Indiana Department of Natural Resources
Division of Forestry

Indiana Department of Natural Resources

Resource Management Guides
Jackson-Washington State Forest
30-day Public Comment Period (July 21, 2025 – August 19, 2025)

The Indiana State Forest system consists of approximately 160,251 acres of primarily forested land distributed across the state. These lands are managed under the principle that we're stewards of this land for the future. This work is guided through legislation and comprehensive scientific national and international forest certification standards which are independently audited to help insure long-term forest health, resiliency, and sustainability.

Resource management guides (RMGs) are developed to provide long-term, scientific forest management planning tailored to each forest compartment (300-1,000 acres in size) and tract (10 - 300 acres in size). There are 1,590 tracts across the state forest system statewide. Annually, 50-100 tracts are reviewed, and these guides are developed based on current assessments. Through science-based management practices, we prescribe management actions on select tracts every 15-25 year, diversifying the forested landscape and sustaining ecosystems.

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 3 Tract 17
Compartment 3 Tract 18
Compartment 3 Tract 20

To submit a comment on this document, go to:

https://www.in.gov/dnr/forestry/state-forest-management/public-comment/submit/

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:

https://www.in.gov/dnr/forestry/state-forest-management/public-comment/

Note: Some graphics may distort due to compression.

Jackson-Washington State Forest | Compartment: 03 | Tract: 17
Forester: Bailey McIntire | Date: 1/16/2019 | Acres: 16
Management Cycle End Year: 2045 | Management Cycle Length: 20

Location
This tract, also referenced as 6350317, is in Jackson County, Indiana, Section 25, Township 5N, Range 4E of the Brownstown Township. This area is approximately 2.5 miles southeast of Brownstown, Indiana, located off Skyline Drive Road.

General Description
The tract is mainly mixed hardwood with portions of it being contiguous oak and hickory.

History
- 1932, 301-acre parcel purchased from Emil and Edna Heller.
- 1999, surveyor set the west corner with a concrete monument and a quarter mile was marked with carsonite posts.
- 2019 forest inventory completed.

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 land is sloping from north to south with the main ridge acting as the northern boundary of the tract. A small wildlife pond is located on the ridge top in the eastern portion of the tract. Much of the sloping landscape is a southern aspect. The parent material for this tract is made up of sandstone, siltstone, and shale.

Soils
Brownstown Channery Silt loam (BvmG): This well drained, moderately deep soil occurs on slopes in the range of 25 to 75 percent. Log landings, haul roads, and rutting are primary concerns for activity on this soil. The potential for off and on road erosion is a measure that must be considered for activity on this soil. The preferred species to manage on this soil are black oak, chestnut oak, common persimmon, scarlet oak, shingle oak, southern red oak, and white oak. Site index for black Oak on sites containing this soil is 50.

Stonehead silt loam (SukC2) This soil is seen in areas having a slope typically around 4-12 percent and is moderately drained. This soil type is well suited for land management activities such as log landings and haul roads. The potential for erosion occurring is a low risk. Species to manage for on this soil: black oak, blackgum, bur oak, cherrybark oak, chestnut oak, common persimmon, northern red oak, scarlet oak, shagbark hickory, shingle oak, southern red oak, sugar maple, swamp chestnut oak, tuliptree, white oak. Site index on this soil include northern red oak at 90.

Gnawbone silt loam (GmrF): This series is typically found on slopes between 20 to 60 percent and is a well-drained, deep soil. This soil is at a high risk for off road erosion as well as the potential for on road erosion. Log landings and haul roads should be chosen carefully with this soil having a high factor of rutting occurrence dependent on the slope. The main species to manage for on this soil are American beech, black oak, blackgum, bur oak, cherrybark oak, chestnut oak, common persimmon, northern red oak, norway spruce, scarlet oak, shagbark hickory, shingle oak, southern red oak, sugar maple, swamp chestnut oak, tuliptree, white oak.

Spickert silt loam (SoaB2): This is a moderately well drained soil occurring in areas of a 2 to 6 percent slope. This soil does not exhibit a risk for erosion factors and is suited to handle log landings and haul roads. Species to manage for on this soil: black oak, bur oak, chestnut oak, common persimmon, scarlet oak, shingle oak, southern red oak, white oak. Site indexes for this soil include black Oak at 90, yellow poplar at 100, and white oak at 60.

Access
This tract may be accessed from one of Skyline Drive's three entrances. From the north S County Road 50 W; from the northeast S County Road 100 E; and from the south W County Road 400 S.

Boundary
The tract boundary is defined by Skyline Drive Road to the north and private land to the south, the eastern and western boundary are defined by adjacent tracts 6350318 and 6350313.

Ecological Considerations
The Division of Forestry has Developed compartment level guidelines for important wildlife structural habitat features such as snags and legacy trees. Snags are standing dead or nearly dead 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, which provide habitat for many ground-dwelling species and contributes to healthy soils. Legacy trees are live trees of a certain species and diameter class, that have potential future value to various wildlife species, if retained in the stand.

Current assessment indicates one feature meets or exceeds recommended maintenance levels while two others fall slightly short. Management activities will maintain or enhance these levels.

A formal Ecological Review process, which includes a search of Indiana' Natural Heritage Database, is part of the management planning process. If Rare, Threatened, or Endangered species were found to be associated with this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the population viability of those species or communities.

Invasive species noted in the tract include Japanese honeysuckle, beefsteak plant, multiflora rose, Japanese stiltgrass, and ailanthus. Most were found along the ridgeline. None of the invasive species appear to be a problem at this time, although their treatment should occur during timber stand improvement (TSI)
This tract has a diverse community type with mixed hardwoods and oak-hickory throughout. The forest floor is heavy with greenbrier and regeneration of both oak-hickory and mixed hardwoods.

The top two species of the young sapling size regeneration consist of chestnut oak and sugar maple.

Recreation
The primary recreation feature in this tract is hunting. There are no established recreational trails in this tract. The fire tower is directly north of this tract off Skyline Drive Road.

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 Prescription
Mixed hardwood (10 acres)
This cover type (i.e., subdivision) consists mostly of mixed hardwoods and makes up roughly 63% of the tract. Stocking for this stand is 68% with about 97 trees per acre. In the understory of this tract American beech is seen as the dominant species followed by sugar and red maple. In the overstory chestnut oak is the dominant species accounting for 1,972.5 board feet (bd.ft.) per acre, while chestnut oak is abundant, this stand also contains sugar maple, yellow poplar, Virginia pine, black walnut, and white ash. This subdivision is seen as being dense while containing oak and hickory in a varied manner. The prescribed management activity is an improvement timber harvest to remove poorly formed and declining trees promoting the development and advancement of the oak and hickory present. 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. TSI should follow the harvest to further release the residual stand, control invasive species present, and complete any openings. This work will also provide habitat benefits through the creation of snag trees of various diameters.

Dry Oak - Hickory (6 acres)
This oak-hickory subdivision makes up approximately 37% of this tract. The presence of oak and hickory is strong throughout the tract in general with areas seen as being mainly contiguous with just oak and hickory, the stocking level for this stand is at around 80% with 89 trees per acre. The recommendation is an improvement timber harvest using single-tree and group selection. Canopy gaps and patch cuts might be needed to harvest in areas with large amounts 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. Species recommended for removal are chestnut oak and sugar maple with lesser amounts of white oak to release residual white oak. Removing the mature declining trees will provide sunlight to the forest floor and release the canopy to the young oak and hickories. The understory of this stand is varied with chestnut oak being the primary species while also facing competition to American beech and sugar maple. TSI should follow the harvest to further release the residual stand, control invasive species present, and complete any openings. This work will also provide habitat benefits through the creation of snag trees of various diameters

Tract Prescription and Proposed Activities
Overall, the trees are reasonably healthy with signs of regeneration throughout. With the tract being positioned at a southern aspect this allows for the high potential of regeneration. By utilizing a combination of single-tree and group selection, and patch cuts the number of declining trees will be reduced to sustain and promote healthy and young vigorous trees for overall health and quality of the stand. Harvest volumes would be 41,160- 68,600 bd.ft. This tract should be included with adjacent tracts when considering the planning of management activities.

TSI 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 could 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.

