Indiana Department of Natural Resources
Division of Forestry
RESOURCE MANAGEMENT GUIDE

Jackson-Washington State Forest	Compartment 11	Tract 1
Forester: Bailey McIntire	Date: July 24, 2023	Acres: 50
Management Cycle End Year: 2044	Management Cycle Length: 20 years	

Location
This tract, also referred to as 6351101, is located along Mail Route in Section 6, Township 3N, Range 5E, Gibson Township, Washington County. Salem, Indiana, is located approximately 10 miles southwest of the tract.

General Description
Ridgetops and upper slopes are characterized by oak-hickory forest. Mixed hardwoods dominate the riparian areas, as well as the lower slopes.

History
- 1963 Land purchased from Roy Davis (26 acres).
- 1972 Forest inventory on 26 acres noted 63,518 board feet present.
- 1986 Forest inventory and management guide noted 41,499 board feet present.
    - Guide noted possible errors with data in the 1972 inventory.
    - Guide recommended harvest in the next 20 years.
- 1990 Land purchased from David Whelan (24 acres).
- 2023 Forest inventory and management guide.

Landscape Context
The dominant land cover of the surrounding landscape is forestland. Agricultural fields are present to the north, and a few watershed lakes to the south. Several timber harvests have occurred on some of the private lands adjacent to this large block of public forest. Development in the area is limited to a few single-family residences.

Topography, Geology and Hydrology
The southern border of the tract runs along a ridgetop with steep northeast facing slopes down the northeastern half of the tract. The northwestern half of the tract consists of a ridgetop with southeast facing slopes draining to the eastern side of the tract. Both ridges eventually drain into the Muscatatuck River. The underlying geology is made up of sandstone, siltstone, and shale bedrock with well drained loamy soils.

Soils
Gilpin silt loam (GID2) This strongly sloping, moderately deep, and well-drained soil is on side slopes in the uplands. This soil is 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 by cutting, girdling, or spraying. The site indexes for hardwood species range from 80 (red oak) to 95 (yellow- poplar). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

Hickory silt loam (HrD2) This series consists of very deep, well drained, soils on dissected till plains. Slope ranges from 12 to 18 percent. Most areas are used for pasture, but some are in forest. A few lesser sloping areas are used for forages or row crops. Native vegetation is deciduous forest. This soil is 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 and if livestock are excluded from area. The site indexes for hardwood species are 85 for white oak and 85 for northern red oak. Preferred trees to manage for are black cherry, black oak, black walnut, bur oak, chinkapin oak, hickory, pecan, red oak, sugar maple, and white oak.

Zanesville silt loam (ZaB, ZaC2) 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. Seedlings survive and grow well if competing vegetation is controlled by cutting, girdling, or spraying. 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
This tract can be accessed from Mail Route off E Pull Tight Road.

Boundary

The southern border of the tract follows a ridgetop with steep northeast facing slopes down the northeastern half of the tract. The northwestern half of the tract consists of a fire lane following a ridgetop off Mail Route Road. The western boundary is a small section of Mail Route Road. The eastern tract boundary also serves as the state forest boundary line running north to south from the northern ridge top to the southern ridgetop of the tract.

Ecological Considerations
Wildlife observed during the inventory include American crow, chipmunk, white-tailed deer, American toad, Eastern gray squirrel, opossum, raccoon, and various songbird and woodpecker species. A wildlife pond was also noted in this tract. Any management activities will avoid or enhance this feature.

A Natural Heritage Database Review is part of the management planning process. If Rare, Threatened or Endangered communities 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 Division of Forestry has developed compartment level guidelines for important wildlife structural habitat features such as 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.

Snags	Maintenance Level	Inventory	Available Above Maintenance
5" + DBH	200	247	47
9" + DBH	150	190	40
19" + DBH	25	84	59

Inventory data for Compartment 11 Tract 1 shows that all snag categories exceed the Maintenance levels.

The prescribed management will maintain or enhance the relative abundance of these features.

Invasive species noted in the tract include multiflora rose and Japanese stiltgrass. Multiflora rose was most prevalent along the fire lane. The stiltgrass appeared to be restricted to the fire lane only. While neither of the invasive species appear to be problematic at this time, they should be managed situational. If not treated prior to management activities, they should be monitored post-harvest to minimize spread.

Recreation
There are no recreational trails in this tract. Hunting is likely the primary recreational activity within the tract. Mail Route Road is opened seasonally to allow for access during legal hunting seasons. For public safety this tract would be temporarily closed to public use during active management. Upon completion of management activities, the tract would reopen to public use.

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

Tract Subdivision Description and Silvicultural Prescription
Dry Oak-Hickory (33 acres) This subdivision/cover type is dominated by chestnut oak particularly on the high ridgetop. Other species include sugar maple, white oak, northern red oak, American beech, pignut hickory, bitternut hickory, yellow poplar, sassafras, and scarlet oak. The high ridgetops include typical poor formed low forked chestnut oak with high stocking. A light to moderate thinning is recommended, particularly in areas where regeneration is present. This will improve vigor and promote all the remaining trees and advanced regeneration to be release. Larger canopy gaps or patch cuts may also benefit the area and promote young forest. In some areas mature maple and beech are shading average to good quality oak and hickory and should be released. A light to moderate thinning in these areas will release the oak hickory. These canopy gaps or patch-cut openings will promote regeneration and allow for more vigorous crown

expansion and growth of the residual trees. The midstory is typically dominated by sugar maple, with some pignut hickory and white oak poles mixed in. Oak is often the primary regenerating species, followed by sassafras, red maple, pignut hickory, pawpaw, and yellow poplar. There is excellent advance oak-hickory regeneration on the drier aspects. This is being hindered, however, by a dense understory of sugar maple, red maple, American beech, and greenbrier. To maintain the oak-hickory component in this subdivision, timber stand improvement (TSI) and prescribed fire should be applied to reduce the maple-beech mid- and understory and promote the establishment of oak and hickory seedlings. The inventory results indicate that an estimated 19,755 to 38,098 board feet of potential volume should be removed through a timber harvest.

