

**Resource Management Guides
Morgan-Monroe State Forest
30-day Public Comment Period (July 27, 2026 – August 25, 2026)**

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 Morgan-Monroe State Forest.

Compartment 11 Tract 11

Compartment 11 Tract 12

Compartment 11 Tract 13

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.

Morgan-Monroe State Forest
Forester: J. McCoy
Management Cycle End Year: 2045

Compartment: 11
Date: 6/25/2025
Management Cycle Length: 20 years

Tract: 11
Acres: 124.6

Location

This tract, also referenced as 6371111, is in Morgan County, Indiana, Washington Township, Sections 10 & 11 – T10N – R1W. The tract is approximately seven miles southwest of Martinsville, Indiana, and accessible by a gated fire lane off the north side of Chambers Pike Road.

General Description

Most of the tract is covered by hardwood species, especially oak-hickory cover types. Other type(s) present include mixed hardwoods in the lower sloped areas.

The most recent management activities were a timber harvest in 2003, followed by timber stand improvement (TSI) after the harvest.

History

- 1941 – 1942 – State of Indiana purchased 86 acres of land, which is part of this tract.
- 1995 – 1996 – A fire lane was established.
- 1998 – Forest inventory July 21 indicating 104 basal area (B.A.) /acre.
- 1999 – Timber marked in January for an improvement cut.
- 1999 – Mark pre-harvest TSI.
- 2000 – TSI completed.
- 2000 – Acquisition of 40 acres December 14 from Mr. Herb Scroggins.
- 2001 – Timber marked February 26.
- 2001 – Installation of log yards and skid trails.
- 2002 – 2003 – Remark timber from 2001.
- 2003 – Timber harvest complete.
- 2004 – TSI completed.
- 2025 – Forest inventory in June by forestry summer intern Barnett.

Landscape Context

The surrounding landscape near the tract is predominantly closed-canopy deciduous forest. Other Morgan-Monroe State Forest tracts surround the tract to the north, east, and southern boundary. The west boundary is formed by the northbound lane of Interstate 69.

Minor cover/habitat types in the surrounding area include early successional forest (< 20 years old), cropland, and developed areas.

Landscape level forest threats include parcelization and development of private land tracts, and introduction of invasive plants that are routinely introduced during home landscaping efforts.

Topography, Geology and Hydrology

The general topography of this region consists of unglaciated, sharply dissected hills, narrow ridges and valleys. The underlying bedrock is Mississippian sandstone, shale, and siltstone.

This tract lies within the Butler Creek – White River sub-watershed. Water resources within this hydrologic boundary are part of the White River watershed.

Riparian features (intermittent streams) are present on portions of the tract. General riparian management zone (RMZ) guidelines will be implemented in these areas in accordance with the Indiana Logging and Forestry Best Management Practices 2022 Field Guide.

Soils

Typical soils in this area are moderately well drained or well drained. These soils formed from a thin layer of loess and underlying limestone bedrock. The major soils in this tract are listed below.

BkF- Brownstown-Gilwood silt loam, 25 to 75 percent slopes

Steep to very steep slopes and moderately deep and shallow well drained soils on side slopes. This tract is comprised of approximately 70% of this soil type along side slopes and presents moderate erosion hazards, severe equipment limitations, moderate to severe seedling mortality, and slight to moderate windthrow damage. Surface runoff of this soil is rapid. Haul roads should be constructed on contours to prevent erosion. Site Index for black oak is 50.

WyqD- Wrays-Gilwood silt loams, 6 to 20 percent slopes

Moderately sloping to moderately steep, moderately deep and deep, well drained soils on ridgetops and side slopes. Erosion, equipment limitations, seedling mortality, and windthrow hazards are all slight for this soil type. This soil type occupies approximately 20% of the tract along the ridgetops. Site Index for northern red oak is 81; site index for yellow-poplar is 90.

BdB- Bedford silt loam, 2 to 6 percent slopes

Flat soil, found on hills underlain with limestone bedrock. They are very deep soils that are moderately deep to a fragipan. Permeability is moderate above the fragipan and very slow in the fragipan. This soil type occupies approximately 5% of the tract.

CrD- Crider silt loam, 6 to 12 percent slopes

Flatter soil on the tract with only 6-12% slope. Part of the tract roadways are located on this soil type. Windthrow, soil erosion and equipment limitations are only a slight problem on this soil. The subsoil is about 58 inches deep which allows for good root penetration. This soil type occupies approximately 1% of the tract.

Access

This tract is accessible by a gated fire lane off Chambers Pike Road. Access within the tract is good as the main ridges were used as skid trails during prior timber harvests.

Boundary

State Forest land borders this tract to the north, south, and east. These tract boundaries are defined by deep ravines and mapped intermittent streams bisected by the main ridge of the tract. The remaining western boundary is defined by Interstate-69.

No private ownerships border this tract.

Ecological Considerations

This tract contains diverse vegetation and wildlife resources (age, type, structure) conducive to providing habitat for a variety of wildlife species. Habitat includes:

- contiguous oak-hickory canopy
- old regeneration openings
- scattered mixed hardwood stands
- riparian areas

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 in all diameter classes.

Invasive species were noted at the time of inventory. Japanese stiltgrass is present on the fire lanes and scattered on ridgetops within this and adjacent tracts. Control will require the use of a higher capacity vehicle mounted spray unit. Multiflora rose, autumn olive and barberry are lightly scattered along the edges of main trails, in openings and canopy gaps, and throughout riparian areas. Control of these species can be carried out through basal bark, cut stump, or spot spray foliar operations.

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

Although no permanently established recreation trails or developments are present in this tract, there are still several recreational opportunities.

Hunting is permitted on state forest property, and this area also offers opportunities for certain types of gathering and wildlife viewing.

The value of these recreation facilities will be given consideration during forest management activities. Where necessary, access may be restricted during periods of active management for public and worker safety.

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

Mesic Oak-Hickory – 117.3 ac

The cover type is predominantly mature oak-hickory with mixed hardwoods, such as yellow-poplar, sugar maple, white ash, red maple, and American beech, more common on north and east slopes. A mixture of diameter classes is present, but mostly the larger size classes. Oak species account for most of the volume in this cover type and total volume in the tract, with white oak, black oak and red oak being the most prevalent. The understory is dominated by American beech and sugar maple.

Mixed Hardwoods – 6.8 ac

Within the oak-hickory cover type there are numerous regeneration openings dominated by pole size yellow-poplar, maples, and sassafras. The openings are approximately 26 years old and roughly 3.3 acres in total. The remaining mixed hardwood area is located along the creek bottom at the southeastern edge of the tract. The primary tree species in this area include maples, yellow poplar, sycamore and some oak and hickory. A mixture of diameter classes is present, but mostly large size classes. The understory is dominated by American beech and sugar maple.

Conifer – 0.5 ac

This cover type is located on the ridge near the south end of the tract, west of the main access road. It is a remnant of the Civilian Conservation Corp (CCC) pine plantings from the 1930's. The Virginia pine has been slowly declining and dying since the last harvest, converting to mixed hardwoods such as maples, yellow-poplar and sassafras.

The current forest resource inventory was completed on 6/25/25 by Foresters C. Barnett. A summary of the estimated tract inventory results is in the table below.

Tract Summary Data (trees >11" DBH):

Species	# Sawtimber Trees	Total Bd. Ft.
White Oak	1,276	334,490
Black Oak	903	226,870
Northern Red Oak	602	168,080
Yellow-Poplar	471	145,230
Pignut Hickory	405	84,210
Sugar Maple	275	32,340
Shagbark Hickory	111	24,770
Bitternut Hickory	83	14,550
Red Maple	168	13,520
American sycamore	31	11,400
Sassafras	140	10,510
American Beech	57	9,970
Basswood	91	8,200
White Ash	18	7,550
Blackgum	117	7,030
Virginia Pine	57	5,790
Scarlet Oak	25	3,630
Black Locust	22	2,860
Black Walnut	25	1,520
Total:	4,877	1,112,520

Summary Tract Silvicultural Prescription and Proposed Activities

This tract is well stocked, and a managed timber harvest would support the continued health of the tract. The following silvicultural prescriptions are recommended.

