Indiana Department of Natural Resources
Division of Forestry
Resource Management Guide

Clark State Forest **Compartment: 15 Tract: 11**
Christine Martin **Date: 1/15/14**

Acres Commercial forest: 82
Acres Noncommercial Forest: 0
Acres Permanent Openings: 0
Acres Other: 0

Basal Area ≥ 14 inches DBH: 11.3
Basal Area < 14 inches DBH: 60.1
Basal Area Culls: 0
Total Basal Area: 71.4

Acres Total: 82
Stocking Level : Fully Stocked (63%)

Number Trees/Acre: 106

Species	Harvest	Leave	Total
Sugar Maple	0	1500	1500
American Sycamore	0	3860	3860
Sweetgum	0	4980	4980
Black Oak	9080	5610	14690
Virginia Pine	4900	86360	91260
White Oak	47690	152620	200310
Totals	**61670**	**254930**	**316600**
Per Acre	**752**	**3108**	**3860**

*Volumes estimated in Doyle Board Feet

Location

This tract is located in Clark county Indiana, T1S R6E 4 and T1N R6E, Section 33.

General Description

This tract contains Deam lake campground.

In total this tract of land comprises 82 acres. There is an oak/hickory section in the middle of the 2 section of campground. Most of the campground has an oak hickory dominated over story but in the B section there is mainly Virginia pine.

History

1975-Management guide was written; about 1920 board feet to the acre.
1985- The tract lines were redrawn. There were no maps of the previous tracts therefore it is hard to tell where they existed.
1986- Inventory of tract was preformed; about 3876 board feet to the acre.
2009- Amendment was drawn up for salvage from hurricane Ike which struck in 2008 and the following Ice storm in January. These storms left the pines in poor condition.
2009-Ike salvage sale. 60,045 board feet removed in 1,826 logs.
2013- the tract lines were redrawn so the campground is contained within the tract. 40 acres of oak-hickory stand type were included in the tract to the north.

Landscape Context

This tract is has a south facing slope. There is not much relief to this tract. There is approximately 50ft of rise over approximately a ½ mile or a 2% slope.

Topography, Geology, and Hydrology

There is one main drainage that empties into Deam Lake. There is a buffer strip located along this drainage to help with filtering the runoff that occurs from the campground.

This tract is bordered by Deam Lake.

Soils

Beanblosson Silt Loam(BcrAW) or Wakeland Silt (WaaAH)

The Wakeland series consists of very deep, somewhat poorly drained soils that formed in silty alluvium. These soils are on flood plains and flood-plain steps. The surface horizon is a plowed horizon with a dark grayish brown silt loam. After this horizon the rest of the profile is comprised of substratum. The substratum is mainly a grayish brown silt loam. The end of the profile is at 60 inches.
Degree Slope: 0-2%
Site Index: 80
Growth Range Potential: 342

Coolville (ComC)

The Coolville series consists of moderately well drained soils with a moderate available water capacity. These soils are comprised of Loess with a clayey residuum over shale and siltstone. The first Horizon is a silt loam which is 8 inches thick. The next horizon is 8-21inches thick and is comprised of a silty clay loam. At 21-37 soils is a silty clay. At 37-44inches it is a parachannery silty clay loam. At 44-60 inches it is bedrock.
Degree Slope: 6-12%
Land capability: 3e
Management concerns: None

Deam Silty Clay Loam (DbR)

This soil series is formed from the residuum of shale. These soils are moderately deep, well drained soils found on hills. The surface horizon is a silty clay loam which grades into more the further in the horizon. In the Bt2 horizon there starts to be some parachanery silty clay showing up in the profile. The rest of the profile gets increasingly channery until bedrock.
Degree slope: 15-55%
Available water capacity: low
Permeability: slow to very slow

Weddel silt loam (WeB2)
The weddel series consist of soils that were formed in loess with the underlying paleosol till and residuum of soft shale. These soils are found on backslopes, shoulders and summits of till plains. These soils tend to have fragic properties. The profile starts out as a silt loam. The subsoils is a silty clay loam. The depth to the fragipan is 26 inches. Underneath the fragipan is a silty clam loam. The substratum is a parachannery silty clay. The bedrock forms at 75-80 inches.
Degree slope: 2-12%
Drainage class: moderately well drained
Land capability: 2e

Access

There is good access to this tract. Campground road is a good paved road that runs throughout this tract.

Boundary

This tract is surrounded by Clark State forest. The majority of the boundaries are geographical. The southern tip of this tract is Deam Lake.

