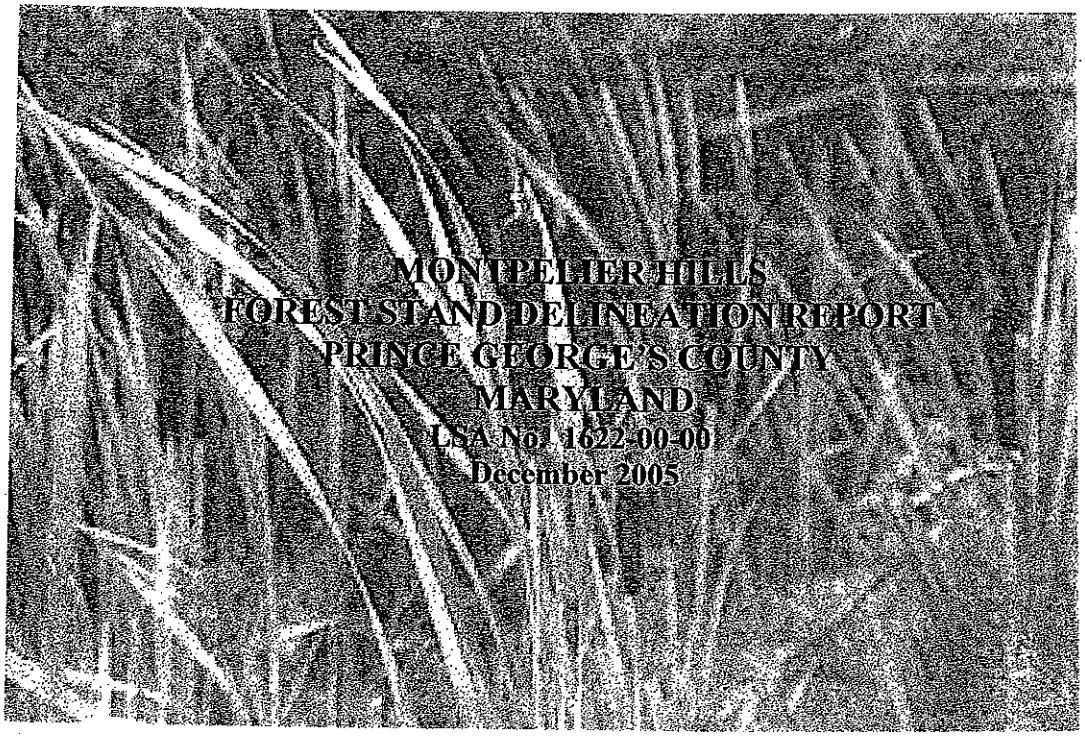

MONTPELIER HILLS
FOREST STAND DELINEATION REPORT
PRINCE GEORGE'S COUNTY
MARYLAND

LSA No. 1622-00-00

December 2005

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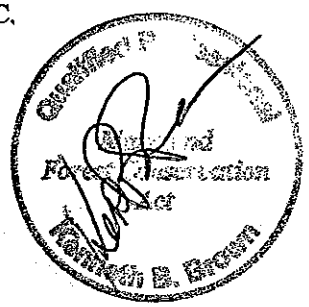

MONTPELIER HILLS PROPERTY
FOREST STAND DELINEATION REPORT
PRINCE GEORGE'S COUNTY, MARYLAND
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MONTPELIER HILLS PROPERTY
FOREST STAND DELINEATION REPORT
PRINCE GEORGE'S COUNTY, MARYLAND
September, 2005
(LSA PROJECT # 1622-00-00)

1.0 PURPOSE AND SCOPE

In September of 2005, Loiederman Soltesz Associates, Inc. (LSA) completed a Forest Stand Delineation (FSD) on the 27.08 acre Montpelier Hills property located in northern Prince George's County, Maryland. The FSD was completed in compliance with the Maryland Forest Conservation Act (FCA, 1991) and the Prince George's County Woodland Conservation and Tree Preservation Law (PGCC Sec. 25-117), as detailed in *A Technical Manual for Woodland Conservation with Development in Prince George's County* (M-NCPPC, 1990). This FSD includes a narrative, a 100' scale FSD plan, and field datasheets.

2.0 SITE LOCATION AND PHYSICAL FEATURES

The Montpelier Hills property is located in north-western Prince George's County, Maryland near the city of Laurel. This property is located immediately west of the Baltimore Washington Parkway (I-295) and is bisected by Muirkirk Road. The general area around the property is mostly urbanized, consisting of major roads, residential developments and an elementary school. The Montpelier Hills property is shown on Prince George's Tax Map 14, Grid E2, E3 and D3, Parcels A, B1, B2, E, K3, L, S and covers approximately 27.08 acres.

Property Conditions
This property contains a mixture of open grass fields, paved roads, and approximately 21 acres of pine/hardwood forest. The forest onsite consists of early to mid successional upland deciduous hardwoods as well as old field upland pine stands. Two open grass fields of approximately 2 acres in size exist on the property: one just north of Muirkirk Road and the other just east of Muirkirk Road and North of Apache Tears Circle. An old homesite exists on this property in the northern half of Parcel B-1. Montpelier Hills can be accessed from Hermosa Drive as well as from Apache Tears Circle.

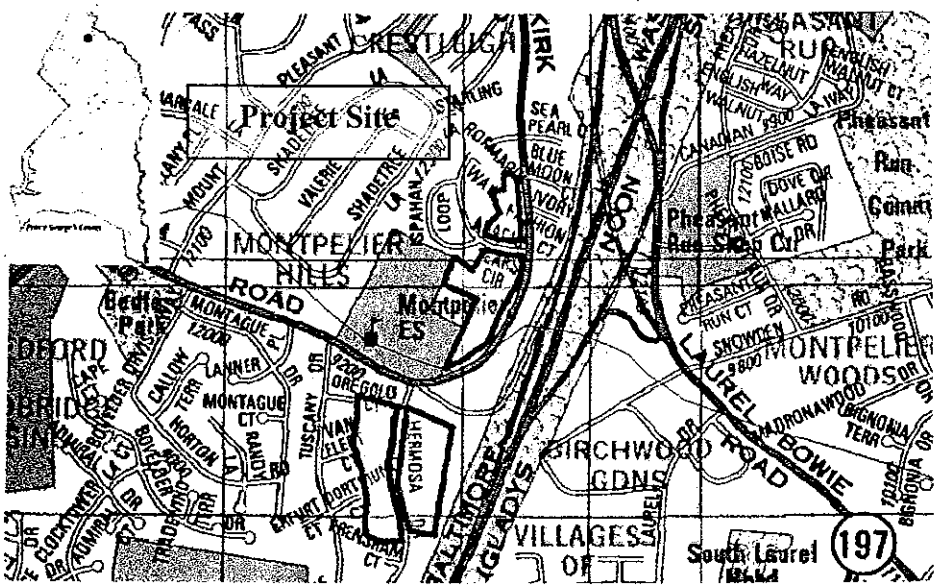

Figure 1. Vicinity Map Showing Approximate Location of the Montpelier Hills Property (Source: Copyright ADC The Map People. Permitted Use Number 21103184) ↑N, no scale

