Indiana Department of Natural Resources – Division of Forestry
DRAFT
RESOURCE MANAGEMENT GUIDE

State Forest: Jackson-Washington Compartment: 11 Tract: 9
Forester: Sandy Derringer Date: 2/8/2016
Management Cycle End Year 2021 Management Cycle Length: 20 years

Location

This 50 acre tract is located in Section 5, T-3N, R-5E in Gibson township of Washington county Indiana. This tract is located about 9 miles south of Brownstown. The tract lies approximately ¾ mile southwest of Mt. Eden Church. The only public access to this tract is from Mail Route Road using Fire Access Road 760. Tract 9 is located in the northeast portion of Compartment 11.

General Description

This 50 acre tract is made up of gently rolling hills, an intermittent stream, an abandoned field and a small pond. Most of the ridges run west from a main ridge running to the northeast. Old roadbeds run on every ridge and finger. It is mainly an oak hickory forest.

History

The ground was conveyed to the State of Indiana on March 4, 2008 from Donald T. and Phyllis Hoffman. Approximately 10 acres of the southeast corner is from a 40 acre parcel obtained from J. Kirk and Mary Etta Cheatham on December 2, 1955. The western flat area was used as a pasture in the past. A small pond is located about midway south in the tract just to the east of the field and old roadbed. The tract was heavily cut by the previous owner.
Property lines for the original tract boundary were located and marked with carsonite in 2005 along with corners set. The carsonite is still there but some need to be removed due to the line changes with acquisition of Hoffman property.
An inventory was performed in 2007.

Landscape Context

Most of the surrounding landscape is forested on both state and private. There is a lake on private property to the northeast and another farther to the east of the tract. Private ownership north of the tract consists of residential, pasture and a couple small ponds.

Topography, Geology and Hydrology

The topography of this tract ranges from gently rolling hills to flat grass lands and bottoms. An intermittent stream makes up the western boundary of the tract. An old open field is in the flat area next to the creek going to the bottom of the hillsides to the east. A small pond is located just past the field and an old road bed about halfway south in the tract. The southern boundary runs up a drain to the main point of the ridge running northeast. An ephemeral running northwest is located in the northern part of the tract.

The slopes from the ridges are generally north and south. The underlying bedrock is sandstone.

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, wind throw 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.

Gilpin-Berks loams (GnF) This soil complex is found on side slopes in the uplands. These are moderately steep to very steep, moderately deep, well drained soils. They are about 50 percent Gilpin soil and 35 percent Berks soil. The two soils occur as areas so intricately mixed that mapping them separately is not practical. These soils are fairly well suited for trees. The erosion hazard, the equipment limitation, seedling mortality, and plant competition are concerns in managing the 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. Seedlings survive and grow well if competing vegetation is controlled by cutting, girdling, or spraying. The site indexes for hardwood species range from 70 (black oak) to 95 (tulip poplar). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

Stendal silt loam (Sf) This soil series consists of very deep, somewhat poorly drained soils that formed in acid, silty alluvium. These soils are on flood plains and flood-plain steps. Slopes range from 0 to 2 percent. Used mainly for growing corn and soybeans. Some areas are in forest. Native vegetation is dominantly hardwood forest. This soil is well suited to trees. The equipment limitations and plant competition are concerns in managing the woods. Equipment should only be used during dry periods or when the ground is frozen. Seedlings survive and grow well if competing vegetation is controlled and if livestock are excluded from area. The site indexes for hardwood species range from 85 (sweetgum) to 90 (pin oak). Preferred trees to manage for are bur oak, overcup oak, pecan, pin oak, shellbark hickory, swamp chestnut oak, and swamp white oak.

Wellston silt loam (WeC2, 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.

Access

Travel south from Brownstown on St Rd 135 until you reach Rooster Hill Road. Travel east on Rooster Hill Road until you reach Delaney Park Road. Travel south from this intersection until you reach Nicholson Hollow Road. Travel east from this intersection until you reach West Point Road. Travel north a short distance until you reach Mail Route Road. You will travel approximately 1.5 miles north on Mail Route Road until you reach the gate for Fire Access Road 760. Tract 9 is located approximately ¾ mile from the gate. .

