TM 901

RESOURCE MANAGEMENT GUIDE

INVENTORY SUMMARY

		Compartment:	8
Jackson-Washington State Forest		Tract:	7
Forester:	Jacob Florine	Date:	8/11/08

ACREAGE IN:	
Commercial Forest	74
Open Water	1
TOTAL AREA	75

Average Site Index	74
Ave. Annual Growth	218
Total B.A./Acre	110.7
B.A. Trees 6" & Up	103
B.A. Trees < 6"	7.7

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

SPECIES	HARVEST STOCK	GROWING STOCK	TOTAL VOLUME
American beech	21,510	59,880	81,390
American elm	2,030	0	2,030
American sycamore	4,800	860	5,660
black cherry	0	2,390	2,390
black gum	3,700	0	3,700
black oak	0	15,620	15,620
chestnut oak	3,920	31,380	35,300
chinkapin oak	0	2,510	2,510
northern red oak	16,960	36,780	53,740
pignut hickory	4,620	29,920	34,540
red maple	2,470	0	2,470
sassafras	1,940	0	1,940
shagbark hickory	3,890	11,110	15,000
sugar maple	46,830	111,010	157,840
white ash	16,310	3,760	20,070
white oak	5,680	22,710	28,390
yellow poplar	5,090	53,270	58,360
TRACT TOTALS	139,750	381,200	520,950
PER ACRE TOTALS	1,889	5,151	7,040

PREVIOUS CRUISE DATA

DATE:	02/01/73	GROWING STOCK	HARVEST STOCK	TOTAL VOLUME
PER ACRE TOTALS		1,834	1,379	3,213
DATE:	03/08/84	GROWING STOCK	HARVEST STOCK	TOTAL VOLUME
PER ACRE TOTALS		2,457	1,523	3,980

RESOURCE MANAGEMENT GIUDE

FORESTER'S NARRATIVE

Jackson-Washington State Forest
Compartment 08 Tract 07
Forester: Jacob Florine
Date: August 11, 2008
Management Cycle End Year: 2032 Management Cycle Length: 24 years

Location

This tract is located in Sections 9 and 10 of T3N R4E, Monroe Township, Washington County. The entrance to this compartment is located approximately 7 ½ miles north of Salem on State Road 135.

General Description

This tract has fairly steep north, east and west facing slopes and is comprised entirely of mixed hardwoods cover type. Quality of these trees ranges from low to high quality.

History

Compartment 08 Tract 07 is comprised of three land acquisitions. A parcel of this tract is part of a 312 acre purchase from Murrell F. and Juanita Dorsey in March 1964. Another parcel of this tract is part of a 120 acre purchase from Roger L. Trueblood in March 1991. Another parcel of this tract is part of a 140 acre purchase from Dennis, Wanda and Brian Wischmeier in 1997. A heavy high grade harvest was done in parts of this tract just before exchange of ownership

An inventory was completed in 1974 indicating 1,379 board feet per acre of harvestable timber and a total volume of 3,213 board feet per acre. At this time, the tract was listed as 40 acres in size with all of that being commercial forest. Another inventory was completed in 1984. This inventory indicated 1,523 board feet per acre of harvestable timber and a total volume of 3,980 board feet per acre. The management plan for this inventory stated this tract as having 46 acres with all of that being commercial forest. In 1997 the tract boundary was changed due to the Wischmeier land acquisition. The tract boundary was again changed in 2001 along with updating the tract acreage due to GIS analysis and additional land purchases. These changes resulted in the current tract acreage of 75 acres.

Landscape context

The surrounding landscape is mostly forested with several watershed lakes. Topography varies from flat bottomlands and steep slopes and on up to upland ridges. Agriculture fields dominate the flat ground. Development is minimal and mostly resulting from single family houses.

Topography, Geology and Hydrology

This tract is comprised of mostly north facing slopes with some east and west facing slopes creating ephemeral drainages. These ephemeral drainages result from the steep

slopes. These ephemeral drainages flow into an intermittent stream on the north boundary of the tract which then flows into Plattsburg Pond. Soils in this area generally were formed in material weathered from shale, siltstone, sandstone, clayey till, loess or acidic silty alluvium.

