.TM 902 6-25-06

RESOURCE MANAGEMENT GUIDE

Compartment: 7	Tract: 1	Acreage: 72.7	
County: Martin	Section: 14, 23, 24	Township: 3N	Range: 3W

FORESTER'S NARRATIVE

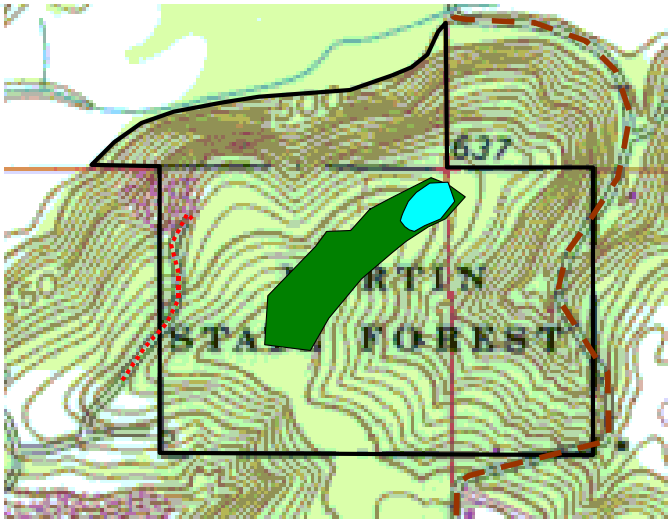
By: Andrew S Fox

Reviewed and amended by: Abe Bear (12-11-08)

(Describe the area / timber / wildlife - Present stand, soils, regeneration potential, condition, timber types, private boundaries, forest protection, etc.)

ROADS AND BOUNDARIES:

Several of the boundaries on this tract have no definite geographical formations but most have been well marked by state officials. A cornerstone was laid in the southeastern corner with fence posts running up to it from the north. Most of the northern edge of the tract follows the south fork of Beaver Creek, right along a ridge base. This northern most boundary runs west for about a half mile from the point where Beaver Creek intersects Buckley Rd. From this point the boundary runs south for less than a quarter-mile along a section line, and turns again to the east along another section line. Fence posts and signs are posted along these two short boundaries. The southern and western boundaries are not distinctly marked. The southern boundary runs west from the southeast corner for about a half-mile, or a little more, and is marked for a couple hundred feet by fence posts. The western boarder runs north for about a third of a mile to the section line where it makes a short jog west and intersects with the northern boundary. The northwestern corner is quite noticeable as it borders an area where U.S. Gypsum dumped the slag from the mills.



This tract has two roads that run through it, one of which is private and the other a county road. The county road, marked on the map in brown, and just recently had its named changed to Buckley Rd. The previous name was not commonly known. This road is gravel and maintained on a regular basis. The second road, found on the map in red along the western border in the tract, is a right of way owned by U.S. Gypsum that was used for access in order to dump slag from their mine on their land, and a little on the state land.

TRACT DESCRIPTION:

An oak-hickory forest type that contains 45 percent of the total inventoried sawtimber dominates this tract. Maple-beech species are dominate in the pole size trees with sugar maple alone having 43 percent of the inventoried pole timber volume. There are many areas of good timber in this tract, especially along the southern and eastern boarders. These areas of decent timber should be thinned in the near future to maintain good growing conditions. A majority of the tract could use at least another 10 to 15 years to mature to a stage that would be well suited for a timber harvest worthy of the time and

preparations that it would require.

Throughout this tract there are numerous grapevines that are well established, especially around the many blow-down areas. The blow downs have made for many areas of very dense growth that is at times impassible. The largest of these is near the northeast corner of the tract, marked in sky blue in the map above, and has an area of about two to four acres in the middle of a pine plantation. One large plantation was present along the ridgetop, almost directly in the middle of the tract. Fire was only evident in a couple areas in the tract and was not seen to be a major concern for timber value.

While the majority of the stand is dominated by hardwoods, there is a Virginia pine plantation of about 4.5 acres on the broad ridge top near the center of the tract. While the value of the pine is low, it has provided favorable conditions for the establishment of oak seedlings.

