

Indiana Department of Natural Resources
Division of Forestry

DRAFT

RESOURCE MANAGEMENT GUIDE TM 901, 902, 903, 904	<input type="button" value="Delete"/>	<input type="button" value="New"/>	<input type="button" value="Print"/>
State Forest: <input type="text" value="Ferdinand"/>	Forester: <input type="text" value="K.Voiles"/>		
Compartment: <input type="text" value="7"/>	Date: <input type="text" value="7/8/2012"/>		
Tract: <input type="text" value="9"/>			

INVENTORY SUMMARY			
Commercial Forest Acreage:	<input type="text" value="122.00"/>	Average Site Index:	<input type="text" value="72"/>
Non-Commercial Forest:	<input type="text" value="0.00"/>	Average Annual Growth:	<input type="text" value="0"/>
Recreation Use Acreage:	<input type="text" value="0.00"/>		
Permanent Openings:	<input type="text" value="0.00"/>	BA (Trees > 10"):	<input type="text" value="50.10"/>
Acreage in Other Uses:	<input type="text" value="0.00"/>	BA (Trees < 10"):	<input type="text" value="16.30"/>
TOTAL AREA:	<input type="text" value="122.00"/>	Total BA / Acre	<input type="text" value="66.40"/>

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

Species	Growing Stock	Harvest Stock	Total Volume
AMB	6420	14040	20460
SYC	3310	19830	23140
BIH	8370	9880	18250
BLC	5740	9540	15280
BLG	0	4040	4040
BLO	7400	34040	41440
BLW	18560	3670	22230
WHP	295570	324450	620020
LAA	0	2820	2820
REO	17210	44720	61930
PIH	7680	16420	24100
REM	0	11760	11760
REP	1340	4180	5520
SAS	970	0	970
SCO	0	15160	15160
SHH	9930	3760	13690
SHP	21000	24730	45730
SUM	19720	20720	40440
SWG	0	7250	7250
VIP	9730	46870	56600
WHA	4380	17590	21970
WHO	84780	35380	120160
YEP	69000	62010	131010
TRACT TOTALS:	591110	732860	1323970

TRACT TOTALS:	591110.00	732860.00	1323970.00
PER ACRE TOTALS:	4845.16	6007.05	10852.21

Location

Tract 09 is located in Section 28 in T4S, R3W and is approximately 1.2 miles southwest of Bristow, Indiana and approximately 5 miles southeast of Saint Meinrad, Indiana.

General Description

This tract covers approximately 122 acres with 62.65 acres of pine and 59.35 acres of hardwood forest. Overall, this tract is densely populated with a pine/mixed hardwood timber.

History

The majority of this tract was acquired from a 1958 purchase from Earl W. Flamion and Olive Flamion of Perry County. This was a 110 acre purchase. Tract boundaries extend southward into section 33 which was a part of an 80 acre purchase from Edward Bynon in May of 1954 and make up about 10 acres of the tract.

Resource Management history for the state of Indiana begins in 1973 when a Timber Management Work Plan was completed by forester Bill Hahn. Timber types included oak-hickory, beech-maple, and red/white pine. The prescription included TSI on the beech but held back on a harvest until ingrowth reached merchantable size. A more comprehensive inventory was completed in 1986 by forester Ben Hubbard. At that time, about 44 acres was designated as commercial forest and 66 acres of pine and the tract was drawn straight across at the section line. The primary recommendations were to improve road access and boundary marking. A harvest was scheduled for 1986 with the intent of regeneration cuts in 15 years. It was recommended the pine be thinned in 1987.

The planned harvest was completed in 1987 in conjunction with neighboring 0710 and contained 70,000 board feet (Doyle) (161,573 total) and covered about 35 acres. The sale was purchased by Virgil Werner for \$28,010.00 Post harvest TSI of the entire 110 acres was completed in 1989.

At the request of a part owner of the boundary exception, Gordon Nicholas, extensive compass boundary work was completed in February 1999 by Nate Orsburn and Doug Brown.

Landscape Context

The surrounding area of this tract is predominantly hardwood forest and agricultural use. Residential use is primarily rural homes scattered around the landscape and there are three ponds/lakes within one mile. The nearest town is located approximately 1.2 miles northeast of the tract.

