

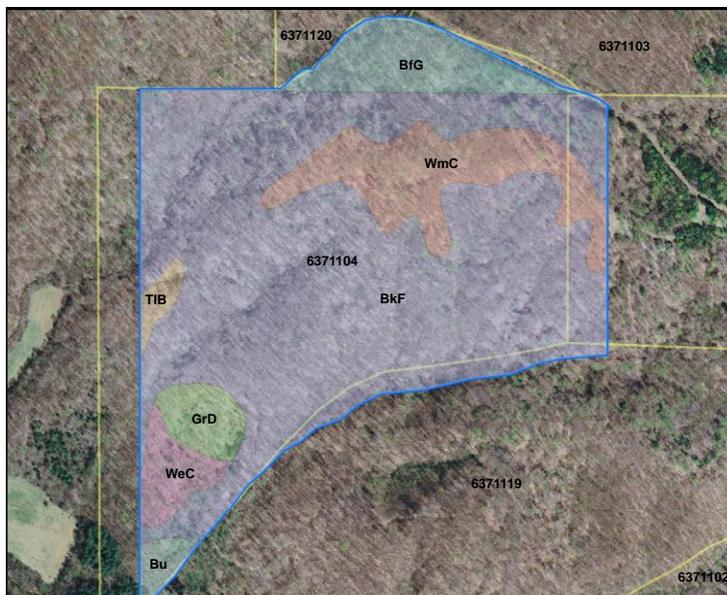
07/07/1998 Timber sale – 222,836 Bd. Ft. sold by Forester Hahn to Loggers Inc. for \$102,160.76
 09/28/1998 Harvest closeout completed
 10/31/2008 Boundary repainted by Intermittent Forester Hefner & Forest Spec2
 01/12/2011 Inventory completed by Intermittent Forester Tompkins

Landscape Context

This tract is surrounded by State Forest on the north and south sides and borders private properties to the northwest, west and east. Bordering properties are all forested. The western property bordering this tract contains a privately owned residence. Some lowland agricultural fields exist to the west of the tract.

Topography, Geology and Hydrology

The tract is comprised of about 23% ridge top and the remaining acreage covers all aspects with slopes ranging 5-65%. The soil types noted in next section are unglaciated soils and have formed from the bedrock material of sandstone, shale and siltstone. The tract has one perennial stream that makes up the northeast boundary and cuts through the northwest corner of the tract onto private land. There are two ephemeral streams in the tract, one starts in the center and runs west and the other flows west and makes up the southern tract boundary. All of these streams flow into Bryant Creek which drains into the White River.



Soils

BkF	Berks-Weikert complex	25 – 75% slope	Sandstone-Bedrock – 38”
SI – 70	Well drained. Most areas woodland. Soil suited to trees.		
70.6 Acres	Severely limited to dwellings with basements due to slope and bedrock.		
WmC	Wellston Gilpin silt loam	6 – 20% slopes	Bedrock – 46”
SI – 71	Well drained. Many areas in woodlands. Well suited to trees. Limited for building sites. Severe hazard to erosion due to silty loam soil content.		
11.66 Acres			
BfG	Berks Channery silt loam	35 - 80% slope	Sandstone-bedrock – 30”
SI – 70	Well drained. Most areas wooded. Soil suited to trees.		
7.41 Acres	Limited to building sites due to steepness of slope and depth of bedrock.		
WeC	Wellston-Gilpin silt loam	6 – 20% slopes	Sandstone-shale – 52”
SI – 71	Well drained, most areas wooded. Soil suited to trees.		
3.08 Acres	Severely limited to building sites due to steepness of slopes		
GrD	Grayford silt loam	12-18% slopes	Limestone bedrock – 56”

SI – 90 Deep well drained, mostly used for pasture. Soil well suited to trees.
 2.87 Acres Limited to buildings because of slope.
Bu Burnside silt loam. Nearly level. Sandstone-Bedrock – 44”
 SI – 95 Well drained. Many areas pasture or crops. Soil suited to trees.
 1.32 Acres Limited to building sites due to flooding. Absorption fields limited.

TIB Tiltsit silt loam 2 – 6% slopes Sandstone bedrock – 58”
 SI – 70 Well drained. A few acres in woodland. Soil is suited to trees.
 1.11 Acres Severe wetness due to fragipan. Somewhat limited for dwellings.

(Note: Building skid trails on the contour and constructing waterbars are measures taken to reduce erosion potential. SI = Site Index)

Access

Good access to this tract is available from the haul road running through Tract 19. The culvert in the unmapped intermittent stream separating tracts 19 and 04 is in need of repair.

