

Owen-Putnam State Forest - Compartment 4 Tract 7
November 2007
Management Cycle Length - 15 Years Management Cycle End Year - 2022
R. Duncan - Forest Resource Specialist

Location

Primarily compartment 4, tract 7 lies in the southwest quarter of section 9 with the southern half of the tract in the northwest quarter of section 16 township 11N, range 4W, Montgomery Township, Owen County.

The tract is accessible by taking SR 46 4-miles west of Spencer to Rattlesnake Road then north 5-miles to Surber Road then West 2-miles to the fire trail in the Rattlesnake Campground.

General Description

This tract is a 67-acre parcel within compartment 4. The tract lies predominantly on north and east facing slopes with a major ridge top at the western boundary of the tract.

Timber types vary from mostly mixed upland hardwoods, to some oak-hickory, to wet site species. White, Red and Virginia Pines were planted many years ago along the access road and ridge top to control erosion from past settlement and farming disturbance.

The over-story consists of medium to large sawlog sized oak, poplar, hickory, maple, beech and ash. The under-story consists of maple, beech, poplar, hickory, cherry and some oak. Regeneration is represented to some degree by all of the above species. The quality of merchantable timber is above average for trees grown in these soil types. In addition, the tract contains a considerable amount of grapevines.

History – Cultural Resources

Cultural resources may be present on the tract but their location is protected. Adverse impacts to significant cultural resources will be avoided during any management or construction projects.

Landscape Context

This tract is located relatively near the center of the 1440 acres contain in compartment 4.

The private properties surrounding this compartment and tract are primarily mixed hardwood forests containing scattered residential housing with some pasturing and little to no agriculture or industry.

Topography, Geology and Hydrology

The topography of the area varies from nearly level ground along the ridge top to the west with moderate to steep slopes leading to a creek bottom to the east.

In the event a harvest operation is performed, the existing haul road and log yard can be utilized. Best Management Practice (BMP) guidelines will be followed to preserve soil

and water quality (Forest Practices Working Group, Indiana Woodland Steward Institute).

Soils

The tract is composed of the Zanesville (ZnD3, ZnC3) and Zanesville Silt Loam (ZaD2) soils in woodland suitability group 9. These are described as moderately deep and deep, moderately well drained and well drained, medium textured soils that have a fragipan. The tract is also composed of the Muskingum Stony Silt Loam (MmG) soils in woodland suitability group 12, described as somewhat droughty, medium textured soils, underlain by sandstone at a depth of 36 inches or less (USDA, SCS – Soil Survey, Owen County, IN 1964).

The tract is composed specifically of the following soils:

MmG - Muskingum Stony Silt Loam, 35-70% Slopes
TsB2 - Tilsit Silt loam, 2-6% Slopes, Moderately Eroded
ZnD3 - Zanesville Soils, 12-18% Slopes, Severely Eroded
ZnC3 - Zanesville Soils, 6-12% Slopes, Severely Eroded
ZaD2 - Zanesville Silt Loam, 12-18% Slopes, Moderately Eroded

Access

The tract is accessible to the public via the parking lot in the campground and the fire trail leading out of it. This area exhibits good opportunities for multiple use management, including timber management, wildlife management, soil and water conservation and public recreational activities, such as horseback riding, hunting, hiking, gathering, viewing and interpretation.

Boundary

The tract lies entirely within compartment 4, with its boundaries following dominant topographical features. There is no private property immediately adjacent to this tract.

Wildlife

Wildlife resources in compartment 4 tract 7 are abundant. Common species present include Grey Squirrels, White-Tailed Deer, Wild Turkey, raptors, songbirds, herpetiles and fish. This tract contains habitat for a variety of wildlife species. Habitat includes oak-hickory and beech-maple areas that provide mast for deer, turkey and squirrel. The pine stands provide benefits such as cover, roosts and browse. Snags and hollow trees provide nesting, bugging and roosting sites for woodpeckers, songbirds, small mammals and the Indiana Bat. Rotten logs, crater knolls and the creek along the eastern boundary of the tract provide habitat for herptiles, aquatic vertebrates and mollusks.

A review of the Natural Heritage Database was conducted on July 11, 2007 to locate and identify any known endangered, threatened or rare species or communities. The review did not identify any E.T.R. species or communities in or nearby the project area (Carl Hauser, Division of Forestry - Program Specialist).

SILVICULTURAL PRESCRIPTION

In 1989 cruise data were collected in this tract as part of the property wide TIMPIS inventory. The data estimated the tract to contain approximately 3793 Bd. Ft. of total sawtimber per acre with an estimated 1021 Bd. Ft. of harvest sawtimber per acre.

In 2007 a timber inventory was conducted in this tract. The data estimated the tract to contain 9539 Bd. Ft. of total sawtimber per acre with 2314 Bd. Ft. of harvest sawtimber per acre. The data also yielded an estimated 94.8 Sq. Ft. of basal area per acre in 66.3 trees \geq 6 inch D.B.H., for an estimated stocking level of ~75% and an average tree diameter of approximately 16 inches. The current stocking level indicates the tract is fully stocked and becoming overcrowded.

The tract file shows the harvest of 81,920 Bd. Ft. in 1989.

