

Harrison Crawford State Forest
Forester: Wayne Werne
Management Cycle End Year: 2044

Compartment: 19
Date: 6/19/2022
Management Cycle Length: 20 Years

Tract: 01
Acres: 67

Location

Tract 6341901 is in section 2, T4S, 2E, in Harrison County, Indiana, approximately 10 miles west of Corydon, Indiana. It can be accessed off State Road 462 shortly after the O'Bannon Woods State Park entrance gate.

General Description

The tract consists of mesic oak-hickory, mixed hardwood, conifer (in separate stands of planted eastern white pine and Virginia pine), and young forest (within the oak-hickory and former beech-maple) cover types, with most of the acreage being mesic oak-hickory. The areas currently covered in pine were originally open farmland as evidenced by the 1940's aerial photos. The young forest stand consists of two regeneration openings created during the last harvest that were previously occupied by beech-maple and oak-hickory that now probably are best described as young mixed hardwoods. The tract is primarily located on north and east aspects and some relatively flat areas as well.

History

- 1932 – majority of tract acreage in the northern portion was purchased from John & America Conner, W. Rucker, Lucille Rucker, and Nora Rucker for \$5 per acre.
- 1932 – southern portion of the tract was acquired from John & Charity Green, John Morris, and Mollie Curts (administrator of estate of Green/McAdams) through condemnation via eminent domain for approx. \$6.50 per acre.
- 1976 – Timber sale conducted in this tract along with tract 6341903 totaling 104,000 board feet, made up primarily of northern red oak, sugar maple, and American beech. It is unknown what portion of this total came from tract 6341901, but likely the minor portion due to much smaller acreage. Sale was sold to Coffman and Jacobs for \$0.106 per foot.
- 1980 – A small amount of white pine along the fire trail was harvested.
- 2003 – Forest inventory and management guide completed by Dwayne Sieg showing volume of tract at 6,344 bd ft per acre.
- 2006 – Timber sale conducted in this tract along with tract 6341903 totaling 169,000 board feet (84,300 bd ft from tract 6341901), made up primarily of black oak, white ash, northern red oak, and white oak (from tract 6341901). Sale was sold to Phil Etienne for \$0.26 per foot.
- 2022 – Forest inventory and management guide completed.

Landscape Context

The landscape surrounding this tract is primarily (hardwood) forest with some agricultural crop and pastureland found to the east on nearby private lands. Some developed recreational infrastructure is present nearby on DNR property, but the whole area is rural in nature with little additional development.

Topography, Geology, and Hydrology

This tract contains mostly gently sloping hillsides with a northerly aspect. There are some relatively flat areas on the southern portion on the ridgetop. The watershed of this tract drains to the north and west into intermittent drainages that empty into Blue River about a mile to the west. Located in the tract may be various sinkholes, caves, and other karst features which will be buffered according to the Indian Logging & Forestry Best Management Practices 2022 BMP Field Guide.

Soils

The following soils are found on the tract in approximate order of importance.

WbF Weikert-Berks channery silt loams, 35-60% slopes Virginia pine SI is 45-53, est. growth is 75-100 bd. ft/ac/yr.

CoF Corydon stony silt loam, 20-60% slopes Upland oak SI is 65-75, Yellow-poplar SI is 80-90, est. growth is 155-220 bd. ft/ac/yr. for oaks and 260-335 bd. ft/ac/yr. for yellow-poplar.

GIE2 Gilpin silt loam, 18-25% slopes, eroded Upland oak SI is 70-80, Yellow-poplar SI is 90-100, est. growth is 185-260 bd. ft/ac/yr. for oaks and 335-415 bd. ft/ac/yr. for yellow-poplar.

ZaC3 Zanesville silt loam, 6-12% slopes, severely eroded Upland oak SI is 70-80, Yellow-poplar SI is 85-95, est. growth is 185-260 bd. ft/ac/yr. for oaks and 300-375 bd./ ft/ac/yr. for yellow-poplar

TIB2Tilsit silt loam, 2-6% slopes, eroded Upland oak SI is 70-80, Yellow-poplar SI is 85-95, est. growth is 185-260 bd. ft/ac/yr. for oaks and 300-375 bd./ ft/ac/yr. for yellow-poplar.

GpF Gilpin-Berks complex, 18-30% slopes Upland oak SI is 70-80, Yellow-poplar SI is 70-80, est. growth is 185-260 bd. ft/ac/yr. for oaks and for yellow-poplar.

GID3 Gilpin silt loam, 12-20% slopes, severely eroded Upland oak SI is 70-80, Yellow-poplar SI is 90-100, est. growth is 185-260 bd. ft/ac/yr. for oaks and 335-415 bd. ft/ac/yr. for yellow-poplar.

Access

Access to this tract is via the paved road continuing off S.R. 462 into the main entrance to the O'Bannon Woods State Park and also via fire lane 204. This fire lane runs northwest down the ridge line and into tract 6341903.

Boundary

The northeastern boundary of this tract is an intermittent drainage that separates it from tract 6341906 to the northeast. The southern boundary is the paved entrance road to the property where the fire tower loop road is located. The southwestern boundary is another intermittent drainage that separates this tract from tract 6341905 to the west. And the northwestern boundary is a saddle on the ridgeline with more imperceptible intermittent/ephemeral drainages going downhill from this saddle to the aforementioned intermittent drainages that form the other

boundaries of the tract. Beyond this saddle demarcation is tract 6341903 to the northwest.

Ecological Considerations

This tract represents typical upland forest habitat, in addition to a component of planted pine, and some young forest habitat where a previous regeneration opening from the last timber sale has resulted in denser and smaller hardwoods currently. Consequently, it likely receives use from a typical assemblage of common game and nongame wildlife species. Hard mast food sources are provided by the oak-hickory stand, but another habitat component would come from the pine stands that retain their evergreen foliage in the winter. These stands provide denser cover for bedding areas, especially during the winter months.

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.

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 or communities 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

Being centrally located near the entrance to the property and easily accessible, this tract likely receives a much higher amount of general recreational activity than many of the other tracts on the state forest. The Fox Hollow Horse Trail trailhead starts along the road on the south edge of this tract, and the trail traverses this tract along the dual use fire lane to the northwest. Since it is near the road and O'Bannon Woods State Park office and fire tower, this trail likely receives abundant horse riding use. Hunters commonly use the tract. Directly across the road from this tract to the south is the fire tower, and it also draws a lot of recreational visitations, which may include short hikes into this tract as well. Additionally, the area around the fire tower also serves as the trailhead for the Fire Tower Mountain Bike Trail that goes to the campground to the west, so it is often utilized by mountain bikers.

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

Stand 1: Mesic Oak-Hickory – 31.1 acres

This stand (i.e., cover type) covers about half of the tract, and occupies the more sloping ground generally located mid and lower slopes on the northern and western portions of the tract that had not been cleared for farming in the past.

The total volume of the stand (8,479 bd. ft/ac) is composed primarily of white oak (3,492 bd. ft/ac), black oak (1,218 bd. ft/ac), and shagbark hickory (1,153 bd. ft/ac). The remaining 30% of the volume consists of pignut hickory, yellow-poplar, northern red oak, and various other species.

It contains a high volume of 8,479 board feet per acre of which 2,441 was classified as harvestable and 6,038 was classified as residual. This would remove 35 square feet of basal area, which would leave the residual stand with 66 sq. ft. Stocking would drop from 84% to about 55% with the indicated management.

The desired future condition of this area is a healthy stand of predominantly oak and hickory species to continue to produce hard mast food sources for wildlife and eventually quality wood products when harvesting takes place. To accomplish this, dying, declining, overmature, and/or low-quality trees would be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area. Openings created from harvesting would allow for the less shade tolerant species to establish a new cohort of seedlings for the future. Retaining shade intolerant tree species (like oak and hickory) while minimizing transition to shade tolerant species (like beech and maple) would be the goal here. Ideally, creating enough regeneration openings and other canopy gaps to allow for establishment and recruitment of oak species into the understory would help achieve these goals.

Since the last harvest in this stand was 18 years ago, and because it also currently contains a moderate amount of harvestable volume and a high amount of residual growing stock, the recommendation would be to rank this stand as a medium to high priority for conducting a harvest. Any timber sale would primarily include this entire stand as well as trees from the other stands in this tract. The majority (70%) of the harvest volume for stand 1 (2,441 bd. ft/ac) would be contained in black oak (761 bd. ft/ac), white oak (496 bd. ft/ac), and yellow-poplar (438 bd. ft/ac), with pignut hickory, shagbark hickory, chinkapin oak, and sugar maple making up of the remainder of the harvest volume. A timber sale in this stand would produce a range of between 60,000 to 90,000 board feet total.