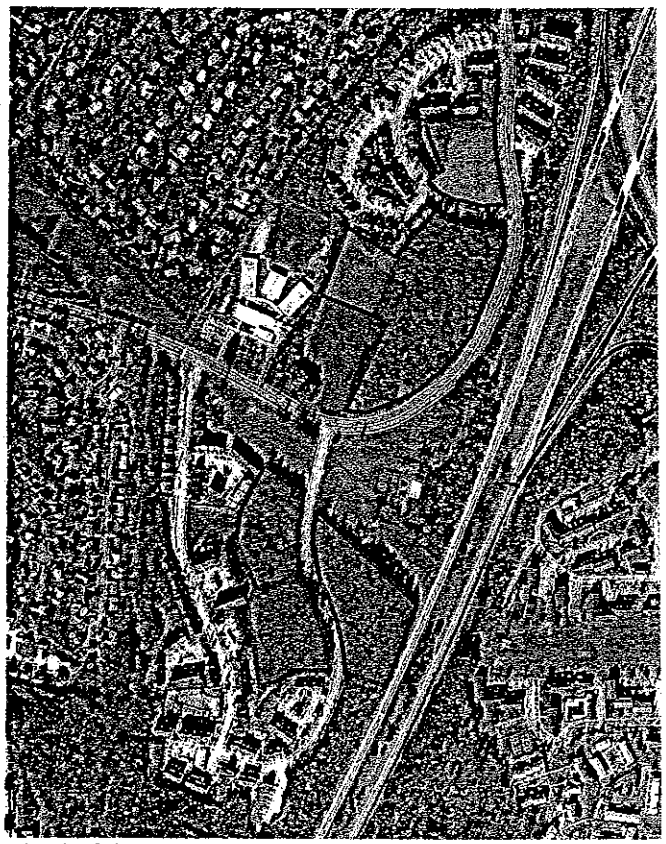

Figure 2. Aerial Photograph Showing Montpelier Hills Approximate Boundaries and Surroundings (Source: Aerials Express, 2003) ↑N, no scale

Recorded Soils

According to the Soil Survey of Prince George's County (USDA, 1967), six soil types occur within the Montpelier Hills boundaries. Table 1 lists the soils that occur onsite.

Table 1. Montpelier Hills Soil Types
US Soil Survey of Prince George's County, MD, 1967
Note: soils with Kw factor ≥.35 are considered highly erodible

SOIL TYPE	SLOPE	DESCRIPTION
Ek-Elkton silt loam	0 to 5 %	This soil is poorly drained. Available water capacity is very high and shrink swell potential is Medium. This is a hydric soil. ***Kw factor is .43***
KpB2-Keyport silt loam	2 to 5%	This is a Mediumly well drained soil. Available water capacity is very high and shrink swell potential is Medium. This is not a hydric soil. ***Kw factor is .43***
StB2-Sunnyside fine sandy loam	0 to 5%	This is a well drained soil. Available water capacity is very high and shrink swell potential is low. This is not a hydric soil. ***Kw factor is .24***
SvC3-Sunnyside sandy clay loam	5 to 10%	This is a well drained soil. Available water capacity is very high and shrink swell potential is low. This is not a hydric soil. ***Kw factor is .32***
SwC- Sunnyside-Urban Land Complex	5 to 10%	This is a well drained soil. Available water capacity is very high and shrink swell potential is low. This is not a hydric soil. ***Kw factor is .32***

Table 1. Montpelier Hills Soil Types US Soil Survey of Prince George's County, MD, 1967 *Note: soils with Kw factor ≥.35 are considered highly erodible*		
SOIL TYPE	**SLOPE**	**DESCRIPTION**
WoB2-Woodstown sandy loam	2 to 5%	This is a well drained soil. Available water capacity is very high and shrink swell potential is low. This is a hydric soil. ***Kw factor is .24***

Cultural Resources

This site contains no historic or cultural features. (PGAtlas, 2005). The definitive authority for occurrences of historical and cultural resources within the State of Maryland is the Maryland Historical Trust (MHT) and MHT will only research such site specific information for projects with State or federal involvement or during permit application reviews, so this authority could not be consulted at this time.

General Vegetation

The vegetation on this property contains a mixture of upland pine and mixed hardwood forest communities. Two open fields, comprising approximately 4 acres, are dominated by upland grass communities.

Invasive species population is almost non-existant in these forests, although some Japanese honeysuckle (*Lonicera japonica*) exists in the herbaceous layer.

Rare, Threatened or Endangered (RTE) Species

No rare, threatened, or endangered (RTE) species were observed during the September 2005 field visit. An inquiry to the Maryland Department of Natural Resources (MDNR) Wildlife and Heritage Division was made on September 20, 2005 requesting any information on recorded occurrences or potential for RTE species for the property and the immediate vicinity. A response to this inquiry was received on October 19, 2005, verifying no RTE species to occur onsite. However, MDNR stated they have records indicating the Eastern Harvest Mouse (*Reithrodontomys humulis*), listed as endangered in the State of Maryland, is known to occur within the vicinity of the site.

Hydrology, Wetlands and Waters of the US

Hydrologically, the Montpelier Hills Property is divided into two different watersheds. Parcels A, B1, B2 and E are in the Patuxent River Watershed. The remaining parcels are in the Beaverdam Creek Watershed which is a part of the Anacostia River Watershed

which drains into the Potomac River. The closest watercourse to the property is The Patuxent River which is located approximately 0.9 miles northeast of the property. The Patuxent River is classified as Use I-P (COMAR 26.08.02.08).

No jurisdictional wetlands or Waters of the US exist on this site. This wetland information was provided by McCarthy and Associates in December 2005.