Topography, Geology and Hydrology

This tract has a mixture of slopes and ridgetops as well as drainages. The slopes face nearly every direction and vary in steepness. Hydrology includes one intermittent stream that runs through the southwest corner and follows the southernmost tip of the tract's boundary and another intermittent stream that cuts through the northeastern corner of this tract. There were a few sandstone outcrops and a small waterfall noticed as well.

Soils

This tract contains:

Adyeville-Wellston-Deuchars silt loam (AbvD2) is found on 8 to 20 percent slopes and is eroded. It is a moderately well to somewhat excessively drained soil with a watertable at a depth greater than 3 feet. This soil is found on sideslopes on uplands and has a moderately low to moderate organic matter content. Available water capacity is low to moderate and bedrock depth can be found at a depth anywhere from 20 to 80 inches. Site index is 81 for the Wellston portion of the soil and 90 for the Deuchars portion.

Adyeville-Wellston-Deuchars silt loam (AbvD3) is found on 8 to 20 percent slopes on sideslopes on uplands and is severely eroded. It can be anywhere from somewhat excessively drained to well-drained with a watertable depth greater than 40 inches. Available water capacity is low to moderate. It has a moderately low organic content and a bedrock depth anywhere from 20 to 80 inches. Site index is 81 for the Wellston portion of the soil and 90 for the Deuchars portion.

Adyeville-Tipsaw-Ebal complex (AccG) is found on 20 to 50 percent slopes on sideslopes on uplands and is very rocky. It can be moderately well drained to somewhat excessively-drained with a watertable depth greater than 40 inches. Available water capacity is low to moderate. It has moderate or high organic matter content and a bedrock depth anywhere from 20 to 80 inches. Site index is 70 for the Tipsaw portion of the soil and 80 for the Ebal portion.

Apolona silt loam (AgrC2) is found on 6 to 12 percent slopes on sideslopes on uplands and is eroded. It is a moderately well drained soil with a seasonal high watertable at 2 to 3 feet. Available water capacity is moderate. It has moderately low to moderate organic matter content and a bedrock depth of 72 to 100 inches. This soil has a potential productivity for White oak growth. It is well suited for hand planting, moderately suited for mechanical planting, and moderately suited for use of harvesting equipment. Site index is 60 for this soil.

Gatchel loam (GacAW) is found on 0 to 2 percent slopes on floodplains and is occasionally flooded for a very brief duration. It is a somewhat excessively drained soil with a watertable depth greater than 40 inches. Available water capacity is moderate. It has moderately low organic matter content and because of the flooding hazard, this soil has a severe limitation for most non-agricultural uses. No site index was present for this soil.

Access

Access to the tract is good and can be accomplished from the southeast corner via either Huffman Road from SR-145 in Bristow or a right turn onto Clayborne Road (county road) from Huffman Road. Both roads would provide easy access points. Firelane 28 is located off of Clayborne Road and would provide a good access point for management. This firelane will require some road work. There is also an old firelane off Huffman Road (north side) that would provide a good location for management activities. Also observed within the tract were old skidder trails and old ATV trails. Some of these could be cleared and reused for future logging equipment.

Boundary

Property corner stones were located on the northeast corner, the east corner approximately 0.25mi to the south, and along the north line of the tract. Corner monuments set by the IDNR were located on the south central corner and on the southwest corner. No good corner evidence was found on the northwest portion of the tract however. Lines were reconned during inventory. No recent evidence of trespass or encroachment was noted. During boundary recon work in this area, a new survey monument was located on the southwest corner of nearby tract 0710. The division surveyor was contacted about the possibility of marking the section of line between this monument and the state monument to the north.

Wildlife

Wildlife noted in this tract includes painted box turtles, songbirds, crows, and deer. The pine/hardwood forest type in this tract is ideal for these types of species. A wildlife pond, low brushy cover, numerous downed trees and snags, and two intermittent streams were also noted. A Natural Heritage Database review was obtained for this tract. If rare, threatened or endangered species were identified for this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

For the management of Indiana bat habitat, this tract is above the maintenance level for legacy trees (+625 for 11"+ DBH and +36 for 20"+DBH) and is above the maintenance level for most snags (+1928 for 5"+DBH, +797 for 9"+DBH but is -2 for 19"+DBH). Shagbark hickories and numerous other known important species were noted throughout this tract and provide an excellent bat habitat.

