RESOURCE MANAGEMENT GUIDE

Morgan Monroe State Forest Compartment 15 Tract 10 Forester: S. Sheldon
Total Acres: 111 Commercial Forest Acres: 105 Date: 3/29/2007

Location

Compartment 15, Tract 10 is located in Sections 25 and 26, Township 10N, and Range 1E.The tract is in Morgan-Monroe State Forest designated Backcountry. It is bounded on the northwest by Wolf Creek and on the south and east by privately owned land. The northern boundary is drainage.

General Description

MM1510 is 111 acres of closed-canopy mixed hardwood forest, approximately 2 acres of Virginia pine planted over 50 years ago, and approximately an acre of grasses and brush in a power line corridor. The topography ranges from flat bottomlands and ridge tops to moderately steep and steep slopes. Average gradient is 45-65%.

History

Four land purchases form this tract: Fisher in 1939, Huntington in 1942, Shaffer in 1954 and Long in 2008. There is no record of past harvesting; however old stumps were seen on Fisher and Shaffer purchases. The newest acquisition, Long, has evidence of large regeneration openings within the past 20 years. An inventory was completed and management plan written in January of 1995 by Forester Martin R. Calvert. Forester Sean A. Sheldon will begin marking the tract for harvest in 2007.

Landscape Context

Land surrounding the tract to the south is primarily privately owned and the land to the north is forested state forest land. A utility corridor runs along the southern border and through the tract in the south eastern corner. There are residences just south of the tract less than ¼ mile. Lake Lemon is 1.5 miles to the south. Private land to the west is agriculture land used for cattle grazing.

Topography, Geology and Hydrology

The topography ranges from flat bottomlands and ridge tops to steep and moderately steep slopes. The average gradient is 45-65%. The western boundary of tract is perennial Wolf Creek. The primary drainage is the Wolf Creek drainage. Perennial and intermittent streams within the tract flow into Wolf Creek.

Soils

This tract is primarily Berks-Weikert complex (BkF) in 25-75% slopes. Ridgetops are generally Wellston-Gilpin silt loams (WmC) in 6-20% slopes. More detailed information can be found in soil survey of Monroe County of Indiana.
See the attached soils map.

Access
Access to the tract is from the south. This access crosses over private land for approximately 1/8 of a mile. Access across this private land will require significant road work including grading and stoning. Old roads within the tract are in good condition and were used by adjacent private landowners for access during their timber harvests. Additional stoning is required for all primary haul roads.

Boundary
This tract is bounded on the northwest by Wolf Creek and on the south and east by privately owned land. The northern boundary is an intermittent drainage. The western boundary is marked and has corners established. The eastern boundary has been marked within last six years. Two of the four property corners on the southern boundary of the tract have been surveyed and are designated by rebar with surveyor caps. Property corners on the eastern boundary and the recent Long acquisition have been surveyed and are designated by rebar.

Wildlife
Wildlife resources in this tract are abundant. The Natural Heritage Database has identified Timber rattlesnake (Crotalus horridus) nearby. Other common species present include pileated woodpecker, white-tailed deer, various small, furbearing animals, wild turkeys and a variety of songbirds. Tree species composition in this tract is diverse ranging from disturbed site species such as sassafras and black walnut on ridgetops to bottomland hardwoods near streams, as well as pine. Shagbark hickory and American elm on site provide potential bat habitat. Oak-Hickory component is abundant. Hillsides with large amounts of understory provides browse for ungulates. Vines and green briar are thick in areas allowing an increase in availability of fruits.

An official wildlife review has been completed for this tract. This review focuses on wildlife habitat, looking at what is present in the tract and what can be created through management activities. Snags, commonly known as dead, standing trees, were inventoried as well. This snag information was used to complete an Indiana bat management guideline form. A live tree form was also completed. In order to provide some specialized habitat, we have decided to do a number of the following management activities.

1. Leave as many snags as possible.
2. Leave as many Shagbark and Shellbark hickories as possible. These hickories provide mast and valuable habitat for several species.
3. Any log landing will be seeded in. This will provide some variety in habitat type for wildlife.

