TM 903

RESOURCE MANAGEMENT GUIDE

FORESTER'S NARRATIVE

DRAFT

Jackson-Washington State Forest
Compartment 03 Tract 06
Date: July 2007
Forester: Michael Spalding
Management Cycle End Year: 2020 Management Cycle Length: 13 years

Compartment 3 Tract 6 is located ¼ mile south of State Road 250 on Jackson County Road 100 East, approximately ½ mile west of the main entrance to Jackson-Washington State Forest. The north and east boundaries of the tract are Skyline Drive. The eastern boundary of the tract is CR 100 East. Tract 6 is 39.1 acres and ranges from extremely steep slopes covered with chestnut oak to gentler slopes that are severely eroded and abandoned farm fields. The slopes are predominately east and north facing, ranging from 12 to 75 percent. The tract is bordered on the north and east by private landowners, and by the state on the west and south sides.

Access to the tract is excellent. Access is both directly on Jackson County Road 100 East and from Skyline Drive off of CR 100E.

History

Compartment 3 Tract 6 is comprised of parts of four separate land acquisitions. The first acquisition was a 30 acre purchase from Marion and Mable Reinbold on June 19, 1933. The second acquisition was a 5 acre purchase from Clyde and Rosella Shelton on July 28, 1933. The third acquisition was a 41 acre purchase from Ninnie Aulenbacher, William Kopp, Charles Kopp, and Mollie Branaman on September 6, 1934. The fourth acquisition was a 46.5 acre purchase from Wesley, Lois, Salmon, and Ruth Hotchkiss on May 1, 1951 for $600.00.

An inventory in 1971 indicated a total volume of 1,402 bd. ft. per acre with 1,102 bd. ft. per acre to be harvested. The high proportion of harvest stock was due to a 15 acre fire damaged area. In 1974, a salvage harvest from fire damage was performed on 15 acres of this tract. A total of 14,466 board feet in 106 trees was harvested. TSI was performed in 1975. Another inventory was performed in 1984. This cruise indicated a total volume of 3,679 bd. ft. per acre with a harvest volume of 1,091 bd. ft. per acre.

Soils

Seven soil types are present in this tract. Bonnell silt loam (BoD2), 10 to 18 percent slopes, eroded, is a deep and well-drained soil found on uplands. Bonnell has a northern red oak site index of 76. Coolville silt loam (CoD), 12 to 20 percent slopes, is a deep and moderately well-drained soil found on uplands. Coolville has a northern red oak site index of 66. Kurtz silt loam (KtF), 20 to 55 percent slopes, is a deep well-drained soil found on uplands. Kurtz has a northern red oak site index of 70. Gilpin silt loam (GnF), 25 to 55 percent slopes, is a moderately deep and well-drain soil found on uplands. Gilpin has a northern red oak site index of 80. Berks channery silt loam (BeG), 25 to 75 percent slopes, is a moderately deep and well-drained soil found on uplands. Berks has a northern red oak site index of 70. Stonehead silt

loam (SsC2), 4 to 12 percent slopes, eroded, is a deep and moderately well-drained soil. Stonehead has a northern red oak site index of 90. Rarden silty clay loam (RdD3), 12 to 20 percent slopes, severely eroded, is a moderately deep and well-drained soil found on uplands. Rarden has a northern red oak site index of 67.

Wildlife

No notable wildlife species were witnessed during the inventory of this tract. A sighting of a timber rattlesnake occurred in this tract at an unknown date. The nature of this harvest will provide some benefits to the timber rattlesnake. According to The Center for Reptile and Amphibian Conservation and Management, pregnant timber rattlesnakes prefer open canopy and sparsely forested areas while they are pregnant *. By creating regeneration openings and utilizing single-tree selection, we can create these canopy gaps preferred by the very important pregnant female snakes.

*"Timber Rattlesnake: Identification, Status, Ecology, and Conservation in the Midwest." The Center for Reptile and Amphibian Conservation and Management. http://herpcenter.ipfw.edu/outreach/accounts/reptiles/snakes/Timber_Rattlesnake/TimberRattlerFactSheet.pdf December 2003.

Indiana Bat Management Guidelines

The following present values were determined from the inventory:

	Live trees:	**Present**	Goal	Available for Removal
Minimum	11" +dbh	500*	351 *	149
	20" +dbh	104*	117 *	-13
	Snags:	**Present**	Goal	
Minimum	9" +dbh	182	234	-52
	19" +dbh	0	39	-39

* 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 of the snag classes and for the 20"+ DBH live tree class are all below the goal. These numbers could be increased for snags through TSI by deadening the appropriate numbers to achieve the goals. In a typical thinning harvest, snags are not usually marked except for necessary safety or logistical reasons. Timber marking will favor retention of the live tree species preferred by the Indiana bat and minimize their removal. By releasing desired species during a harvest and/or TSI, we can accelerate the growth of desired species into the larger diameter class from the smaller size class.

