

Indiana Department of Natural Resources - Division of Forestry

RESOURCE MANAGEMENT GUIDE

Clark State Forest
Forester Greg Roeder
Management Cycle End Year 2030

Compartment 14 Tract 7
Date 06/07/2010
Management Cycle Length 20 Years

Location

Compartment 14 tract 7 is 88 acres of predominately hardwood timber located in Clark military grant #234, in Clark County, Indiana.

General Description

C14T7 is an 88 acre tract of predominately oak-hickory timber. The stand appears to be moving towards a beech-maple composition, the understory is dominated in both the submerch and pole tree categories by Red maple, with a significant amount of American beech and Ironwood in both categories.

History

1974- Inventory 479 board feet harvest stock weighted average of two tracts.
1986- Timber Inventory 104.85 BA/Ac total, 86.97 BA/Ac leave 16.67 BA/ Ac harvest.
1990- Built loop road from Flower Gap road through C14T7
1991- Resource Management guide, 4,339 board feet growing stock, 2,004 board feet harvest stock, 6,343 board feet total volume.
1992- Timber sale sold to Joe Spencer Logging for \$86,000 173,745 board feet.
2010- Resource Management plan & Timber inventory

Landscape Context

The west side of the tract connects to the state forest the rest of the boundaries are private land, with the exception of a strip of land the county owns directly across from C14T5. A landowner to the east is building a pond. The private land immediately surrounding the tract has homes, however there is some agriculture in the area close by.

Topography, Geology and Hydrology

Provide a description of the topography of the tract including a general description of the slopes found in the tract. Describe the underlying geology. Describe the hydrology of the tract – are there any major water bodies in the tract and into what major stream(s) and/or lake(s) does runoff drain toward.

Soils

BcrAW-Beanblossom silt loam
1-3% slopes, occasionally flooded, very brief duration
Landform: Flood plains
Landform position: Natural levees and alluvial fans
Parent material: Channery, loamy alluvium

Drainage class: Moderately well drained
Water table depth: 3.5 to 5.0 feet (apparent)
Yellow poplar site index: 95

ComC—Coolville silt loam, 6 to 12 percent slopes
Landform: Hills underlain with shale or siltstone
Landform position: Shoulders and backslopes
Parent material: Thin loess and clayey residuum
Drainage class: Moderately well drained
Water table depth: 1 to 2 feet (perched)
red oak site index: 66

ConD—Coolville-Rarden complex, 12 to 18 percent slopes
Landform: Hills underlain with shale or siltstone
Landform position: Shoulders and backslopes
Coolville
Parent material: Thin loess and clayey residuum
Drainage class: Moderately well drained
Water table depth: 1 to 2 feet (perched)
red oak site index: 66

GmaG—Gnawbone-Kurtz silt loams, 20 to 60 percent slopes
Landform: Hills underlain with siltstone
Landform position: Backslopes
Gnawbone
Parent material: Silty residuum
Depth class: Moderately deep (20 to 40 inches)
Drainage class: Well drained
Kurtz
Parent material: Silty residuum
Depth class: Deep (40 to 60 inches)
Drainage class: Well drained

WedB2—Weddel silt loam, 2 to 6 percent slopes, eroded

Setting

Landform: Dissected till plains

Landform position: Summits

Soil Properties and Qualities

Parent material: Loess, a paleosol in till and residuum from shale

Depth class: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Water table depth: 1.5 to 3.0 feet (perched)

Available water capacity to a depth of 60 inches: About 7.9 inches

Composition

Weddel and similar soils: 95 percent

Dissimilar inclusions: 5 percent

Coolville soils on summits and intermixed throughout the unit

Access

There is an old logging road that can be reached from Percy King Road by going through C14T5 or from Reed Road through C14T10. A branch of this logging road used in the previous timber sale runs through the center of the tract.

Boundary

The west side of the tract connects to the state forest the rest of the boundaries are private land, with the exception of a strip of land the county owns directly across from C14T5.

Wildlife

The tract was abundant with deer, raccoon, coyotes, and wild turkey. Other wildlife seen in the tract includes: snapping turtles, bullfrogs, spring peepers, Red-tailed hawks, ruffed grouse, crows, five lined skinks, fence lizards, and various songbirds. Other animals occurring near here include quail and rat snakes, these species along with other small mammals and reptiles probably occur in this tract. The Timber rattlesnake, an endangered species was recorded present on this site at an unknown time, it was not seen during inventory. They require downed woody debris and are benefited by small openings. Future management practices should benefit any timber rattlesnakes in the area. Treetops will provide debris and the thinning should provide small openings. The Eastern box turtle, a species of special concern was seen repeatedly in this tract. The tract management practice of thinning should benefit the species as they take cover and nest in brush and debris.

