

## RESOURCE MANAGEMENT GUIDE

Yellowwood State Forest

Compartment 2

Tract 4

Total Tract acreage: 75 acres Commercial Acres: 69

Date: 7/25/08

Forester: L. Burgess

### Location

Located in Section 9 Township 8N, Range 2E of Brown County. The tract is located west of Crooked Creek Road with vehicle access through Tract 11. The tract is surrounded by state forest apart from the NW corner. Tract is located in Lake Monroe watershed.

### History

1976: CETA TSI of 56 acres

1987: Access road constructed through Tract 11; inventory and management plan.

1988: Timber harvest of 105,826 bd.ft., 464 trees, 97 culls; TSI marked.

1989: Disced and seeded log roads and landings, planted autumn olive; boundary marking. 1990: TSI completed.

### Topography, Geology and Hydrology

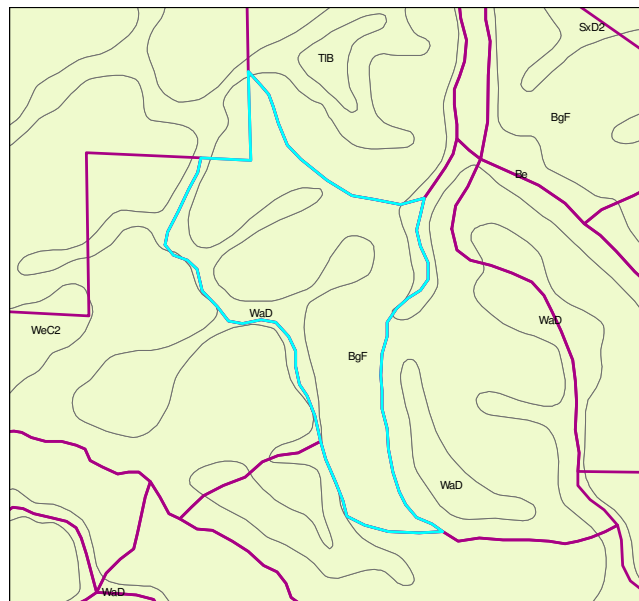
The tract is comprised of about 25% ridgetop and the remaining acreage is primarily east and facing slopes, with slope ranging from steepness 5 - 35%. The tract drains into a mapped intermittent stream within the North Fork Sale Creek – Lower Schooner Creek watershed.

### Soils

Berks-Trevlac-Wellston complex (BgF) 20 – 70 percent slope. Severe limitations noted for logging due to slope. Comprises ~75% of tract acreage.

Wellston-Berks-Trevlac complex (WaD) 6 – 20 percent slope. Slight limitations. Comprises < 25% of tract acreage.

Beanblossom channery silt loam (Be) nearly level. Slight limitations; moderate flood risk. Comprises less than 1-acre. Comprises <5% of tract acreage.



### Access

The access road created in 1987 runs through Tract 11. This road will need clearing and likely improvements prior to providing access for hauling timber. Access for the inventory was by foot off Crooked Creek Road.

## **Boundary**

Tract is surrounded by state forest acreage with the exception of the northwest corner. The western edge of tract is set by a ridge and the eastern edge falls along a drainage from the north into a mapped intermittent stream.

## **Wildlife**

Wildlife resources in this tract are abundant. Common species which are present include: Squirrels, white tailed deer, turkey, various small furbearing animals, and a variety of songbirds. An official wildlife review was completed on the 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 a bat management guideline form.

## **Communities**

A Heritage database review was submitted for this tract. No RTE or species of special concern were noted within tract on the review. Clingman Hedge-nettle was noted within the Heritage database review in nearby acreage. Butternut (*Juglans cinerea*) trees were noted approximately ½ mile southeast (See tract map).

## **Exotics**

Autumn olive was noted within the tract (planted in 1989 after timber harvest). This species is extremely prevalent in the black walnut plantation along Crooked Creek Road and will be difficult to control its spread into nearby tracts. Plants within the tract will be noted for treatment pre-harvest. The post-harvest TSI request should include the black walnut plantation for removal of this invasive.

## **Recreation**

This tract is used for hunting and trespassing from one portion of private property to another (northwest corner).

## **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**

Present tract volume estimates:

