

Ferdinand State Forest – Compartment 8, Tract 8 FORESTER’S NARRATIVE

Location – This tract is located in Section 31, T4S, R2W and Section 36, T4S, R3W in Perry County. It is located approximately 2.5 miles southeast of Bristow.

General Description – This tract covers 90 acres of mostly west and south slopes in the Yoho Branch watershed. With the exception of the north drainage it is characterized by dry to dry mesic soils dominated by oak and hickory, especially white oak. While it is technically land locked it receives a fair amount of recreational use, including illegal ATV traffic.

History – The Section 36 part of the tract was acquired by the US Forest Service in 1951. It was acquired by the State in 1965. At that time this 160 acre parcel was a stand alone tract, Comp. 8, Tract 6. Bill Hahn did an inventory on it sometime around 1970. He found 2,548 board feet/acre on 56 hardwood acres and recommended a harvest. However, it never occurred.

In August 1985, the Section 31 parcel was acquired, also from the Forest Service. This 61.96 acre parcel was designated as Comp. 8, Tract 8. In 1988 Janet Eger inventoried Comp. 8, Tract 8 and found about 6,112 board feet/acre on 60 acres of hardwoods. She recommended a harvest of about 2,200 board feet/acre and marked a sale in 1992. Doug Brown did an inventory in 1989 in Comp. 8, Tract 6. He found 3,794 board feet/acre on 106 hardwood acres and also recommended a harvest. He also marked this tract in 1992. Also at this time, a vine TSI was conducted on both tracts using inmate labor. The plan was to combine the two tracts into one sale following the construction of a new access road on an easement being acquired across Styline Corp. However, the easement hit a snag and did not occur until 1993 and the road was constructed in 1994. The road entered Tract 6 in the southwest corner and crossed the Yoho Branch and terminated on the ridgetop in Tract 8. However, by this time, due to the number of dead trees that were marked and concerns about an accurate volume estimate, the sales were remarked by Doug Brown and Pat McDaniel in 1995. 857 trees containing 176,251 board feet were sold to DMI Furniture in 1995. This included 453 trees with 96,852 board feet on 54 acres in what was then Tract 8.

Following the sale a post harvest TSI was completed in 1997. And then, in 1999, the tract boundaries were moved off the section line to the Yoho Branch transferring about 28 acres of Tract 6 to Tract 8.

Landscape Context – This tract is the very southeast tip of Ferdinand State Forest. It adjoins Tract 6 and Tract 7 is about 1 mile to the west, but the next closest tract of State Forest land is 3 miles to the west or north. However, other public forestland lies nearby. Several small tracts of DNR Fish and Wildlife lie nearby that were acquired from the Forest Service about the same time Tract 8 was acquired. Then 1.25 miles to the east lies the large Forest Service Tipsaw Lake recreation area encompassing over 1000 contiguous acres. Styline owns several hundred acres of forestland, mostly to the west and north. Most of the remaining landscape is in relatively small private ownerships with most of the uplands in forest or pasture and the valleys, especially the Sulpur Fork Creek valley to the south and the Anderson River valley to the west, in row crops.

Topography, Geology and Hydrology – This tract is located in the Crawford Upland natural region. This is unglaciated hill country characterized by short, steep slopes often broken by relatively flat benches and rocky bluffs. The geology consists of underlying sandstone often with a loess cap on the ridge tops.

This tract has a narrow ridge top and saddle running east-west in the middle of the tract. Most of the slopes are south to west in aspect and the entire tract flows into the Yoho Branch. The Yoho is a scenic, rocky, intermittent stream that flows south into the Sulphur Fork Creek. From there it flows into the Anderson River and eventually the Ohio River.

Soils - There are five soils or soil complexes on this tract. The largest is an Adyeville-Tipsaw-Ebal complex found on about 50 acres of the 90 acre tract. These soils are found on the slopes over 20% and are very rocky. They lie on the slopes above the Yoho and the slope south of the ridge. These soils are moderately well to somewhat excessively drained and have a moderate to high organic matter content. The Adyeville and Tipsaw soils, found higher on the slopes, have moderate permeability and low available water capacity. Bedrock on these soils is typically 20 to 40 inches. The Ebal soils, found lower on the slope, has very slow permeability and moderate available water capacity. Bedrock is 50 to 80 inches. The upland oak site index for these soils range from 70 to 80.