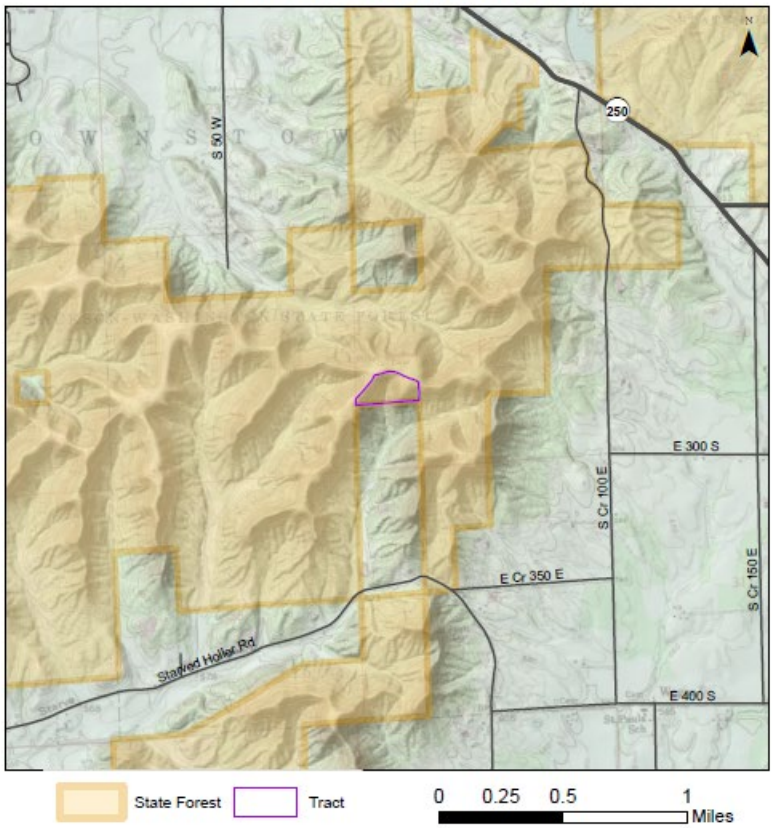
Inventory completed by Taylor Ardisson January 16, 2019

Species	# Sawtimber Trees	Total Volume
Chestnut Oak	424	59,860
White Oak	58	14,990
Bitternut hickory	62	13,050
Black Oak	38	9,770
Sugar Maple	41	5,260
Northern Red Oak	18	4,830
Yellow Poplar	21	2,850
White Ash	9	2,420
Red Maple	11	1,990
Pignut Hickory	14	1,960
Virginia Pine	5	1,330
Black Walnut	9	600
TRACT TOTALS	710	118,910
PER ACRE TOTALS	44	7,432

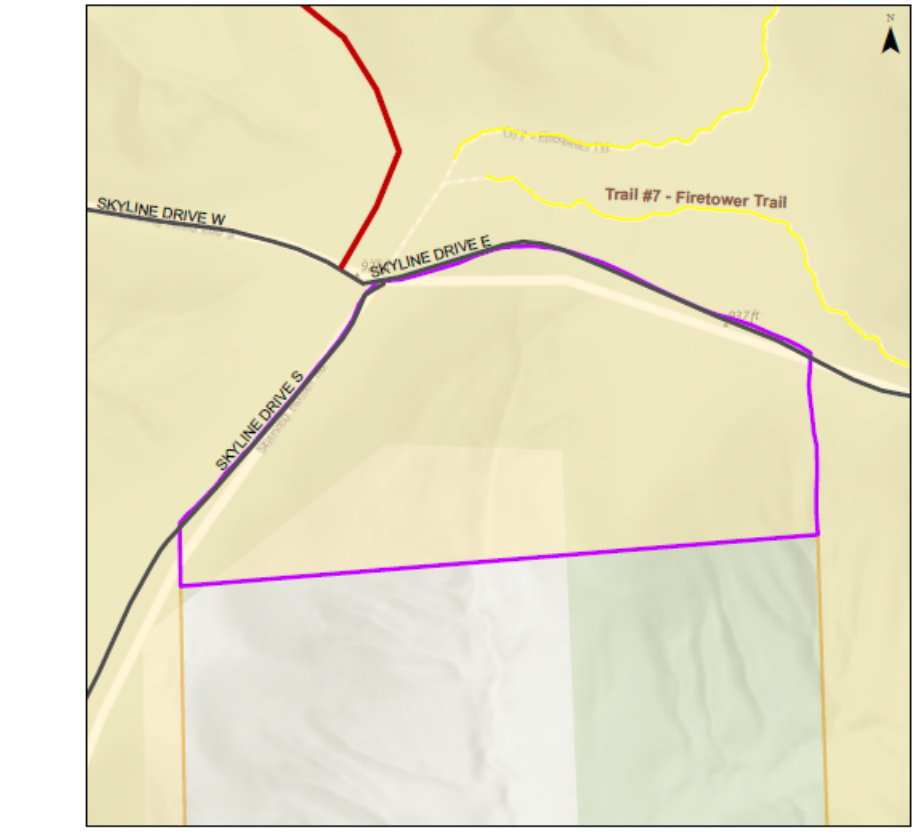
Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Pre-harvest TSI	2025-2026
Mark and sell timber	2025-2027
Post-harvest TSI and/or invasive species work	2027-2029
3-year regeneration review	Three years after harvest
Next forest inventory	2045-2046

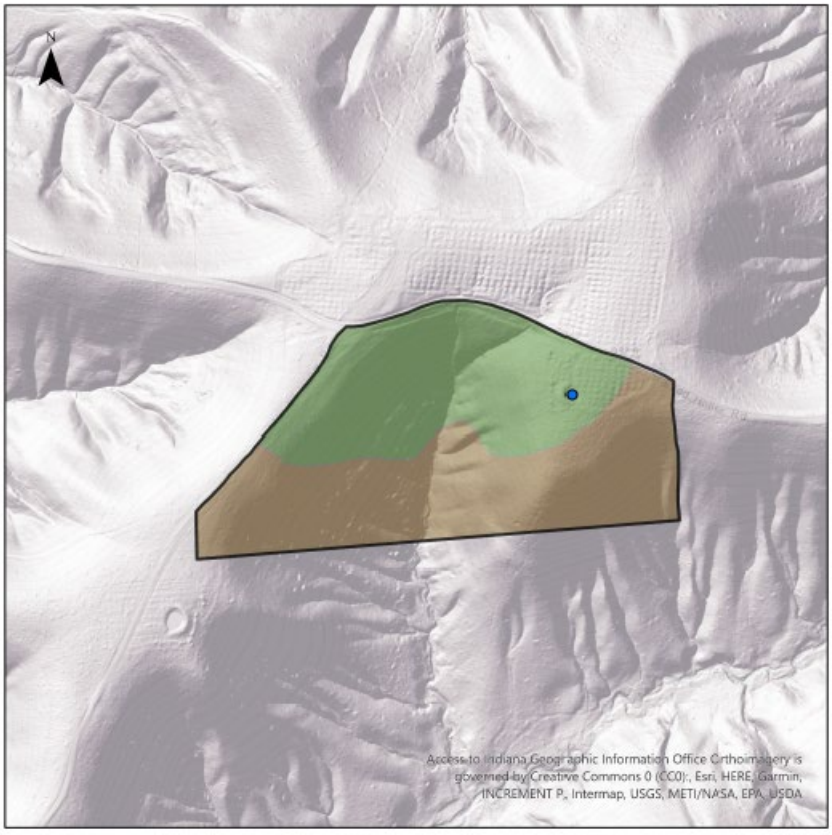
Jackson-Washington State Forest
Location Map
Compartment 3 Tract 17



Jackson-Washington State Forest
Compartment 3 Tract 17
Tract Map



Jackson-Washington State Forest
Compartment 03 Tract 17
Cover Types Map



0 0.13 0.25 Miles

Legend

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

Jackson-Washington State Forest | Compartment: 03 | Tract: 18
Forester: Krista Jones | Date: May 6, 2025 | Acres: 62
Management Cycle End Year: 2045 | Management Cycle Length: 20 years

Location
This tract, also referred to as 6350318, is located approximately 2.5 miles south of Brownstown, Indiana, in Sections 26 and 35, T5N, R4E, Brownstown Township, Jackson County, Indiana.

General Description
The entirety of the tract is forested. Oak-hickory is the dominant cover type, accounting for more than three-quarters of the total tract acreage. It occurs throughout the upper, mid, and lower slopes regardless of aspect. Mixed hardwoods constitute the remaining acreage, primarily occupying the flat bottomland area in the southern half of the tract adjacent to private property.