Boundary

Starting in the northwest corner of the tract the tract boundary goes south from the property line following a mapped intermittent stream until it reaches an unmapped ephemeral running southeast. This ephemeral runs southeast for a short distance before turning northeast. The boundary crosses over a small ridge dropping down into another ephemeral that turns northwest eventually connecting with a State boundary corner. Most of the northern tract boundary also serves as the State boundary line using carsonite posts as the line markers.

Wildlife

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

- contiguous oak-hickory canopy
- mixed hardwood stands with varied structure
- riparian areas

Hard mast trees such as oaks, hickories, and American beech provide food source to both game and non-game species. The openings are varied in size but all present similar, dense

vegetation that favors wildlife preferring this habitat structure. Such vegetative species include sassafras, grapevine, and other early successional shrubs.

Snags (standing dead or dying trees), are an important wildlife habitat features in Indiana's forests. They are used by a wide range of species as essential habitat features for foraging activity, nest/den sites, decomposers (e.g., fungi and invertebrates), bird perching and bat roosting. Additionally, snags are an important contributor to the future pool of downed woody material. Downed woody debris provides habitat and protection for many species and contributes to healthy soils.

Forest wildlife species depend on live trees for shelter, escape cover, roosting and as a direct (e.g., mast, foliage) or indirect (e.g., foraging substrate) food resource. The retention of live trees of various diameter classes is of particular concern to habitat specialists such as species of conservation need like the Indiana bat.

The DoF has developed compartment level guidelines for wildlife structural habitat features.

Snags(all species)	Maintenance level	Inventory	Available above Maintenance
5"+DBH	198.8	506	307
9"+DBH	149.1	260	111
19"+DBH	24.85	21	-4

The wildlife habitat assessment of snags indicates that the 5" and 9" DBH classes are above the maintenance levels. The 19"DBH class is just slightly below the maintenance level. The prescribed management will maintain or enhance the relative abundance of these features.

White tail deer are very abundant in this tract. Some sign of turkey were also seen.

A Natural Heritage Database review was completed for this tract. If Rare, Threatened or Endangered species (RTE's) 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.

Communities

A Natural Heritage Database review was completed for this tract. If Rare, Threatened or Endangered species (RTE's) 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. The grassy field area with patches of raspberry is cover and food for several wildlife species. Multiflora rose was seen along the creek edge next to the field.

Forest Condition

TM 901
RESOURCE MANAGEMENT GUIDE

INVENTORY SUMMARY

		Compartment:	11
State Forest:	Jackson-Washington	Tract:	9
Forester:	Sandy Derringer	Inventory Date:	2/8/16

ACREAGE IN:	
Forest	40.57
Non-Forest	
Water	
Permanent Openings	9.16
Other Uses	
TOTAL AREA	49.73

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

SPECIES	HARVEST STOCK	GROWING STOCK	TOTAL VOLUME
chestnut oak	2,980	53,020	56,000
white oak		44,010	44,010
black oak		20,040	20,040
pignut hickory		18,670	18,670
northern red oak		12,450	12,450
red maple		5,370	5,370
white ash		3,970	3,970
American beech		3,500	3,500
sassafras		3,250	3,250
yellow poplar		2,620	2,620
sweetgum		2,210	2,210
eastern cottonwood		2,100	2,100
shagbark hickory		1,700	1,700
sugar maple		1,340	1,340
black cherry		1,150	1,150
black walnut		810	810
			0
			0
TRACT TOTALS	2,980	176,210	179,190
PER ACRE TOTALS	73.45	4,343	4,417

Previous Cruise Data - 2007

Acres: 43	Harvest Stock	Growing Stock	Total Volume
Per Acre Totals	1,155	1,375	2,530

The inventory for this tract showed an estimated total volume of 179,190 bd. Ft., a harvest volume of 2,980 bd. ft., and a leave volume of 176,210 bd. ft. The estimated per acre tract volumes are 4,417 bd. Ft. per acre total volume, 73.45 bd. Ft. per acre harvest volume and 4,343 bd. Ft. per acre leave volume. The only species with a harvest volume is chestnut oak. The top three species in the total volume category are chestnut oak, white oak and black oak. The stocking shows current stocking at 55% with a reduction to 54% after a harvest. Current basal area is 63.3 sq. Ft. per acre with a post-harvest basal area of 62.1 sq. ft. per acre. The trees would reduce from 122 trees per acre to 120 trees per acre. The dominate understory is chestnut oak, red maple, sugar maple and white oak. Regeneration is American beech, sugar maple and several oaks.

