RESOURCE MANAGEMENT GUIDE

State Forest: Jackson-Washington
Compartment: 1 Tract: 14
Forester: Matt Vellella
Date: December 16, 2010
Management Cycle End Year: 2034
Management Cycle Length: 24 years

Location

This tract is in sections 17, 18, and 19 of Township 5 N Range 5 E of Jackson County. It is in Brownstown Township, about 2 miles SE of Brownstown.

General Description

The total acreage is 73 acres; 12 acres is delineated as part of the campground, leaving 61 acres as commercial forest. The tract is elongated in a southwest to northeast orientation with one general slope over the whole tract facing the southeast. Elevation is lowest on the southeast side and higher to the northwest side.

History

The tract originates from four acquisitions all bought in the year 1931 from four separate owners. They were Grover Doerr with a total of 200 acres, Annetta and Matthias Gossman totaling 40 acres, Charles T. Brandtein with 40 acres, and Willard and Mary Gossman with another 40 acres.

The first recorded management activity on the tract was a resource management guide prepared in December 1985 by John Friedrich. Of the 73 total acres, the plan delineated 15 for recreational use. Total stocking for the 58 acres inventoried was 386,809 board feet, with 83,857 board feet of harvest stock and 302,954 board feet as growing stock.

A timber harvest was then marked by John Friedrich and Eric Johnson and sold with 93,434 BF of volume on August 28, 1986 to Randy Darlage for $11,147.86 ($119.31/MBF).

Eric Johnson removed five trees from the campground in 1996 for FIA training demonstrations and later cut up for lumber for property projects.

A fire ran through the northern end of this tract in the fall of 1999 that resulted in scars on the many trees.

In 2007, four logs were salvaged for 855 board feet for a log sale by Brad Schneck, Mike Spalding, and Hougham. They were sold to Darlage and Lambring Logging with 53 other logs totaling 20,115 BF for $3,500 ($174.00/MBF).

A log salvage sale was conducted in December of 2010 by Derrick Potts throughout compartments 1, 2, and 3 over various tracts, this being one of them. The purpose was to salvage many of the ash trees prior to arrival of the Emerald Ash Borer. A total of 146 logs with 30,589 BF were sold for $4,000.00 ($130.77/MBF) to Bane Logging Inc. Only a few of those logs were from this tract.

Landscape Context

The tract is completely surrounded by steep hills and forested lands which are primarily used for timber production, recreation, and hunting. Other types of agriculture being practiced within a one mile radius is very limited. There is also minimal residential development in adjacent areas.

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Topography, Geology and Hydrology
A main ridge on the western boundary slopes to the east across the whole tract. Narrow ridges run from the top of the main ridge to the valley bottom. There are considerably steep slopes throughout the tract and general topography is hilly. Parent material of the soil and the bedrock is mississipian siltstone and shale. There are no perennial or intermittent water features within the tract though Knob Lake is 100 feet from the border to the south east of it. This entire tract is located within the watershed of Knob Lake. After leaving Knob Lake, water travels through a series of small perennial streams prior to emptying into Pond Creek, a tributary of the Muscatatuck River. Although natural erosion continuously contributes to the sedimentation of this lake, best management practices will be essential to preventing excessive sediment from reaching the lake during any proposed harvesting activity.

Soils
Beanblossom silt loam (BcrAW) This deep, well drained soil formed in 0 to 24 inches of medium-textured alluvium and the underlying loamy-skeletal alluvium. The Beanblossom soils are on flood plains and alluvial fans below steep and very steep hillslopes. Native vegetation is deciduous forest, dominantly sycamore, elm, hickory, beech, maple, and tulip-poplar. This soil is well suited to trees. Plant competition is moderate. Seedlings survive and grow well if competing vegetation is controlled. Preferred trees to manage for are bitternut hickory, bur oak, pin oak, shellbark hickory, and swamp white oak.

Berks channery silt loam (BeG) This steep and very steep, moderately deep, well drained soil is on side slopes and knolls in the uplands. Slopes are 25 to 75 percent. It has a site index of 50 for black oak. It is fairly well suited to trees. The equipment limitations, seedling mortality, and the erosion hazard are management concerns. Overstocking helps to compensate for seedling mortality. North aspects generally are more productive than south aspects. Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

CoD--Coolville silt loam, 12 to 20 percent slopes
This moderately well drained soil has a seasonally high watertable at 1.0 to 2.0 ft. and is on side slopes on uplands. Slopes are 12 to 20 percent. It has a site index of 66 for northern red oak. The native vegetation is hardwoods. The surface layer is silt loam and has moderately low or moderate organic matter content (1.0 to 3.0 percent). Permeability is very slow (<0.06 in/hr) in the most restrictive layer above bedrock. Available water capacity is moderate (6.6 inches in the upper 60 inches). The pH of the surface layer in non-limed areas is 3.5 to 5.5. Bedrock is at a depth of 40 to 60 inches.

GnF--Gilpin silt loam, 25 to 55 percent slopes
This well drained soil has a watertable at a depth greater than 40 inches and is on side slopes on uplands. Slopes are 25 to 55 percent. The native vegetation is hardwoods. The surface layer is silt loam and has moderate organic matter content (2.0 to 4.0 percent). Permeability is moderate (0.6 to 2.0 in/hr) in the most restrictive layer above bedrock.

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Available water capacity is low (4.8 inches in the upper 60 inches). The pH of the surface layer in non-limed areas is 3.5 to 5.5. Bedrock is at a depth of 20 to 40 inches.

Kurtz silt loam (KtF) This series consists of deep, well drained soils on hills. They formed in residuum weathered from interbedded soft siltstone and shale bedrock. Slopes range from 20 to 55 percent. It has a site index of 60 for northern red oak. Native vegetation consists of mixed hardwood with oaks, hickory, beech and yellow-poplar. These soils are well suited to trees. Preferred trees to manage for are black oak, chestnut oak, common persimmon, northern red oak, scarlet oak, shagbark hickory, sugar maple, and white oak.

Access

The primary entrance road to the office off of State Road 250 provides access to this tract. A fire lane follows the entire western boundary from the southern tip to the very north along the ridge top. Equipment can reach down the finger ridges to access the entire tract. Some terrain is very steep over short distance but logs may be cabled out or accessed with a dozer.

Boundary

The western and northern boundaries are formed by fire lane 111 and Trail 10, while the southern and lower end of the eastern boundary is formed by the camp road. The rest of the northern end of the eastern boundary is a valley bottom and then connects straight north to the fire lane in the north east corner.

Wildlife

Snags (all species)	Maintenance Level	Optimal Level	Inventory	Available Above Maintenance	Available Above Optimal
5"+ DBH	244	427	571	327	144
9"+ DBH	183	366	349	166	-17
19"+ DBH	30.5	61	72	42	11

Maintenance level for the number of snags is exceeded in all DBH classes and optimal level is exceeded for the 5" and 19" DBH classes. The snags present on the site provide great roosting habitat for the Indiana bat and TSI after the harvest may create more. Openings created by the harvest are also important to providing them with ideal foraging habitat.

According to the Natural Heritage Database review, there are no records of threatened or endangered species within the tract. The Indiana bat, a badger, and a timber rattlesnake were all listed on the review though. The timber rattlesnake sighting occurred south of State Road 250 on Skyline drive. No documented sightings have occurred in the forest block north of SR 250 in the past 20 years. Two occurrences of Indiana bat were found on the Natural Heritage Database. These were both roost trees and were located well outside the tract boundary; therefore, no adaptations to management will be necessary for any proposed harvest in this tract.

