Indiana Department of Natural Resources - Division of Forestry

Ferdinand State Forest Comp. 4, Tract 8
G. Herbaugh Aug. 5, 2002

Forester's Narrative

Location

This tract is located in Section 18, T3S, R2W in Clark Township in Perry County. Access is obtained from an old county road off of CR …… in Crawford County. The tract is approximately 5 miles south east of Birdseye, Indiana.

Present Stand

This tract is comprised of three different timber types: Pine, Oak-hickory and mixed hardwoods.

Pine: Pine in this tract covers the south-facing slope in the northern portion of the tract, as well as the east and west facing slopes and ridge top in the middle block. The pine in this tract was planted in the late fifties. At the time of planting, species included both shortleaf and Virginia Pine, however, any Virginia pine component is now gone. The remaining shortleaf is in decent shape, some larger sawtimber size (16-18 inches dbh) but most ranging in the smaller diameter classes. Some areas are experiencing conversion of hardwoods more than others. As is typical those areas with more hardwoods are in the periphery of the stands of pine. Within the pine stands most are highly stocked with pine (B.A. = 90-120) with yellow poplar poking through any gaps in the canopy and sugar maple in the understory. Grapevines are bad in several of these pine stands. The northern acreage of pine is similar to that in the middle portion of the tract, with dense pine covering the slopes and ridgetop and hardwoods along the periphery and the drainage cutting through the small stand. Shortleaf pine makes up 36% of the species composition (by volume), while yellow poplar makes up 40% and black oak makes up 21%. The average diameter for saw log Shortleaf pine is about 15 inches dbh.

Oak-Hickory- The oak component of this tract is found on the majority of the remaining acreage with concentrations on the east side of the middle block and the majority of the southern block. In the northern 1/3 oaks cover the hillsides surrounding the smaller drainage that juts up into this portion. The black oak in this tract is poor in form and some are overtopped in many of the areas and would be candidates for harvest. Since portions of this area are close to the county road, the trees are wolfy and poor form.

In the middle 1/3 white oak dominates the species composition on both sides of the drainage that runs up through the east side of the tract. The lesser amount of Black Oak is

fair, but most would benefit the white oak by a thin harvest. Hickory picks up around the west facing hillsides and the white oak are more poorly formed and smaller. This area is a very nice stand of predominately white oak.
In the southern 1/3 the stand is a bit more mixed with beech. Both the white and black oak are a bit smaller and in some areas the white oak has begun to thin itself. Harvest would be a bit premature in this area. TSI would probably benefit this area more.
The oaks make up 79% of the total volume for the commercial acreage. With black oak making up 17%, Red Oak 6% and white oak comprising 56%. The average diameter for all oaks is around 20 inches dbh.

Mixed Hardwoods-This timber type is found in all three sections of the tract. It is typically found along the creek banks and roadsides. Along the creek banks this mix includes yellow poplar, sycamore, yellow poplar, sugar maple. Individual trees are typical of this type of area, with poor form and quality. Basal areas are typically high but most come from numerous small stems to pole/post-sized trees.
Black oak makes up 40% with yellow poplar making up 34% of the total volume of the stand. The average diameter for this stand for all species is 16.6 inches.

Roads/Access

Primary Access: A county road wanders down through the western part of the tract. The road is open to just past the Old Sigler Cemetery to where there is a cable closing the road any further onto the state. The road remains semi-passable for quite a while, but has not been maintained. The banks on either side of this CR are somewhat steep, but there are a few locations that access could be obtained.
Secondary Access: A dot-dashed drainage cuts through the eastern portion of the middle third of the tract. While the drainage is crossable in many locations, BMP issues would need to be addressed and maintained during any harvest activities. The remainder of the tract is fairly accessible due to the numerous roads and trails within the tract.

Soils

Gullied Land (Gu): This soil is found just south of the cemetery. For this soil bedrock may be exposed at the bottoms, is bare of vegetation, and runoff and erosion are a main hazard. The Capability unit is VIIe-4, and a woodland group of 14.

Pekin silt loam (PeA): This soil is found on 0-2% slopes and occurs on long narrow areas. It is a deep, moderately well drained soil with low organic matter. The available moisture capacity is medium and permeability is medium. Surface runoff is slow or medium. It has a capability unit of 1-2, a woodland group of 8-A and a Site Index of 85-95.

Pope loam, channery subsoil variant (Po): This soil also occurs on 0-2% slopes and occurs on narrow areas on bottom lands along streams. The organic matter content is low. The available moisture capacity is low and permeability is moderately rapid. The surface runoff is slow. Capability unit is IIIw-II, a woodland group of 8-B. No site index.