History
- 1933 (July 5): Land acquisition of 120 acres from Giles L. and Cora E. Smith.
- 1934 (June 17): Land acquisition of 40 acres from Thomas J. and Gertrude A. Barkman.
- 1982 (December 22): Salvage of Northern red and black oaks impacted by looper infestation and general improvement harvest. Estimated 49,349 board feet in 217 live trees; 7,570 board feet in 63 dead trees; and no board feet in 79 culls.
- 2002: (June n.d.): Quail Unlimited planted one-tenth of an acre to warm season grasses west of the entrance to the Starve Hollow side of Skyline Drive.
- 2025 (May 6): Forest inventory.

Based on historical aerial photography from 1931, the land immediately east of the southern half of the tract was cleared along the mapped intermittent stream and may have been used for farming and/or grazing. The tract's eastern boundary bisects at least three of the open areas, which each appear to have been fields less than a few acres in size. Forest covered the remainder of the tract, with the south-facing finger ridge at the northern tip featuring considerably lower stocking than the rest of the stand.

Landscape Context
Brownstown, Indiana, is located within three miles of the tract. Public forestland in the Brown County Hills Section subregion surrounds the tract to the west and north. An inholding, divided into six separate privately-owned parcels ranging in size from 5 to 45 acres, borders the tract to the east. East of this inholding is a narrow finger of public forestland which gives way to large agricultural fields interspersed with single-family homes and a few isolated woodlots. There is a narrow buffer of private and public forestland to the south of the tract. The land south of the buffer is situated in fertile bottomland that is bounded by the Muscatatuck River and one of its tributaries. This, too, has been developed into residential housing and expansive farming operations. Several timber harvests have occurred on private lands within the last 20 years. Some of these private timber harvests appear to have been diameter limit high-grade harvests. Few include regeneration openings. Much of the compartment tract 18 is located within, is mature closed-canopy forest. However, the amount of early successional forest habitat has slowly been improving in the last decade through sustainable timber harvesting.

Topography, Geology and Hydrology
Located within the Highland Rim natural region, the tract's underlying geology consists mostly of siltstone. Aspect is primarily east. The degree of slope varies throughout the tract from moderate to very steep. A series of narrow razorback finger ridges separated by steep drainages characterize the central portion of the tract. One wildlife pond is present near the northern tip of the tract. The mapped intermittent stream that runs along a portion of the eastern boundary is part of the Mill Creek subwatershed. It drains into Starve Hollow Lake, approximately 2 miles downstream of the tract.

Soils
Beanblossom silt loam (BcrAW) This is a deep, well-drained soil that formed in 0 to 24 inches of medium-textured alluvium and the underlying loamy-skeletal alluvium. The Beanblossom soils are on flood plains and alluvial fans below steep and very steep slopes. Native vegetation is deciduous forest, dominantly sycamore, elm, hickory, beech, maple, and tulip-poplar. This soil is well-suited to trees. Plant competition is moderate. Preferred trees to manage for are bitternut hickory, white oak, sugar maple, and yellow-poplar.

Brownstown channery silt loam (BvmG) This soil series is generally found on hills, knobs, or side slopes. It formed from a loamy-skeletal residuum that was over a Mississippian sandstone and shale mix. You will typically find this soil series on slopes ranging from 25 to 75 percent and it is a deep and well-drained soil. Seedlings have a moderate chance of survival, with amount of available water being the primary limiting factor. Trees or woody vegetation commonly found include: chestnut oak, pawpaw, dogwood, and greenbrier. Trees to manage for are blackgum, black oak, bur oak, white oak, chestnut oak, eastern white pine, shingle oak, bald cypress, persimmon, southern red oak and Virginia pine. Black oak has a site index of 50. Available water capacity is moderate (6.6 inches in the upper 60 inches). The upper layer of this soil is mildly toxic (pH of 4.5). The organic matter in the upper surface is low with only 2.5 percent and there is a high chance of organic matter depletion.

Coolville silt loam (CoD, ComD) This moderately well-drained soil has a seasonally high water table at 1.0 to 2.0 ft. and is on side slopes on uplands. Slopes can range from 12 to 20 percent. The native vegetation is hardwoods. The surface layer is silt loam and has moderately low or moderate organic matter content (1.0 to 3.0 percent). Permeability is very slow (<0.06 in/hr) in the most restrictive layer above bedrock. Available water capacity is moderate (6.6 inches in the upper 60 inches). The pH of the surface layer is 3.5 to 5.5. Bedrock is at a depth of 40 to 60 inches. This soil type has a site index of 66 for Northern red oak.

Gnawbone silt loam (GmrF) This is a well-drained soil that is found on slopes ranging from 20 to 60 percent. Geographically, this soil is found on hilltops and side slopes. Trees and other woody vegetation will be typically found growing in the understory. The seedlings have a moderate chance of survival, with available water being the primary limiting factor. Trees that should be managed for on this soil are blackgum, black oak, bur oak, eastern white pine, scarlet oak, shingle oak, white oak, baldcypress, chestnut oak, persimmon, southern red oak and Virginia pine. The surface layer of this soil has a pH of 4.3, making this soil moderately acidic. Three percent of the surface layer is organic matter, which is relatively low. Available water capacity is moderate (9.6 inches in the upper 60 inches). The soil is poorly suited for equipment

operability, mostly because of slope being a concern. However, with BMPs being implemented and restriction of logging activities during certain weather patterns, this can be mitigated.

Kurtz silt loam (KtF, KxzG) This series consists of deep, well-drained soils on hills. They formed in residuum weathered from interbedded soft siltstone and shale bedrock. Slopes can range from 20 to 55 percent. Native vegetation consists of mixed hardwoods, including oaks, hickory, beech and yellow-poplar. This soil is well-suited to trees. The site index is 60 for Northern red oak. Preferred trees to manage for are black oak, chestnut oak, persimmon, Northern red oak, scarlet oak, shagbark hickory, American beech, sugar maple, and white oak.

Stonehead silt loam (SsC2) (SukC2) This series consists of deep and very deep, moderately well-drained soils formed in loess and the underlying residuum weathered from soft shale or soft siltstone bedrock. Slopes range from 4 to 12 percent. Native vegetation is mixed hardwoods, with oaks, hickory, beech, maple, and tulip-poplar as the major species. This soil is well-suited for trees. Prolonged seasonal wetness hinders logging activities and planting of seedlings. The equipment limitations, seedling mortality, windthrow hazard, and plant competition are management concerns. The potential productivity or site index for this soil type is 90 for northern red oak. Preferred trees to manage for are black oak, chestnut oak, common persimmon, northern red oak, scarlet oak, shagbark hickory, sugar maple, yellow-poplar, and white oak.

Access

The tract may be accessed via one of Skyline Drive's three entrances. To access the tract from the north, take S County Road 50W from Brownstown, Indiana. Follow this road south until you reach the State Forest property boundary, where the county road becomes Skyline Drive Road. Continue for approximately 1.25 miles to the three-way intersection at the fire tower. From the intersection, turn south. Follow the paved road for one tenth of a mile to reach the northern tip of the tract. To access the tract from the south, take State Road 135 south from Brownstown, Indiana. Follow for 3.75 miles before turning southeast on N County Road 310 W, which becomes Lake Road. Continue for 1.6 miles. Turn east onto W County Road 400 S, also known as Starved Holler Road. In three miles, turn north onto Skyline Drive at the gravel horse trail parking lot. This is the southern tip of the tract. To access the tract from the northeast, take State Road 250 southeast from Brownstown, Indiana. Turn south onto S County Road 100E. Follow for two-tenths of a mile until reaching the wooden State Forest sign at the intersection of the county road and Skyline Drive Road. Turn west on Skyline Drive Road and continue for approximately 1.7 miles to the three-way intersection at the fire tower. From here, turn south. Follow for another one tenth of a mile to reach the northern tip of the tract.

Boundary

The tract's shape is reminiscent of a triangle, with its right angle anchored at the high point of a ridge to the west and its hypotenuse to the east. Consequently, there is no north boundary or south boundary. The eastern boundary of the tract is also the State Forest property line, which has been painted in orange paint. Skyline Drive Road serves as the tract's western boundary.