Mixed Hardwoods (17 acres) This subdivision/cover type is primarily composed of sugar maple, chestnut oak, and American beech. Other species in the overstory include white ash, northern red oak, yellow poplar, red maple, bitternut hickory, eastern white pine, black oak, shagbark hickory, and black walnut. This subdivision can be further divided into 2 separate areas: the former open area in the western portion of the tract where it appears white pine was planted and drainage areas in the eastern portion of the tract. Overstory trees tend to exhibit poor to good form overall. A small proportion of the sugar maple trees are exhibiting maple borer damage. The drainage areas are primarily composed of mature maple and beech which is negatively impacting regeneration and any oak and hickory present. The trees are beginning to show signs of stress and need to be released. A light to moderate thinning will promote health and vigor amongst the remaining quality trees. Thinning will also be needed in areas where stocking is too high, particularly areas where this cover type transitions with the oak-hickory cover type. The oak-hickory component may also be increased by use of prescribed fire.

Trees in the former open area, tend to exhibit poor to good quality. This area includes some of the former pine planting which is converting to mixed hardwood. Much of the pine is dead or declining and should be removed along with the poor formed and low-quality trees. The overstory is lacking an oak-hickory component, and what mixed hardwood species are present typically have defect, poor vigor and form. Some of these areas are heavily infested with multiflora rose, stilt grass and vine. TSI and invasive species control is recommended for this area.

The pine planting appears to have originally covered 8 acres and has since been reduce to 3 acres. This area is composed of primarily sawtimber sized eastern white pine of varying quality. A good portion is either in decline or dead and what remains is mature. Given the mixed hardwood understory and declining condition of the area it was lumped in this cover type. A regeneration opening is recommended to allow the native mixed hardwood to continue development.

The inventory results indicate an estimated 19,503 to 31,024 board feet of potential volume should be removed through a timber harvest.

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The current forest resource inventory was completed on July 24, 2023, by Bailey McIntire. A summary of the estimated tract inventory results is located in the table below.

Tract Summary Data (trees >11" DBH):

Species	# Sawtimber Trees	Total Bd. Ft.
Chestnut Oak	1,246	250,030
Sugar Maple	515	81,080
American Beech	174	27,400
White Oak	106	25,520
Eastern White Pine	77	24,860
Northern Red Oak	50	22,820
Pignut Hickory	111	11,490
Bitternut Hickory	26	9,370
Yellow Poplar	7	8,530
White Ash	11	6,130
Red Maple	14	3,530
Black Oak	4	3,050
Shagbark Hickory	5	2,930
Sassafras	15	1,930
Scarlet Oak	17	1,840
Black Walnut	7	1,720
Total	**2,385**	**482,230**

Summary Tract Silvicultural Prescription and Proposed Activities

This tract should receive an improvement harvest in conjunction with the adjacent tract 2 (6351102) within the next five years. Both subdivisions will require single tree selection to reduce overall stem density, release vigorous residual trees, and improve forest health. In the mixed hardwoods subdivision, overstory trees with defect and poor form, vigor, and health should be removed through group opening or patch cuts. Thinning is necessary in areas of the oak-hickory subdivision with particularly high stocking, including the ridges where chestnut oak occurs in dense monocultures. Trees in the larger size classes that are declining should be removed through group selection or patch cuts to encourage better vigor of the residual stand. Other trees targeted for removal in either subdivision include mixed hardwoods that release oak or hickory trees and mature or over-mature trees with damage or in poor health due to age, disease, or other stressors. A shelterwood harvest and prescribed fire may also be necessary to maintain or increase the oak-hickory regeneration present in either subdivision. The prescribed harvest will reduce the stocking level from approximately 70% to 55%, which is just below the B-line. This dip can be attributed mostly to the patch-cut openings needed in both subdivisions. The inventory estimated 9,658 board feet per acre, with a total potential harvest volume of 91,521 to 171,356 board feet from the entire tract. The top three harvest species by volume include chestnut oak, sugar maple, and American beech. The harvest will result in a healthier, more vigorous stand of forest that will be primarily dominated by the oak-hickory cover type.

A TSI operation should occur within two years of the timber harvest. This will be done to complete any patch-cut openings; reduce the understory and competition from shade tolerant species; and release oak, hickory, and other crop trees in the remaining acreage. Some trees should be deadened to increase the number of snags that are available as wildlife habitat.

A fire regime should be implemented following post-harvest TSI. Prescribed fire administered during dominant periods can reduce the presence of shade tolerant species while improving ground conditions making them more favorable for oak and hickory regeneration.

Any invasive plant species present in patch-cuts or shelterwoods will be treated prior to the harvest. During and after completion of the timber harvest, best management practices (BMPs) will be implemented to minimize soil erosion.

Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Mark timber	2025-2026+
Pre-harvest TSI and/or invasives	2025-2026+
Timber harvest	2026-2031
Post-harvest TSI and/or invasives	1 to 2 years after harvest+
Prescribed fire regime	1 to 2+ years after post-harvest TSI
Regeneration monitoring	3-5 years after the harvest.
Inventory and Management Guide	2045

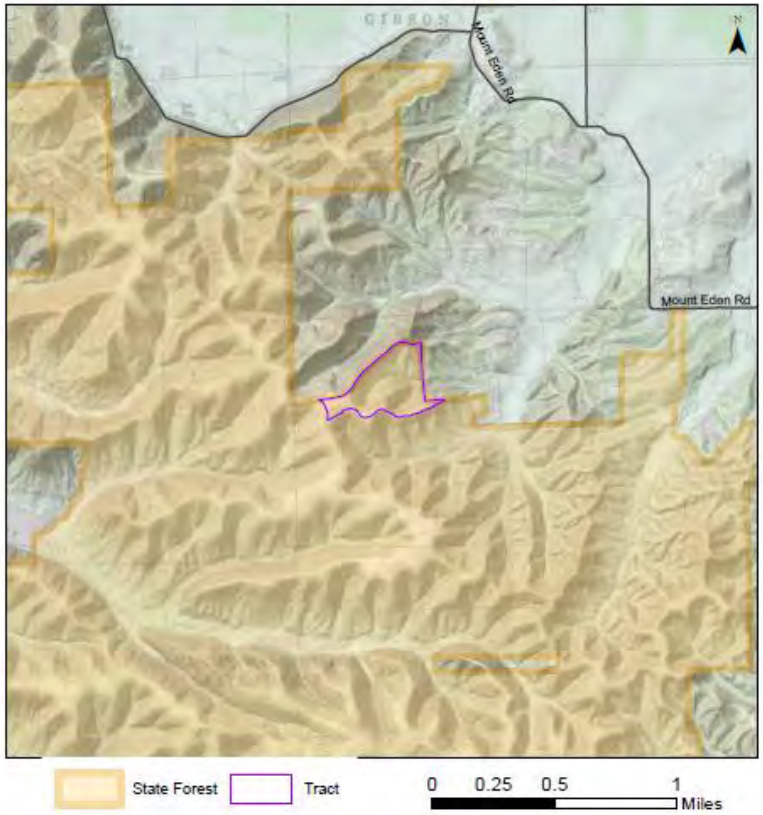
Jackson-Washington State Forest
Compartment 11 Tract 1
Cover Types Map

0 0.13 0.25 Miles

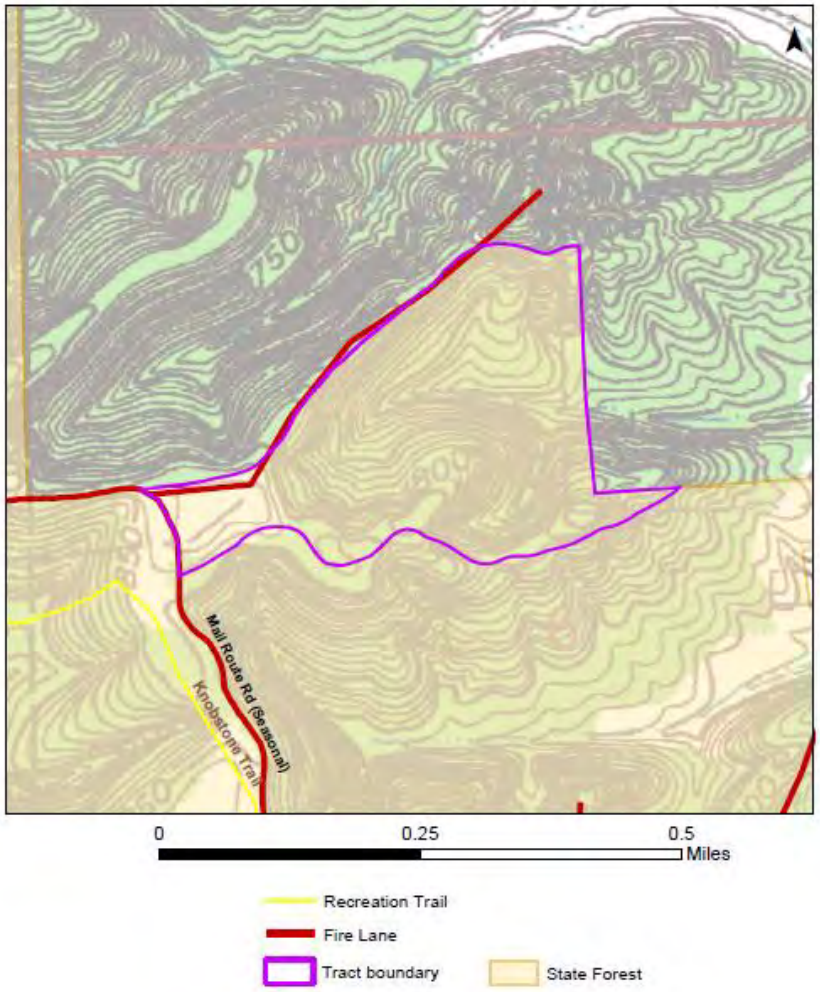
Legend

- Dry Oak-Hickory
- Mixed Hardwoods
- Tract Boundary
- Wildlife Ponds

Jackson-Washington State Forest
Location Map
Compartment 11 Tract 1



Jackson-Washington State Forest
Compartment 11 Tract 1
Tract Map



Jackson-Washington State Forest
Compartment 11 Tract 01
Cover Types Map

Division of Forestry
RESOURCE MANAGEMENT GUIDE

Jackson-Washington State Forest	Compartment 11	Tract 02
Forester: Elizabeth Carter	Date: May 30, 2023	Acres: 70
Management Cycle End Year: 2043	Management Cycle Length: 20	

Location
This tract, also known as 6351102, is located towards the middle of Section 6, Township 3 North, Range 4 East, in Gibson Township, Washington County. The tract lies approximately 5 miles south of Tampico, Indiana.