Wildlife and Communities

This tract is typical of Southern Indiana's flora and fauna. Deer, squirrels, chipmunks, song birds, and some birds of prey were observed while inventorying.

The campground does not provide much for habitat. There is the oak hickory section which provided cover for the wildlife but in the height of recreation season the campers restrict wildlife activity and impact habitat.

Indiana Bat
Recreation and resource management activities may have both positive and negative effects on the Indiana bat. Well planned timber harvest create conditions that are beneficial to Indiana bats. Roads and/or skid trails provide improved canopy foraging conditions by reducing clutter. Roosting habitat could also be improved by reducing clutter around roost trees. Edges of log landings and regeneration openings could provide roost trees with improved solar exposure, thus improving microclimate/thermal conditions for roosting areas. This would improve reproductive success and fitness,

contributing positively to local populations. In cases of maternity trees this could provide conditions that increase growth and activity rates of young bats.

Suitable roost trees such as large diameter snags or live trees with loose or exfoliating bark will be managed to provide potential roosting habitat for the Indiana bat.

Wildlife Habitat Feature Tract Summary

State Forest: Clark **Compartment** 15 **Tract:11**
Tract Acres: 82

	Maintenance Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal	Marked For Harvest
Legacy Trees *						
11"+ DBH	1107		3447	2340		
20"+ DBH	369		896	527		
Snags (all species)						
5"+ DBH	492	861	342	-150	-519	
9"+ DBH	369	738	342	-27	-396	
19"+ DBH	61.5	123	123	61	0	

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

This tract can have some improvements on the small snags. This tract is hard to maintain snags mainly because snags are a hazard to campers and recreation users. The only safe place to maintain snags would be in the tracts outside of the developed recreation area or the oak hickory section between the camping areas. There can be some limited girdling of trees with the onset of a salvage harvest or some timber stand improvement.

A Natural Heritage Database Review was completed for the tract. If Rare, Threatened or Endangered species (RTE's) were identified, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

Invasive Species

Oriental bittersweet and Japanese honeysuckle were found around this tract. These invasive plants are the heaviest along the horsetrail. These invasive plants will need to be monitored and sprayed periodically to get them back under control.

Recreation

The purpose for this tract is mainly recreation. There is the campground that is contained throughout this tract. There is a horetrail that cuts off of this tract and travels west.

This tract borders Deam Lake therefore fishing is another consideration for this tract.

Cultural

Cultural resources may be present, but their location(s) are protected. Adverse impacts to significant cultural resources will be avoided during any management activity

Summary Tract Silvicultural Prescription and Proposed Activities

CAMPGROUND

68acres of this tract resides in this stratum. There is 61 square feet of basal area. There is a total of 3,289 board feet to the acre.

There are 6 sections to the campground. Section A,B, and C are horse camp only. Sections D, E, F are non horse family camp sites. The horse camp side of the campground is dominated mainly by pine. These pines have been damaged over the years from the abuse from the campers and the horses that occupy the sites. It is wise to thin out these pines to alleviate the risk of hazard trees. It would be wise to start to underplant the pines with a hearty hardwood tree that can handle damage from campers.

Each year this section should be evaluated and the newly dying and stressed pines should be cut out in order to maintain a safe camping environment. Once the underplanted trees reach and age where they can be used as shade trees to replace the pines, all the pines should be removed from this campsite.

Sections D, E, and F is mainly predominated by an oak stratum. There are some oaks that have been greatly abused due to camper activities. The hazardous trees should be removed to promote a safe camping environment. These areas don't have as much of an issue with regeneration as the horse camp. The majority of these camp sites reside next to a stand of oak-hickory forest.

Oak-Hickory

This stand is found between the family camp and the horse camp. There are 14 acres to this stratum. Overall there are 74 square feet of basal area. There is 5,613 board feet to the acre.

A large component of this stratum is white oak. The overall size of these trees is mainly medium sawtimber. This stand however has been overstocked for some time and now many of the trees are dying. These dying tees did not contribute to the overall basal area of the stand. These trees can come out of this area for health reasons. There were some areas where there was heavy die back in the crowns. These trees will need to be taken out to promote growth on the healthier trees. Without this thinning tree stress will continue and stand health decline.

This area can use a slight improvement harvest. The poor quality, stunted, and stressed trees should be thinned out to make room for the younger and healthier trees to take over, but more importantly so they don't become future hazard trees that will endanger the public.

Proposed Activities Listing

2014-Salvage harvest/ underplant
2015- Timber stand improvement(TSI) and invasive control
2024- re evaluate for next managements cycle.

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