Selection & Improvement/Thinning Cutting

A combination of selection, improvement and thinning cuttings are prescribed in this tract. The goal is to improve growth and vigor on the highest quality and most vigorous oak, hickory and mixed hardwood stems. This should be accomplished primarily through single-tree selection and release thinning. Individual trees targeted for removal should include the following: competing mixed hardwoods; suppressed trees; trees damaged by past fire or grazing; wind-damaged trees; drought-stressed trees; and any other dominant or co-dominant trees that are overtopping or suppressing quality growing stock. The timber harvest is estimated to remove between 350,000 – 450,000 board feet. The residual stocking in these areas should remain above the B-line (65 - 70 sqft/acre) according to the Gingrich stand density chart for upland hardwoods. Vine control and TSI are recommended in the former regeneration openings.

Small group selections or patch-cut openings may be implemented in pockets with significant mortality, the small remnant Virginia pine plantation, or in areas dominated with mature mixed

hardwoods. This would create a component of mixed hardwood regeneration, young forest and important early successional habitat.

Oak Shelterwood

An oak shelterwood method is prescribed for this stand. This is the removal of the lower canopy, shade tolerant trees under the main canopy that prevents the regeneration of the main canopy species, particularly oaks and hickories.

The method that can be done most inexpensively and extensively is the use of prescribed fire. It is believed that oak will become established under the moderate light conditions this would create, while more shade intolerant species will not receive sufficient light for competitive growth.

The second method involves using TSI with herbicides to deaden all lower canopy, shade tolerant trees. This should only be done in areas with less disturbance of the main canopy from management operations and in areas where a heavy seed crop has produced numerous new seedlings to work with.

If/when the regeneration has achieved some size, the over story can be removed. The oak and hickory regeneration should be sufficiently well established to compete strongly with other species that will respond.

Prescribed Fire

If time and resources allow, prescribed fire will be used as a management tool for this tract. While exact timing of the prescribed fire is dependent upon weather and fuels conditions, most burns are conducted in the fall or spring. Prescribed fire can be used as a tool in oak-hickory ecosystems to restore, maintain, and regenerate the trees, shrubs, and herbaceous layers associated with them. This restoration and maintenance will then have the effect of supporting the wildlife that depends on oak-hickory ecosystems for survival. In most Midwestern oak-hickory forests, an abundance of deer, lack of fire, and dense understory shading has and is currently causing a change in the forest. This mesophication effect is occurring due to these historically more open forests and woodlands being filled in with shade tolerant species such as sugar maple, red maple, and American beech. The result is a change in forest composition and a reduction in or total loss of the natural herbaceous and shrub layers that would have historically dominated these sites, which were subjected to periodic fires, both natural and those caused by humans. The goals of the proposed prescribed fire are to create conditions conducive to oak regeneration and recruitment while opening the mid story and understory up for the appropriate herbaceous and woody plants associated with oak-hickory ecosystems.

Timber Stand Improvement (TSI)

Various TSI practices are prescribed for the entire tract. The TSI should focus on releasing oaks, hickories and quality mixed hardwoods, controlling grapevines in select areas, reducing the density of shade tolerant species and potential invasive work. As the stand develops and ages,

other silvicultural prescriptions may become more viable options. Below is a general guideline for this work.

- Vine Control – Pre-harvest in potential openings / pre or post-harvest in old openings
- Croptree Release – Pre or post-harvest in old regeneration openings
- Regeneration Opening Completion – Post-harvest
- Large Snag Creation – Post-harvest, likely included in opening completion
- Invasive/Exotic Species Control – Pre & Post-harvest control as needed

