# **Indiana Department of Natural Resources Division of Forestry**

DRAFT

## RESOURCE MANAGEMENT GUIDE

State Forest: **Yellowwood** Compartment: **07** Tract: **12** Tract Acreage: **66** Commercial Forest Acreage: **65** 

Forester: Amanda Smith (for Sean Sheldon) Revised Date: 3/18/2013

#### Location

Y0712 is located in Section 19 of Township 9N, Range 2E of Brown County (see Figure 1). It is located roughly 0.5 miles north of Yellowwood Lake and 5 miles west of Nashville, Indiana. The tract is accessible right off of Yellowwood Lake Road.

# **General Description**

Y0712 consists of a total of 66 forested acres of which 31 acres are Oak-Hickory forest, 18 acres are of Mixed Hardwood forest, 5 acres are early successional regeneration areas, and 11 acres are of old pine plantation areas with intermixed mixed hardwoods in Yellowwood State Forest. The Oak-Hickory forest is subdivided into a 31 acre Oak-Hickory Stratum and a 1.0 acre Riparian Management Area designated along the intermittent streams on the tract's north and south boundary. Overall, approximately 65 acres are considered commercial forest acreage with the 1.0 acre Riparian Management Area currently being listed as noncommercial acreage. Y0712's timber resource ranges from small to large sawtimber in size. The overall timber quality of this tract is average to moderate. A summary of the forest resources in Y0712 in relation to species dominance is noted below in Table 1.

Table 1. Overview of Forest Resources in Y0712 in October 2012

Overstory Sawtimber Layer	Understory Poletimber Layer	Regeneration Layer
Yellow Poplar	Red Pine	American Beech
White Oak	Sugar Maple	Sugar Maple
Black Oak	Yellow Poplar	Ironwood
Red Pine	Largetooth Aspen	Bluebeech
Northern Red Oak	White Ash	American Elm
Chestnut Oak	White Oak	Red Maple
Bitternut Hickory	American Beech	Flowering Dogwood
Largetooth Aspen	Sassafras	Eastern Redbud
Sugar Maple	Bitternut Hickory	Sassafras
White Ash	Pignut Hickory	White Ash
Scarlet Oak	Black Cherry	Blackgum
American Beech	Red Maple	Black Cherry
Black Cherry	Shagbark Hickory	Northern Red Oak
Pignut Hickory	American Elm	Pignut Hickory
Blackgum	Northern Red Oak	White Oak
Shagbark Hickory	Red Elm	*Bitternut Hickory
Black Walnut	Black Oak	*Black Oak
Virginia Pine	Black Walnut	*Chestnut Oak
Red Maple	Blackgum	*Scarlet Oak
Sassafras	Chestnut Oak	*Shagbark Hickory

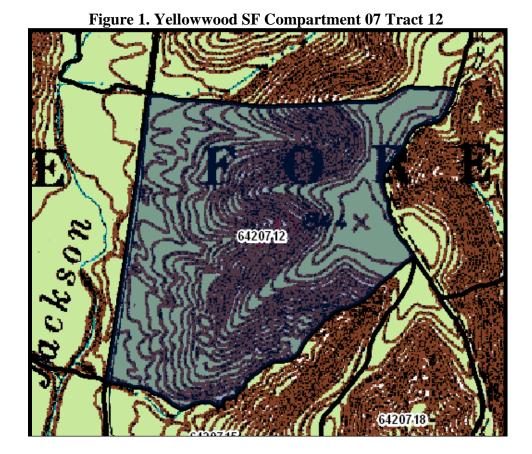
<sup>\*</sup> Species not captured in Prism Plots but present within the tract.

## **History**

The land area that includes Y0712 was deeded to the State of Indiana in 1953 by the United States Department of Agriculture. Historical aerial photography suggests that prior to government acquisition the valleys and ridgetops were farmed and the sideslopes likely to have been grazed. 264,551 bf was marked on 124 acres of Tract 9 in 1982 and it was sold and harvested in 1983 (Pingleton had the high bid with \$27,110). Tract 12 was created when Tract 9 was divided in December of 1984 into the current configurations of Tracts 9 &12. TSI was marked and completed in October of 2001 by Foresters Kaina and Bowman. The first new tract resource inventory was completed on October 17, 2012 by Intermittent Forester Amanda Smith. The results of that inventory are highlighted in the report below.

