tract Acreage: 110 acres
Forester: Laurie Burgess

Compartment: 09 Tract: 04
Commercial Forest Acreage: 110 acres
Date: 10/13/2011

Location

This tract is located in Section 36 of Township 9N and Section 1 of Township 8N, 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.

General Description

This tract is 110 total acres of closed canopy hardwood forest in Yellowwood State Forest, all of which constitute commercial forest acreage. The stands are comprised of 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 in Y0904

Overstory Sawtimber	Understory Poletimber	Regeneration Layer
White oak	Sugar maple	American beech
Chestnut oak	Chestnut oak	Sugar maple
Sugar maple	Bitternut hickory	Ironwood
Black oak	White oak	Yellow poplar
Pignut hickory	American beech	American sycamore
Bitternut hickory	Pignut hickory	Red maple
White ash	Red maple	Chestnut oak
American beech	Black oak	White oak
Yellow poplar	American elm	Sassafras
Northern red oak	Blackgum	American elm
Black walnut	American sycamore	Dogwood
Shagbark hickory	Sassafras	Hawthorn
Scarlet oak	Scarlet oak	Bluebeech
Red maple	Black cherry	Shagbark hickory
Black cherry	Shagbark hickory	Bitternut hickory
American sycamore	Black walnut	Blackgum
American elm		Black oak
Basswood		
Largetooth aspen		
Chinquapin oak		

History

The State Forest acquired this acreage from the federal government on November 13, 1951.

Resource management history:

4/72 Forester Gosnell: Quickie cruise. 1199/ac. harvest, 1294/ac. leave
2/11/87 Forester Unversaw: Boundary marked
9/92 Forester Duncan: Passed archeological review process
1/29/93 Forester Eckart: Inventory
2/11/93 Forester Eckart: Vine TSI and herbicide treatment on entire east slope
3/4/93 Forester Eckart: Management planning
5/14/93 Forester Eckart: Dozer administration
11/1/93 Forester Eckart: Harvest marking began
12/8/93 Forester Eckart: Harvest marking completed. Est 130,109 bd.ft. in 592 trees. 1.4 acres of regeneration openings created in 2 openings
9/21/94 Forester Eckart: Timber sale. Sold to Foley Hardwoods for \$39,300.00 No other bidders
12/13/94 Forester Eckart: Harvesting began
4/27/95 Forester Eckart: Timber salvage of black cherry knocked over in harvest
4/28/95 Forester Eckart: Harvest cutting and skidding completed
5/1/95 Forester Eckart: TSI began
6/14/95 Forester Eckart: Last loads from harvest hauled out
6/15/95 Forester Eckart: Sale closeout
6/17/95 Forester Eckart and Breedlove: Completed TSI of regeneration openings
10/13/11 Forester Burgess completed current tract inventory.

Landscape Context

This tract is surrounded by other tracts of managed State Forest with the exception of the southern boundary which borders private property. Seventy percent of the private property directly to the south is open fields with a couple of houses and barns. The remaining private acreage is forested.

Topography, Geology and Hydrology

The main ridge runs north-south through the center of this tract then descends within the southern third of the tract acreage, dividing the acreage fairly equal between eastern and western facing aspects. Topography ranges from nearly level to 70% slopes with East and West being the dominant aspects although all aspects are represented in the tract. A small wildlife pond is present at the north end of the tract. This pond is located about thirty feet from the firetrail that runs through the tract. Management activities such as timber harvesting will be diverted from this pond. The soil types noted in the next section are unglaciated soils and have formed from the bedrock material of sandstone, shale and siltstone. A mapped intermittent stream serves as the tract's eastern boundary and a mapped blue-line stream is the western boundary. Several other unmapped ephemeral drainages occur throughout the tract. The tract drains into mapped intermittent streams within the North Fork Salt Creek-Lower Schooner Creek watershed and then into the Lake Monroe watershed.

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 50% of this soil type on sideslopes. Moderate to severe erosion hazards, severe equipment limitations, slight to moderate

seedling mortality, and slight windthrow hazard exist in this soil type. Management concerns should include building haul roads on a contour and constructing waterbars 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 35% 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 15% of this tract along the south creek bottom area.

Access

Direct access into this tract is available from the haul road that runs through Tract 7 from off of Scarce O' Fat Ridge. Access to the Scarce O'Fat Ridge Compartment road is best entered from the south end of this ridge which ties into Highway 46. Another entry to the tract can also be accessed from the north through Tuliptree Road. The Scarce O'Fat Compartment road is in good condition and has had recent stone improvements from recent harvests in other tracts. An existing haul road runs through the center of Tracts 4 & 5. A log yard from 1994 is also present in this tract.