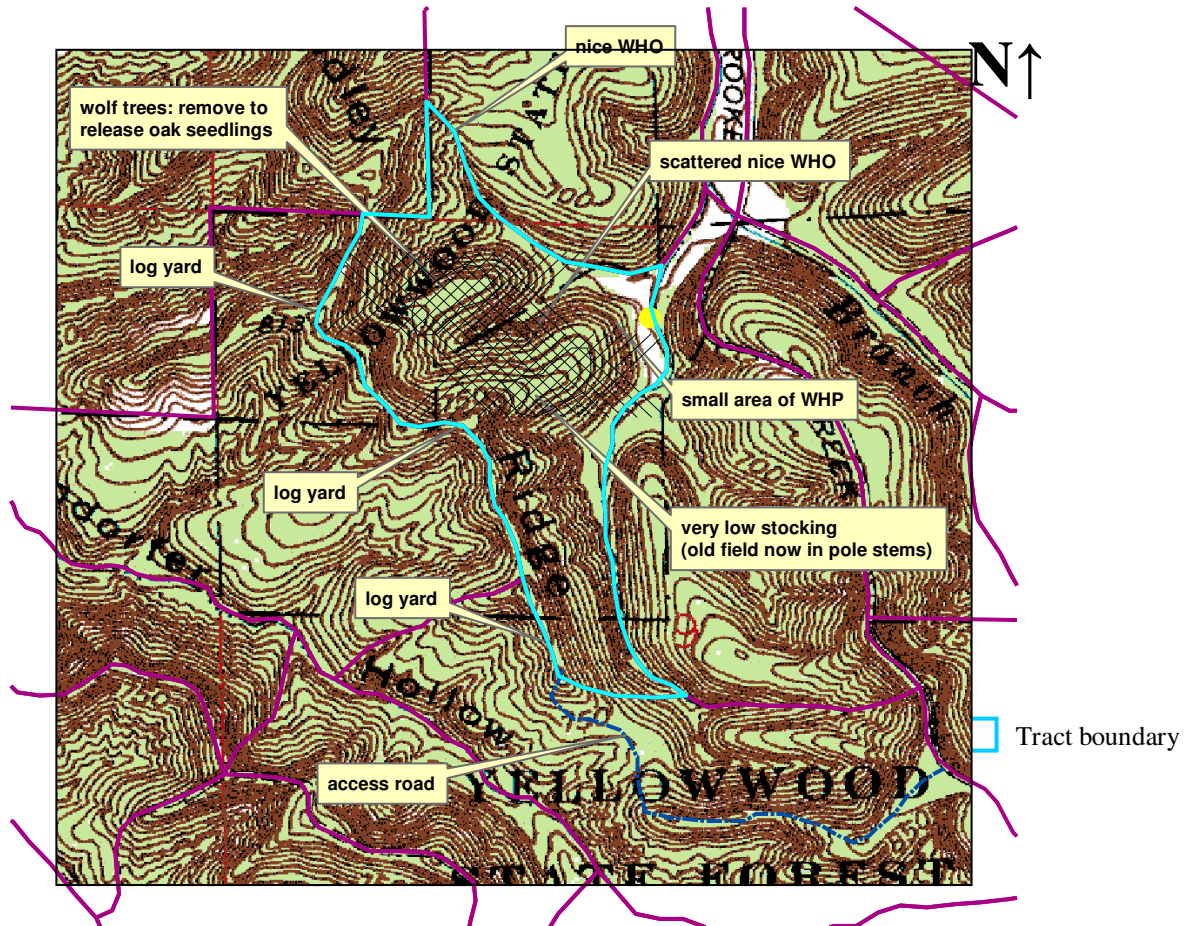
<b>Stand 1(Hardwoods)</b>	<b>Basal Area</b>
<b>Harvest volume 1,900 bd.ft./acre</b>	<b>19</b>
<b>Leave volume 3,290 bd. ft. /acre</b>	<b>63</b>
<b>Total tract 5,220 bd/ft./acre</b>	<b>84</b>

Inventory results list BLO, WHO and SCO (in descending order) as the top harvest volume species. Top volume leave species are WHO and BLO.

Overall this tract has mixed hardwood composition. The inventory results indicate this tract would sustain and benefit from a harvest this cycle to remove those stems exhibiting damage and decline. Recommendation is for an intermediate harvest utilizing single-tree selection predominately across the tract.

Three inventory points noted stems were primarily of pole size and therefore would have little if any harvest volume. One of these points was noted as “open” due to the lack of merchantable size timber.

\*The inventory was based on 6 x 6 chain spacing (approx. 1 point per 3 acres) 66 acres as mixed hardwood, 3 acres “open” and 6 acres in White pine.



### Tract Management Recommendations

A timber harvest is recommended for this tract. Specifically an intermediate harvest with single-tree selection. A shelterwood cut and possible regeneration openings may also be utilized to work toward achieving the desired outcome of a healthier stand. The marking objective will be the removal of declining stems, those exhibiting poor form and those with extensive epicormic sprouting in an effort to improve the overall health, vigor and composition of the stand. Other stems for removal could include those dropping out due to natural mortality or succumbing to past looper attacks or drought. Some areas of the tract are stocked primarily with pole size stems as the former old field sites succeed into hardwood stands. The northern old field site has some wolf trees that should be removed with a harvest or TSI to release the oak regeneration noted.

This tract holds several areas containing nice WHO stems. In fact the 1988 harvest had its highest volume and number of trees in WHO. Marking efforts will focus on releasing the best WHO stems. The area noted with WHP contains pine in the 10"-12" range, a few E. red-cedar and post or pole hardwoods stems. Ironwood is fairly heavy within the understory in many portions of the tract and may need removal through TSI in areas that exhibit good oak regeneration. TSI should follow in any areas where regeneration efforts are applied (such as openings or shelterwoods). TSI may also be necessary in the two regeneration openings created during the 1988 harvest.

Areas of past erosion, some severe, are evident throughout the tract. The degree of the erosion is considerably more than I have seen in other tracts. Perhaps this is due to a lack of planting pine to reduce soil erosion. Row crops or extensive grazing are likely the culprits. These areas are once again supporting some nice hardwoods and certainly demonstrate the ability of once abused land to become productive.

Wildlife will also benefit from a harvest. Additional sunlight penetrating the forest floor will simulate the development of new ground flora, subsequently increasing nesting and foraging habitat. This is essential for both game and non-game species as well as continued forest development. TSI will increase snags per acre while diversifying diameter distributions of both snags and growing stock trees.

### **Proposed Activities Listing**

Summer 2010: YHCC crew: Autumn olive control and crop tree release in regeneration openings from 1988 harvest.

2010/2011: Timber marking, harvest and TSI including treatment of any invasive exotics noted/discovered.

2028: Stand Re-inventory

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