#### **Landscape Context**

The ridgetop and sideslopes of this tract are mostly comprised of the dominant Oak-Hickory species known to occur in the Yellowwood/Morgan-Monroe State Forest ecosystem. The western valley consists of pine plantations intermixed with mixed hardwood species and of mixed hardwood species. This region of Yellowwood State Forest probably has the largest concentrations of planted conifers from the 1950's which enhances the habitat diversity for wildlife in the area. The tract is completely surrounded by the dominantly closed forest canopy of Yellowwood State Forest with some maintained recreational openings and recreational buildings throughout the area. Yellowwood Lake lies approximately 0.5 miles south of the tract providing habitats for migrating waterfowl as well as lowland habitats for many mammals, herptiles, and birds.



## Topography, Geology and Hydrology

Tract 12 consists of predominantly west and northwest facing slopes. The ephemeral drainages drain into Jackson Creek and eventually drain into Yellowwood Lake. There is a mapped intermittent stream on the southern boundary of the tract and the northwestern boundary of the tract that then flow into Jackson Creek and then into Yellowwood Lake. In general, these upland soils were formed in residuum from sandstone, siltstone, and shale. The tract's topography ranges from 6-70% slopes with generally western aspects.

## Soils

## BgF- Berks-Trevlac-Wellston Complex, 20 to 70 percent slopes

These moderately steep to very steep well drained soils are on hillsides in the uplands. They are fairly well suited to trees. Erosion hazards and equipment limitations are main management concerns due to slope. Consideration should be given during sale planning and implementation of Best Management Practices for Water Quality. This Complex has a site index of about 70 for northern Red Oak. This soil type occurs over 38 acres or about 57.6% of the tract.

# PeC2- Pekin Silt Loam, 6 to 12 percent slopes, eroded

This moderately sloping, deep, well drained soil is found on sideslopes adjacent to drainages on alluvial terraces. It is well suited to trees and has a site index of 70 for White Oak and 85 for Yellow Poplar. This soil type occurs over 11 acres or about 16.7% of the tract.

# WeC2- Wellston-Gilpin silt loams, 6 to 20 percent slopes, eroded

These moderately sloping to moderately steep, well drained soils are on side slopes and ridgetops in the uplands. They are well suited to trees. This complex has a site index for northern red oak of 71 in the Wellston and 80 in the Gilpin. This soil type occurs over 17 acres or about 25.8% of the tract.

#### Access

Y0712 is easily accessible off of Yellowwood Lake Road. There are small public parking spots along Yellowwood Lake Road and at the cemetery across the road from Tract 15. A proposed roadwork project for Tracts 12, 15 & 18 was submitted in December of 2012 and has had a field review by the Division archaeologist. The DHPA clearance for this project is pending and roadwork is planned to be completed in early CY2013.

#### **Boundary**

Y0712 is bordered on all sides by Yellowwood State Forest property. A firetrail runs along the eastern boundary. The southern boundary is a large drainage that turns into a mapped intermittent stream. The northern boundary runs along the top of a finger ridge and along a mapped intermittent stream in the northwestern corner. The western boundary runs along Yellowwood Lake Road. There are no private boundaries associated with this tract.

#### Wildlife

A Heritage Database Review was completed for this tract in 2012. If rare threatened or endangered species were identified for this area, the activities prescribed in this guide will be conducted in a manner that will not threaten the viability of those species.

The Division of Forestry has instituted special procedures for conducting forest resource inventories so that the documentation and analysis of critical live tree (legacy) and snag tree densities are examined on a tract basis in order to maintain the long-term and quality forest habitats.