Boundary

This tract is surrounded by State Forest acreage with the exception of private boundary along the south line and west line. The current boundary marking is up to date and was last painted in Spring 2011.

Wildlife

A Natural Heritage Database review was obtained for this tract. If rare, threatened or endangered species were identified for this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

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 also detected during the inventory:

American Crow	Carolina Wren
Downy Woodpecker	Northern flicker
Black capped Chickadee	White-breasted Nuthatch
Pileated Woodpecker	Tufted Titmouse

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 along 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. The number of Legacy Trees exceeded maintenance levels in the Wildlife Habitat Feature Summary. Deficiencies were for snags; however a general walkthrough of the tract reveals several snags, primarily medium sawtimber size oak trees. These snags seem

to be in small pockets. Therefore it is estimated that the number of snags is more than sufficient. The fact that they occur in these small patches rather than evenly scattered throughout the stand reduced the number tallied at each inventory point. A further 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 *					
<i>11"+ DBH</i>	990		2718	1728	
<i>20"+ DBH</i>	330		584	254	

Snags (all species)

<i>5"+ DBH</i>	440	770	257	-183	-513
<i>9"+ DBH</i>	330	660	178	-152	-482
<i>19"+ DBH</i>	55	110	21	-34	-89

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

Communities

A Natural Heritage Database review was obtained for this tract. If rare, threatened or endangered species were identified for this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

Invasive exotic species

Ailanthus was noted in an opening from the 1994 harvest. One 5 ft. stem was noted. This stem will be chemically treated and the area reviewed over the next few years to will need to be monitored to ensure no additional stems occur.

Recreation

This tract is 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.