Wildlife Habitat Feature Tract Summary

Inventory C:\Documents and Settings\groeder\My
State Forest: Clark Compartment 14 Tract: 07
Number:
Reference 6301407 Tract Acres: 88
Number:

	Maintenanc e Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal	Marked For Harvest	Residual Above Maintenance	Residual Above Optimal
Legacy Trees *								
11"+ DBH	792		4784	3992				
20"+ DBH	264		1231	967				
Snags (all species)								
5"+ DBH	352	616	687	335	71			
9"+ DBH	264	528	606	342	78			
19"+ DBH	44	88	202	158	114			

Cavity Trees

(all species)

<i>7"+ DBH</i>	352	528	283	-69	-245
<i>11"+ DBH</i>	264	352	283	19	-69
<i>19"+ DBH</i>	44	88	160	116	72

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

Both the legacy and the snag categories met the guidelines for the wildlife habitat feature guidelines, however this tract was lacking cavity trees. The only class not lacking was the 19"+ category. One possible reason for the lack of cavities may be the time of the inventory. The inventory took place in summer and may have prevented cruisers from seeing the cavities because of the leaf out.

Communities

The understory of this tract has several exotic & invasive plant species. These species include: Japanese stiltgrass, Japanese honeysuckle, Ironweed, Goldenrod, and multifloral rose. Other species found here included: Indian Pink, Bowman's root, wild oat, Viburnum.

Recreation

The current recreation opportunities include bird watching, wildlife viewing, hunting, and hiking. There are no legal horse trails at this time, although illegal four wheeler and horse trails are being used. In the future a legal horse trail may be setup after management practices have occurred.

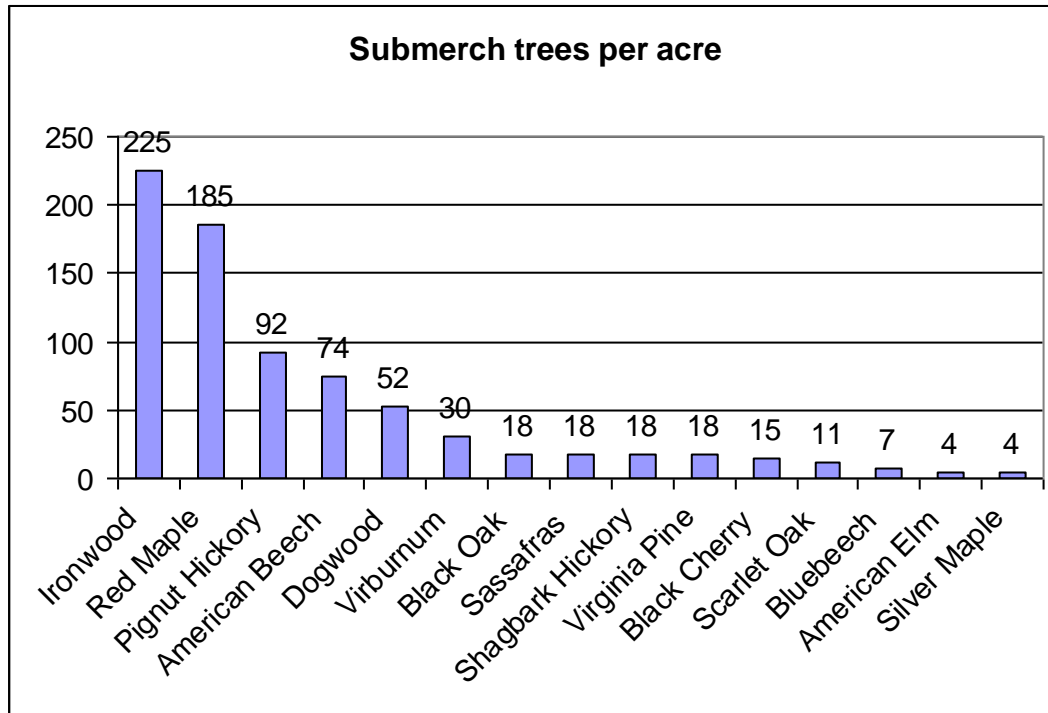
Cultural

There were no cultural sites observed while preparing this guide.