Soils
There are seven different soil types found in this tract.

Berks-Weikert complex, 25-75 percent slopes, (BhF) is well drained with bedrock at a depth between 20-40 inches. This soil type is commonly found on side slopes and uplands. Berks-Weirkert has a black oak site index of 50 (53.34 acres).

Burnside silt loam**,** 0-2 percent slopes, (Bu) is moderately well drained with bedrock at a depth between 40-65 inches. This soil is commonly found on flood plains. Burnside silt loam has a yellow-poplar site index of 95 (7.01 acres).

Crider silt loam, 2-6 percent slopes, (CoB) is well drained with its most restrictive layer at a depth above 60 inches. This soil type is commonly found on uplands. Crider silt loam has a yellow-poplar site index of 98 (.08 acres).

Crider silt loam, 6-12 percent slopes, eroded, (CoC2) is well drained with its most restrictive layer at a depth above 60 inches. This soil type is commonly found on uplands. Crider silt loam has a yellow-poplar site index of 97 (1.46 acres).

Wellston silt loam, 6-12 percent slopes, eroded, (WeC2) is well drained with bedrock at a depth of 40-72 inches. This soil type is commonly found on uplands. Wellston silt loam has a yellow-poplar site index of 90 (7.37 acres).

Wellston silt loam, 12-18 percent slopes, (WeD) is well drained with bedrock at a depth of 40-72 inches. This soil type is commonly found on uplands. Wellston silt loam has a yellow-poplar site index of 90 (4.77 acres).

Water covers one acre of this tract.

Access
Access to this tract is very good. This tract can be accessed from State Road 135. The Shipley Purchase parking lot, which is off of SR 135 just south of the Plattsburg area, is the beginning of Fire trail 612. Fire trail 612 leads to a major haul road which is on the south boundary of this tract. This haul road leads the log yard on the east side of the tract.

Wildlife
This tract contains abundant wildlife habitat. There are several oak and hickory trees which will provide hard mast food. There is also several soft mast producing trees which also provide food for wildlife. American beech, which is very prevalent in this tract, often provides cavities for shelter and nesting. Along with the cavity trees there are also

several dead snags. These also provide shelter and nesting places for many species. This tract also borders Plattsburg Pond which provides habitat for many species. Snags and cavity trees are important to have around this pond for providing nesting areas for wood ducks and roosting areas for raptors that may feed on fish in the pond. The Natural Heritage Database Review does not show any threatened, endangered or rare species in or around this tract within the last twenty years.

Indiana Bat Habitat Guidelines

The following present values were determined from the inventory:

Live trees:	**Present**	Goal	Available for Removal
11" +dbh	2,558*	666*	1,892
20" +dbh	357*	222*	135

Snags:	**Present**	Goal	Available for Removal
9" +dbh	164	222	-58
19" +dbh	41	37	4

*Preferred live tree species only: AME, BIH, BLA, BLL, COT, GRA, REO, POO, REE, SAS, SHH, ZSH, SHO, SIM, WHA, WHO, SUM

The inventory indicates an abundance of preferred live roost trees in both size classes. This will allow for harvest of many of these trees while still providing ample roost opportunities for Indiana bats. The 19"+ size class exceeds the goal as well; however, snags are not marked in a typical harvest such as this. The snags in the 9" – 18" size class can be increased through deadening trees in this size class during the post-harvest TSI operation.

Recreation

This tract has several recreational uses. Hunting seems to be the most popular use of this tract. Numerous shotgun shells and even two tree stand were seen. It is likely a popular hunting spot due to the ease of access, good hunting habitat and abundance of wildlife.

Cultural

There seems to be no evidence of home sites or any other significant archeological artifacts on this tract. All of the log yards that will be used for this tract are pre-existing, but the standard archaeological clearance will be requested of the forest archaeologist prior to the proposed timber sale.