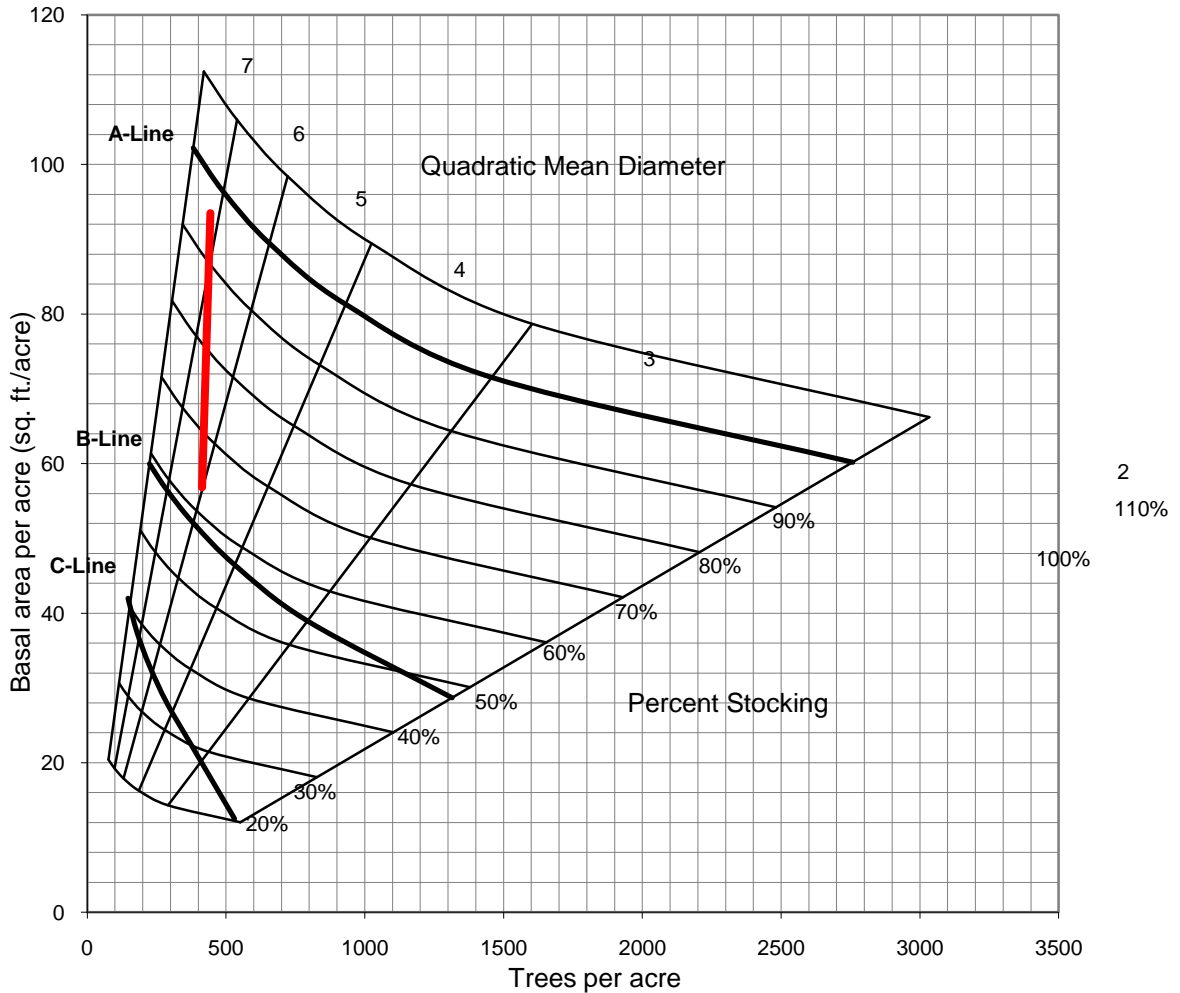
Cultural

Cultural resources may be present on this tract but their location is protected. Adverse impacts to significant cultural resources will be avoided during any management or construction activities.

Tract Subdivision Description and Silvicultural Prescription

Tract Summary Data Y0904 Inventory Sept. 2011

Total Trees/Ac.= 444	Overall % Stocking = 96% (Over-stocked)
Sawtimber & Quality Trees/Ac.= 31	BA/A= 93.5 sq.ft./Ac.
Present Volume = 5,968 Bd. Ft./Ac.	Harvest Volume = 2,792 Bd. Ft./Ac.
Growing Stock Volume= 3,176 Bd. Ft./Ac.	



Silvicultural Prescription

This inventory was completed on October 13, 2011 by Forester L. Burgess. 40 prism points were completed over 110 acres (1 point for every 2.75 acres). Inventory summary results are presented above. This tract is currently overstocked and a timber harvest is recommended. This tract is dominated by Mixed oak on its western aspects and Mixed Hardwood species on its eastern aspects. White Oak is the dominant sawtimber species and many of these stems contain quality volume. White oak, Black oak and Chestnut oak are in co-dominant positions. Tree quality varies by site and aspect but the overall quality is high. A timber harvest will be conducted 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. Some quality White oak stems will be marked with the harvest simply because the stocking warrants removal of some to release others. Selecting these trees for removal will release other quality croptrees and increase their growing space. Group selection openings may be warranted in a few locations that have poor species composition, windthrow damage, or low residual basal area. Proposed regeneration openings based on observations during the inventory tended to be adjacent to openings created during the 1994 harvest. 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 is planned to be sold in conjunction with Tract 7 to the north. 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. Based on the timber inventory a timber harvest of approximately 307,000 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 be elevated by the time marking commences.

Volume Estimates: Comp. 09 Tract 04
(October 2011 Inventory Data)

Species	Harvest	Leave	Total
White Oak	77,460	167,990	245,450
Black Oak	42,000	36,260	78,260
Chestnut Oak	18,560	33,570	52,130
Sugar Maple	33,740	11,130	44,860
White Ash	40,890	0	40,890
Yellow Poplar	37,320	3,180	40,500
Pignut Hickory	1,930	27,750	29,680
Bitternut Hickory	7,440	22,170	29,610
Northern Red Oak	2,570	21,970	24,550
American Beech	15,340	4,130	19,470
Scarlet Oak	7,970	3,610	11,580
American Sycamore	11,480	0	11,480
Shagbark Hickory	0	11,050	11,050
Black Walnut	1,050	3,060	4,110
Largetooth Aspen	3,370	0	3,370
Red Maple	2,870	0	2,870
Chinquapin Oak	0	2,380	2,380
Basswood	1,690	0	1,690
Black Cherry	1,470	0	1,470
American Elm	0	1050	1,005
Tract Totals (Bd. Ft.)	307,150	349,300	656,405
Per Acre Totals (Bd. Ft./Ac.)	2,792	3,176	5,968

Proposed Activities Listing

Proposed Management Activity

Timber Marking
Timber Sale
TSI and Invasives Retreatment (if needed)
ReInventory and Management Guide

Proposed Date

FY 2011-2012
FY 2011-2012
FY 2011-2012
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.

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