The resource inventory was conducted during the early fall of 2012 so summer breeding bird residents had begun to migrate. Songbirds were heard and the following bird species were identified during the inventory:

American Crow	Canadian Geese	Redbellied Woodpecker
Barred Owl	Downy Woodpecker	Red-breasted Nuthatch
Bluejay	Hairy Woodpecker	Red-tailed Hawk
Brown Creeper	Pileated Woodpecker	

Other species or sign observed within the tract indicates use by White-tailed Deer, Grey Squirrel, Eastern Chipmunk, Raccoon, Opossum, Coyote and other small mammals. Multiple deer trails were also noted throughout the tract. Tract 12 has an abundant supply of food resources such as soft and hard mast. The mapped intermittent streams that run along parts of the southern boundary of the tract and the northern boundary of the tract provide an ephemeral water source for the area during most periods of the year.

The Indiana Division of Forestry recognizes the potential to improve Indiana Bat habitat on its lands by implementing comprehensive management practices. These management practices include obtaining data on size, species, and numbers of snag trees (See Table 2). Snag trees and the presence of some specific species of trees are a vital part of the Indiana Bat policy as they provide prime roosting sites for maternal colonies. According to the Wildlife Habitat Feature Summary, all levels of snags and legacy trees met or exceeded maintenance levels. A Timber Stand Improvement (TSI) project following the completion of the proposed harvest should provide additional habitat as selected interior forest trees will be deadened.

Management practices conducted on Y0712 will be conducted in a manner that will maintain the long-term and quality forest habitats.

Table 2. Live Legacy Trees\* and Snags inventoried October 2012 on Y0712

	Maintenance Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal
Legacy					
Trees *					
11"+ DBH	594		1,941	1,347	
20"+ DBH	198		331	133	
Snags					
(all species)					
5"+ DBH	264	462	1,249	985	787
9"+ DBH	198	396	611	413	215
19"+ DBH	33	66	36	3	-30

<sup>\*</sup> Species Include: AME, BIH, BLL, COT, GRA, REO, POO, REE, SHH, ZSH, SIM, SUM, WHA, WHO.

#### **Communities**

The ground cover of this tract consisted of mainly mesic to dry mesic species. Observed species included:

Appendaged Waterleaf	Grass spp.	Oxalis spp.	
Autumn Olive	Greenbrier	Pawpaw	
Black Snakeroot	Hawthorn	Poison Ivy	
Blackberry	Heart-leaved Aster	Red Raspberry	
Blueberry	Horseweed	Sedge spp.	
Broad Beech Fern	Japanese Barberry	Short's Aster	
Canada Violet	Japanese Honeysuckle	Spicebush	
Christmas Fern	Japanese Stiltgrass	Spinulose Wood Fern	
Cleavers	Jewelweed	Squawroot	
Common Periwinkle	Ladies Thumbprint	Stinging Nettle	
Dittany	Large-flowered Bellwort	Sweet Cicely	
Ebony Spleenwort	Leeks	Virginia Creeper	
European Buckthorn	Maidenhair Fern	White Snakeroot	
False Mermaid	Maple-leafed Viburnum	Wild Ginger	
Glade Fern	Multiflora Rose	Wild Strawberry	
Grapevine			

Squawroot (Conopholis americana) is a plant that is parasitic on the roots of oak trees.

# **Exotic Species**

Autumn Olive, Common Periwinkle, European Buckthorn, Japanese Barberry, Japanese Honeysuckle, Japanese Stiltgrass, and Multiflora Rose were observed during the inventory mainly along Yellowwood Lake Road, in the old field portions of the tract, around the log yard, and dispersed sporadically throughout the area. Populations of Autumn Olive, Japanese Barberry, Japanese Honeysuckle, European Buckthorn, and Common Periwinkle should be treated as observed and reevaluated in the future. With multiple access routes into the tract, the eradication of the Japanese Stiltgrass is unlikely. However, the prompt reseeding of exposed surface roads and yarding areas during timber sale closeout can reduce the spread and extent of infestation of Stiltgrass,

Autumn Olive, and the Common Periwinkle. Multiflora Rose has become naturalized among the Brown County landscape, therefore, only large concentrations should be considered for treatment at this time, especially those that exist in planned regeneration openings.