Ecological Considerations

Wildlife species or sign observed during the inventory include deer, raccoon, red-bellied woodpecker, eastern gray squirrel, chipmunk, downy woodpecker, garter snake, southern flying

squirrel, red-tailed hawk, turkey vulture, American toad, and numerous resident and migratory songbirds. Songbirds include Northern cardinal, red-eyed vireo, Kentucky warbler, blue jay, tufted titmouse, black-throated green warbler, ovenbird, Eastern wood pewee, Tennessee warbler, Nashville warbler, and scarlet tanager.

The Division of Forestry has developed compartment level guidelines for important wildlife structural habitat features such as snags and legacy trees. Snags are standing dead or nearly dead 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, which provides habitat for many ground-dwelling species and contributes to healthy soils. Legacy trees are live trees of a certain species and diameter class, that have potential future value to various wildlife species, if retained in the stand.

Current assessments indicate the abundance of these habitat features meet or exceed recommended maintenance levels.

Invasive species noted in the tract include garlic mustard, Japanese honeysuckle, multiflora rose, autumn olive, burning bush, and periwinkle. Occurrences were restricted to the upper slopes of the tract near Skyline Drive Road, a regenerating patch-cut from a timber harvest in the 1980s, and the mixed hardwood subdivision in the bottoms. In the bottoms, a dense wall of autumn olive, burning bush, and multiflora rose is present along the State Forest property line and in the landscaping of the adjacent private property. These invasives have escaped and are seeding into the State Forest. While none of the invasives appear to be a problem at this time, their treatment should occur as time and resources allow. In the bottoms, continued monitoring and/or treatment will be needed so long as the seed source for the invasives remains on the adjacent private property.

A formal Ecological Review process, which includes a search of Indiana's Natural Heritage Database, is part of the management planning process. If Rare, Threatened, or Endangered species were found to be associated with this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the population viability of those species or communities.

Recreation
The parking lot and trailhead for the network shared mountain bike and horse trails for the Skyline Drive area are located within the southern tip of the tract. The horse trails include the Cedar Tree Loop, Orchard Ridge Loop, and Turkey Hollow Loop. None of these falls within the tract boundaries, although a short, 360-foot-long connector from the parking lot to the first loop does. Hunting is another major recreational use of the tract. For public safety, recreation will be temporarily restricted within the tract during active management; however, the trailhead will remain open

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

Tract Subdivision Description and Prescription

Mixed Hardwoods (10 acres) This cover type (i.e., subdivision) occurs as a narrow sliver in a mesic bottomland area in the tract's southern half. A small pocket also occurs along the upper and middle slopes in the central portion of the tract. It features a thick understory of pawpaw and spicebush. The density of the midstory is variable but consists mostly of sugar maple. The herbaceous layer is diverse, with species such as cutleaf toothwort, yellow trout lily, mayapple, lady fern, green trillium, and woodland phlox. Woody seedling regeneration is sparse and limited to pawpaw, white ash, sugar maple, sweetgum, and Northern red oak.

The most common overstory trees are sugar maple and yellow poplar. Others include American sycamore, northern red oak, blackgum, chinkapin oak, black oak, red maple, pignut hickory, black walnut, American beech, and white oak. Trees in the overstory tend to fall within the small diameter sawtimber size classes, except for a few over-mature yellow poplar and black oak. Overall quality ranges from poor to average. Pole-sized yellow poplar is of particularly poor quality, with sweep or crook and low forks.

Stocking is considerably lower in this subdivision than that of the oak-hickory subdivision. This may be due in part to blowdown as well as white ash mortality in the overstory, which has created a more open canopy. However, the stand is still fully stocked and would benefit from a light improvement harvest using single-tree and group selection, and/or patch-cuts. Any over-mature trees that are significantly declining due to age should be removed from the stand to capture their mortality and promote the establishment of the next cohort of trees. Some of the overstory sugar maple is exhibiting damage and decay from the maple borer insect, but otherwise has relatively good form with clear, straight boles. Any trees with insect damage should be removed to improve the overall health and resiliency of the stand.

A few areas within the stand consist only of poles. These poles are exhibiting slowed growth and reduced vigor due to intraspecific competition and suppression from grapevine. Grapevine is also prevalent in the canopy gaps created from blowdown and natural mortality. Poles should be thinned during post-harvest timber stand improvement (TSI) to release higher quality, better formed stems. Grapevine should also be controlled at that time.

Dry Oak-Hickory (52 acres) This subdivision accounts for a majority of the tract. Its herbaceous layer is diverse, containing species such as poison ivy, mayapple, Christmas fern, Virginia creeper, blackberry, black raspberry, false Solomon's seal, yellow trout lily, cutleaf toothwort, rue anemone, common blue violet, American hog peanut, and Virginia spiderwort. The understory is frequently dominated by American beech. Ironwood is common as well. Upper slopes and the ridgetop are particularly dense with thickets of greenbrier that are climbing and suppressing saplings.

The overstory is comprised mostly of chestnut oak, which is typical of the site. Butt rot, double stems, and low forks are common, particularly in those trees near the ridgetop. Other overstory species, which increase in diversity on the mid and lower slopes, include white oak, black oak, sugar maple, pignut hickory, red maple, Northern red oak, shagbark hickory, and black walnut. Quality varies widely depending on species and slope position. Pignut hickory consistently exhibits exceptional form, with straight boles clear for at least two logs. However, trees near the

ridgetop have experienced some degree of wind damage, with major limbs broken out of their canopies. In addition, all species of oak show signs of stress, including epicormic branching and mortality from hypoxylon canker. Many of the larger overstory black and Northern red oaks are over-mature and declining, with rot, weeping wounds, splits, or seams in the butt log. Also in decline is a proportion of sawtimber sugar maple stems that have decay consistent with maple borer insect damage. Single-tree and group selection, and patch-cuts may be used to remove any of these poorly formed, damaged, unsound, or declining trees that are in direct competition with healthier, more vigorous trees.

A few canopy gaps have been created in the overstory through blowdown and from isolated pockets of chestnut oak mortality. These may be expanded upon through group selection or patch-cuts.

Across the subdivision, a suppressed cohort of excellent quality white oak poles are trying to recruit from the midstory under a canopy of more mature, lesser quality sawtimber white oak. This midstory also contains sugar and red maple, blackgum, pignut hickory, and chestnut oak. Post-harvest TSI will be necessary to release suppressed oaks and hickories, along with trees of any species that are of better quality and form.

Black cherry dominates the regeneration layer. Other seedlings include ironwood, red elm, red maple, yellow poplar, downy serviceberry, white ash, sassafras, blackgum, and American beech. Pignut hickory, chestnut oak, Northern red oak, black oak, and white oak seedlings were also present but not as prevalent as other species. These occurred in the highest numbers, and as advance regeneration in some instances, near canopy gaps and lower stocked areas of the stand where more sunlight was able to reach the forest floor. The regeneration of faster-growing, shade tolerant species is overtopping and outcompeting the oak-hickory regeneration throughout the remainder of the stand. This may be remedied with the use of prescribed fire.

Within this subdivision is at least one patch-cut from a previous timber harvest that has regenerated with mostly straight, clear-boled yellow poplar. Several pignut hickory, sugar maple, and black oak are present as well. Grapevine in the patch-cut is suppressing these trees, reducing their growth and negatively affecting their form, and should be controlled during TSI.

This subdivision may benefit from one or more oak shelterwood harvests. Each should be combined with prescribed fire to increase the likelihood of oak and hickory seedling survival and recruitment from the lower canopy strata into the overstory. Fire and single-tree selection and group selection, or patch-cuts should be implemented in any areas that are not part of a shelterwood to promote oak-hickory regeneration, reduce stocking, and release healthier trees with better form.