The next most common soil complex is an Adyeville-Wellston-Deuchars silt loam complex. This complex covers about 37 acres. These soils are found on the ridges and upper slopes ranging from 8 to 20%. The Adyeville and Wellston soils are well drained to somewhat excessively drained and moderate permeability. The Deuchars soils are moderately well drained with slow permeability. All three soils have moderately low to moderate organic matter. Available water capacity is low for the Adyeville soils and moderate in the Wellston and Deuchars soils. Bedrock ranges from 20 to 40 inches in the Adyeville soils, 40 to 60 in the Wellston and 60 to 80 in the Deuchars. All these soils are stabilized now but 35 of these acres are classified as eroded and the other 2 acres are classified as severely eroded. Site index for upland oak on these soils range from 81 to 90.

The next most common soil, covering two acres, is Gatchel loam. This soil is found in the flat "bottoms" of the Yoho, north of the firelane. These soils are described as being "occasionally flooded, very brief duration". Gatchel soils are somewhat excessively drained, has moderately low organic matter content, slow permeability and moderate available water capacity. There is no site index listed for Gatchel soils.

Apalona silt loams cover only about 1acre of this tract. This soil is found on the broader ridge tops on slopes from 2 to 12%. This soil only penetrates into this tract at a couple of points on the east line. Apalona soils are moderately well drained and has a seasonally high water table at 2 to 3 feet. They have moderately low to moderate organic matter content, very slow permeability and moderate available water capacity. Bedrock is at a depth of 72 to 100 inches. Most of this soil is classified as eroded. Site index for upland oak is 60.

The last soil complex mapped out at less than one half an acre. It is an Ebal-Deuchars-Kitterman complex. This area is classified as severely eroded but I did not notice this in the field. The Kitterman soils are similar to the Ebal and Deuchars soils in that they all are moderately well drained, have moderately low to moderate organic matter content and slow to very slow permeability. However, the Kitterman soils have a higher seasonal water table (1 to 2 feet vs. 2 to 3 feet), low water capacity and bedrock is much closer (20 to 40 inches vs. 50 to 80). The Kitterman soils site index for upland oak is lower also at only 65.

Access – Access to this tract is from the county road south of St. Isodore Church and across Styline and through Tract 6 on Firelane 31. This firelane is abused by illegal ATV traffic and is washed out in several places. While it is a rough ride in a pickup truck now, it is not accessible for semi trucks. If it is even possible, it would require significant work to get a semi all the way back to the end of the firelane in Tract 8. It may be more desirable to improve the road to the second wildlife opening in Tract 6 and expect logs from Tract 8 to go out on short trucks or forwarders or even out across the private property to the east. Once on the tract it lays so that most of it is accessible with equipment except for possibly part of the very north part of the tract.

Boundary – The west boundary of this tract is the Yoho Branch and adjoins Tract 6. The rest of the boundaries are shared with private owners and are more difficult to pin down. Particularly difficult was the east line which has a lot of conflicting evidence. It appears that years ago someone sold off the wooded acreage and kept the fields. While the lines are straight, they are not on quarter lines and one is at an odd angle. Over the years it looks like there may have been different fences put up and the accepted line may have moved back and forth. I believe the Forest Service may have surveyed the line because we found a marker noting a corner years ago. However, the sign was on the ground and the actual corner never identified. I spent a lot of time on this line and flagged and painted what I found. While I went with the preponderance of the evidence, every option had conflicting evidence there or somewhere else. I know the corner at the south end of the angled line is farther west than we marked it years ago as is the corner to the east of this line. However, the two north/south lines seem to line up pretty well with the evidence. The north lines are pretty good with cornerstones on two corners and another one not too far away.

Besides the illegal ATV traffic, the neighbor to the east has been cutting some small trees near the line. While the line is too questionable to claim he crossed the line I did contact him and request that he give the line a buffer until it can be further defined. He seemed fine with this.

Wildlife – This tract does not have the diversity of a lot of our tracts so the diversity of wildlife may also be limited. The old eroded area on the north side of the ridge was planted to pine but most of it has fallen out. This area does provide some of the limited regeneration areas on the tract but it is a very small area. The rock outcroppings along the Yoho are minor but may provide some limited special habitats. The Yoho, while being a wide stream, is an intermittent and probably dries up most years. Limited water may be available in deeper pools or the wildlife pond in Tract 6. The private property to the east is an old field that the landowner seems to be managing for some wildlife. While part of it is growing into brush and weeds he has paths mowed through it and has some food plots planted. That being said, the tract does provide good, mature oak-hickory habitat. Hard mast should be plentiful most years and good quantities of soft mast as well from blackgum, dogwood, persimmon and sassafras. I know the tract gets hunting pressure for deer and turkeys but could also be utilized for squirrel and raccoon hunting. Species noted during the cruise either by sight or sign include box turtle, turkey, blue jays, woodpeckers, deer, hawk, squirrels, chipmunk and numerous songbirds.