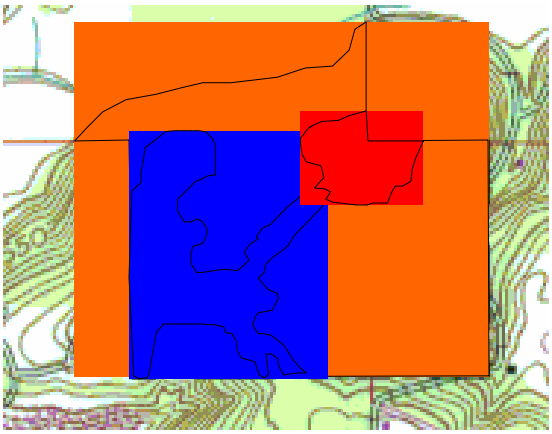
Despite the good county road on the eastern side of the tract, timber access is difficult due to the steep hillside leading down to the road. Attempts are underway to gain access from the south through US Gypsum property. If this easement is granted, a new firelane may be constructed to allow better access.

Logging in the northwest corner of this tract is seen to be nearly impossible as the terrain in this area is very steep. The only possible way to harvest here would be to fell the trees down hill and collect them at the bottom or to pull the trees up the hill by cable.

SOILS:

There are three major soil types on this tract the most abundant of which is the Wellston-Berks-Gilpin complex, 18-70 percent slopes (orange on the map). These well-drained soils are found on most of the side slopes and are characteristically deep to moderately deep. The surface layer is typically silt or channery silt loam and the subsoil is roughly 36” deep. Permeability is moderate to moderately rapid, and surface runoff is rapid to very rapid. Organic matter content in the surface layer is moderate to moderately low. Erosion hazards are moderate to severe on these soils, but can be compensated for by using gentle grades for skid trails and by installing water bars and outsloping the roads to remove water.

The second most common soil type on this tract is, Zanesville silt loam, 2 to 6 percent slopes (blue on the map). It is a gently sloping, deep, well drained to moderately well drained soil found on the ridgetops. The surface layer is an eight-inch thick brown silt loam underlain by a roughly three-foot thick silty clay loam subsoil. A firm fragipan, which restricts root penetration, exists in the lower part of the subsoil. In some areas, the lower portion of the subsoil is extremely acid. Available water capacity is moderate and permeability is moderate above the fragipan and slow in the fragipan. This slow permeability restricts downward water movement through the soil and often results in the soil being saturated in the winter and spring. Surface runoff is medium. Organic matter content in the surface layer is moderate. Erosion hazards and equipment limitations are slight for this soil; however, winter/spring logging may be restricted due to the saturated soil conditions.



The last major soil type on this tract is Wellston silt loam, 6 to 12 percent slopes, eroded (red on the map). This is a moderately sloping, deep, well-drained soil, found on some ridgetops and side slopes. The surface layer is typically a three to six-inch thick layer of grayish brown silt loam. The subsoil is around 42 inches and is a friable silt loam. Available water capacity is high and permeability is moderate. Surface runoff is rapid, requiring measures such as water turnouts and bars to properly remove water from roads and yards. The organic matter content is moderate in the surface layer. Erosion and equipment use hazards are slight on this soil.

HISTORY:

This tract was purchased by the state from two residents of Martin County nearly sixty years apart. The majority of the tract was bought from a couple by the name of William and Mary Strange, as part of the 145 acres that they sold for a sum of $1040.71, in the 1940's. The second portion of the tract was purchased in 2002 from Kate H. Dickey when she sold a total of 197 acres for a total of $238,000.00. Kate H. Dickey's land was purchased with some of the Heritage Trust Foundation money set aside each year from the sale DNR license plates, and other various funds.