3.0 FOREST STAND DELINEATION METHODS AND PROCEDURES

The Forest Stand Delineation (FSD) was prepared in compliance with the Maryland Forest Conservation Act (FCA, 1991) and the Prince George's County Woodland Conservation and Tree Preservation Law (PGCC Sec. 25-117), as detailed in *A Technical Manual for Woodland Conservation with Development in Prince George's County* (M-NCPPC, 1990). A preliminary assessment of soils, topography, existing forests, stream channels, wetlands, and floodplain limitations was conducted prior to the field investigation to aid in the delineation.

A systematic random sampling method was used to collect information from sample points within the property. The sampling procedure used a BAF 10 prism. The field data sheets were from the *State Forest Conservation Manual* (Maryland, Department of Natural Resources, 1997). The BAF 10 prism was used to calculate basal area and trees per acre. In addition, common understory species and herbaceous layer species were recorded. Species underlined on the data sheets are considered as invasive. At each cardinal point and at plot center the percent canopy closure was assessed and recorded on the data sheets. Averages of canopy closure for each vegetation layer were then calculated. Invasive cover and percent woody debris were recorded as general observations. Comments were included for other relevant features in the area, such as adjacent species not occurring within the plot, and human influences/disturbance. The sample point locations were flagged in the field and noted on the FSD Plan. In addition to the point sampling, non-wooded vegetation communities and areas of interest not within sample points were generally described and these descriptions included in the report and on the FSD plan.

Unless otherwise noted, floral nomenclature follows Brown and Brown (1972).

All specimen trees observed were noted on the FSD Plan. Specimen trees are defined as trees at least 75% as large as the County Champion tree of the same species or 30 inches or greater in Diameter at Breast Height (DBH). Specimen trees are identified by numbered aluminum tags on the north side of the tree at breast height and are approximately located on the FSD plan. Specimen tree species, DBH, and condition were noted for each tree, along with comments if applicable. Tree condition is rated from Very Poor to Very Good, and relates not only to the current health of the tree, but also to the ability of the tree to withstand impacts and increased exposure if surrounding forest

were cleared. Very Poor trees are nearly dead, Poor trees are estimated to be on an irreversible course of decline, Fair trees either are hindered by a factor which may be corrected (insect infestation, invasive species on trunk), or are trees that may not be structurally suited for exposure as an edge or open tree. Good trees are healthy and contain good structure. Very Good designations are very rare and predominantly pertain to large very dominant trees that represent an archetypical representation of the species.

Quality assessment and disturbance potential designations (High, Medium, or Low) for forest stands were assigned based on guidelines established in A *Technical Manual for Woodland Conservation with Development in Prince George's County* (MNCPPC 1990). Factors considered in the Quality assessment include forest structure, the presence of specimen trees, and the presence or absence of environmentally sensitive features (e.g., wetlands, stream buffers, steep slopes, erodible soils, and floodplain). The disturbance potential assessment considers the likelihood of that specific portion of the site being disturbed by development activities.

4.0 RESULTS OF THE FOREST STAND DELINEATION

A total of fourteen points were sampled on the Montpelier Hills property within the 21.11 acres of forest. Six forest types were identified on the property and are described below. The forest stands have been designated Forest Stand 1 (FS 1), Forest Stand 2 (FS 2), Forest Stand 3 (FS3), Forest Stand 4 (FS4), Forest Stand 5 (FS5) and Forest Stand (FS6).

Specimen Trees

Five specimen trees were located within or near the property boundaries. Please see Appendix A for Tree list and the FSD Plan for approximate tree locations.

FOREST STAND 1: Mid Successional Pine/Hardwood Forest: Medium Priority Retention: 3.46 acres

Forest Stand 1 (FS 1) is a mid successional, pine/hardwood forest that covers approximately 3.46 acres of the property (16% of the forested area on site). Virginia pine (*Pinus virginiana*), sweetgum (*Liquidambar styraciflua*), white oak (*Quercus alba*) and willow oak (*Quercus phellos*) are the dominant tree species. Sweetgum has the largest basal area of approximately 40 ft^2 /acre. The pines are in bad health and have already begun to die. Although the sweetgum has greater basal area, the oak component is gaining dominance with approximately 35 ft^2 /acre. Stand 1 has a total basal area of 90 ft^2 /acre with approximately 323 trees per acre (TPA). The dominant size class in this stand, based on basal area, is split between the 6-11.9" and 12-19.9" DBH class with an average basal area of ±30 ft^2/acre (See Appendix B). This stand makes up all of Parcel L which is located south of the Oak Grove Transmission line and east of Hermosa Drive. Other common tree species occurring onsite are pin oak (*Quercus palustris*) and

American holly (*Ilex opaca*) (see Appendix B). Sample Points (SP) 4 and 5 represent data sampling points for this stand.

Tree quality, health and canopy structure are fair in this stand. The pine overstory has already begun to break up and many pines are in poor condition and dying. There is a larger number of pines in the southern tip of the stand versus the middle and northern ends where the oak component is more dominant. Canopy closure across the stand is around 60%. The oak component is beginning to replace the pines as the dominant overstory tree. A Medium amount of white oak regeneration is occurring in the northern section of this stand. A few large white and willow oaks that were spared during previous land clearing from agriculture still thrive in this stand.

The understory and herbaceous cover is estimated to be 80 and 0%, respectively. Species common in the understory include greenbrier (*Smilax rotundifolia*), white oak, American holly (*Illex Americana*) and American beech (*Fagus grandifolia*). There is no invasive species occurring in any of the canopy or herbaceous layers. There is very little woody debris (<1%) across the stand and approximately 20 dead TPA.

The overall health, species diversity and canopy structure of this stand are fair. One specimen tree exists in the stand. Overall this stand receives a Medium Priority Retention rating.

Table 2. Forest Stand 1 Summary

STAND VARIABLES	STAND # 1 ACRES: 3.46
Forest Type	Mid Successional Pine/Hardwood
Overall Dominant Size Class	6-11.9 and 12 -19.9 inches DBH
Dominant Trees (non-native species in bold)	Sweetgum, Willow Oak, White Oak
Number of Trees/Acre	323
Number of Tree Species	4
Basal Area s.f./acre	90
Number of Standing Dead Trees Per Acre	20
Common Understory and Herbaceous Species (non-native species are in bold)	Greenbrier, , American Holly, white oak
% Canopy Coverage	60%
% Understory Coverage	80%
% Herbaceous Coverage	0%
% Downed Woody Material	1%
% Invasive Species	0%
Forest Structure Value	Medium Priority Retention

STAND VARIABLES	STAND # 1 ACRES: 3.46
Notes:	A Medium Priority Retention rating is given to FS 1 because it is a mid successional pine/hardwood stand with fair canopy structure. One specimen tree exist in this stand.