Communities

No known endangered, threatened or rare species were found within the boundaries. Exotics were scattered throughout this tract and include Japanese stilt grass and Multiflora rose. Both have become very common across the landscape. Control should be attempted as time allows, although it is unlikely that we will achieve control of the stiltgrass. Grapevine issues were noted in two of the plots with just a few vines in two others. Vines should be controlled before management activities that would create canopy gaps.

Recreation

This tract has one firelane, although it is unmaintained and overgrown. A few deer stands were noted within the tract, indicating use by hunters. No noticeable hiking trails or recreational facilities were noted.

Cultural

Cultural resources may be present on this tract but their location is protected. Adverse impacts to significant cultural resources will be avoided during any management or construction activities.

Tract Subdivision Description and Silvicultural Prescription

Pines – This tract has approximately 62.65 acres (51%) of pine and the average diameter is approximately 14 inches. Species include Eastern white pine (26%), Shortleaf pine (12%), Red pine (6%), and Virginia pine (4%). Other non-pine species account for the remaining 52% of volume within this pine stratum. The inventory data estimates the tract contains a total of

785,860 Bd. Ft. (10,752 Bd. Ft./Acre) of pine volume. Harvest volume was estimated to be 446,120 Bd. Ft (6,002 Bd. Ft./Acre). Residual volume would then be 4,750 Bd. Ft./acre, a total of 339,730 Bd. Ft.

The pine areas are densely populated with the majority of overstory composed of sawtimber sized White pine and the majority of the understory composed of Yellow poplar, Red and Sugar maples, and American beech. Blow down is extensive in most areas, however noticeable White oak regeneration is observed. Many plots were recommended for opening due to the degradation of the existing pines. The presence of White oak saplings in regeneration stages indicates that creating these openings will allow them to continue to grow. By creating several openings, the planted pine acreage would convert back into a mixed hardwood forest.

Hardwoods – This tract has approximately 59.35 (49%) acres of mixed hardwoods and the average diameter of the trees is approximately 16 inches. The inventory data estimate the hardwood stratum contains 8,862 Bd. Ft./Acre of sawtimber volume, a total of 525,950 Bd. Ft. Harvest volume was estimated to be 4,821 Bd. Ft./Acre, a total of 286,140 Bd. Ft. Residual volume was estimated to be 4,041 Bd. Ft./Acre, a total of 239,800 Bd. Ft. The attached stocking guide illustrates that the current number of trees to be 241 per acre and basal area of 120 in this stratum corresponds to a 105% stocking level (overstocked). The trees selected for harvest in the inventory would reduce this stocking to 69%, or 198 trees per acre and a basal area of 75 (fully stocked). The breakdown of the harvest volume shows a significant portion from Northern Red oak, Yellow poplar, and Black oak, with other assorted species contributing a smaller portion of volume to the total figure. Refer to Harvest/Leave Summary Report for a complete species breakdown.

This tract is mainly an oak-hickory overstory with a beech-maple understory. Yellow poplar is abundant as well. This tract has many sawtimber sized oaks and several are recommended for harvest. Several rich, well-drained sites are scattered about these areas as evidenced by numerous spicebush and pawpaw in regeneration. This tract would benefit from thinning or the creation of openings as the potential to regenerate White oak is identifiable. Removing some of the canopy to allow sunlight to filter in would provide a great opportunity for the saplings to expand.

