TM 903 **RESOURCE MANAGEMENT GUIDE**

FORESTER'S NARRATIVE

DRAFT

Jackson-Washington State Forest
Compartment 13 Tract 13
Forester: Michael Spalding
Date: July 31, 2007
Management Cycle End Year: 2020 Management Cycle Length: 13 years

Compartment 13 Tract 13 is located off of Bane Hollow Road in Gibson Township, Washington County, and is accessed by fire lane # 930. The tract is located in Sections 28, and 29 of T3N R5E. Access to this tract is good. Tract 13 is 72 acres and ranges from moderately steep slopes covered with chestnut oak to gentler slopes that are stocked with good to excellent quality white and red oak as well as several other species. Flat drainages and northern aspect slopes also contain mixed hardwood forest types.

History

An inventory in 1977 indicated a total volume of 4,705 bd. ft. per acre with 1,987 bd. ft. per acre of harvest stock.

Soils

Three soil types are present in this tract. Gilpin silt loam, 12 to 18 percent slopes, eroded (GlD2), is a well-drained and moderately deep soil type found on upland side slopes. Gilpin has a northern red oak site index of 80 (11.3 acres). Berks-Weikert complex, 25-75 percent slopes (Bhf), are well-drained soils that are located on upland side slopes. Throughout the range of these soils, Berks constitute about 55 percent of the range and Weikert 35 percent. The soils are so intermixed that they are not mapped separately. Berks has a northern red oak site index of 70 (33.2 acres), while Weikert has a northern red oak site index of 64 (21.3 acres). Burnside silt loam, occasionally flooded (Bu), is a deep, well-drained soil found in floodplains. Burnside has a northern red oak site index of approximately 85 (5.7 acres).

Wildlife

No endangered, rare, or threatened species were on record as having been sighted in this tract. I encountered an imperial moth during the cruise. I noted a redtail hawk utilizing the adjacent tract, 1312, for hunting. This seems to be evidence of preferred hunting habitat after the recent harvest. The canopy openings likely resulted in an increase of rodent habitat; therefore creating an additional food supply for the hawks. Also, while cruising this tract, I spotted a five-lined skink. According to the University of Georgia, "[five-lined skinks] are most common in wooded areas with an abundance of fallen trees and stumps to hide in.*" This would suggest that tree tops and stumps resulting from a timber harvest would improve habitat for five-lined skinks. An improvement harvest in this tract should benefit both game and non-game species through the creation of additional foraging and nesting habitat. Using both single tree and group selection provides habitat for early-, mid- and late-successional wildlife species.

* "Lizards of Georgia and South Carolina." University of Georgia Savannah River Ecology Laboratory. http://www.uga.edu/srelherp/lizards/eumfas.htm

Indiana Bat Management Guidelines

The following present values were determined from the inventory:

	Live trees:	**Present**	Goal	Available for Removal
Minimum	11" +dbh	850*	648 *	202
	20" +dbh	201*	216 *	-15
	Snags:	**Present**	Goal	
Minimum	9" +dbh	494	432	62
	19" +dbh	66	72	-6

* The present and goal only include the following Desired Live Tree Species: AME, BIH, BLA, BLL, COT, GRA, REO, POO, REE, SAS, SHH, ZSH, SHO, SIM, WHA, WHO

The minimum count for both the 20"+ DBH live-tree class and the 19" + snag class are slightly below the goal. These numbers could be increased for the snags through TSI by deadening the appropriate number of 19"+ trees to achieve the goals. Timber marking will favor retention of the live tree species preferred by the Indiana bat and minimize their removal. Release of these species in the smaller size classes will promote an increased number of these trees into larger size classes.

The nature of improvement cuttings lends itself to the known Indiana bat habitat. Removal of single trees will permit light and crown space for the residual trees. This temporary opening in the forest canopy lends itself to ease in movement for bats during flight as they capture their prey. Trees opened up to increased sunlight are able to capture the increased warmth for bats under the exfoliating bark. Regeneration openings also provide pockets within the forest canopy for bats to obtain prey while in flight. It has also been discussed that bats frequently use skid roads and haul roads as flight paths in capturing food and travel routes.

Recreation

Recreational use of this tract is minimal. As evidenced by the numerous shotgun shells and even a tree-stand, it is a popular place to hunt. Although the Knobstone Trail is routed through this compartment, none of the trail is located in this tract.