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Communities
The tract is mostly composed of three separate and definable cover types being the mixed hardwoods, chestnut oak, and oak. The five tree species with the most volume are chestnut oak, black oak, white oak, yellow-poplar, and pignut hickory. Sugar maple and American beech are also very common trees which also dominate regeneration. Multiflora rose and silt grass are two invasive exotics that are present across the tract. Stilt grass may be treated where accessible with an ATV.

Forest Condition
The inventory estimates that harvesting will reduce the basal area from 112 square feet per acres to 92 and the number of trees per acre will be reduced from 111 to 99. This will in turn decrease stocking from 89% to 74%. Approximately 1,670 board feet per acre should be harvested, leaving a growing stock of approximately 7,750 board feet per acre. As is typical for this region of Indiana, the form and growth of trees becomes poorer and slower as the soils become thinner. The lowest slopes in valleys contain many quality and prime trees.

Recreation
Special safety consideration must be made during harvesting because this tract contains the campground at Jackson-Washington State Forest. There are multiple campsites in the campground zone of the tract as well as shelter houses and picnic areas. The rest of the tract is in the safety zone that does not allow hunting. Hiking trail 10 borders the northern boundary. These areas will need to be closed off during harvesting activities. Camping, hiking, and wildlife viewing are the primary recreation uses of the tract.

Cultural
No cultural sites were found in the commercial forest area during the inventory. There are multiple CCC structures but are restricted to the campground zone, and will be avoided by all harvesting equipment.

Tract Subdivision Descriptions

Mixed Hardwoods (5.4 acres)
Overstory species for this subdivision are white oak, sugar maple, chestnut oak, northern red oak, American beech, black oak, yellow-poplar, sassafras, white ash, and black cherry. Understory species vary widely, including sassafras, persimmon, white pine, American beech, sugar maple, yellow poplar, and black gum. There is very little regeneration and is dominated by American beech with a few chestnut oak and sassafras seedlings in places. Ideally, a diverse and balanced mix of the previously mentioned tree species should be present. This is a good quality subdivision in general with straight trees and little defect. Sawtimber tree basal area is 78.6 square feet per acre for this subdivision. This subdivision should be managed with single tree selection. Damaged, mature, over-mature, and low quality trees should be harvested to release higher-quality, healthier trees. Where present, healthy oak and hickory trees should be favored for retention. Most of the white ash should be removed in anticipation of the imminent threat of emerald ash borer.

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Oak (41.0 acres)
Species composition in the overstory is black oak, white oak, chestnut oak, and the occasional white ash and pignut hickory. The understory species are white ash, sugar maple, American beech, pignut hickory, black gum, and ironwood. Many white oaks are exceptional quality on the lower slopes where this subdivision blends with the mixed hardwoods. Sawtimber tree basal area is 99.3 square feet per acre for this subdivision. Again, single tree selection should be used to harvest. Codominant and dominant trees should be and thinned to maximize vigor and quality. There is very good potential for future oak trees that are currently intermediate and suppressed but that have small diameters and straight clear lower boles. Special concern should be taken while harvesting these trees and around the remaining quality and prime trees.

Chestnut Oak (15.0 acres)
Overstory species are chestnut oak with the occasional shagbark hickory, sugar maple, and pignut hickory. The understory is dominated by chestnut oak, sugar maple, and pignut hickory, with sassafras and Virginia pine in places. Chestnut oak and Virginia pine are regenerating fairly well in the understory. Part of this subdivision experienced a fire in 1999 that left scars on the bottoms of most chestnut oak trees. Saw timber tree basal area is 121.7 square feet per acre for this subdivision. Single tree and group selection should be used to harvest this subdivision. Openings would be appropriate in the fire damaged area to return healthy trees to the area. Elsewhere, the subdivision should be thinned to favor retention of the higher quality stems with healthier crowns.

Campground (11.5 acres)
This area has few trees that are all large and an open understory. It was not inventoried and will not be included in the proposed harvest.

Overall Tract Prescription and Proposed Activities

The harvest should be single tree selection with a few small openings and canopy gaps. Harvesting will remove approximately 101,640 board feet of timber from the estimated total of 574,670. The harvest should leave an uneven aged stand that mimics natural processes to encourage vigorous growth and health. The remaining trees should be healthy. The harvest should occur in the next five to ten years. Following the timber harvest, timber stand improvement should be conducted to complete openings, deaden culls, and release any trees not sufficiently released during the harvest. Another inventory and management guide should be completed in 20 years following completion of the harvest.

The harvest will have minimal impact on the soils, hydrology, wildlife, and recreation. Because high-use areas (roads, hiking trails, and campground areas) surround the tract, appropriate posting of restricted access will be necessary during the harvest. Following BMP's will ensure that minimal sediment will reach Knob Lake.

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Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Mark harvest and sell timber	2014-2020
Post-harvest TSI	2015-2022
Review any openings greater than one acre for regeneration	2016-2023
Inventory and Management Report	2040

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RESOURCE MANAGEMENT GUIDE

INVENTORY SUMMARY

		Compartment:	1
Jackson-Washington State Forest		Tract:	14
Forester:	Matt Vellella	Date:	12/16/10

ACREAGE IN:	
Commercial Forest	61
Non-Forest	12
TOTAL AREA	73

B.A. Culls	0.7
B.A. Sawtimber Trees	78.6
B.A. Trees < 12"	39.8
Total B.A./Acre	119.1

	GROWING STOCK (BF)	HARVEST STOCK (BF)	TOTAL VOLUME (BF)
Chestnut oak	243,640	51,720	295,360
White oak	105,830	3,040	108,870
Black oak	47,490	12,330	59,820
Yellow-poplar	18,340	0	18,340
Pignut hickory	16,020	2,010	18,030
White ash	3,080	13,380	16,460
American beech	7,820	7,390	15,210
Northern red oak	12,530	2,220	14,750
Sugar maple	2,660	8,890	11,550
Scarlet oak	6,390	0	6,390
Virginia Pine	3,440	0	3,440
blackgum	1,720	670	2,390
Red maple	2,280	0	2,280
Shagbark hickory	1,160	0	1,160
Red elm	640	0	640
TRACT TOTALS	473,020	101,640	574,670
PER ACRE TOTALS	7,750	1,670	9,420

