

**Indiana Department of Natural Resources
Division of Forestry
Resource Management Guide**

State Forest: Clark
Forester: Allison Rubeck

Compartment: 14 **Tract:** 10
Date: 4/16/15

Location

Compartment 14 Tract 10 is located in section 233 in the Military Grant, T1N R6E of Carr Township in Clark County. The tract lies approximately 11 miles northeast of Borden, Indiana.

General Description

In total this tract of land comprises 164 acres. This tract is a very homogenous oak-pine cover type. There is a lot of chestnut oak and scarlet oak mortality found in this tract, most likely due to drought stress. The primary regeneration is white oak, chestnut oak, Virginia pine, and red maple. Oak regeneration in this area is very abundant.

History

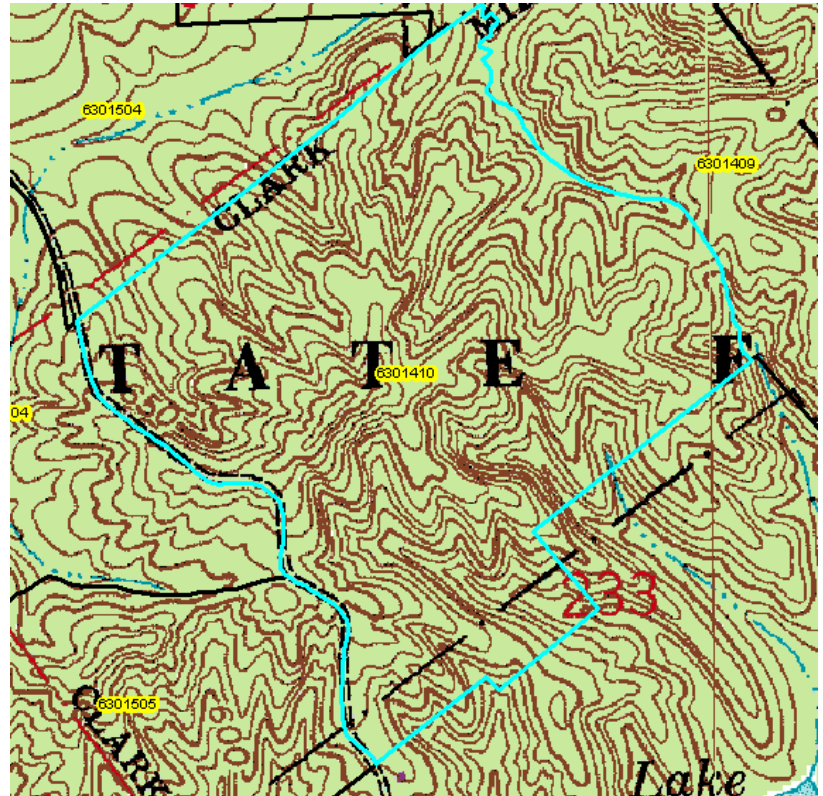
This tract had two previous inventories performed on it. The first one was in 1975 and the second was in 1986. It is unclear where the data was taken in the 1975 inventory because the lines were redrawn and there is no map accompanying the management guide. The inventory performed in 1986 states that there is an overall 100 square feet of basal area and 3,997 bd. ft. per acre.

Landscape Context

The landscape surrounding this tract is predominantly forested with similar closed canopy cover types. About a half mile southeast of the tract lies Lake Hideaway, a private 20 acre lake.

Topography, Geology, and Hydrology

This tract is mainly comprised of one main ridge running east northeast. This ridge has several moderately sloped ridges off of it. There is about 120ft of elevation change from the bottom of the slopes to the top. There are two intermittent streams that begin in the south east corner of this tract. These streams feed into Lake Hideaway to the south. No karst or other unique geological features were observed in this tract.



Soils

Beanblossom silt loam (BcrAW)

Contains 1 to 3 percent slopes and is occasionally flooded for a brief duration. This soil type is deep, roughly 40 to 60 inches and is moderately well drained.

Coolville silt loam (ComC)

Contains 6 to 12 percent slopes. This soil type is typically found on hills underlain with shale or sandstone. It is typically deep, being around 40 to 60 inches to the bedrock and moderately well drained

Coolville-Rarden complex (ConD)

Contains 12 to 18 percent slopes and are mainly located on hills underlain with shale or siltstone. The Coolville soils are deep; being 40 to 60 inches to the bedrock and are moderately well drained. The Rarden soils are moderately deep, around 20 to 40 inches, and also moderately well drained.

Deam silty clay loam (DbrG)

Contains 20 to 55 percent slopes and is mainly located on hills underlain with shale. These soils are moderately deep, 20 to 40 inches to bedrock, and are well drained.

Gnawbone-Kurtz silt loams (GmaG)

Contains 20 to 60 percent slopes and are located on hills underlain with siltstone. The Gnawbone soils are moderately deep, 20 to 40 inches, and are well drained. The Kurtz soils are deep, 40 to 60 inches, and likewise well drained.