Most of the stand would probably be harvested under a single-tree selection routine with larger regeneration openings (i.e., patch-cuts) targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees. The residual stand should be heavier to white oak, with a lesser component of other oak and hickory species, as well as mesophytic species. Application of a prescribed burn primarily in this stand would help to reduce the shade tolerant under and midstories that are taking over most of our forests in the absence of disturbance, and aid in regenerating and recruiting the more fire tolerant oaks and hickories. Burning this tract could be part of the future management, and if

implemented, a burn plan would be written to cover the specifics of that process.

Post-harvest timber stand improvement (TSI) should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and treat the understory to eliminate shade tolerant species in favor of oaks and other more desirable species. As always, any ailanthus present should also be treated and eliminated.

Stand 2: Mixed hardwoods – 21.6 acres

This stand covers about a third of the tract and was located along the upper slope and flat ridgetop portion of the tract on the south end. The total volume of the stand (5,757 bd. ft/ac) is composed primarily of sugar maple (1,985 bd. ft/ac) and yellow-poplar (1,348 bd. ft/ac), and eastern redcedar (839 bd. ft/ac). The remaining 42% of the volume consists of eastern white pine, Virginia pine, white oak, white ash, black walnut, and various other species. The presence of pine is due to the fact that the pine stands are deteriorating, and mortality has led to the transition to a more mesophytic stand in places.

This stand contains a volume of 5,757 board feet per acre of which 2,728 was classified as harvestable and 3,029 was classified as residual. This would remove 51 square feet of basal area, which would leave the residual stand with 57 sq. ft. Stocking would drop from about 93% to about 50% with the indicated management. These figures do include cedar as figured according to the cedar log scale.

The desired future condition of this area is a healthy stand of mixed mesophytic species adapted to the site to continue to eventually produce quality wood products when harvesting takes place. To accomplish this, dying, declining, and/or low-quality trees would be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area. Openings created from harvesting would allow for the less shade tolerant species to establish a new cohort of seedlings for the future.

Since the last harvest in portions of this stand was 18 years ago, and because it currently contains a moderate volume of harvestable material, the recommendation would be to rank this stand as a medium to high priority for conducting a harvest. Any timber sale would primarily include this entire stand as well as all of stand 1 with some trees from the other stands. The majority of the harvest volume for stand 2 (2,728 bd. ft/ac) would be contained in yellow-poplar (1,096 bd. ft/ac), sugar maple (414 bd. ft/ac), Virginia pine (414 bd. ft/ac), and white ash (247 bd. ft/ac). The remaining 20% would be contained in white oak, black walnut, eastern redcedar, and red elm. A timber sale in this stand would produce a range of between 50,000 to 70,000 board feet total. Most of the stand would probably be harvested under a single tree selection routine with larger regeneration openings targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and kill grapevines where present. As always, any ailanthus present should also be treated and eliminated.

Stand 3: Conifer – 8.3 acres

This stand is actually two different pine stands. There is an eastern white pine stand on the southeastern tip of the tract, and another one along the fire lane farther to the northwest. There is also a separate Virginia pine stand along the south edge of the tract where the fire lane enters the tract, but no inventory points fell within the Virginia pine stand, so the data represents only the white pine stand.

The total stand volume (8,577 bd. ft/acre) is composed primarily of eastern white pine (6,371 bd. ft/acre) and yellow-poplar (1,299 bd. ft/acre). The remaining 11% of the volume consists of black oak and sugar maple.

This stand contains a volume of 8,577 board feet per acre of which 1,299 was classified as harvestable and 7,278 was classified as residual. This would remove 23 square feet of basal area, which would leave the residual stand with 70 sq. ft. Stocking would drop from 80% to about 57% with the indicated management. A timber sale in this stand would produce a range of between 5,000 to 15,000 board feet total – most of it being old field poplar. The eastern white pine portion would be kept mostly intact as a diverse conifer stand close to the area of heavy recreational use for aesthetics, with some thinning possible. The Virginia pine stand would likely be liquidated since stands of this species are very prone to windthrow and eventually fall apart once mature.

The desired future condition of this area is a healthy stand of aesthetically pleasing eastern white pine that offers habitat diversity and aesthetics to visitors a short distance from the entrance road. The Virginia pine stand should be liquidated to convert it to a mixed mesophytic stand of hardwoods. This proposed management for the Virginia pine will also have the added effect of creating early successional habitat where a mostly open area interspersed with hardwood trees would be the resultant cover for about a decade. Eventually, the area would transition to a native hardwood stand of larger trees with natural succession. In the meantime, the early successional vegetation would provide diversity of habitat to many species of wildlife that utilize this type of habitat. Transitioning this stand to a temporarily more open habitat would also allow for more shade intolerant species like oak and hickory to potentially regenerate here, though yellow-poplar would likely be the dominant hardwood regenerating.

Since this stand intermingles with the more merchantable hardwood stands, there would likely be some trees included from here along with any timber sale taking place in the other stands. The inventory only picked up yellow-poplar as indicated harvest volume, but some thinning of the white pine and liquidation of the Virginia pine would be included as well. Timber harvest and post-harvest TSI should concentrate on releasing any oak regeneration – mostly with follow-up TSI. Finally, TSI would remove any leftover competing trees and allow a new stand of poplar and oak to establish itself and grow here. As always, any ailanthus present should also be treated and eliminated.

Stand 4: Beech maple (young forest) – 6.0 acres

This stand is actually made up of two old regeneration openings from the 2006 timber harvest, and the larger one in the northern tip next to the drainage was formerly stand typed as “beech-maple.” The creation of a regeneration opening here at that time targeted the beech, and now it is

a young mixed hardwoods stand. The other regeneration opening was located in the oak-hickory cover type and has also regenerated to mostly a mixed hardwoods stand of young trees currently. These areas make up a small portion of the tract, but would better be separately stand typed as young mixed hardwoods with very little standing volume currently.

These small areas are dominated with submerchantable and pole sized yellow-poplar, sycamore, black locust, American beech, redbud, and white ash with some residual larger sugar maple and hickory. The desired future condition of this area would be to allow it to continue to grow into a mature mixed hardwood stand as it currently is doing. Some TSI could be accomplished in this area to favor the poplar trees and the better-quality stems of other desirable species, as well as to control ailanthus and any invasive species establishing in the area.

The current forest resource inventory was completed in June 2022 by Wayne Werne. 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.
Black oak	156	35,890
Black walnut	55	5,560
Chestnut oak	16	5,950
Chinkapin oak	11	4,840
Eastern redcedar	43	2,820
Eastern white pine	155	53,160
Northern red oak	57	21,590
Pignut hickory	129	24,380
Red elm	24	1,460
Shagbark hickory	285	33,970
Sugar maple	590	60,550
Virginia pine	58	9,710
White ash	26	5,800
White oak	300	102,500
Yellow-poplar	214	59,730
Total:	2,119	427,910

Summary Tract Silvicultural Prescription and Proposed Activities

Since the last harvest in this tract was 18 years ago, and because it also currently contains a moderate amount of harvestable material and residual growing stock, the recommendation would be to rank this tract as a medium to high priority for conducting a timber harvest. Due to the current condition of the stand, an improvement harvest is recommended and could be undertaken as early as this year, or the near future. Overall tract volume would be reduced by about a third. A marked sale in this tract would produce an approximate total volume of between 130,000 to 175,000 board feet.

Utilizing numbers from the last inventory in 2003, this tract has shown a very low growth rate of approximately 75 board feet per acre per year over the last 19 years after taking into account the

volume removed in the 2006 timber sale, which seems to be an anomaly since growth rates elsewhere on the forest range from 100 to 300 board feet per acre per year. This site seems to have productive soils and growth potential, so this lower growth rate could be due to mortality of the ash and possibly pine, or it could be an aberration of the sampling point placement between inventories. With the application of the proposed management, this tract should exhibit high and potentially greater growth and productivity by favoring the healthiest and best quality trees for a residual stand, while removing the declining trees.

Most of the tract would probably be harvested under a single-tree selection routine with larger regeneration openings (i.e., patch-cuts) targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees. The residual stand should be heavier to white oak, with a lesser component of other oak and hickory species, as well as mesophytic species. Application of a prescribed burn would help to reduce the shade tolerant under and midstories that are taking over most of our forests in the absence of disturbance, and aid in regenerating and recruiting the more fire tolerant oaks and hickories. Burning this tract could be part of the future management, and if implemented, a burn plan would be written to cover the specifics of that process.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and treat the understory to eliminate shade tolerant species in favor of oaks and other more desirable species. As always, any ailanthus present should also be treated and eliminated.