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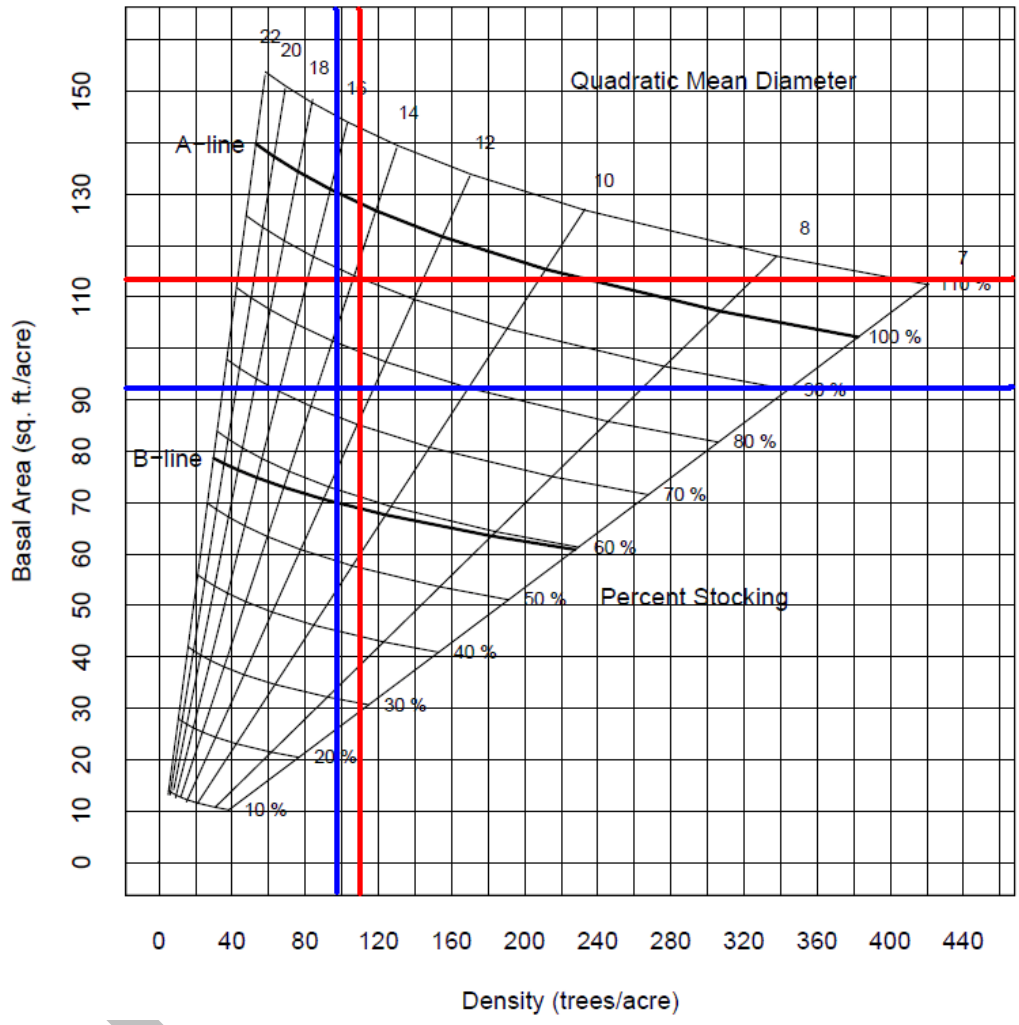
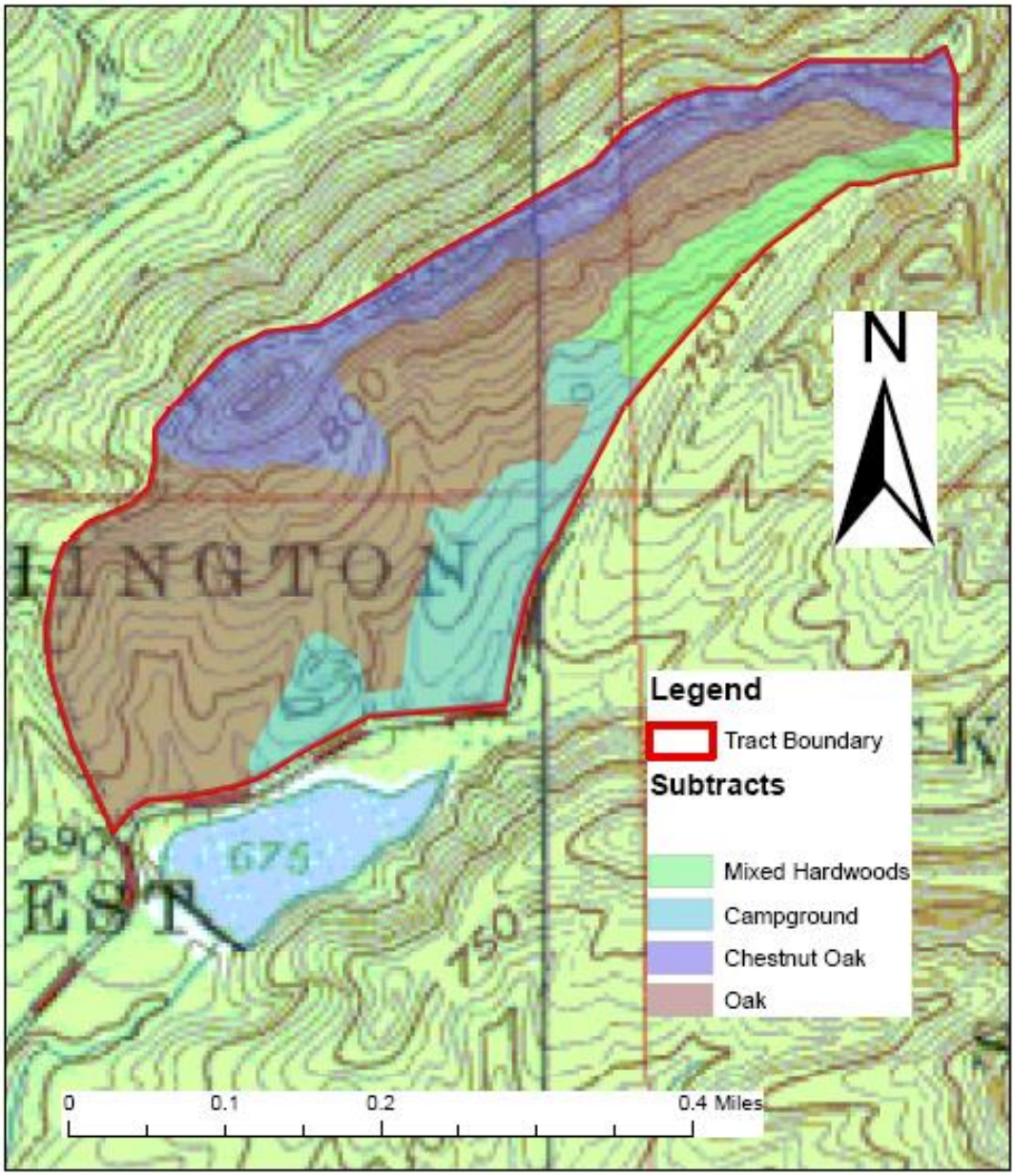
JWSF Resource Management Plan
C 01 T 14 Tract Stocking
December 2010 Inventory
61 acres



