

**Resource Management Guides  
Jackson-Washington State Forest  
30-day Public Comment Period**

The Indiana State Forest system consists of approximately 158,000 acres of primarily forested land. These lands are managed under the principle of multiple use-multiple benefit to provide forest conservation, goods, and services for current and future generations. The management is guided by scientific principles, guiding legislation and comprehensive forest certification standards which are independently audited to help insure long term forest health, resiliency, and sustainability.

For management and planning purposes each State Forest is divided into a system of compartments and tracts. In general terms compartments are 300-1,000 acres in size and their subunits (tracts) are 10 - 300 acres in size. Resource Management Guides (RMGs) are then developed for each tract to guide their management through a 15-25 year management period. There are approximately 1,600 tracts in the State Forest system. During annual planning efforts 50-100 tracts are reviewed and RMGs developed based on current conditions, inventories and assessments.

The RMGs listed below and contained in this document are part of the properties annually scheduled forest inventories under review for Jackson-Washington State Forest.

Compartment 9 Tract 11

**To submit a comment on this document, go to:**

[www.in.gov/dnr/forestry/8122.htm](http://www.in.gov/dnr/forestry/8122.htm)

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 and review posted at

<http://www.in.gov/dnr/forestry/3634.htm>.

Jackson-Washington State Forest  
Forester: Kegan Todt  
Management Cycle End Year: 2039

Compartment: 9      Tract: 11  
Date: July 19, 2019      Acres 45  
Management Cycle Length: 20

### **Location**

Tract 11, also known as 6350911, is located in Washington County, Indiana, more specifically Township 4 North, Range 4 East, Section 35 and 36 of Monroe Township. This area is located approximately 9 miles northeast of Salem.

### **General Description**

The tract is approximately 45 acres and the general cover type is mixed hardwoods. There are areas of oak and hickory, mainly chestnut oak, throughout the tract.

### **History**

- In 1959 153 acres was bought for \$2,000 from Columbus and Edith Baskerville that comprises approximately 10 acres of this tract
- In 1963 40 acres was purchased from Hubert Seal for \$1,000 and makes up approximately 3 acres of the tract
- In 1954 150 was purchased from Virgil Fleenor for \$1 that makes up about 31 acres of the tract
- An inventory was completed in 1984 that estimated a total of 163,831 bdf. Chestnut oak was the dominant species.

### **Landscape Context**

Tract 11 is mostly surrounded by state forest land aside from the western boundary which is private property. The private property to the west consists of forest and pastureland. There are very few scattered rural residences in the area, most are to the west. A county park is located approximately a mile south.

### **Topography, Geology and Hydrology**

The topography of this area varies from a flat ridge top on the north to an intermittent stream that flows along the southern boundary of the tract. Between the ridgetop and intermittent stream the topography is fairly steep with many drainages existing between the eastern and western boundary that all flow south to the stream. The geology of the area is mainly limestone while also showing signs of a sandstone substrate along the stream. The steepness of the topography allows for the soils in the area to be well drained and also gives reason to why there are so many drainages. The flat area of the ridgetop extends from the western tract boundary to the eastern boundary and only exists along the northern boundary.

### **Soils**

**Berks-Weikert complex (BhF)** This soil series is steep to very steep, well drained soils are on side slopes in the upland areas. The Berks soil is moderately deep, and the Weikert soil is shallow. The two soils occur as areas so intricately mixed that mapping them separately is not

practical. This soil complex is suited for trees. The erosion hazard, the equipment limitations, seedling mortality, windthrow hazard, and plant competition are concerns in managing the woods. Locating logging roads, skid trails, and landings on gentle grades and removing water with water bars, culverts, and drop structures help to control erosion. The site indexes for hardwood species range from 50 (black oak) to 70 (white oak). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

**Burnside silt loam (Bu)** This series consists of deep, well drained soils that formed in 30 to 61 centimeters (12 to 24 inches) of medium-textured alluvium and the underlying loamy-skeletal alluvium. These soils are on flood plains and alluvial fans. It is occasionally flooded for brief periods in the spring. Native vegetation is deciduous hardwoods. This soil is well suited for trees. Plant competition is moderate. Seedlings survive and grow well if competing vegetation is controlled by cutting, girdling, or spraying. The site index for hardwood species is 95 for yellow poplar. Preferred trees to manage for are bitternut hickory, white oak, red oak, black walnut, and yellow poplar.

**Wellston silt loam (WeD)** this series consists of deep or very deep, well-drained soils formed in silty material from loess and from fine-grained sandstone or siltstone and with bedrock at depths of 40 to 72 inches. Wellston soils are on nearly level to steep uplands in areas of acid sandstone, siltstone, or shale bedrock; but are most common on ridgetops. Slope ranges from 0 to 50 percent but are dominantly 4 to 18 percent. Native vegetation consisted of oak, hickory, dogwood, tulip poplar, and cherry. This soil is fairly well suited to trees. The erosion hazard, the equipment limitations, and plant competition are the main concerns in the management of wooded areas. Locating logging roads, skid trails, and landings on gentle grades and removing water with water bars, culverts, and drop structures help to control erosion. During wet periods, roads tend to be slippery, and ruts form easily. Seedlings survive and grow well if competing vegetation is controlled. The site indexes for hardwood species is 81 (red oak) and 90 (yellow-poplar). Preferred trees to manage for are black oak, chestnut oak, persimmon, red oak, scarlet oak, shagbark hickory, yellow-poplar, and white oak.