Due to the proximity and similar stand types, this harvest should occur at the same time as adjacent tract 6341903, which is how previous sales occurred. This would minimize time spent during management activities to ensure the least effect on recreation, wildlife, hydrology, and other concerns mentioned in this plan.

Management activities will not intentionally remove snags, with a few exceptions of large recently dead trees or storm damage when possible, so the timber sale will not negatively impact that component significantly. Creation of more snags in this size class could be undertaken by girdling large cull trees in a post-harvest TSI operation.

Additionally, management activities involving a timber sale should not affect this habitat long-term from the perspective of any wildlife utilizing it due to the maintenance of a forested habitat on the tract. There may be some conversion of pine to temporarily open areas that will be allowed to succeed into native hardwoods, and this would change the character of the tract over time, but will not change it into a permanently nonforested cover type. Creation of regeneration openings and/or conversion of portions of the Virginia pine area into openings will create early successional habitat that will be beneficial to certain groups of wildlife dependent upon this habitat. Likely, early successional habitat created with such management will also benefit a wider segment of wildlife species that preferentially utilize such habitat for feeding and cover more so than later successional stage habitat.

Since this tract does not border a major stream, there should be no disruption of any potential travel corridors by forest management activities. The habitat on this tract in the context of the

surrounding landscape does not represent any special component that would be used more preferentially or exclusively by wildlife for traveling or dispersion, as riparian habitat might be, or as forest in a non-forested landscape might be. The small pond found nearby on the neighboring tract would provide a valuable water source for wildlife during dry periods, and also represent good habitat for reptiles and especially amphibians. The white pine stands would provide thermal cover during the winter and some specialized roosting habitat and overall diversity to the general habitat as well.

Since this tract represents a component of contiguous forest, it is possible that forest management activities might disrupt any forest interior species by creating edge habitat for generalist species to “invade” the area. This would possibly occur if regeneration openings were put in place that offered a habitat preferred by such generalist species which might move in and start using such habitat. In the context of the surrounding landscape, this tract represents a moderate chunk of forest in a matrix of surrounding forest land.

The 2022 BMP Field Guide will be followed throughout the harvest to ensure any management activities impact to soils is limited. Soil disturbance will largely be confined to the log yard and main skid trails. The BMPs will also ensure water quality is not permanently affected, and implementation of these BMPs will be contractually required of loggers.

Snags and coarse woody debris will remain at viable levels for wildlife after harvest and the harvest will not adversely affect the wildlife.

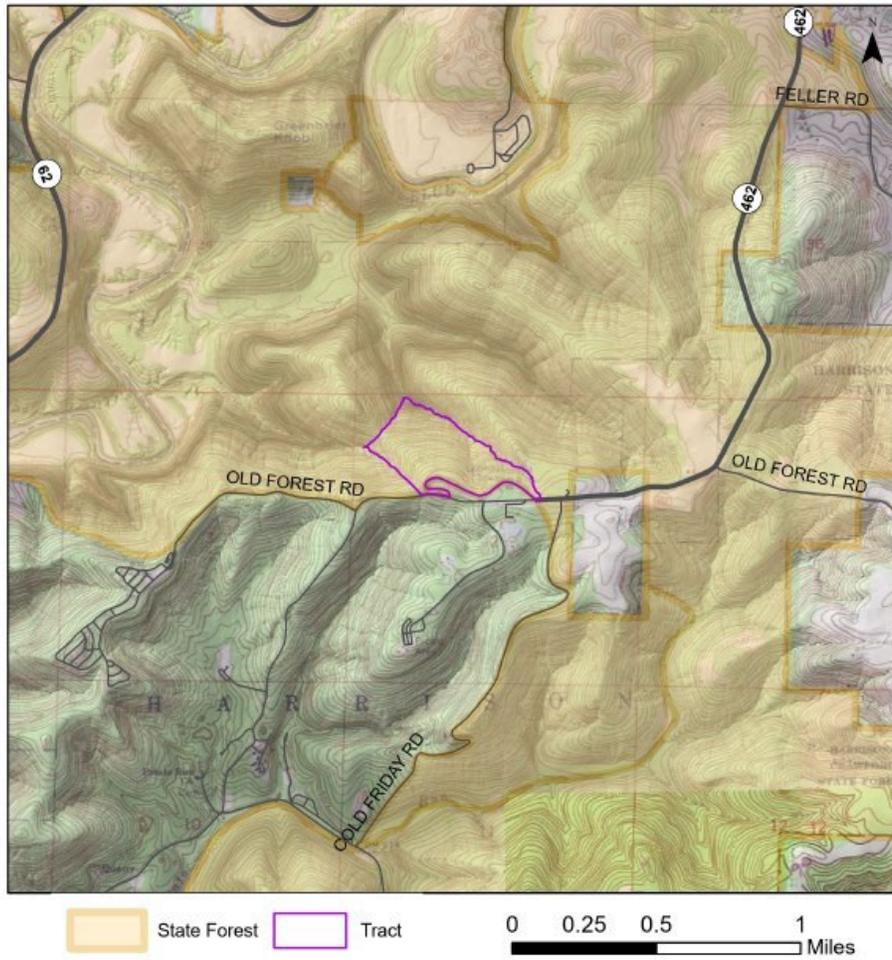
During the timber harvest, part of the horse and mountain bike trails would have to be temporarily closed for public safety. However, under current restrictions, this closure would only occur from November 16th to April 1st and would not affect most of the spring, summer, and fall recreation. Hunting opportunities should be improved by the maintenance of early successional habitat and the recruitment of hard mast producers such as oak and hickory which provide food sources for a wide variety of native wildlife.

Once the harvest is complete, post-harvest TSI should be conducted and then the stand should be revisited for regeneration opening and post-harvest checks in 3-5 years to ensure proper regeneration and growth is occurring. A crop tree release in the 2006 regeneration opening should be done at this time. In about 20 years, the stand should be revisited for another inventory and a new management guide can be created.

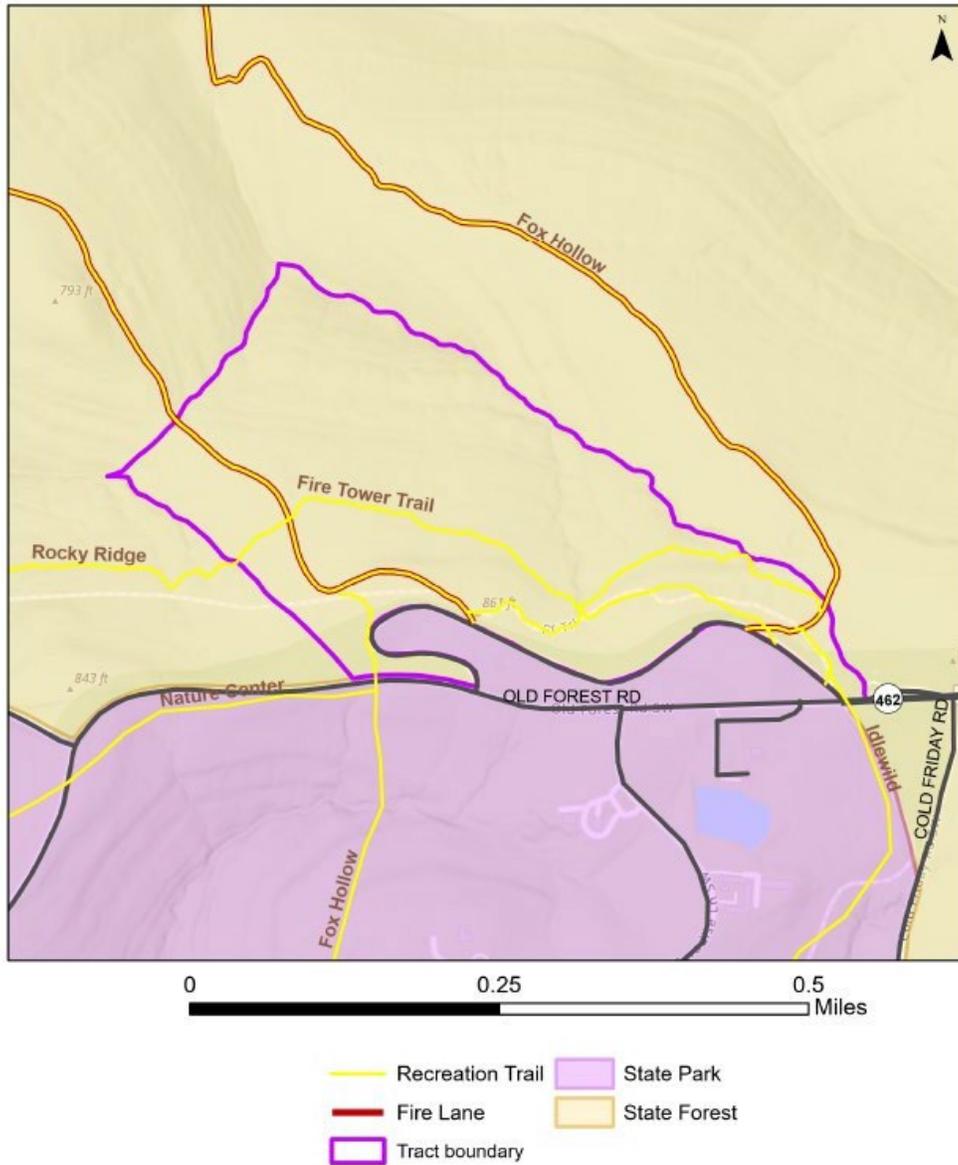
Proposed Activities Listing

<i>Proposed Management Activity</i>	<i>Proposed Date</i>
Mark Harvest	2025-2026
Sell Timber	2025-2026
Possible prescribed burn	2025-2026
Post-harvest TSI	2027-2028
3-year regeneration opening review	Three years after harvest
Next forest inventory	2042