Tract Area Descriptions – see attached map

Section 1 – Mixed Hardwoods

The basal area in this section is approximately 103 square feet per acre and covers the entire tract. There were a few plots dominated by oak and hickory trees, but they did not make up enough area to be considered a completely separate cover type. The basal area varies widely throughout the tract. In some areas the basal area is as low as 50 square feet per acre and in other areas it is as high as 150 square feet per acre. The areas with

the high basal area indicate that these areas are overstocked and should be thinned to promote the health and vigor of the forest. The areas with the low basal area are good places to incorporate group openings to increase the future stocking. The size of the trees in this tract ranges from seedlings and saplings to large mature and over mature sawtimber. Overall the quality of this area ranges from low to high. The overstory is dominated mostly by sugar maple, white ash, white oak, American beech, shagbark hickory, northern red oak, chestnut oak, and yellow-poplar along with various other species. This tract is well-suited to growing quality sugar maple due to large amount of north slopes and the presence of many high quality sugar maple trees currently growing on this site. The understory in this area is mostly comprised of sugar maple, yellow-poplar, pawpaw, pignut hickory, and American beech along with several other various species. The regeneration is competing in certain areas with thick stands of pawpaw and spicebush. Deer prefer not to browse on these two species due to their bitter taste, and a high deer population helps to perpetuate the dominance of these species. Regeneration varies depending on the amount of sunlight and the site conditions. In the areas with a dense understory the regeneration is poor. An understory removal could increase the amount of desirable regeneration. In the areas with very low basal area, regeneration openings should be implemented to encourage in growth of younger trees and achieve a higher stocking. In the areas with higher stocking, single tree selection should be used to reduce the stocking and improve the growing conditions for the younger more vigorous trees. The large amount of cull beech present in this tract will be girdled during the post-harvest TSI to create additional large-diameter snags and to release healthier, more vigorous residual crop trees.

Overall

The inventory done in August 2008 indicates that the tract has an approximate total of 7,040 board feet per acre with 1,889 board feet per acre available for harvest and 5,151 board feet per acre as residual growing stock. The total potential harvest volume is approximately 139,750 board feet. On average, there are 88 trees per acre that are 6" DBH and larger. These trees contribute to an average of 103 sq. ft. of basal area per acre. With a stocking of 80% this tract can sustain a timber harvest while remaining fully stocked.

This tract has not been harvested since it has been in state ownership. Due to the numerous amounts of old stumps and old skid roads that were present it is likely that this stand was harvested right before the state purchased it. An improvement harvest will help in improving the quality of this stand by removing the numerous poor quality trees. This, along with post harvest timber stand improvement to complete openings, deaden cull trees, and release future crop trees would benefit the health and growth of the stand. TSI will also create snags in both size classes of the Indiana bat habitat guidelines. These snags, combined with the residual desired species, will provide excellent habitat for foraging and roosting for the Indiana bat. Also removing some of the understory will encourage the regeneration of higher quality trees and more desirable species. Due to the northerly aspect of this tract, oak regeneration will certainly be a challenge at best. This tract is well-suited for growing high quality sugar maple and other more mesic species. This tract should be cruised again twenty years following the completion of the TSI in

order to monitor the growth and determine if the stand is ready for another timber harvest at that time.