**Zanesville silt loam (ZaB)** This gently sloping, deep, moderately well-drained or well-drained soil is found on ridge tops on the uplands. The soil is well suited to trees. Plant competition is moderate. The site index for this soil ranges from 70 (white oak) to 90 (yellow poplar). Preferred trees to manage for are black oak, bur oak, chestnut oak, persimmon, scarlet oak, red oak, and white oak.

### **Access**

Access to this tract is poor. A fire lane at the end of Mail Route Road provides direct access to the tract.

### **Boundary**

The north boundary follows a ridgetop that runs east to west, the southern boundary is made of a mapped intermittent stream while the western boundary is the state boundary line.

### **Ecological Considerations**

A diverse assortment of wildlife resources is found on this tract conducive to providing habitat for a variety of wildlife species. Habitat includes:

- mixed hardwood stands with varied structure
- contiguous Oak-hickory stands with varied structure

Hard mast trees such as oaks, hickories, and American beech provide food source to both game and non-game species.

The Division of Forestry has developed compartment level guidelines for structural habitat features: snags. Snags are standing dead or dying trees. Snags provide value to a stand in the form of habitat features for foraging activity, den sites, decomposers, bird perching, and bat roosting. Snags eventually contribute to the future pool of downed woody material. Downed woody debris provides habitat for many species and contributes to healthy soils.

	Maintenance Level	Inventory	Available Above Maintenance
Snag 5"+ DBH	180	123	-57
Snag 9"+ DBH	135	24	-111
Snag 19"+ DBH	22	24	2

It is important to note that these are compartment guidelines and that even though the estimated tract data does not quite meet all target levels, it is likely that suitable levels are present for these habitat features in the surrounding landscape. The prescribed management will maintain or enhance the relative abundance of these features.

The tract is primarily a mixed hardwood forest with stands of oak and hickory being abundant as well. Vines and stilt grass were observed. Prior to a timber harvest treatment of these species should be considered.

A Natural Heritage Database review was completed for this tract. If Rare, Threatened or Endangered species (RTE's) were identified or encountered for this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

### **Recreation**

Due to limited access this tract provides limited recreational opportunities.

### **Cultural**

Cultural resources may be present but their location is protected. Adverse impacts to significant cultural resources will be avoided during any activities.

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

#### **Mixed hardwood (24 acres)**

Much of this tract is classified as mixed hardwoods and located in the southern portion of the tract near the intermittent stream and along the eastern boundary towards the ridge top. The top species in this subdivision are red maple, chestnut oak, yellow poplar, and sugar maple. The area is primarily dominated by maple, although there is a strong oak presence of varying species and with harvesting techniques this area could be integrated into the oak-hickory cover type. Most of the understory observed was maple and beech, there is an area in the western area of the tract

that contains some eastern red cedar, likely where there is evidence an old pasture existed. This area could benefit from a regeneration opening by removing the eastern red cedar, which is in poor condition and promoting the growth of new hardwoods in the area. Yellow poplar is likely what will regenerate in this area.

**Oak Hickory (21 acres)**

This subdivision is found on the south facing slopes between the ridge and stream bottom. The timber size here ranges from medium pole size to large sawtimber. The quality of this timber varies from being healthy to showing signs of decline. Chestnut oak makes up about 80% of this subdivisions volume. Black oak is the next highest species followed by pignut hickory. This area of the tract is a typical site seen on the Jackson-Washington State Forest with steep south facing slopes. Chestnut oak thrives in this environment and should be the main species managed. The understory varies throughout this subdivision, in some area’s regeneration of chestnut oak and black oak are found frequently while in other places it is thick with American beech and red maple. Much of the understory is also covered in greenbrier. Wind damage was observed in this subdivision.