#### Autumn Olive - Elaeagnus umbellata

Autumn olive is an exotic, invasive shrub found commonly in Indiana. Once commonly planted for wildlife benefits, it can overtake old fields and be persistent in forested settings. It creates dense thickets that crowd out native vegetation.

## European or Common Buckthorn - Rhamnus cathartica

European Buckthorn was brought from Europe in the mid 1800s as a popular hedging material. It out-competes native plants for nutrients, light, and moisture degrading an area's wildlife habitat by forming an impenetrable layer of vegetation. European Buckthorn also serves as a host to other pests, such as crown rust fungus and the soybean aphid.

# Japanese Barberry - Berberis thunbergii

Japanese Barberry was introduced to the U.S. in 1875 as an ornamental plant for hedgerows from Russia. It can form dense stands because it is shade tolerant, drought resistant, and seems to be avoided by White-tailed deer which gives it a competitive advantage. Once established, Japanese barberry alters soil pH, nitrogen levels, and biological activity in the soil. It displaces native plants and reduces wildlife habitat and forage availability.

#### Multiflora Rose - Rosa multiflora

Multiflora rose is an exotic shrub that was once planted widely as a "living fence" to confine livestock. It is extremely prolific and can form impenetrable thickets that exclude native plant species. If it is left to grow, it spreads throughout the understory of forested areas making it difficult for trees to regenerate.

## Japanese honeysuckle- *Lonicera japonica*

Japanese honeysuckle is an exotic, invasive evergreen vine. It grows in dense clumps often strangling host plants and shading out native vegetation.

#### Periwinkle-Vinca minor

Periwinkle is an exotic, invasive evergreen vine that was introduced to the US as a medicinal herb and as an ornamental ground cover. Once established, it forms a dense carpet to the exclusion of other plants. This creates a problem where it is competing with native flora. It grows most vigorously in moist soil with only partial sun, but it can grow in the deepest shade and even in poor soil.

# Japanese Stiltgrass- Microstegium vimineum

Japanese Stiltgrass is an exotic, invasive annual grass from Asia. It is an extremely prolific seed producer with each stem producing between 100 to 1,000 seeds every year. Seeds are easily spread by water, animals, and human disturbance. This species invades areas quickly and forms dense mats that crowd out native vegetation. Due to its invasive nature, once populations have become established, complete eradication is extremely difficult. However control methods can be successful at reducing the quantity of viable seed.

## Old Growth and Representative Sample Area (RSA) Assessments

During the current resource inventory all portions of the tract were reviewed and evaluated for old growth potential as well as for Representative Sample Areas. A Representative Sample Area (RSA) is an ecologically viable representative example of a natural community that is designated to establish and/or maintain an ecological reference condition, to create or maintain an underrepresented ecological condition, or to serve as refugia for species, communities, and community types. No representative areas of Type 1 or Type 2 Old Growth nor RSA's appear to exist within Y0712. An area should be considered for Type 1 Old Growth classification if it contains 3 or more acres of forest land that appear to have never been harvested or disturbed by man. An area should be considered for Type 2 Old Growth classification if it contains 20 or more acres that have not been logged in the last 80 years and shows developing old growth characteristics.

#### Recreation

Activities on this tract include hiking, bird watching, wildlife viewing, hunting, and mushrooming. The YZ horse trails runs east to west along the top of the southern ridge top of Y0712 and then runs northeast along the eastern boundary of Tract 12. The Tecumseh Trail runs along the eastern boundary of Tract 12. A small public parking area for public access is located at the head of the cable-gated firetrail along Yellowwood Lake Road. A posting for restricted access, a trail reroute, or temporary closure of this portion of the YZ horse trail will occur in the event of a future timber harvest so as to reduce interaction with timber harvest and recreational values.