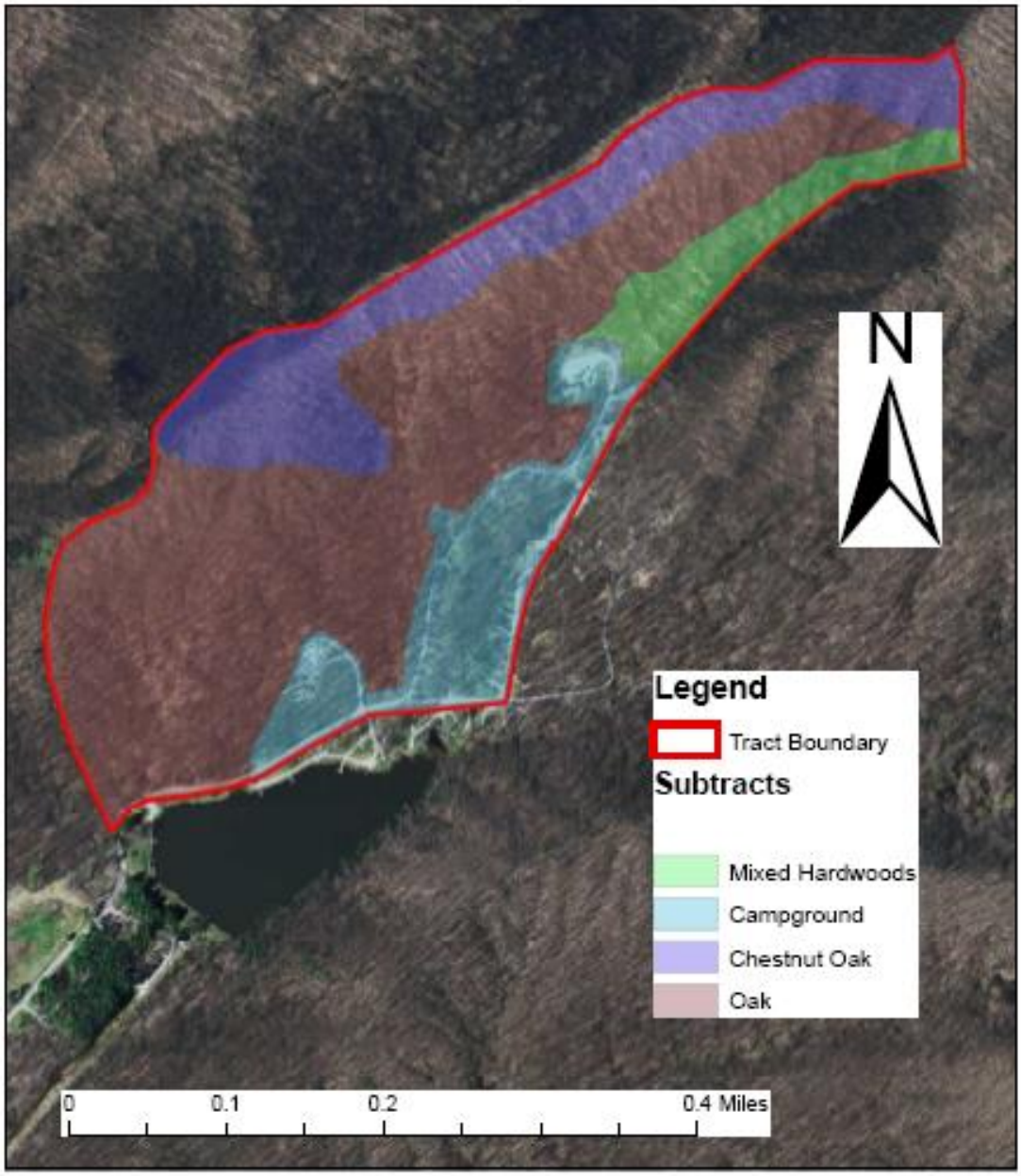
Pre-Harvest Inventory Data in Red
Total BA/A = 112.2
Total #trees/acre = 111
Avg. tree diameter = 13.8 inches
Percent stocking = 90%

Post-Harvest Inventory Data in Blue
Total BA/A = 91.8 sq.ft./AC
Total #trees/acre = 99
Avg. tree diameter = 13.2 inches
Percent stocking = 74%

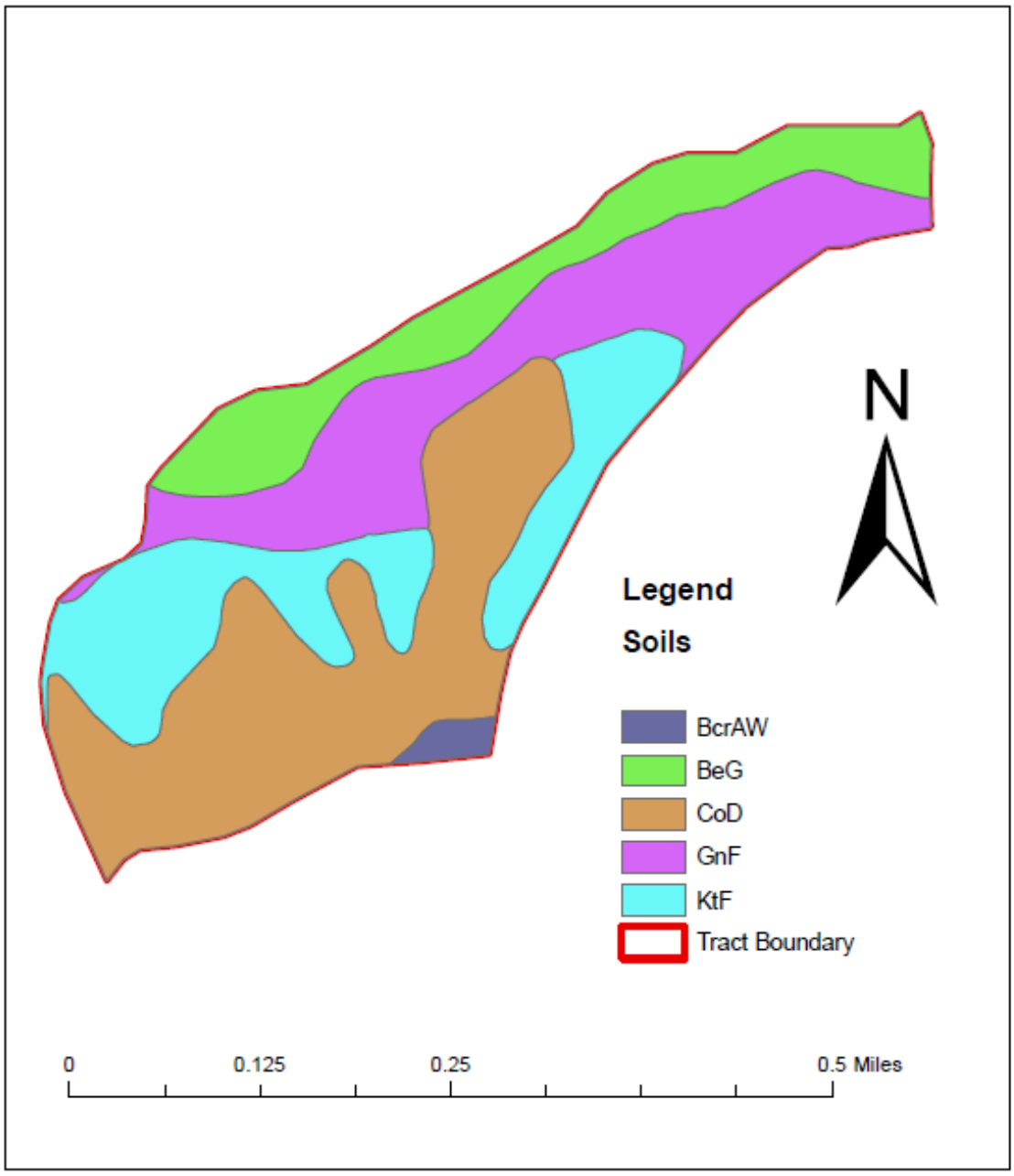
Tract Subdivision Map
Compartment 1 Tract 14
Jackson-Washington State Forest



Tract Subdivision Map
Compartment 1 Tract 14
Jackson-Washington State Forest



Soils Map
Compartment 1 Tract 14
Jackson-Washington State Forest



Public Comment: This plan was posted on the IDNR website on December 17, 2013. A comment was received within 30 days and a response was issued by the DoF. No changes to the guide are necessary. The plan may be implemented as written.