Proposed Management Activity

Proposed Date

Pre-Harvest TSI and Invasive Treatments

2026-2027

Timber Marking

2026-2027

Fire lane maintenance

2026-2027

Timber Sale

2026-2027

Timber Sale Closeout

2027-2028

BMP Review

2027-2028

Post-Harvest TSI and Invasive Treatments

2027-2028

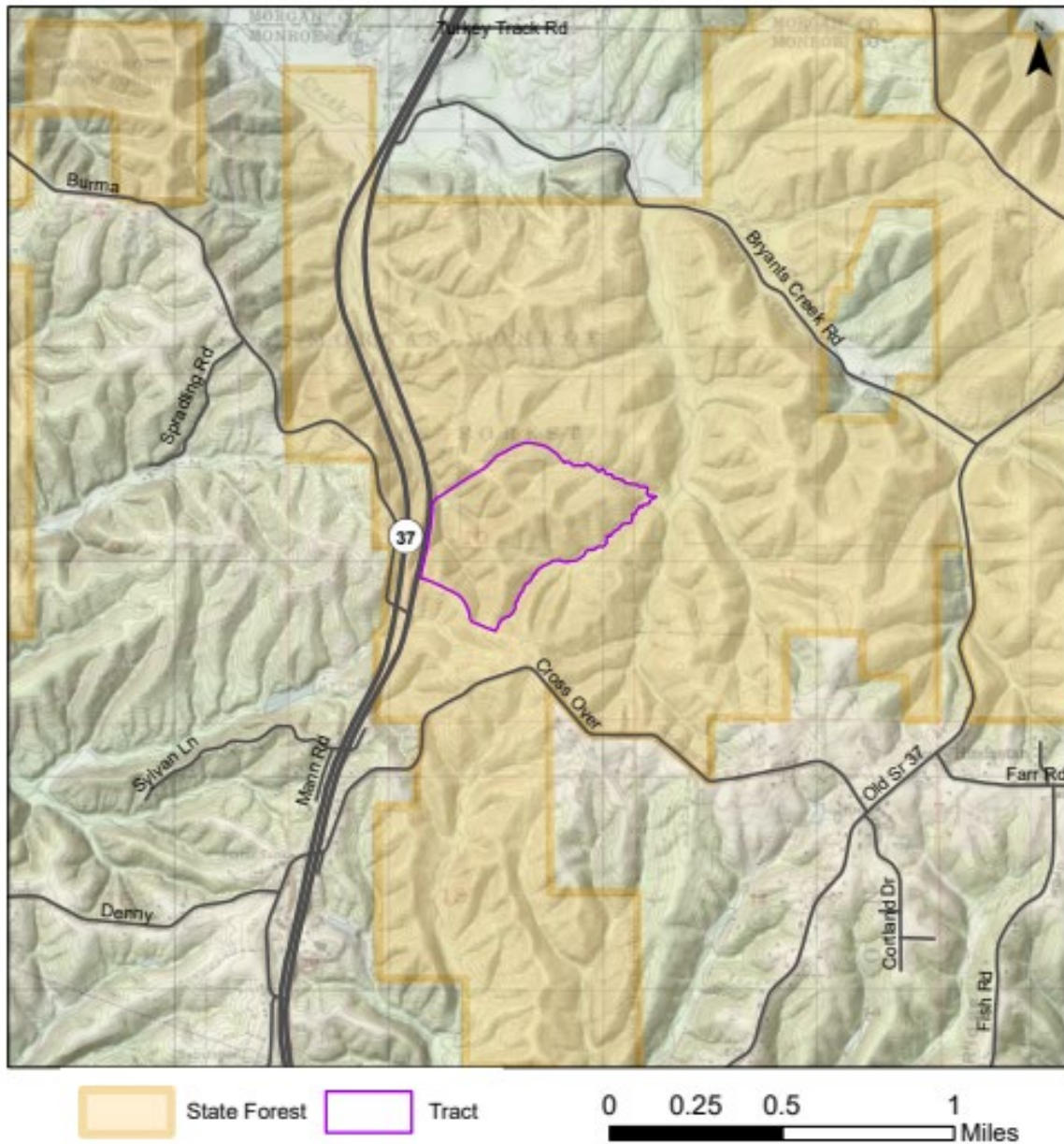
3-year regeneration review

three years after harvest

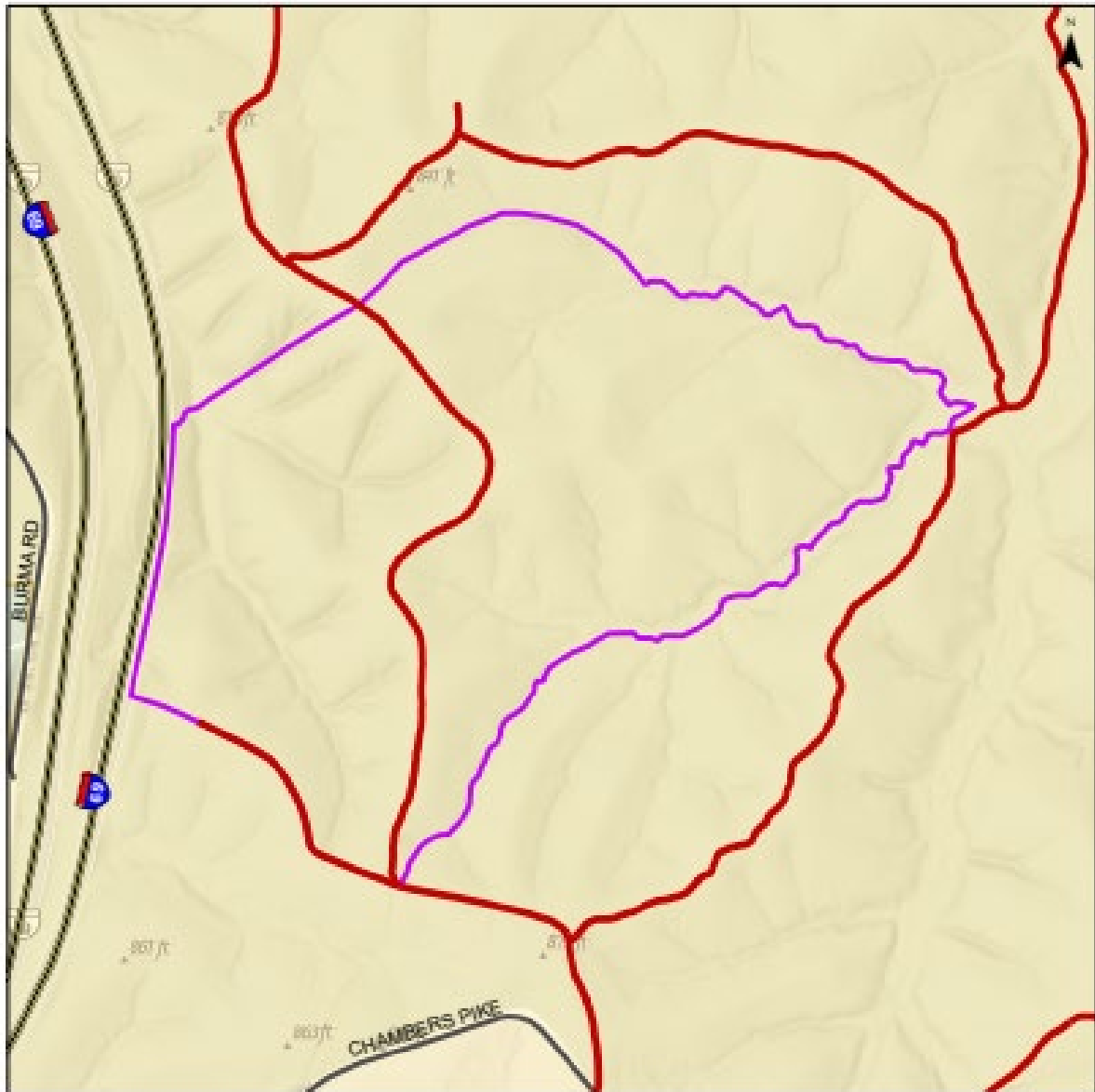
Next forest inventory

2045

Morgan-Monroe State Forest
Location Map
Compartment 11 Tract 11

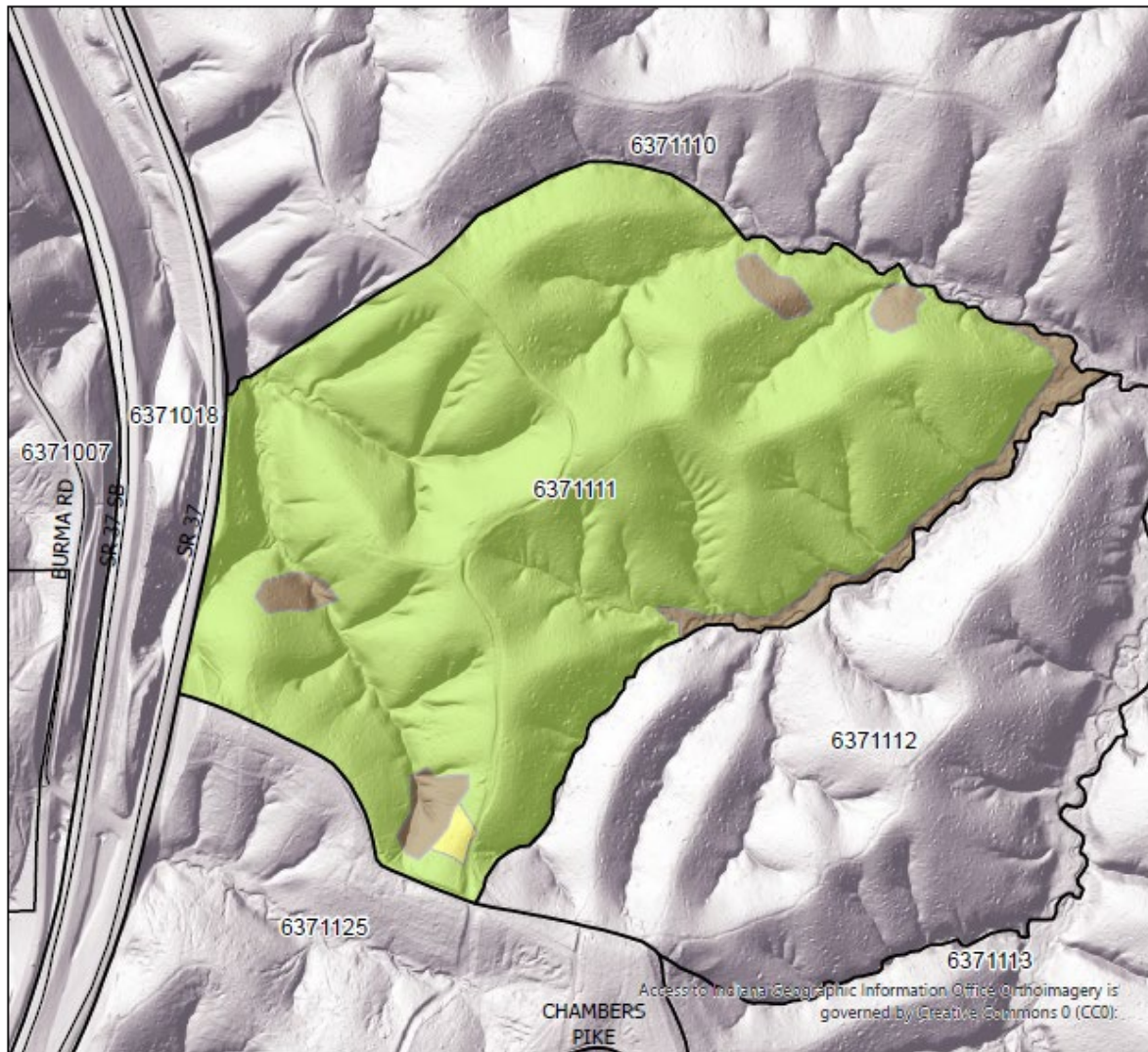


Morgan-Monroe State Forest Compartment 11 Tract 11 Tract Map



- Fire Lane
- Tract boundary
- State Forest

Morgan-Monroe State Forest Compartment 11 Tract 11 Cover Type Map



CoverType

- Mesic Oak-Hickory
- Mixed Hardwoods
- Conifer

Tracts



Morgan-Monroe State Forest
Forester: P Jones
Management Cycle End Year: 2045

Compartment: 11
Date: 6/12/2025
Management Cycle Length: 20 years

Tract: 12
Acres: 78.7

Location

Tract 12, also referred to as 6371112, is in Morgan County, Indiana, Washington Township, Sections 10 & 11 – T10N – R1W. The tract is approximately seven miles southwest of Martinsville, Indiana, and accessible by a gated fire lane off the north side of Chambers Pike Road.

General Description

Most of the tract is covered by hardwood species, especially oak-hickory cover types. Other type(s) present include mixed hardwoods in bottomlands.

History

- 1929 - 1939 - Land acquired by the state to establish this tract.
- 1972 – January 31, timber sale consisting of 581 trees, 58,690 board feet (bd.ft.) sold to Dan Cramer, \$1,026.00.
- 1995- In February a forest inventory was completed.
- 1995 – In November timber marked for sale.
- 1996 – January 12 a timber sale consisting of 262 trees, 128919 bd. Ft. sold to David R. Webb, \$42,818.19.
- 2005 – March 18 a forest inventory was completed.
- 2025 – June a forest inventory was completed

Landscape Context

The surrounding landscape near the tract is predominantly closed-canopy deciduous forest. State forest surrounds the tract on the northern, eastern, and southern boundary. The western boundary of the tract is formed by the northbound lane of Interstate 69.