The 2007 inventory data only included the original small area listed as "Previous Tract Boundary" on the map. Data differences are a result of this tract previously harvested forestland being included with the 2016 inventory. This resulted from tract boundary changes required following the land acquisition in 2008 from Mr. and Mrs. Donald Hoffman.

Recreation
Hunting is the primary recreational use of this tract.

Cultural
Cultural resources may be present but their location(s) are protected. Adverse impacts to significant cultural resources noted will be avoided during management or construction activities.

Tract Subdivision Description and Prescription
Old field area (9.16 acres) This area is mostly tall grasses and raspberry canes. It does include the area along the intermittent stream where there is some multiflora rose and scattered trees such as sycamore, sassafras and cottonwood. Prescription for this area is to restore native hardwood forests by planting suitable trees, while also providing early successional wildlife habitat. The multiflora rose should also be monitored for control needs.

Oak-hickory forest (40.57 acres) is the majority of the tract. This area goes from mostly chestnut oaks on the tops of the ridges to more white and black oak as you go

down the slope. Most of the trees, though small, are fair to good quality. There are several dead larger mostly red oaks in parts of the stand. They are too decayed for salvage. Past management guides indicate this was looper damage. The previous owners (Mr and Mrs Don Hoffman carried out timber management activities on their property prior to the land transfer to the State. The management prescription at this time would be to let it grow for another 10 years and inventory in 2027.

Tract Prescription and Proposed Activities

The main prescription for this tract is to reforest the large field to native hardwoods tree species suitable to the site. Some light harvesting may be undertaken in a few areas if combined with work in nearby tract 8, but this is low priority and the tract can generally be left to grow for another 10 years and then re-inventory. The multiflora rose should be monitored for spread and treatment needs.

Proposed Activities Listing

Proposed Management Activities	**Proposed Date**
Plant field	2017
Inventory for possible harvest	2027

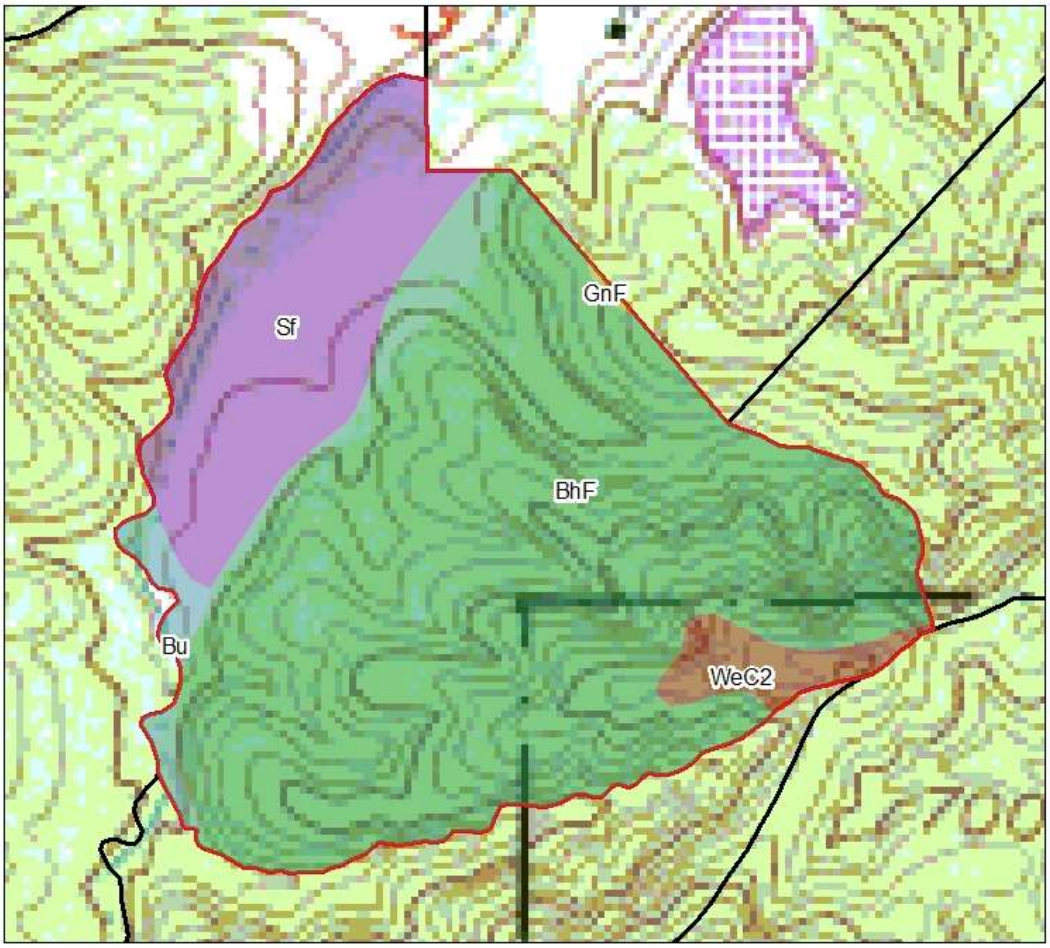
To submit a comment on this document, click on the following link:

