

<b>TM 901</b>			
<b>RESOURCE MANAGEMENT GUIDE</b>			
<b>INVENTORY SUMMARY</b>			
		Compartment:	8
Jackson-Washington State Forest		Tract:	9
Forester:	Spalding and Funk		Date: 6/5/09

<b>ACREAGE IN:</b>			
Commercial Forest	64	Total BA/Acre	109.4
Open Crop Field	5.6	BA Culls	5.3
<b>TOTAL AREA</b>	<b>69.6</b>	BA Submerchantable	13.4
		BA Poles	22.8
		BA Sawtimber	67.9

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

<b>SPECIES</b>	<b>GROWING STOCK</b>	<b>HARVEST STOCK</b>	<b>TOTAL VOLUME</b>
American Beech	12,250	16,840	29,090
American Sycamore	4,940	0	4,940
Black Cherry	770	0	770
Black Oak	15,810	0	15,810
Black Walnut	5,900	0	5,900
Blue Ash	0	6,630	6,630
Chestnut Oak	17,180	1,360	18,540
Chinkapin Oak	5,820	0	5,820
Northern Red Oak	32,390	0	32,390
Pignut Hickory	27,790	2,830	30,620
Red Elm	900	1,870	2,770
Red Maple	3,980	770	4,750
Sassafras	2,470	9,170	11,640
Shagbark Hickory	13,790	2,410	16,200
Sugar Maple	67,560	23,890	91,450
White Ash	0	28,930	28,930
White Oak	39,730	3,000	42,730
Yellow-poplar	79,050	6,900	85,950
<b>TRACT TOTALS</b>	<b>330,330</b>	<b>104,600</b>	<b>434,930</b>
<b>PER ACRE TOTALS</b>	<b>5,161</b>	<b>1,634</b>	<b>6,796</b>

<b>PREVIOUS CRUISE DATA</b>				
<b>DATE:</b>		<b>GROWING STOCK</b>	<b>HARVEST STOCK</b>	<b>TOTAL VOLUME</b>
	11/15/83			
<b>PER ACRE TOTALS</b>		2,005	1,797	3,802

## RESOURCE MANAGEMENT GUIDE

Jackson-Washington State Forest  
Forester Michael Spalding  
Management Cycle End Year 2033

Compartment 8 Tract 9  
Date June 11, 2009  
Management Cycle Length 24 years

### Location

Compartment 8 Tract 9 is located in Section 9 Township 3 North Range 4 East in Monroe Township in Washington County. The entrance to this compartment is located approximately 7 ½ miles north of Salem on State Road 135.

### General Description

This tract consists of 69.6 acres of predominantly gentle to moderately steep slopes. The lower slopes do become somewhat steep. Of the 69.6 acres, 5.6 acres are in an open farm field, with the remainder in mature forest. Most of the tract acreage in mature forest is covered by beech-maple forest.

### History

The land that makes up Compartment 8 Tract 9 was acquired through two separate land purchases. The first was a 312-acre purchase from Murrell and Juanita Dorsey on March 10, 1964. The second was a 281-acre purchase from Larry and Kathy Burton on February 22, 2001 for \$369,000. The area contained in this tract from the second purchase is only 5.6 acres of the 69.6 acres contained within the tract. This 5.6 acres is currently open ground farmed under an agricultural lease with a farmer.

The sixty-four acres of forestland contained in Tract 9 was formerly contained completely within Compartment 44 Tract 6, which was 126 acres. A cruise of this tract was performed on November 15, 1983. At that time, 105 acres were commercial forest and 21 acres were non-commercial forest that contained pre-merchantable yellow-poplar and redcedar. The remainder of the portion of the tract that is included in the present-day Tract 9 was nearly all beech-maple cover type. A timber harvest was recommended for this portion of the tract. The cruise estimated a total of 3,802 board feet per acre with 2,005 bd. ft. as growing stock and 1,797 bd. ft. as harvest stock.