Minor cover/habitat types in the surrounding area include early successional forest (< 20 years old), cropland, and developed areas.

Landscape level forest threats include parcelization and development of private land tracts, and introduction of invasive plants that are routinely introduced during home landscaping efforts.

Topography, Geology and Hydrology

The general topography of this region consists of unglaciated, sharply dissected hills, narrow ridges and valleys. The underlying bedrock is Mississippian sandstone, shale, and siltstone.

This tract lies within the Butler Creek – White River sub-watershed. Water resources within this hydrologic boundary are part of the White River watershed.

Riparian features (intermittent streams) are present on portions of the tract. General riparian management zone (RMZ) guidelines will be implemented in these areas in accordance with the Indiana Logging and Forestry Best Management Practices 2022 Field Guide.

Soils

Typical soils in this area are moderately well drained or well drained. These soils formed from a thin layer of loess and underlying limestone bedrock. The major soils in this tract are listed below.

BkF- Brownstown-Gilwood silt loam, 25 to 75 percent slopes

Steep to very steep slopes and moderately deep and shallow well drained soils on side slopes. This tract is comprised of approximately 70% of this soil type along side slopes and presents moderate erosion hazards, severe equipment limitations, moderate to severe seedling mortality, and slight to moderate windthrow damage. Surface runoff of this soil is rapid. Haul roads should be constructed on contours to prevent erosion. Site Index for black oak is 50.

WygD- Wrays-Gilwood silt loams, 6 to 20 percent slopes

Moderately sloping to moderately steep, moderately deep and deep, well drained soils on ridgetops and side slopes. Erosion, equipment limitations, seedling mortality, and windthrow hazards are all slight for this soil type. This soil type occupies approximately 20% of the tract along the ridgetops. Site Index for northern red oak is 81; site index for yellow-poplar is 90.

BdB- Bedford silt loam, 2 to 6 percent slopes

Flat soil, found on hills underlain with limestone bedrock. They are very deep soils that are moderately deep to a fragipan. Permeability is moderate above the fragipan and very slow in the fragipan. This soil type occupies approximately 5% of the tract.

CrD- Crider silt loam, 6 to 12 percent slopes

Flatter soil on the tract with only 6-12% slope. Part of the tract roadways are located on this soil type. Windthrow, soil erosion and equipment limitations are only a slight problem on this soil. The subsoil is about 58 inches deep which allows for good root penetration. This soil type occupies approximately 1% of the tract.

Access

This tract is accessible via a gated fire lane off Chambers Pike Road. Access within the tract is good as the main ridges were used as skid trails during prior timber harvests.

Boundary

Morgan-Monroe State Forest borders this tract to the north, south, and east. These tract boundaries are defined by deep ravines and mapped intermittent streams bisected by the main ridge of the tract. The remaining western boundary is defined by Interstate-69.

No private ownerships border this tract.

Ecological Considerations

This tract contains diverse vegetation and wildlife resources (age, type, structure) conducive to providing habitat for a variety of wildlife species. Habitat includes:

- contiguous oak-hickory canopy
- old regeneration openings
- scattered mixed hardwood stands
- riparian areas

Hard mast trees such as oaks, hickories, and American beech provide food source to squirrels, turkey, and white-tailed deer. 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.

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 in all diameter classes.

Invasive species were noted at the time of inventory. Japanese stiltgrass is present on the fire lanes and scattered on ridgetops within this and adjacent tracts. Control will require the use of a higher capacity vehicle mounted spray unit. Multiflora rose, autumn olive and barberry are lightly scattered along the edges of main trails, in openings and canopy gaps, and throughout riparian areas. Control of these species can be carried out through basal bark, cut stump, or spot spray foliar operations.

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

Although no permanently established recreation trails or developments are present in this tract, there are still several recreational opportunities.

Hunting is permitted on state forest property, and this area also offers opportunities for certain types of gathering and wildlife viewing.

The value of these recreation facilities will be given consideration during forest management activities. Where necessary, access may be restricted during periods of active management for public and worker safety.

Cultural

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

Tract Subdivision Description and Silvicultural Prescription

Mesic Oak-Hickory – 69.8 ac

The cover type is predominantly mature oak-hickory with mixed hardwood species such as yellow-poplar, sugar maple, white ash, red maple, and American beech, more common on north and east slopes. A mixture of diameter classes are present, but mostly the larger size classes. Oak species account for most of the volume in this cover type, and total volume in the tract, with white oak, black oak and red oak being the most prevalent. The understory is dominated by American beech and sugar maple.

Mixed Hardwoods – 8.9 ac

Within the oak-hickory cover type there are numerous old regeneration openings dominated by pole size yellow-poplar, maples, and sassafras. The openings are approximately 26 years old and roughly 3 acres in total. The remaining mixed hardwood area is located along the creek bottom at the eastern edge of the tract. The primary species in this area include maples, yellow poplar, sycamore and some oak and hickory. A mixture of diameter classes are present, but mostly the larger size classes. The understory is dominated by American beech and sugar maple.

The current forest resource inventory was completed on 6/12/25 by Forester C. Barnett. A summary of the estimated tract inventory results is in the table below.

Tract Summary Data (trees >11" DBH):

Species	# Sawtimber Trees	Total Bd. Ft.
White Oak	792	209,260
Black Oak	404	122,970
Northern Red Oak	477	109,380
Yellow Poplar	289	87,380
Sugar Maple	481	46,230
Red Maple	309	28,020
Pignut Hickory	132	21,740
Shagbark Hickory	115	17,680
American Beech	130	16,610
Basswood	73	8,620
Bitternut Hickory	19	5,900

Sassafras	88	5,530
Scarlet Oak	12	2,770
American sycamore	7	2,750
Blackgum	11	2,370
Black Cherry	51	1,850
Swamp White Oak	32	1,620
Total:	3,422	690,680

Summary Tract Silvicultural Prescription and Proposed Activities

This tract is well stocked, and a managed timber harvest would support the continued health of the tract. The following silvicultural prescriptions are recommended.

Selection & Improvement/Thinning Cutting

A combination of selection, improvement and thinning cuttings are prescribed in this tract. The goal is to improve growth and vigor on the highest quality and most vigorous oak, hickory and mixed hardwood stems. This should be accomplished primarily through single-tree selection and release thinning. Individual trees targeted for removal should include the following: competing mixed hardwoods; suppressed trees; trees damaged by past fire or grazing; wind-damaged trees; drought-stressed trees; and any other dominant or co-dominant trees that are overtopping or suppressing quality growing stock. The timber harvest is estimated to remove between 215,000 – 295,000 board feet. The residual stocking in these areas should remain above the B-line (70-75 sqft/acre) according to the Gingrich stand density chart for upland hardwoods.

Small group selections and patch-cut openings may be implemented in pockets with significant mortality or in areas dominated with mature mixed hardwoods. This would create a component of mixed hardwood regeneration, young forest and important early successional habitat.

Oak Shelterwood

An oak shelterwood method is prescribed for this stand. This is the removal of the lower canopy, shade tolerant trees under the main canopy that prevents the regeneration of the main canopy species, particularly oaks and hickories.

The method that can be done most inexpensively and extensively is the use of prescribed fire. It is believed that oaks will become established under the moderate light conditions this would create, while more shade intolerant species will not receive sufficient light for competitive growth.

The second method involves using TSI with herbicides to deaden all lower canopy, shade tolerant trees. This should only be done in areas with less disturbance of the main canopy from management operations and in areas where a heavy seed crop has produced numerous new seedlings to work with.

If/when the regeneration has achieved some size, the over story can be removed. The oak and hickory regeneration should be sufficiently well established to compete strongly with other species that will respond.

Prescribed Fire

If time and resources allow, prescribed fire will be used as a management tool for this tract. While exact timing of the prescribed fire is dependent upon weather and fuels conditions, most burns are conducted in the fall or spring. Prescribed fire can be used as a tool in oak-hickory ecosystems to restore, maintain, and regenerate the trees, shrubs, and herbaceous layers associated with them. This restoration and maintenance will then have the effect of supporting the wildlife that depends on oak-hickory ecosystems for survival. In most Midwestern oak-hickory forests, an abundance of deer, lack of fire, and dense understory shading has and is currently causing a change in the forest. This mesophication effect is occurring due to these historically more open forests and woodlands being filled in with shade tolerant species such as sugar maple, red maple, and American beech. The result is a change in forest composition and a reduction in or total loss of the natural herbaceous and shrub layers that would have historically dominated these sites, which were subjected to periodic fires, both natural and those caused by humans. The goals of the proposed prescribed fire are to create conditions conducive to oak regeneration and recruitment while opening the mid story and understory up for the appropriate herbaceous and woody plants associated with oak-hickory ecosystems.