#### Cultural

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

#### Tract Subdivision Description and Silvicultural Prescription

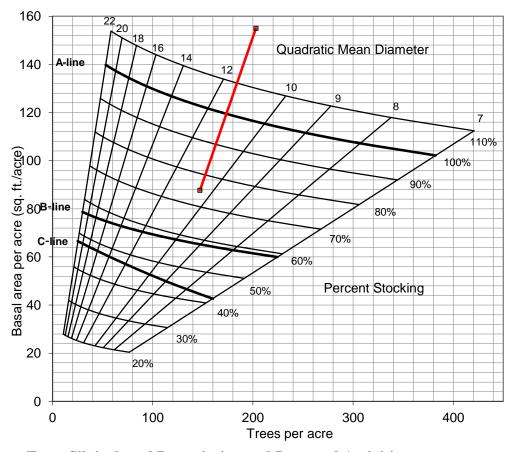
The overall stratum structure for this tract is represented in the following Gingrich Stratum and stock table that follows the individual stratum summary.

#### **Tract Summary Data**

Total Trees/Ac. = **844 Trees/Ac.**BA/A = **176.0 Sq. Ft./Ac.**Present Volume = **5,526 Bd. Ft./Ac.**Residual Volume/Ac. = **2,526 Bd. Ft./Ac.** 

Overall % Stocking = over **110%** (Overstocked) Sawtimber & Quality Trees/Ac. = **74 Trees/Ac.** 

Harvest Volume = 3,000 Bd. Ft./Ac.



# **Summary Tract Silvicultural Prescription and Proposed Activities**

The current forest resource inventory was completed on October 17, 2012 by Intermittent Forester Amanda Smith. 29 prism points were sampled over 66 acres (1 point for every 2.28 acres). A tract summary of the forest resource inventory is given above and a species breakdown of the summary is given in Table 3 below. This tract is overstocked and would benefit from a timber harvest. A managed timber harvest over the entire tract would likely yield 120 - 190 MBF. The tract's forest resource is composed of 5 different stratums based on the 4 major timber types and size classes mentioned below.

## **Oak-Hickory Stratum**

As the Oak-Hickory component of the Eastern Hardwood Ecosystem provides the most significant wildlife, timber resource, and economic value the retention of these areas is important in the Property's long term management program. The Oak-Hickory timber type covers roughly 48.3% of the tract or about 31.9 total acres, however, roughly 1.0 acre of the Oak-Hickory component is located within 50 feet of an intermittent stream and will be managed as a Riparian Management Area. Therefore, the Oak-Hickory Management Stratum covers roughly 46.8% of the tract or 30.9 acres. The overstory is dominated by WHO, BLO, CHO, and REO with an average basal area of 138.7 square feet per acre. Singletree and selection cuttings are prescribed to remove lower quality stems and mature to overmature trees to release a growing stock of high quality, more vigorous stems. Likewise, careful selection by free thinning of co-dominant stems will help to improve overall croptree spacing. Lower quality trees that include low-forking, leaning,

overtopped/suppressed intermediates, epicormically sprouting, and deformed trees are planned to be marked for removal in an improvement cutting. Group selection should be prescribed to create regeneration openings where there is an abundance of advanced regeneration of oak and hickory seedlings or where the overstory has too low of stocking to carry the stratum into the next cutting cycle.

#### Riparian Management Area

The Riparian Management Area covers roughly 1.5% of the entire tract or about 1.0 acre. The overstory is dominated by WHO, SUM, CHO, and BIH with an average basal area of 100 square feet per acre. No active management activities will occur at this time. This area is designated as lying within 50 feet of either side of the intermittent streams (see Figure 2).