A timber sale containing approximately 59 of the present-day 64 acres of tract 9 was sold on May 24, 1985. Three tracts containing a total of 152 acres were marked; however, the total tract acreage was 219. The current Compartment 8 Tracts 7, 9, and 12 had significant portions of their tract acreage contained in that harvest. Minor amounts of tracts 8 and 10 were also included in that sale. The sale contained 1,397 trees with an estimated 290,636 bd. ft. and 817 culls. Approximately 1,912 board feet per acre was harvested. Bailey and Bartlett of Heltonville bought the sale for \$20,000 (\$68.81/MBF). The entire sale contained 14 regeneration openings, four of which were in this tract. The harvest was completed in January 1986, and in the Spring of 1986 50 black walnut trees were planted in each of the two biggest openings in this tract. I did not see any of these in the openings during the cruise.

## **Landscape Context**

The landscape surrounding the area of this tract is primarily forested with row crop agriculture making up much of the ground as well. Several watershed lakes are contained within the area and are owned by state, county, and private landowners. Most new development consists of single-family dwellings.

## **Topography, Geology and Hydrology**

All of the acreage within this tract drains into the watershed of Plattsburg Pond. A mapped intermittent that forms the southeastern boundary of the tract flows into Plattsburg Pond. The more gentle areas of the tract at the west end have productive yet thin soils overlying limestone bedrock. The soils on the steeper slopes are thin and overlie shale and siltstone bedrock.

## **Soils**

**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-Weikert has black oak and northern red oak site indexes of 70. (33.6 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. (2.5 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 and a black oak site index of 87. (7.0 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 98 and a black oak site index of 87. (7.7 acres)

**Gilpin silt loam**, 25-55 percent slopes (GnF), is a somewhat shallow soil type with a depth to bedrock of 20 to 40 inches. Gilpin silt loam has a northern red oak site index of 80 and a yellow-poplar site index of 95. (18.8 acres)

## **Access**

Access to this tract is excellent. 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 620. Fire trail 620 leads to this tract and then travels through the tract to the east section of Compartment 8.

## **Boundary**

The northern and southern boundaries are two narrow stream valleys that converge at the eastern end of the tract. The western boundary approximately follows the middle of a broad ridge in the open farm field.

## **Wildlife**

Unlike many tracts at Jackson-Washington State Forest, this tract contains four regeneration openings from a previous harvest. These openings have reached the point where they are no longer providing early successional habitat. During the post-harvest TSI, these stands will be thinned, creating additional small-diameter snags. As described in detail in the silvicultural prescription, more regeneration openings will be created in the proposed timber harvest. There are some rock outcroppings in the tract that will in most cases be avoided during harvesting operations. A wildlife pond is noted on the tract map, and skid trails will be routed to minimize impact to the pond. No rare, threatened or endangered wildlife were identified on the Natural Heritage Database (NHD) search, and none are known to occur on the tract.

### Wildlife Habitat Feature Summary

The following present values were determined from the inventory:

Legacy trees*:	Present	Goal	Available for Removal
11" +dbh	1,676*	576*	1,100
20" +dbh	323*	192*	131

\*Species include: AME, BIH, BLL, COT, GRA, REO, POO, REE, SHH, ZSH, SIM, SUM, WHA, WHO

Snags:	Present	Goal	Available for Removal
5" +dbh	702	256	446
9" +dbh	98	192	-94
19" +dbh	27	32	-5

Cavity Trees:	Present	Goal	Available for Removal
7" +dbh	1,038	256	782
11" +dbh	665	192	473
19" +dbh	221	32	189

The inventory estimated that this tract exceeded the maintenance level goal for all categories and sizes of wildlife habitat features except for the 9" and greater snags and the 19" and greater snags. Those snags present should be left during marking of a harvest, as snags are not marked in a typical harvest. The inventory estimated that this tract contains approximately 275 culls. This would allow for plenty of culls that will be girdled during post-harvest TSI in order to help fulfill the snag deficit.