FOREST STAND 2: Early Successional Virginia Pine Forest: Low Priority Retention: 1.26 acres

Forest Stand 2 (FS 2) is a early to mid successional tulip poplar stand that covers approximately 1.26 acres of the property (6% of the forested area on site). The dominant tree species in this stand is Virginia pine with a basal area of ± 100 ft^2/acre. FS 2 has a total basal area of 140 ft^2/acre with approximately 550 TPA. The dominant size class, based on basal area, is the 6-11.9" DBH class with an average basal area of ±80 ft^2/acre (See Appendix B). FS 2 occurs mostly in the southeastern corner of Parcel S, just west of Hermosa Drive and just north of Frengham Court. (See FSD Plan for location). Other tree species occurring in this stand include red maple and sweetgum. Sample points (SP) 2 and 6 represent data sampling points for this forest. This stand exhibits poor overall stand health and stand structure. The pine overstory is beginning to die with approximately 91 dead trees per acre, most of which are in the 2-5.9" DBH class.

The understory and herbaceous cover average approximately 50 and <10%, respectively. Species include sweetgum, white oak, greenbrier, poison ivy, and American holly. There is no tree regeneration occurring in this stand. Invasive species cover average approximately 1% and consists of Japanese honeysuckle. There is approximately 2% woody debris in this stand.

This stand contains trees exhibiting poor health and structure. No specimen trees occur in this stand. Because of these factors Stand 2 receives a Low Priority Retention Value.

Table 3. Forest Stand 2 Summary

STAND VARIABLES	STAND # 2 ACRES: 1.26
Forest Type	Early Successional Virginia Pine Forest
Overall Dominant Size Class	6 to 11.9 inch DBH
Dominant Trees (non-native species in bold)	Virginia Pine
Number of Trees/Acre	550
Number of Tree Species	3
Basal Area s.f./acre	140
Number of Standing Dead Trees Per Acre	91
Common Understory and Herbaceous Species (non-native species are in bold)	Greenbrier, Poison Ivy, **Japanese Honeysuckle**

STAND VARIABLES	STAND # 2. ACRES: 1.26
% Canopy Coverage	50%
% Understory Coverage	50%
% Herbaceous Coverage	<10%
% Downed Woody Material	2%
% Invasive Species	1%
Forest Structure Value	Low Priority Retention
Notes:	A Low Priority Retention rating is given to FS 2 because no environmentally sensitive areas exist and stand structure and health are poor.

FOREST STAND 3: Mid Successional Sweetgum/Red Maple Forest: Medium Priority Retention: 5.29 acres

Forest Stand 3 (FS 3) is a sweetgum/red maple stand that covers approximately 5.29 acres of the property (25% of the forested area on site). Sweetgum and red male are the dominant tree species with a basal area of approximately 95 and 25 ft^2/acre, respectively. Stand 3 has a total basal area of 145 ft^2 /acre with approximately 584 TPA. The dominant size class in this stand, based on basal area, is the 6-11.9" DBH class with an average basal area of ±100 ft^2/acre (See Appendix B). This stand occurs throughout 80% of Parcel S and all of Parcel K-3. Sample Points (SP) 1 and 3 represent data sampling points for this stand.

This stand is the same age as Forest Stand 2 but because it exists at lower elevation sweetgum and red maple have dominated this stand instead of Virginia pine. This stand is overstocked and there is no tree regeneration occurring. Stand structure and health is fair with no apparent outbreaks of insects or disease. The overstory canopy is fairly closed with canopy closure around 60%.

Understory and herbaceous cover is estimated to be 70% and 5%, respectively. Species common in the understory include greenbrierand arrowood (*Viburnum Dentatum*). Invasive species cover make up approximately 1% of exisiting understory species. Invasive species most prevalent onsite include Japanese honeysuckle. There is very little woody debris (2%) across the stand and approximately 76 dead TPA.

This stand has fair stand structure and overall health is good. Because of these reasons FS 3 receives a Medium Priority Retention rating.

Table 4. Forest Stand 3 Summary

STAND VARIABLES	STAND # 3 ACRES: 5.29
Forest Type	Mid Successional Sweetgum/Red Maple Forest
Overall Dominant Size Class	6 to 11.9 inches DBH
Dominant Trees (non-native species in bold)	Red Maple and Sweetgum
Number of Trees/Acre	584
Number of Tree Species	2
Basal Area s.f./acre	145
Number of Standing Dead Trees Per Acre	76
Common Understory and Herbaceous Species (non-native species are in bold)	Greenbrier, Arrowwood and **Japanese Honeysuckle**
% Canopy Coverage	60%
% Understory Coverage	70%
% Herbaceous Coverage	5 %
% Downed Woody Material	2%
% Invasive Species	1%
Forest Structure Value	Medium Priority Retention
Notes:	A Medium Priority Retention rating is given to FS 3 because it contains good stand health and fair structure.

FOREST STAND 4: Mid Successional Red Maple: Medium Priority Retention: 1.94 acres

Forest Stand 4 (FS 4) is a fully stocked, red maple stand that covers approximately 1.94 acres of the property (8% of the forested area on site). Red maple is the dominant tree species with a basal area of approximately 63 ft^2 /acre . Stand 4 has a total basal area of 110 ft^2 /acre with approximately 327 TPA. The dominant size class in this stand, based on basal area, is the 6-11.9" DBH class with an average basal area of ±66 ft^2/acre (See Appendix B). Other species occurring in this stand include Virginia pine and sweetgum. This stand occurs along the southern half of Parcel B-1, just north of Muikirk Road. Sample Points (SP) 7, 8 and 9 represent data sampling points for this stand.

This stand is supported by Mediumly fertile, well drained soils. Although red maple is dominant there is still a good number of Virginia pine scattered throughout the stand. Because of the sloping topography of this stand, Virginia pine is found in greater densities along the eastern boundary and southern tip of this stand. Red maples and sweetgum are found along a drainage feature running through the middle of the stand and along the western boundary. Trees in this stand are of moderate quality and overall good health with little evidence of disease or insect outbreak. There are a moderate amount of

standing dead trees (83 TPA) which is mostly due to the Virginia pine dying and giving way to the more shade tolerant maples.

