

RESOURCE MANAGEMENT GUIDE

Forester: Jim Lauck
State Forest: Martin State Forest
Township: 4 North
Management Cycle End Year: 2017

Cruised by: Michael Ranniger
Compartment: 03
Range: 3 West
Management Cycle Length: 10 years

Date: 7/25/07
Tract: 03
Section(s): 26
Total Acres: 136

FORESTER'S NARRATIVE

By Michael Ranniger

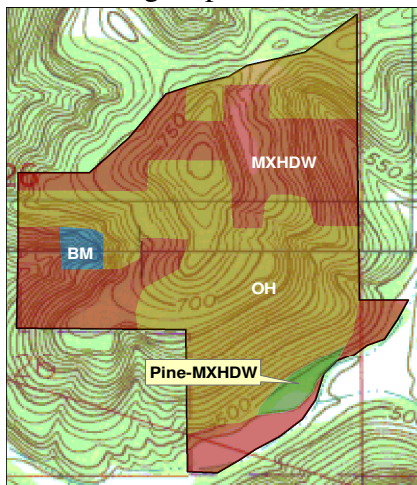
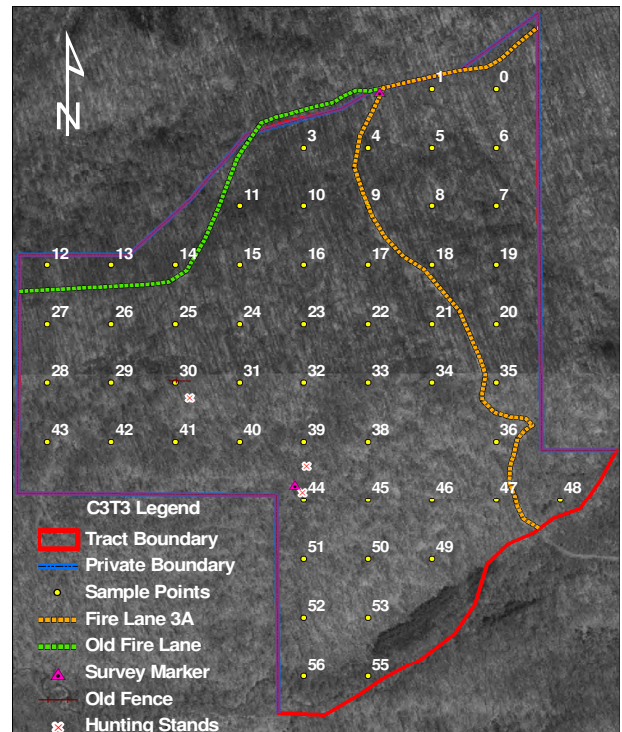
ROADS AND BOUNDARIES:

This tract is surrounded by private land on the east, west, southwest, and northern boundaries. The east, west, and north boundaries have state forest boundary stakes every few chains. Pink boundary flagging may still be visible on the eastern boundary.

Access to the tract is good thanks to two fire lanes. Fire lane 3A comes in on the southeast corner, and travels through the east and north central areas before exiting along the northeast corner. An old fire lane runs along the northern boundary. It previously made up the state forest and private land boundary, but recent surveying has placed different sections of the road on each property. Both fire lanes are a dirt-gravel-grass surface and fairly well maintained.

TRACT DESCRIPTION:

The overall topography for this tract is a hilltop in the central part of the tract, and slopes outward in all four directions. The predominant forest type in this tract is young to middle aged, oak-hickory, shown in brown on the map. It makes up about 60 percent of the saw-timber inventoried. In most of this area, trees are of good quality and are well spaced. Mature timber is present, but most trees have room to grow. The south facing slope in the southeast portion of the tract contains good quality white oak of medium



sawtimber size, but has very little oak regeneration. The understory is dominated by sugar maple. Prior to the next harvest, oak regeneration should be encouraged. Mixed hardwoods (shown in red on the map) make up about 34 percent of the tract. The mixed hardwood stands are dominated by tulip poplar. Many of these areas were likely old fields that have reverted to tulip and sassafras. The sassafras is declining and falling out of the canopy. An old opening created in 1993 is located in the east central portion of the tract just west of the deep ravine. This opening reverted to tulip poplar. Stem quality is poor due to numerous grapevines. Pine-MXHDW (shown in green on the map) and beech-maple (shown in blue on the map) each make up about three percent of the tract timber. The small beech-maple stand was predominantly small to medium sized sugar maples. Beech, maple, and yellow poplar were

the dominant pole-timber present throughout the tract.