### Communities

This tract is dominated generally by mixed hardwoods. The individual cover type varied greatly from plot to plot. Yellow-poplar, beech-maple, oak-hickory, and mixed hardwoods were each recorded as cover types at various plots. Some interesting species, although not rare, noted during the inventory included leatherwood and Kentucky coffeetree.

No rare, threatened or endangered plants/plant communities were identified on the Natural Heritage Database search and no others are known to occur on the tract.

Ailanthus is present throughout this tract and quite heavy in some areas. Although many stems are present in regeneration openings, the worst infestation is in the stream valley at the east end of the tract. The specific location of this infestation does not appear to have been harvested in the past.

### **Recreation**

This tract is heavily used by people hunting mushrooms, deer, and turkey due to the easy access and available parking along State Road 135.

A planned extension of the Knobstone Trail may travel through a portion of this tract. If this extension is completed prior to a harvest, the trail will need to either be re-routed or closed during harvesting operations.

### **Cultural**

No cultural sites were discovered during the inventory of this tract. If any are found during the marking of the tract, the forest archaeologist will be contacted and the area avoided.

### **Tract Subdivision Description and Silvicultural Prescription**

**Open Crop Field** (5.6 acres) – This field has been planted to soy beans for the 2009 growing year. The current plan is to plant this field to trees in the spring of 2010.

**Mixed Hardwoods** (64 acres) – This area contains a wide variety of cover types and species. Although the various cover types noted during the inventory included mixed hardwoods, yellow-poplar, oak-hickory, and beech-maple, the various areas are not large enough to delineate on the tract map. Generally speaking, beech and maple trees are more dominant on the east and north facing slopes while oak and hickory are more dominant on the south and west slopes. This area contains a very wide diversity of species in the sawtimber size class, including 21 different species in the inventory. Dominant species in this tract include the following: white ash, sugar maple, American beech, sassafras, yellow-poplar, red maple, northern red oak, chestnut oak, pignut hickory, white oak, chinkapin oak, scarlet oak, black oak, black cherry, red elm, blue ash, black walnut, and shagbark hickory.

The basal area in each plot of trees 12" DBH and larger (culls, sawtimber, quality, and prime) ranges from 20 to 130 square feet per acre. The very low basal area is due to plots that fell in old regeneration openings and had a few larger sawtimber trees near the edge. Many of the trees in this area are excellent quality, including several prime walnut and white oak. The stocking of ash in this tract is much above average for Jackson-Washington State Forest. It will be very important to harvest the white ash and blue ash trees to both reduce the ash stocking and utilize the timber prior to emerald ash borer arriving in the immediate area.

The existing regeneration openings from the 1985 harvest are in need of management at this time. Any ailanthus trees present must be basally-sprayed with a triclopyr herbicide to remove them, or cut at ground level and treated with Tordon RTU or Pathway. All grapevines should be cut and treated with Tordon RTU or a generic equivalent. Crop tree release must also be performed to release the most desirable future crop trees. Some very scattered oak and hickory are present in the openings and should receive the most attention for release. Other good crop trees seen in the openings include yellow-poplar, black cherry, and even a few good quality red maple.

Many areas are in need of regeneration openings. These areas contain primarily mature to over-mature trees. One large area that may need a regeneration opening is on the southern-most ridge in the tract. This area contains storm-damaged trees from the September 2008 wind storm as well as over-mature sugar maple and defective beech trees. Other regeneration openings will be marked in other areas where there is an abundance of over-mature or old grazing-damaged trees. The remainder of the tract will be marked as single-tree selection focusing on removing ash trees, grazing-damaged beech and sugar maple, storm-damaged trees, suppressed trees, and mature to over-mature trees of all species.

### **Summary Tract Silvicultural Prescription and Proposed Activities**

The inventory completed June 5, 2009 indicated that this tract has approximately 6,796 board feet per acre with 1,634 bd. feet as harvest stock and 5,161 bd. ft. as growing stock. This results in an estimated total harvest of 104,600 board feet. The top three harvest species by volume are white ash, sugar maple, and American beech. The actual harvest volume may actually be higher depending on the volume marked in group selection openings.