Communities
The Heritage Database Review for this tract has reported no unusual plant communities on tract.

Recreation
This tract is in the designated Backcountry of MMSF. The Backcountry area is open to camping. Also, existing roads in the tract provide for cross-country skiing and hiking.

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 Prescription and Proposed Activities
The current planned harvest is to be concentrated on BLO, REO, WHO, and YEP.

The primary volume comes from BLO (33%), REO (20%), WHO (10%) and YEP (12%). Sawtimber Leave volume is 4,413 Bd Ft/Acre and Sawtimber Harvest volume is 3,301 Bd Ft/Ac. Quality Leave volume is 499 Bd Ft/Ac and Quality Harvest volume is 115 Bd Ft/Ac.

This tract has not been harvested in the past 50 years. There is a significant amount of large, over mature Black oak (BLO), Red oak (REO), and Yellow Poplar (YEP). These trees constitute a significant portion of the tracts volume. Over-mature and poorly formed Black and Red oak trees will be removed to release intermediate and valuable trees such as White oak and Shagbark hickory. This selection cutting results in uneven aged management and favors shade tolerant species. Removing these trees will also result in canopy openings for regeneration and release of intermediate trees. Yellow poplar (YEP) on this tract is abundant, represented in all age classes. Poorly formed YEP and large, dominant trees will be removed for stand improvement and spacing.

White ash is present in moderate amounts. Harvesting practices will focus on removing merchantable ash trees due to the proximity of the Emerald Ash Borer in the northern part of Indiana and surrounding states. Management practices will remove merchantable ash trees as means of precautionary defense against the insect.

Slopes with high quantities of pole-sized timber will be considered for thinning for release of Shagbark hickory and White oak.

Ridgetops in this tract, especially the primary ridge in the southern half, appear to have been previously disturbed. Disturbance is likely due to old farming practices, logging yards and skid trails. Disturbed site species (Black locust (BLL), Sassafras (SAS), and Black walnut (BLW)) occupy these sites. Single-tree selection of these areas will open these sites to desirable species. BLL will be treated as exotic species and eradicated. Management methods will include thinning from below to allow for release of well-growing trees. Overall tree quality is good to excellent on all slopes.

Harvesting that is planned should concentrate on an intermediate cutting to remove mature and over mature individuals (Selection thin) as well as lower quality, low vigor, and poorly formed trees (Improvement cutting).

Timber Stand Improvement (TSI) is needed on steep slopes where regeneration is extremely dense.

Forest Condition
This tract has been selected as a potential harvest area for 2008/2009 fiscal year. At present most of the tract volume is in WHA, YEP, BLO, REO and some CHO. A timber inventory was performed at a rate of one point per 3 acres. The inventory has indicated a total tract volume of 8,328 Bd Ft/Ac. The harvest volume (Sawtimber and Quality) was 3,416 Bd Ft/Ac. The basal area for the total tract was 117 ft^2/acre. The volume harvestable was estimated overall as high enough to hold a large sized timber sale.

The tract was estimated to be at 96% stocking. Given this information, this tract is adequately stocked and could benefit from a selective cut harvest.

Proposed Activities Listing
Timber Harvest planned in 2008/09 fiscal year.
TSI work during 2008/09 fiscal year.
Stand Re-inventory work 2027.

Attachments: (On file in property office)

- A topo map of the tract.
- A map showing the soil types in the tract.
- A stocking guide chart.
- HDR map
- A map showing cultural sites in tract.

Public Comment Summary

This management guide was posted at the Yellowwood/Morgan-Monroe Open Houses on March 13, 2007, April 1, 2008 and April 9, 2009. Several comments were received through the open houses which were incorporated into this guide. The original guide called for timber marking to be completed without any special restrictions, including regeneration openings and marking was completed in December, 2007. As a result of comments received, no openings will be included in the sale area; the area was remarked for single tree harvests in June, 2008. The timber sale was delayed until the 2009-2010 fiscal year.