#### **Mixed Hardwoods Stratum**

The Mixed Hardwoods component of the Eastern Hardwoods Ecosystem can be very variable in their composition and thereby have more complicated prescriptions. The Mixed Hardwoods timber type covers roughly 27.6% of the tract or about 18.2 acres. The overstory is dominated by YEP, BIH, NRO, WHA, and LAA with an average basal area of 145.7 square feet per acre. Singletree and selection cuttings are prescribed to remove lower quality stems and mature to overmature trees which will help to improve croptree spacing. An improvement cutting is prescribed to release quality oaks, hickories and walnuts from crown competition of lesser-valued timber species. The long-term result of these prescribed cuttings will increase timber diversity as well as enhance wildlife habitat as most of the species within the Mixed Hardwood component are not heavy mast producers nor tend to provide valuable timber resources. Improvement cuttings in this stratum will also be applied to remove low-forking, leaning, overtopped/suppressed intermediates, epicormically sprouting, and deformed trees. Group selections could be prescribed to create regeneration openings within this stratum. In order to meet our Property's International Forest Certification goals, group selections may be marked in appropriate areas. Certification standards seek to provide 10% of the tract acreage in regeneration harvests to maintain longterm forest regeneration and sustainability. The Mixed Hardwood stratum is often where most of these goals are applied as they tend to have lower Oak-Hickory elements. Planned regeneration openings will most likely return to mixed hardwoods with a strong component of YEP. Overall, marking objectives within this component should consider oak and other species of significant wildlife value as the best croptrees for future conservation. In CY2012 a fair amount the tract's YEP appeared to be in modest decline as a result of the past three years of drought and the Tulip Poplar Scale insect infestation that occurred in the late spring of 2012. The affected YEP will need careful review when the tract is marked as modest mortality is expected. Sugar Maple borer damage was noted in understory SUM throughout both the Mixed Hardwoods stratum and the Oak-Hickory stratum. In time this pest girdles the bole of the tree that eventually results in the stem breaking apart during moderate and severe windstorms. The removal of these stems would be classified as a combination improvement and sanitation cutting.

#### Old Pine Plantation Areas w/intermixed Mixed Hardwoods

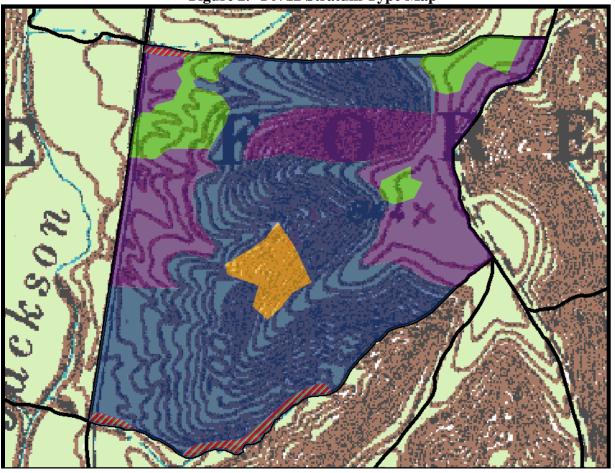
Virginia Pine and Red Pine were planted for erosion control purposes during the early management history of YSF. As these areas have matured or individual pines declined in vigor, native hardwoods have become established especially in the area's understory and canopy gaps. This timber type covers roughly 17.2% of the tract or about 11.4 acres of Y0712 with an average

basal area of 254.2 square feet per acre. The overstory is dominated by VIP and REP with WHA, YEP, and BLC intermixed. Group selections may be appropriate to regenerate the pine into native hardwoods in those areas where seedling Oaks, Hickories and Yellow Poplar have become established. Groups marked within these pine areas will also assist in achieving the 10% tract regeneration goal as directed by our Property's International Forest Certification standard that endeavors to promote longterm forest regeneration and sustainability. Areas where poletimber Oaks, Hickories and Yellow Poplar have emerged and entered the area canopy should be prescribed Timber Stand Improvement (TSI) for croptree release. Planned regeneration openings will most likely return to mixed hardwoods with a strong component of YEP, however, a presence of Oak species on the drier aspects is expected. Singletree selection is prescribed in portions of quality VIP and REP areas for thinning, the removal of lower quality stems and to release occasional hardwoods that have good vigor. The enhancement of these pine areas by releasing Oaks and Hickories is valuable in establishing additional Oak-Hickory canopy elements in this area. Overall, marking objectives within this component should consider Oak and other species of significant wildlife value as the best croptrees for future conservation. Quality and vigorous Pine may be retained as they provide significant wildlife habitat diversity and cover.