A search of the Natural Heritage Database was conducted for this tract. If rare, endangered or species of special concern are present, management activities were planned with their habitat needs considered.

Current policy on managing for the federally endangered Indiana bat requires a certain component of snags and live trees of specific sizes and species. This tract meets the live tree target and barely misses

the snag target. Live tree targets are a minimum of 9 trees/acre over 11" DBH with at least 3 of these being over 20" DBH. This tract currently has about 51.5 live trees/acre over 9" and about 13.4 trees/acre over 20". These are all hardwood species. Of the species listed as preferred by Indiana bat and found on this tract (red oak, red elm, shagbark hickory, sugar maple, white ash and white oak), the numbers are still very good at 32.3 over 9" and 8.5 over 20". Snag targets are at least 3/acre over 9" DBH and .5/acre over 19" DBH. This tract currently has 2.9 snags/acre over 9" and .6/acre over 20".

Communities – Most of this tract is dry to dry-mesic. Plant species most noted was greenbrier. Some areas were very rocky and the plant community may have been limited to grasses and lichens. The valley north of the ridge was more mesic with species such as Christmas fern common and spicebush in one or two plots. The only exotic noted was multiflora rose on a few plots.

Recreation – As noted before, this tract is legally landlocked to the public. We have permission to use the access road for management purposes but it is not open to the public. Despite this, it does get quite a bit of public use. Some of it may be neighbors but I doubt all, or even most of the use is from adjacent neighbors. The worst of the use is the illegal ATV use. They run the firelane from end to end crossing both Styline Corp. property and the landowner to the east. The traffic is enough to keep the road from having vegetative cover and submitting it to erosion damage. In some places it is quite bad and the road is nearly impassable. Other uses of the property include hunting, especially deer and turkey, and possibly hiking or other activities.

Cultural – Cultural sites, if identified on this tract, will by policy be protected from ground disturbing activities if at all possible. All work will be coordinated through the Division's archaeologist.

Tract Stand Descriptions and Silvicultural Prescriptions – For description and planning purposes this tract was broken down into two stands. They were commercial hardwoods and non-commercial hardwoods.

Commercial Hardwoods – This stand consisted of most of the tract, 88 of the 90 acres. This stand contains mostly mature, closed canopy hardwood forest, heavy to oak-hickory. The basal area averages 112square feet/acre and the volume averages 7658 board feet/acre. This is mostly white oak (44%), black oak (12%), pignut hickory (12%), red oak (12%), yellow poplar (7%) and sugar maple (5%). Quality is mostly average with some pockets of better quality trees. The rocky or eroded sites have lower quality trees. The understory is dominated by sugar maple and American beech with yellow poplar, dogwood, blackgum and red maple also common. Despite this fact, most of this stand should be able to regenerate oaks with the proper understory control.

The prescription for this stand is to have a timber sale in the next few years. With the exception of one small opening it should just be a thinning to remove the undesirable, damaged or overmature stems. This sale would cover about 84 acres and remove about 187,000 board feet. Following the sale TSI should be completed and where appropriate, the understory treated to favor oak regeneration. This could be as much as 70 acres.

Non-commercial Hardwoods – This stand was one inventory point. However, it could be extended to include the corridor between the Yoho and the rock outcroppings south of the firelane. Access would be difficult in this area and it has a higher value to protect the stream and for wildlife habitat. The

prescription for these areas is to protect them from disturbance. However, exotic control and TSI to improve wildlife values are possible.

SILVICULTURAL PRESCRIPTION

Due to logistics, the management activities on this tract should be coordinated with Comp. 8, Tract 6. That cruise and plan is not completed yet so the timing of activities may be adjusted slightly.

That being said, road improvements are going to be a must for either tract. At the very least the road needs to be accessible for log trucks to the second wildlife opening in Tract 6. It is doubtful the road can be made log truck accessible into Tract 8, however, that section still needs fixed and improved.

Grape vines were only noted once in the cruise so a pre-harvest vine TSI is not necessary. However, if desired, particularly if a sale is going to be postponed a few years, pre-harvest understory control could be initiated to get a jump start on attempting oak regeneration.

At some point, a harvest is planned for this tract. It will mostly be a thinning to remove the undesirable or overmature trees and to release higher value trees. The harvest may cover as much as 84 acres and remove 187,000 board feet. Volume will be mostly black oak, white oak, pignut hickory and yellow poplar.

Following the harvest, TSI should be completed. This is when the understory control should be completed to encourage oak regeneration. Trees designated for removal, particularly trees over 5" DBH, should be girdled and left for snags.

