

## RESOURCE MANAGEMENT GUIDE

State Forest: Morgan-Monroe  
Forester: D. Potts  
Management Cycle End Year: 2029

Compartment: 11      Tract: 15  
Date: 1/27/2009  
Management Cycle Length: 20 years

### Location

This tract is located in Section 15 T10N R1W of Monroe County, commonly known as Compartment 11 Tract 15 of Morgan-Monroe State Forest. This particular tract is accessible off of Chambers Pike Road approximately one half mile east of State Highway 37. Chambers Pike Road is about six miles south of Martinsville, Indiana.

### General Description

This tract includes 83 acres of which all are in commercial forestland. The predominant cover type within this tract is hardwood forest; however there is a Virginia pine plantation.

### History

This tract has been actively managed for many years. Virginia pines were probably planted in the late 1930's, the area of plantation & date is unknown. Prior to 1980, the current tract was comprised of Old Compartment 21 Tracts 2,4,5 and they were quickcruised in the early 1970's. Present volumes per acre then averaged from 2,200 to 4,000 BF/A. A timber sale was marked & sold on 11/13/78 on Old C21 T2,4 (West aspect of current tract, E ridge of current tract 14) wherein an estimated 78,770 Bd. Ft. was sold for \$9,452.40. Tract boundaries were changed to the present configuration in February of 1980. The present tract acreage was inventoried by Forester Breedlove on 11/6/85 and determined to have sufficient volume and stocking for harvest. Roadwork into the tract and tracts to the south was completed by Fire Headquarters on 12/17/85. A combined tract sale of the east ½ of the present tract and most of tract 18 was marked & sold by Forester Breedlove to Crone Lumber Company of Martinsville, Indiana on 9/17/87. The complete tally for this combined sale was 107,260 Bd. Ft. however a separate tally of the volume that was derived from Tract 15 is unavailable. This combined tract sale generated \$11,830.00 of revenue. Timber stand improvement (TSI) of this 2<sup>nd</sup> sale area was completed in 1989. The most recent tract activity was a forest inventory completed by Potts on July 7, 2008.

### Topography, Geology and Hydrology

This tract consists of a main north to south ridge. To the west of the ridge lies a mapped intermittent stream, which is also the tract's western border. The stream flows into Beanblossom Creek and then eventually into the White River, it lies within the Beanblossom watershed. The tract contains moderate to steep slopes.

### Soils

**Berks Weikert complex** (BkF) 25-75% slope. Some harvest limitations due to slope. This soil type is about 75% of the tract.

**Wellston-Gilpin silt loam** (WmC) 6-20% slope. Slight harvest limitation due to erosion potential. About 10% of tract.

**Crider Silt loam** (CrC) 6-12% slope. Very minimal harvest limitation due to erosion potential. About 10% of tract.

**Bedford silt loam** (BdB) 2-6% slope. Very minimal harvest limitation due to erosion potential. Less than 10% of tract.

**Access**

This tract is accessible from Chambers Pike through 6371114. This access road was used for the previous harvests. At present the culvert crossing has eroded and will need repair before the tract can be accessed with wheeled vehicles. Within the tract some skid trails exist however modest improvements are planned prior to the harvest operation.

**Boundaries**

This tract is bordered by State Forest property to the north, south and west. The eastern border is a private property line and is well marked with orange paint. The western boundary follows a mapped intermittent stream. The northern boundary follows an unmapped intermittent drainage. The tract boundaries will need to be marked prior to harvest operations.

**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 gray squirrel, fox squirrel, chipmunks and various songbirds.

**Indiana Bat Habitat Guidelines**

<b>Live Trees -Entire Tract- Desired Species Only*</b>			
	Required	Inventory	Available For Removal
11" DBH+	742.5	1172	429
20" DBH+	247.5	359	112
<b>Snags-Entire Tract-All Species</b>			
9" DBH+	495	145	-350
19" DBH+	82.5	9	-74

\*Desired Species Include: AME, BIH, BLA, BLL, BLO, COT, GRA, REO, POO, REE, SAS, SHH, ZSH, SHO, SIM, WHA, WHO

**Communities**

The Natural Heritage Database Review of 2009 did not indicate any species or communities of concern within or nearby this tract.

**Recreation**

This tract has many possibilities for recreation 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 will be avoided during any management or construction projects.

## Tract Silvicultural Prescription

Overall this tract has three dominant timber types: oak-hickory mixed with yellow poplar, Virginia pine, and sugar maple-American beech. These will be discussed specifically within the tract subdivision silvicultural prescription. Sawtimber species composition for the entire tract is as follows: 33% oak (northern red oak, black oak, white oak, scarlet oak, and chinquapin oak), 13% yellow poplar, 10% Virginia pine, 9% sugar maple, 7% largetooth aspen, 6% hickory (pignut hickory and shagbark hickory), 5% sassafras, and 5% red maple. According to the Gingrich stocking guide the tract is fully stocked at 75%. The tract contains 118 trees/acre and has an average overall basal area per acre of 91.1 square feet. The average tree diameter is 12 inches. Understory regeneration is composed primarily of American beech, red maple, and sugar maple. According to the most recent tract inventory (July of 2008) the total Board Feet per acre (Bd.Ft./ac) is 6,680 and the total number of trees per acre is 364. For the overall tract the harvest volume per acre is 3,220 Bd.Ft/ac and the number of trees harvested per acre is 22. Based on this information a harvest is recommended to remove mature declining and poor quality trees. The main objective of this harvest is to retain the oak-hickory timber type within this tract.