Pekin silt loam (PcrB2)

Contains 2 to 6 percent slopes and is typically eroded. This soil type can be found in dissected stream terraces and is very deep, greater than 80 inches to the bedrock. The soil is also moderately well drained.

Access

There is good access to this tract. This tract can be accessed via Flower Gap Road running along the western boundary of the tract. Access to the central area within the tract can be gained by a fire lane running east off of Flower Gap Road. Eventually this fire lane will continue through State Forest property and connect to Percy King Rd.

Boundary

The east, west and most of the northern boundary of this tract are surrounded by Clark State Forest. The entirety of the southern boundary borders private property. The western boundary is Flower Gap firetrail, which is also known as the red horse trail. The northern boundary is the section line.

Wildlife

This tract is typical of Southern Indiana's flora and fauna. There were found deer, squirrels, chipmunks, snakes, song birds, and some birds of prey, while inventorying. The ridges on the upper slope provides excellent wildlife habitat with all the green brier available for cover. There is also a heavy component of chestnut oak, which provides hard mast as a food source. The lower slopes of the tract are heavy to white oak and some American beech in the understory. These two areas will provide another hard mast food source for the wildlife.

Habitat structures that favor wildlife include snags (standing dead trees) and cavity trees. Snags and cavity trees provide habitat for birds, bats, and other small mammals to feed, roost, and nest. Hard mast trees such as oaks, hickories, and American beech provide food resources for Fox and Gray Squirrels, Wild Turkey, White-tailed Deer and Blue Jays. Downed woody debris provides habitat and cover for many wildlife species and also reduces rainfall runoff.

A Natural Heritage Database Review was completed for C14T10 in 2015. If Rare, Threatened or Endangered species (RTE's) were identified for this tract, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

The Division of Forestry has instituted procedures for conducting forest resource inventories so that the documentation and analysis of live tree and snag tree densities are examined on a compartment and tract level basis in order to maintain long-term and quality forest habitats. Wildlife snags and legacy trees exceed the recommended maintenance levels for these wildlife features.

Crown release performed during timber harvests will stimulate the growth of the selected residual trees and will enhance their growth and vigor. Timber Stand Improvement (TSI) following the harvest is planned which will increase standing snag counts. Management practices conducted will be conducted in a manner that will maintain the long-term and diversity of forest habitats for wildlife populations.

Communities

This tract is generally comprised of dry mesic upland hardwoods. The dominant overstory timber species includes scarlet, chestnut, and white oaks scattered with Virginia pine. Slopes and streamside areas have mainly an oak canopy as well. Very few portions of the tract contain mixed hardwood species such as sugar and red maple, sweetgum, and American beech. The most common poletimber species within the tract are mainly chestnut oak, white oak, and red maple. The predominate sub-merchantable species are oaks, hickory, and Virginia pine.

Exotic and Invasive Species

Invasive species present in this tract are minimal. Only multiflora rose, was found in a very small area of the tract. Other invasive species found will be documented and reviewed for control needs.

Recreation

This tract is highly utilized for recreation. There is a horse trail that runs along the western border of this tract. This tract is also heavily hunted in because of the proximity to the handicapped hunter trail. This tract will be closed to recreation activities including the horse trail during the prescribed harvest. Recreation users will be directed to the many other horse trails and public hunting areas on the property during this period.

Cultural

All portions of C14T10 were reviewed for cultural sites during the current forest resource inventory. Cultural resources may be present within this tract but their location(s) are protected. Adverse impacts to significant cultural resources will be avoided during any management or construction activities.

C14T10 Tract Summary Data from April 2015 Inventory

Total Trees/Ac. = 203 Trees/Ac.
BA/A = 119.9 Ft²/Ac.
Present Volume = 8,176 BF/Ac.

Overall % Stocking = 105% Stocking
Sawtimber & Quality Trees/Ac. = 64 Trees/Ac.

Commercial forest: 164 acres
 Pine Commercial Forest: 0 acres
 Noncommercial Forest: 0 acres
 Permanent Openings: 0 acres
 Other: 0 acres

Basal Area Sawtimber: 88.6 sq. ft per acre
 Basal Area Quality: 1 sq. ft per acre
 Basal Area Poles: 22.7 sq. ft per acre
 Basal Area Culls: 4.9 sq. ft per acre
 Sub-merchantable: 2.7 sq. ft per acre

Total Acres: 164

Total Basal Area: 119.9 Sq. Ft per acre

Volume Estimates from April 2015 inventory of C14T10

Species	Total Volume (Bd Ft)
Bitternut Hickory	2,490
Black Oak	7,670
Chestnut Oak	242,410
Red Elm	2,210
Scarlet Oak	97,250
Virginia Pine	346,860
White Oak	642,020
Tract Totals*	1,340,900
Tract Average/acre	8,180