General Description
This tract is covered with oak-hickory and mixed hardwoods forest types. Oak-hickory dominates the sloped portions of the tract with ridges and drainages while the mixed hardwoods dominate the bottom land areas of the tract with gentle to no slopes.

History
- 1963 (February 5) Land acquisition of 138 acres from Roy and Glenn Davis.
- 1974 Timber harvest sold 133,144 board feet from 104 acres to Weston Lumber Company.
- 1990 Land acquisition of 40 acres from Marian Carrell Whelan and Virginia Carrell Peters.
- 1990 Tract boundary changes, increased tract boundary and acreage from 63 to 68 acres due to the 40-acre purchase.

Landscape Context
The dominant land cover of the surrounding landscape is forestland. Agricultural fields can be found to the north and a couple watershed lakes to the south. Several timber harvests have occurred on some of the private lands adjacent to this large block of public forest. Development in the area is limited to a few single-family residences.

Topography, Geology and Hydrology
The northern border of the tract runs along a ridgetop with steep southeast facing slopes down the northwestern half of the tract. The southeastern half of the tract transitions into gentle slopes continuing southeast. An intermittent stream runs along the southern border of the tract, that eventually drains into the Muscatatuck River. The underlying geology is made up of sandstone, siltstone, and shale bedrock with well drained loamy soils. During management activities the 2022 Best Management Practices (BMPs) field guide will be

followed.

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, sugar maple, and yellow poplar.

Cincinnati silt loam (ChC2, Ckkc2) This series consists of very deep, well drained soils that are moderately deep to a fragipan. They are on till plains. Slope ranges from 1 to 18 percent. Much of the area of Cincinnati soils is used for growing cultivated crops, mainly corn, wheat, soybeans, tobacco, and forages, both grasses and legumes. A considerable percentage of the Cincinnati soils is used for pasture or woodland or is idle. Native vegetation is deciduous mixed hardwoods, including oaks, hickory, tulip poplar, maple, and beech. This soil is well suited to trees. Plant competition is moderate. Seedlings survive and grow well if competing vegetation is controlled. The site indexes for hardwood species range from 80 (n. red oak) to 95 (tulip poplar). Preferred trees to manage for are black oak, bur oak, chestnut oak, scarlet oak, shingle oak, red oak, and white oak.

Gilpin silt loam (GID2) This strongly sloping, moderately deep, and well-drained soil is on side slopes in the uplands. 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 by cutting, girdling, or spraying. The site indexes for hardwood species range from 80 (red oak) to 95 (yellow- poplar). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

Hickory silt loam (HrD2) This series consists of very deep, well drained, soils on dissected till plains. Slope ranges from 12 to 18 percent. Most areas are used for pasture, but some are in forest. A few lesser sloping areas are used for forages or row crops. Native vegetation is deciduous forest. This soil is 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 and if livestock are excluded from area. The site indexes for hardwood species is 85 for white oak and 85 for northern red oak. Preferred trees to manage for are black cherry, black oak, black walnut, bur oak, chinkapin oak, hickory, pecan, red oak, sugar maple, and 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 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 are 81 (red oak) and 90 (yellow poplar). Preferred trees to manage for are black oak, chestnut oak, persimmon, red oak, scarlet oak, shagbark hickory, sugar maple, yellow-poplar, and white oak.

Access

This tract can be accessed from Mail Route Road off E Pull Tight Road. There are exiting log yards from past timber harvests, the northern most log yard off Mail Route Road could serve as the log yard for this tract.

Boundary

The northern boundary of the tract starts on Mail Route Road and follows a ridge east for roughly half a mile before reaching the state forest boundary line as it continues east until eventually reaching a boundary corner at a private farm. The southern boundary of the tract begins at Mail Route Road following a drainage until reaching an intermittent stream and continuing east until the state forest boundary line. The eastern tract boundary also serves as the state forest boundary line with a private farm. The western boundary follows Mail Route Road.

Ecological Considerations

Wildlife observed during the inventory included, white tailed deer, eastern chipmunk, various songbird species, eastern gray squirrel, American toad, red-tailed hawk, and eastern box turtles.

A Natural Heritage Database Review is part of the management planning process. If Rare, Threatened, or Endangered communities were identified for this area, the activities prescribed in the guide will be conducted in a manner that will not threaten the viability of those species.

The Division of Forestry has developed compartment level guidelines for important wildlife structural habitat features such as 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.

Snags	Maintenance Level	Inventory	Available Above Maintenance
5"+ DBH	280	614	334
9"+ DBH	210	419	209
19"+ DBH	35	49	14

Current assessments indicate the abundance of these habitat features in Compartment 11, Tract 2 meet or exceed recommended maintenance levels in all diameter classes.

Japanese Stiltgrass was observed along Mail Route Road and along the mapped intermittent stream following the southern tract boundary. Multiflora rose can be found in isolated small patches throughout the tract.

Recreation
There are no recreational trails within this tract. The primary recreation use of this tract is hunting. For public safety this tract would be temporarily closed to public use during active management. Upon completion of management activities, the tract would reopen to public use.