## **Early Successional Regeneration Areas**

Past harvest regeneration openings cover roughly 6.9% of the tract or about 4.6 acres. These areas are dominated mostly by LAA, YEP, BLC, and SUM with an average basal area of 80.1 square feet per acre. The YEP regeneration appeared to be in modest decline as a result of the past two years of drought and the Tulip Poplar Scale insect infestation that occurred in the late spring of 2012. These affected YEP will be reviewed prior to the planned postharvest TSI project as modest mortality is expected. All old regeneration openings should be scheduled for a croptree release and grapevine removal in the planned postharvest TSI project.







Given the recent inventory, this tract is suitable for a 15 year cutting cycle wherein growth and development of the tract is reevaluated by a forest inventory every 15 years. During this management cycle the overseeing forester determined to retain most of the pine areas for wildlife value and increased growth. Therefore, the current inventory indicates a harvest of between 50 - 100 MBF of hardwood volume. A combined tract timber sale is proposed for this tract along with Tracts 15 & 18 in FY12-13.

Table 3. Overview of Sawtimber Volume Estimates in Y0712 in October of 2012

Species	Harvest	Leave	Total
Yellow Poplar	55,770	20,300	76,070
White Oak	13,080	49,510	62,590
Black Oak	22,360	25,250	47,610
Red Pine	41,220	0	41,220
Northern Red Oak	7,940	21,420	29,360
Chestnut Oak	14,050	13,000	27,050
Bitternut Hickory	5,960	8,290	14,250
Largetooth Aspen	5,720	8,400	14,120
Sugar Maple	5,680	4,650	10,330
White Ash	9,160	0	9,160
Scarlet Oak	5,820	2,320	8,140
American Beech	5,140	670	5,810
Black Cherry	760	4,060	4,820
Pignut Hickory	1,510	2,200	3,710
Blackgum	0	2,690	2,690
Shagbark Hickory	0	2,510	2,510
Black Walnut	0	1,460	1,460
Virginia Pine	1,460	0	1,460
Red Maple	1,410	0	1,410
Sassafras	950	0	950
Tract Totals (Bd. Ft.)	197,990	166,730	364,720
Per Acre Totals (Bd. Ft./Ac.)	3,000	2,526	5,526

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# **Proposed Activities Listing**

# **Proposed Management Activity**

DHPA Timber Sale Roadwork Project

Roadwork Rehabilitation

Timber Marking

**Invasives Treatment** 

Timber Sale

**BMP Field Review** 

Postharvest Timber Stand Improvement Project

Reinventory and Management Guide

# **Attachments (Included in Tract File)**

- Topo Map of Tract Features
- Tract Soils Map
- Aerial Photo of Tract
- INHD Review Map

# **Proposed Period**

Spring 2013 Spring CY2013 Spring CY2013

May-June CY2013

FY2012-13 CY2014-2016

CY2014-2018

CY2027

CY2027

- Stocking Guide Chart
- Printed TCruise Reports

#### **Work Cited:**

#### European Buckthorn:

Resources, M. D. (2012). *Buckthorn - Invasive species*. Retrieved November 14, 2012, from Minnesota Department of Natural Resources: www.dnr.state.mn.us

## Japanese Barberry:

Group, P. C. (2005, May 20). *Fact Sheet: Japanese Barberry*. Retrieved November 2012, from Weeds Gone Wild: Alien Plant Invaders of Natural Areas: www.nps.gov/plants/alien/

#### All Other Species:

<u>Least Wanted: Alien Plant Invaders of Natural Areas</u>. 19 April 2012. Plant Conservation Alliance's Alien Plant Working Group. 3 October 2012 <a href="http://www.nps.gov/plants/alien/fact.htm">http://www.nps.gov/plants/alien/fact.htm</a>

## Representative Sample Area (RSA) Assessments

Indiana Department of Natural Resources, D. o. (2012). Establishment and Management of Representative Sample Areas on State Forests.

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You **must** indicate the State Forest Name, Compartment Number and Tract Number in the "Subject or file reference" line to ensure that your comment receives appropriate consideration. Comments received within 30 days of posting will be considered.