Indiana Department of Natural Resources - Division of Forestry
Morgan-Monroe State Forest
Compartment 19 Tract 18
Foresters Narrative

Multiple-use Practices MM 1918

The most recent inventory was done 05-17-05 which yielded a tract with 115.5% stocking, 1826 bd. ft. /acre harvest and 4763.4 bd. ft. /acre present volume. Basal area is 108 sq. ft.

The land occupying this tract was purchased from IPL in 2004. This tract falls in 4 different sections and previous to IPL purchase had 3 different owners that managed their timber differently. Near the center of this tract is where the sections converge. Prior to IPL purchase in 70's each of these parcels were cut over very heavily. Many areas have had TSI performed on them but more TSI is needed to kill vines and further release high quality hardwoods. Several BLW areas near the bottomlands need pruning and TSI work. Inventory points timber typed to YEP, B-M or mixed hardwoods. This is not the typical oak-hickory timber stand we routinely work in.

There is one primary ridgetop road which needs improved to allow access. Other roads need to be constructed to allow better tract access. Most of the tract is timbered but some areas on the ridgetop are open and may be planted to trees. Lower meadow areas also could be planted.

Wildlife resources are abundant on this tract. Most commonly observed species include: white-tailed deer, various song birds, squirrel, turkey, grouse, raccoon and many other small mammals. Our timber management utilizes intermediate cuts and group selection along with best management practices to provide habitat requirements for a large variety of forest dwelling species. Large snags greater than 16 inches will be girdled and left standing in our group selection areas. An appropriate number of hickories, mast producing species and den trees will be retained to provide additional habitat benefits.

The tract soils are made up of 6 types: Banlic, Chetwynd, Parke, Pekin, Pike and Wakeland silt loam soils. Soils are well drained to poorly drained; depending upon tract locaton, suited to tree growth and usually found in timbered areas. These soils are not well suited to building sites due to steep slopes or fragipans which limit basement construction. These soils are typical forest soils. The Chetwynd soil is the steepest with slopes of 18-80%. The Parke, Pekin and Pike soils are relatively flat and found as ridgetops. The Banlic and Wakeland soils are bottomland soils and are often flooded. The Chetwynd soil has the greatest management concerns but these can be controlled using good logging techniques and proper close out methods. All soils allow for adequate regeneration of timber species.

Boundaries for this tract are: a ridgetop on the east, Duckworth Road on the west, a narrow ridgetop on the south and ephemeral drainages to the north. This tract is

protected from wildfire by aerial surveillance during fire seasons and has a good neighborhood reporting system.

Silvicultural Prescription

Property Morgan Monroe State Forest C-T 1918 Acres 62

This tract consists of 1 major ridgetop running north and south with slopes and coves extending westward into ephemeral drainages. The tracts boundaries are Duckworth Road on the west, a major ridgetop on the east with ephemeral drainages on the north and a narrow ridge to the south There are no private property boundary lines. An old roadway lies atop the major ridge.

The field inventory was conducted on 05-17-05. The inventory yielded the following information:

Total tract acreage	62 acres	Present volume/ acre	4763.4 bd. ft.
BA/A	108 sq. ft.	Harvest volume/ acre	1826.0 bd. ft.
# trees/A	646	Residual volume/ acre	2937.4 bd. ft.
Stocking	115.5%	Average size tree =	5.6" in diameter

Much of the ridgetop adjacent to the MPR is a meadow with groves of WHA, SAS, YEP, REM and SUM. On the slopes and coves can be found mixed oak and hickory and other high value hardwoods. There are many different aged stands of YEP throughout the tract leading to the different management by different landowners. TSI has been performed on many areas of the tract. More TSI is needed in BLW areas on lower slopes. The major ridgetop should be planted to appropriate tree species and much of the lower meadow also needs planting.

The tract needs an improvement harvest removing mature and large undesirable sawtimber in order to release smaller sawtimber and pole size trees, (specifically high quality trees). The goal is to reduce stand density and allow remaining trees to occupy the stand canopy and become the next rotation of crop trees. Group selection openings are prescribed on the southwest facing slopes to remove damaged and diseased trees.

Following the harvest; the tract will be closed out according to BMP guidelines.

Timber Stand Improvement work will be accomplished in group selection openings and other areas needing vine removal and additional release work. Pruning of BLW will increase their future value.

Six years after final closeout review the tract for compliance to prescription.

25 years after closeout re-inventory the tract for management purposes.

INDIANA DIVISION OF FORESTRY
FOREST MANAGEMENT
BAT MANAGEMENT GUIDELINES

Forester: _Bill Hahn_____ Date Guideline completed: _06-01-05_____
Morgan Monroe_State Forest, Compartment __19___ Tract _18_____ Section 4,5,32,33

1) What previous forest management activities have occurred on this tract? Land purchased by IPL in 70's; Tracts purchased were generally heavily cut prior to IPL ownership; TSI has generally been performed on portions of the purchased tracts; One timber sale as recently as 2000 was made on northern edge of what is now this tract; 05-17-05 this redrawn tract (from 3 different owners) was inventoried and wildlife reviewed.