Resource Management Guide Amendment

State Forest: Jackson-Washington

Date: 10/07/2022

Compartment: 01

Tract: 14

During a recent field reconnaissance, the following changes were noted. First, sassafras seedlings constitute the primary regeneration in the oak cover type. However, pignut and shagbark hickory seedlings and some Northern red and chestnut oak seedlings are scattered throughout as well. A prescribed fire regime should be developed for the tract and implemented following a harvest and post-harvest TSI to improve microclimate conditions for species that require scarification, sunlight, and contact with bare mineral soil to germinate. Second, at the transition between the chestnut oak and oak cover types, mixed hardwood species have become more predominant. Tulip poplar, sugar maple, and American beech have outcompeted and displaced the oaks that were present during the inventory. Third, some isolated pockets of grapevine and Japanese stiltgrass were noted in the central portion of the tract. However, their presence is minimal and will not require treatment prior to management activities. Finally, according to the Natural Heritage Database, one occurrence of thread-like naiad has been documented in the review since the inventory. However, the plant is located at least half a mile south of the tract; therefore, no adaptions to management activities will be necessary.

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RESOURCE MANAGEMENT GUIDE

State Forest: Jackson-Washington Compartment: 1 Tract: 15
Forester: D. Potts Date: April 11, 2013
Management Cycle End Year: 2037 Management Cycle Length: 24years

Location

This tract is located in Jackson County in sections 17 and 18 of township 5 N, range 5E. From Brownstown, take State Road 250 southeast for two miles to the entrance of Jackson-Washington State Forest. From the entrance travel northeast for .8 mile to the access road the leads into the tract; it is on the north side of the road, across from the dam.

General Description

The tract is 60 acres and all acres are considered commercial forest. This tract is comprised of stands of oak, mixed hardwoods. Snags abound throughout.

History

The tract is comprised of 5 separate land acquisitions. A portion of the tract came from a purchase of 40 acres from Wilbur D. Dersch, in 1995. Another portion of the tract came from a purchase of 40 acres from Willard Gossman and Marye C. Gossman, in 1931. A portion of the tract came from a purchase of 40 acres from Hettie A. Doerr, in 1931. A portion of the tract came from a purchase of 40 acres from Charles T. Brandenstein, in 1931. A portion of the tract came from a purchase of 40 acres from Matthias Gossman and Annetta Gossman, in 1931.

According to the compartment/tract folder for this tract the first recorded management activity occurred in 1971 and was a management plan. There is no data associated with the management plan only a paragraph write-up. The plan states that "It is an excellent site and has the highest volume per acre of any tract yet cruised on the forest." The plan recommends waiting 10 years for a harvest.

The next recorded activity was an inventory and management guide in 1979 that indicated a tract total volume of 440,931 bd.ft. (7,228 bd.ft./acre) with a recommended harvest volume of 221,664 bd.ft. (3,634 bd.ft./acre).

The next recorded activity was a white oak veneer sale in 1979 with 15,491 bd. ft. sold for $10,777.00. Following the veneer sale, a mixed hardwood sale occurred in 1981 with 129,955 bd. ft. being sold for $23,501. The management plan mentions that 25% of the volume removed in 1981 was from dead trees. The plan indicates a possible cause of mortality being several factors including: severe winters of 1977-78-79, dry summers, epidemic populations of loopers and canker worms, and finally two-lined chestnut borer.

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Landscape Context
The tract is completely surrounded by steep hills and forested lands which are primarily used for timber production, recreation, and hunting. There is very limited agriculture being practiced within a one mile radius. Development is limited and primarily consists of single-family residences.

Topography, Geology and Hydrology
Proper implementation of Best Management Practices during and after the harvest will minimize impacts to water quality. Parent materials of the soils in this tract are siltstone and shale. Topography ranges from gentle to steep.

Soils
Beanblossom silt loam (BcrAW) (2.25 acres) This deep, well drained soils that formed in 0 to 24 inches of medium-textured alluvium and the underlying loamy-skeletal alluvium. The Beanblossom soils are on flood plains and alluvial fans below steep and very steep hillslopes. Native vegetation is deciduous forest, dominantly sycamore, elm, hickory, beech, maple, and tulip poplar. This soil is well suited to trees. Plant competition is moderate. Seedlings survive and grow well if competing vegetation is controlled. Preferred trees to manage for are bitternut hickory, white oak, sugar maple, and yellow-poplar.

Berks channery silt loam (BeG) (14.45 acres) This steep and very steep, moderately deep, well drained soil is on side slopes and knolls in the uplands. Slopes are 25 to 75 percent. The native vegetation is hardwoods. It is fairly well suited to trees. The equipment limitations, seedling mortality, and the erosion hazard are management concerns. Overstocking helps to compensate for seedling mortality. Building logging roads and skid trails on the contour and constructing water bars help to control erosion. North aspects generally are more productive than south aspects. The site indexes for hardwood species range from 70 (white oak) to 90 (yellow-poplar). Preferred trees to manage for are black oak, chestnut oak, scarlet oak, red oak, and white oak.

Coolville silt loam, 12 to 20 percent slopes (CoD) (1.18 acres) This moderately well drained soil has a seasonal high watertable at 1.0 to 2.0 ft. and is on side slopes on uplands. Slopes are 12 to 20 percent. The native vegetation is hardwoods. The surface layer is silt loam and has moderately low or moderate organic matter content (1.0 to 3.0 percent). Permeability is very slow (<0.06 in/hr) in the most restrictive layer above bedrock. Available water capacity is moderate (6.6 inches in the upper 60 inches). The pH of the surface layer in non-limed areas is 3.5 to 5.5. Bedrock is at a depth of 40 to 60 inches. This soil type has a site index of 66 for northern red oak.

Gilpin silt loam, 25 to 55 percent slopes (GnF) (30.66 acres) This well drained soil has a water table at a depth greater than 40 inches and is on side slopes on uplands. Slopes are 25 to 55 percent. The native vegetation is hardwoods. The surface layer is silt loam and has moderate organic matter content (2.0 to 4.0 percent). Permeability is moderate (0.6 to 2.0 in/hr) in the most restrictive layer above bedrock. Available water capacity is

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low (4.8 inches in the upper 60 inches). The pH of the surface layer in non-limed areas is 3.5 to 5.5. Bedrock is at a depth of 20 to 40 inches.

Kurtz silt loam (KtF) (38.79 acres) (10.54 acres) This series consists of deep, well drained soils on hills. They formed in residuum weathered from interbedded soft siltstone and shale bedrock. Slopes range from 20 to 55 percent. Most Kurtz soils are in forest. Native vegetation consists of mixed hardwood with oaks, hickory, beech and yellow-poplar. These soils a well suited to trees. The potential productivity or site index for this soil type is 60 (northern red oak). Preferred trees to manage for are black oak, chestnut oak, persimmon, northern red oak, scarlet oak, shagbark hickory, American beech, sugar maple, and white oak.