Timber Stand Improvement (TSI)

Various TSI practices are prescribed for the entire tract. The TSI should focus on releasing oaks, hickories and quality mixed hardwoods, controlling grapevines in select areas, reducing the density of shade tolerant species and potential invasive work. As the stand develops and ages, other silvicultural prescriptions may become more viable options. Below is a general guideline for this work.

- Vine Control – Pre-harvest in potential openings / pre or post-harvest in old openings
- Croptree Release – Post-harvest
- Regeneration Opening Completion – Post-harvest
- Large Snag Creation – Post-harvest as part of opening completion and crop tree release operations
- Coppicing – Post-harvest as part of opening completion operation and limited to young oaks, walnut, hickory and yellow-poplar
- Invasive/Exotic Species Control – Pre & Post-harvest control as needed

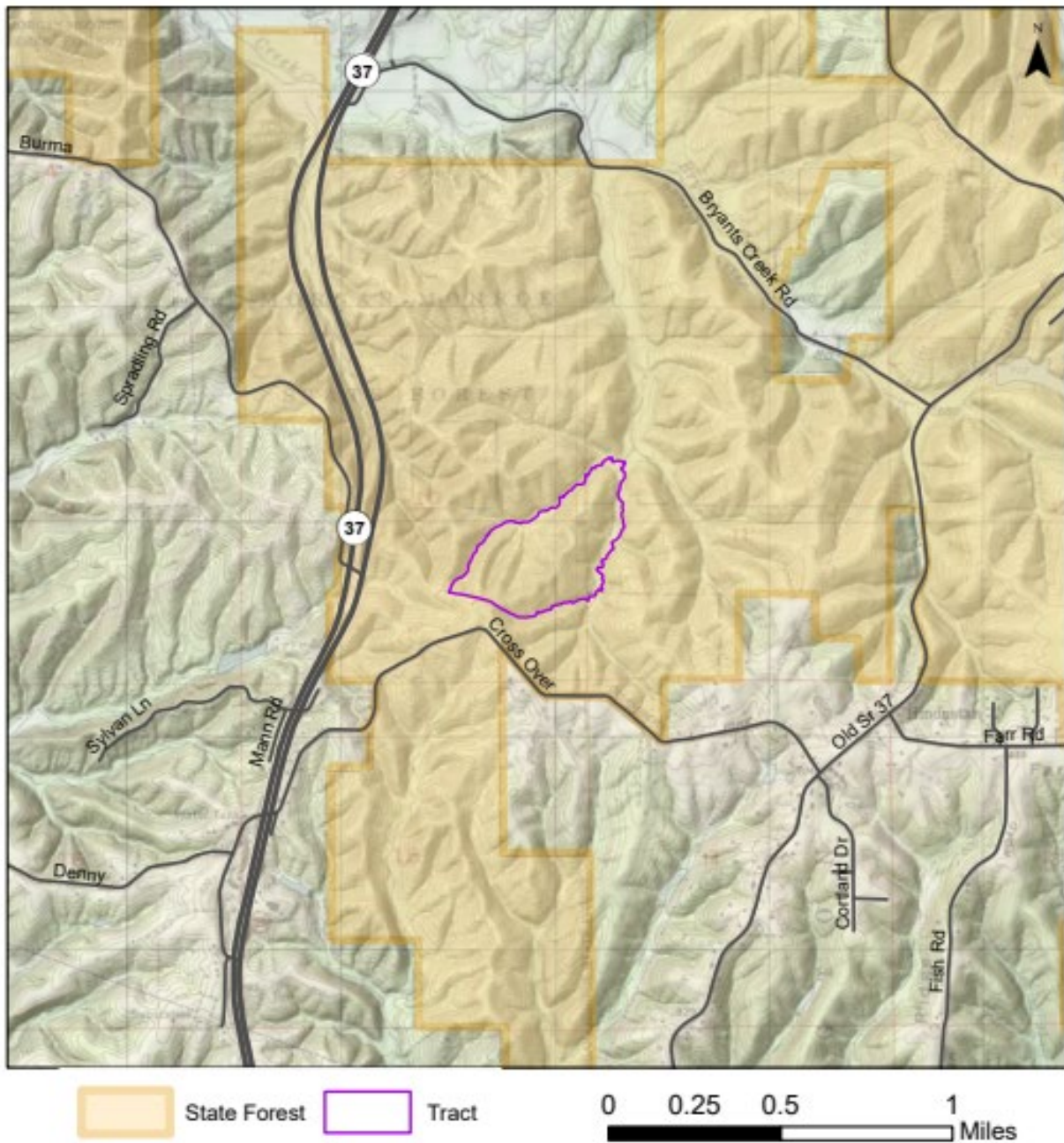
Proposed Management Activity

Proposed Date

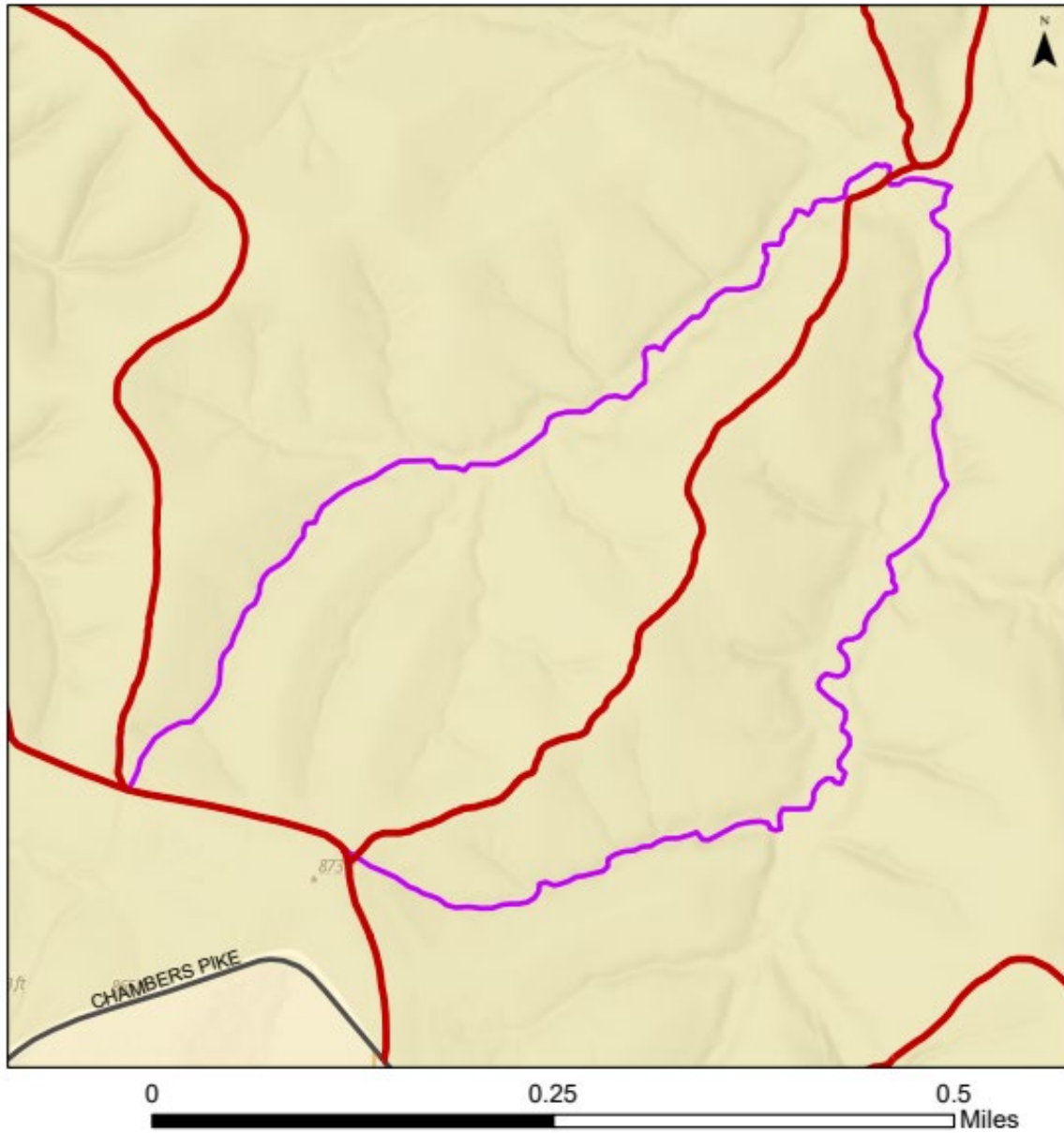
Pre-Harvest TSI and Invasive Treatments
Timber Marking
Fire lane maintenance
Timber Sale
Timber Sale Closeout
BMP Review
Post Harvest TSI and Invasive Treatments
3-year regeneration review
Next forest inventory Guide

