

Indiana Department of Natural Resources - Division of Forestry

**DRAFT
RESOURCE MANAGEMENT GUIDE**

State Forest: **Yellowwood** Compartment: **13** Tract: **8**
 Commercial Forest Acreage: **135** Noncommercial Forest Acreage: **0**
 Forester: **K. DeCosta** (for Amy Spalding) Date: **12/29/10**

Location

This tract is located in Section 23 of Monroe County and Section 24 of Brown County of Township 10N, Range 1E. It is approximately one tenth of a mile west of Possum Trot Road, and a mile and a half northwest of Point Idalawn on Lake Lemon. This Tract lies at the southeast portion of the Yellowwood/Morgan-Monroe State Forest Backcountry Area. The State of Indiana access is off of North Shore Drive across private property.

General Description

This tract is 135 total acres in size. The forest resource is predominantly medium to large sawtimber Mixed Oak with some Sugar Maple and Yellow Poplar. This tract was designated as Back Country Area in 1981 and it remains in that status. Of these 135 acres, however, approximately 17 acres from the Long Acquisition were added to the tract in 2008. These additional acres are not classified as Backcountry Area. This portion of the tract was heavily harvested prior to State acquisition. Timber within this area is mainly sub-merchantable to poletimber sized with a few intermingled cull trees. The tract inventory species composition is listed below in Table 1 according to their dominance:

Table 1. Overview of Forest Resources

Sawtimber	Understory	Regeneration
White Oak	Sugar Maple	American Beech
Black Oak	American Beech	Sugar Maple
Sugar Maple	Red Maple	Ironwood
Red Oak	Yellow Poplar	Blue Beech
American Beech	Sassafras	Yellow Poplar
Chestnut Oak	Flowering Dogwood	Sassafras
Yellow Poplar	White Oak	White Ash
Pignut Hickory	Chestnut Oak	American Elm
Shagbark Hickory	Red Elm	Red Elm
Bitternut Hickory	Blackgum	Red Maple
Basswood	Redbud	Flowering Dogwood
Black Walnut	Blue Beech	Black Cherry
Red Maple	Black Walnut	Blackgum
American Sycamore	Shagbark Hickory	
Scarlet Oak	White Ash	
White Ash	Pignut Hickory	
Red Hickory	American Elm	
Blackgum		
Cottonwood		
Large-tooth Aspen		
Sassafras		
Northern Hackberry		
Black Cherry		
Red Elm		
Virginia Pine		

History

Ninety-two acres of this Tract (old YC13T13) were inventoried on 8/22/1978 by Forester Marling. The Tract number was later changed to Y1317. The Long Acquisition by the State Forest was completed January 18, 2008 along the south portion of the Tract and totaled 25.342 acres. Following this Acquisition Yellowwood Compartment 13 went through a Tract realignment due to the Long and the Foley acquisitions. Approximately 17 acres of the Long Acquisition was added to the current Tract on 2/2/2009 which was now named Tract 8. The addition of these 17 acres (which are not part of the original Backcountry Area) brought the current Tract 8 acreage to 135 acres. The rest of the Long Acquisition acreage was added to Morgan-Monroe Compartment 15 Tract 10. The current inventory of the new Tract 8 was completed by Forest Intermittent K. Decosta on December 20, 2010.

Landscape Context

The majority of land surrounding this Tract is State Forest with private property to the east. This tract lies within the Yellowwood/Morgan-Monroe Backcountry Area (BCA) at the southeast corner. BCA forestland is adjacent to the Tract on its north, west and south boundaries. The BCA is a designation for a remote area suitable for backcountry camping & hiking and was established in 1981. The eastern portion of this tract is bounded by private forestland with modest recreational development occurring in the form of residential development and lakeshore development along Lake Lemon. There is also a Lake Lemon Conservancy District for landowners that immediately border the Lake.

Topography, Geology and Hydrology

A central ridge transects this tract with several finger ridges extending throughout. Topography ranges from 6% to 75% slopes. All aspects are equally represented within the tract. Underlying soils range from 15" – 5.5 feet in depth to interbedded siltstone, sandstone, and shale bedrock. One mapped intermittent stream serves as the western boundary of the tract; several other unmapped ephemeral drainages occur throughout the tract. The water resources from this tract drain into Wolf Creek and from there into Lake Lemon.

Soils

Brown County:

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 20% of tract.

