Owen-Putnam State Forest
Resource Management Guide

Forester's Narrative
Compartment 8 Tract 1
July 2008

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Location

Primarily compartment 8, tract 1 lies in the west half of section 34, township 11N, range 4W, Morgan Township, Owen County.

The tract is accessible by taking S.R. 46 5-miles west out of Spencer to Fishcreek Road then north 2-miles to Timber Ridge Road then east 1/4-mile to the forest parking lot and fire trail access road on the north side of the road.

General Description

This tract is an 81-acre parcel within compartment 8. The tract lies predominantly on southwest, west and northwest facing slopes with a major ridge top extending from the north to the south along the east boundary of the tract.

Timber types vary from mixed upland hardwoods to oak-hickory to beech maple. Pines were planted many years ago along the access road and ridge top to control erosion from past 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

Owen-Putnam State Forest was established in 1948 with most of its landholdings purchased as smaller non-contiguous tracts in the 50's and 60's. The ridge tops in the area of this tract were farmed up until approximately 1930 and then planted to White and Virginia Pine in 1953 when the state purchased the land. Compartment 8 tract 1 was purchased in 1953 and has been managed for several years, having an inventory conducted in 1987 and 2006 and a harvest conducted in 1988.

Landscape Context

This tract is located on the western edge of the 767 acres contained in compartment 8.

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

Topography, Geology and Hydrology

The topography of the area varies from nearly level ground along the ridge top along the east boundary with moderate to steep slopes leading down to the western boundary. There are no mapped streams within the tract. However, there is a mapped intermittent stream to the east and the perennial Fish Creek to the west.

In the event a harvest operation is performed, the existing haul road and log yards 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 primarily of the Zanesville - Muskingum soil association, comprised of silt loam soils on sandstone and shale with slopes nearly level to very steep. Soils are mostly represented by the Muskingum Stony Silt Loam on steep 35-70% Slopes and the Zanesville Silt Loam with fragipans on ridge tops with smaller areas of Wellston, Hickory and Cincinnati Silt Loams. (USDA, SCS – Soil Survey, Owen County, IN 1964).

Specifically, the tract is composed of the following soils:

MmG - Muskingum Stony Silt Loam, 35-70% Slopes
ZaB -Zanesville Silt Loam, 2-6% Slopes
ZaC2 - Zanesville Silt Loam, 6-12% Slopes, Moderately Eroded
ZnC3 - Zanesville Soils, 6-12% Slopes, Severely Eroded
WoF - Wellston and Muskingum Soils, 25-35% Slopes
HcG - Hickory Silt Loam, 35-70% Slopes
CcB2 - Cincinnati Soils, 2-6% Slopes, Moderately Eroded
CcD2 - Cincinnati Silt Loam, 12-18% Slopes, Moderately Eroded
CfC3 - Cincinnati Soils, 6-12% Slopes, Severely Eroded
GnB - Ava Silt Loam 2-6% Slopes
Gu - Gullied Land, Residuum

Access

The tract is accessible to the public via the parking lot at the fire trail cable gate on Timber Ridge Road. 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 along the north end of the western edge of compartment 8. Tract boundaries follow dominant topographical features to the east and private property to the north, south and west. The northern boundary follows a good fence line and some survey stakes. The western boundary follows an old fence line and some survey stakes. There is no documented boundary information on the southern line. However, there is a corner fence post and some old fence along private property that has been used as the boundary line over the years.

Wildlife

Wildlife resources in compartment 8 tract 1 seem abundant. Common species present include Grey Squirrel, 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 northern 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 – Property Program Specialist).

Silvicultural Prescription

In 1988 an inventory was conducted in Compartment 8 tract 2. The data estimated the tract to be 90% stocked with approximately 5252 Bd. Ft. of total sawtimber per acre with an estimated 1957 Bd. Ft. of harvest sawtimber per acre and scheduled for a harvest in 1990. The tract was again inventoried in 1990 prior to a timber sale. The data estimated the tract to be 87% stocked with 90 Sq. Ft. of basal area per acre and approximately 6539 Bd. Ft. of total sawtimber per acre with an estimated 2850 Bd. Ft. of harvest sawtimber per acre and scheduled for a harvest in 1991. In 2007 a third inventory was conducted. The data estimated the tract to contain 7,836 Bd. Ft. of total sawtimber per acre with 2435 Bd. Ft. of harvest sawtimber per acre. The data also yielded an estimated 115 Sq. Ft. of total basal area in 362 trees per acre, for an estimated stocking level of ~109% and an average tree diameter of approximately 8.4 inches.

The tract was harvested in 1990 with 12,232 Bd. Ft. in 20 trees of “prime” timber sold and in 1991 it received a selective thinning with 101,532 Bd. Ft. in 339 trees of harvest timber removed from 60 acres (1692 Bd. Ft. /Acre).

The current stocking level indicates the tract is fully stocked and becoming overcrowded. The dominant sawtimber sized poplar, oak and hickory are overly competing for

resources. With the overcrowded sawtimber species, 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 thin mature trees and remove low quality, damaged, diseased, dying and poorly formed trees as wells as removing less desirable species. In addition, opening up the canopy and encouraging early successsional 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 successsional 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 address 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 2001). In order to meet the guidelines, 2.6 snags per acre greater than 9 inches d.b.h. with 0.7 of those snags per acre being greater than 19 inches d.b.h. would need to be created. (Snag Inventory and Analysis in Regards to the Strategy for the Consideration of the Indiana Bat Compartment 8 Tract 2)

The overall goal of this prescription is to thin the tract, improve timber species composition and to create favorable growing conditions for early successsional timber species, while providing forest wildlife habitat. 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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Owen-Putnam State Forest
Compartment 8 Tract 1 - 81 - Acres

USGS - 7.5 Minute Series
Spencer Quadrangle

N
W E
S

Tract Boundary - Haul Road - Skid Trails -
Log Yard - **Y** Pond - **P** Rock Outcroppings - **R**