2026-2027
2026-2027
2026-2027
2026-2027
2027-2028
2027-2028
2027-2028
three years after harvest
2045

Morgan-Monroe State Forest
Location Map
Compartment 11 Tract 12

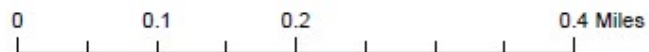
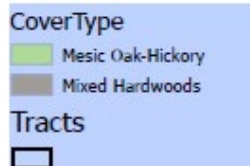
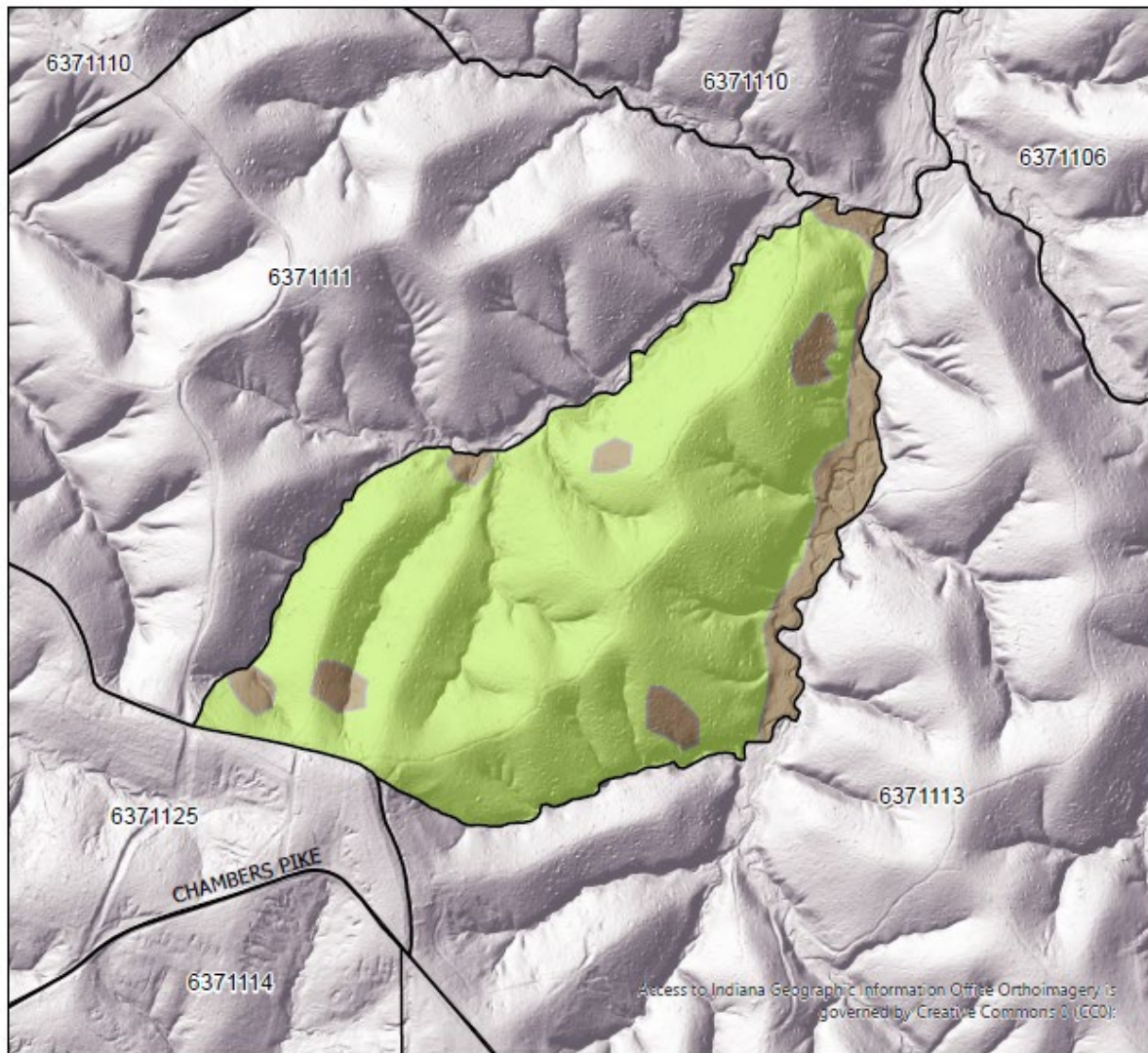


Morgan-Monroe State Forest
Compartment 11 Tract 12
Tract Map



- Fire Lane
- Tract boundary
- State Forest

Morgan-Monroe State Forest Compartment 11 Tract 12 Cover Type Map



Morgan-Monroe State Forest
Forester: J. McCoy
Management Cycle End Year: 2045

Compartment: 11
Date: 6/12/2025
Management Cycle Length: 20 years

Tract: 13
Acres: 176

Location

Tract 13, also referred to as 6371113, is in Monroe County, Indiana, Sections 10,11,14, &15, T10N, R1W. The tract is located off Chambers Pike Road about a mile west of Hindustan, Indiana.

General Description

Most of the tract is covered with hardwood species, especially oak-hickory cover types.

The most recent timber harvest in 2012 was primarily an improvement cut and light thinning which focused on the removal of lower quality trees. There was no regeneration openings created during this harvest. Timber stand improvement (TSI) has not been implemented in the tract since 1983. The need for TSI should be assessed following the proposed harvest. As a result of past efforts, the current overall timber quality within this tract is good and a harvest would support the continued health of the forest.

History

- 1931 Land purchased
- 06/30/1982 Forest inventory by Forester Breedlove
- 09/23/1982 Property boundary marked by Forester Breedlove
- 01/17/1983 Timber marked, 295,146 board feet (Bd.Ft). by Forester Breedlove
- 02/15/1983 Fire lane maintenance
- 03/30/1983 Timber Sale - \$37,150 sold to Crone Lumber Company.
- 08/31/1983 Road close out
- 12/22/1983 Timber Stand Improvement (TSI)
- 01/16/2008 Land acquisition (Leatherwood) consisting of 40 acres added to tract.
- 12/20/2010 Forest inventory completed by Forester Tompkins.
- 02/09/2012 Timber Sale. Est. 401,000 bd.ft., 1378 trees, 62 poles Sold to Crone Lumber for \$100,420.00. Four other bidders.
- 05/13/2025 Forest inventory completed by Forester Eckart

Landscape Context

The surrounding landscape near the tract is predominantly closed-canopy deciduous forest. State forest surrounds the tract on the northern, eastern, and western boundary. Private land ownerships border the southern boundary of the tract.

Minor cover/habitat types in the surrounding area include early successional forest (< 20 years old), cropland, and developed areas.

Landscape level forest threats include parcelization and development of private land tracts, and introduction of invasive plants that are routinely introduced during home landscaping efforts.

Topography, Geology and Hydrology

The general topography of this region consists of unglaciated, sharply dissected hills, narrow ridges and valleys. The underlying bedrock is Mississippian sandstone, shale, and siltstone.

This tract lies within the Butler Creek – White River sub-watershed. Water resources within this hydrologic boundary are part of the White River watershed.

Riparian features (intermittent streams) are present on portions of the tract. General riparian management zone (RMZ) guidelines will be implemented in these areas in accordance with the Indiana Logging and Forestry Best Management Practices 2022 Field Guide.

Soils

BdB- Bedford silt loam, 2 to 6 percent slopes

This gently sloping, deep, moderately well drained soil is on uplands. There is a fragipan at 1.5-3.5 feet that can restrict root penetration. It is well suited to trees and has a site index of 70 for white oak and 90 for yellow poplar.

