Owen-Putnam State Forest
Resource Management Guide

Forester's Narrative
Compartment 8 Tract 4
August 2008

Robert Duncan - Forest Resource Specialist

Location

Compartment 8, tract 4 lies in the west half of the northeast quarter of section 34, township 11N, range 4W, Morgan Township, Owen County. It is approximately 1.5 miles southeast of the horse campground and approximately 2.5 miles north of the office.

General Description

This tract is a 74-acre managed, multiple use parcel within compartment 8. Timber types vary from mixed upland hardwoods to oak-hickory to beech maple. Pines were planted in 1953 along the access road and ridge top to control erosion from past disturbance. The over-story consists of medium sawlog sized oak and poplar with larger Pignut Hickory. The under-story consists mostly of maple and beech. Regeneration is represented mostly by beech and maple with some poplar. The quality of merchantable timber is good. This area exhibits good opportunities for multiple use management, including, timber management, wildlife management, soil and water conservation and public recreational activities, such as, hunting, hiking, gathering, viewing and interpretation.

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 4 was has been managed for several years, having an inventory conducted in 1988 and 2007, with a timber sale conducted in 1989.

Landscape Context

Generally the area is wooded rolling hills and ravines with some brushy/early successional areas, open fields and small areas of open water. 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 on the ridge top along the western boundary with moderate to steep, east facing slopes. Water sheds into a mapped intermittent stream on private property just beyond the east boundary. The area is generally comprised of shallow to moderately deep, well drained to excessively drained, silty soils often containing fragipans, on nearly level to steep slopes, underlain by sandstone and shale and some times glacial till. 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, of which it is well represented by the Muskingum Stony Silt Loam on steep 35-70% Slopes and the Zanesville Soils with fragipans on moderate 12-18% slopes with smaller areas of 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
ZnD3 - Zanesville Soils, 6-12% Slopes, Severely Eroded
CcB - Cincinnati Silt Loam, 2-6% Slopes
CcB2 - Cincinnati Soils, 2-6% Slopes, Moderately Eroded
CcC2 - Cincinnati Silt Loam, 6-12% Slopes, Moderately Eroded
CfD3 - Cincinnati Soils, 12-18% Slopes, Severely Eroded
ZaB -Zanesville Silt Loam, 2-6% Slopes
ZaC - Zanesville Silt Loam, 6-12% Slopes
ZnC3 - Zanesville Soils, 6-12% Slopes, Severely Eroded
WmE - Wellston Silt Loam, 18-25% Slopes
WmE2 - Wellston Silt Loam, 18-25% Slopes, Moderately Eroded
Gu - Gullied Land, Residuum
Gt - Gullied Land, Glacial Drift

Access

To get to the tract from town, take S.R. 46 about 5-miles west out of Spencer to Fishcreek Road, then north 2.75 miles to Weilhammer Road, then east 0.66 miles to Powell Redbud Lane, then south 0.25 miles ending in the forest parking lot on the northwest corner of the tract. The tract is accessible to the public via the parking lot on Powell Redbud Lane.

Boundary

This tract is located on the far northeast end of the 767 acres contained in compartment 8. Tract boundaries follow the ridge top along the western boundary with private property along the north, south and east boundary, all of which have been documented and painted.

Wildlife

Wildlife resources in compartment 8 tract 4 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 cavity trees provide nesting, bugging and roosting sites for woodpeckers, songbirds, small mammals and the Indiana Bat. Rotten logs, crater knolls and the pond provide habitat for herptiles and aquatic vertebrates. 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 4, with the results estimating the tract to contain 4163 Bd. Ft. of total sawtimber per acre and 1104 Bd. Ft. of harvest sawtimber per acre with harvests proposed in 1988 and 2008. The tract was harvested in 1989 as a selective thinning with 91,097 Bd. Ft. in 404 trees removed from 60 acres (1518 Bd. Ft./Acre). The tract was again inventoried in 2007. The data estimated the tract to be 95% stocked with 113 Sq. Ft. of basal area per acre and approximately 5880 Bd. Ft. of total sawtimber per acre with an estimated 1225 Bd. Ft. of harvest sawtimber per acre and an average tree diameter of approximately 8.4 inches.

The current stocking level indicates the tract is fully stocked and becoming overcrowded. The dominant sawtimber sized oak, poplar 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. However, the understory and regeneration is almost entirely represented by beech, maple and sassafras with no oak saplings showing up on the inventory and only a relatively small amount of pole sized Chinkapin. The data also indicated pole sized White Oak mortality.

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. With the forest turning to climax species, regeneration of oak should be encouraged through group selection openings, timber stand improvement and the harvest of less desirable species. In

addition, some suitable red and white oaks should be retained as a seed source for future oak production as well as standing dead trees (snags), cavity trees and roost trees will be given consideration as habitat for wildlife, such as the Indiana Bat.