The current forest resource inventory was completed on 05/06/25 by Krista Jones. 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	923	194,180

White oak	384	115,640
Black oak	206	81,940
Sugar maple	476	45,380
Yellow poplar	138	41,200
Northern red oak	108	37,030
Pignut hickory	152	22,660
American sycamore	47	21,330
Shagbark hickory	46	11,760
Black walnut	35	7,880
Red maple	93	6,550
American beech	14	5,410
Chinkapin oak	29	2,350
Black locust	32	2,240
Blackgum	43	1,830
Total:	**2,726**	**597,380**

Tract Prescription and Proposed Activities

This tract should receive a timber harvest within the next 5 years. This could be in conjunction with adjacent tracts or as a standalone harvest. One or more shelterwood harvests may be necessary in the oak-hickory subdivision to promote oak-hickory seedling establishment, survival, and recruitment into the upper canopy strata. Single-tree and group selection, , patch-cuts, or a combination may be used in either subdivision to reduce stocking and improve the overall health, quality, and vigor of the stand. Trees targeted for removal should include mixed hardwoods that release oak and hickory trees; damaged trees or those with defect; mature or over-mature trees that are declining due to age, disturbance, insects, or disease; and any intermediate trees needed to release vigorous residual trees. TSI of the midstory should be completed following a harvest in part to encourage the recruitment of suppressed oaks and hickories from the midstory into the overstory. While some slopes have a more mesic aspect, there appears to be sufficient leaf litter to adequately carry fire. As such, a low-intensity prescribed fire regime should be developed for the tract to promote successful oak and hickory seedling establishment by reducing competition from shade tolerant species and promoting seed germination. Prescribed fire also helps to maintain openings in early successional habitat, the composition and structure of which provides wildlife with unique food and cover sources that are not otherwise found in a closed canopy forest. This harvest will reduce the stocking level from 78%, approaching the upper end of fully stocked, to 48%, which is just above the C-line. The inventory estimated 9,635 board feet per acre, with a total potential harvest volume of 128,954 to 230,606 board feet from the entire tract. The top three harvest species by volume include chestnut oak, white oak, and black oak.

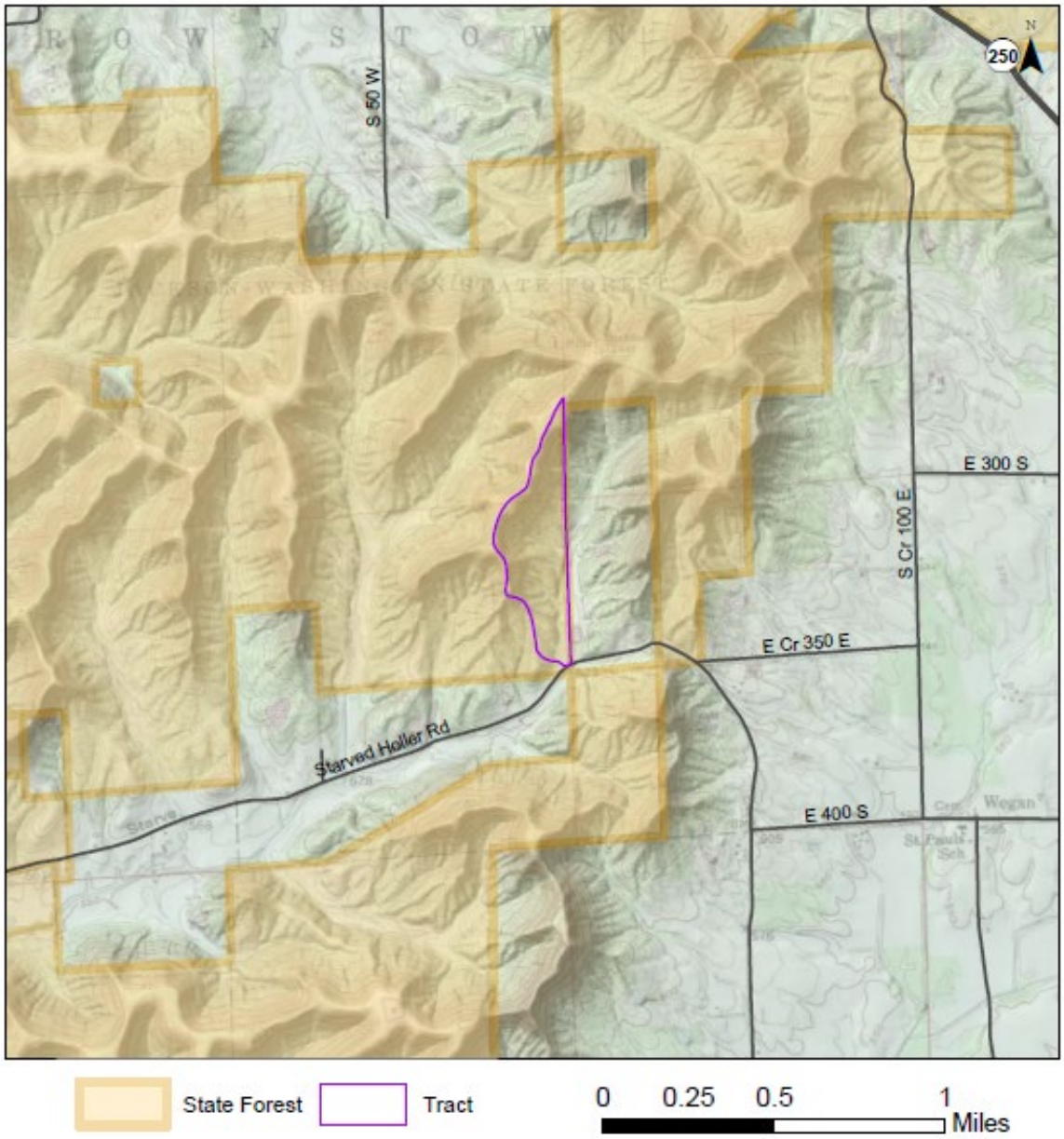
Any invasive plant species present in planned patch-cuts or shelterwoods should be treated prior to the harvest. During and after completion of the timber harvest, best management practices (BMPs) will be implemented to minimize soil erosion.

Within two years of the timber harvest, a TSI operation should follow to adequately complete any patch-cut openings, reduce the understory in any shelterwoods, release residual crop trees in the remaining tract acreage, and create additional snags as wildlife habitat.

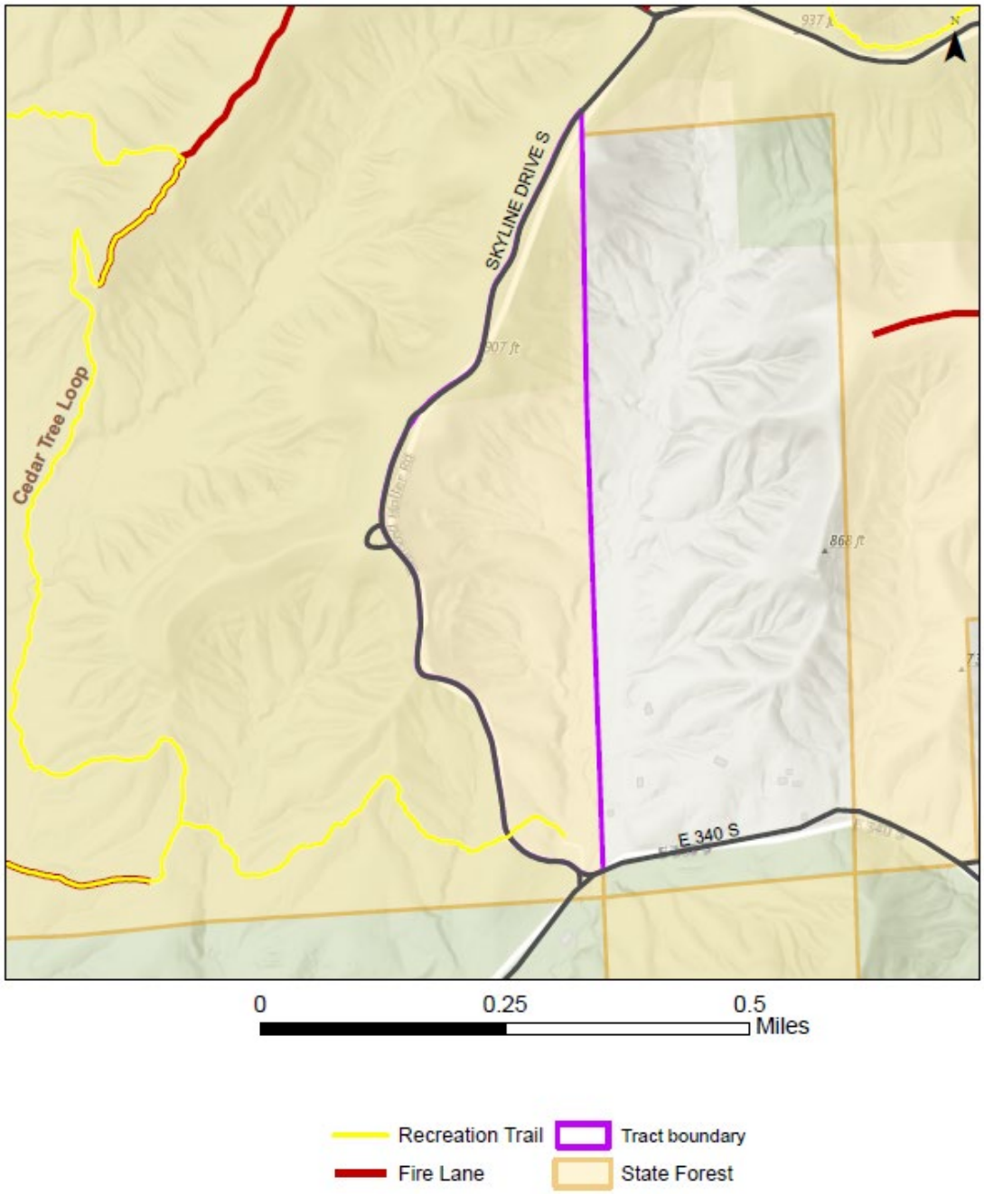
Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Mark and sell timber	2025-2030
Pre-harvest TSI and/or invasive species work	2030-2031
Timber harvest	2031-2035
Post-harvest TSI and/or invasive species work	1-2 years after harvest
Prescribed fire regime	3-5+ years after shelterwood establishment cut and/or 1-2+ years after post-harvest TSI
3-year regeneration review	Three years after harvest
Removal cut for any shelterwoods	5+ years after harvest, dependent upon regeneration diameter and/or height (2042-2045)
Next forest inventory	2045