BkF- Brownstown-Gilwood silt loam, 25 to 75 percent slopes

Steep to very steep slopes and moderately deep and shallow well drained soils on side slopes. This tract is comprised of approximately 95% of this soil type along side slopes and presents moderate erosion hazards, severe equipment limitations, moderate to severe seedling mortality, and slight to moderate windthrow damage. Surface runoff of this soil is rapid. Haul roads should be constructed on contours to prevent erosion. This soil has a site index of 50 for black oak.

Bu- Burnside silt loam, 0 to 3 percent slopes

This soil type is nearly level, deep, well drained on narrow flood plains in sandstone bedrock areas. It is subject to occasional flooding and so presents equipment limitations. This soil is well suited for the growing of yellow-poplar, red oak, and black walnut trees. Erosion, equipment limitations, seedling mortality, and windthrow hazards are all slight for this soil type. This soil has a site index of 95 for yellow-poplar.

CrC- Crider silt loam, 6 to 12 percent slopes

This moderately sloping, deep, well-drained soil is on narrow and broad convex ridgetops of the uplands. It is well suited to trees. This soil has a site index of 88 for northern red oak and 97 for yellow-poplar.

Access

This tract is accessible via two fire lanes created from previous timber harvests, located off Chambers Pike Road.

Boundary

This tract is surrounded by State Forest on three sides and private lands to the south and southeast. Chambers Pike Road borders most of the southern boundary of this tract. The south boundaries were relocated and remarked in 2009 by property forester Ramey following the Leatherwood Acquisition. Current private property line markings are up to date.

Ecological Considerations

This tract contains diverse vegetation and wildlife resources (age, type, structure) conducive to providing habitat for a variety of wildlife species. Habitat includes:

- contiguous oak-hickory canopy
- old regeneration openings
- scattered mixed hardwood stands
- riparian areas

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.

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

Invasive species were noted at the time of inventory. Japanese stiltgrass is present on the fire lanes and scattered on ridgetops within this and adjacent tracts. Control will require the use of a higher capacity vehicle mounted spray unit. Multiflora rose, autumn olive, Amur honeysuckle, and barberry are lightly scattered along the edges of main trails, in openings and canopy gaps, and throughout riparian areas. Control of these species can be carried out through basal bark, cut stump, or spot spray foliar operations.

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

Although no permanently established recreation trails or developments are present in this tract, there are still several recreational opportunities.

Hunting is permitted on state forest property, and this area also offers opportunities for certain types of gathering and wildlife viewing.

The value of these recreation facilities will be given consideration during forest management activities. Where necessary, access may be restricted during periods of active management for public and worker safety.

Cultural

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

Tract Subdivision Description and Silvicultural Prescription

Mesic Oak-Hickory – 156 ac

The cover type on the north and east facing slopes is predominantly mature oak and hickory with mixed hardwood species such as yellow-poplar, sugar maple, white ash, red maple, and blackgum, interspersed throughout. A mixture of diameter classes are present, but mostly medium to large size classes. The understory is dominated by American beech and maple.

The south and west facing slopes are dominated with scarlet oak, black oak, and hickory. The understory is dense with greenbrier, sassafras, American beech, and red maple. Except for some larger trees on the lower portions of the slopes, the area consists mostly of pole to medium sawtimber. Old fire damage is common throughout this cover type.

Overall, oak species account for most of the volume in this cover type, and total volume in the tract, with white, black, northern red oaks being the most prevalent.

Mixed Hardwoods – 20 ac

This cover type is found mainly in the creek bottoms between the main ridges. Primary species include yellow-poplar, sugar maple, red maple, and American beech. Other species present include American sycamore, blackgum, and black walnut. The understory is mostly ironwood, sassafras, maple, and beech.

The current forest resource inventory was completed on 6/12/25 by Forester Eckhart. A summary of the estimated tract inventory results is in the table below.

Tract Summary Data

Total Trees/Acre = **121**
Sawtimber Trees/Acre = **38.8**

Present Volume = **8,716** BF/Acre
Basal Area = **94.8** Ft²/Acre

Tract Summary Data (trees >11" DBH):

Species	# Sawtimber Trees	Total Bd. Ft.
White Oak	1,692	356,081
Black Oak	1,169	418,486
Sugar Maple	912	81,014
Yellow Poplar	886	267,447
Northern Red Oak	553	203,128
Red Maple	475	23,618
Pignut Hickory	218	45,660
Sassafras	206	11,942
Scarlet Oak	168	40,047
American Beech	96	7,647
Blackgum	96	5,803
Shagbark Hickory	66	11,207
Black Cherry	55	9,419
Virginia Pine	54	8,048
Black Willow	37	2,059
Chinkapin Oak	35	5,187
White Ash	28	3,346
American Elm	25	3,609
American sycamore	23	17,793
Black Walnut	13	3,334
Hackberry	12	4,115
Total:	6,819	1,528,990

Summary Tract Silvicultural Prescription and Proposed Activities

This tract is well stocked, and a managed timber harvest would support the continued health of the tract. The following silvicultural prescriptions are recommended.

Selection & Improvement/Thinning Cutting

A combination of selection, improvement and thinning cuttings are prescribed in this tract. The goal is to improve growth and vigor on the highest quality and most vigorous oak, hickory and mixed hardwood stems. This should be accomplished primarily through single-tree selection and release thinning. Individual trees targeted for removal should include the following: competing mixed hardwoods; suppressed trees; trees damaged by past fire or grazing; wind-damaged trees; drought-stressed trees; and any other dominant or co-dominant trees that are overtopping or suppressing quality growing stock. The timber harvest is estimated to remove between 590,000 – 690,000 board feet. The residual stocking in these areas should remain above the B-line (65 - 70 sqft/acre) according to the Gingrich stand density chart for upland hardwoods. Vine control and TSI are recommended in the old regeneration opening.

Small group selections and patch-cut openings may be implemented in areas dominated with poor growing stock, creating a component of mixed hardwood regeneration, young forest and important early successional habitat. Low thinning may also be utilized in denser, even-aged areas with large amounts of suppressed and intermediate trees that are likely to drop out from competition. This method can also be employed to reduce the density of shade tolerant species such as sugar maple, red maple, and American beech to establish and promote advanced oak-hickory regeneration.

Oak Shelterwood

An oak shelterwood method is prescribed for this stand. This is the removal of the lower canopy, shade tolerant trees under the main canopy that prevents the regeneration of the main canopy species, particularly oaks and hickories.

The method that can be done most inexpensively and extensively is the use of prescribed fire. It is believed that oak will become established under the moderate light conditions this would create, while more shade intolerant species will not receive sufficient light for competitive growth.

The second method involves using TSI with herbicides to deaden all lower canopy, shade tolerant trees. This should only be done in areas with less disturbance of the main canopy from management operations and in areas where a heavy seed crop has produced numerous new seedlings to work with.

If/when the regeneration has achieved some size, the over story can be removed. The oak and hickory regeneration should be sufficiently well established to compete strongly with other species that will respond.

Prescribed Fire

If time and resources allow, prescribed fire will be used as a management tool for this tract. While exact timing of the prescribed fire is dependent upon weather and fuels conditions, most burns are conducted in the fall or spring. Prescribed fire can be used as a tool in oak-hickory ecosystems to restore, maintain, and regenerate the trees, shrubs, and herbaceous layers associated with them. This restoration and maintenance will then have the effect of supporting the wildlife that depends on oak-hickory ecosystems for survival. In most Midwestern oak-hickory forests, an abundance of deer, lack of fire, and dense understory shading has and is currently causing a change in the forest. This mesophication effect is occurring due to these historically more open forests and woodlands being filled in with shade tolerant species such as sugar maple, red maple, and American beech. The result is a change in forest composition and a reduction in or total loss of the natural herbaceous and shrub layers that would have historically dominated these sites, which were subjected to periodic fires, both natural and those caused by humans. The goals of the proposed prescribed fire are to create conditions conducive to oak regeneration and recruitment while opening the mid story and understory up for the appropriate herbaceous and woody plants associated with oak-hickory ecosystems.

Timber Stand Improvement (TSI)

Various TSI practices are prescribed for the entire tract. The TSI should focus on releasing oaks, hickories and quality mixed hardwoods, controlling grapevines in select areas, reducing the density of shade tolerant species and potential invasive work. As the stand develops and ages, other silvicultural prescriptions may become more viable options. Below is a general guideline for this work.