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

Tract Subdivision Description and Silvicultural Prescription
Mixed Hardwoods: (19 acres)
In this subdivision/cover type, species present in the overstory include American beech, black cherry, black gum, persimmon, red maple, sassafras, sugar maple, and yellow poplar. The overall quality of these species ranged from poor to good quality, averaging better quality than the oak-hickory cover type. Size of the trees range from pole to large sawtimber. The larger sawtimber includes yellow poplar, loblolly pine, American beech, and sugar maple. Some oak-hickory species are present throughout the cover type such as pignut hickory, chestnut oak, black oak, and white oak. The regeneration that dominates this area includes American beech, red and sugar maple, yellow poplar, pawpaw, and sassafras. In areas with low crown closure canopy gaps could further be expanded by harvesting surrounding trees exhibiting reduced vigor and poor form. This will increase the amount of sunlight that reaches the forest floor and create a more diverse aged forest. Some oak and hickory regeneration are present within these areas but are hindered by the American beech and maples present in the mid-story and overstory. Canopy gaps or patch cuts may be needed to promote oak-hickory regeneration in these areas. Single-tree selection harvest will also be used to harvest individual trees from edges and other less dense areas. A prescribed burn may be necessary to reduce the shade tolerant under and midstory to further transition to oak-hickory species. The inventory results for this cover type indicate an estimated volume of 11,551 board feet per acre, with approximately 53,114 to 123,830 board feet of potential volume to be removed.

Dry Oak-Hickory: (51 acres)
This subdivision/cover type within the tract is dominated by oak and hickory species. The form and quality of the oak's ranges from poor to good. These species range from low form/quality on pure chestnut on deep, well-drained soils to good form/quality white, black, and red oak and hickory on other areas. Mixed hardwood species are present throughout this subdivision, which include sugar maple, red maple, American beech, black cherry, black gum, persimmon, sassafras, and yellow poplar. Regeneration that occurs in these areas includes chestnut oak, white oak, black oak, sassafras, pawpaw, pignut hickory, American beech, and red and sugar maple. To maintain the oak-hickory cover type, poor quality or declining mixed hardwoods should be harvested to release the healthy oak and hickory trees. Other trees to harvest should include drought-stressed, damaged, defective, suppressed, mature, and over-mature trees to release healthier and more vigorous trees. Black and white oaks tended to have better overall form than chestnut oaks. Chestnut oaks on steeper slopes tended to have poorer form with low forking, signs of stress, and a few exhibiting signs of decay. Single tree selection harvest will be used to thin the declining chestnut oak from this area to improve the health of surrounding residual trees. Canopy gaps and patch cuts might be needed to harvest in areas with large amount of chestnut oak mortality. A prescribed fire may be necessary to reduce the shade tolerant under and midstory to further the maintain the cover type. The inventory results for this cover type indicate an estimated total volume of 11,468 board feet per acre, with 129,772 to 271,978 board feet of potential volume to be removed.

Summary Tract Silvicultural Prescription and Proposed Activities
It is recommended this tract be harvested in conjunction with tract 1 (6351101). Trees targeted for removal should include mixed hardwoods that release oak or hickory trees, drought-stressed trees, mature and over mature trees, and other intermediate trees needed to release vigorous residual trees. Openings should be made in areas of poorly formed, older mixed hardwoods so that more diverse age classes can be created. The recommended timber harvest will reduce the stocking level to approximately 40%-80%, on the C-line. Many of the chestnuts in this area are stressed and in relatively poor condition, needing to be harvested. The inventory estimated 11,549 board feet per acre, with a total potential harvest volume of 183,508 to 395,248 board feet from the entire tract. This harvest will result in a healthier, more vigorous stand of forest that will be primarily dominated by the oak-hickory cover type.

A timber stand improvement (TSI) operation should occur within two years of the timber harvest. This will be done to complete any patch-cut openings; reduce the understory and competition from shade tolerant species; and release oak, hickory, and other crop trees in the remaining acreage. Some trees will be deadened to increase the number of snags that are available as wildlife habitat.

The fire regime should be implemented within two years of post-harvest TSI. Prescribed fire administered during dominant periods can reduce the presence of shade tolerant species while improving ground conditions making them more favorable for oak and hickory regeneration.

Any invasive plant species present in patch-cuts or shelterwoods should be treated prior to the harvest. During and after completion of the timber harvest BMPs will be implemented to minimize soil erosion.

The current forest resource inventory was completed on 5/30/23 by Intern Forester Elizabeth Carter summary of the estimated tract inventory results are located in the table below.

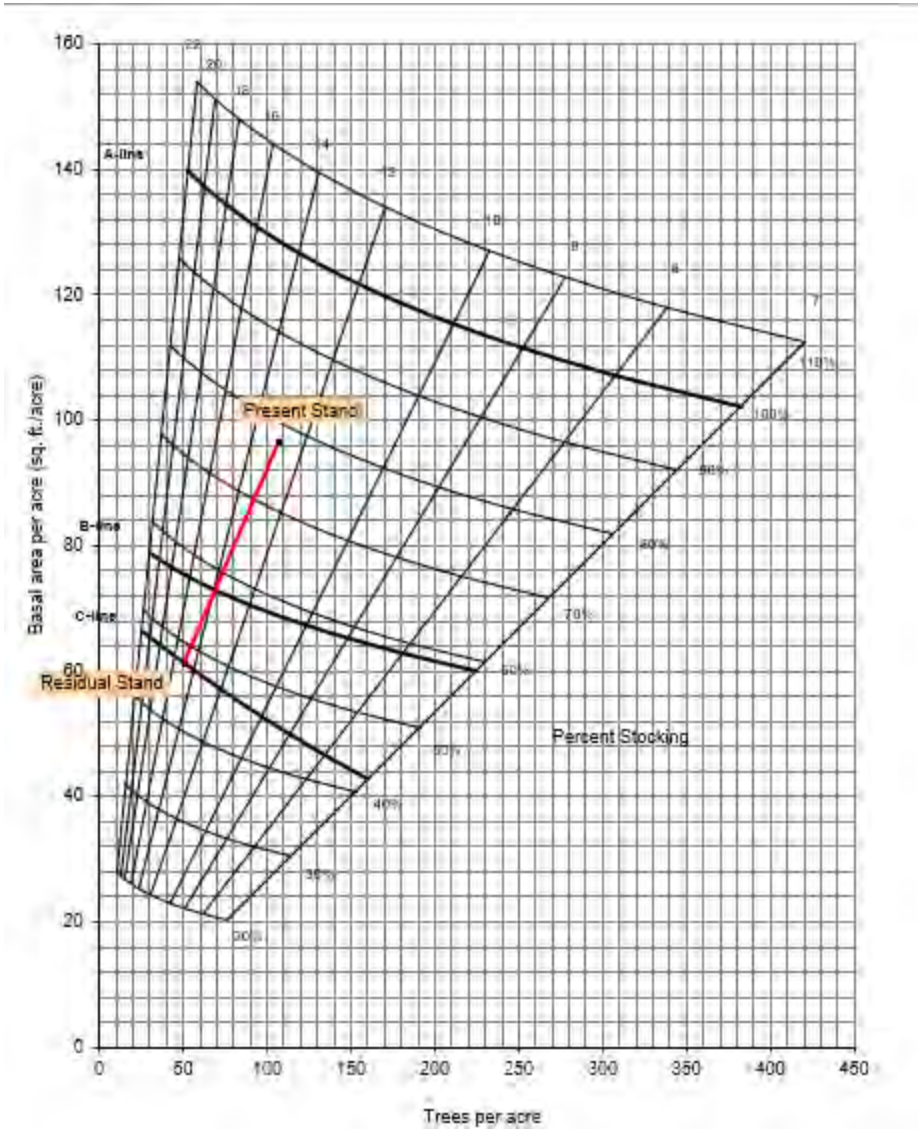
Tract Summary Data (trees >11”DBH):