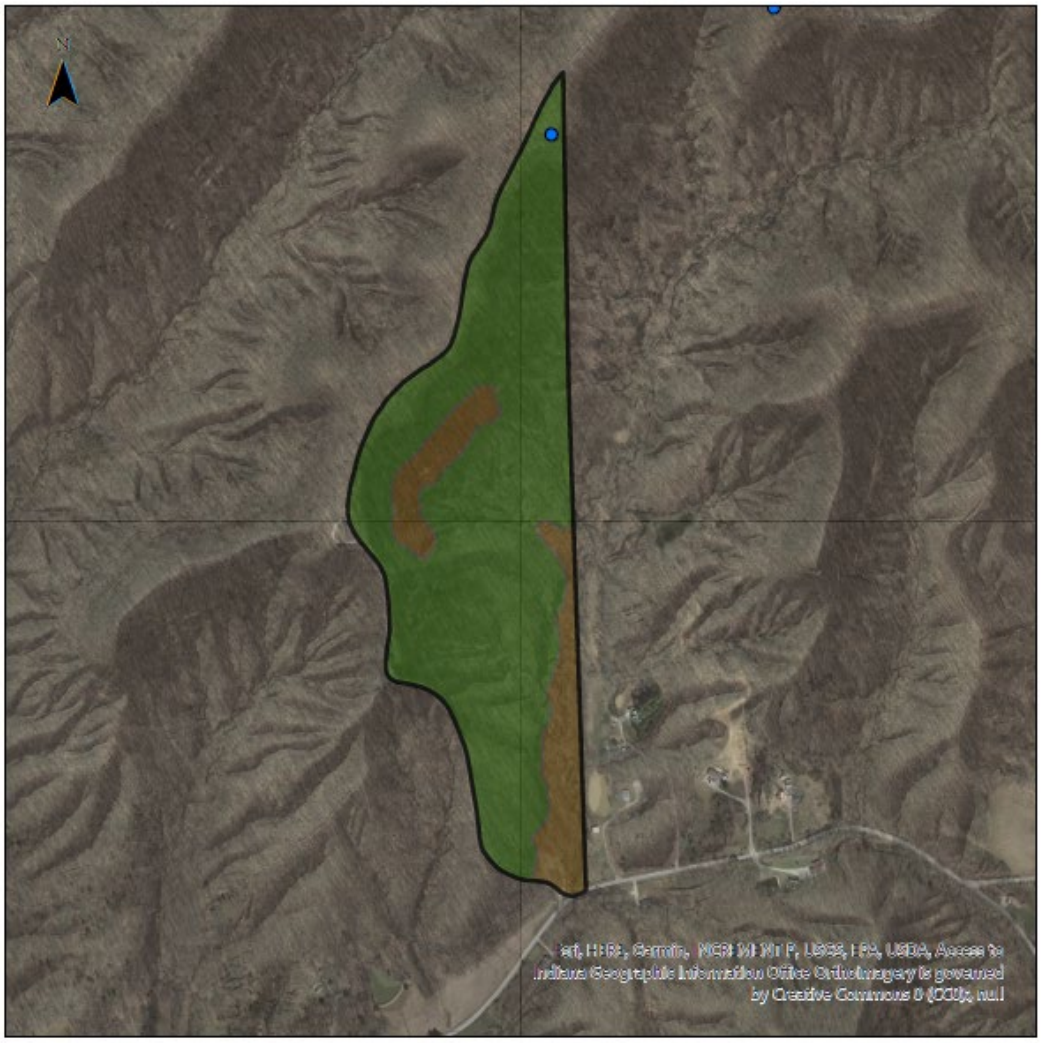
Jackson-Washington State Forest
Location Map
Compartment 3 Tract 18



Jackson-Washington State Forest
Compartment 3 Tract 18
Tract Map



Jackson-Washington State Forest
Compartment 03 Tract 18
Cover Types Map



Jackson-Washington State Forest | Compartment: 03 | Tract: 20
Forester: Bailey McIntire | Date: May 23, 2025 | Acres: 66
Management Cycle End Year: 2044 | Management Cycle Length: 20 years

Location
The tract, also referenced as 6350320, is in Jackson County, Indiana, along Skyline Drive Road, approximately two miles south of Brownstown, Indiana. More specifically, the tract is in Township 5, North Range 4 East, Section 25, 26 & 35 in the Brownstown Township.

General Description
The tract is a combination of oak-hickory and mixed hardwoods forest.

History
The property that encompasses the tract was purchased by the Department of Conservation, precursor to the Department of Natural Resources (DNR) in multiple transactions that occurred between the 1930's and 50's. There is no recorded history of management prior to DNR ownership.

- 1933: Land acquisition of 80 acres from Giles L & Cora E Smith.
- 1934: Land Acquisition of 40 acres from Thomas J & Gertrude A Barkman.
- 1941: Land Acquisition of 40 Acres by Ira Jenkins.
- 1950: Land Acquisition of 76 acres from William A & Katherine R Shaw.
- 1952: Land acquisition of 30 acres from Hettie M & Asbuary Jr. Jarvis.
- 1971: Forest inventory and management guide was completed. At this time the tract encompassed 100 acres. Total sawtimber volume was estimated 208,010 board feet. The management guide indicated a timber harvest would be possible within 10 years.
- 1976: Timber harvest was conducted across 2 tracts.
- 2001: Tract boundary was changed making it 66 acres.
- 2018: Forest inventory

Landscape Context
The tract is on the edge of a large block (approximately 2,500 acres) of state forest land along Skyline Drive. The tract currently consists of mature forests with closed canopies. Outside of this block of state forest land are agricultural fields and single-family homes.

Topography, Geology and Hydrology
The tract is bound to the east by Skyline Drive Road, which is situated on a ridgetop, and a blue line stream to the west. The topography is moderately steep to very steep and is predominately western facing slopes. There are minor ephemeral drainages throughout, and two indistinct minor drainages form the northern and southern tract boundaries. The bedrock is sandstone and siltstone.

Soils
Beanblossom silt loam (BcrAW) This is a deep, well drained soil that formed in 0 to 24 inches of medium-textured alluvium and the underlying loamy-skeletal alluvium. The Beanblossom soils are on flood plains and alluvial fans below steep and very steep hillslopes. Native vegetation is deciduous forest, dominantly sycamore, elm, hickory, beech,

maple, and tulip-poplar. This soil is well suited to trees. Plant competition is moderate. Preferred trees to manage for are bitternut hickory, white oak, sugar maple, and yellow poplar.