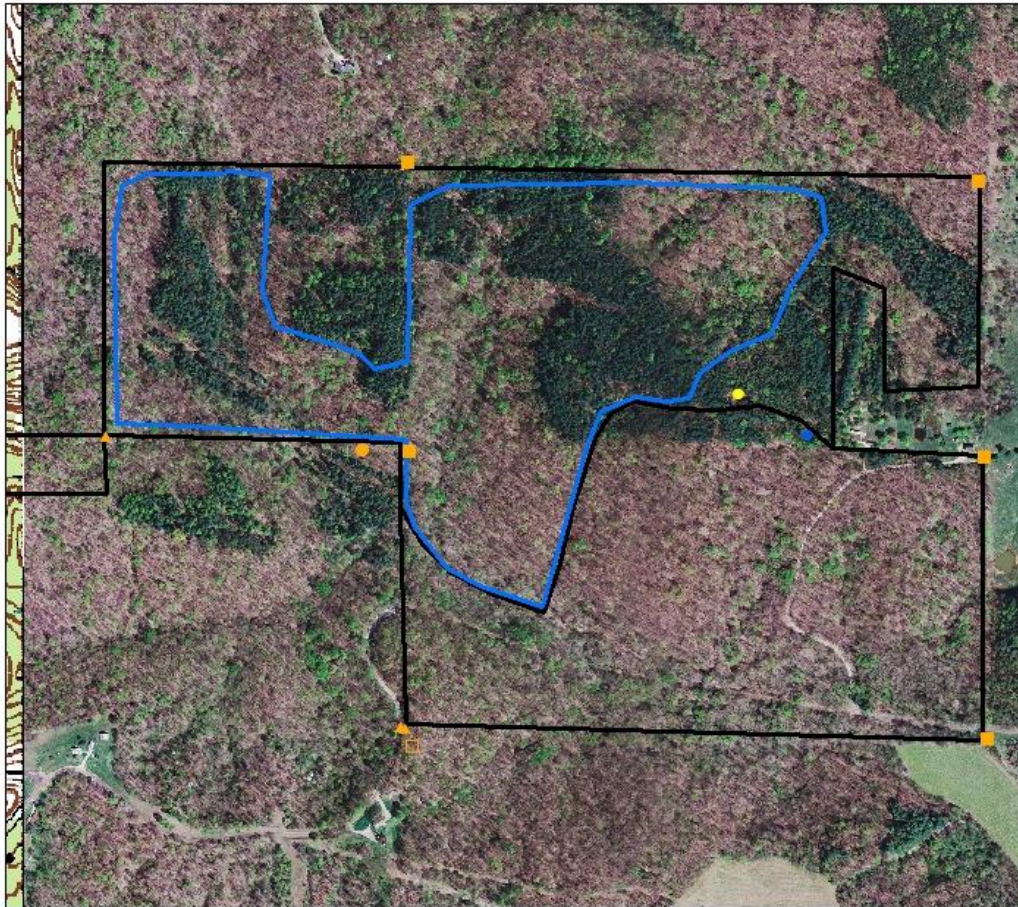
Summary Tract Silvicultural Prescription and Proposed Activities

This tract is in need of an improvement harvest within the next few years to create openings and salvage both hardwoods and pines before blowdown or decay take over. White oak regeneration is prevalent and the hope is that the openings would allow for their continued growth. Although this tract is composed of some steep slopes with a few intermittent streams, harvesting should not pose any erosion concerns as it was taken into account when selection was made. Many American beech trees of sawtimber size were not selected for harvest mainly due to wildlife benefit. Also, most Shagbark hickory trees as well as several snags were left in the stand to provide for Indiana bat habitat.

Proposed Activities Listing

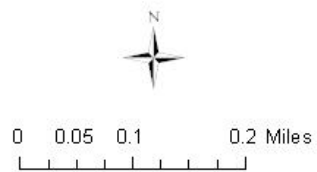
<u>Proposed Management Activity</u>	<u>Proposed Date</u>
TSI Grapevine areas identified in inventory	2013
Clear Firelane 28 for easier equipment access	2013-2014
Timber harvest of about 739,840 Bd. Ft. of timber	2017
Post Harvest TSI	2018
Inventory	2033

Compartment 7 Tract 9 Features and Activities Map



Legend

- | | |
|--------------------------|-----------------|
| ● Wildlife Pond | ▲ Rebar and Cap |
| ● Metal T Post | □ Sign |
| ■ Corner Stone | ● Trash Dump |
| □ Potential Harvest Area | |
| □ Tract Boundaries | |



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 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.

Note: Some graphics may distort due to compression.