Indiana Department of Natural Resources - Division of Forestry

DRAFT

RESOURCE MANAGEMENT GUIDE

State Forest: Yellowwood Compartment: 04 Tract: 01
Tract Acreage: 37 Commercial Forest Acreage: 36
Forester: Kaylee DeCosta (for Laurie Burgess) Date: 1/24/10

Location

This tract is located in Section 36 of Brown County in Township 9N, Range 2E. It is approximately 1 mile west of State Road 46 and 2½ miles south of Nashville. Access is off of State Road 46 through the West Gate of Brown County State Park.

General Description

This tract is 37 total acres in size. 36 acres are commercial acres; the remaining acre includes a sensitive area. Y0401 is bordered on its north, east & west lines by Brown County State Park, there is private boundary on the south. The following species composition was found during the inventory according to their dominance:

Sawtimber	Poletimber	Regeneration	
Black Oak	White Oak	Ironwood	
White Oak	Flowering Dogwood	American Beech	
Pignut Hickory	Blackgum	Sassafras	
Scarlet Oak	Sassafras	Sugar Maple	
Chestnut Oak	American Beech	Flowering Dogwood	
Bitternut Hickory	Red Maple	White Ash	
Shagbark Hickory	Sugar Maple	Blue Beech	
American Sycamore	Black Oak	Red Maple	
Yellow Poplar	Pignut Hickory	Pawpaw	
Red Oak	Chestnut Oak	Yellow Poplar	
White Ash	Black Cherry	Black Ash	
Sugar Maple	Shagbark Hickory		
Blackgum	Ironwood		
Black Cherry	Blue Beech		
	Eastern Redcedar		

History

This tract was granted to the State of Indiana, Division of Forestry on October 24, 1950. The first tract inventory was conducted by Forester Akard in 1972 with the data indicating 33,189 BF of harvest and 28,587 BF of leave. Forester Kaina completed marking the boundary in 1998 and posted the corners with carsonite. Boundaries have been remarked every 6 years and were repainted last by Forester Burgess in 2010. On January 19, 2011 Forest intermittent K. Decosta completed the 2nd tract inventory.

Landscape Context

This tract is an outlying portion of YSF that is nearly encircled by Brown Country State Park. The State Park is managed exclusively for recreational amenities amidst a large acreage of mostly undisturbed and unmanaged forestland. South of the tract is privately owned with a mosaic of private forestland, cropland, and residential property along Upper Schooner Road.

Topography, Geology and Hydrology

One mapped intermittent stream crosses the southeastern corner of this tract; other ephemeral drainages occur throughout. Water resources from this tract drain into Upper Schooner Creek to Lower Schooner Creek to Salt Creek and from there into Lake Monroe. Southeast is the dominant aspect in this tract which tends to be fairly dry. The western boundary follows the top of a ridge. One other finger ridge extends into the tract. The remainder of the tract is a bottomland with an intermittent creek. Topography ranges from nearly flat to 70% slopes. Underlying soils range from 27 - 64 inches in depth to weathered and interbedded siltstone, sandstone, and/or shale bedrock.

Soils

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 20% of the 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 55% of this soil type and presents moderate to severe erosion hazards, severe equipment limitations, and slight to moderate seedling mortality, and slight windthrow hazard. 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.

Access

Access is off of State Road 46 through the West Gate Road of Brown County State Park. This tract can be accessed through the parking area at the West Lookout Tower inside the park. Currently no public vehicle access is available. Facilitating vehicle access would entail building a haul road along the ridge from the West Gate Lookout down into the tract. There is an existing old roadbed along this ridgetop but it is badly eroded and would require reconstruction and water diversions. Overall, access is very limited in this tract and would require permission from the State Park Property Manager.

Boundary

Boundaries were first marked in 1998 by Forester Kaina. All boundary lines are up to date and lines are marked in orange paint and signs also identify the State Park boundary. Carsonite posts mark the corners of the tract. Boundaries of the tract were last marked in 2010.