Wellston silt loam (WeD2) (0.83 acres), **12 to 18 percent slopes, eroded**
This well drained soil has a watertable at a depth greater than 40 inches and is on flood plains. Slopes are 12 to 18 percent. The native vegetation is hardwoods. The surface layer is silt loam and has moderately low or moderate organic matter content (1.0 to 3.0 percent). Permeability is moderate (0.6 to 2.0) in the most restrictive layer above bedrock. Available water capacity is moderate (7.3 inches in the upper 60 inches). The pH of the surface layer in non-limed areas is 3.5 to 5.5. Bedrock is at a depth of 40 to 72 inches.

Access
The main road leading into Jackson-Washington State Forest does not have an official road name, but is labeled as “Camp Road” on Google Maps. The road is paved and provides primary access to the tract, via the fire trail entrance northwest of the Knob Lake dam. It intersects State Road 250 S just southeast of County Road 100 E, southeast of Brownstown. Within the tract the topography should not limit equipment access anywhere across the site.

Boundary
The tract is enclosed by Jackson-Washington State Forest property and does not touch private property on any side. This tract is bounded by trail 10 on the North, East, and South. The western boundary is a ridgetop running down to a mapped intermittent drainage.

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Wildlife

Wildlife Habitat Feature Tract Summary

	Maintence level	Optimal level	Inventory	Available above maintence	Available above optimal
Snags (all species)					
5"+ DBH	240	420	282	42	-138
9"+ DBH	180	360	282	102	-78
19"+ DBH	30	60	86	56	26

Maintenance level for the number of snags is exceeded in all DBH classes and optimal level is exceeded for the 19" + DBH classes. No other action is needed within this tract. The snags present on the site provide great roosting habitat for the Indiana bat and TSI after the harvest should create more. Openings created by the harvest are also important to providing bats with ideal roosting habitat. Single tree selection and group selection openings will create more habitat types, mast and browse for wildlife. The harvest will not produce fragmentation or disrupt any travel corridors and any openings are meant to mimic natural disturbance that occurs in unmanaged stands, such as a wind event or a tornado. Proportions of cover types will slightly change in the short term but will return to current ratios in the future. Wildlife that are specialist interior forest species will benefit from a new diversity of food sources while generalist species would not have enough habitat created from these small openings to compete with those interior specialists.

The Natural Heritage Database lists an occurrence of the Indiana Bat within a one mile radius of the tract. Due to the habitat requirements of the Indiana Bat a timber harvest will likely provide additional habitat, through the creation of additional snags created during post harvest timber stand improvement (TSI), and enhanced foraging in canopy gaps and openings.

Communities

The Natural Heritage Database indicated two plant species and a terrestrial community that are within or near the tract. The plant species are the Carolina fanwort and the thread-like naiad; the terrestrial community is a siltstone glade. Both the Carolina fanwort and the thread-like naiad are aquatic/riparian plants and will not be impacted by activities within the tract. The siltstone glade is located outside of the tract and will not be impacted by a harvest.

Japanese stilt grass, is an exotic plant, and was found on the hiking trails and firelanes near and within the tract.

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Forest Condition
According to the inventory data, a harvest will drop the basal area from 112.2 square feet to 86.1 square feet and the number of trees per acre will be reduced from 98 to 86. This will in turn decrease stocking from 88% to 69%.

Recreation
The primary recreational use of this tract is by hikers, wildlife viewers, and hunters. This tract contains hiking trails 1 and 10. During the proposed harvest, portions of the trails will be shut down for public safety.

Cultural
No cultural resources have been identified at this time.

Tract Subdivision Description and Prescription

Oak-Hickory (41 acres) The overstory species, within this subdivision, are primarily chestnut oak, northern red oak, and white oak. Those three species account for nearly 85% of the estimated total volume within this subdivision. The understory species are mostly sugar maple and yellow poplar. Regeneration consisted mostly of sugar maple and American beech, although a small number of chestnut oak seedlings were present. The timber marking within this subdivision will focus on single tree selection. Whereas trees with good form and growth are released through the removal of slower growing, damaged and trees with poor form. Single tree selection should focus on maintaining and enhancing the oak-hickory forest type. Due to drought, past fire damage, and wind-throw, regeneration openings within this subdivision will be necessary. The size and number of openings will vary depending upon several factors, one of them being the number of hollow trees in a given area. One particular area (approximately middle of tract, directly west of the eastern tract boundary) had an excessive amount of grapevines. These grapevines should be cut and treated with herbicide, as the crowns of the trees within this particular area are being overtaken and their growth is suffering.

Mixed Hardwood (19 acres) The overystory species, within this subdivision, are yellow poplar, sugar maple, American beech and white oak. These four species account for nearly 75% of the estimated volume. The understory species are mostly sugar maple and American beech. Regeneration consisted primarily of sugar maple and American beech. This subdivision contains several pockets of black walnuts, including some young high quality stems. There are many excellent white oaks within this subdivision as well. Single tree selection will focus on promoting the growth of these high quality black walnuts and white oaks, by removing less desirable competitors. Due to drought, past fire damage, and wind-throw, regeneration openings within this subdivision will be necessary. The size and number of openings will vary depending upon several factors, one of them being the number of hollow trees in a given area. The number and size of regeneration openings will vary depending upon the condition of trees within the area when the timber marking takes place.

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Overall Tract Prescription and Proposed Activities

The tract should receive a single-tree and group selection improvement harvest in 2015, in conjunction with compartment 01 tract 12 (see compartment 01 tract 12 management guide for details). An emphasis in the marking should be to favor quality oaks and hickories, those with little decay, good form and growth characteristics. The number of regeneration openings and size of openings will vary based on the conditions discovered in the field. Following these recommendations should provide for a tract of well stocked healthy and more vigorous growing stock. An area, located within the oak-hickory subdivision, with an excessive amount of grapevines should be treated prior to the start of harvest operations. Silt grass should be sprayed prior to harvest operations. During and after harvest operations best management practices (BMP's) will be implemented to minimize the impact to soil and water resources. Following the harvest, timber stand improvement should be performed to remove grapevines, reduce American beech and sugar maple saplings that are competing with or hampering oak regeneration, release future crop trees and to deaden (non-merchantable) trees not removed during the harvest. A re-inventory should occur in 20 years, following the harvest.

Proposed Activities Listing

Proposed Management Activity	*Proposed Date*
Pre-harvest grapevine control	2014-2015
Spray stilt grass	2014-2015
Mark harvest and sell timber	2015-2017
Post-harvest TSI	2017-2018
Inventory and Management Guide	2037

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TM 901 RESOURCE MANAGEMENT GUIDE				
INVENTORY SUMMARY				
			Compartment:	1
Jackson-Washington State Forest			Tract:	15
Forester:	D. Potts		Date:	3/5/13

ACREAGE IN:	
Commercial Forest	60
Non-Commercial	0
Other Uses	
TOTAL AREA	60

(Estimated Tract Volumes for Commercial Forest Area-Bd.Ft., Doyle Rule)

SPECIES	HARVEST STOCK	GROWING STOCK	TOTAL VOLUME
chestnut oak	99260	244240	343500
yellow poplar	36970	55350	92320
sugar maple	21230	56690	77920
northern red oak	11830	63080	74910
white oak	0	63260	63260
American beech	3400	20490	23890
sweetgum	0	12910	12910
pignut hickory	7170	4590	11760
shagbark hickory	0	10580	10580
black oak	0	9410	9410
blackgum	7210	1910	9120
white ash	4680	0	4680
hackberry	0	4230	4230
black walnut	0	3120	3120
sassafras	0	2930	2930
TRACT TOTALS	191,750	552,790	744,540
PER ACRE TOTALS	3,196	9,213	12,409