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.

Note: Some graphics may distort due to compression.

Jackson-Washington State Forest
Compartment 11 Tract 09
Soils



Legend

Tract Boundary 6351109

Biota

Soils 6351109

BhF

Bu

GnF

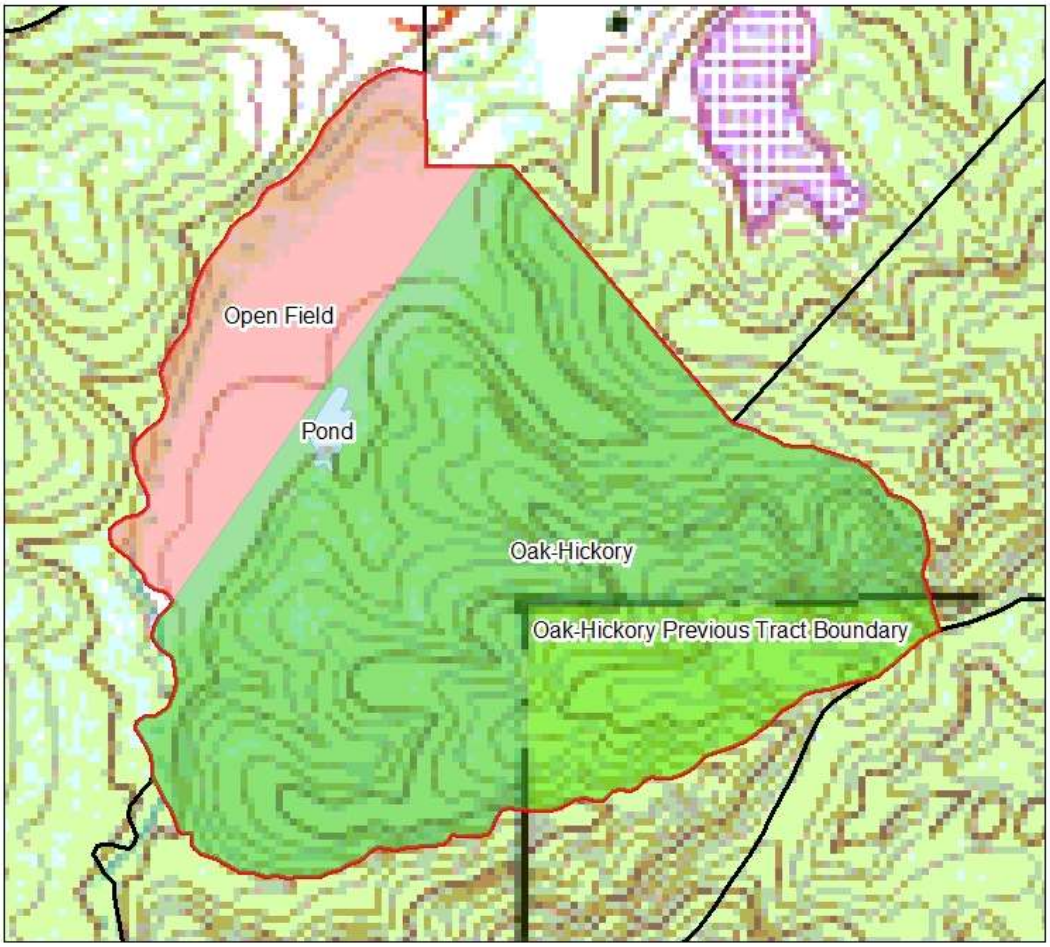
Sf

WeC2

0 0.0475 0.095 0.19 Miles

N

Jackson-Washington State Forest