Understory and herbaceous cover is estimated to be 70% and 40%, respectively. Most of the herbaceous layer is found along the western boundary. Species include greenbrier, American holly, red maple, sensitive fern (*Onoclea sensibilis*) and sedges (*Carex sp.*). Invasive species cover make up approximately 1% of existing understory species. Invasive species include Japanese honeysuckle.

This stand contains trees exhibiting good stand structure and health with fair tree quality and form. Because of these reasons FS 4 receives a Medium Priority Retention rating.

Table 5. Forest Stand 4 Summary

STAND VARIABLES	STAND # 4 ACRES: 1.94
Forest Type	Mid Successional Red Maple Forest
Overall Dominant Size Class	6 to 11.9 inches DBH
Dominant Trees (non-native species in bold)	Red Maple, Virginia Pine, Sweetgum
Number of Trees/Acre	327
Number of Tree Species	3
Basal Area s.f./acre	110
Number of Standing Dead Trees Per Acre	83
Common Understory and Herbaceous Species (non-native species are in bold)	greenbrier, American holly, red maple, sensitive fern
% Canopy Coverage	50%
% Understory Coverage	70%
% Herbaceous Coverage	40%
% Downed Woody Material	2%
% Invasive Species	1%
Forest Structure Value	Medium Priority Retention
Notes:	A Medium Priority Retention rating is given to FS 4 because it has fair stand structure and health.

FOREST STAND 5: Mixed Hardwod: Medium Priority Retention: 4.25 acres

Forest Stand 5 (FS 5) is a fully stocked, mixed hardwood stand that covers approximately 4.25 acres of the property (19% of the forested area on site). Several different tree species dominant this stand including black gum (*Nyssa sylvatica*), white oak, Virginia pine and black cherry (*Prunus serotina*) (See Appendix B). Stand 5 has a total basal area of 100 ft^2 /acre with approximately 213 TPA. The dominant size class in this stand, based

on basal area, is the 6-11.9" DBH class with an average basal area of ±60 ft^2/acre (See Appendix B). Other species occurring in this stand include red maple, black locust and white mulberry and American beech. This stand occurs in the northern half of Parcel B-1, west of Muirkirk Road. Sample Points (SP) 10 and 11 represent data sampling points for this stand.

This stand contains the remnants of an old homesite that was part of a working farm at one time. The trees in this stand range in species and size. Old white oaks and American beech scattered around the stand are still present from when the homesite was in use. These trees are open grown trees with wide spreading, large crowns ranging from 24 to 29 inches DBH. The rest of the stand is mostly early successional species that occupied the site after it was abandoned including black cherry and black locust. Overall this stand exhibits fair stand structure and health. There are a few large standing dead oak trees killed by gypsy moth but no recent outbreak of pests or disease. Most of this stand has been used as a dumping site for trash for quite some time.

Understory and herbaceous cover is estimated to be 60% and 5%, respectively. Species include greenbrier, American holly, mountain laurel (*Kalmia latifolia*) and black cherry. Invasive species cover make up approximately 1% of existing understory species. Invasive species include Japanese honeysuckle and white mulberry (*Morus alba*).

This stand contains old trees exhibiting good stand structure and health with fair tree quality and form. Because of these reasons FS 5 receives a Medium Priority Retention rating.

Table 6. Forest Stand 5 Summary

STAND VARIABLES	STAND # 5 ACRES: 4.25
Forest Type	Mixed Hardwood
Overall Dominant Size Class	6 to 11.9 inches DBH
Dominant Trees (non-native species in bold)	White Oak, Black Gum, Black Cherry, Virginia Pine
Number of Trees/Acre	213
Number of Tree Species	7
Basal Area s.f./acre	100
Number of Standing Dead Trees Per Acre	59
Common Understory and Herbaceous Species (non-native species are in bold)	greenbrier, American holly, black cherry
% Canopy Coverage	50%
% Understory Coverage	60%
% Herbaceous Coverage	50%
% Downed Woody Material	2%
% Invasive Species	1%
Forest Structure Value	Medium Priority Retention

STAND VARIABLES	STAND # 5 ACRES: 4.25
Notes:	A Medium Priority Retention rating is given to FS 4 because it contains well structured trees, open grown trees that were part of an old homesite.

FOREST STAND 6: Early to Mid Successional Virginia Pine: Medium Priority Retention: 4.91 acres

Forest Stand 6 (FS 6) is a fully stocked, Virginia pine stand that covers approximately 4.91 acres of the property (24% of the forested area on site). Virginia pine is the dominant tree species with a basal area of approximately 46 ft^2 /acre. Stand 6 has a total basal area of 120 ft^2 /acre with approximately 293 TPA. The dominant size class in this stand, based on basal area, is the 6-11.9" DBH class with an average basal area of ±63 ft^2/acre (See Appendix B). Other species occurring in this stand include red maple, white oak, willow oak, black gum and American beech. This stand occurs in the northern half of Parcel B-2, west of Muirkirk Road and south of Apache Tears Circle. Sample Points (SP) 12, 13 and 14 represent data sampling points for this stand.

This stand is dominated by Virginia pine, however the pines are in poor health and beginning to die and break up. There is no outbreak of pest or disease. The pines are just dying due to natural stand succession. There are some well developed oaks that are this stand that exhibit good tree form. Overall this stand exhibits good stand health and structure. There is little tree regeneration occurring.

Understory and herbaceous cover is estimated to be 55% and 5%, respectively. Species include American beech, mountain laurel, greenbrier and white oak. Invasive species cover make up approximately <1% of existing understory species. Invasive species include Japanese honeysuckle.

This stand contains trees exhibiting fair stand structure and health with fair tree quality and form with no wetlands or specimen trees. Because of these reasons FS 6 receives a Medium Priority Retention rating.

Table 7. Forest Stand 6 Summary

STAND VARIABLES	STAND # 6 ACRES: 4.91
Forest Type	Virginia Pine
Overall Dominant Size Class	6 to 11.9 inches DBH
Dominant Trees (non-native species in bold)	Red Maple, White Oak, Willow Oak and Virginia Pine
Number of Trees/Acre	293

STAND VARIABLES	STAND # 6 ACRES: 4.91
Number of Tree Species	6
Basal Area s.f./acre	120
Number of Standing Dead Trees Per Acre	0
Common Understory and Herbaceous Species (non-native species are in bold)	American beech, white oak, mountain laurel
% Canopy Coverage	70%
% Understory Coverage	55%
% Herbaceous Coverage	5%
% Downed Woody Material	1%
% Invasive Species	<1%
Forest Structure Value	Medium Priority Retention
Notes:	A Medium Priority Retention rating is given to FS 6 because it contains fair canopy structure with good overall health.

