

RESOURCE MANAGEMENT GUIDE

State Forest: Morgan Monroe

Compartment: 19 Tract: 08

Forester: B. Hahn

Date: 1/26/2009

Management Cycle End Year: 2029

Management Cycle Length: 20 years

Location

Section 28 Township 11N, Range 1W in Morgan County, Indiana. Tract is located on the west side of Parker Road 2.5 miles west of Martinsville, IN. This area is commonly referred to as compartment 19 tract 08 of Morgan Monroe State Forest. The tract is a part of the newly acquired Ravinia Woods.

General Description

This tract contains 55 acres of which 38.5 are commercial forestland. The remainder of the property is an old field on top of the main ridge. The general cover type is mixed hardwood forest.

History

The tract was acquired on April 8, 2004. It was purchased by the use of the Indiana Department of Transportation Crossroads 2000 Fund. The tract management file shows no history of forest management on the site.

Topography, Geology and Hydrology

This tract consists of 1 major ridgetop running NE-SW in the lower central portion of the tract. On either side of the ridgetop are slopes and coves extending into mapped intermittent and ephemeral drainages. The slopes are from nearly level to severe. This tract is located in the Burkhart Creek Watershed that runs into the White River.

Soils

Chetwynd Loam (ChF) 18-80% slope. 8 acres. Well drained, permeability moderate.

Most areas wooded, well suited to trees. Severely limited to building due to steepness and has high water capacity. Slight to severe slopes. Site Index of 88.

Cincinnati (CnD2) 12-18% slope. 2 acres. Deep, well drained. ½ cultivated, ½ trees, suited to trees. Moderately permeable, limited to buildings due to slope. Moderate slopes. Site Index of 80.

Crider silt loam (CrC2) 6-12% slope. 2 acres. Deep, well drained. Mostly woodland, suited to trees. Moderately limited to buildings due to steepness of slope. Slight slope. Site index of 88

Hickory silt loam (HkF) 20-70% slope. 19 acres. Deep, well drained. Mostly woodland, suited for trees. Moderately permeable, septic tank limits, severe building due to slope. Slight to severe slopes. Site index 85

Iva silt loam (IvA) 0-3% slope. 2 acres. Deep, well drained. Permeability is slow. Most areas cultivated. Suited to trees. Severe limitations to building due to slow permeability and wetness. Slight slope. Site index of 80.

Parke silt loam (PkC2) 6-12% slope. 12 acres. Well drained. Permeability moderate. ½ cultivated. Well suited to trees. Moderate limitations to building due to shrink-swell potential and slope. Slight slope. Site index of 90.

Sloan silty clay loam (Sn) Nearly level. 20 acres. Poorly drained. Permeability moderate to slow. Suitable to trees. Severely limited to building sites due to shrinking and swelling. Slight to severe slopes. Site index of 86.

Access

Access to this tract is directly off Parker Road. An old access road runs NE-SW through the southern part of the tract. Off this ridgetop road there are several ridge noses running down into major drainages. These noses could be used as skid trails to reduce erosion into the ephemeral drainages. Old roadways on this tract need to be maintained and constructed to adequately run water off onto the forest floor. Permanent log yards need to be constructed to facilitate management activities. Haul roads and main skid trails will need to be updated before harvesting will occur.

Boundary

The tract boundaries are intermittent and ephemeral drainages on the north and south with private property lines on the east and west. Tract boundaries will be flagged prior to any harvest operations. Also, private line boundaries will be repainted before harvesting.

Wildlife

Wildlife resources are abundant on this tract. Most commonly observed species include: white-tailed deer, various song birds, squirrel, turkey, grouse, raccoon, and many other small mammals. Our timber management utilizes intermediate cuts and group selection along with best management practices to provide habitat requirements for a large variety of forest dwelling species. Large snags greater than 18 inches will be girdled and left standing in our group selection areas. An appropriate number of hickories, mast producing species and den trees will be retained to provide additional habitat benefits. Many deer trails were observed throughout the tract.

Communities

During the Heritage Database Search there were three species of noted in the surrounding area. The broad winged hawk (*Buteo platypterus*), red shoulder hawk (*Buteo lineatus*), and sharp shinned hawk (*Accipiter striatus*) were all been spotted in adjacent tracks. None of these species have been spotted within the tract.