Ben Hubbard, who found a total of 65,550 bd. Ft. within the tract, inventoried this tract in Aug. of 1975. Mr. Hubbard states in his inventory report that the " timber production potential of this tract is limited at this time by both size and stocking, but the wildlife potential is rather high." On July 3, 1990 a timber trespass was observed and reported in the southeastern corner of the tract. It consisted of approx. 26 trees, mostly oaks, and a few other non-merchantable trees. No harvest was ever preformed on the tract by the state.

In preparation for the installation of a new firelane, log yard, and skid trails, an Archaeological Records Review was completed in December of 2008. 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.

RECREATION AND WILDLIFE:

This tract is an excellent site for wildlife habitat. The tract has many different cover types ranging from low, open, creek beds with steep high walls to areas of dense ridgetop blow downs. The dense blow downs not only provide shelter but also a great source of food from raspberries to browse. There is a perennial stream that runs along the northern edge of this tract providing a good source of water.

Recreation on this tract is limited to hunting and gathering as there are no fire lanes on this tract for hiking. The steep rocky cliffs and distinct forest cover changes, offer excellent hunting positions, and lend many opportunities for mushroom hunting.

WATERSHED:

There are three directions of flow on this tract, all stemming from the central ridge in the tract. Water in the southwestern portion of the tract flows southwest down what used to be a rather large drainage, but is now an open field. The drainage has been filled in with slag from the USG plant. Water in the eastern half of the tract flows north from the southern border and east from the middle of the tract, both emptying into a rather large drainage. This large drainage flows north and empties into Beaver Creek. Water from the entire northern portion of the parcel flows north, directly into Beaver Creek. Beaver Creek flows west and eventually empties into the East Fork of the White River, which is the major waterway for the region. Erosion is a large concern on this tract and in order to reduce its effect, any harvesting operation will implement BMPs. Special considerations will be taken to prevent soil loss, especially along the northern border where erosion would empty directly into Beaver Creek.

SURROUNDING LANDSCAPE:

The vast majority of land surrounding this parcel is forested. Scattered small agricultural fields are present within a one mile radius, but none border this tract. Martin State Forest encompasses several thousand acres to north of this parcel. The only exception to the forested landscape is the US Gypsum plant just west of the tract.

TM 901 Cruised by: Andy Fox and Darren Bridges

Date: 6/25/06

RESOURCE MANAGEMENT GUIDE

STATE FOREST: Martin COMPARTMENT: 07 TRACT: 01

INVENTORY SUMMARY

ACREAGE IN:

Commercial Forest:	72.7	Average Site Index:	70.0
Non-Commercial Forest	0.0	Average Annual Growth	
Recreation Use:	0.0	Total B.A. / Acre	99.3
Permanent Openings:	0.0	B.A. - Trees ≥14"	55.4
Other Openings:	0.0	B.A. - Trees <14"	27.2
TOTAL AREA:	72.7		

(Estimated Tract Volumes for Commercial Forest Area - Bd. Ft., Doyle Rule)

Species	Growing Stock	Harvest Stock	Total Volume
Yellow-poplar	84,070	43,380	127,450
Sugar Maple	11,790	38,610	50,400
Black Oak	38,840	37,450	76,290
White Oak	20,830	23,760	44,590
White Ash	20,580	15,660	36,240
American Beech	0.0	11,030	11,030
Pignut Hickory	4,250	5,660	9,910
Shagbark Hickory	13,800	4,240	27,950
N Red Oak	32,310	3,910	36,220
Scarlet Oak	5,890	3,710	9,600
Black Cherry	0.0	3,520	3,520
Virginia Pine	0.0	3,420	3,420
Chinkapin Oak	14, 430	3,190	17,620
Honeylocust	0.0	2,640	2,640
American Sycamore	0.0	1,860	1,860
Black Walnut	7,620	0.0	7,620
Red Maple	5,220	0.0	5,220
Red Elm	3,950	0.0	3,950
Sassafras	2,990	0.0	2,990
Eastern Red Cedar	1,380	0.0	1,380
TOTALS (tract)	267,950	202,040	470,010
TOTALS (per acre)	3,722	2,779	6,465

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

Date of Review:	6/26/06		
State Forest:	Martin State Forest		
Inspected By:	Andrew S. Fox		
Compartment:	C7	**Township:**	3 North
Tract(s):	T1	**Range:**	3 West
Total Acres:	72.7	**Section(s):**	23, 24, & 14

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 _X_ publicly owned, __ 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
      __ 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? Yes/No

   No

   D. Has the land use pattern within the matrix area shown obvious significant change within the last 15 years? Yes/No

   No

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?