Boundary

This tract is surrounded by State Forest on the north and south sides and borders private properties to the northwest, west and east. These private properties are forested along the boundary. The SW corner of this tract was set by DNR Surveyor Vollmer in 1988. The eastern private boundary borders a 40 acre private inholding. The S line of this private inholding was surveyed by DNR Surveyor Vollmer in 1989 which resulted in the establishment of the N & S corners of this East boundary. All boundary line remarkings are up to date with the tract boundaries being last repainted in October 2008.

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. The inventory for this tract included recording structural habitat features at each data point; these records include snag (dead, standing tree) counts. The results of these collected data for snag counts are included on the bat guidelines form for this tract.

Legacy trees*	Maintenance level	Inventory	Available above Maintenance
11" + DBH	882	2356	1474
20" + DBH	294	879	585

*Species include American elm, Bitternut hickory, Cottonwood, Green ash, Red oak, Post oak, Red elm, Shagbark hickory, Shellbark hickory, Silver maple, Sugar maple, White ash and White oak

Snags (all species)	Maintenance level	Optimal level	Inventory	Available above Maintenance	Available above Optimal
5" + DBH	392	686	206	-186	-480
9" + DBH	294	392	206	-88	-382
19" + DBH	49	98	83	34	-15

Cavity trees (all species)	Maintenance level	Optimal level	Inventory	Available above Maintenance	Available above Optimal
7" + DBH	392	588	456	64	-132

11" + DBH	294	392	261	-33	-131
19" + DBH	49	98	18	-31	-80

Communities

A Natural Heritage Database review was obtained for this tract. 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.

Invasives / Exotics

Multiflora rose and Japanese barberry were noted during the inventory. Significant populations of barberry will be treated prior to harvest operations or in post harvest TSI operations. Multiflora rose is widespread throughout the forest

Recreation

This tract is used for hunting, hiking and wildlife viewing. There are no direct access points from forest roads. The best recreational access is from Bryant Creek road to the south of the tract.

Cultural Resources

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.

Inventory Results (January 2011 for 98 acres)

Present tract volume estimates:	Basal Area
Harvest volume 4,173 Bd. Ft./acre	49.6
Leave volume 5,412 Bd. Ft./acre	55.1
Total tract 9,612 Bd. Ft./acre	105.1 (includes sub-merch. stems)