Compartment 11 Tract 09
Forest Cover Type



Legend

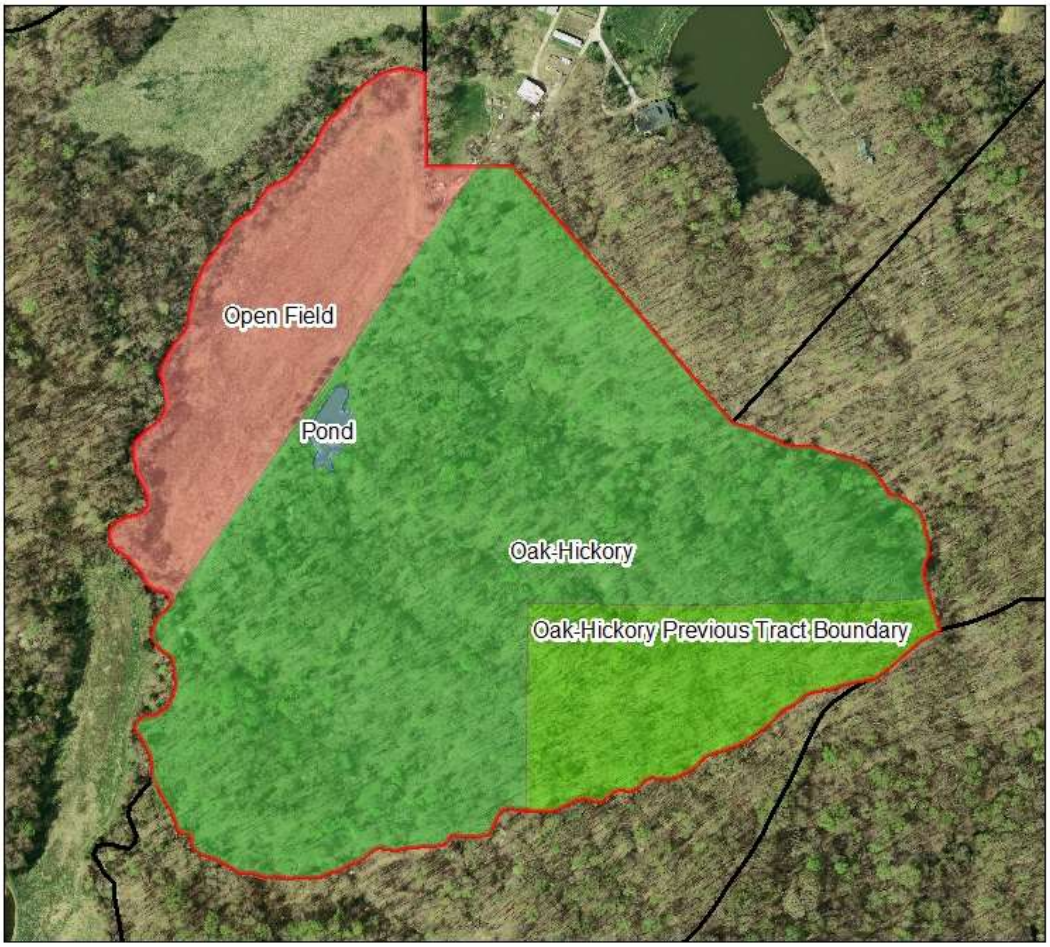
Tract Boundary **Cover_Type**

- Oak-Hickory
- Oak-Hickory Previous Tract Boundary
- Open Field
- Pond

0 0.0325 0.065 0.13 Miles

N

Jackson-Washington State Forest
Compartment 11 Tract 09
Forest Cover Type



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