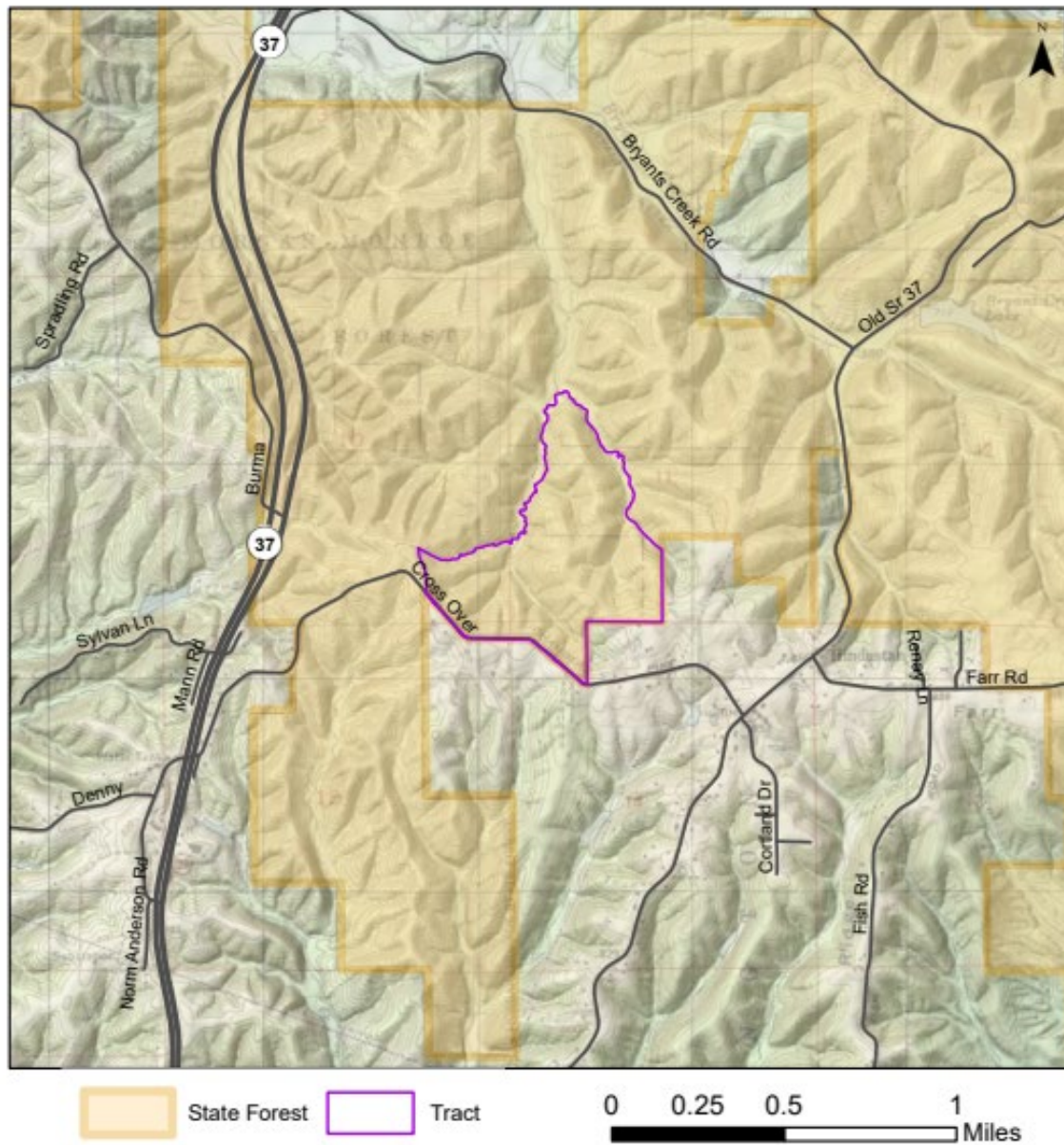
- Vine Control – Pre-harvest in potential openings / pre or post-harvest in old openings
- Croptree Release – Pre or post-harvest in old regeneration openings
- Regeneration Opening Completion – Post-harvest
- Large Snag Creation – Post-harvest, likely included in opening completion
- Invasive/Exotic Species Control – Pre & Post-harvest control as needed

Proposed Management Activity

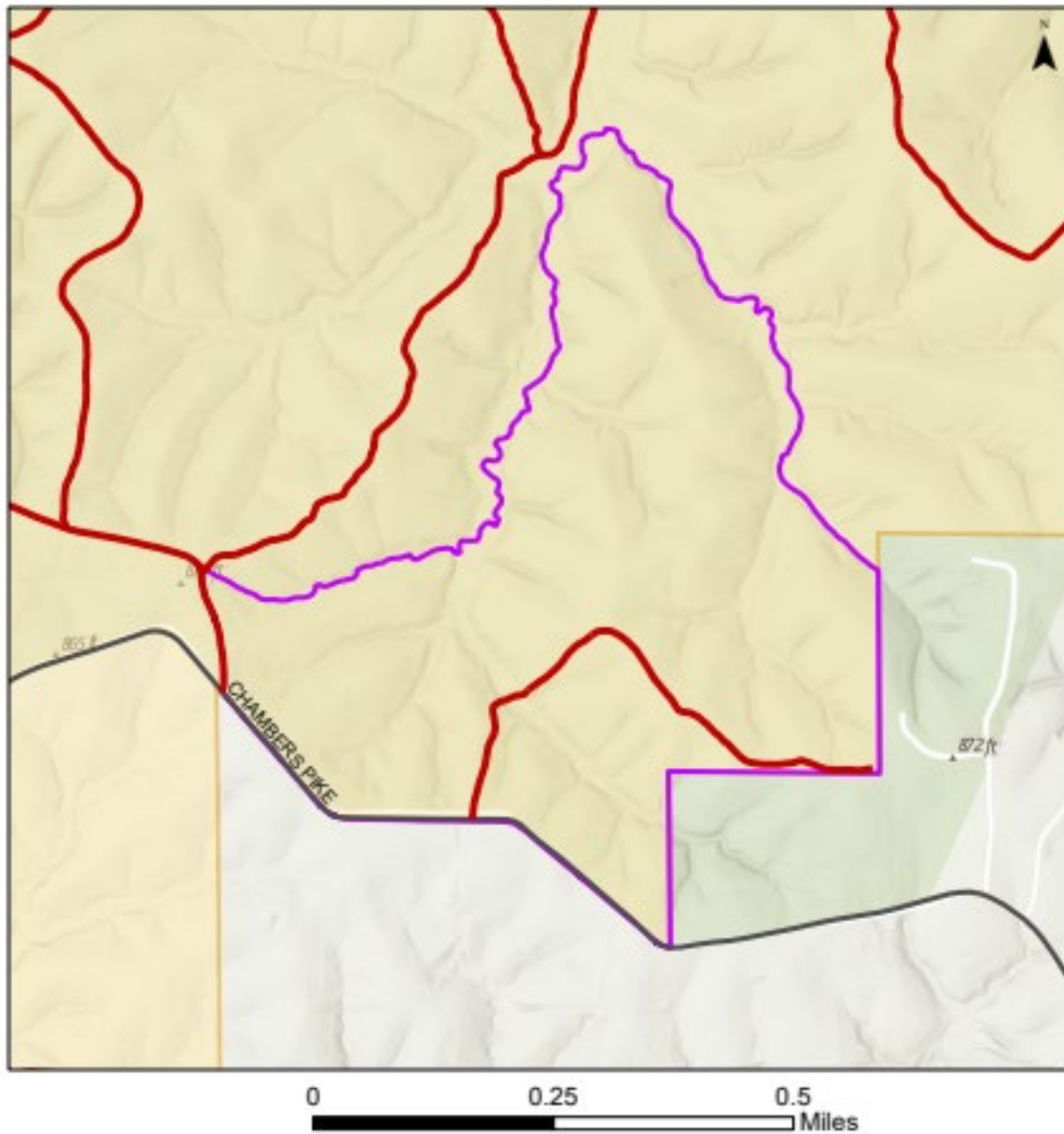
Proposed Date

Pre-Harvest TSI and Invasive Treatments	2026-2027
Timber Marking	2026-2027
Fire lane maintenance	2026-2027
Timber Sale	2026-2027
Timber Sale Closeout	2026-2028
BMP Review	2026-2028
Post Harvest TSI and Invasive Treatments	2026-2028
3-year regeneration review	three years after harvest
Next forest inventory	2044

Morgan-Monroe State Forest
Location Map
Compartment 11 Tract 13



Morgan-Monroe State Forest
Compartment 11 Tract 13
Tract Map



- Fire Lane
- Tract boundary
- State Forest

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