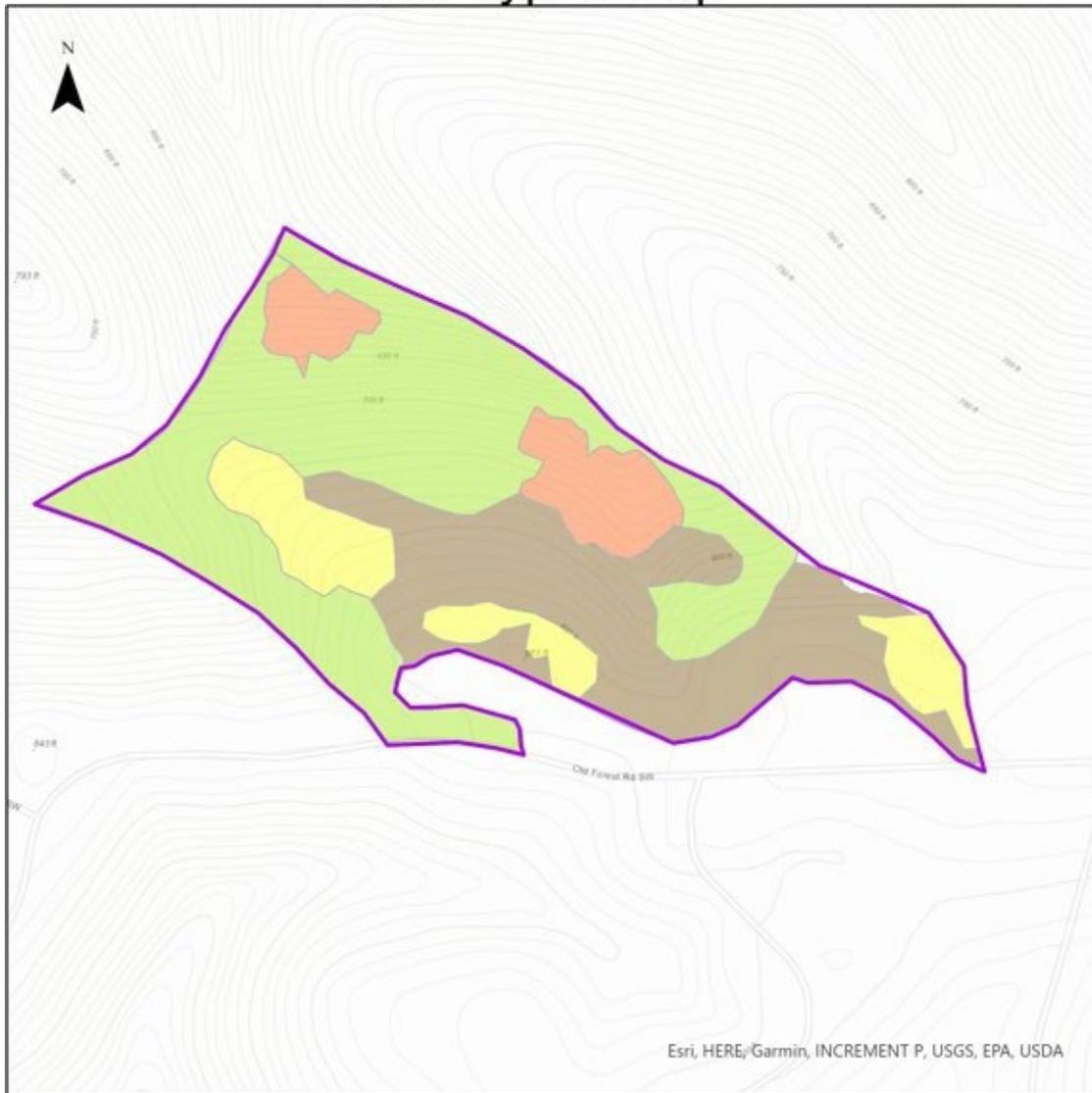
Harrison-Crawford State Forest
Location Map
Compartment 19 Tract 1



Harrison-Crawford State Forest Compartment 19 Tract 1 Tract Map



Harrison-Crawford State Forest Compartment 19 Tract 1 Cover Types Map



0 0.13 0.25
Miles



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Forester: Wayne Werne
Management Cycle End Year: 2044

Compartment: 19
Date: June 2022
Management Cycle Length: 20 Years

Tract: 03
Acres: 225.3

Location

Tract 6341903 is in Sections 2 and 3, T4S, R2E, and Sections 34 and 35, T3S, R2E in Harrison County, Indiana, approximately 10 miles west of Corydon, Indiana. It can be accessed off State Road 462 shortly after the entrance gate into the O'Bannon Woods State Park.

General Description

The tract consists of mesic oak-hickory, dry oak-hickory, mixed hardwood, bottomland hardwoods, and young forest (within the mixed hardwoods) cover types, with most of the acreage being mixed hardwoods. The young forest stand consists of two regeneration openings created during the last timber harvest that were previously occupied by mixed hardwoods that now probably are best described as young mixed hardwoods with noticeably less volume present. The tract is located on all directional aspects and some relatively flat areas as well.

History

- 1931 – The central (majority) portion of the tract was acquired from Thomas Hudson for \$5 per acre. This purchase has the distinction of being the first acquisition for the Harrison-Crawford State Forest.
- 1932 – The eastern portion of tract acreage was purchased from John & America Conner, W. Rucker, Lucille Rucker, and Nora Rucker for \$5 per acre.
- 1977 – The western portion of the tract was acquired from Robert Davis through condemnation via eminent domain for \$600 per acre.
- 1976 – Timber sale conducted in this tract along with tract 6341901 totaling 104,000 board feet, made up primarily of northern red oak, sugar maple, and American beech. It is unknown what portion of this total came from tract 6341903, but likely the larger portion due to larger acreage. The sale was sold to Coffman and Jacobs for \$0.106 per board foot.
- 1976 – Black walnut sale involving tracts 6341903 and 6342808 removed 9,800 board feet in 30 trees sold to Wood Mosaic Corp for \$11,250. Unknown what portion came from 6341903.
- 1980 – White pine sale of 19,000 board feet with some trees possibly coming from this tract along with several others. Records are sketchy with details.
- 1980s – Wildlife habitat opening created by Division of Fish and Wildlife in a level old field site in the western third of the tract.
- 2003 – Forest inventory and management guide completed by Dwayne Sieg showing volume of tract at 6,285 board feet per acre.
- 2005 – Timber sale conducted in this tract totaling 130,000 board feet, made up primarily of white oak, northern red oak, black oak, and sugar maple. Sale was sold to Williams Brothers for \$0.40 per board foot.
- 2006 – Timber sale conducted in this tract along with tract 6341901 totaling 169,000 board feet (85,100 bd ft from tract 6341903), made up primarily of northern red oak, yellow-poplar, and sycamore. Sale was sold to Phil Etienne for \$0.26 per board foot.
- 2022 – Forest inventory and management guide.

Landscape Context

The landscape surrounding this tract is primarily (hardwood) forest with some agricultural crop and pastureland found to the east on nearby private lands. Some developed recreational infrastructure is present nearby on Indiana Department of Nature Resources (IDNR) property, but the whole area is rural in nature with little additional development.