2) Does the field inventory show a diversity of timber age and size classes? yes X no ___

3) What is the stocking per acre? ____115.5___%

4) What is the average tree size per acre? ___5.6"____ dbh

5) Live trees per acre > or = 11" dbh _43.1__> or = 20" dbh __8.2___

6) Snags per acre > or = 9" dbh __.3____> or = 19" dbh __.3____

7) Was there any evidence of Indiana Bat activity during the timber inventory?
yes _____ no __X_____. What evidence?

8) Riparian corridor:
Perennial streams or rivers __0___% 100' buffer
Intermittent streams ____0___ % 50' buffer

9) Are there any known Indiana Bat hibernacula within 5 miles of this tract?
yes _____ no __X_____. How is this being managed?

10) What type timber harvest does the field inventory indicate? AH 355.
An improvement harvest is recommended for this tract to remove mature and large undesirable sawtimber trees. The harvest will improve species composition, quality and tree vigor.

11) What steps will be taken to minimize the impact on potential Indiana Bat habitat?

The Division of Forestry will follow the adopted management strategy for conservation_
and enhancement of the Indiana Bat on state forest properties (January 2001)._____

Indiana Division of Forestry
Forest Resource Management
Wildlife Review Checklist – Revised April 2005

Date of Review: 05-17-05

State Forest: Morgan Monroe State Forest

Forester: Bill Hahn
Compartment: 19 ***Township:*** 11-12 –N
Tract(s): 18 **Range:** 1-W
Total Acres: 62 **Section(s):** 4,5,32,33

2.5 Mile Matrix Information

1. Does the Natural Heritage Database identify any Endangered, Threatened or Rare species or "significant areas" documented from this tract or nearby?

2. Describe the vegetative cover/land use matrix within a 2.5 mile radius of this tract:

   a. A majority of the land within the matrix area is __ publicly owned, X privately owned. (mark one)

   b. Which of the following land cover types are present in the matrix area (mark all that can be easily identified as present from aerial photos, use two marks to identify the most prevalent type)?

      XX Closed-canopy forest
      _X Brushy/early successional areas
      X Open fields
      __ Open water
      _X_ Developed areas

   C. Does tract contain any habitat/habitat type, which is otherwise missing or poorly represented within the 2.5 mile radius matrix area? No

   If yes, explain:

   D. Has the land use pattern within the matrix area shown obvious significant change within the last 15 years? Yes

Some open brushy areas and some slightly timbered areas have been converted to open fields for row crops. Other areas; particularly adjacent to county roadways, have been developed into residential property. Some areas; back in against what is now state forest ownership, has been developed into residential areas and roadways and septic areas have been developed on soils not suited for septic sites.

Some timbered areas have been storm damaged.

Tract Wildlife Information

3. Have there been documented sightings or other evidence of current or recent past (20 years) occurrences of rare, threatened or endangered species within this tract? No

4. List the expected short term (<5 years) and long term (>5 years) effects the proposed forest resource management activities will have on the following **habitat types within this tract**:

Recommendations for the tract include but are not limited to: Improvement harvest, new road and log yard construction, reconstruction of old roadways, planting of ridge tops and low meadows and TSI in ridge tops, several different aged yellow poplar stands and black walnut areas in coves adjacent to bottomland drainages.

A. Closed canopy forest

Short term: One log yard will be created along with 1500' new constructed and 1500' existing roadways. Group selection openings may be created in marking timber for harvest. The roads and roadways should close fairly rapidly.

Long term: The group selection openings will create areas of early succession, that will benefit early succession mammals and birds. Timber species should change to a larger component of oaks with removal of beech, yellow poplar, red and sugar maple and red, black and white oaks.

B. Understory woody vegetation

Short term: Increase in density, growth and vigor of dogwood, sassafrass, beech and sugar maple due to canopy gaps. Advanced regeneration of sassafrass, beech and sugar maple will be greatly enhanced

Long term: Succession towards a more beech-maple timber type in canopy gaps and particularly group selection openings. TSI in openings will need to concentrate on deadening these species and releasing oaks, ash and black cherry.

C. Herbaceous vegetation

Short term: Increase in abundance and species diversity due to canopy gaps and roadwork.

Long term: No apparent change from present populations and diversity.

D. Streams, Lakes and Ponds Several ephemeral streams on the tract.

Short term: Minimal harvesting adjacent to possible intermittent streams. Some short-term runoff expected to streambeds.

Long term: Harvest, construction and TSI should have no long term effect.

E. Subterranean All soils appear to be well or moderately well drained.

5. List any conditions that would suggest that the management proposal for this tract would require further evaluation by any additional wildlife management specialists.

6. Were any additions, changes or amendments made to the proposed forest resource management activities specifically to enhance or protect wildlife populations or wildlife habitat?

Recommendations were made for additional planting of trees on the ridge tops and in the bottomland meadows. Some of these plantings could be to enhance wildlife populations. Several group selection openings will be created during the marking and harvesting of this sale in order to remove mature and undesirable large sawtimber trees. This will provide areas within the forest canopy for early succession mammals and birds. There are adjacent areas on this tract where large opening exist but few within the closed canopy forest.

Additional Comments:

Evidence of the following species were either observed or heard during the field review of tract(s):

Turkey scratching over most of the tract. Deer trails and recent hoof prints in soft soils on or near the trails. Many birds chirping and waterfowl in lower meadow area

References cited:

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You **must** indicate the State Forest Name, Compartment Number and Tract Number 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.