5.0 REFERENCES

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APPENDIX A.
MONTPELIER HILLS PROPERTY
SPECIMEN TREE TABLE

MONTPELIER PROPERTY
Forest Stand Delineation
Specimen Tree List

Note: Trees were tagged with a metal tag corresponding to the numbers below. Tags were placed approximately 5' from the ground with colored flagging attached. Tree locations are approximate. Tree tag numbers begin at #1.

Tag #	Common Name	Scientific Name	DBH (inches)	Remarks / Condition
1	Willow oak	*Quercus phellos*	33	Good
2	Willow oak	*Quercus phellos*	31	Good
3	Pin oak	*Quercus palustris*	31	Fair
4	White oak	*Quercus alba*	32	Fair
5	Willow oak	*Quercus phellos*	31	Fair, double lead

APPENDIX B.
MONTPELIER HILLS PROPERTY
FSD SPREADSHEETS

MONTPELIER HILLS PROPERTY
STAND 1

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
white oak	Trees per acre	0.0	11.5	0.0	0.0	1.5	0.0	13.0
	Basal Area per acre	0.0	5.0	0.0	0.0	5.0	0.0	10.0
sweetgum	Trees per acre	172.5	46.0	3.5	0.0	0.0	0.0	222.0
	Basal Area per acre	15.0	20.0	5.0	0.0	0.0	0.0	40.0
willow oak	Trees per acre	0.0	0.0	10.5	0.0	1.5	0.0	12.0
	Basal Area per acre	0.0	0.0	15.0	0.0	5.0	0.0	20.0
pin oak	Trees per acre	57.5	0.0	0.0	0.0	0.0	0.0	57.5
	Basal Area per acre	5.0	0.0	0.0	0.0	0.0	0.0	5.0
Virginia pine	Trees per acre	0.0	11.5	7.0	0.0	0.0	0.0	18.5
	Basal Area per acre	0.0	5.0	10.0	0.0	0.0	0.0	15.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	230.0	69.0	21.0	0.0	3.0	0.0	323.0
Total	Basal Area per acre	20.0	30.0	30.0	0.0	10.0	0.0	90.0

MONTPELIER HILLS PROPERTY
STAND 2

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
Virginia pine	Trees per acre	230.0	115.0	21.0	0.0	0.0	0.0	366.0
	Basal Area per acre	20.0	50.0	30.0	0.0	0.0	0.0	100.0
sweetgum	Trees per acre	57.5	57.5	0.0	0.0	0.0	0.0	115.0
	Basal Area per acre	5.0	25.0	0.0	0.0	0.0	0.0	30.0
red maple	Trees per acre	57.5	11.5	0.0	0.0	0.0	0.0	69.0
	Basal Area per acre	5.0	5.0	0.0	0.0	0.0	0.0	10.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	345.0	184.0	21.0	0.0	0.0	0.0	550.0
Total	Basal Area per acre	30.0	80.0	30.0	0.0	0.0	0.0	140.0

MONTPELIER HILLS PROPERTY

STAND 3

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
sweetgum	Trees per acre	57.5	195.5	3.5	0.0	0.0	0.0	256.5
	Basal Area per acre	5.0	85.0	5.0	0.0	0.0	0.0	95.0
red maple	Trees per acre	172.5	23.0	0.0	0.0	0.0	0.0	195.5
	Basal Area per acre	15.0	10.0	0.0	0.0	0.0	0.0	25.0
white oak	Trees per acre	0.0	0.0	3.5	2.0	0.0	0.0	5.5
	Basal Area per acre	0.0	0.0	5.0	5.0	0.0	0.0	10.0
willow oak	Trees per acre	0.0	11.5	0.0	0.0	0.0	0.0	11.5
	Basal Area per acre	0.0	5.0	0.0	0.0	0.0	0.0	5.0
tulip poplar	Trees per acre	57.5	0.0	0.0	0.0	0.0	0.0	57.5
	Basal Area per acre	5.0	0.0	0.0	0.0	0.0	0.0	5.0
American beech	Trees per acre	57.5	0.0	0.0	0.0	0.0	0.0	57.5
	Basal Area per acre	5.0	0.0	0.0	0.0	0.0	0.0	5.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	345.0	230.0	7.0	2.0	0.0	0.0	584.0
Total	Basal Area per acre	30.0	100.0	10.0	5.0	0.0	0.0	145.0

MONTPELIER HILLS PROPERTY
STAND 4

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
Sweetgum	Trees per acre	0.0	23.0	4.7	0.0	0.0	0.0	27.7
	Basal Area per acre	0.0	10.0	6.7	0.0	0.0	0.0	16.7
Virginia pine	Trees per acre	0.0	38.3	9.3	0.0	0.0	0.0	47.7
	Basal Area per acre	0.0	16.7	13.3	0.0	0.0	0.0	30.0
red maple	Trees per acre	153.3	92.0	7.0	0.0	0.0	0.0	252.3
	Basal Area per acre	13.3	40.0	10.0	0.0	0.0	0.0	63.3
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	153.3	153.3	21.0	0.0	0.0	0.0	327.7
Total	Basal Area per acre	13.3	66.7	30.0	0.0	0.0	0.0	110.0

MONTPELIER HILLS PROPERTY
STAND 5

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
black cherry	Trees per acre	0.0	23.0	3.5	0.0	0.0	0.0	26.5
	Basal Area per acre	0.0	10.0	5.0	0.0	0.0	0.0	15.0
black gum	Trees per acre	0.0	57.5	0.0	0.0	0.0	0.0	57.5
	Basal Area per acre	0.0	25.0	0.0	0.0	0.0	0.0	25.0
white oak	Trees per acre	0.0	0.0	7.0	2.0	1.5	0.0	10.5
	Basal Area per acre	0.0	0.0	10.0	5.0	5.0	0.0	20.0
red maple	Trees per acre	0.0	11.5	0.0	0.0	0.0	0.0	11.5
	Basal Area per acre	0.0	5.0	0.0	0.0	0.0	0.0	5.0
white mulberry	Trees per acre	57.5	0.0	0.0	0.0	0.0	0.0	57.5
	Basal Area per acre	5.0	0.0	0.0	0.0	0.0	0.0	5.0
black locust	Trees per acre	0.0	11.5	0.0	0.0	0.0	0.0	11.5
	Basal Area per acre	0.0	5.0	0.0	0.0	0.0	0.0	5.0
American beech	Trees per acre	0.0	0.0	0.0	0.0	1.5	0.0	1.5
	Basal Area per acre	0.0	0.0	0.0	0.0	5.0	0.0	5.0
Virginia pine	Trees per acre	0.0	34.5	0.0	2.0	0.0	0.0	36.5
	Basal Area per acre	0.0	15.0	0.0	5.0	0.0	0.0	20.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	57.5	138.0	10.5	4.0	3.0	0.0	213.0
Total	Basal Area per acre	5.0	60.0	15.0	10.0	10.0	0.0	100.0