   Not to my knowledge.

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**:

   A. Closed canopy forest

Short term: The canopy cover should decrease anywhere from 0-20%, unless there is a regeneration opening made which will remove canopy cover completely.

Long term: None, except for regeneration openings, which will slowly begin to close (15-20+ yrs).

B. Understory woody vegetation

Short term: An increase of growth rates and density is expected to take place in equal proportions to that of the amount of sun light and moisture allowed through due to a more open canopy.

Long term: Same as above, with diminishing effects over time.

C. Herbaceous vegetation

Short term: Increased growth rates and density in areas that receive more light and moisture through opened canopy cover.

Long term: Same as above, with diminishing effects as canopy closes.

D. Streams, Lakes and Ponds

Short term: None

Long term: None

E. Subterranean None

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

   None

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?

   No

Additional Comments:

Evidence of the following species were either observed or heard during the field review of tract(s):
Turtles, frogs, snakes, deer, turkeys, raccoons, coyotes, various songbirds

Date: 8/3/06 **Compartment 07** **Tract 01**

ADDENDUM TO ADDRESS INDIANA BAT MANAGEMENT STRATEGY

(Discuss any adjustments to management activities that are needed to comply with guidelines.)

GUIDELINES--

- *3 live trees per acre 20+ inches DBH and (an additional) 6 live trees per acre 11+ inches DBH (of species with desired characteristics.(i.e. – shagbark, shellbark and bitternut hickory, black, green and white ash, shingle, post, white and northern red oak, slippery and American elm, black locust, eastern cottonwood, silver maple and sassafras).*
- *5 snags per acre 9+ inches DBH and (an additional) 1 snag per acre 19+ inches DBH.*

Snag Trees

The inventory indicated that there were a total of 2.3 snag trees, of the preferred species, per acre greater than 9" DBH; bat management plan guidelines call for five trees per acre. The inventory also showed that there was only .1 trees per acre of a DBH at 19" or greater of the preferred species; the guidelines call for one per acre.

In order to comply with the bat management plan an additional 3 sang trees greater than 9" will be created per acre, and in addition one snag tree 19" or greater will be created per acre. These trees will be marked and deadened as part of the post harvest TSI operation.

Live Trees

The bat management guidelines call for at least three live trees of preferred species per acre greater than twenty inches DBH and an additional six live trees per acre greater than eleven inches DBH. The inventory indicated that there are 8.5 trees of preferred species greater than 11" DBH per acre and 1.4 trees per acre greater than 20" DBH in the leave category. To bring this tract into compliance with the bat management policy adjustments such as leaving two additional tree 20 inches DBH per every two acres.

TM 903 12-11-08

SILVICULTURAL PRESCRIPTION

By: Andrew S Fox

Reviewed by: Abe Bear

(Describe silvicultural practices needed [if any] - harvest, TSI, tree planting, wildlife habitat, erosion control, natural regeneration, etc.)

Currently, there is not enough volume to warrant a timber harvest. Although some trees would benefit from release, the value would not be great enough to interest a buyer. Instead, a TSI operation would be a better option. The focus of this effort would be grapevines and crop tree release across the tract. In the pine plantation, the TSI effort should also remove understory saplings in competition with the young oak.

A second inventory should be made on this tract in ten to twelve years to assess the progress of the crop tree growth and quality, and the growth of areas within major blow downs and pine plantations.

Installation of a firelane to provide timber access and wildfire control is a priority on this tract. An easement must be granted to the state from US Gypsum allowing access through their holdings near the southern boundry. The process to gain access has begun and hopefully land construction can begin in 2009.

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 "Martin C7 T11" 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.