Topography, Geology, and Hydrology

This tract contains mostly gently sloping hillsides with all directional aspects. There are some relatively flat areas on the eastern portion on the ridgetop and on the western third of the tract by the Blue River in Fox Hollow. The watershed of this tract drains to the north and south into intermittent drainages that empty into Blue River on the west end of the tract. Located in the tract may be various sinkholes, caves, and other karst features which will be buffered according to the 2022 Best Management Practices (BMPs) Field Guide.

Soils

The following soils are found on the tract in approximate order of importance.

CoF Corydon stony silt loam, 20-60% slopes Upland oak SI is 65-75, Yellow-poplar SI is 80-90, est. growth is 155-220 board feet per acre per year (bd. ft/ac/yr.) for oaks and 260-335 bd. ft/ac/yr. for yellow-poplar.

GID3 Gilpin silt loam, 12-20% slopes, severely eroded Upland oak SI is 70-80, Yellow-poplar SI is 90-100, est. growth is 185-260 bd. ft/ac/yr. for oaks and 335-415 bd. ft/ac/yr. for yellow-poplar.

GID2 Gilpin silt loam, 12-18% slopes, eroded Upland oak SI is 70-80, Yellow-poplar SI is 90-100, est. growth is 185-260 bd. ft/ac/yr. for oaks and 335-415 bd. ft/ac/yr. for yellow-poplar.

Mg McGary silt loam Upland oak SI is 70-80, Yellow-poplar SI is 80-90, est. growth is 185-260 bd. ft/ac/yr. for oaks and 260-335 bd. ft/ac/yr. for yellow-poplar.

HgD3 Hagerstown silty clay loam, 12-18% slopes, severely eroded Upland oak SI is 85-95, Yellow-poplar SI is 90-105, est. growth is 300-375 bd. ft/ac/yr. for oaks and 335-450 bd. ft/ac/yr. for yellow-poplar.

MaF Markland silt loam, 25-70% slopes Upland oak SI is 70-80, Yellow-poplar SI is 85-95, est. growth is 185-260 bd. ft/ac/yr. for oaks and 300-375 bd. ft/ac/yr. for yellow-poplar.

Hm Haymond silt loam Yellow-poplar SI is 95-105, est. growth is 375-450 bd. ft/ac/yr. for yellow-poplar.

HaD2 Hagerstown silt loam, 12-18% slopes, eroded Upland oak SI is 85-95, Yellow-poplar SI is 90-105, est. growth is 300-375 bd. ft/ac/yr. for oaks and 335-450 bd. ft/ac/yr. for yellow-poplar.

Access

Access to this tract is via the paved road continuing off S.R. 462 into the main entrance to the O'Bannon Woods State Park and then via fire lane 204 north of the fire tower a short distance through neighboring tract 6341901. This fire lane runs northwest down the ridge line and into tract 6341903, then follows it through most of the tract to the bottom of the hill into Fox Hollow.

Boundary

The southeastern boundary is a saddle on the ridgeline with more imperceptible intermittent/ephemeral drainages going downhill from this saddle to intermittent drainages that form the other boundaries of the tract. The northeast, north, and south boundaries are intermittent drainages beyond which are other state forest tracts. The western boundary is the Blue River.

Ecological Considerations

This tract represents typical upland forest habitat, in addition to a component of bottomland forest, some cedar dominated areas, a couple of acres of open ground, and some young forest habitat where a previous regeneration opening from the last timber sale has resulted in denser and smaller hardwoods currently. Consequently, it likely receives use from a typical assemblage of common game and nongame wildlife species. Hard mast food sources are provided by the oak hickory stand, but another habitat component would come from the cedar stands that retain their evergreen foliage in the winter. These stands provide denser cover for bedding areas, especially during the winter months.

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.

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 or communities 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

Being centrally located near the entrance to the property and easily accessible, this tract likely receives a much higher amount of general recreational activity than many of the other tracts on the state forest. The Fox Hollow Horse Trail trailhead starts along the road on the south edge of the neighboring tract 6341901, and the trail traverses this tract along the dual use fire lane to the northwest and west. Since it is near the road and fire tower, this trail likely receives abundant

horse riding use. There is a short spur horse trail (Twin Chimneys Loop) that is also located in the west end of this tract as well. The area is popular with hunters. The Adventure Trail also traverses along the north and west end of this tract, receiving hiking and mountain bike use.

Cultural

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

Tract Subdivision Description and Silvicultural Prescription

There are about 2.3 acres of open to semi-open area adjacent to the advanced old field area at the bottom of the hill on the western side of the tract. This is the wildlife opening referenced previously. The other forested components of this tract are subdivided according to stand type (i.e., cover type) and described as follows.

Stand 1: Mixed hardwoods – 117 acres

According to the stand type map, this stand covers about half of the tract. However, only 93 acres is truly mixed mesophytic hardwoods, while two other distinctly different stand types were included into this type. There are two old regeneration openings from the last timber sale that currently contain similar species, but contain no merchantable volume, and these areas totaled 5.1 acres collectively. There is also a sizable old field area in the flat at the bottom of the hill on the west side that has grown back from a former open agricultural use to a mixture of different species with a presence of invasive species, and with half the volume of the true mixed mesophytic hardwood stand. It would best be described as an advanced old field stand, and made up 19 acres in size.

The total volume of the traditional mixed mesophytic stand (9,980 board feet per acre (bd. ft/ac)) is composed primarily of yellow-poplar (2,981 bd. ft/ac), sugar maple (1,489 bd. ft/ac), and Shumard oak (1,127 bd. ft/ac). The remaining 44% of the volume consists of northern red oak, sycamore, chinkapin oak, and various other species. The total volume of the advanced old field portion of this area (4,344 bd. ft/ac) is half that of the previously described traditional mixed mesophytic stand, and is composed primarily of yellow-poplar (2,081 bd. ft/ac), Shumard oak (741 bd. ft/ac), and eastern redcedar (606 bd. ft/ac). The remaining 20% of the volume consists of eastern white pine, northern red oak, black oak, and chinkapin oak. The aforementioned regeneration openings from the last timber harvest currently contain no merchantable volume, but are made up primarily of yellow-poplar, chinkapin oak, sycamore, and black walnut pole sized trees and saplings.

The largest component of this stand contains a volume of 9,980 board feet per acre of which 3,658 was classified as harvestable and 6,322 was classified as residual. A harvest would remove 49 square feet of basal area, which would leave the residual stand with 72 sq. ft. Stocking would drop from 100% to about 60% with the indicated management. The portion more aptly described as advanced old field contains a volume of 4,344 bd. ft/ac of which 803 was classified as harvestable and 3,541 was classified as residual. A harvest would remove 33 square feet of basal area, which would leave the residual stand with 71 sq. ft. Stocking would drop from 90% to 60% with the indicated management. These figures do include cedar as figured according to the cedar log scale.

The desired future condition of this area is a healthy stand of mixed mesophytic species adapted to the site to continue to eventually produce quality wood products when harvesting takes place. To accomplish this, dying, declining, overmature, and/or low-quality trees would be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area. Openings created from harvesting would allow for the less shade tolerant species to establish a new cohort of seedlings for the future.

Since the last harvest in portions of this stand was 18 years ago, and because it currently contains a high volume of harvestable material, the recommendation would be to rank this stand as a medium to high priority for conducting a harvest. Any timber sale would primarily include this entire stand as well as all of stand 2 with some trees from the other stands. The majority of the harvest volume for the traditional mixed mesophytic portion of stand 1 (3,658 bd. ft/ac) would be contained in yellow-poplar (937 bd. ft/ac), sugar maple (700 bd. ft/ac), sycamore (265 bd. ft/ac), and white ash (236 bd. ft/ac). The remaining 40% would be contained in basswood, northern red oak, chinkapin oak and a variety of other species. The advanced old field portion would have a harvestable volume of 803 bd. ft/ac which would be made up entirely of eastern redcedar and yellow-poplar. A timber sale in this stand would produce a range of between 325,000 to 375,000 board feet total. Most of the stand would probably be harvested under a single-tree selection routine with larger regeneration openings (i.e., patch-cuts) targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and kill grapevines where present. The earlier regeneration openings should receive crop tree release at this time. As always, any ailanthus present should also be treated and eliminated.

Stand 2: Mesic Oak-Hickory – 51.1 acres

This stand covers about a quarter of the tract, and occupies the central ridgetop on the eastern side of the tract that had not been cleared for farming in the past.

The total volume of the stand (7,099 bd. ft/ac) is composed primarily of white oak (3,985 bd. ft/ac), northern red oak (1,014 bd. ft/ac), and black oak (629 bd. ft/ac). The remaining 20% of the volume consists of pignut hickory, shagbark hickory, white ash, and various other species.