PREVIOUS CRUISE DATA				
DATE:	March, 1979	GROWING STOCK	HARVEST STOCK	TOTAL VOLUME
PER ACRE TOTALS		219,266	221,664	440,931

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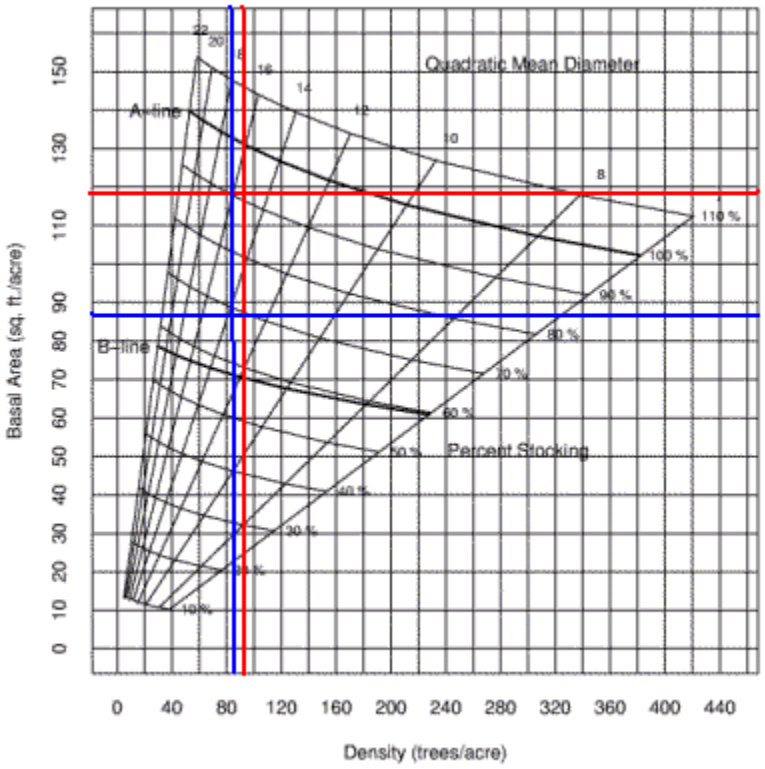
Stocking Guide

Compartment 1 Tract 15
2012 Inventory
60 acres



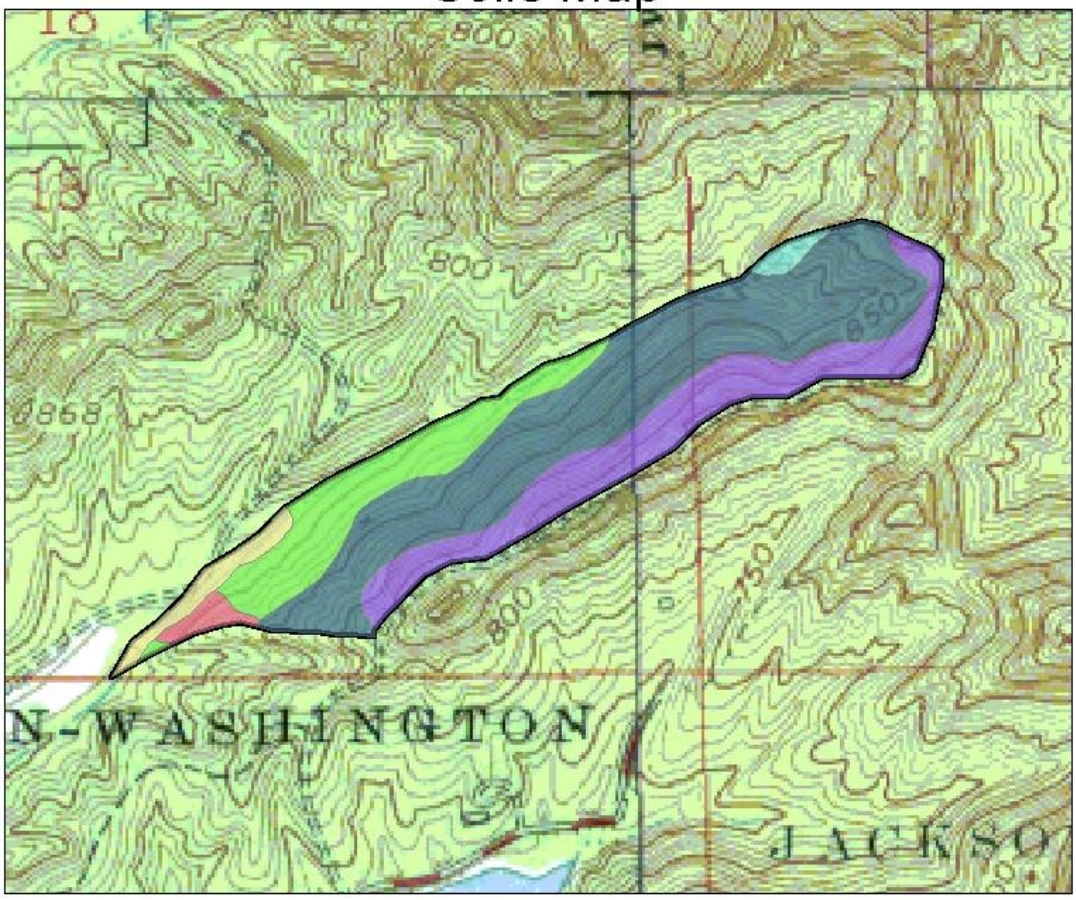
Pre-Harvest Inventory Data in Red

Total BA/A = 112.2 sq.ft./AC
Total #trees/acre = 98
Avg. tree diameter = 15 inches
Percent stocking = 88%

Post-Harvest Inventory Data in Blue

Total BA/A = 86.1 sq.ft./AC
Total #trees/acre = 86
Avg. tree diameter = 14 inches
Percent stocking = 69%