The over-all recommendation for this tract is to mark a timber harvest within the next two years. This tract should be marked and sold with the adjacent Compartment 8 Tract 7. One log yard within the forest is noted on the map. The other log yard may be located in the open crop field identified on the map. Prior to this, the ailanthus trees present in the tract should be controlled with a basal application herbicide. If the ailanthus trees must be treated during the dormant season, the larger, potentially seed-bearing trees may be cut at ground level and treated with Tordon RTU or Pathway. The harvest should be a single-tree selection across most of the tract with several group selection regeneration openings in areas described previously. Following the harvest, post-harvest timber stand improvement will be performed to remove hollow cull trees, complete the regeneration openings, and to release any future crop trees not released during the harvest (especially those within the 1985 regeneration openings). The post-harvest TSI should benefit the Indiana bat by creating additional snag roost trees and providing better foraging habitat within the regeneration openings. Any ruffed grouse present in the area will benefit greatly from the dense growth in the regeneration openings as well.

### **Proposed Activities Listing**

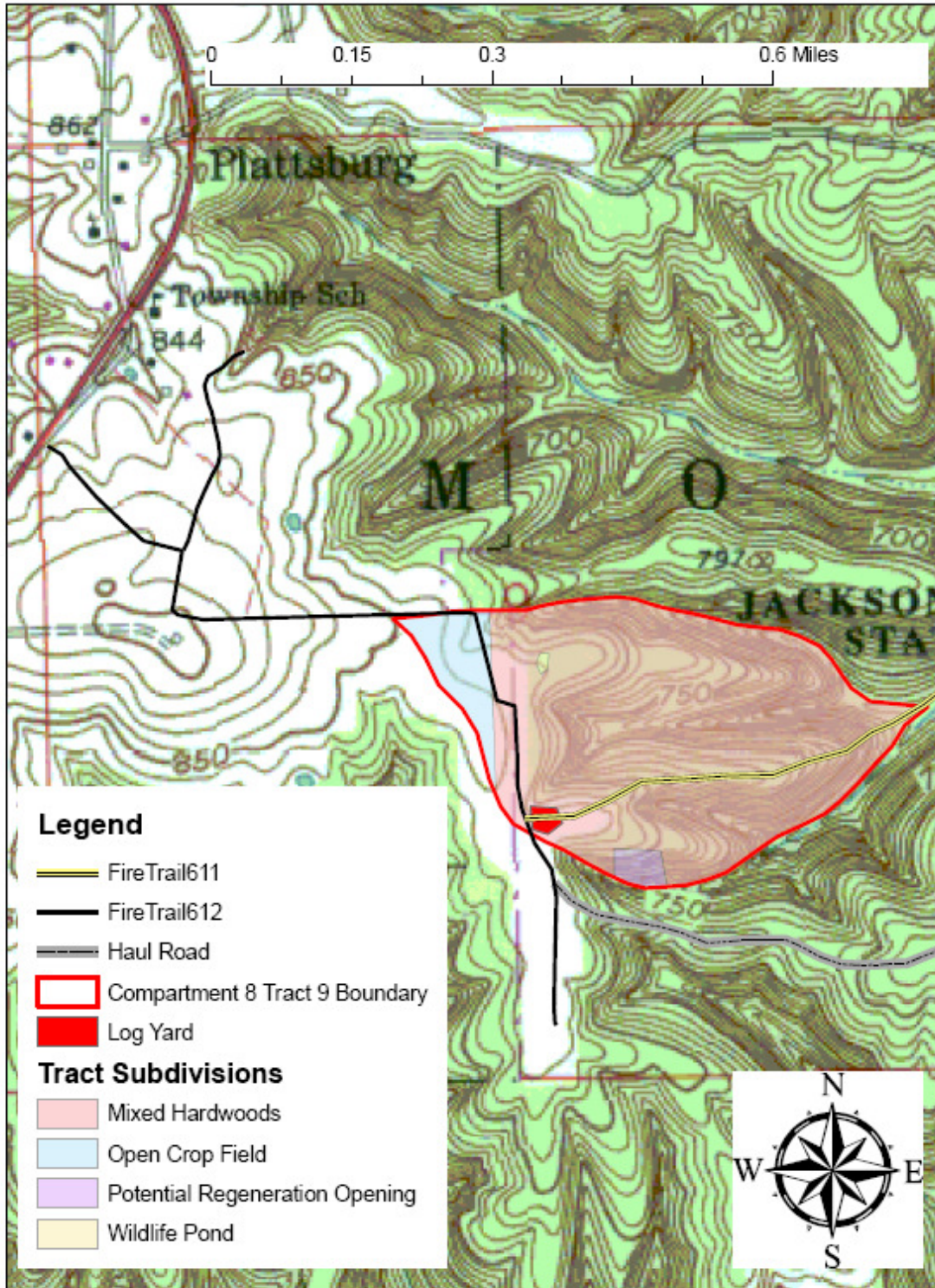
<i>Proposed Management Activity</i>	<i>Proposed Date</i>
Spray ailanthus	FY 2010
Mark and sell timber with Tract 7	FY 2011
Post-harvest TSI	FY 2013
Inventory and management plan	FY 2033