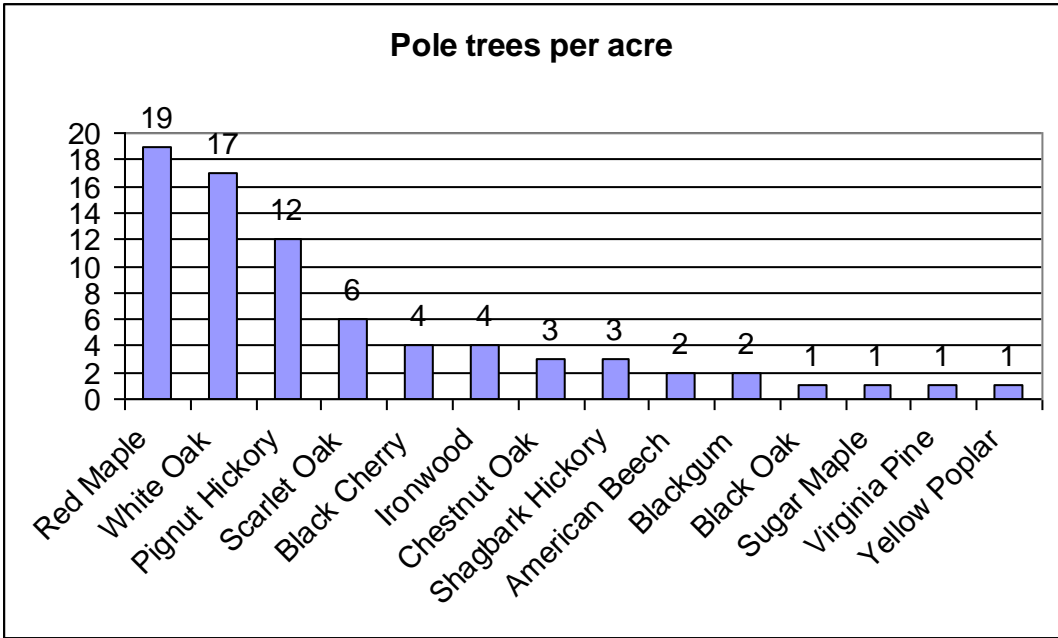
Tract Subdivision Description and Silvicultural Prescription

C14T7 only contains one stand type, it is Oak-Hickory.

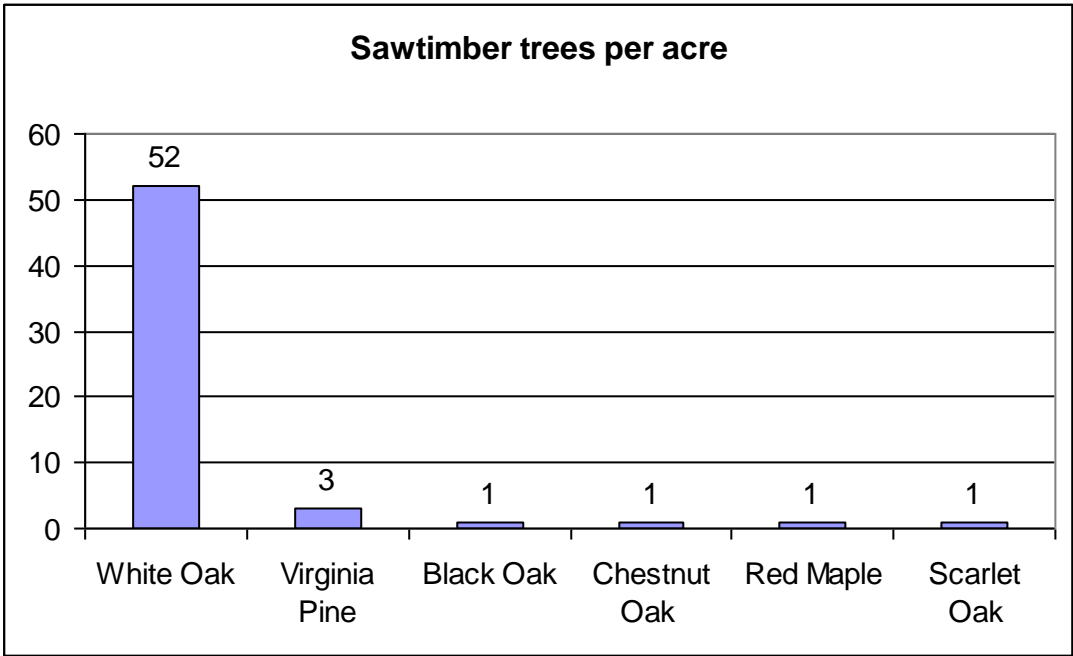
The submerchantable category is dominated by Ironwood (225 TPA), Red Maple (185 TPA), Pignut Hickory (92 TPA), and American Beech (74 TPA).



The pole tree category is dominated by Red Maple (19 TPA), White Oak (17 TPA), and Pignut Hickory (12 TPA).