Species	# Sawtimber Trees	Total Bd. Ft.
Chestnut oak	1,844	351,180
White oak	425	156,420
Yellow poplar	362	122,010
Black oak	168	72,130
Northern red	96	31,420

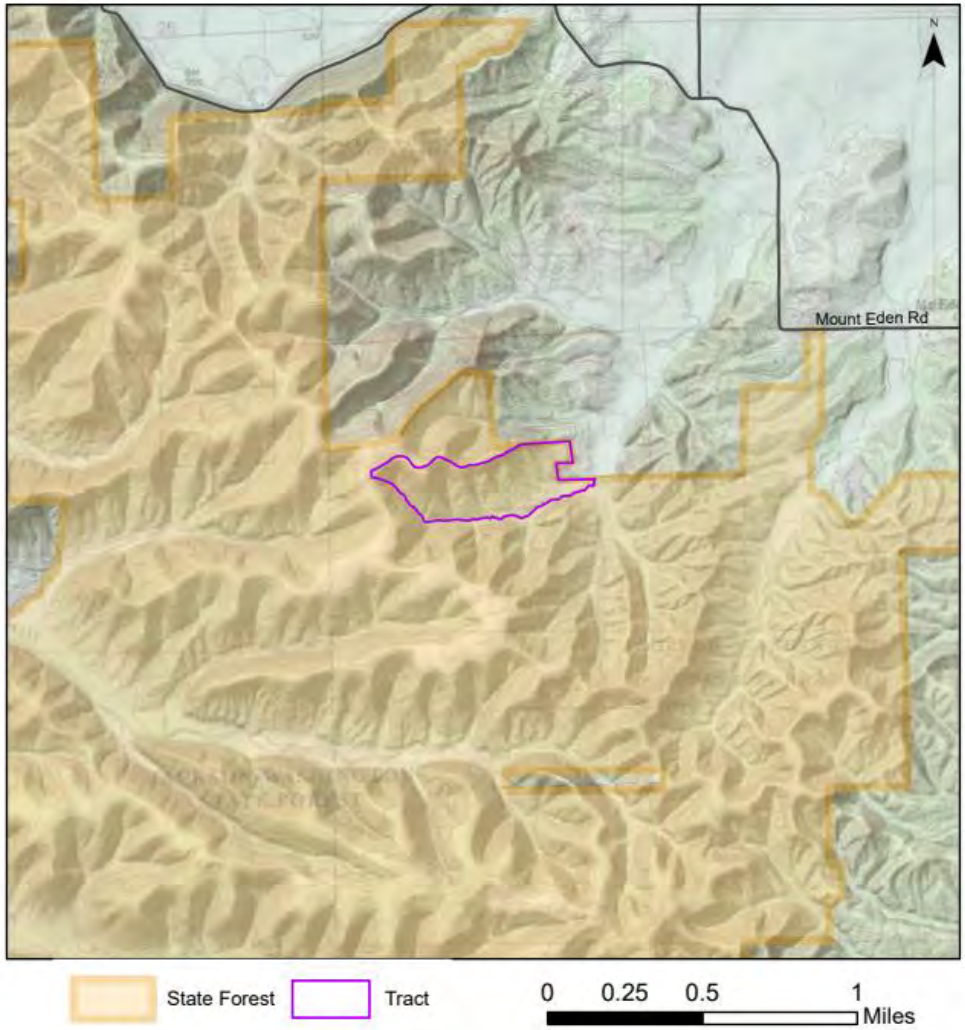
oak		
Sugar maple	168	21,780
American beech	44	20,410
Pignut hickory	49	10,990
Red maple	121	10,520
Scarlet oak	72	10,500
Blackgum	26	1,070
Total	3,375	808,430