**To submit a comment on this document, click on the following link:**

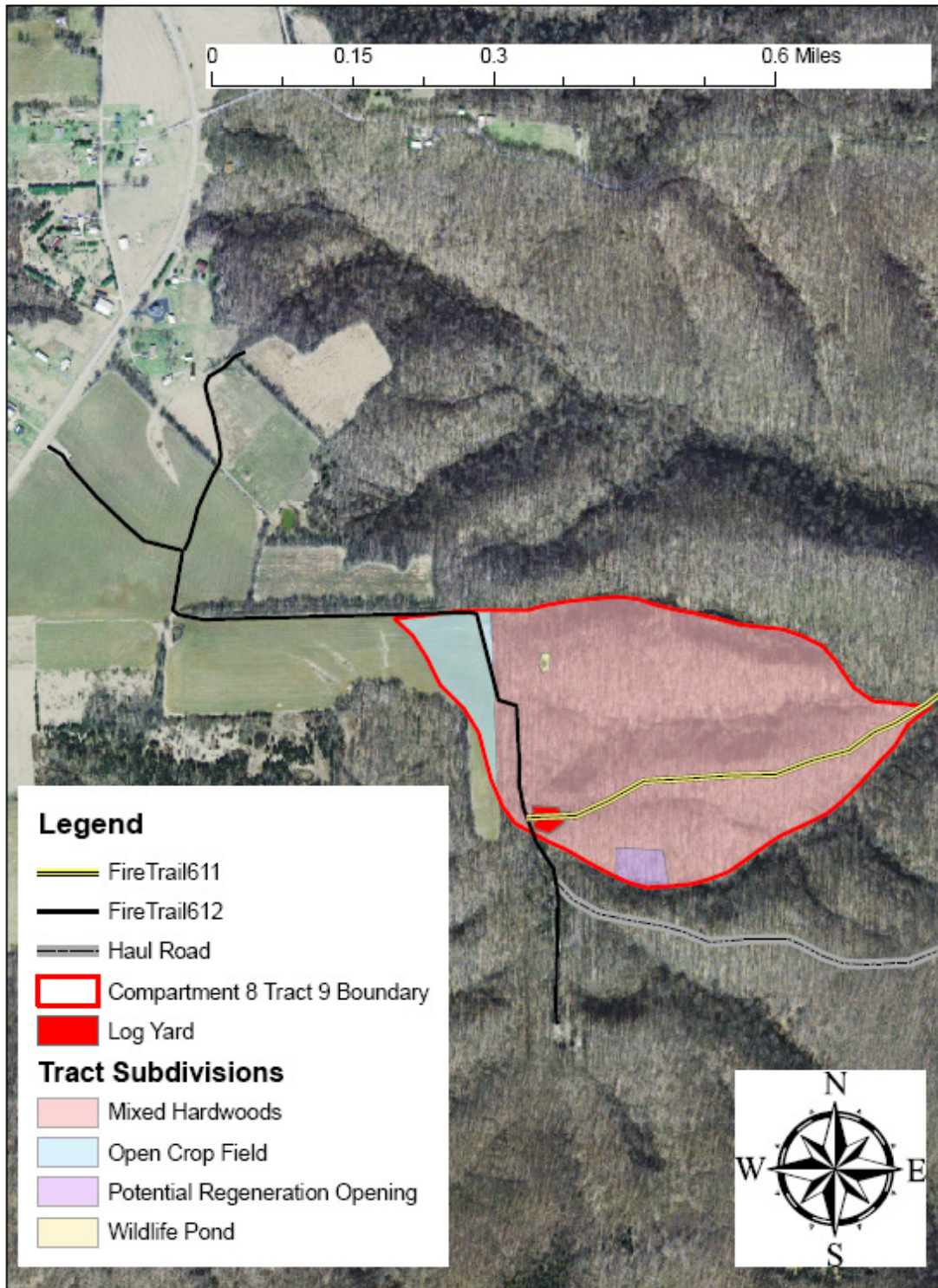
[http://www.in.gov/surveytool/public/survey.php?name=dnr\\_forestry](http://www.in.gov/surveytool/public/survey.php?name=dnr_forestry)