The dominant sawtimber sized poplar, oak and hickory are overly competing for resources. With the overcrowded sawtimber species and a good oak-hickory residual stocking, this tract would benefit from a timber harvest in the form of an intermediate cutting.

Stocking levels and competition amongst dominant trees can be reduced through a selective thinning. Species composition can be adjusted through an improvement cut. The recommendation is to remove mature, low quality, damaged, diseased, dying and poorly formed trees as well as removing less desirable species. In addition, opening up the canopy and encouraging early successional species regeneration can be accomplished through group selection.

Management in the form of Timber Stand Improvement (TSI) should be performed to control grapevines, release crop trees through the culling of low volume, poorly formed trees and to encourage early successional regeneration through the creation of group selection openings. Standing dead trees (snags) will be given consideration as habitat for wildlife, such as the Indiana Bat. In addition, the girdling of select cull trees should be performed through post harvest TSI to satisfy the suggested guidelines of the Strategy for the Consideration of the Indiana Bat (IDNR – Division of Forestry, Resource Management Strategy for the Indiana Bat, April 2008). In order to meet the guidelines, 1.8 snags/acre greater than 9 inches d.b.h. and 0.8 snags/acre greater than 19 inches d.b.h. would need to be created to meet the suggested guidelines. (Snag Inventory and Analysis in Regards to the Strategy for the Consideration of the Indiana Bat Compartment 4 Tract 7)

The overall goal of this prescription is to thin the tract, improve timber species composition and to create favorable growing conditions for early successional timber species, while providing diverse forest wildlife habitat. Consideration for leaving tree species preferred by the Indiana Bat \geq 20 inches d.b.h as live roosts will be given (Snag Inventory and Analysis in Regards to the Strategy for the Consideration of the Indiana Bat Compartment 4 Tract 7). As with any forest management activities, Best Management Practice (BMP) guidelines will be followed to protect soil and water resources (Forest Practices Working Group, Indiana Woodland Steward Institute).

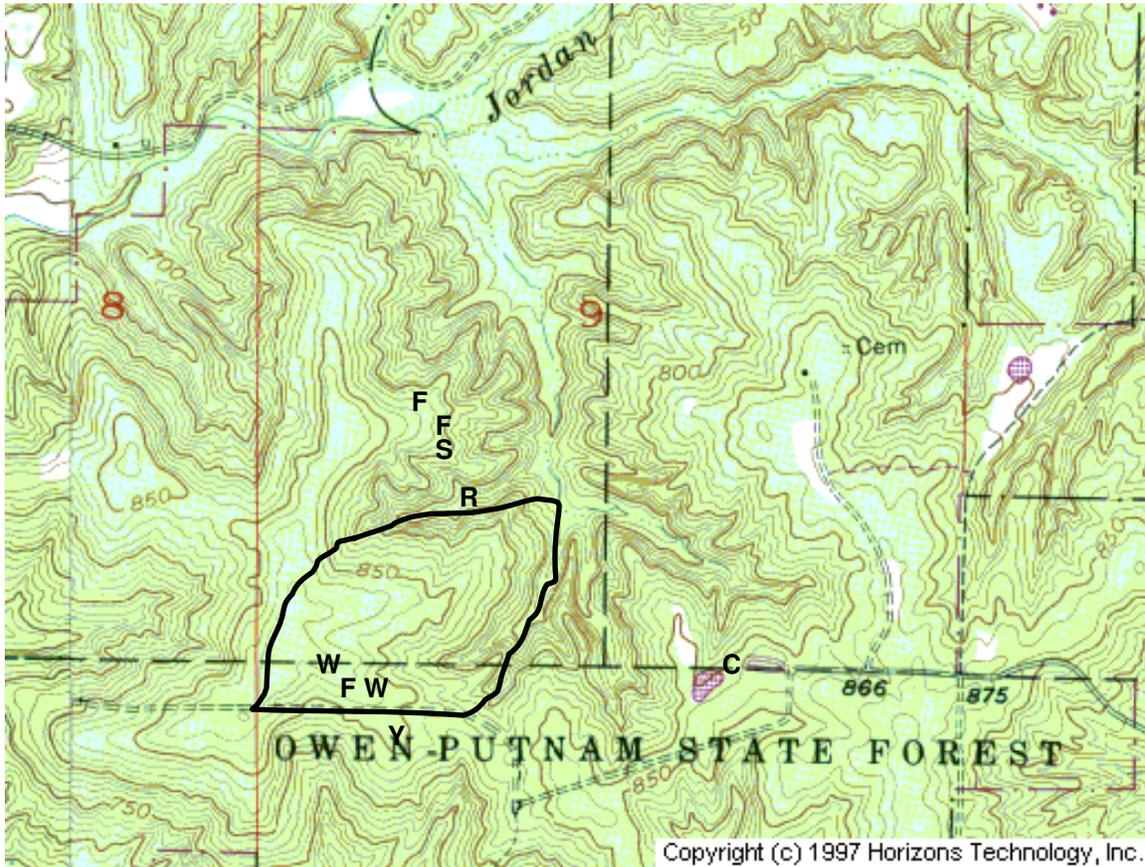
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Topographic Map Compartment 4 Tract 7 67 - Acres

USGS - 7.5 Minute Series
Cataract Quadrangle



Campground - C Tract Boundary -  Haul Road -  Log Yard - Y
Well - W Spring - S Rock Outcropping - R



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