Proposed Activities Listing

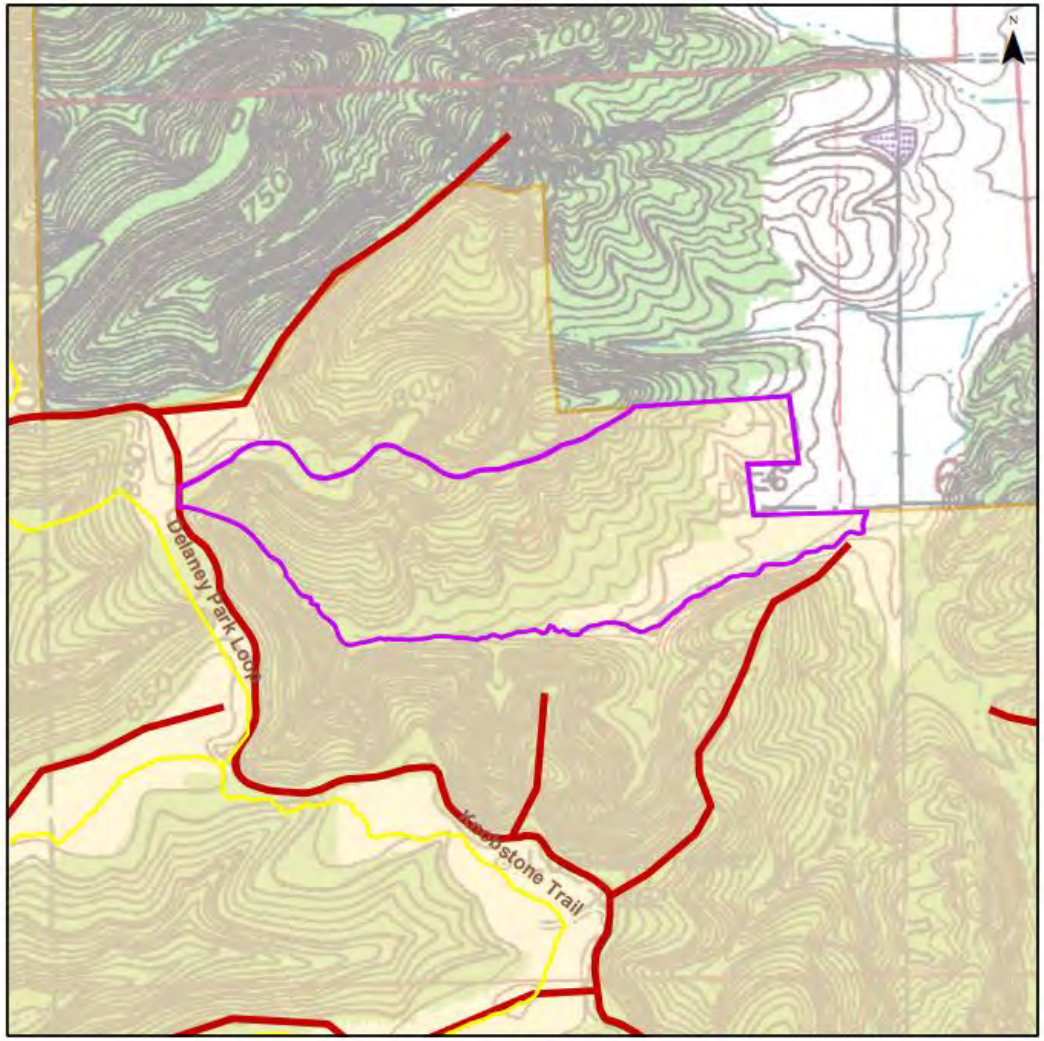
Proposed Management Activity	*Proposed Date*
Mark and Sell Timber Harvest	2024-2025
Post Harvest Timber Stand Improvement	2026-2027
Prescribed fire regime	2027-2028
Review openings greater than 1 acre	3-5 years post-harvest
Inventory and Management Guide	2045-2046
Treat for invasive species	2024-2025+


Basal area per acre (sq. ft./acre)
Trees per acre
A-line
B-line
C-line
Present Stand
Residual Stand
Percent Stocking
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
400
450

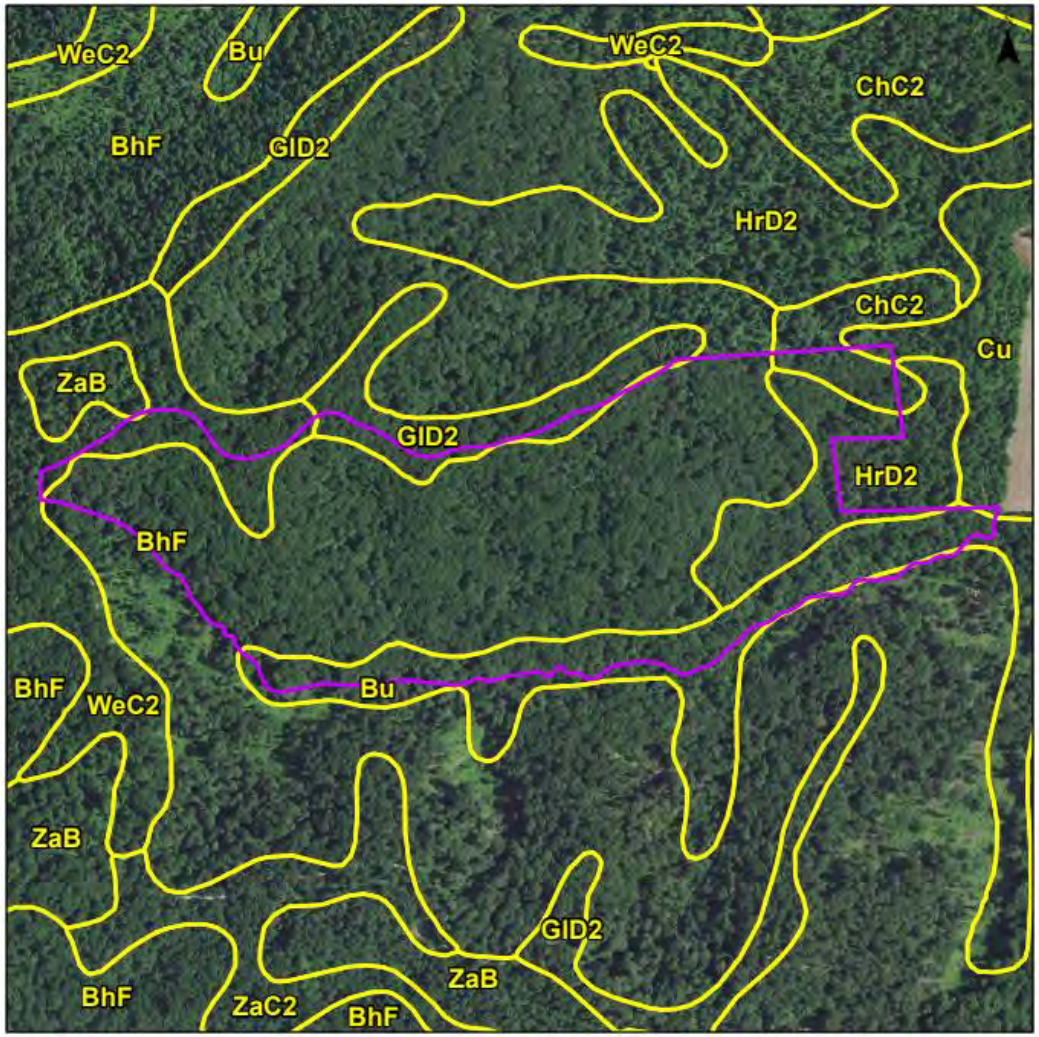
Jackson-Washington State Forest
Location Map
Compartment 11 Tract 2