MONTPELIER HILLS PROPERTY
STAND 6

Species	Size Class	2-5.9"	6-11.9"	12-19.9"	20-23.9"	24-29.9"	30+"	Total
Virginia pine	Trees per acre	0.0	38.3	21.0	0.0	0.0	0.0	59.3
	Basal Area per acre	0.0	16.7	30.0	0.0	0.0	0.0	46.7
white oak	Trees per acre	0.0	0.0	7.0	0.0	0.0	0.0	7.0
	Basal Area per acre	0.0	0.0	10.0	0.0	0.0	0.0	10.0
American beech	Trees per acre	0.0	15.3	0.0	0.0	0.0	0.0	15.3
	Basal Area per acre	0.0	6.7	0.0	0.0	0.0	0.0	6.7
black gum	Trees per acre	38.3	7.7	0.0	0.0	0.0	0.0	46.0
	Basal Area per acre	3.3	3.3	0.0	0.0	0.0	0.0	6.7
willow oak	Trees per acre	38.3	7.7	0.0	0.0	0.0	0.0	46.0
	Basal Area per acre	3.3	3.3	0.0	0.0	0.0	0.0	6.7
pin oak	Trees per acre	0.0	7.7	0.0	0.0	0.0	0.0	7.7
	Basal Area per acre	0.0	3.3	0.0	0.0	0.0	0.0	3.3
American holly	Trees per acre	0.0	0.0	2.3	0.0	0.0	0.0	2.3
	Basal Area per acre	0.0	0.0	3.3	0.0	0.0	0.0	3.3
red maple	Trees per acre	0.0	53.7	2.3	0.0	0.0	0.0	56.0
	Basal Area per acre	0.0	23.3	3.3	0.0	0.0	0.0	26.7
sweetgum	Trees per acre	38.3	15.3	0.0	0.0	0.0	0.0	53.7
	Basal Area per acre	3.3	6.7	0.0	0.0	0.0	0.0	10.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	Trees per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Basal Area per acre	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Trees per acre	115.0	145.7	32.7	0.0	0.0	0.0	293.3
Total	Basal Area per acre	10.0	63.3	46.7	0.0	0.0	0.0	120.0

APPENDIX C.
MONTPELIER HILLS PROPERTY
FSD SAMPLE POINT DATA SHEETS

Mid mid oak

Property: Montpelier Prepared By CB
Stand #: 1 Plot #: 4 Plot Size: Date: 9/2/10

Basal Area in sf/acre:

Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
WO	2			1						1						
Willow oak										1						
Pin oak	1															
Total Number of Trees per Size Class																
Number & Size of Standing ~~Dead Trees~~																

List of Common Understory Species 3'-20':
WO reser
Greenbrier

% of Canopy Closure

C	N	E	S	W	Total
X		4	4	4	60

Percent of Invasive Cover per Plot (All Layers):

Plot Successional Stage:
mid

% Understory Cover 3'-20'

C	N	E	S	W	Total
	4	4	4	4	80

List of Herbaceous Species 0'-3':
—

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					0

Percent of woody debris:
4

Comments: - abundant WO reser; Some old oaks but a lot of <6 inch oaks; very dense understory saplings.

Sheet _ of _

Forest Sampling Data Worksheet

Mixed Hdwd

1

Property: Montpelier Prepared By CB
Stand #: 1 Plot #: 5 Plot Size: Date: 9/21/05

Basal Area in sf/acre:

Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
Willow Oak							• • • •									
SG				• • • •			•									
VA Pine				•			• •									
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20':
A. beech greenbrier
Red Maple
Wild Cherry
A. Holly

List of Herbaceous Species 0'-3':
0

% of Canopy Closure

C	N	E	S	W	Total
	4	4		4	60

% Understory Cover 3'-20'

C	N	E	S	W	Total
1		4	4	1	50

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total

Percent of Invasive Cover per Plot (All Layers): 0

Percent of woody debris: 1

Plot Successional Stage: mid-late

Comments - no tree reprod

Sheet __ of __

Forest Sampling Data Worksheet

VA Pine

Property: Montpelier Prepared By CB
Stand #: 2 Plot #: 6 Plot Size: _____ Date: 7/21/05

Basal Area in sf/acre: Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
VA Pine	•• ••			•• ••			•• •									
SG	•			•												
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees	2			1												

List of Common Understory Species 3'-20':
WO
SG
hickory pignut
A. beech

List of Herbaceous Species 0'-3':
poison ivy

% of Canopy Closure

C	N	E	S	W	Total
	4			4	40

% Understory Cover 3'-20'

C	N	E	S	W	Total
		4	4	4	60

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
				4	40

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: early-mid

Percent of woody debris: 2

Comments: - VA pine in poor health

Sheet __ of __

Forest Sampling Data Worksheet

Property: Montpelier Prepared By: CP

Stand #: 02 Plot #: 2 Plot Size: _____ Date: 9/21/05

VA Pine

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot															
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
VA Pine				1			2									3
SG				2												2
RM	1			1												2
Total Number of Trees per Size Class				1												
Number & Size of Standing Dead Trees	1															

List of Common Understory Species 3'-20':
J. Honeysuckle
A. Holly
blueberry ground

% of Canopy Closure

C	N	E	S	W	Total
		T	T	T	60

% Understory Cover 3'-20'

C	N	E	S	W	Total
		T	T		40

Percent of Invasive Cover per Plot (All Layers): 1

Plot Successional Stage: early mid

List of Herbaceous Species 0'-3':