Proposed Activities

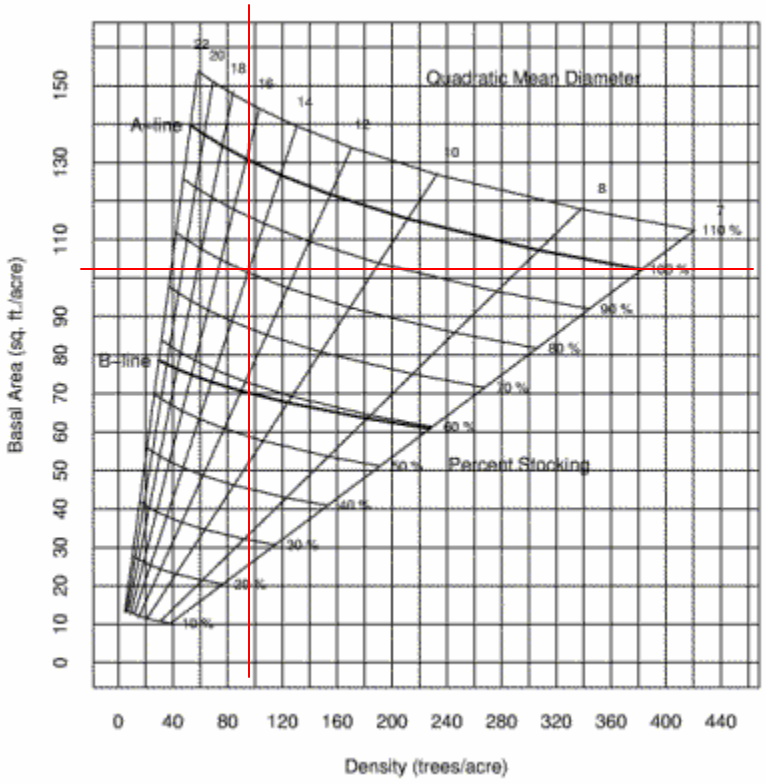
Proposed Management Activity	*Proposed Date*
Mark Harvest and Sell Timber	Fiscal Year 2010
Post-Harvest TSI	Fiscal Year 2012
Inventory and Mangement Guide	Fiscal Year 2032

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 "Jackson-Washington C8 T7" 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.