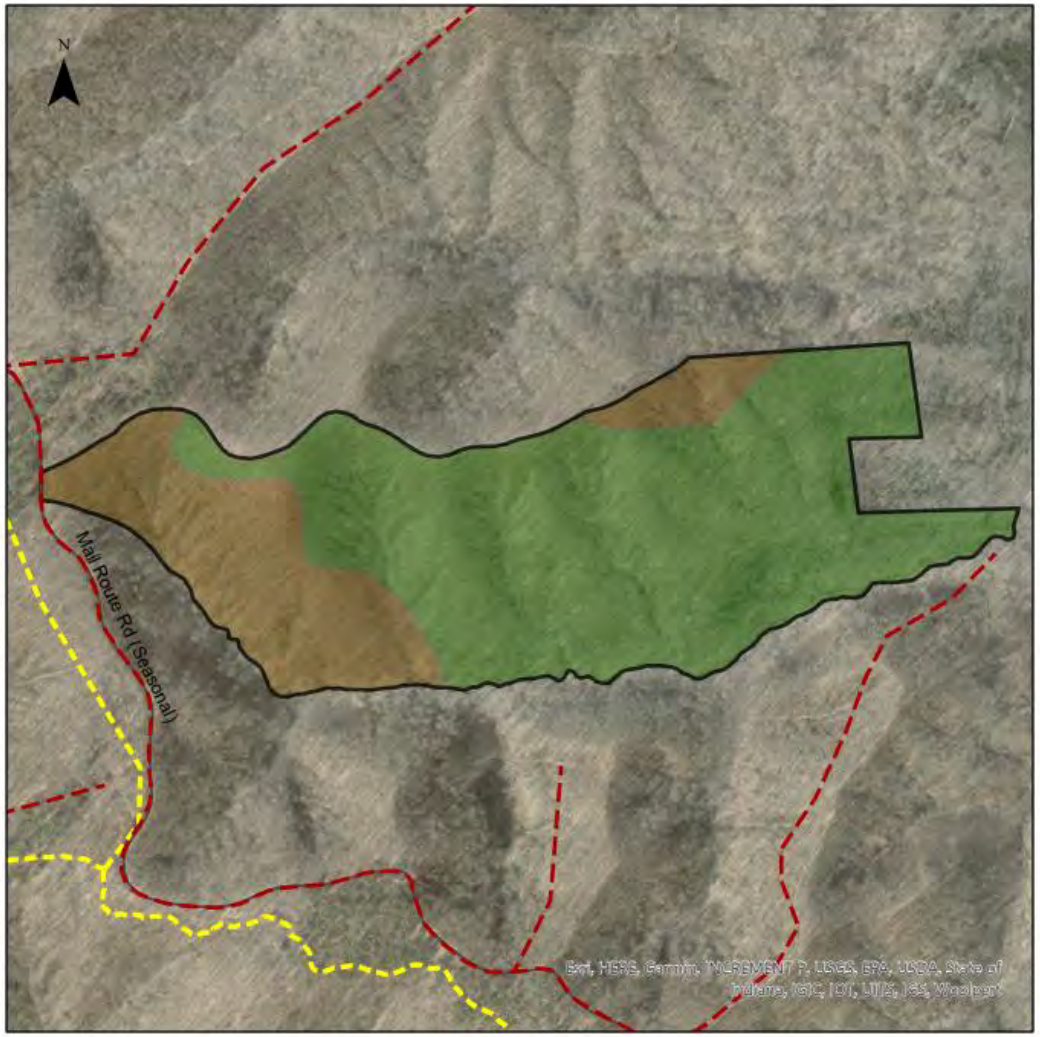
Jackson-Washington State Forest
Compartment 11 Tract 2
Tract Map



Jackson-Washington State Forest
Compartment 11 Tract 2
Soils Map



Jackson-Washington State Forest
Compartment 11 Tract 02
Cover Types Map



0 0.13 0.25
Miles

Legend