You **must** indicate “Morgan-Monroe C8 T9” 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.

# Tract Subdivisions Compartment 8 Tract 9 Jackson-Washington State Forest

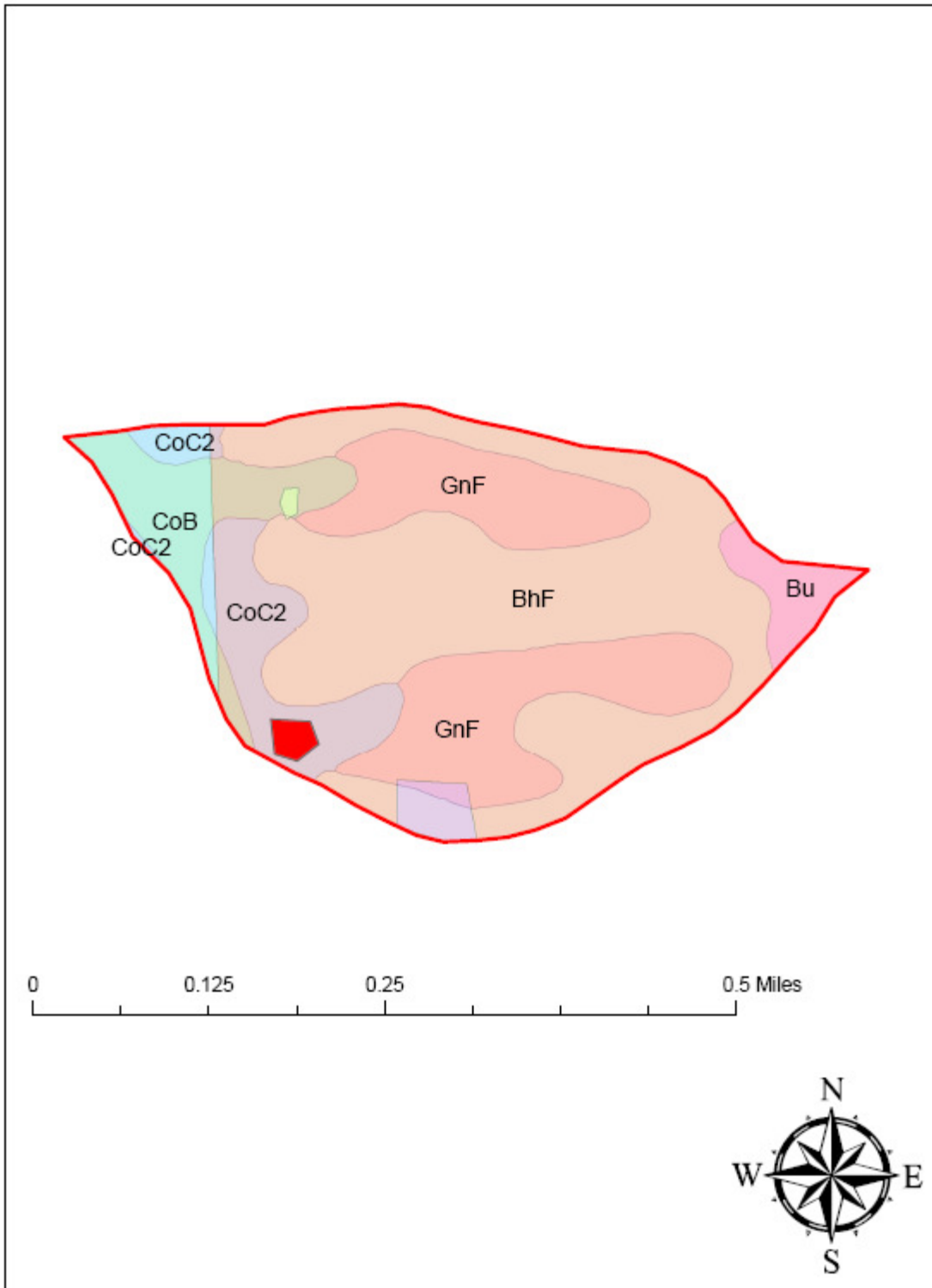


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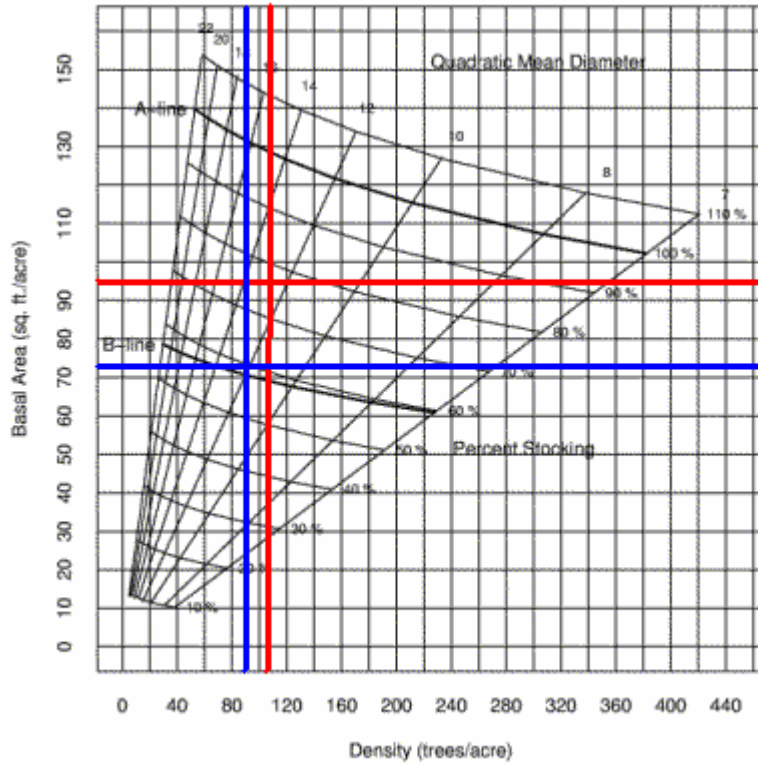




Soils Map  
Compartment 8 Tract 9  
Jackson-Washington State Forest



**JWSF Resource Management Plan**  
 C 8 T 9 Tract Stocking  
 June 2009 Inventory  
 64 acres commercial forest



**Pre-Harvest Inventory Data In Red**

Basal Area per Acre = 96 sq.ft.  
 Trees per Acre = 106  
 Average Tree Diameter = 13" DBH  
 Percent Stocking = 78%

**Projected Post-Harvest Inventory Data In Blue**

Basal Area per Acre = 72 sq.ft.  
 Trees per Acre = 92  
 Average Tree Diameter = 12" DBH  
 Percent Stocking = 60%