Wildlife

A Natural Heritage Database review was completed on the tract; no rare or endangered animal records were found within the tract. Nearby records include Worm-eating Warbler, Yellowwood tree, and Timber Rattlesnake. All three species benefit from traditional forest harvest practices. The shrub & regeneration layer within this tract appears to have been impacted by modest deer browsing. In many places, the shrub layer is non-existent. Over-browse conditions can be detrimental to species nesting in dense woodland understories such as the Worm-eating Warbler. Selective timber harvests will open up understory lighting and allow regrowth of the shrub layers. Timber Rattlesnakes are benefitted by selective timber harvests as added ground debris provides escape cover as well as increased habitat for prey such as mice and ground squirrels. This inventory was conducted during winter so no spring and summer breeding migrants were detected; however, other bird species observed or heard during the inventory included Tufted Titmouse, White-breasted Nuthatch, Golden-crowned Kinglet, Blue Jay, Northern Cardinal, Carolina Chickadee, and American Crow. Woodpeckers encountered during the inventory included Pileated, Downy, Red-headed, and Red-bellied. There appears to be a relatively large population of Red-headed Woodpeckers in this tract which tends to be one of more uncommon woodpecker species in Indiana. Other species observed within the tract include Coyote, Whitetailed Deer, Eastern Chipmunk, and Gray Squirrel. One female Wild Turkey was flushed during the inventory. A late active White-tailed Deer rut scrape was noted in the creek bottom area. Deficiencies were found in the wildlife habitat feature summary for snags in the 19"+ DBH in the "Available Above Maintenance" category, in the 19"+ DBH "Available above Optimal" category, and in 20" + Legacy Trees category as highlighted in red below. Several larger diameter trees will likely become snags within the next year due to expected mortality from the severe drought of summer/fall 2010. A timber harvest in this tract is not recommended at this time so smaller-diameter legacy trees will continue growing towards maintenance levels.

	Maintenance Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal
Legacy Trees	*				
11''+ DBH	333		977	644	
20''+ DBH	111		30	-81	
Snags (all species)					
5''+ DBH	148	259	418	270	159
9''+ DBH	111	222	300	189	78
19''+ DBH	18.5	37	7	-12	-30

^{*} 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 rare or endangered plant records were found within the tract acreage. The majority of the inventory was conducted during the winter of 2010-11 so many plant species that may have been present during the summer were undetectable. Closed canopy oak-hickory forest is the dominant community in the tract and immediately around it. The tract does have some exotics such as multiflora rose in thick patches as well as a small patch of Japanese honeysuckle. Invasive control is planned in the tract in the next Fiscal Year.

Recreation

Nearby Brown County State Park offers a variety of recreational opportunities such as hiking and wildlife viewing. These recreational activities probably carry over into this tract. One portable deer hunting tree stand was discovered inside the tract. Using the north State Park access to hunt and transport wild game from this outholding would require permission from the Brown County State Park Manager.

Cultural

All cultural sites will be protected and buffered from all management activities.

Tract Subdivision Description and Silvicultural Prescription Tract Summary Data

Total Trees/Ac.= 307 Overall % Stocking = 106% (Slightly Over-stocked)

Sawtimber & Quality Trees/Ac.= 37 BA/A= 115.2 sq.ft./Ac.

Present Volume = 6,189 Bd. Ft./Ac. Harvest Volume = 1,583 Bd. Ft./Ac. Growing Stock Volume = 4,605 Bd. Ft./Ac.

Volume Estimates: Yellowwood SF Comp. 04 Tract 01

Data from January 2010 Inventory

Species	Harvest	Leave	Total
White Oak	10,800	41,140	51,940
Black Oak	17,060	32,780	49,840
Pignut Hickory	6,690	40,270	46,960
Scarlet Oak	11,880	27,620	39,500
Chestnut Oak	9,620	10,070	19,690
Bitternut Hickory	0	8,390	8,390
Shagbark Hickory	0	5,370	5,370
Yellow Poplar	2,530	2,170	4,700
Sugar Maple	0	1,290	1,290
American Sycamore	0	860	860
Northern Red Oak	0	430	430
Tract Totals (BF)	58,580	170,390	228,970
Per Acre Totals (BF/Ac.)	1,583	4,605	6,188

This inventory was completed by Forest Intermittent K. DeCosta on January 19, 2011. 25 points were conducted over 37 acres (1 point for every 1.48 acres). Inventory results are given above. The southeast facing slopes in this tract were composed of mainly smaller diameter mixed oakhickory; the southwest facing slopes were composed mainly of medium diameter Scarlet-White Oak. The creek bottom area was composed of mixed bottomland hardwoods. Overall this tract is slightly overstocked, however, most trees are smaller in diameter and would be benefitted by allowing more growing time before a harvest occurs. At present harvestable volume would approach 50,000 Bd. Ft. Due to the low volume estimate and the need to acquire State Park

access in facilitating harvest processes, I do not recommend a timber harvest at this time. This tract should be re-inventoried in 10 years and re-evaluated at that time. A future harvest would focus mainly on thinning out less vigorous trees and trees with suppressed crowns to provide more growing room to release more valuable croptrees. A few small group selection areas may be warranted in the future if additional windthrow and tree mortality occur.

Proposed Activities Listing

Proposed Management Activity	<u>Proposed Date</u>	
Invasive Species Treatment	FY11-12	
ReInventory and Management Guide	2021	

Attachments

Included in Tract File:

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

To submit a comment on this document, click on the following link: http://www.in.gov/surveytool/public/survey.php?name=dnr_forestry

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.