Exotic Species

Multiflora rose and Ailanthus tree were found on the tract during the inventory. Removal of exotic species especially Ailanthus will be a priority before harvest operations proceed.

Recreation

This tract has many possibilities for recreation uses. Some of the more common recreation that can be expected within the tract and surrounding area include: hunting, hiking, birding, traversing (with a compass and map), wildlife watching, mushroom hunting, tree identification, and photography.

Cultural

Cultural resources may be present on the tract but their location is protected. Adverse impacts to significant cultural resources will be avoided during any management or construction projects.

Tract Silvicultural Prescription

According to July 2006 inventory data the estimated tract volume per acre is 6,675 BdFt/acre. The estimate for harvest is 1,740 BdFt/acre with a leave volume of 4,935 BdFt/acre. Basal area for the tract is 81 SqFt/acre. The average number of trees per acre is 338. According to the hardwood stocking the tract is fully stocked at 80%. Understory regeneration within the tract is dominated by American beech and sugar maple.

This tract will be managed under uneven-aged management, meaning that singletree selection and group selection can occur throughout the tract. The prescription is to have an improvement harvest removing mature and large undesirable sawtimber in order to release smaller sawtimber and pole size trees. The goal is to reduce stand density and allow remaining trees to occupy the stand canopy and become the next rotation of crop trees. There are many areas of overmature and damaged scarlet and chestnut oak. At least one area was noted during inventory of a stand with excessive damage that warrants regeneration. Openings could be created in other areas to remove damaged trees and promote shade intolerant species. Opening(s) less than ten acres in size will provide regeneration of shade intolerant species. These opening(s) will be located within the tract as determined by the marking forester. Throughout the entire tract single tree selection will focus on removing damaged and mature trees, to improve the growth of younger and healthier trees. This tract is adjacent to Parker Road and therefore requires a visual enhancement area (VEA) along its eastern tract boundary. Single tree selection can occur within the VEA, but care will be taken to maintain aesthetics from Parker Road.

Snag trees as determined by the Indiana Bat guidelines are underrepresented and need to be left on the tract where possible. Timber stand improvement (TSI) will occur during pre harvest and post harvest operations to control grapevines and for the removal of understory vegetation in regeneration openings. Also, post harvest TSI will release crop trees by girdling or removing competing trees. Trees that are girdled during TSI could add to the snag tree count for the tract.

Tract Proposed Activities

Boundary marking will occur in the winter/spring of 2009. Tract map with layout of yards, skid trails, and haul roads was submitted for a Division of Historical Preservation and Archaeology (DHPA) review on 8/2/2006. Timber marking will occur in the spring/summer of 2009. Roadwork will begin as soon as DHPA approval is granted. As timber is marked grapevines may be cut as part of pre-harvest TSI. Upon

sale approval, the timber will be put up for sale in 2009 and will have a contract length of two years. Post harvest TSI will be performed after completion of harvest operations. Exotics such as multi-flora rose and Ailanthus will be monitored and treated prior to harvesting. A new forest inventory is scheduled for the year 2029.

Harvesting timber will change the overstory species composition and density. Canopy gaps will stimulate residual canopies and understory plants as the results of increases to light. Modest ground cover exposure to mineral soil will stimulate early successional species growth and development. Soil loss will be minimized as log yards and water bars will have seed and straw applied to prevent soil movement. The skid trails and haul roads will quickly re-vegetate after harvest operations cease. Little to no impact to water quality should occur as the use of Best Management Practices (BMP) will be implemented to prevent runoff directly entering streams. Recreational use of the tract will be limited while harvest operations are occurring; this measure is taken to provide for the safety of recreation users and timber harvest operators. Wildlife populations of early to mid successional groups will also moderately increase as a result of the harvest. Regeneration openings will promote species that thrive in early successional habitat, such as ruffed grouse and American woodcock.

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Proposed Activities Listing

Proposed Management Activity

Proposed Date

Boundary Marking	2009
DHPA	2009
Timber Marking	2009
Timber Sale	2009
Road Work	2009
Timber Sale Completion	2009
Post Harvest TSI	2011/2012
Pre-Inventory	2029/2030

Attachments kept in Tract File

- Topographic map with tract subdivisions
- Aerial photo with tract subdivisions
- Soil type map of area
- Tcruise reports