It contains a high volume of 7,099 board feet per acre of which 2,422 was classified as harvestable and 4,677 was classified as residual. A harvest would remove 49 square feet of basal area, which would leave the residual stand with 55 sq. ft. per acre. Stocking would drop from 90% to about 50% with the indicated management.

The desired future condition of this area is a healthy stand of predominantly oak and hickory species to continue to produce hard mast food sources for wildlife and eventually quality wood products when harvesting takes place. To accomplish this, dying, declining, overmature, and/or low-quality trees would be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area. Openings created from harvesting would allow for the less shade tolerant species to establish a new cohort of seedlings for the future.

Retaining shade intolerant tree species (like oak and hickory) while minimizing transition to shade tolerant species (like beech and maple) would be the goal here. Ideally, creating enough regeneration openings and other canopy gaps to allow for establishment and recruitment of oak species into the understory would help achieve these goals.

Since the last harvest in this stand was 18 years ago, and because it also currently contains a moderate amount of harvestable volume and a high amount of residual growing stock, the recommendation would be to rank this stand as a medium to high priority for conducting a harvest. Any timber sale would primarily include this entire stand as well as trees from the other stands in this tract. The majority (70%) of the harvest volume for stand 1 (2,422 bd. ft/ac) would be contained in white oak (1,403 bd. ft/ac), and black oak (288 bd. ft/ac), with white ash, pignut hickory, sugar maple, and various other species making up of the remainder of the harvest volume. A timber sale in this stand would produce a range of between 100,000 to 150,000 board feet total.

Most of the stand would probably be harvested under a single-tree selection routine with larger regeneration openings targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees. The residual stand should remain heavy to white oak, with a lesser component of other oak and hickory species, as well as mesophytic species. Application of a prescribed burn primarily in this stand would help to reduce the shade tolerant under and midstories that are taking over most of our forests in the absence of disturbance, and aid in regenerating and recruiting the more fire tolerant oaks and hickories. Burning this tract could be part of the future management, and if implemented, a burn plan would be written to cover the specifics of that process.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and treat the understory to eliminate shade tolerant species in favor of oaks and other more desirable species. As always, any ailanthus present should also be treated and eliminated.

Stand 3: Dry Oak Hickory – 31.3 acres

This stand covers about a 15% of the tract, and occupies the south facing slopes in the central portion of the tract that had not been cleared for farming in the past. It contains some dry site oak species, but is dominated with eastern redcedar, and would more accurately be described as a rocky south slope with obvious exposed rock ledges and thin soils that restrict tree growth. Consequently, it bears little resemblance to a more traditionally identified oak-hickory stand. This is especially evident in the amount of cedar present and the short stature and small diameters of most of the hardwood trees present, which contributes to its much lower volume per acre than almost all oak-hickory stands.

The total volume of the stand (2,833 bd. ft/ac) is composed primarily of eastern redcedar (1,121 bd. ft/ac), chinkapin oak (583 bd. ft/ac), northern red oak (422 bd. ft/ac), and blue ash (308 bd. ft/ac). The remaining 15% of the volume consists of white oak, Shumard oak, and sugar maple.

It contains a low volume of 2,833 board feet per acre of which 1,437 was classified as harvestable and 1,396 was classified as residual. A harvest would remove 51 square feet of basal

area, which would leave the residual stand with 54 sq. ft. Stocking would drop from 90% to about 45% with the indicated management. These figures do include cedar as figured according to the cedar log scale.

Although many poor sites are a result of past farming and erosion removing much of the soil, this stand was likely always a poor site due to aspect, exposed rock ledges and thin soils. A more frequent historical fire regime likely kept these sites with a more open overstory and mostly free of much of the cedar. The desired future condition of this area is to encourage the hardwood component while reducing the encroaching cedar component to maintain a glade like stand type that has probably been present on these sites since before settlement. To accomplish this, much of the cedar as well as the dying, declining, and/or low-quality trees could be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area, with an emphasis on reducing the cedar while encouraging the oaks. Retaining shade intolerant tree species (like oak and hickory) while minimizing transition to shade tolerant species (like beech and maple) would be the goal here.

Although harvesting of some trees is recommended in this stand, the presence of exposed rock and the low volume and quality of harvestable trees may make significant harvesting infeasible. Consequently, where this stand intermingles with surrounding stands, some effort would be made to include the more accessible areas with harvesting of those stands, but much of it may remain unmanaged. The majority (75%) of the harvest volume for this stand (1,437 bd. ft/ac) would be contained in eastern redcedar (1,070 bd. ft/ac), with northern red oak, chinkapin oak, and various other species making up of the remainder of the harvest volume. A timber sale in this stand would produce a range of between 30,000 to 50,000 board feet total.

Most of the stand would probably be harvested under a single-tree selection routine. The residual stand would be mostly chinkapin oak, blue ash, and northern red oak with a lesser component of other species. Application of a prescribed burn in this stand combined with the adjacent oak hickory stand would help to reduce the shade tolerant under and midstories that are taking over most of our forests in the absence of disturbance, and aid in regenerating and recruiting the more fire tolerant oaks and hickories. Burning this tract could be part of the future management, and if implemented, a burn plan would be written to cover the specifics of that process.

Stand 4: Bottomland hardwoods – 20.3 acres

This stand covers about 10% of the tract, and occupies the narrow strip immediately adjacent to Fox Hollow drainage and the Blue River. It is distinctly a riparian forest type dominated with wet or moist site species.

The total volume of the stand (11,153 bd. ft/ac) is composed primarily of sycamore (6,913 bd. ft/ac), black walnut (2,029 bd. ft/ac), and Shumard oak (760 bd. ft/ac). The remaining 13% of the volume consists of basswood, silver maple, and various other species.

It contains a high volume of 11,153 board feet per acre of which 2,918 was classified as harvestable and 8,235 was classified as residual. This would remove 47 square feet of basal area, which would leave the residual stand with 76 sq. ft. Stocking would drop from 100% to about 60% with the indicated management.

The desired future condition of this area is a healthy stand of predominantly bottomland hardwoods with emphasis given to encouraging walnut and oaks in the areas not immediately next to the drainages. The areas immediately next to the drainages will continue to be dominated with sycamore and silver maple, and would remain relatively unmanaged as a riparian buffer along those drainages – especially the Blue River. To accomplish this goal, dying, declining, overmature, and/or low-quality trees would be selected for harvest to allow the most vigorous and best quality trees to remain and continue to grow and reseed the area.

Since the last harvest in this stand was 18 years ago, and because it contains a moderate amount of harvestable volume and intermingles with the surrounding stands, some of the area not immediately in the riparian buffer adjacent to the river could be included in any timber sale in the surrounding stands. All of the proposed harvest volume for this stand (2,918 bd. ft/ac) would be contained in sycamore (2,206 bd. ft/ac), Shumard oak (488 bd. ft/ac), and black walnut (224 bd. ft/ac). A timber sale in this stand would produce a range of between 50,000 to 70,000 board feet total.

Most of the stand would probably be harvested under a single-tree selection routine. When possible, selection should also favor releasing future crop trees. The residual stand should remain heavy to sycamore and walnut, with a lesser component of other species.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, kill grapevines where present, and treat the understory to eliminate shade tolerant species in favor of walnut, oaks, and other more desirable species. As always, any ailanthus present should also be treated and eliminated.

Stand 5: Conifer – 5.6 acres

This stand is similar to the advanced old field portion of the mixed hardwoods stand described earlier, but contains a higher component of cedar, and was delineated as conifer, though it would best be described as an advanced old field stand. It was once an agricultural field that grew back over time to a mixture of early successional species with a definite cedar component.

The total volume of this stand (4,344 bd. ft/ac) is composed primarily of yellow-poplar (2,081 bd. ft/ac), Shumard oak (741 bd. ft/ac), and eastern redcedar (606 bd. ft/ac). The remaining 20% of the volume consists of eastern white pine, northern red oak, black oak, and chinkapin oak.

This stand contains a volume of 4,344 board feet per acre of which 803 was classified as harvestable and 3,541 was classified as residual. A harvest would remove 33 square feet/acre of basal area, which would leave the residual stand with 71 sq. ft./acre. Stocking would drop from 90% to 60% with the indicated management. These figures DO include cedar as figured according to the cedar log scale. A timber sale in this stand would produce about 5,000 board feet total – all of it being eastern redcedar and yellow-poplar.

The desired future condition of this area would be a growing stand of hardwoods mostly free of cedar competition. Consequently, most of the cedar was tallied for removal from this relatively small area of recovering old field.