Tilsit silt loam (TlB2): This soil is found on 2-6% slopes and is eroded. It is found along drainage ways and on the sides of broad ridgetops. It has typically lost 4-8 inches of the original layer through erosion. It has low organic matter and medium available moisture capacity. It has a capability unit of IIw-5, a woodland group of 9 and a site index of 75-85.

Zanesville silt loam (ZaB2 & ZaC3): Both soils are found on 2-6% slopes and are eroded and severely eroded. They are deep, well-drained gently sloping soils. The organic matter content is low and natural fertility is low. Available moisture capacity is medium and permeability is slow. Surface runoff is also slow.

ZaB2-This type is found on ridgetops and has lost 4-6" due to erosion. It has a capability unit of IIe-7 and a woodland group of 7.

ZaC3-This type is found on side slopes and below ridge tops and on foot slopes. It has had a loss of 6" to erosion and has a few small gullies. It has a Capacity unit of IVe-7, a woodland group of 9 and site index of 75-85.

Wellston silt loam (WlD3)- This soil is found on 12-18% slopes and is severely eroded. It is found on short breaks at the heads of draws and on side slopes below ridge tops. It has many deep gullies and may have sandstone or shale bedrock exposed. Its surface runoff is rapid. It has a medium available moisture capacity and is in capability unit of VIe-1, is in woodland group 10 and has a site index of 75-85.

Wellston silt loam(WlE3)- This soil is found on 18-25% slopes and is severely eroded. It is found on long slopes below ridge tops and on benches surrounded by steep and very steep slopes. It has many deep gullies and many have bedrock exposed. Surface runoff is rapid. It has a capability unit of VIe-1, is in woodland group 10 and has a site index of 75-85.

Wellston-Gilpin-Muskingum Association (WmE)- It is found on 18-25 % slopes and is found on long slopes in uplands. Wellston is a deep, moderately deep soil and makes up 55% of the association. It is found on 18-21% slopes with a northerly exposure. Gilpin is a moderately deep soil making up 25% of the association. There are channery fragments throughout the soil. Muskingum channery silt loam is moderately deep over bedrock and makes up about 10% of the association. It is found on slopes of 21-25% and channery fragments. There are also a few outcrops of shale and limestone throughout the association. Runoff and erosion are the major limitations. It has a capability unit of VI31 a woodland group of 12 and a site index of 80-90.

Boundaries

To be reconed in Fall of 2002

Wildlife

Species noted during inventory

Deer, squirrels, box turtles, forest songbirds. A couple of deer stands were also noted in the lower 1/3 of the tract as well.

Indiana Bat Guidelines

This tract falls within the suggested guidelines of 3live trees per acre of 20+ inches of trees with the desired characteristics with 3.5 trees per acre. It also meets the guideline of 6 live trees per acre of 11+ inches with 24.1 trees per acre. For the guideline concerning snag trees, neither category of 5 snags per acre of 9+ inches or 1 snag per acre of 19 inches were met. The stand had only 1.1 snags per acre for the 9+-inch class and .1 snags per acre for the 19+-inch class. Care should be taken to avoid marking or removing any snag trees unnecessarily within this tract. Additional snags could be created via TSI if desired.

A Natural Heritage Database search was conducted to identify any rare, threatened or endangered species in this area. If present, any management activities will be conducted with their needs in consideration.

Wildlife Review (see attached report)

History

This tract was acquired from the US Forest Service in July of 1965 along with much of compartment 8, Tracts 6&7. The total acquisition was over 966.06 acres and was spread over 3 counties: Perry, Brown and Monroe.

Special Features

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.

Silvicultural Prescription

This tract has about 40 acres eligible for harvest. The first area is on the west-facing hillside on the east side of the tract. This area is very heavy to white oak with a small amount of black oak mixed in. This area should be thinned in order to release the white oak that is currently restricted and also to remove the poorer quality black and white oak.

The second area eligible for harvest includes an area in the northern 1/3 of the tract, just north of the Old Sigler Cemetery. This area is similar to the previous stand in that removal of the black oak that are in decline would help improve the quality of the white oak.

This harvest would be most beneficial with the removal of approximately 1,500 board feet per acre. This will bring this fully stocked stand of 98% down to about 84%.

Harvesting on the east side will require crossing the intermittent stream and will require strict following of BMP guidelines. Both parking areas could be used for yarding. Extreme care must be taken to avoid the homesites and Old Sigler Cemetery.

The pine in this tract also has good potential for harvest. The shortleaf pine (approx. 37 acres) in this tract has done what it was set out to do and could now be removed to allow hardwood regeneration to return. This harvest could be in conjunction with the hardwood harvest or alone. Removal of the pine before the hardwood harvest would most likely allow easier access to the hardwood areas. Any hardwood ingrowth within these areas should be maintained in order to help with the hardwood regeneration.

Harvests should be scheduled for 2004

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