Harvest/Leave Report Summary

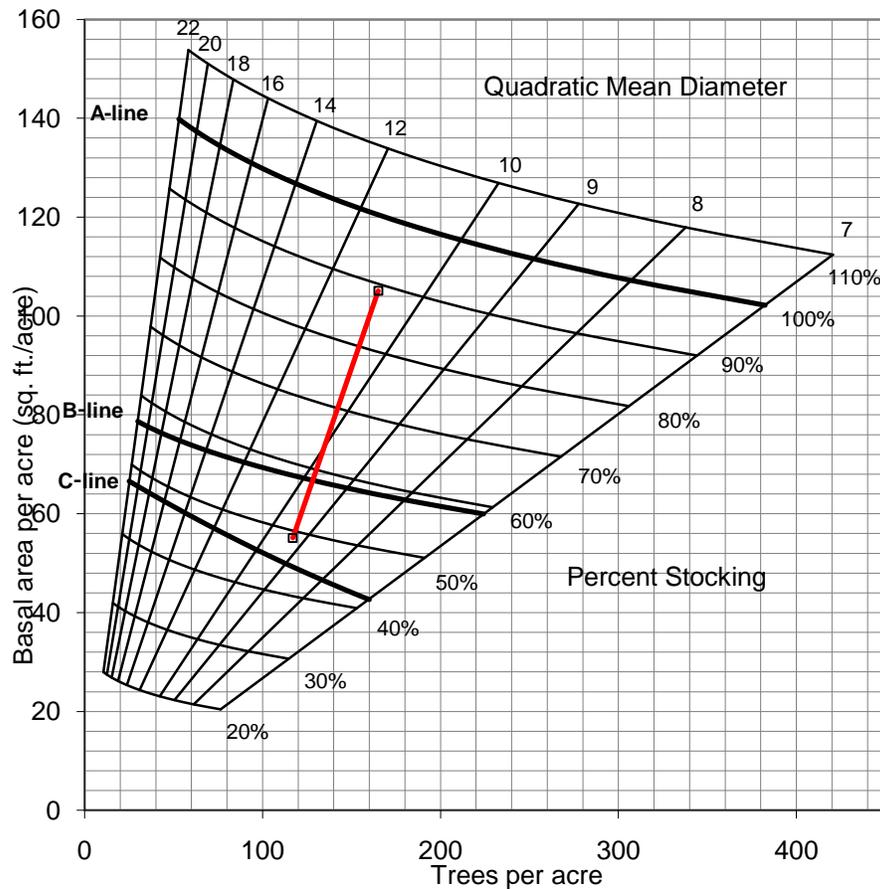
MBF=1000 board feet

SPECIES	HARVEST (MBF)	LEAVE (MBF)	TOTAL (MBF)
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White Oak	69.49	172.74	242.23
Yellow Poplar	68.97	89.08	158.05
N. Red Oak	22.76	84.21	106.97
Sugar Maple	52.67	36.29	88.96
Scarlet Oak	37.71	33.75	71.46
Black Oak	3.39	57.71	61.11
American Beech	41.33	16.99	60.89
White Ash	45.87	0.0	45.87
Red Maple	22.16	0.0	22.16
Bitternut Hickory	4.60	16.67	21.27
American Sycamore	10.60	0.0	10.60
Black Walnut	4.15	5.10	9.25
Chinkapin Oak	3.19	5.14	8.33
Green Ash	7.87	0.0	7.87
Pignut Hickory	3.09	4.44	7.54
Largetooth Aspen	6.39	0.0	6.39
Black Cherry	0.0	5.32	5.32
American Elm	4.75	0.0	4.75
Blackgum	0.0	2.97	2.97
Totals			
PER ACRE	4.17	5.41	9.61
TRACT TOTAL	408.99	530.40	941.96

Discrepancies due to rounding.

Hardwood stand Acreage	98acres	Present Volume per Acre	9,612 bd. ft.
Basal Area per Acre	105.1 sq. ft.	Harvest Volume per Acre	4,173 bd. ft.
Number Trees per Acre	165	Residual Volume per Acre	5,412 bd. ft.
Stocking Percentage	89%	Average Tree Size	8.6" dbh.



The inventory results for harvest volume and basal area are likely higher than what will actually be harvested. This is because a higher proportion of inventory plots landed in areas of low basal area or areas with poor quality timber that would be harvested as a group selection opening. This created a higher harvest volume than otherwise would be expected for the inventory.

Tract Prescription and Proposed Activities

This tract is comprised primarily of mixed oak/hickory, yellow poplar, and sugar maple/beech stands with a large white oak component. The inventory results indicate this tract would sustain and benefit from a harvest this cutting cycle. The prescription is for an intermediate, improvement cutting harvest utilizing single-tree selection as well as the application of group selection or regeneration openings. Most of the tract consists of good quality sawtimber trees that will either be thinned or harvested with group selection openings to promote regeneration. Some group selection openings are needed in areas where there are poor quality sugar maple and beech stands. Previously created group selections have good regeneration of yellow poplar and black cherry and will be included in post harvest TSI. Any new group selection openings in the harvest will be included in post-harvest TSI along with some grapevine control in the bottomland areas.



The marking objective will be the removal of some mature and over-mature stems, as well as those stems with low quality in an effort to improve the overall health, vigor and composition of the stand. The reduction of stocking levels should provide space for pre-selected crop trees to move forward into the next cutting cycle. Species composition will likely become more diverse and less susceptible to insect and disease infestation which is a common problem with homogeneous stands. These management techniques will improve the overall health, vigor and quality of the residual stand, while utilizing stems dropping out due to natural mortality, overstocking or maturity. In group selection areas some good quality trees in and around openings will be left for seed sources. Post harvest TSI is planned to reduce stocking in some areas of high basal area with pole-sized stems and release crop trees not successfully released during the harvest.

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

Habitat/cover types currently present within the tract will remain throughout the majority of the tract after the proposed management activities with the possible addition of additional early successional wildlife areas in regeneration openings. These openings may be up to 10 acres in size.

A proposed timber sale is planned for FY11-12 or shortly thereafter. A harvest of upwards of 300,000 BF is expected. Based on the volume derived from the inventory, the quality of the growing site, the past history of the stand and the size of the expected growing stock to be retained a cutting cycle of 20 years is prescribed.

Proposed Activities Listing

Planned Period

Archaeological Site review	2011
Timber marking	2011
Timber sale	2011-2012
Timber harvest	2011-2014
Timber stand improvement	2012-2014
Boundary Line remarking	2014, 2020, 2026
Stand Re-inventory work	2031

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Note: Some graphics may distort due to compression.