Since this stand is surrounded by the more merchantable mixed hardwood stands, there would likely be some trees included from here along with any timber sale taking place in the other stands. Timber harvest and post-harvest TSI should concentrate on releasing any oak regeneration – mostly with follow-up TSI. As always, any ailanthus present should also be treated and eliminated.

The current forest resource inventory was completed in June 2022 by Wayne Werne. 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.
American beech	51	13,030
American elm	7	2,690
Basswood	160	37,690
Bitternut hickory	75	19,710
Black cherry	102	16,920
Blackgum	23	7,640
Black oak	163	38,150
Black walnut	231	60,940
Blue ash	130	14,610
Chinkapin oak	467	81,260
Eastern redcedar	1056	51,880
Eastern white pine	21	7,810
Hackberry	101	15,890
Northern red oak	561	148,450
Ohio buckeye	154	18,830
Pignut hickory	123	24,560
Red elm	28	1,160
Shagbark hickory	204	34,050
Shumard oak	457	137,200
Silver maple	23	6,290
Sugar maple	1048	148,650
Sycamore	422	209,920
White ash	242	39,400
White oak	832	208,160
Yellow-poplar	1274	328,670
Total:	7955	1,673,570

Summary Tract Silvicultural Prescription and Proposed Activities

Since the last harvest in this stand was 18 years ago, and because it also currently contains a moderate amount of harvestable material and residual growing stock, the recommendation would be to rank this stand as a medium to high priority for conducting a harvest. Due to the current condition of the stand, an improvement harvest is recommended and could be undertaken as early as this year, or the near future. Overall tract volume would be reduced by about a third. A marked sale in this tract would produce an approximate total volume of between 500,000 to 650,000 board feet.

Utilizing numbers from the last inventory in 2003, this tract has shown a growth rate of approximately 120-135 board feet per acre per year over the last 19 years after taking into account the volume removed in the 2005 and 2006 harvests, which is somewhat low compared to calculated growth rates on other tracts of the forest. This site seems to have productive soils and growth potential, so this lower growth rate could be due to mortality of the ash, or it could be an aberration of the sampling point placement between inventories. With the application of the proposed management, this tract should exhibit high and potentially greater growth and productivity by favoring the healthiest and best quality trees for a residual stand, while removing the declining trees.

Most of the tract would probably be harvested under a single-tree selection routine with larger regeneration openings targeting groups of low-grade trees or multiple large trees growing together. When possible, selection should also favor releasing future crop trees. The residual stand should continue to be dominated with yellow-poplar, sycamore, white oak, and northern red oak with a multitude of other species as well. Application of a prescribed burn would help to reduce the shade tolerant under and midstories that are taking over most of our forests in the absence of disturbance, and aid in regenerating and recruiting the more fire tolerant oaks and hickories where the sites are suited for them. Burning this tract could be part of the future management, and if implemented, a burn plan would be written to cover the specifics of that process.

Post-harvest TSI should be performed to eliminate any residual cull or small pole-sized trees not cut during the harvest, as well as thin where necessary, complete any regeneration openings, and treat the understory to eliminate shade tolerant species in favor of oaks and other more desirable species. As always, any ailanthus present should also be treated and eliminated.

Due to the proximity and similar stand types, this harvest should occur at the same time as adjacent tract 6341901, which is how previous sales occurred. This would minimize time spent during management activities to ensure the least effect on recreation, wildlife, hydrology, and other concerns mentioned in this plan.

Management activities will not intentionally remove snags, with a few exceptions of large recently dead trees or storm damage when possible, so the timber sale will not negatively impact that component significantly. Creation of more snags in this size class could be undertaken by girdling large cull trees in a post-harvest TSI operation.

Additionally, management activities involving a timber sale should not affect this habitat long-term from the perspective of any wildlife utilizing it due to the maintenance of a forested habitat on the tract. Creation of regeneration openings will create early successional habitat that will be beneficial to certain groups of wildlife dependent upon this habitat. Likely, early successional habitat created with such management will also benefit a wider segment of wildlife species that preferentially utilize such habitat for feeding and cover more so than later successional stage habitat.

The habitat on this tract in the context of the surrounding landscape does not represent any

special component that would be used more preferentially or exclusively by wildlife for traveling or dispersion, as forest in a non-forested landscape might be. The Blue River provides a unique riparian corridor along a perennial stream that would be preferentially utilized by many types of wildlife as a reliable water source, but implementation of a riparian buffer with limited management would help protect that corridor as habitat. The small pond found nearby on the neighboring tract would also provide a valuable water source for wildlife during dry periods, and also represent good habitat for reptiles and especially amphibians.

Since this tract represents a component of contiguous forest, it is possible that forest management activities might disrupt any forest interior species by creating edge habitat for generalist species to “invade” the area. This would possibly occur if regeneration openings were put in place that offered a habitat preferred by such generalist species which might move in and start using such habitat. In the context of the surrounding landscape, this tract represents a moderate chunk of forest in a matrix of surrounding forest land.

BMPs will be followed throughout the harvest to ensure any management activities impact to soils is limited. Soil disturbance will largely be confined to the log yard and main skid trails. The BMPs will also ensure water quality is not permanently affected, and implementation of these BMPs will be contractually required of loggers.

Snags and coarse woody debris will remain at viable levels for wildlife after harvest and the harvest will not adversely affect the wildlife.

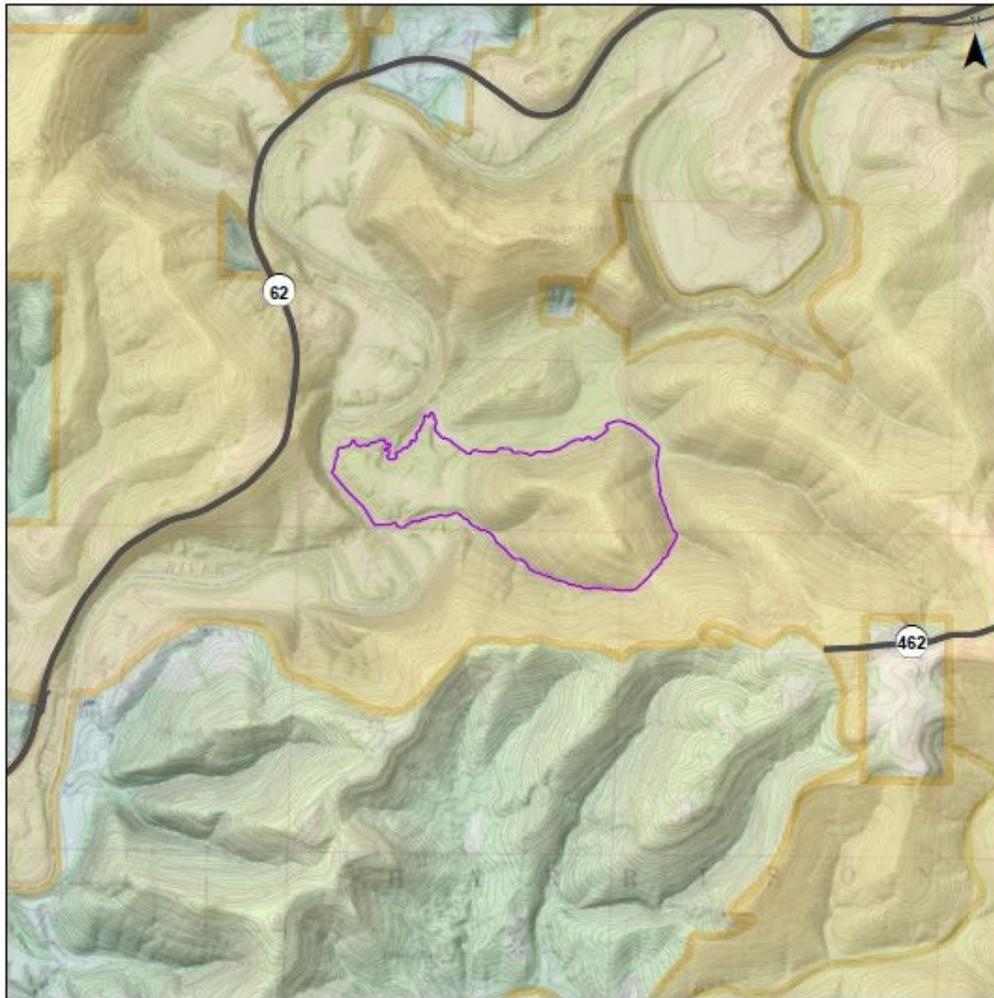
During the harvest, part of the horse trails would have to be temporarily closed for public safety. However, under current restrictions, this closure would only occur from November 16th to April 1st and would not affect most of the spring, summer, and fall recreation. Hunting opportunities should be improved by the maintenance of early successional habitat and the recruitment of hard mast producers such as oak and hickory which provide food sources for a wide variety of native wildlife.

