Indiana Department of Natural Resoures
Division of Forestry

Ferdinand State Forest **Comp. 3, Tract 8**
Forester: Jason Woodard **June 30, 2008**

Forester's Narrative

Location
Compartment 03, Tract 08 is found in section 2, Township 3 south, Range 3 west of Jefferson Township in Dubois County. 0308 is located about 2.5 miles southwest of the town of Birdseye, Indiana.

General Description
Tract 0308 is approximately 160 acres, consisting of several ridges, made up of primarily hardwoods. There is 3 acres of permanent openings, and a 4 acre lake that was built by the NRCS.

History
This tract consists of 160 acres which was acquired in 4 separate 40 acre parcels of land. The first 40 acres was purchased from Audra Lynch of Floyd County in June of 1944. This is now the SW 40. The second parcel of land was purchased from Georgia P. Kendall of Dubois County in July of 1945. This parcel is known as the NE 40. The third acquisition was purchased from Georgia P. Kendall Cummins and Homer Cummins in July of 1954. This parcel of land is known as the NW 40. The final parcel of land was purchased from Dale Loveless in 2007. This parcel is the SE 40 of this tract. There was also an access easement which totals 1.64 acres in a 50 foot wide strip, allowing for a road to be built for access to the property. This was acquired from Charles Voegerl and Judy Voegerl of Dubois County in October of 1988.

Management
The first recorded management on this property was a red pine planting in April of 1976; the purpose of this was to control erosion. In January of 1979 a resource management guide was written on 22 acres of pine, and the other 98 acres being mainly white oak, black oak, and red oak. The total volume for the inventory was 192,929 bd. Ft. with 29,265 bd. Ft being harvest stock. In 1980, there was a prescription for the construction of dam to impound 3 acres of water. In 1988, there was the construction of the firelane. In 1989 the construction of a dam was completed by the Natural Resources Conservation Service. A harvest over the flooded areas in the tract was recorded in 1989 which totaled 24,537 bd. Ft. and sold for $2,460 dollars, there was also a vine TSI over the entire tract. A resource management guide was written in 1991 by Doug Brown. Total volume came to 539,794 bd. Ft, with 119,092 bd. Ft being harvest. In 1992 there was an evaluation of oak mortality and also a prescribed vine TSI. There was no change in the management for this area. In 1993 wildlife species were planted around the lake. In 1999 a timber harvest in the South area totaled 141,396 bd. Ft of harvestable volume. The harvest was followed by a post harvest TSI in 2001, which was by single tree selection as well as 2 openings. This area was also treated chemically with pathway.

Landscape Context
The surrounding landscape consists of a variety of things. There is some forested land to the east and south. To the north is some pasture as well as the large microwave tower. To the west is a small portion of forests and then pasture and agriculture primarily takes over. There is also a cattle farm and pasture to the south east.

Topography, Geology and Hydrology
This tract contains ridges, slopes and a few bottoms. Most of the ridges tend to run north to north east, and south to south east. This tract also contains a 4 acre man made lake where drainage once forked, which was built by the NRCS. However, due to heavy rain and the clogging of the spillway the lake grew in size by several acres. This was fixed however it caused many trees to die due to water levels being higher than normal.

Soils
BU-Burnside Silt Loam- This soil type is nearly level, deep, and well drained. Commonly found in floodplains, it can be subject to flooding. They are typically long and irregular in shape. The surface layer is typically around 12 inches thick. This soil has low available water capacity and is moderately permeable. Runoff on this slope is relatively slow. This soil is severely limited for building sites due to flooding hazards.

GID2-Gilpin Silt Loam-12-18% slopes- This is a strongly sloping, moderately deep and well drained soil. This soil type is found in uplands along side slopes of drainage areas. These soil types range from 15-40 acres in size. The surface layer is typically about 6 inches thick and the subsoil is about 20 inches thick. This soil has low available water capacity and is moderately permeable. Surface runoff tends to be very rapid on this soil type. This is a suitable soil for hay fields and for trees. Erosion hazards and equipment limitations are moderate in the use of this soil for woods.

GIE-Gilpin Silt Loam- 12-18% slopes- This moderately steep soil is moderately deep and well drained. Typically found on upland hillside, as well as sharp breaks along drainageways. They are usually 20-80 acres in size. The surface layer is about 6 inches thick, and the subsoil is about 22 inches thick. This soil has low available water capacity and is moderately permeable, while surface runoff is generally rapid. This soil type is suitable to trees, but can have problems with drought due to lack of rainfall. Limitations include erosion risks due to the slope of the soil type.

GoF-Gilpin-Berks complex-25-50% slopes- This soil consists of moderately steep to very steep slopes. It is moderately deep and well drained. This soil is typically found in uplands on hillsides. This soil type generally ranges anywhere from 40-200 acres in size. The surface layer is around 6 inches thick and the subsurface layer is about 22 inches thick. This soil has low available water capacity and is moderately permeable. Surface runoff is very rapid. These soils have fair potential for woodlands, with slope and erosion being the main limitations to this soil type.

TIB-Tilsit Silt Loam-2-6% slopes-This gently sloping soil is deep and moderately well drained. This soil is found on ridge tops and is on the uplands. The surface layer is about

8 inches thick and the subsoil layer is about 52 inches thick. This soil has moderate available water capacity and is slowly permeable. Surface runoff is medium. This soil is moderately limited for most building sites. The seasonal high water table is the main limitation.

WeC2-Wellston Silt Loam-2-12% slopes- Moderately sloping soil is deep and well drained. Typically found on narrow ridgetops and side slopes along natural drainageways. They range on average from 10-15 acres in size. The surface layer is about 7 inches thick and the subsoil is around 36 inches thick. This soil has high available water capacity and is moderately permeable.

