

Hillside Compartment 12. Desired stand conditions indicating where habitat and wildlife variables warrant management. (572 acres dry forest, 709 in wet forest/dying timber mostly inoperable, 180 acres in reforestation, and 276 acres in water including the borrow ponds, the rest in levee totaling 1,811 acres)

Forest Variables ¹	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	22% of plots are greater than 80 %	
Midstory cover	25 – 40 %	<20% or >50%	33% of plots were meet this condition	
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	75 BA	
Tree stocking	60 – 70 %	<50% or >90%	60 %	
Dominant trees ³	>2 / acre	<1 / acre	2.6 / acre	
Understory cover	25 – 40%	<20%	48% of plots meet this condition	
Regeneration ⁴	30 – 40% of area	<20% of area	277/acre of shade intolerant regeneration across entire area 627 total regen/ac.	
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	90 cu.ft./acre 3.5 logs/acre ave. 16” 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	1.8 cavities per acre 2.8 snags / acre ave. 15” dbh 7 tpa > 20”	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	0 large cavities noted 2 culls/acre ave. 27” dbh	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh inch dbh) (<2 ft ² BA ≥ 10)	2.8snags/acre ave. 15” dbh	X

¹ 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.

² “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.

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

⁴ 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.

⁵ 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 12.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
22 % > 80	58 % > 60	21 % > 60	18 % sparse	98 % none
65 % 50-80	33 % 25-60	48 % 25-60	20 % moderate	2 % sparse
13 % <50	9 % < 25	31 % < 25	62 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	13
	Pulpwood	84
	Cull	2
	Total	99
	Snags	2.8
	Logs	3.5

Basal Area:	Sawtimber	29
	Pulpwood	38
	Cull	8
	Total	75

Ave. dbh of sawtimber 20.4", ave. dbh of pulpwood 9.1"

Volume: 2,286.4 bd. ft. volume of sawtimber/acre
9 cords of pulpwood/acre

HLD_C12_S56_2013 Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-27 acres seedling planted 02/93, of which approximately 5 – 10 acres struggling to survive in swampy conditions)

Forest Variables ¹	Desired Stand Condition (LMJV 2007)	Conditions that May Warrant Management (LMJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	50 % of plots are greater than 80 % in the old portion	
Midstory cover	25 – 40 %	<20% or >50%	0 % of plots meet this condition	X
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	30 BA	
Tree stocking	60 – 70 %	<50% or >90%	< 50 %	X
Dominant trees ³	>2 / acre	<1 / acre	< 1/acre	X
Understory cover	25 – 40%	<20%	0 % of plots meet this condition	X
Regeneration ⁴	30 – 40% of area	<20% of area	150 total regen. 0/acre of shade intolerant regeneration	X
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	0 cu.ft./acre	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	N/A	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft ² BA ≥ 10)	N/A	

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² "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.

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

⁴ 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.

⁵ 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_C12_S56_2013.

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

Trees Per Acre:

Sawtimber	0
Pulpwood	80
Cull	0
Total	80
Snags	15
Logs	0

Basal Area:

Sawtimber	0
Pulpwood	30
Cull	0
Total	30

Ave. dbh pulpwood 8.3" only in original part of stand

Volume: 8.6 cords of pulpwood/acre

HLD_C12_S57_2013 Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-56 acres seedling planted 02/92)

Forest Variables ¹	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	30 % of plots are greater than 80 %	
Midstory cover	25 – 40 %	<20% or >50%	30 % of plots meet this condition	X
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	57 BA	
Tree stocking	60 – 70 %	<50% or >90%	53%	
Dominant trees ³	>2 / acre	<1 / acre	< 1/acre	X
Understory cover	25 – 40%	<20%	50% of plots meet this condition	
Regeneration ⁴	30 – 40% of area	<20% of area	440 total regen. 100/acre of shade intolerant regeneration	X
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	27 cu.ft./acre 2.5 logs / acre ave. 11.2 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	N/A	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (inch dbh) (<2 ft ² BA ≥ 10)	N/A 2.5 snags / acre ave. 13.9” dbh	

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

⁴ 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.

⁵ 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_C12_S57_2013.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
30 % > 80	60 % > 60	0 % > 60	40 % sparse	100 % none
50 % 50-80	30 % 25-60	50 % 25-60	50 % moderate	0 % sparse
20 % <50	10 % < 25	50 % < 25	10 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:

Sawtimber	5
Pulpwood	118
Cull	0
Total	123
Snags	2.5
Logs	2.5

Basal Area:

Sawtimber	8
Pulpwood	49
Cull	0
Total	57

Ave. dbh of sawtimber 17.7", ave. dbh of pulpwood 8.7"

Volume: 683 bd. ft. volume of sawtimber/acre
12.7 cords of pulpwood/acre

HLD_C12_S1_2013 Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-41 acres seedling planted 02/80)

Forest Variables ¹	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	100 % of plots are greater than 80 %	X
Midstory cover	25 – 40 %	<20% or >50%	33 % of plots meet this condition, 67 % > 60%	X
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	100 BA	X
Tree stocking	60 – 70 %	<50% or >90%	88 %	
Dominant trees ³	>2 / acre	<1 / acre	< 1/acre	X
Understory cover	25 – 40%	<20%	50% of plots meet this condition	
Regeneration ⁴	30 – 40% of area	<20% of area	717 total regen. 217/acre of shade intolerant regeneration	
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	54 cu.ft./acre 5 logs / acre ave. 10.6" 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	N/A	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft ² BA ≥ 10)	N/A 2.5 snags / acre ave. 14.8" dbh	

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

⁴ 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.