Vines occasionally showed up in parts of the tract with a heavy concentration of vines in the south and southeastern areas along the low bottomland and in an old opening located just west of Firelane 3A. TSI work will be needed before too long to keep the growth under control.

The hilltop area contained several open-mature timber areas that could benefit from a harvest in the next five to 10 years. Quite a few wolf trees are present on the highest area of the ridge. They were open grown in the past and as a result have poor form. They will be harvested in the next timber sale.

Several illegal, permanent tree stands were located along the southwest corner, as well as remnants of an old fence marked on the map.

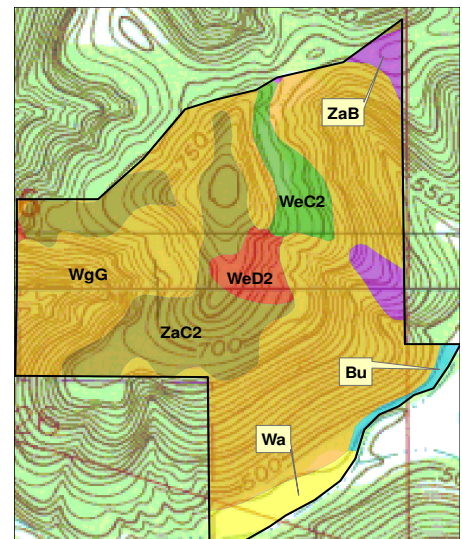
SOILS:

65 percent of this tract is underlain by Wellston-Berks-Gilpin. complex, with 18-70 percent slopes. It is colored orange on the map. These well-drained soils are found on most of the side slopes in this tract and are characteristically deep to moderately deep. Erosion hazards are moderate to severe on these soils.

About 20 percent of this tract is underlain by Zanesville silt loam. This soil is colored brown and purple on the map and is found on some ridgetops and upper side slopes. It is a moderately sloping, deep, well to moderately well drained soil. This is underlain by a silt loam fragipan, which restricts root penetration and downward water movement. This restriction to water movement often results in saturated soil conditions in the winter and spring. Hazards and equipment limitations are slight for this soil; however, winter/spring logging may be restricted due to the saturated soil conditions.

Thirteen percent of the tract is underlain by Wellston silt loam. This soil is coded red, yellow, and green on the map. This sloping, deep, well-drained soil is found along slopes along drainages in upper lands. Erosion will be a limiting factor when it comes to the logging operations, as this soil is highly erode-able.

Burnside loam, occasionally flooded, covers about two percent of the tract. This soil is blue on the map, and is a nearly level, deep, well-drained soil found along streambeds. It is flooded for brief periods throughout the year. Erosion and equipment limitation hazards are slight on this soil.



HISTORY:

Timber Management

This tract was pieced together from several land transfers in 1940. Dating back to 1889, Joshua Crim and George Buman each sold many acres within the tract, to Reany Bowden. All of this land eventually ended up in the hands of William Gerkin, who transferred it to the state in 1940. Henry Paull sold approximately 40 acres in 1940, for \$225.00. George Medford transferred 128 acres to the state in 1940, of which, several acres were also within the tract boundary.

Timber inventories were done on this tract in 1986 and 2007. An earlier inventory was possibly done before 1986. A timber harvest was completed on this tract in 1993. Wright Timber paid \$106,000.00 for 1,202 trees, having a net volume of 235,898 BF. Results of this harvest are still visible in the tree spacing and group openings.

Cultural Resources

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.

RECREATION AND WILDLIFE:

Several species of game and non-game wildlife can be found in this tract including deer, turkey, turtles, squirrels, chipmunks, etc. The tract is useful for hunting and gathering because of the variety of habitat and tree species present. Hunting along the central hilltop area was apparent from the numerous deer stands found.