Tract Area Prescriptions – See Tract Prescription Map

Section 1 – Oak-hickory

The basal area in this section is approximately 129 square feet per acre. As suggested by the basal area, this area is overstocked. The size of the timber ranges from pole to large sawtimber. Quality is quite variable from tree to tree. Some trees are completely hollow from past fire and grazing damage, while others are prime stems. Chestnut oak is by far the most common tree in this section with white oak, red oak, black oak, and scarlet oak also very common. Pignut hickory is another very common species in this section. The understory and regeneration for most of this section is heavily dominated by American beech, sassafras, red maple, and sugar maple. One or two areas are understocked and could use a regeneration opening to establish a new fully-stocked stand. Another area contains mostly mature timber, which would also be suitable to a regeneration opening.

Section 2 – Chestnut Oak

The basal area in this section is approximately 115 square feet per acre. Most of this area is overstocked with fair to excellent quality chestnut oak. Although chestnut oak is clearly the dominant overstory tree in this section, some black oak and pignut hickory are scattered throughout. The most common understory trees in this section are sugar maple, American beech, sassafras, and red maple. In areas where the greenbriar is not extremely dense, some one-year-old chestnut oak seedlings have sprouted. This section may present future opportunities for oak regeneration via understory removal. Currently, the overstory needs thinned with a harvest followed by TSI.

Section 3 – Mixed Hardwoods

The basal area in this section is approximately 100 square feet per acre. One area that transitions from mixed hardwoods to oak-hickory near the southwest portion of the tract could use a regeneration opening due to both understocked areas and areas of mature to overmature timber. Much of the understory trees in this section include sugar maple and American beech. Pawpaw, ferns, and spicebush are dominating much of the understory and preventing any advanced regeneration from occurring. The scattered black walnut that are present should be favored when possible because of their scarcity. Except for the previously mentioned opening, the rest of the tract should be currently managed with a single tree selection harvest, followed with a TSI to further release any future crop trees not released by the harvest.

OVERALL

The inventory conducted in July 2007 suggests that this tract contains a total of approximately 8,340 board feet per acre, with 3,383 board feet of that available for harvest and 4,957 board feet per acre to be left. The total harvest volume for this tract could be approximately 243,590 board feet.

The overall recommendation for this tract is to conduct an improvement harvest using single tree and group selection. This harvest should be marked to be sold in the 2009 fiscal year, and should be sold with Compartment 13 Tract 14. See the plan for Tract 14 for more details about that tract. Timber stand improvement should follow within a year of completion of the harvest. The tract should be re-evaluated with another inventory and management guide in approximately 2020. As mentioned above, areas that contain primarily mature timber or are understocked may be suitable for regeneration openings. This harvest should take place within the next 5 years. Timber Stand Improvement will be needed to complete the regeneration openings, to deaden cull trees, and to release any future crop trees which were not released during the harvesting operation. By deadening cull trees which were not harvested, we can create snags in both size classes required by the Indiana bat, thus promoting their potential habitat. Also, white oak will be a very important component of future crop trees beyond the next harvest cycle. By selecting for vigorous, healthy white oak, we can also ensure that we are providing large trees of a preferred species for the Indiana bat. The marking objective is to remove mature/over-mature stems, low quality stems, damaged and defective stems, and stems of less desire in an effort to improve the overall health, vigor, and composition of the stand. The reduced stocking level will provide ample space for pre-selected crop trees to move forward into

the next cutting cycle. A healthier, more vigorous stand with good species composition will be less susceptible to insect and disease infestation, a common problem with unhealthy stands. These management techniques will improve the overall health, vigor and quality of the residual stand, while capitalizing on stems dropping out due to natural mortality from overstocking and maturity.

Wildlife will benefit from this harvest as well. Additional sunlight penetrating the forest floor will stimulate the development of new ground flora, subsequently increasing nesting and foraging habitat. This is essential for game and non-game species as well as continued forest development. TSI can increase snag per acre while diversifying diameter distributions of both snags and growing stock trees.

To submit a comment on this document, click on the following link:
http://www.in.gov/surveytool/public/survey.php?name=dnr_forestry

You **must** indicate "Jackson-Washington C13 T13" 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.

TM 904

RESOURCE MANAGEMENT GUIDE

SPECIFIC PRACTICES FOR ACCOMPLISHMENT

(tree planting, TSI, harvest, special product sales, wildlife work, erosion control, unique areas, recreation, etc.)

Jackson-Washington State Forest
Compartment 13 Tract 13
Date: July 31, 2007

Year Planned	Practice	Year Accomplished
2008	Mark and Sell Timber	
2009-2011	Post-Harvest TSI	
2020	Inventory and Management Guide	

Tract Prescription Map 6351313