Once the harvest is complete, post-harvest TSI should be conducted and then the stand should be revisited for regeneration opening and post-harvest checks in 3-5 years to ensure proper regeneration and growth is occurring. In about 20 years, the stand should be revisited for another inventory and a new management guide can be created.

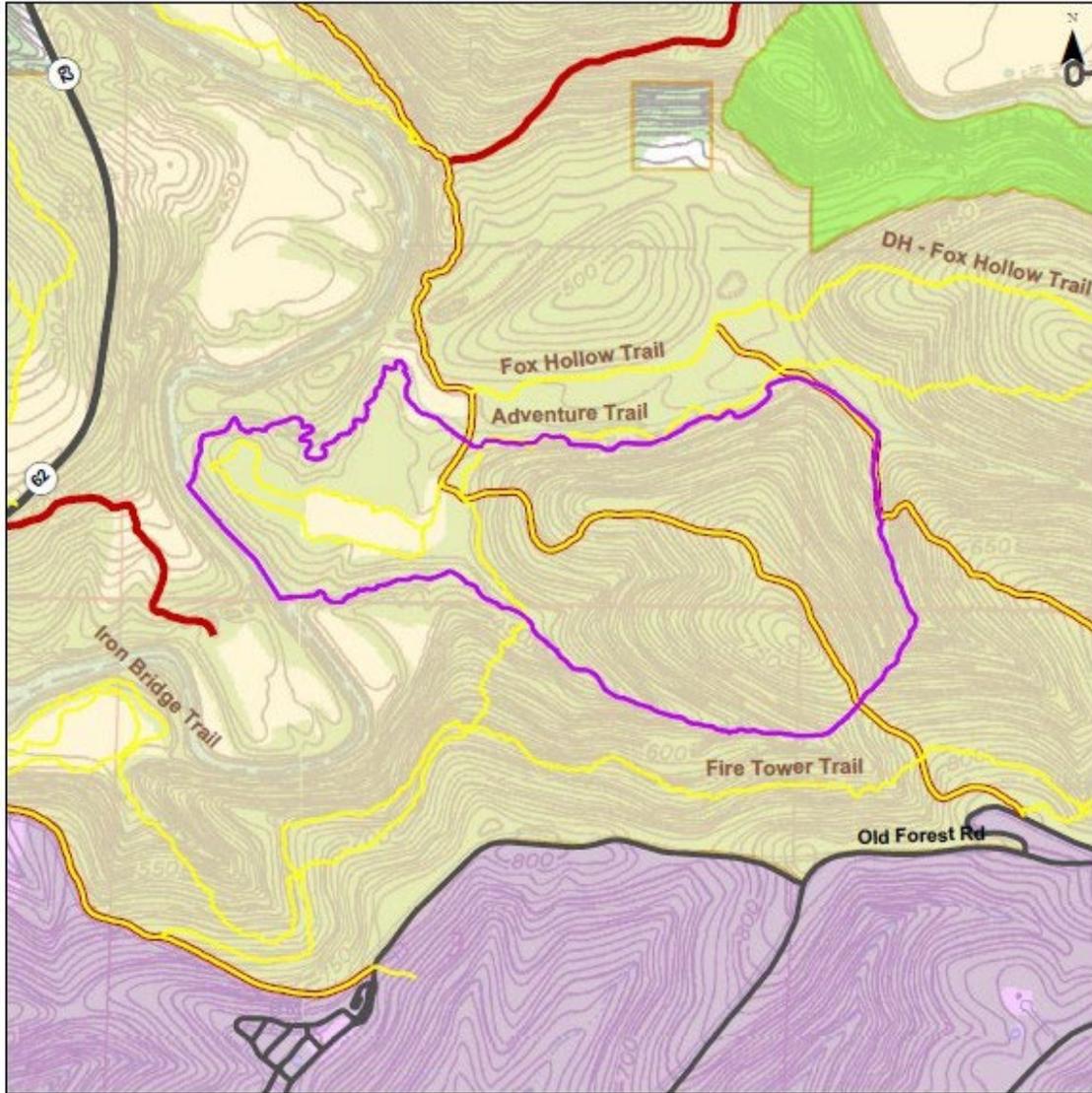
Proposed Activities Listing

<i>Proposed Management Activity</i>	<i>Proposed Date</i>
Mark Harvest	2025-2026
Sell Timber	2025-2026
Possible prescribed burn	2025-2026
Post-harvest TSI	2027-2028
3-year regeneration opening review	Three years after harvest
Next forest inventory	2042

Harrison-Crawford State Forest
Location Map
Compartment 19 Tract 3



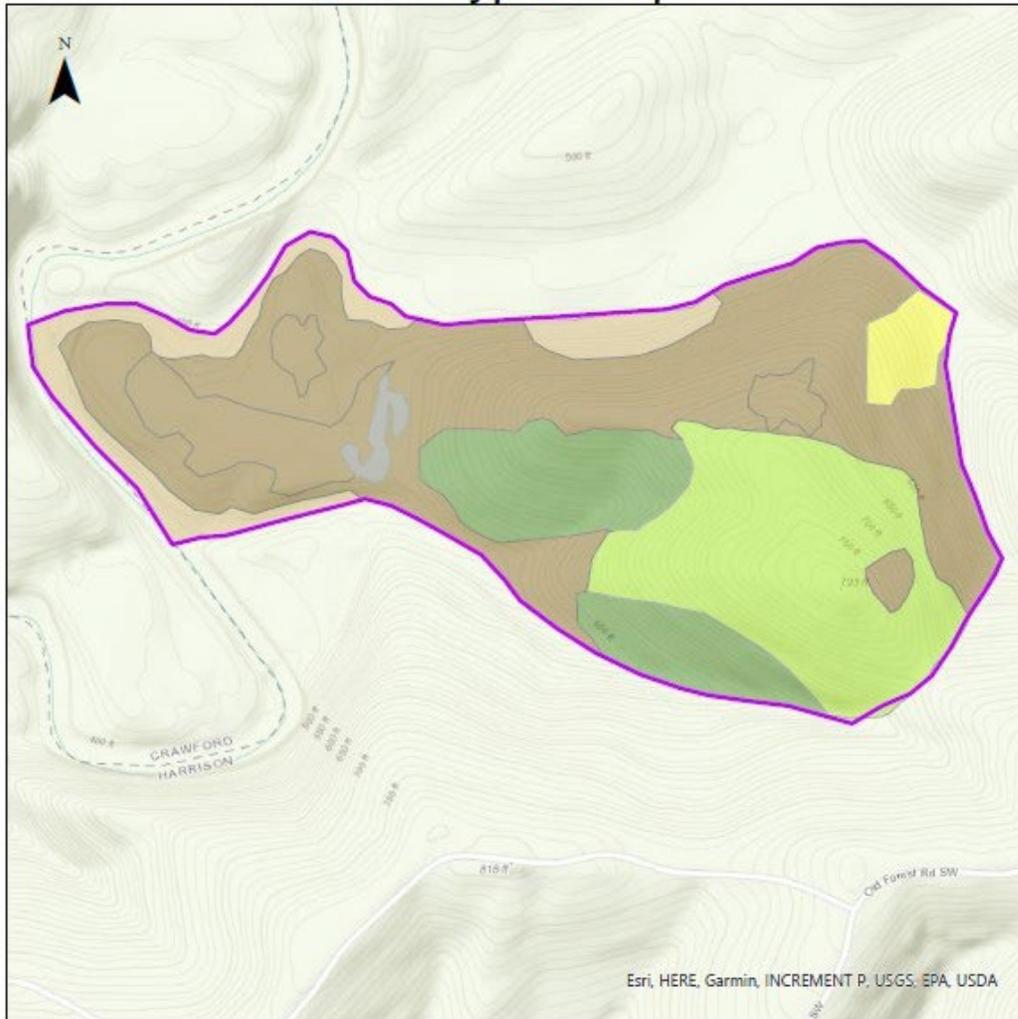
Harrison-Crawford State Forest Compartment 19 Tract 3 Tract Map



0 0.25 0.5 1 Miles

- | | |
|--|---|
|  Recreation Trail |  Nature Preserve |
|  Fire Lane |  State Park |
|  Tract boundary |  State Forest |

Harrison-Crawford State Forest Compartment 19 Tract 3 Cover Types Map



0 0.13 0.25
Miles

Cover Types	
 Dry Oak-Hickory	 Mixed Hardwoods
 Mesic Oak-Hickory	 Conifer
 Bottomland Hardwoods	 Non-forest
	 Tract Boundary