JWSF Resource Management Plan

C 08 T 07 Tract Stocking
August 2008 Inventory
75 acres



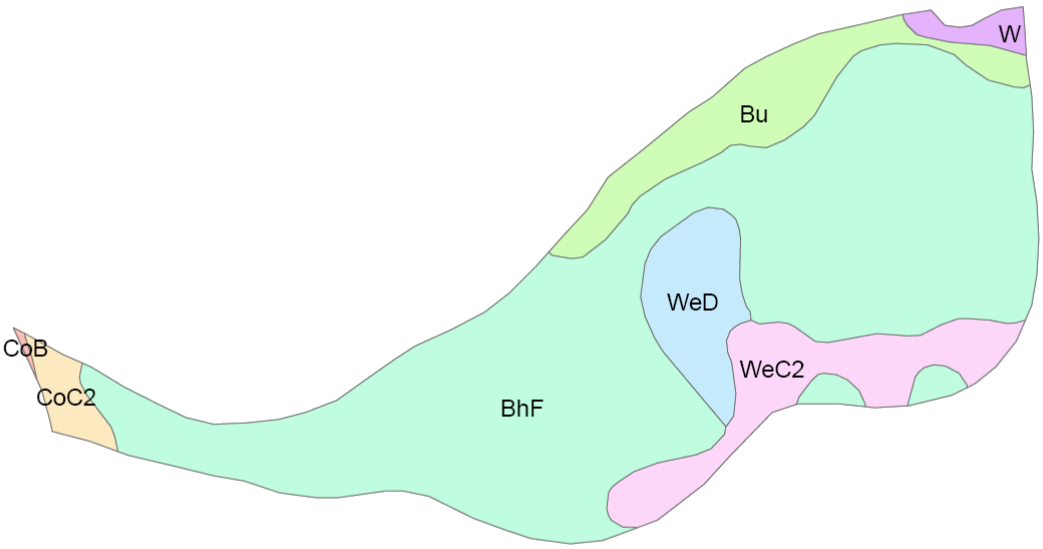
Total BA/A = 103 sq.ft./AC

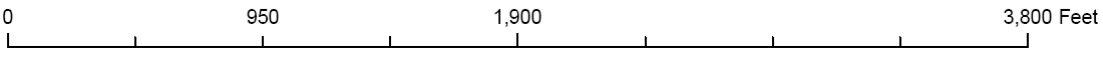
Total #trees/acre = 88

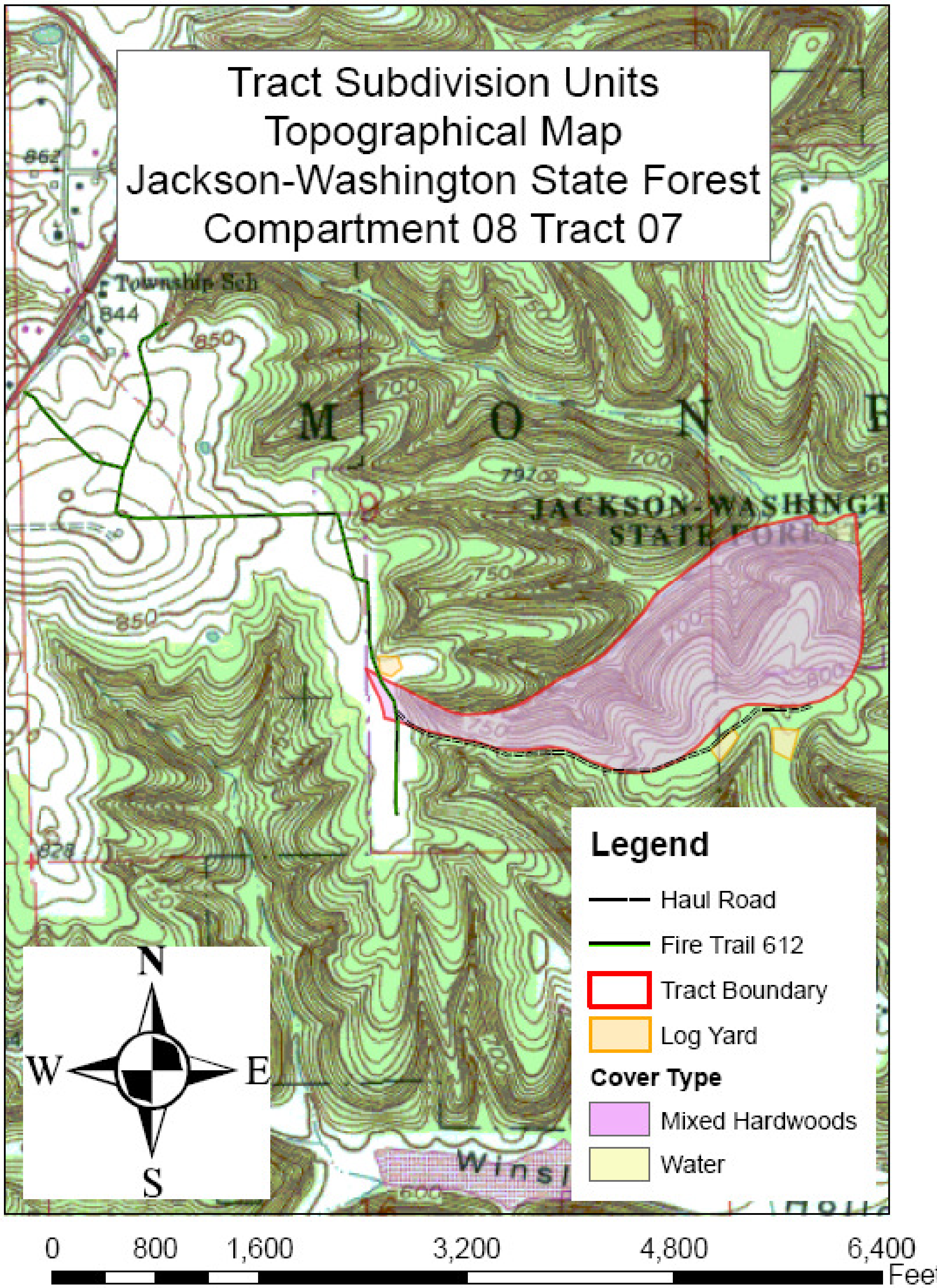
Avg. tree diameter = 15” DBH

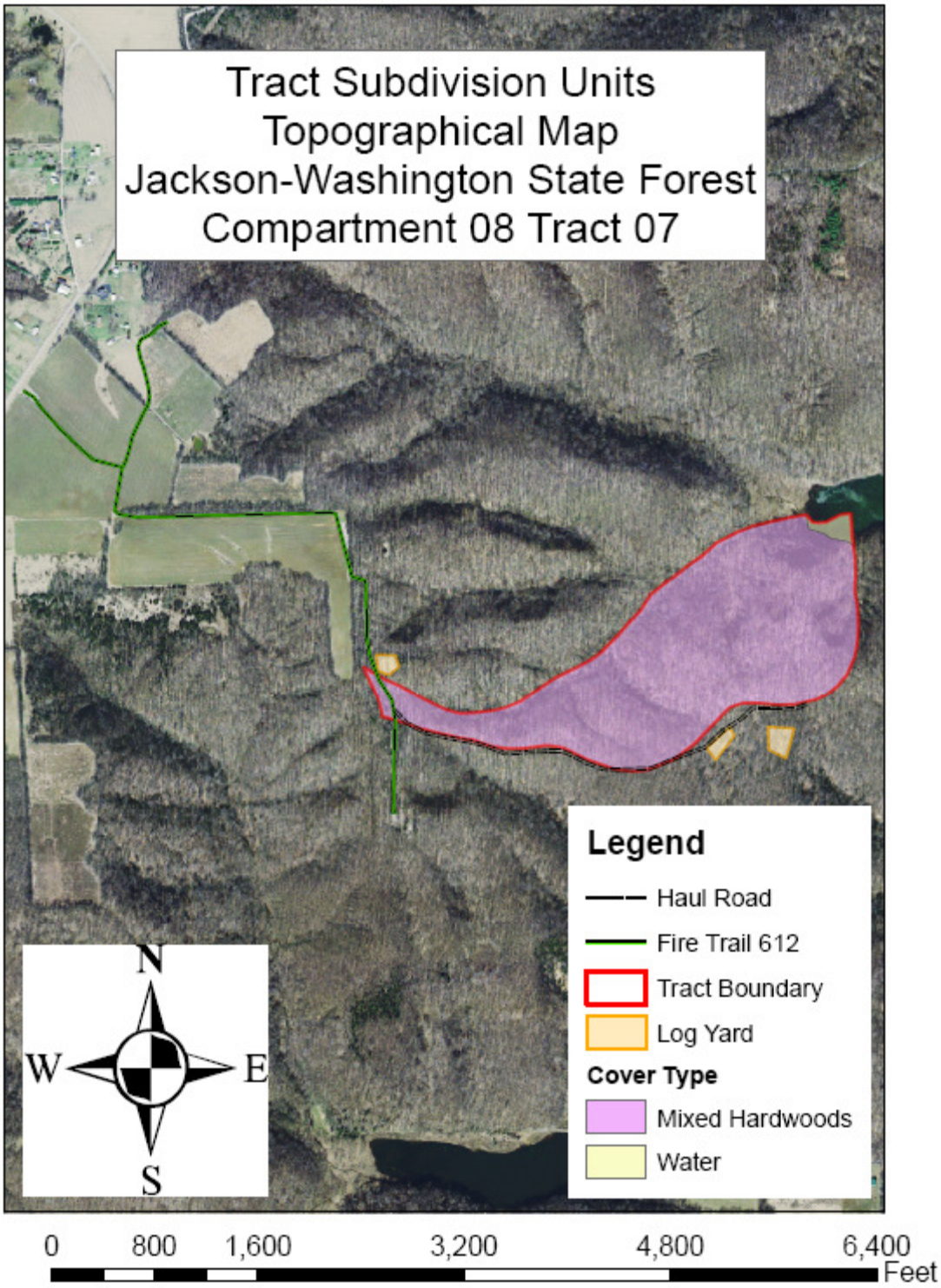
Percent stocking = 80%

Soils Map
Jackson-Washington State Forest
Compartment 8 Tract 7






Tract Subdivision Units
Topographical Map
Jackson-Washington State Forest
Compartment 08 Tract 07
Legend
Haul Road
Fire Trail 612
Tract Boundary
Log Yard
Cover Type
Mixed Hardwoods
Water
N
S
W
E
JACKSON-WASHINGT
STATE FORE
Township Sch
M O N R
0
800
1,600
3,200
4,800
6,400
Feet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