Jackson-Washington State Forest
Compartment 1 Tract 15
Soils Map



Legend

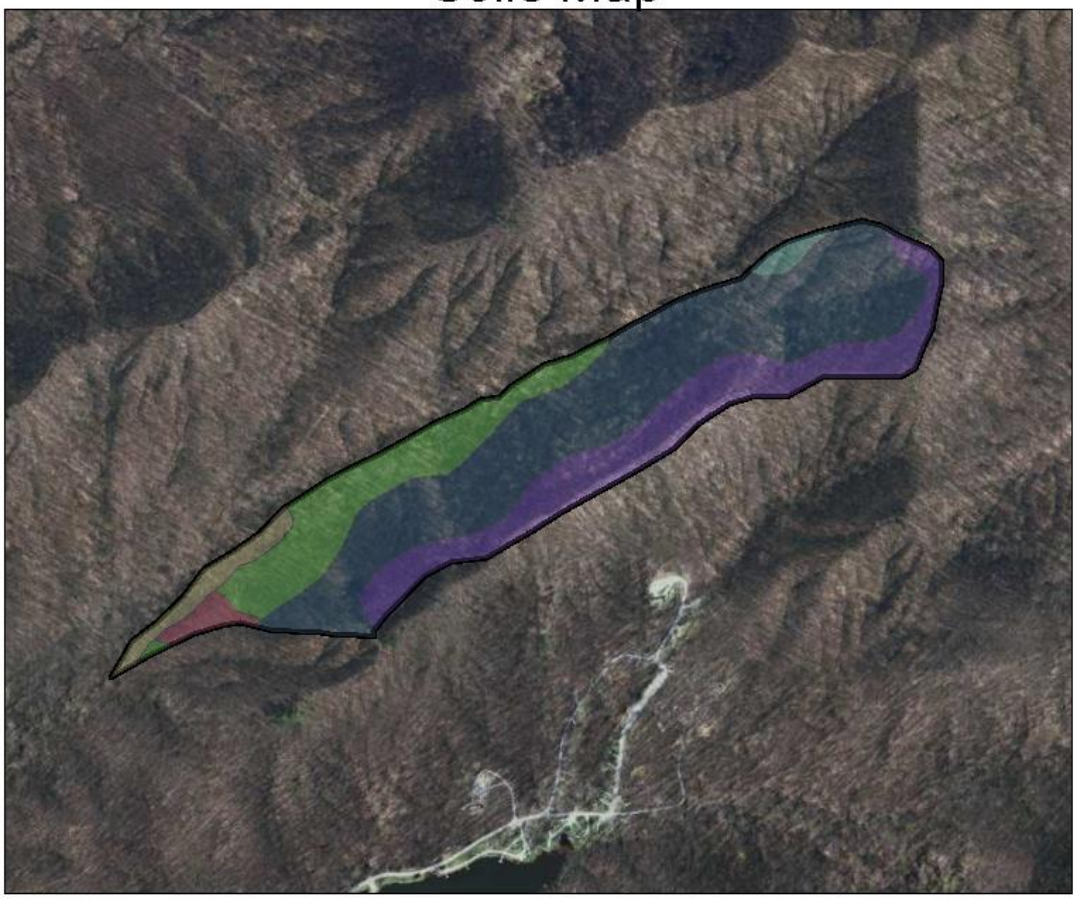
Soil s

- BorA/W
- BeG
- CoD
- GnF
- KtF
- WkD2
- Tract boundary

N W E S

0 0.05 0.1 0.2 0.3 0.4 Miles

Jackson-Washington State Forest
Compartment 1 Tract 15
Soils Map



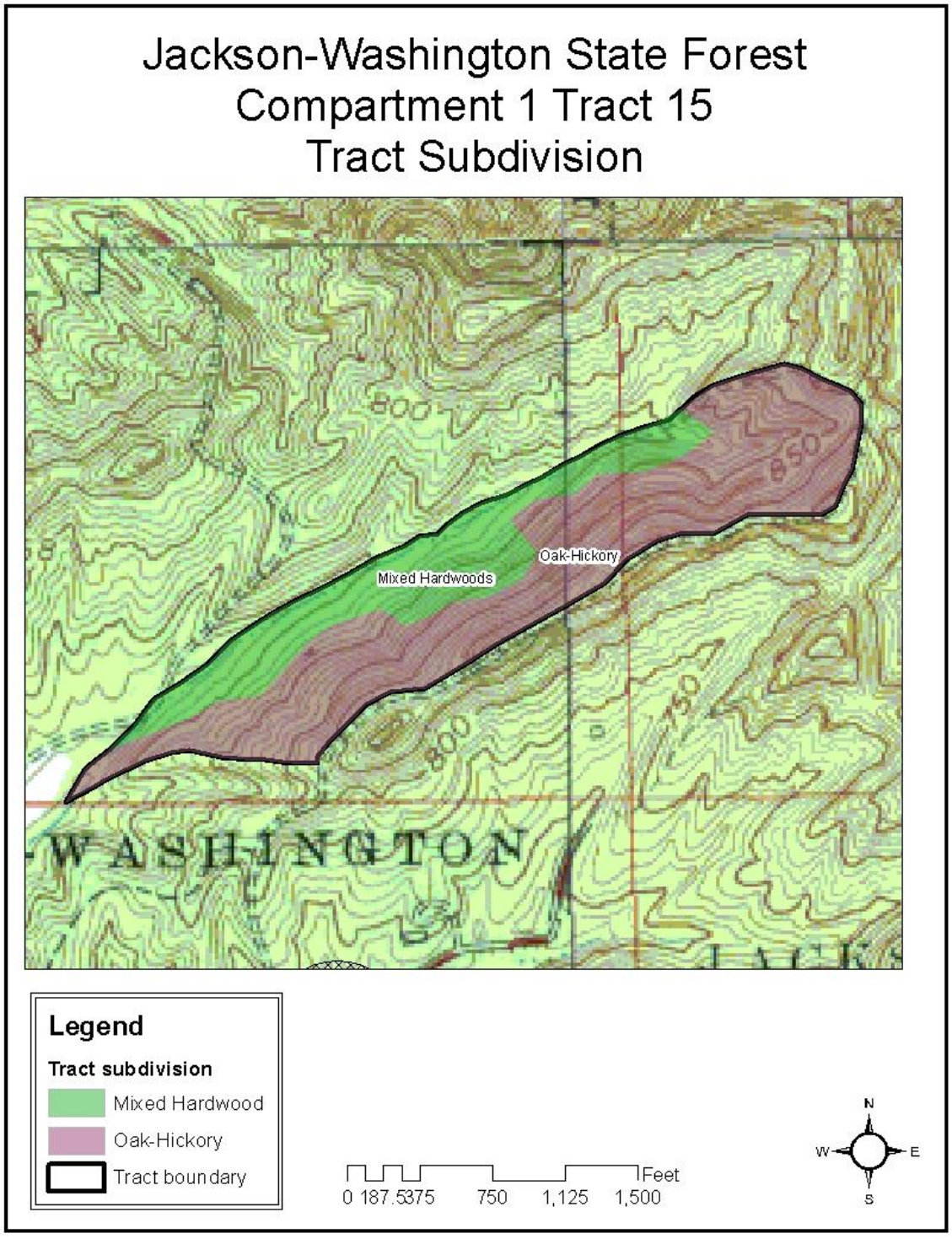
Legend

Soil ı

- BorA/W
- BeG
- CoD
- GıF
- KtF
- WkD2
- Tract boundary

N W E S

0 0.05 0.1 0.2 0.3 0.4 Miles



PUBLIC REVIEW

This plan was posted on the IDNR website on July 17, 2013. No comments were received about the plan. The plan may be implemented as written.

Resource Management Guide Amendment

State Forest: Jackson-Washington

Date: 9/26/2022

Compartment: 1

Tract: 15

In Mixed Hardwoods the overstory was predominately Sugar Maple with some Beech, Tulip Poplar, Red Oak, and White Oak. Yellow Poplar no longer dominate the overstory in Mixed Hardwoods. Grapevines in bottoms are present but not excessive as stated previously. The understory is dominated by maple and beech and regeneration is also primarily these two species with some oak seen in both Mixed Hardwoods and Oak Hickory timber types Starting within two years following post-harvest TSI a prescribed fire regime should be established to reduce the understory and improve oak seed germination to promote species which require light and contact with bare mineral soil for seed germination. While no threatened or endangered species were found within the tract, thread-like naiad, Indiana bat, and siltstone glade ecosystem was found within a mile of the tract.

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