Berks channery silt loam (BeG) This steep and very steep, moderately deep, well drained soil is on side slopes and knolls in the uplands. Slopes can range from 25 to 75 percent. The native vegetation is hardwood. It is fairly well suited to trees. The equipment limitations, seedling mortality, and the erosion hazard are management concerns. Building logging roads and skid trails on the contour and constructing water bars help to control erosion. North aspects generally are more productive than south aspects. The site indexes for hardwood species range from 70 (white oak) to 90 (yellow poplar). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

Gilpin silt loam, 25 to 55 percent slopes (GnF) This well drained soil has a water table at a depth greater than 40 inches and is on side slopes on uplands. Slopes range from 25 to 55 percent. The native vegetation is hardwood. The surface layer is silt loam and has moderate organic matter content (2.0 to 4.0 percent). Permeability is moderate (0.6 to 2.0 in/hr) in the most restrictive layer above bedrock. Available water capacity is low (4.8 inches in the upper 60 inches). The pH of the surface layer is 3.5 to 5.5. Bedrock is at a depth of 20 to 40 inches.

Kurtz silt loam (KtF) This series consists of deep, well drained soils on hills. They are formed in residuum weathered from interbedded soft siltstone and shale bedrock. Slopes can range from 20 to 55 percent. Native vegetation consists of mixed hardwood with oaks, hickory, beech and yellow poplar. This soil is well suited to trees. The site index for this soil type is 60 for northern red oak. Preferred trees to manage for are black oak, chestnut oak, persimmon, northern red oak, scarlet oak, shagbark hickory, American beech, sugar maple, and white oak.

Stonehead silt loam (SsC2) This series consists of deep and very deep, moderately well drained soils formed in loess and the underlying residuum weathered from soft shale or soft siltstone bedrock. Slopes range from 4 to 12 percent. Native vegetation is mixed hardwood with oaks, hickory, beech, maple, and tulip-poplar as the major species. This soil is well suited for trees. Prolonged seasonal wetness hinders logging activities and planting of seedlings. The equipment limitations, seedling mortality, windthrow hazard, and plant competition are management concerns. The potential productivity or site index for this soil type is 90 for northern red oak. Preferred trees to manage for are black oak, chestnut oak, common persimmon, northern red oak, scarlet oak, shagbark hickory, sugar maple, yellow-poplar and white oak.

Access

There are two points of access for the tract. The first is immediately north of the Starve vista (also known as the Starve Hollow vista) off Skyline Drive Road. This area may serve as a log yard for timber skidding from the upper, northwest-facing slopes. The second access point is via County Road 75W. This county road ends prior to the state forest boundary, providing management access only via Fire Lane 230. This fire lane continues north along a portion of the Cedar Tree Loop horse trail before terminating at the log yard used in the 1988 timber sale.

Boundary
The eastern tract boundary is Skyline Drive Road, which is on top of the ridge. The tract descends west to a blue line stream and that forms the western track boundary. Minor ephemeral drainages form the northern and southern tract boundaries.

Ecological Considerations
The Division of Forestry has Developed compartment level guidelines for important wildlife structural habitat features such as snags and legacy trees. Snags are standing dead or nearly dead 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, which provide habitat for many ground-dwelling species and contributes to healthy soils. Legacy trees are live trees of a certain species and diameter class, that have potential future value to various wildlife species, if retained in the stand.

Current assessment indicates one feature meets or exceeds recommended maintenance levels while two others fall slightly short. Management activities will maintain or enhance these levels.

A formal Ecological Review process, which includes a search of Indiana' Natural Heritage Database, is part of the management planning process. If Rare, Threatened, or Endangered species were found to be associated with this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the population viability of those species or communities.

Invasive species noted in the tract include garlic mustard, multiflora rose, Japanese stiltgrass, and Japanese honeysuckle. Each occurred in small, isolated patches and were generally found near the Starve Hollow vista on Skyline Drive Road, and along portions of the mapped intermittent stream, in the bottoms. While none of the invasives appear to be a problem at this time, treatment would be relatively straightforward if resources allowed their accessibility. If not treated prior to management activities, the invasives should be monitored and treated situationally.

Recreation
The main recreational use of the tract is hunting and hiking along Skyline Drive Road.

During the proposed management activities, specifically a timber harvest, access to the tract will be temporarily restricted for public safety. The tract would open to public access following the completion of management activities.

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
Mixed hardwood (18 acres)
The mixed hardwoods cover type (i.e., subdivision) is located along the main drainage and lower slopes in the western portion of the tract. The principal species is yellow poplar at 4,906 board

feet (bd.ft.) per acre; however, other species such as white oak, white ash, American beech, sugar maple, shagbark hickory, pignut hickory, red maple, sycamore, and sweetgum were recorded in the inventory. Total bd.ft. per acre was 9,933. The understory was primarily sugar maple and American beech.

The management recommendation for this subdivision is to conduct an improvement harvest to remove defective, poorly formed, and (or) declining trees to funnel light and other resources to healthier trees. Large, declining yellow poplar and northern red oak should be removed to release trees with better form and vigor. In areas where regeneration is poor, group selection or patch cut openings should be considered to regenerate shade-intolerant species. In many of these areas' removal of non-oak and hickory species would create shelterwood conditions or transition these areas to oak-hickory. These should be removed via single-tree and group selection, or patch-cut openings. Harvest volume in this cover type is estimated to be between 1,543 - 2,865 bd.ft. per acre. Doing so will improve the overall health and resiliency of the stand. Prescribed fire and timber stand improvement (TSI) should follow the harvest. In areas without oak or hickory in the overstory, single tree selection should focus on releasing crop trees of any hardwood species that are of better form, vigor, and quality.

Dry Oak-Hickory (48 acres)

The oak-history subdivision is located along the middle and upper slopes and in some areas reaching the main drainage. Chestnut oak is the dominant overstory species, both in terms of prevalence and sawtimber volume followed by black and white oak. Chestnut oak sawtimber volume is estimated at 5,351 bd.ft. per acre, the next closest species in black oak at 1,199 bd.ft. per acre. Total bd.ft. per acre for the subdivision is 9,905. Most of the chestnut oak are in the oak-hickory subdivision. American beech, sassafras, and sugar maple are common understory species in this subdivision. Chestnut oak seedlings are most prevalent followed by black oak and white oak.

The management recommendation is to conduct an improvement harvest that would remove poorly formed and declining trees, which would funnel more resources to healthier trees of better form and vigor. These trees should be selected for removal via either single-tree and group selection, patch-cut openings, or the establishment of a shelterwood. Prescribed fire could be utilized to control shade tolerant species and improve conditions for germination and advancement of shade intolerant species. This will improve light conditions on the forest floor and increase nutrient availability to residual trees. The harvest would be between 1,336 - 2,480 bd.ft. per acre. Sugar maple and American beech are the dominant mid- and understory species in this subdivision. These two tree species are outcompeting oak and hickory poles that are trying to advance into the overstory. TSI following a harvest should focus on releasing the oak-hickory component in the midstory. The regeneration layer in this subdivision was variable. However, oak and hickory seedlings are present throughout, mostly in canopy gaps that have been created in the overstory from blowdown or ash mortality or in complete chestnut oak stands. These seedlings would benefit from release.

Tract Summary Data (trees >11" DBH):
Inventory completed by Bailey McIntire 2025

Species	# Sawtimber Trees	Total Bd. Ft.
Chestnut Oak	1,480	269,980
Yellow Poplar	450	102,670
Northern Red Oak	199	60,440
White Oak	239	58,590
Black Oak	168	58,030
Sugar Maple	325	19,810
American Beech	97	15,810
Pignut Hickory	80	15,260
Red Maple	86	15,020
Shagbark Hickory	46	10,260
American Sycamore	37	8,110
Bitternut hickory	16	6,140
Blackgum	28	4,410
Black Cherry	6	3,670
White Ash	8	2,130
Sassafras	49	1,820
Basswood	21	1,480
Black Walnut	18	1,820
Sweet Gum	28	640
Total:	**3,381**	**655,550**

Tract Prescription and Proposed Activities
The proposed management activity is to conduct an improvement timber harvest to improve the overall health and quality of the tract. Both subdivisions require single-tree selection to reduce stocking, thereby improving the overall quality and vigor of the stand. Several areas in the oak-hickory subdivision would provide an opportunity for an oak shelterwood. Oak and hickory seedling establishment can also be promoted by running a low intensity prescribed fire through the tract to reduce competition from the sugar maple and American beech understory. TSI of the midstory should be completed following the timber harvest in part to encourage the recruitment of suppressed oaks and hickories from the midstory to the overstory. Group selection and patch cuts should be implemented in either subdivision where there are poorly formed or damaged trees, as well as in areas with trees that are in poor health. The estimated timber harvest volume is 101,514-188,526 bd.ft.