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 the interior of this tract is minimal; however, Skyline Drive and CR 100 E are frequently used by visitors as well as the local residents. Due to the steep slopes and close proximity to the road, hunters do not frequently hunt in this tract. Skyline drive is utilized by some hikers and bikers. Slygo vista is in the extreme southwest corner of this tract and is used heavily by people for picnics and viewing the scenery. The areas along Skyline Drive, Slygo Vista, and CR 100E may be given special considerations for visual impacts while marking. Due to the steep slopes throughout much of the tract, it may not be possible to avoid placing the log yards along the roads.

Tract Area Descriptions (see map)

Section 1 – Oak-Hickory Dense Understory
The basal area in this section is approximately 123 sq. ft. per acre. This section is characterized by large sawtimber sized oak and hickory with a very dense understory of downy serviceberry, red maple, blackgum, and American beech. The overstory needs a thinning harvest; however, due to the extent of the advanced regeneration, this site is not a good candidate for continued oak-hickory management into the distant future.

Section 2 – Chestnut Oak
The basal area in this section is approximately 127 sq. ft. per acre. This is a typical poor-quality chestnut oak stand with short clear log heights and several trees which are hollow due to fire damage. Red maple was the most common understory tree in this section; however, a large amount of chestnut oak germinated underneath the red maple this year. This section needs an improvement harvest to select out any fire damaged trees and to select for the healthiest trees available.

Section 3 – Pine Plantation
The basal area in this section is approximately 110 sq. ft. per acre. Most of the pine is white pine; however, some are red pine as well. Yellow-poplar and black locust are two of the most common overstory hardwood trees in this area. Sassafras and sugar maple are the two most common understory trees in this section. This area would make a great spot for a regeneration opening; however, care must be taken because this section is along CR 100 E.

Section 4 – Oak-Hickory
The basal area in this section is approximately 114 sq. ft. per acre. Common species in this area include black oak, white oak, chestnut oak, scarlet oak, and pignut hickory. This section needs a thinning harvest to release future crop trees. Ironwood, sassafras, and red maple are some of the most common understory trees in this section. One potential regeneration opening could be created near the west side on the upper slopes. In the area of the opening, there are more yellow-poplar and sugar maple than what is found on the rest of the tract.

Section 5 – Old Field
The basal area in this section is approximately 73 sq. ft. per acre. The soils in this section are very poor due to extensive erosion from the past history as either a field or pasture. Common

overstory species include sugar maple, black locust, American elm, and yellow-poplar. American beech is the most common understory tree with sugar maple, sassafras, and black cherry. Few of the trees are sawtimber size, likely due a combination of poor soils and young age of the trees.

Section 6 – White Oak / Chestnut Oak
The basal area in this section is approximately 130 sq. ft. per acre. As this section is lower on the slope, the soils are better than in Section 2. This area contains a high stocking of medium to large white oak and chestnut oak, much of which are excellent quality. At this time, this area simply needs a thinning harvest to keep the stand healthy and growing.

OVERALL

The total volume per acre estimated by the inventory is 7,264 board feet, with a per acre estimate of 2,387 board feet to harvest and 4,877 board feet to retain. Also, there are approximately 99 trees per acre with the inventory showing about 24 per acre to be harvested. The overall recommendation for this tract is to conduct an improvement harvest using single tree and group selection. As mentioned above, one area that contains primarily mature timber may be suitable for a regeneration opening. The white pine plantation should also be examined more closely for a possible regeneration opening. This harvest should be marked to be sold in the 2009 fiscal year or possibly in the 2010 fiscal year. Timber Stand Improvement should be performed within a year following completion of the harvest to complete any 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 will increase snag per acre while diversifying diameter distributions of both snags and growing stock trees.

Another inventory should be performed and management plan completed in 2020 to evaluate the condition of the tract at that time.

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SPECIFIC PRACTICES FOR ACCOMPLISHMENT

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

Jackson-Washington State Forest
Compartment 03 Tract 06
Date: July 20, 2007

Year Planned	Practice	Year Accomplished
2009	Mark Timber	
2009 or 2010	Sell Timber	
2011-2012	Post Harvest TSI	
2020	Inventory and new management plan	

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Tract Area Map