*Rounded Figures

Summary Tract Silvicultural Prescription and Proposed Activities

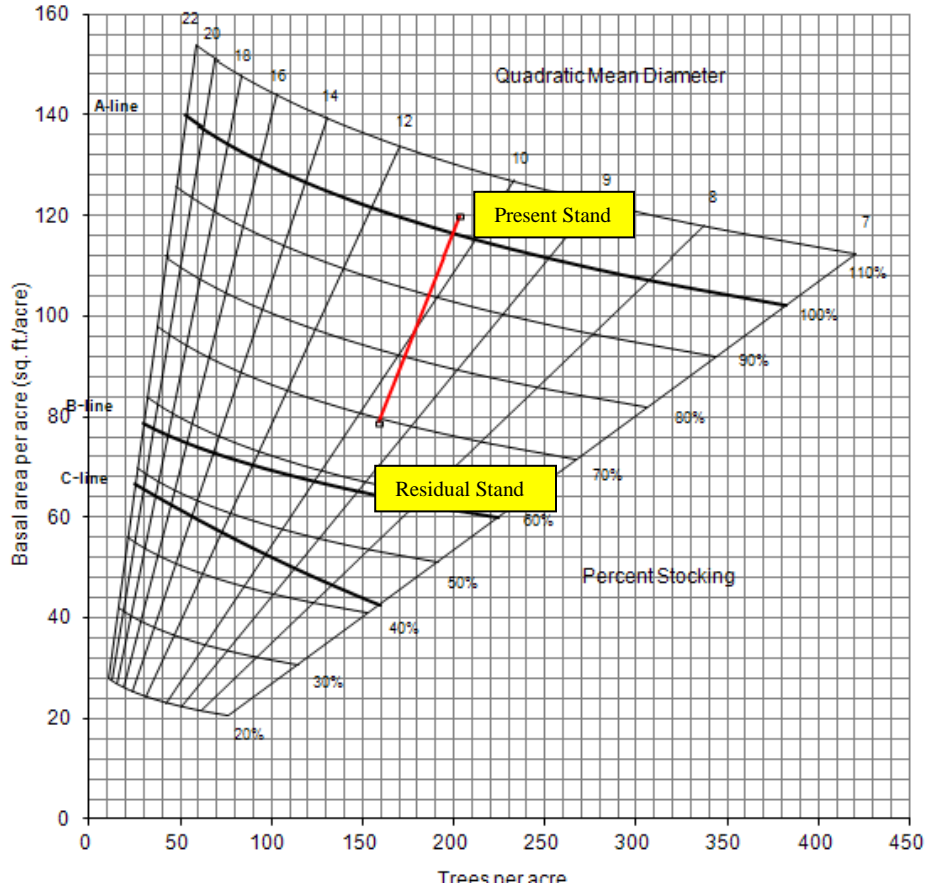
C14T10's current forest resource inventory was completed on April 20, 2015 by property forester Allison Rubeck. 43 prism points were examined and sampled over 164 acres (1 point for every 3.8 acres). A summary of the inventory results and a table of the total volume by species are presented above. This tract is currently over stocked and a managed timber harvest is prescribed. Singletree and group selection cuttings are prescribed to thin and release desirable crop trees, remove suppressed and poorly formed trees and to regenerate areas that contain aggregations of low stocking, excessive fire or wind throw damage, or over mature timber resources. For the purpose of this guide C14T10 has only one designated Management Stratum based on the tract dominance of its oak-pine cover type.

The prescription for C14T10 is predominantly a combination improvement cutting and singletree selection cutting over the tract acreage. Group selections may be prescribed in portions of the tract where aggregations of low stocking, low quality, wind-thrown pine, or mature timber occur. Diverse and abundant regeneration of native tree species is expected within the regeneration areas, including oaks, Virginia pine and Red maple and offer increased diversity of wildlife habitats.

The Indiana guidelines for Best Management Practices (BMP's) will be followed during the timber harvest and closeout activities to maintain water quality. The prompt installation of water diversions following harvesting will be employed to minimize any effects to neighboring water resources. Portions of or all of this tract will be submitted for a postharvest Timber Stand Improvement (TSI) project along with any invasive work if deemed appropriate by the administering forester.

Given the recent inventory and projected growth of C14T10's forest resources, this tract is suitable for a 15 year management cycle wherein growth and development of the tract's forest resource is evaluated by a forest inventory every 15 years. The current inventory indicates a possible harvest of between 300 to 450 MBF.

Gingrich Stand and Stock Table for C14T10 from April 2015 inventory data



Proposed Activities Listing

2015 – Timber marking and roadwork

2015- Timber sale

2016-2018 – Post harvest Timber stand improvement (TSI) and invasive control

2030 – Reinventory and management guide

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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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