A review on the Natural Heritage Database showed a report of a bobcat near the tract from 1988 and multiple reports of aquatic species in the White River (mussels and darters). None of these will be impacted by any proposed forest management work in the tract.

Snags and legacy trees were tallied as part of the inventory. At the time this inventory was done, the Division of Forestry had not begun tallying cavity trees. The results of the snag and legacy tree inventory meet the maintenance level requirements.

INVASIVE SPECIES:

Small areas of multi-flora rose were noted in the more open areas of the tract. The rose seemed to be declining and poses no real threat to the health of the forest, but it will be monitored.

WATERSHED:

This tract drains to the south, southwest, and east. Some drainage ditches contained slow flowing water. The only continuous flowing creek is located in the southern, lowland area. This creek is unnamed on the map. The drainage from this tract eventually winds up in the East Fork of the White River, to the west of the tract.

RESOURCE MANAGEMENT GUIDE

STATE FOREST: Martin

COMPARTMENT: 03

TRACT: 03

INVENTORY SUMMARY

ACREAGE IN:

Commercial Forest:	136	Average Site Index:	87.6
Non-Commercial Forest:	--	Average Annual Growth:	39 BF/ac
Recreation Use:	--	Total B.A. / Acre	90.2
Permanent Openings:	--	B.A. - Trees ≥14":	46.1
Other Openings:	--	B.A. - Trees <14":	44.1
TOTAL AREA:	136		

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

<u>Species</u>	<u>Growing Stock</u>	<u>Harvest Stock</u>	<u>Total Volume</u>
American Beech	-0-	9,780	9,780
American Sycamore	-0-	3,480	3,480
Basswood	2,060	-0-	2,060
Black Cherry	-0-	3,930	3,930
Blackgum	-0-	-0-	-0-
Black Oak	106,570	49,930	156,500
Black Walnut	-0-	1,820	1,820
Chinkapin Oak	-0-	-0-	-0-
Honeylocust	1,510	2,570	4,080
Northern Red Oak	33,140	11,800	44,940
Persimmon	-0-	-0-	-0-
Pignut Hickory	25,620	5,410	31,030
Red Maple	5,630	2,630	8,260
Sassafras	7,300	-0-	7,300
Shagbark Hickory	10,060	-0-	10,060
Sugar Maple	22,850	2,030	24,880
White Ash	13,690	11,830	25,520
White Oak	181,150	15,200	196,350
Yellow Poplar	84,920	52,320	137,240
TOTALS (tract)	492,440	159,470	651,910
TOTALS (per acre)	3,620.9	1,172.6	4,793.5

TM 903

RESOURCE MANAGEMENT GUIDE

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Cruised by: Michael Ranniger

Date: 4-16-10

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Compartment: 03

Tract: 03

Township: 4 North

Range: 3 West

Section(s): 26

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SILVICULTURAL PRESCRIPTION

By: Abe Bear

The stocking level is good in this tract. Large trees are present, but they have room to grow and most are not suppressed by neighbors. No timber harvest is needed in the near future.

The lowest quality timber is located on the ridge top in the northern portion of the tract. Several wolf trees are present along with areas of low quality ash and sassafras. The next harvest (2017-2020) should focus on improving this area.

A regeneration opening created in 1994 has grown back to poplar, but grapevines are damaging many of the stems. These vines need to be controlled as soon as possible.

The south facing slope in the southern portion of the tract has a good overstory of oak, but contains no oak regeneration. Prior to a harvest, regeneration should be encouraged by removing the dense midstory sugar maple and prepping the seed bed via prescribed fire. Control lines would be the creek to the south, the firelane to the east, and hand line at the top of the slope on the north and along the private property line to the west.

The fire lanes running through the tract are good condition.

To submit a comment on this document, click on the following link:

http://www.in.gov/surveytool/public/survey.php?name=dnr_forestry

You **must** indicate 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.

TM 904

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Specific Practices For Accomplishment

By: Abe Bear

Year Planned	Practice	Year Accomplished
2010	Control grapevines in old opening and other areas of high concentration	
2012	Attempt to promote oak regeneration on southern slope via prescribed fire. This may take multiple burns.	
2017	Re-inventory	