ZnC2-Zanesville Silt Loam-6-12% slopes- This soil is moderately sloping, deep, and well drained. This soil is typically found on uplands, and upper parts of ridgetops along natural drainageways. The surface layer is generally around 9 inches thick, while the subsoil layer is about 47 inches thick. This soil has moderate available water capacity and is slowly permeable. Surface runoff tends to be medium. Most areas of this soil are used for agricultural, while small portions are used for pasture and woodlands. This soil also has a seasonal high water table.

Access

Access to this tract is good due to the easement in 1988, which allowed for a road to be built and maintained back to the property. Once on the property access is still available with Firelane 11 running through the northern half of the tract making a large circle. Access is also okay in the southern half of the tract with skid trails from a previous harvest in 1999. Several of the skid trails run throughout much of the southern half.

Boundary

The boundaries to the old tract, which consists of everything except the SE 40 that was acquired in 2007, are marked by cornerstones and monuments as well as signs bordering the property. The new parcel of land has not had boundaries finalized, there has been a rough boundary estimate marked with pink ribbon which has not been confirmed as the actual boundary line.

Wildlife

Species of wildlife that were observed on this tract were deer, turkey, squirrel, rabbit, hawks, woodpeckers, songbirds, and turtles.

Deer are abundant in this area with plenty of agriculture, as well as mast crops such as white oak acorns. There is also a constant supply of water due to the man made lake in the center of the tract. The lake is where a majority of the wildlife was seen, possibly due to the time of year. There is a wide variety of animals within this tract because they have good food sources, a water source, and there is also plenty of cover due to clearings and harvests which have created brush pockets for animals to hide in. There were also signs of beaver damage to some trees along the lake; however no actual sightings were recorded.

The Natural Heritage Database was searched for this inventory but that information is protected. If rare, threatened or endangered species are noted for this area, the activities planned for this tract have been modified to protect those species.

Indiana Bat Strategy
The Indiana Bat Habitat has four size classifications of trees for Bats, 11" plus, 20" plus which is for live trees, 9" plus, and 19" plus DBH, which refers to snags. There are also several species types that are considered useful for the Indiana Bat, Shagbark Hickory, Bitternut Hickory, Shellbark Hickory, Northern Red Oak, Post Oak White Oak, Black Locust, Sugar Maple, Silver Maple White Ash Green Ash Slippery Elm, American Elm, and Eastern Cottonwood. The live trees had an excess of 11", but not enough in the 20" class. The 11" class requires 1440 trees for this tract, and there were 1816 inventoried leaving 376 available for removal. The 20" class was below the requirements of 480, with just 231. Since there is not enough large trees, might be possible to leave a few of the 11" class trees in hopes that they can become part of the large class over time. The 9" and 19" were low, with 9" having 813 and needing 960, and 19" having 68 when needing 160. To meet habitat regulations, going in and creating snags would be a way to get the numbers up for this tract, possibly by TSI after the harvest. The numbers might also increase naturally from the growth of some of the 11" DBH trees in the future.

Communities
The main forest type within this stand was mostly oak/hickory. There were also a few yellow poplar stands and maple stands spread throughout the tract. There seemed to be a lot of oak regeneration throughout most of the tract. Spice bush and multiflora rose was very common.

Recreation
Recreation is to a minimum due to lack of access for the public. There is a 4 acre lake which is probably being fished by locals due to the evidence of litter around the lake. The primary focus for recreation on this property if any would be in the form of hunting. However, once again due to the lack of public access recreation is probably very minimal.

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

Tract Subdivision Description and Silvicultural Prescription
Pine
There is not a distinct pine stand within this tract; however there is some pine within the tract in the northwest 40 acres. This stand has a mix of white, red, and Virginia pine. Although there is a small area of pine most of the trees have fallen or are snags except for a few white pines which are still living. The areas where the trees have fallen or are

snags are converting over to hardwoods, causing the pine stand to slowly be eliminated from the tract.

Hardwoods
The hardwoods cover the entire 160 acre tract with white oak, black oak and yellow-poplar being the three main species in the tract with several pignut hickories and scarlet oaks scattered throughout the tract as well. White oak is the most common species with 221,220 board feet, Black oak is next with 151,150 board feet, and yellow-poplar is the third most common species at 104,060 board feet. The white oak throughout the stand ranges from pole size trees to very large nice trees with DBH's exceeding 24 inches in some instances. Most of the white oak will be left to mature, however there are some that are probably overmature and ready for harvest as well as some poor formed trees that should be removed or coppiced. The black oak had wide ranges as well, once again there were several trees in the 20-30" DBH range some being mature and ready for harvest and some that should be left to mature. There were several black oaks that were not mature but had poor form probably due to the steepness of the slope and should be taken out. The yellow-poplar looked very poor overall, there were some descent looking trees but for the most part they looked very poor. In one particular yellow-poplar stand almost all of the mature trees had died and were snags. This could be an indication of what might happen to many more of the trees throughout the tract. It would probably be a good idea to take out most of the large trees even if not at full maturity, just because they seem to be having lots of difficulty with drought stress and it would be a good assumption that they would not survive until the next harvest cycle. The harvest volume for white oak is 31,410 bd ft., and black oak with 30,170 bd ft. The third most common species being yellow-poplar having 110,070 bd. Ft harvested. The total volume being harvested in this tract is around 235,950 bd. Ft.

Silvicultural Prescription
This tract could have a light selective harvest throughout the oak/hickory stands, with a TSI shortly after the harvest to make sure that the quality trees are getting proper care to allow for best growing conditions. However, the yellow-poplar stands should be harvested much more intensely due to the drought stress that has affected them. In these stands you could make some possible small openings. Grapevines are not abundant, so grapevine TSI is not a big concern for this tract.

The tract should be re-inventoried in 2023.

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