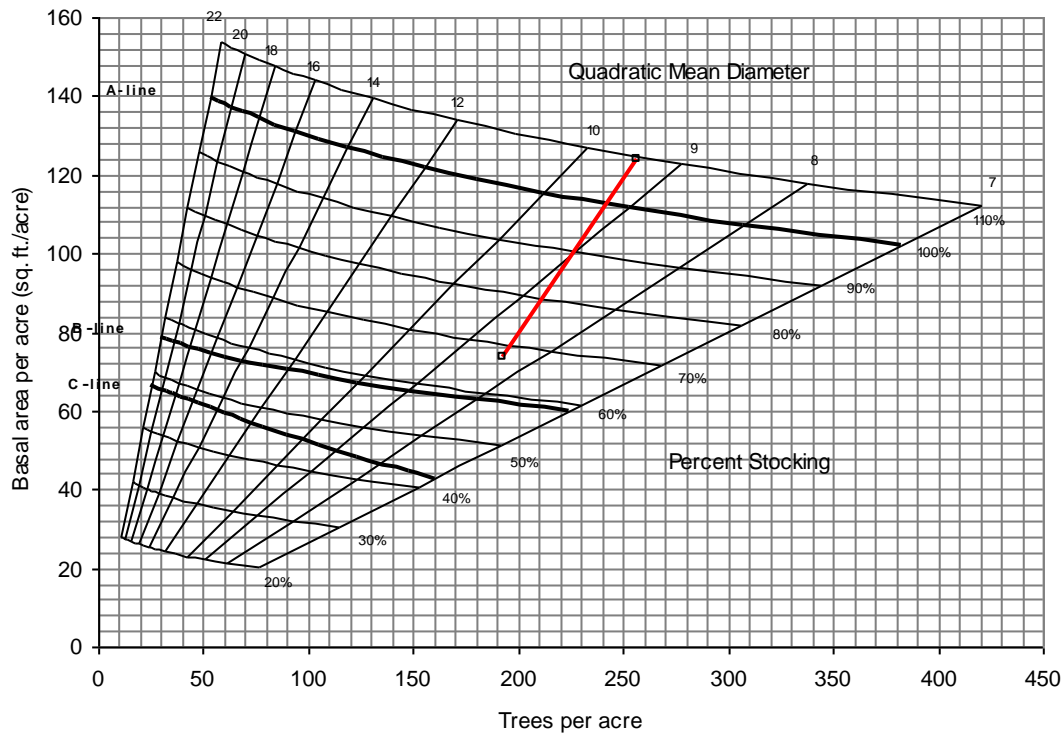


The sawtimber category is dominated by White oak at 52 trees per acre (TPA).



Summary Tract Silvicultural Prescription and Proposed Activities

The oak-hickory stand is currently overstocked with 123.9 square feet and 256 trees per acre for approximately 110% stocking. It should be noted that the submerchantable category was removed from the chart because it skewed the data. An overstocked stand has little or no room for trees to continue growing. They also lead to a shade tolerant understory, which will eventually change the composition of the stand from oak hickory to beech-maple. Post-harvest timber stand improvement should greatly reduce the number of sub-merchantable and pole size red maple, beech, and ironwood. A prescribed burn would also help kill off any beech-maple species left in the understory. This should allow the oak-hickory mast production and regeneration rates to increase, insuring a sustained oak-hickory forest through the next rotation. Overall harvest stock for this stand is 2.17 MBF/Ac.



Proposed Management Activity

Proposed Date

Intermediate Timber Harvest	2013
Timber stand improvement	2015
Prescribed burn	2015
Re-evaluate oak reproduction	2017
Resource Management Guide	2030

Attachments (on file in property office)

Attach the following items.

- A topo map of the tract created via GIS that delineates the tract subdivisions and identifies pertinent features in the tract (such as roads, trails, wildlife ponds, etc.)
- A map showing the soil types in the tract
- An aerial photo of the tract created via GIS that delineates the tract subdivisions
- A stocking guide chart with the tract level, and each stand level stocking condition plotted and identified.
- Two Dog reports
 - Tract Level Summary by Product-Species, Value, # of Trees and Volume 1 – Whole Stand
 - Tract Level Summary by Product-Species, Value, # of Trees and Volume 1 – Per Acre

- Stand Level Summaries by Product Species, # of Trees, Volume 1 w/ Means – Whole Stand
- Stand Level Summaries by Product-Species, # of Trees, Volume 1 w/ Means – Per Acre
- Stand Level Tables W/ DBH Classes By 1, 1-9 by Product-Species, Number, Volume 1, Basal Area – Per Acre
- Stand Level Tables W/ DBH Classes by 1, 10-19 by Product-Species, Number, Volume 1, Basal Area – Per Acre
- Stand Level Tables W/ DBH Classes by 1, 20-29+ by Product-Species, Number, Volume 1, Basal Area – Per Acre