Management in the form of Timber Stand Improvement (TSI) should be performed to control grapevines, release crop trees by coppicing low volume, poorly formed and less desirable species, and to encourage early successional regeneration through the completion of group selection openings. In addition TSI can benefit wildlife habitat such as that of the Indiana Bat by the creation of snags.

The overall goal of this prescription is to thin the tract, improve timber species composition and to create favorable growing conditions for oak regeneration, 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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You **must** indicate "Owen-Putnam C8 T4" 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.

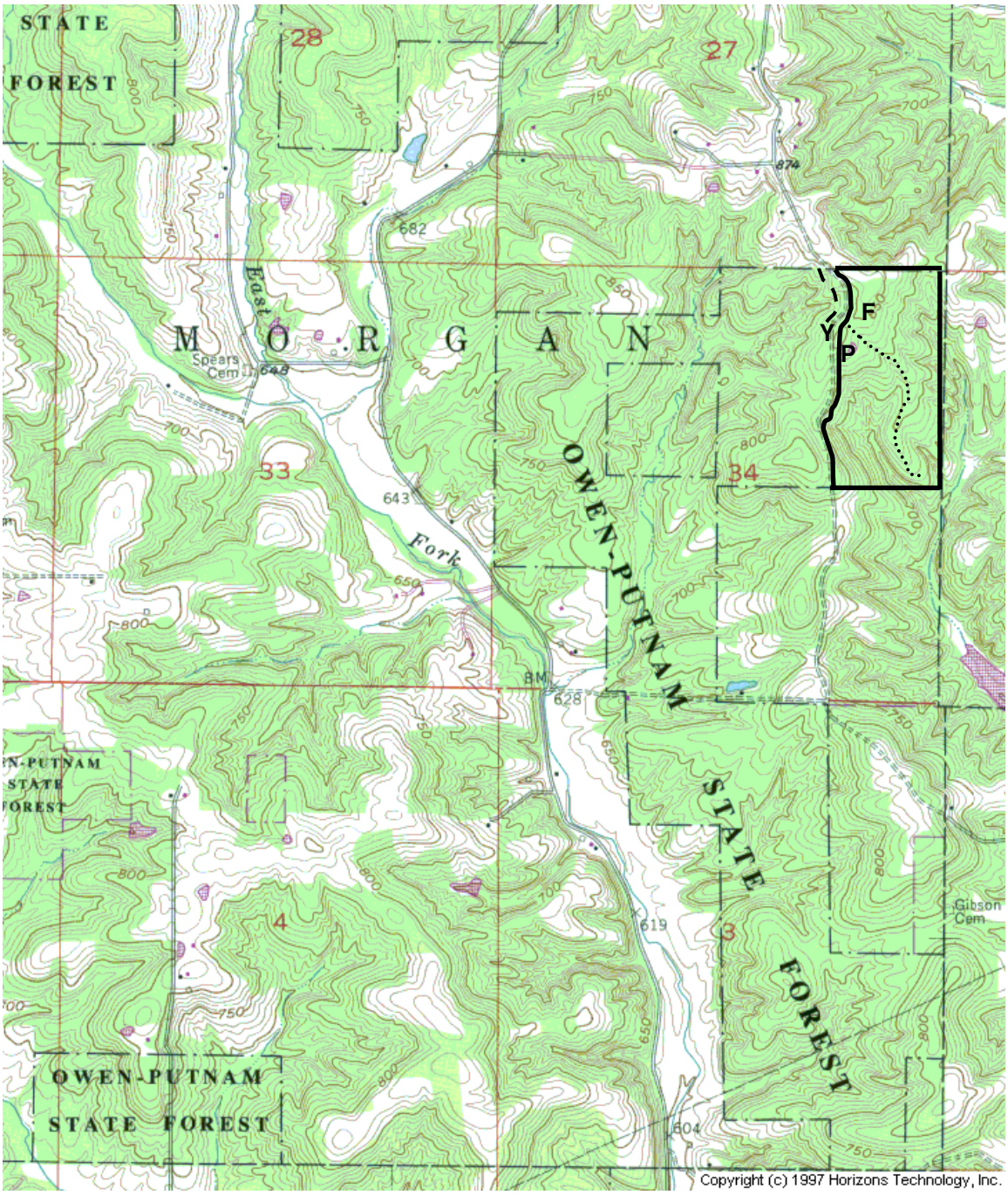
Owen-Putnam State Forest

Topographic Map (See Following Page)
Compartment 8 Tract 4
74 - Acres

USGS - 7.5 Minute Series
Spencer Quadrangle

Tract Boundary - Haul Road - Skid Trails -

Log Yard - **Y** Pond - **P**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