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
T					<10

Percent of woody debris: 1

Comments - pines in poor condition; SG & RM beginning to decay

Sheet __ of __

Forest Sampling Data Worksheet

M [illegible] ~~[illegible]~~ Gum

Property: Montpelier Prepared By: [illegible]
Stand #: 43 Plot #: 1 Plot Size: ____ Date: 9/[illegible]/03

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot														
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
WO																
SG																
Beech																
RM																
Total Number of Trees per Size Class	1															
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20':
greenbrier
arrowwood
WO

% of Canopy Closure

C	N	E	S	W	Total
		4	4	4	60

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: mid

List of Herbaceous Species 0'-3':
None

% Understory Cover 3'-20'

C	N	E	S	W	Total
	4		4	4	60

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					—

Percent of woody debris: 3%

Comments
- little regen; large oaks that are standing dead; gypsy moth; SG is taking over;

Sheet __ of __

Forest Sampling Data Worksheet

Gum Moth

Property: Montpelier Prepared By: CJS

Stand #: 83 Plot #: 3 Plot Size: _____ Date: 9/21/10

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot																		
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
SG				X	••											
Willow				•												
RM	••			••												
TP	•															
Total Number of Trees per Size Class	1															
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20':
a. rowan
b. cherry

% of Canopy Closure

C	N	E	S	W	Total
		4	4	4	60

% Understory Cover 3'-20'

C	N	E	S	W	Total
4		4	4	4	80

Percent of Invasive Cover per Plot (All Layers): 1

Plot Successional Stage: Early mid

List of Herbaceous Species 0'-3':
a. Honeysuckle
Poison ivy

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
				4	20

Percent of woody debris: 21

Comments – no tree vines

Sheet __ of __

Forest Sampling Data Worksheet

Property: Montpelier Prepared By: CB

Stand #: 03 Plot #: 7 Plot Size: 10 BAF Date: 7/21/05

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot															
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
VA Pine							4									
RM					7		2									
SG					1		1									
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20': —

% of Canopy Closure	C	N	E	S	W	Total
% Understory Cover 3'-20'						
% of Herbaceous Cover 0'-3'						

Percent of Invasive Cover per Plot (All Layers): 1

Plot Successional Stage: mid

List of Herbaceous Species 0'-3': J. Maple

Percent of woody debris: 2

Comments

Sheet __ of __

Forest Sampling Data Worksheet

VA Pine

Property: Montpelier Prepared By: CB

Stand #: 2 Plot #: 8 Plot Size: _____ Date: 9/21/05

Basal Area in sf/acre:

Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
VA Pine																
RMASC																
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees	2			1												

List of Common Understory Species 3'-20':

A. Holly Greenbrier

SG

List of Herbaceous Species 0'-3':

—

% of Canopy Closure

C	N	E	S	W	Total
	4			4	40

% Understory Cover 3'-20'

C	N	E	S	W	Total
		4	4	4	12

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					0

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: Early-mid

Percent of woody debris: 3

Comments

- pines in poor health

Sheet __ of __

Forest Sampling Data Worksheet

Mdk/
6an

Property: Montpelier Prepared By CB
Stand #: 3 Plot #: 9 Plot Size: ______ Date: 9/21/05

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot															
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
QM	••			[tally marks]			•									
SG				•												
VA Pine							•									
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20':
SG
RM
Greenbrier

List of Herbaceous Species 0'-3':
Sedges
Sensitive fern

% of Canopy Closure

C	N	E	S	W	Total
					40

% Understory Cover 3'-20'

C	N	E	S	W	Total
					80

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					80-90

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: mid

Percent of woody debris: 1

Comments

Sheet __ of __

Forest Sampling Data Worksheet

Property: Montpelier Prepared By: CB

Stand #: 4 Plot #: 10 Plot Size: _____ Date: 9/21/05

Basal Area in sf/acre:

Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
BC				••			•									
BG				••												
WO				•			•			•						
RM				•												
Maple	•			x												
B. Locust				•												
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees	1															

List of Common Understory Species 3'-20':

A. Holly
Greenbrier
B. Cherry

% of Canopy Closure

C	N	E	S	W	Total
					40

% Understory Cover 3'-20'

C	N	E	S	W	Total
					60

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					15

Percent of Invasive Cover per Plot (All Layers): <1

Plot Successional Stage: early

List of Herbaceous Species 0'-3':

J. Honeysuckle

Percent of woody debris: <1

Comments

- old homesite, have old homesite trees ... early successional ...

Sheet __ of __

Forest Sampling Data Worksheet

Property: Montpelier Prepared By: CB

Stand #: 4 Plot #: 11 Plot Size: _____ Date: 9/21/05

Basal Area in sf/acre:

Size class of trees > 20' height within sample plot

Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
A. Beech										1						
VA Pine				2						1						
WO							1			1						
BG				2												
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees										1						

List of Common Understory Species 3'-20':

WO
Beech
Mt. Laurel

List of Herbaceous Species 0'-3':

0

% of Canopy Closure

C	N	E	S	W	Total
					60

% Understory Cover 3'-20'

C	N	E	S	W	Total
					60

% of Herbaceous Cover 0'-3'

C	N	E	S	W	Total
					0

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: disturbed

Percent of woody debris: 4

Comments: - old homesite; old house & other structures with early successional species underneath

Sheet __ of __

Forest Sampling Data Worksheet

VA Pine

Property: Montecelis Prepared By CB
Stand #: 2 Plot #: 12 Plot Size: ______ Date: 9/21/05

Basal Area in sf/acre:	Size class of trees > 20' height within sample plot															
Tree Species	# of Trees 2-5.9" dbh			# of Trees 6-11.9" dbh			# of Trees 12-19.9" dbh			# of Trees 20-29.9 dbh			# of Trees > 30" dbh			Total
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	
VA Pine				• • • •			• • • •									
WO							• • •									
Beech				• •												
Total Number of Trees per Size Class																
Number & Size of Standing Dead Trees																

List of Common Understory Species 3'-20':
A. Beech
WO
Mt. Laurel

List of Herbaceous Species 0'-3':
0

% of Canopy Closure					
C	N	E	S	W	Total 80

% Understory Cover 3'-20'					
C	N	E	S	W	Total 60

% of Herbaceous Cover 0'-3'					
C	N	E	S	W	Total 0

Percent of Invasive Cover per Plot (All Layers): 0

Plot Successional Stage: mid

Percent of woody debris: 1

Comments
- pines in bad health ~~[illegible]~~ little tree vigor.

Sheet __ of __

Forest Sampling Data Worksheet

APPENDIX D.
FSD PLAN