Though it is not critical before the harvest, at some point the east line needs to be surveyed and permanently marked. This should settle any doubt about the line and any conflicts that may create.

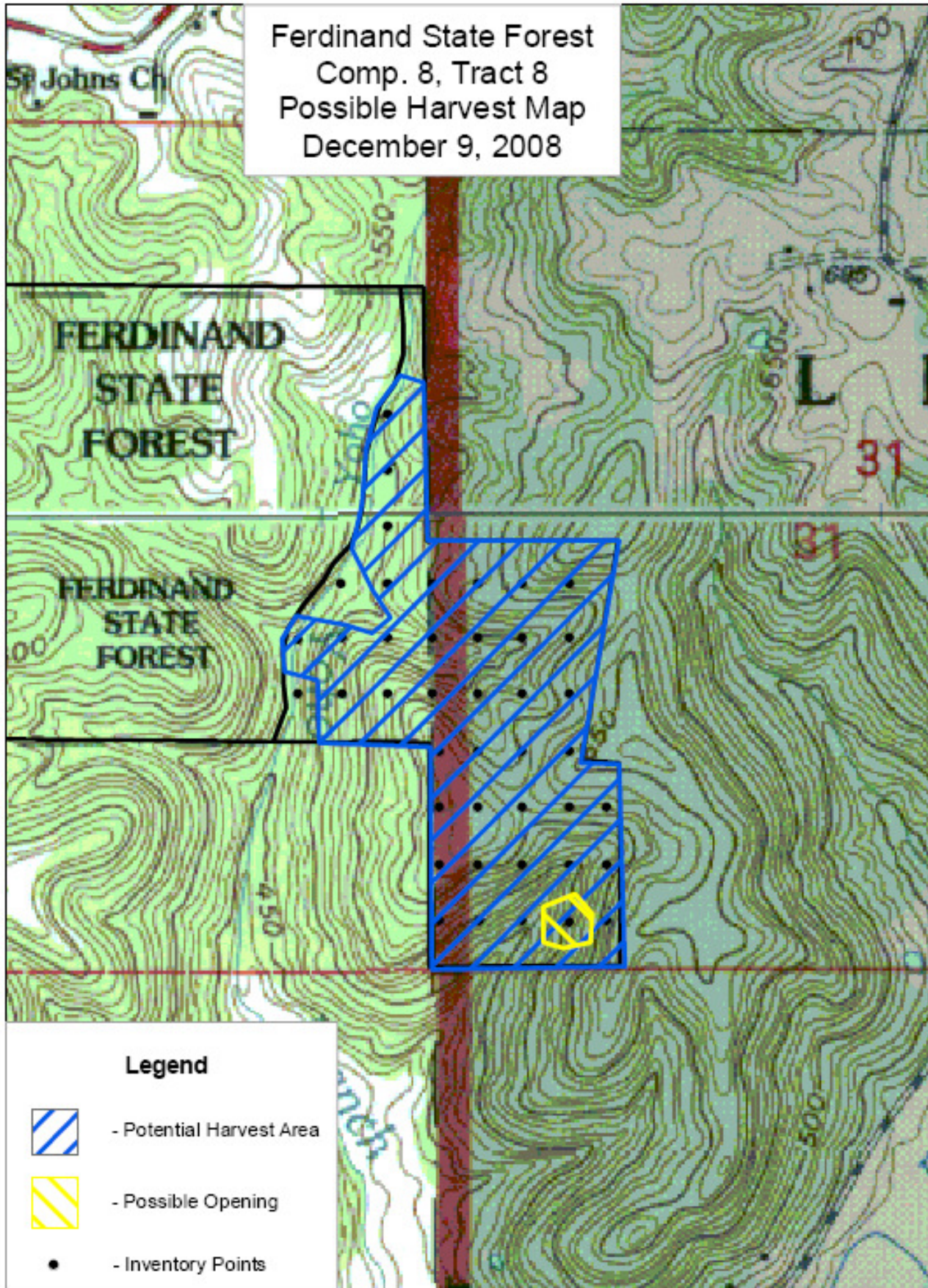
Within 10 years of the harvest, any regeneration openings created should be evaluated for thinning and vine control. At that time the status of any oak regeneration in the thinned areas can also be evaluated and if necessary, further action taken.

Finally, this tract should be scheduled for another inventory in 2028.

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Ferdinand State Forest
Comp. 8, Tract 8
Possible Harvest Map
December 9, 2008



Legend



- Potential Harvest Area



- Possible Opening



- Inventory Points