BgF (Berks-Trevlac-Wellston complex, 20 – 70% slopes) Moderately steep to very steep slopes and well drained soils. This tract is comprised of approximately 35% of this soil type and presents moderate - severe erosion hazards, severe equipment limitations, slight -moderate seedling mortality, and slight windthrow hazard. Management considerations should include building haul roads on a contour and constructing water bars to prevent erosion.

Monroe County:

BkF (Berks-Weikert complex, 25 – 75% slopes) Steep to very steep, moderately deep and shallow well-drained soils. This tract is comprised of approximately 45% of this soil type and presents

moderate erosion hazards, severe equipments limitations, severe seedling mortality, and slight – moderate windthrow hazard.

Access

South access to this tract is off of North Shore Drive through an unnamed road on Bald Knob. This roadway splits off to 2 private driveways and to a gated firetrail under a powerline right-of-way and then this firetrail transects Tract 6371510 and enters into Tract 6421308. The section of firetrail that passes through Tract 6371510 is in good condition but improvements and clearing will be needed for the section of trail that enters Tract 6421308. The south access is only available to the State Forest and its contractors as the existing roadway area runs through the private ownership under the powerline. There is a North access to this Tract from a gated firetrail off of Possum Trot road that transects Tracts 6421315 and 6421316 and eventually connects with the firetrail in Tract 6421308. This north access is questionable as a sliver of private ownership exists along the west side of Possum Trot Road between the road and the gate. A boundary survey would be needed to confirm the use of rights of this access route.

Boundary

This tract is bordered by State Forest to the north, west, and south. The eastern boundary and a small portion of the south-eastern corner border private land. In January of 2008 the State acquired 25.342 acres along the SE portion of the tract (Long Acquisition) wherein 17 acres of this Acquisition was added to Tract 8's acreage. The new SW boundary lines were marked and carsonited in 2010 by Forester Sheldon and the original lines marking the property of Tract 8 were blacked out where the boundary had changed. Carsonite posts have been set on the turning corners of the private lines of the Tract.

Wildlife

Wildlife observed or heard in this tract included numerous bird and mammal species. A labyrinth of deer trails suggest that this tract is heavily utilized by white-tail deer. This tract also seems to hold an abundant wild turkey population as evidenced by copious ground-scratched areas and turkey travel routes. The inventory was conducted during snow cover and many tracks were observed including grey squirrel, coyote, fox (probably grey fox since its habitat preference includes wooded areas unlike its relative the red fox) and what appeared to be opossum, and white-footed mouse. Bird species heard or seen included white-breasted nuthatch, Carolina chickadee, tufted titmouse, blue jay, American crow, Carolina wren, American goldfinch, northern cardinal, American robin, golden-crowned kinglet, and eastern bluebird. One red-shouldered hawk was also heard in the creek bottom area during the inventory. Woodpeckers encountered included red-bellied, downy, hairy, pileated, and northern flicker. Evidence of former presence of yellow-bellied sapsucker (small horizontal holes in trees) was also noted in this tract. This tract was inventoried in early winter so no spring or summer breeding birds were present, however, the closed canopy habitat in the tract would most likely provide good habitat for closed canopy forest bird species such as ovenbirds, red-eyed vireos, and worm-eating warblers. A Natural Heritage Database review was conducted on the tract; no records were found inside the tract, however, nearby records included several *Timber Rattlesnakes*, *Hooded Warbler*, and *Worm-eating Warbler*. None of these species would be adversely affected by a timber harvest; a timber harvest would be aimed at maintaining close-canopy conditions. No wildlife ponds were found on this tract during the inventory, however, several locations along the ridgetop area would be suitable for creating them. Wildlife ponds help to increase the diversity

and abundance of pond-breeding amphibians as well as provide a local source of water in case of a forest fire. This tract overall had a good matrix of varying tree composition suitable for a variety of species whose habitat requirements include close-canopy forest. The only deficiencies found in the wildlife habitat feature summary were for snags and included -3 in the 19"+ DBH in the "Available Above Maintenance" category, -167 in the 9"+DBH "Available Above Optimal" category, and -71 in the 19"+ DBH "Available above Optimal" category as highlighted in red below. Several larger diameter trees will likely become snags within the next year due to mortality from the drought of summer/fall 2010.

