

Hillside Compartment 1. Desired stand conditions indicating where habitat and wildlife variables warrant management. (696 acres dry forest and 220 acres in wet forest. Also, 37 acres in water and 100 acres in reforestation totaling 1,053 acres)

Forest Variables <sup>1</sup>	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition (2008 Cruise data)	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	63 % of plots are greater than 80 %	
Midstory cover	25 – 40 %	<20% or >50%	52 % of plots meet this condition 40 % is greater 60%	
Basal area (BA)	60 – 70 ft <sup>2</sup> / acre with ≥25% in older age classes <sup>2</sup>	>90ft <sup>2</sup> / acre or ≥60% in older age classes	86 BA	
Tree stocking	60 – 70 %	<50% or >90%	75 %	
Dominant trees <sup>3</sup>	>2 / acre	<1 / acre	2.5 / acre	
Understory cover	25 – 40%	<20%	28% of plots meet this condition 66% is less than 25%	X
Regeneration <sup>4</sup>	30 – 40% of area	<20% of area	131/acre of shade intolerant regeneration across entire area 518 total regen/ac.	X
Coarse woody debris (>10 inch diameter)	≥200 ft <sup>3</sup> / acres	<100ft <sup>3</sup> / acre	81 cu.ft./acre 2.6 logs/acre ave. 16.6" dbh	X
Small cavities (<10 inch diameter)	>4 visible holes / acre or >4 "snag" stems ≥4 inch dbh or ≥2 stems >20 inch dbh	<2 visible holes / acre or <2 snags ≥4 inch dbh or <1 stem ≥20 inch dbh	1.2 / acre 2.5 snags / acre ave. 16.3" dbh 5 tpa > 20"	
Den trees/large cavities <sup>5</sup> (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft <sup>2</sup> BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft <sup>2</sup> BA ≥ 26 inch dbh)	1 large cavity seen 3.2 culls/acre ave. 25.2" dbh	X
Standing dead and/or stressed trees <sup>5</sup>	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft <sup>2</sup> BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft <sup>2</sup> BA ≥ 10)	2.5 snags/acre ave. 16.3" dbh	X

<sup>1</sup> Promotion of species and structural diversity within stands is the underlying principle of management. Management should promote vines, cane, and Spanish moss within site limitations.

<sup>2</sup> "Older age class" stems are those approaching biological maturity, (i.e., senescence). We do not advocate aging individual trees but use of species-site-size relationships as a practical surrogate to discern age.

<sup>3</sup> Dominants (a.k.a. emergents) should have stronger consideration on more diverse sites, such as ridges and first bottoms.

<sup>4</sup> Advanced regeneration of shade-intolerant trees in sufficient numbers (circa 400/acre) to ensure their succession to forest canopy. Areas lacking canopy (i.e., group cuts) should be restricted to <20% of stand area.

<sup>5</sup> Utilizing BA parameters allows the forest manager to maintain this variable in size classes that are most suitable for the stand instead of using specific size classes noted.

Percent of Overstory, Midstory, Understory and presence of Vines and Cane, Hillside Compartment 1.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
63 % > 80	40 % > 60	6 % > 60	18 % sparse	99 % none
32 % 50-80	52 % 25-60	28 % 25-60	49 % moderate	1 % sparse
5 % < 50	8 % < 25	66 % < 25	33 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	16
	Pulpwood	74
	Cull	3
	Total	<b>93</b>
	Snags	3
	Logs	2.6

Basal Area:	Sawtimber	37
	Pulpwood	38
	Cull	11
	Total	<b>86</b>

Ave. dbh of sawtimber 20.5", ave. dbh of pulpwood 9.7"

Volume: 2,736 bd. ft. volume of sawtimber/acre  
10 cords of pulpwood/acre

HLD\_C1\_S66\_2013. Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-100 acres seedling planted 02/96)

Forest Variables <sup>1</sup>	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition (2008 Cruise data)	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	0 % of plots are greater than 80 %	
Midstory cover	25 – 40 %	<20% or >50%	0 % of plots meet this condition 100 % is greater than 60 %	<b>X</b>
Basal area (BA)	60 – 70 ft <sup>2</sup> / acre with ≥25% in older age classes <sup>2</sup>	>90ft <sup>2</sup> / acre or ≥60% in older age classes	2 BA	
Tree stocking	60 – 70 %	<50% or >90%	< 50 %	<b>X</b>
Dominant trees <sup>3</sup>	>2 / acre	<1 / acre	< 1/acre	<b>X</b>
Understory cover	25 – 40%	<20%	10 % of plots meet this condition 90% is greater than 60%	<b>X</b>
Regeneration <sup>4</sup>	30 – 40% of area	<20% of area	1,000 total regen. 400/acre of shade intolerant regeneration	
Coarse woody debris (>10 inch diameter)	≥200 ft <sup>3</sup> / acres	<100ft <sup>3</sup> / acre	0 cu.ft./acre	<b>X</b>
Small cavities (<10 inch diameter)	>4 visible holes / acre or >4 “snag” stems ≥4 inch dbh or ≥2 stems >20 inch dbh	<2 visible holes / acre or <2 snags ≥4 inch dbh or <1 stem ≥20 inch dbh	N/A	
Den trees/large cavities <sup>5</sup> (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft <sup>2</sup> BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft <sup>2</sup> BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees <sup>5</sup>	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft <sup>2</sup> BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft <sup>2</sup> BA ≥ 10)	N/A	

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<sup>5</sup> Utilizing BA parameters allows the forest manager to maintain this variable in size classes that are most suitable for the stand instead of using specific size classes noted.

Percent of Overstory, Midstory, Understory and presence of Vines and Cane, HLD\_C1\_S66\_2013.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
0 % > 80	100 % > 60	90 % > 60	30 % sparse	100 % none
0 % 50-80	0 % 25-60	10 % 25-60	10 % moderate	0 % sparse
100 % <50	0 % < 25	0 % < 25	60 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	0
	Pulpwood	8
	Cull	0
	Total	<b>8</b>
	Snags	0
	Logs	0

Basal Area:	Sawtimber	0
	Pulpwood	2
	Cull	0
	Total	2

Ave. dbh pulpwood 6.4"

Volume: 0.3 cords of pulpwood/acre