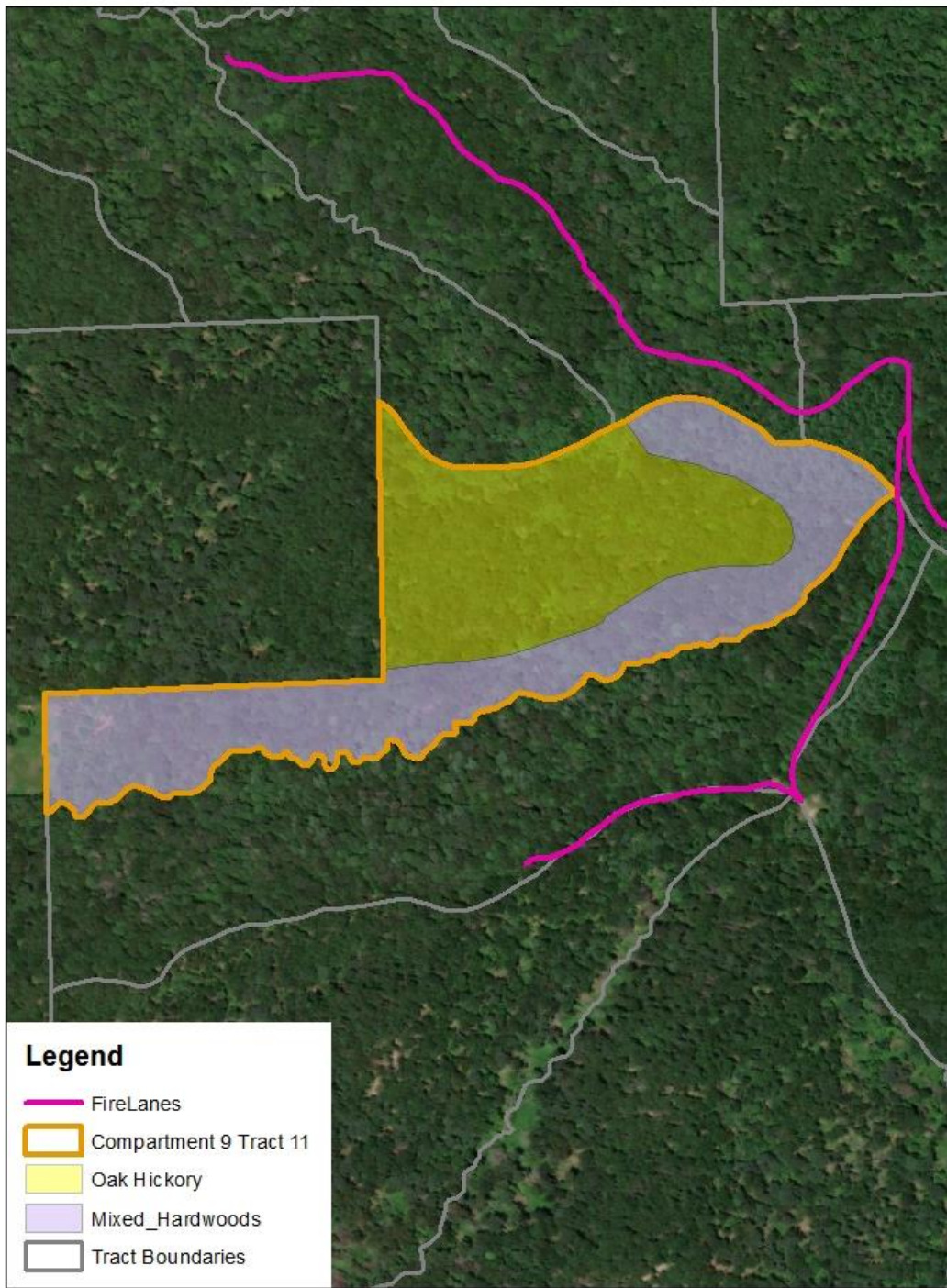
**Summary Tract Silvicultural Prescription and Proposed Activities**

This tract should receive a timber harvest within the next 5 years, there is no record of a previous harvest while under state ownership. The condition of the tract suggest it would benefit from an improvement harvest. The bulk of the harvest stock will come from the oak hickory subdivision where chestnut oak dominates. Use of single tree and group selection or patch-cut techniques will be utilized. While timber management activities are occurring care will be taken to avoid erosion to the multiple drainages present within the tract as well as the intermittent stream along the southern boundary. All the soil types found within this tract are well drained soils that will incur no damage throughout any management activities. Pre and post-harvest management activities should be implemented to control vines and stilt grass observed. Timber stand improvement (TSI) should be completed following the harvest to complete any regeneration openings or invasive species. The proposed management activity should have little to no impact on wildlife communities.

**Proposed Activities Listing**

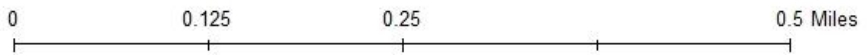
<u>Proposed Management Activity</u>	<u>Proposed Date</u>
vine treatment	2020-2021
Mark and Sell Timber	2021-2022
Post-harvest Timber Stand Improvement	2024-2025
Post harvest follow up review of openings	2025
Inventory and Management Guide	2039

# Compartment 09 Tract 11 Subdivisions



**Legend**

- FireLanes
- Compartment 9 Tract 11
- Oak Hickory
- Mixed\_Hardwoods
- Tract Boundaries



## Tract Summary Data

Total acres= 45	Gingrich stocking= 60%
Total trees per acre= 73	Present volume per acre= 5,210 bd. ft.
Basal area per acre= 72.7	Projected harvest volume per acre= 1,500 – 2,000 bd. ft.

Species	# Sawtimber Trees	Total Volume
Basswood	19	2,450
Black Oak	65	13,790
Chestnut Oak	808	118,950
Shagbark Hickory	34	6,150
Pignut Hickory	65	8,850
Red Maple	131	24,750
Scarlet Oak	9	2,090
Sugar Maple	113	17,160
White Oak	72	17,430
Virginia Pine	75	5,600
Yellow Poplar	91	17,220
<b>TRACT TOTALS</b>	<b>1,482</b>	<b>234,440</b>