

RESOURCE MANAGEMENT GUIDE

State Forest: Yellowwood

Compartment: 10 Tract: 14

Forester: D. Potts

Date: 7/16/2008

Management Cycle End Year: 2028

Management Cycle Length: 20 years

Location

Section 33 Township 10 North Range 2 East in Brown County, Indiana. This parcel of land is commonly referred to as compartment 10 tract 14 of Yellowwood State Forest. It is located about two miles southwest of Helmsburg, IN.

General Description

This tract contains 53 acres of which 53 are in commercial forest. The general cover type for this tract is hardwood forest and a red pine plantation on the main ridge-top.

History

According to the tract history file, an inventory was completed in 1976 followed by a resource management guide. The estimated volume for the tract was 4430 bdf/acre, with an estimated harvest volume of 1767 bdf/acre. A timber sale occurred in 1979 where 114 trees with an estimated volume of 44045 bdf sold to Empire Wood Company of Bloomington, Indiana. Following completion of the timber harvest, timber stand improvement (TSI) was completed in the regeneration openings. In 1990 a management reconnaissance occurred where a 1992 inventory and a possible 1994-1995 harvest was recommended. The most recent activity to occur was a forest inventory performed in June of 2008.

Topography, Geology and Hydrology

The tract consists of a main north to south ridge. The slopes within the tract are moderate with some steep slopes in the east and northeastern portion. Two mapped intermittent drainages are within the tract, one on the eastern boundary and the other on the western boundary. The entire tract falls within the Bean Blossom watershed.

Soils

Wellston-Gilpin silt loam (WmC2) 6-20% slope approximately 40% of tract. Moderately sloping to moderately steep, well drained soil. Harvest limitation due to slope and erosion potential.

Berks-Trevlac-Wellston complex (BgF) 20-70% slope, approximately 54% of tract. Moderately steep to very steep, well drained soil. Harvest limitation due slope.

Steff silt loam (Sf) approximately 3% of tract. Nearly level, deep moderately well drained soil found on flood plains. Harvest limitation due soil moisture content and potential for compaction.

Access

Access to this tract is directly off of Indian Hill Road. At the entrance to the tract is a parking lot. The main access into the tract is off of the parking lot. The main road is located in the northern half of the tract and stretches from the parking lot to the eastern

border of the tract. From this road a main, a north to south skid trail provides access to the rest of the tract.

Boundary

The western and southern boundary of this tract is also the Yellowwood State Forest property boundary. Yellowwood State Forest property boundary is also alongside Indian Hill Road in the northwestern portion of the tract for about one quarter of a mile. The rest of the western boundary is a north to south property line. The eastern border follows an intermittent drainage to the northern border. The northern border coexists with the haul road.

Wildlife

Wildlife resources in this tract are plentiful. This tract supports many woodland species including, but not limited to: White-Tailed Deer, Wild Turkey, Eastern Grey Squirrel, Fox Squirrel, chipmunks, and various songbirds.

Communities

The Natural Heritage Database does not indicate any species or communities of concern within the tract boundary. However, the Natural Heritage Database indicates that Bobcat (*Lynx rufus*), Timber Rattlesnake (*Crotalus horridus*), Hooded Warbler, Bachman's Sparrow, and Ridged Yellow Flax (*Linum striatum*) are present or have been discovered in adjacent or nearby tracts. Also, a high quality Dry Upland Forest and Dry Mesic Upland Forest can be found nearby.

Recreation

This tract has many possibilities for recreational uses. Some of the more common recreation that can be expected within the tract and surrounding area include: jogging, hunting, hiking, birding, traversing (with a compass and map), wildlife watching, meditation, mushroom hunting, tree identification, and photography.

Cultural

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

Tract Subdivision Silvicultural Prescription

Area A Subdivision classification: mixed oak-hickory-yellow-poplar

This area is predominately the oak-hickory-yellow-poplar timber type of large to mature sawtimber and comprises 75% of the total tract acreage, about 40 acres.

Dominant merchantable sawtimber species composition for this tract is as follows black oak (22%), pignut hickory (20%), white oak (16%), sugar maple (12%), red oak (9%), and yellow-poplar (6%). This area contains side slopes, bottomland sites, and some of the area is located along the ridgetops. According to the most recent tract inventory data conducted in June of 2008 the estimated volume for this tract is 10,300 bdf/acre.

Estimated harvest volume for this area is 3,950 bdf/acre, with an estimated leave volume of 6,350 bdf/acre. The basal area for this area is 120.8 sqft/acre. The inventory

indicated that there are approximately 493 trees/acre. Looking at a hardwood-stocking chart, this area is considered overstocked. Based on the current conditions a harvest is recommended within this area. This area is to be managed by uneven aged management, meaning that singletree selection and group selection will occur. The management objective of this area is to maintain the oak-hickory-yellow-poplar timber type. Group selection opening(s) within the area will be kept to ten acres and less. The openings will be designed to create wildlife habitat and to promote the regeneration of shade intolerant species. In the northwestern portion of the area there is a group of mature and declining trees that would benefit from regeneration. This area was also specifically mentioned in a 1990 management reconnaissance for a regeneration opening. Pre-harvest and post-harvest timber stand improvement (TSI) will occur within the area. During the timber marking and before the sale is sold grapevine control is recommended to reduce the number of grapevines within the stand. In the regeneration opening(s), post-harvest TSI will remove pole and sapling size trees to expose the forest floor to as much light as possible.

Area B Subdivision classification: red pine stand

This area is predominately a red pine plantation of small and medium sawtimber and contains approximately 14 acres (25%) of the total tract. The dominant merchantable sawtimber species composition within this area is red pine (85%) and yellow poplar (15%). The red pine plantation is located on top of the main north to south ridge. This area has an estimated 569 trees/acre and a basal area of 92 sqft/acre. According to the stocking chart this area is overstocked. Singletree selection will occur within this area to remove mature and poor formed trees. However, most of the red pine plantation will be left to die out over time. The red pine has been overstocked for so long that any attempt to release the pine would be futile, due to their low vigor.

Tract Proposed Activities

Boundary marking will occur in the summer of 2008. Timber marking will occur in the summer/fall of 2008. TSI will be performed as the tract is marked for harvest. After the sale has been marked, the sale will be reviewed. Upon sale approval the sale will be advertised and sold. The timber sale contract will have a contract length of two years or less. After the sale has been harvested, post harvest TSI will occur; which will include the removal of grapevines and the completion regeneration opening TSI. The next planned activity for the tract will be a forest inventory in 2028.

Proposed Activities Listing

<u>Proposed Management Activity</u>	<u>Proposed Date</u>
Boundary Marking	2008
Timber Marking	2008
Timber Sale	2008
Timber Sale Completion	2008/2010
Post Harvest TSI	2011/2012
Reinventory	2028

Attachments (On file in the Property Office)

Topographic map with tract subdivisions

Aerial photo with tract subdivisions

Soil type map of area

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