	Maintenance Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal
Legacy Trees *					
11"+ DBH	1215		4070	2855	
20"+ DBH	405		544	139	
Snags (all species)					
5"+ DBH	540	945	2255	1715	1310
9"+ DBH	405	810	643	238	-167
19"+ DBH	67.5	135	64	-3	-71

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

Communities

A Natural Heritage Database review was conducted on the tract; no rare or endangered plant records were found in the area. Leatherwood (*Dirca palustris*) was found in the creek bottom area. Japanese Stiltgrass (*Microstegium vimineum*) was found along the main firetrail and will be treated before any timber harvesting activities occur or along with any TSI work done.

Recreation

The firetrail that transects this tract could provide good access for recreation if reasonable public access was available. At this time legal entry into the tract would have to occur from the north central portion of the Backcountry Area through Tracts 6371509 or 6371503. Undoubtedly some activities within the tract include hunting, hiking, cross-country skiing, and wildlife observation. This area appears to be heavily hunted as evidenced by a permanent tree stand, several areas marked with flagging and pin reflectors, and several blinds made from forest materials.

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 harvest operations.

Tract Subdivision Description and Silvicultural Prescription

Total Trees/Ac.= 696

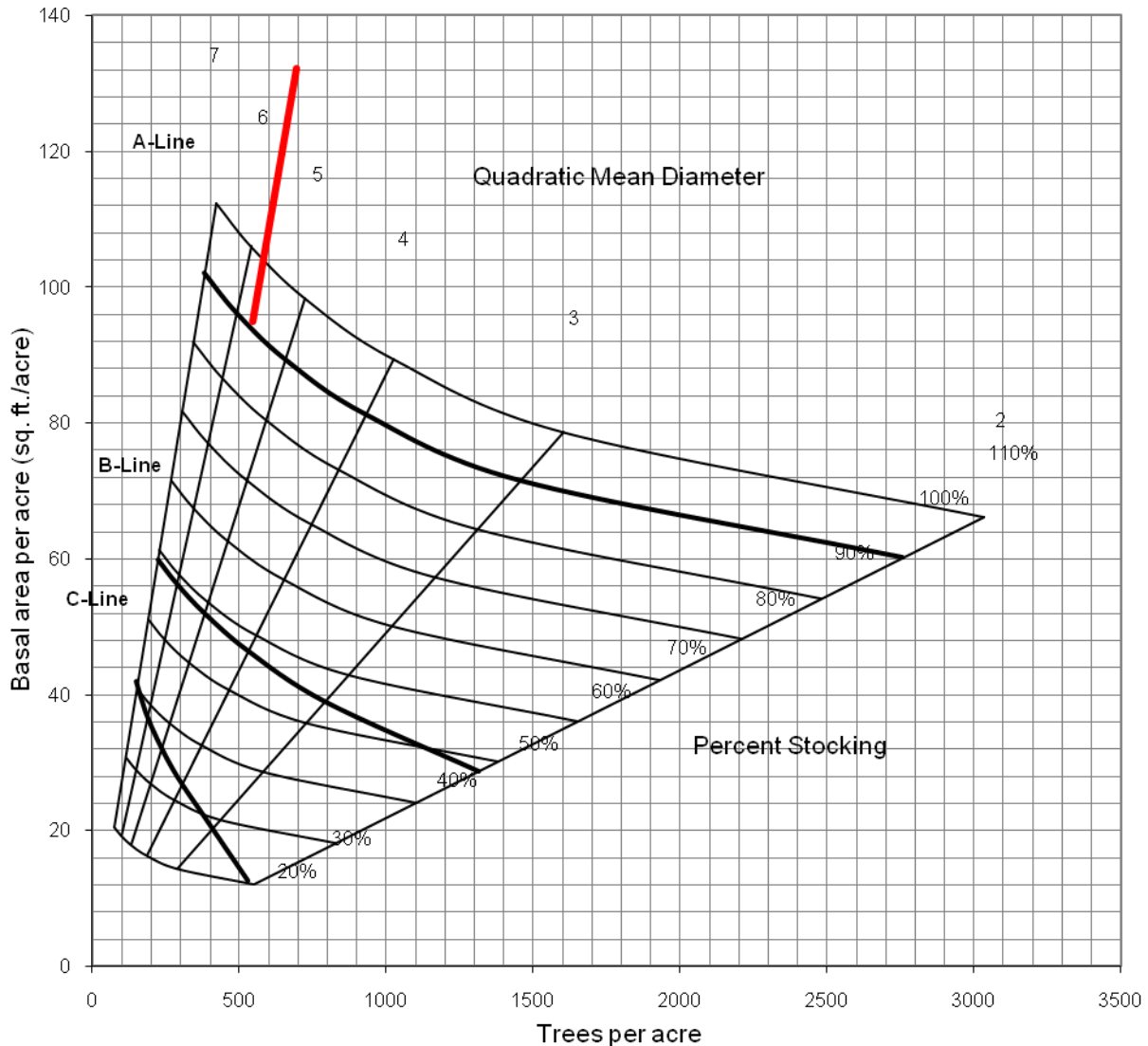
Sawtimber & Quality Trees/Ac.= 56

BA/A= 132.2 Sq.Ft./Ac.

Present Volume/Ac.= 8,850 Bd.Ft./Ac. Harvest Volume/Ac.= 2,312 Bd.Ft./Ac.

Residual Volume/Ac.= 6,539 Bd.Ft./Ac.

Overall % Stocking = 120% (Over-stocked)



This inventory was completed on December 20, 2010. 35 points were conducted over 135 acres (1 point for every 3.8 acres). Inventory results are given above. This tract was also inventoried on 8/22/78 by Forester Marling; however, no data is available from that inventory. There is no evidence of a timber harvest occurring within the last 35+ years except in the newer Long Acquisition in the southeastern portion of the tract. This 17 acre block was harvested heavily approximately 15-20 years ago and now consists of sub-merchantable regeneration to poletimber with a few remaining cull trees. In the event this tract is scheduled a harvest this non BCA portion may be benefitted by timber stand improvement. The remaining 118 acres is overstocked and thinning is prescribed. Some areas were noted in the tract where overcrowding