⁵ 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_C12_S1_2013.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
100 % > 80	67 % > 60	33 % > 60	0 % sparse	100 % none
0 % 50-80	33 % 25-60	50 % 25-60	33 % moderate	0 % sparse
0 % < 50	0 % < 25	17 % < 25	67 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	15
	Pulpwood	153
	Cull	0
	Total	168
	Snags	2.5
	Logs	5

Basal Area:	Sawtimber	24
	Pulpwood	76
	Cull	0
	Total	100

Ave. dbh of sawtimber 17.1", ave. dbh of pulpwood 9.5"

Volume: 1,635 bd. ft. volume of sawtimber/acre
18.3 cords of pulpwood/acre

HLD_C12_S7_2013 Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-48 acres seedling planted 03/81)

Forest Variables ¹	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	80 % of plots are greater than 80 %	X
Midstory cover	25 – 40 %	<20% or >50%	60 % of plots meet this condition	
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	119 BA	X
Tree stocking	60 – 70 %	<50% or >90%	107 %	X
Dominant trees ³	>2 / acre	<1 / acre	< 1/acre	X
Understory cover	25 – 40%	<20%	20% of plots meet this condition 40% > 60%	
Regeneration ⁴	30 – 40% of area	<20% of area	1,100 total regen. 540/acre of shade intolerant regeneration	
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	27 cu.ft./acre 5 logs / acre ave. 9.3" 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	N/A	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft ² BA ≥ 10)	N/A 3 snags / acre ave. 13.4" dbh	

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⁴ 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.

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Percent of Overstory, Midstory, Understory and presence of Vines and Cane,
HLD_C12_S7_2013.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
80 % > 80	40 % > 60	40 % > 60	40 % sparse	100 % none
20 % 50-80	60 % 25-60	20 % 25-60	60 % moderate	0 % sparse
0 % < 50	0 % < 25	40 % < 25	0 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	11
	Pulpwood	212
	Cull	0
	Total	223
	Snags	3.0
	Logs	5

Basal Area:	Sawtimber	16
	Pulpwood	103
	Cull	0
	Total	119

Ave. dbh of sawtimber 16.3", ave. dbh of pulpwood 9.4"

Volume: 1,187 bd. ft. volume of sawtimber/acre
26.6 cords of pulpwood/acre

HLD_C12_S10_2013 Desired stand conditions indicating where habitat and wildlife variables warrant management. (reforestation area-8 acres seedling planted 02/82)

Forest Variables ¹	Desired Stand Condition (LMVJV 2007)	Conditions that May Warrant Management (LMVJV 2007)	Existing Refuge Stand Condition	Existing Conditions meet or exceed 'May Warrant Management' levels
Overstory canopy cover	60 – 70 %	>80%	100 % of plots are 50-80 % canopy	
Midstory cover	25 – 40 %	<20% or >50%	67 % of plots meet this condition	
Basal area (BA)	60 – 70 ft ² / acre with ≥25% in older age classes ²	>90ft ² / acre or ≥60% in older age classes	89 BA	
Tree stocking	60 – 70 %	<50% or >90%	81 %	
Dominant trees ³	>2 / acre	<1 / acre	< 1/acre	X
Understory cover	25 – 40%	<20%	0% of plots meet this condition 100% > 60%	X
Regeneration ⁴	30 – 40% of area	<20% of area	1,033 total regen. 833/acre of shade intolerant regeneration	
Coarse woody debris (>10 inch diameter)	≥200 ft ³ / acres	<100ft ³ / acre	18 cu.ft./acre 1.7 logs / acre ave. 12" 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	N/A	
Den trees/large cavities ⁵ (>10 inch diameter)	1 visible hole / 10 acres or ≥2 stems ≥26 inch dbh (≥8 ft ² BA ≥26 inch dbh)	0 visible holes / 10 acres or <1 stem ≥26 inch dbh (<4 ft ² BA ≥ 26 inch dbh)	N/A	
Standing dead and/or stressed trees ⁵	>6 stems / acre ≥10 inch dbh or ≥2 stems ≥20 inch dbh (>4 ft ² BA ≥ 10 inch dbh)	<4 stems ≥10 inch dbh / acre or <1 stem ≥20 inch dbh (<2 ft ² BA ≥ 10)	N/A	

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⁴ 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.

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Percent of Overstory, Midstory, Understory and presence of Vines and Cane,
HLD_C12_S10_2013.

Overstory Canopy	Midstory Canopy	Understory Canopy	Vine Coverage	Cane
0 % > 80	0 % > 60	100% > 60	0 % sparse	100 % none
100 % 50-80	67 % 25-60	0 % 25-60	67 % moderate	0 % sparse
0 % < 50	33 % < 25	0 % < 25	33 % heavy	0 % heavy
Target 60-70	Target 25-40	Target 25-40		

Trees Per Acre:	Sawtimber	32
	Pulpwood	140
	Cull	0
	Total	172
	Snags	0
	Logs	1.7

Basal Area:	Sawtimber	41
	Pulpwood	48
	Cull	0
	Total	89

Ave. dbh of sawtimber 15.3", ave. dbh of pulpwood 8"

Volume: 2,900 bd. ft. volume of sawtimber/acre
8.3 cords of pulpwood/acre