### Harvest/Leave species and volume (Bd. Ft) from July 2008 inventory.

Species	Harvest	Leave	Total
yellow poplar	63560	52660	116220
black oak	47010	66130	113140
white oak	9300	66080	75380
largetooth aspen	29440	3940	33380
sugar maple	14450	13810	28260
northern red oak	9790	14310	24100
pignut hickory	10790	12160	22950
blackgum	8210	14350	22560
scarlet oak	11700	7940	19640
American beech	16530	1790	18320
red maple	11470	6810	18280
Virginia pine	13690	3410	17100
bitternut hickory	5420	7410	12830
shagbark hickory	1750	9020	10770
sassafras	7630	2740	10370
chinquapin oak	2030	0	2030
white ash	1990	0	1990
black cherry	930	930	1860
American sycamore		1800	1800
<b>Tract Total</b>	<b>265,690</b>	<b>285,290</b>	<b>550,980</b>
<b>Tract Average/Acre</b>	<b>3,220</b>	<b>3,460</b>	<b>6,680</b>

## **Tract Subdivision Description**

### Area A: Oak-Hickory/Yellow Poplar stand

The oak-hickory with mixed yellow poplar stand comprises 70% of the total tract, containing about 60 acres. Topography for this area ranges from ridgetops to sideslopes to drainages. The dominant sawtimber species composition for this area is as follows: 40% oak (northern red oak, black oak, white oak, scarlet oak, and chinquapin oak), 13% hickory (pignut hickory and shagbark hickory), 10% yellow poplar, 7% sugar maple, 6% largetooth aspen, 6% blackgum, and 6% sassafras. Understory composition within this area is dominated by American beech, sugar maple, and red maple. The stocking guide indicates that this area is fully stocked at 80% stocking, with 117 trees/acre and the average tree diameter being 12.5 inches. According to the inventory data the harvest volume is 3,370 Bd.Ft./ac with 22 trees being removed per acre. An improvement harvest is recommended for this area. Single tree selection and group selection openings can also occur within this area.

### Area B: Virginia pine stand

The Virginia pine stand is primarily located in the northeastern portion of this tract. This area is mostly along the main ridgetop and some side slopes. This old Virginia pine plantation was probably planted in the late 1930's to control erosion. The pine appears to have stagnated and would most likely not respond to a release. The pine can be left to naturally decline and eventually be replaced by hardwoods or it could be removed in a group selection opening. West of the Virginia pine stand is an area of older, mature red maple/yellow poplar and oak stand that would benefit from an opening. This area could be combined with the Virginia pine stand for a several acre group selection opening. The dominant sawtimber species composition for this area is as follows: 42% Virginia pine, 19% yellow poplar. According to the Gingrich stocking guide this area is fully stocked at 99% with 116 sq. ft. of basal area per acre and the average tree diameter being 10 inches.

### Area C: Sugar Maple-American Beech stand

The sugar maple-American beech area is located at the southern and western portion of this tract. This area is located in the bottomlands and sideslopes that lie adjacent to the intermittent stream. The dominant sawtimber species composition within this area is as follows: 23% American beech, 21% sugar maple, 17% bitternut hickory, 14% yellow poplar, 9% largetooth aspen, and 6% American sycamore. According to the Gingrich stocking guide this area is fully stocked at 74%. The average tree diameter is 13 inches with the total number of trees per acre at 95. The basal area is 92.5 sq.ft./acre. The understory in this area is dominated by sugar maple, shagbark hickory, blackgum and black cherry. An improvement harvest would remove overstory mature and damaged/declining trees to promote overall health of the remaining stand. Best management practices (BMP's) will be followed during the harvest to ensure protection of all soil and water resources. These guidelines will be especially important in the beech-maple harvest area as it is adjacent to an intermittent stream.

## **Summary Tract Silvicultural Prescription**

Overall a harvest is recommended for this entire tract. An improvement harvest with some group selection openings will promote the health and vigor of the tract's existing

forest stands. The tract currently has an estimated 550,980 Bd. Ft. of harvestable timber. The recommended harvest volume is 265,680 bd. ft., with the remaining 285,300 bd. ft. as growing stock. This would reduce the present basal area per acre to 74 sq. ft. which leaves the unregenerated stands within the guidelines of full stocking in the Gingrich stocking guide.

### **Proposed Activities Listing**

<u>Proposed Management Activity</u>	<u>Proposed Date</u>
Timber marking	Spring 2009
Tract boundary marking	Spring 2009
Timber sale	Summer 2009
Post harvest TSI	2011/2012

### **Attachments**

Topographic map with tract boundary  
Tract subdivision map

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