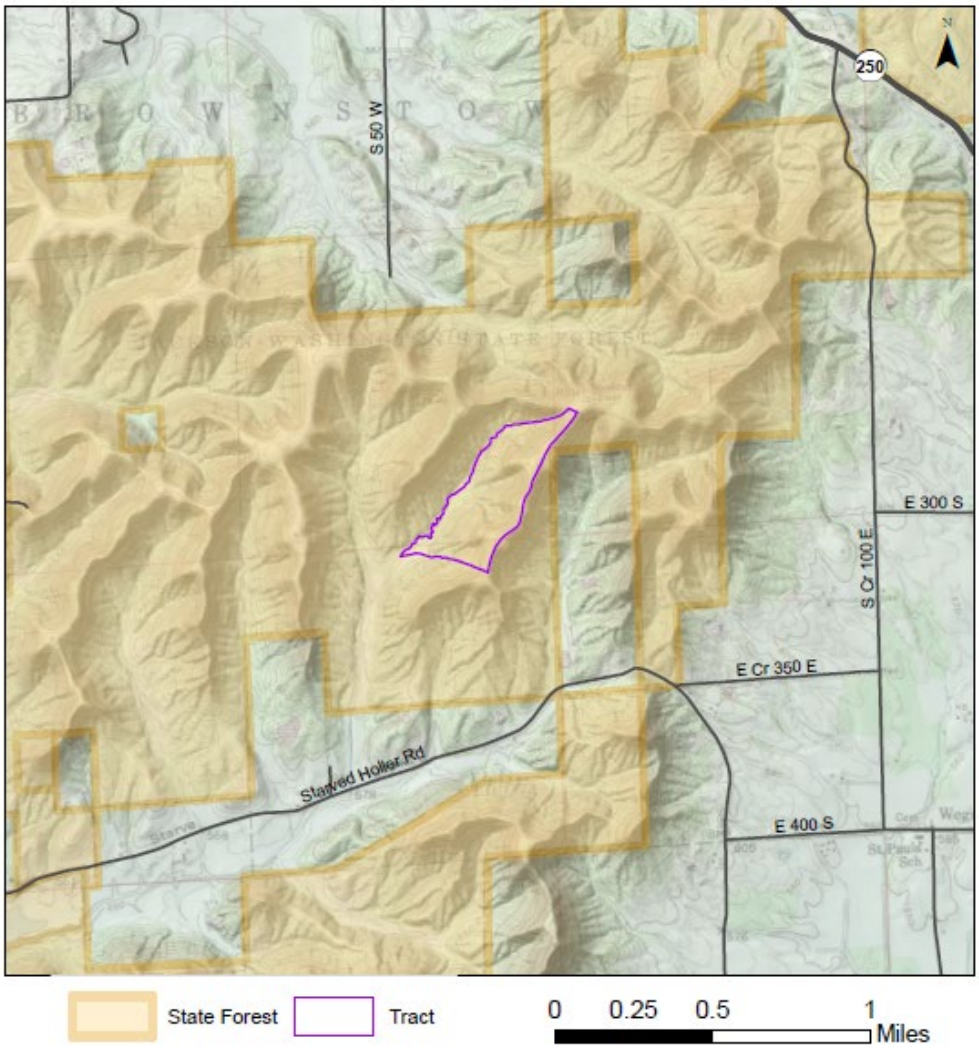
During and after completion of the proposed timber harvest best management practices (BMP's) will be implemented to minimize soil erosion. This tract should receive another forest inventory and management guide 20 years following the completion of the timber harvest. The proposed management activity is expected to increase tract habitat diversity and provide a variety of wildlife benefits, including snag creation, beneficial large wood debris and enhanced oak growth.

A prescribed fire regime should be developed for the tract and implemented following a harvest and post-harvest TSI. This will improve oak and hickory regeneration success by reducing competition from species that are not as resistant to fire. Fire also improves microclimate conditions for species that require scarification, sunlight, and contact with bare mineral soil to germinate.

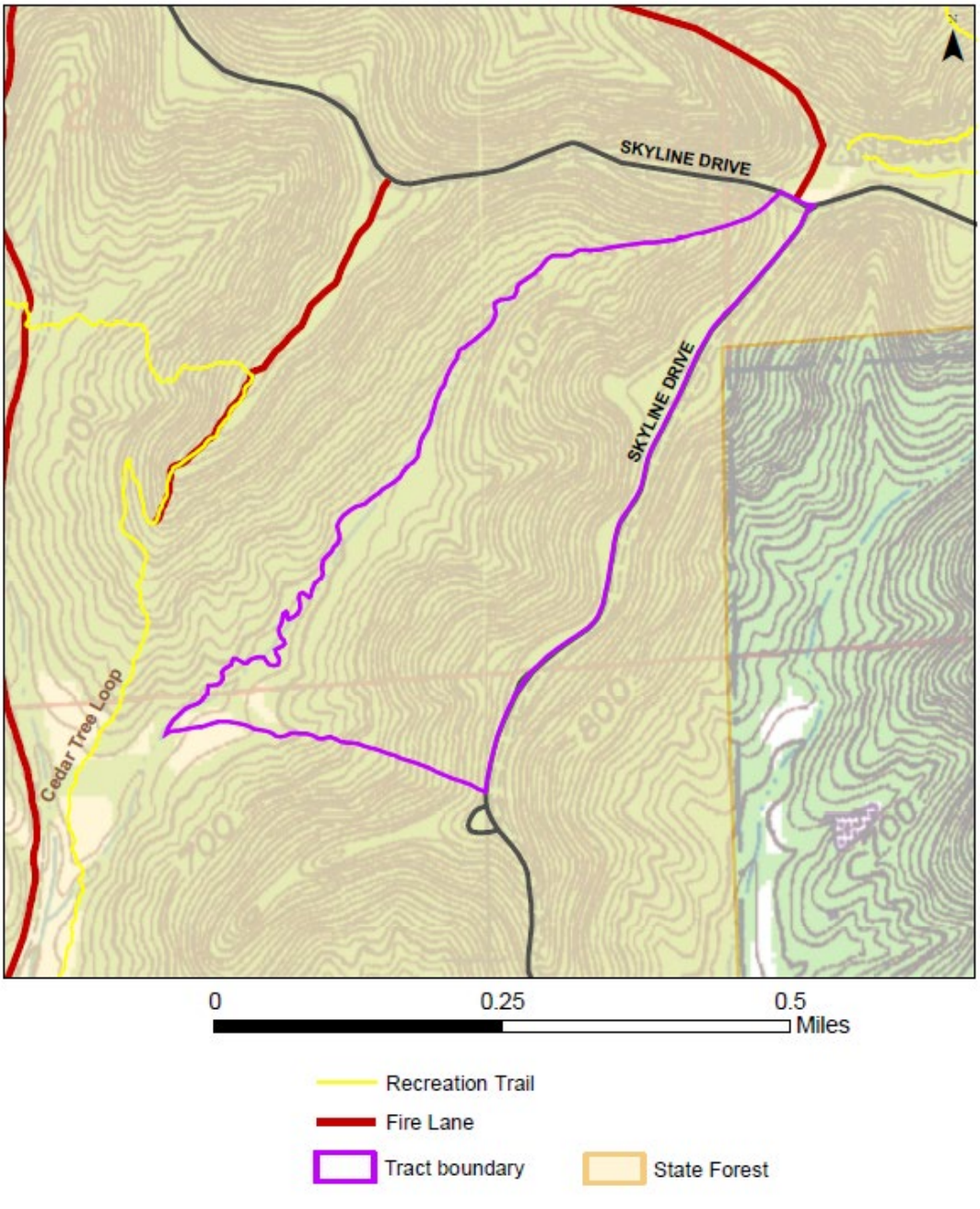
Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Mark and sell timber	2025-2026
Post-harvest TSI and/or invasive species work	1-2 years after harvest
Prescribed fire regime	1-2+ years after TSI
3-year regeneration review	Three years after harvest
Next forest inventory	2044

Jackson-Washington State Forest
Location Map
Compartment 3 Tract 20



Jackson-Washington State Forest
Compartment 3 Tract 20
Tract Map



Jackson-Washington State Forest
Compartment 3 Tract 20
Cover Types Map