was causing crown deformities in overstory trees. The rest of the proposed harvest in this tract resides within the boundary area of the Backcountry Area and as such would be managed under Backcountry harvest guidelines. These guidelines dictate an unevenaged management system using singletree selection only with no regeneration openings. Improvement cuttings, release cuttings and some selection cuttings could be prescribed. Generally the marking of this area would be to retain a closed-canopy overstory condition along with promoting larger and more vigorous trees. Trees selected for harvest would include dying, suppressed, poorly formed and low vigor trees to improve spacing for larger, more vigorous trees. Healthy large-diameter trees would be assessed for vigor, retained whenever possible, and lightly released. The removal of sugar maples infected with sugar maple borer is also recommended. Consideration would be taken during marking to retain the longer-lived tree species of higher wildlife value and mast production. Portions of the creek bottoms that were noted to have modest grapevine growth would be prescribed additional TSI to release walnuts and other valuable tree species. A treatment of Japanese stiltgrass on firetrails is recommended prior to harvest. A harvest of up to 250,000 BF within the tract is possible and a 20-25 year cutting cycle is recommended. At this time no planned date for a harvest in this tract is proposed. All proposed harvests within the Backcountry area will be planned & scheduled at the discretion of the Forest Resource Supervisor.

Volume Estimates: Yellowwood SF Comp. 13 Tract 08

(December 20, 2010 Inventory Data)

Species	Harvest	Growing Stock	Total Volume
Chestnut Oak	93,310	122,870	216,180
Black Oak	62,360	133,320	195,670
White Oak	38,010	156,000	194,010
Sugar Maple	40,580	107,100	147,680
American Beech	15,190	70,560	85,750
Northern Red Oak	11,230	72,320	83,540
Yellow Poplar	17,740	58,780	76,520
Pignut Hickory	0	59,080	59,080
Shagbark Hickory	0	24,380	24,380
Red Maple	4,880	14,670	19,550
American Sycamore	6,080	13,080	19,160
Scarlet Oak	12,940	4,280	17,220
Bitternut Hickory	0	16,900	16,900
Sassafras	9,750	3,520	13,270
Basswood	0	9,490	9,490
Eastern Cottonwood	0	5,570	5,570
Black Walnut	0	4,880	4,880
Large-tooth Aspen	0	4,280	4,280
Blackgum	0	1,630	1,630
Tract Totals (Bd. Ft.)	312,070	882,710	1,194,760
Per Acre Totals (Bd. Ft.)	2,312	6,539	8,850

Proposed Activities Listing

Proposed Management Activity

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

Proposed Date

To be Determined
To be Determined
To be Determined
To be Determined
2030

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.