PHASE

- Standard field plot
- 3 Standard field plot/FHM

PLOT STATUS

- At Least one accessible forest condition
- No accessible forest conditions Nonforest
- Nonsampled
- Landclearing
- Intensification

PLOT NONSAMPLED REASON

- 01 Outside U.S. boundary
- 02 Denied access
- 11 Out of state boundary

SAMPLE KIND

- Initial plot establishment
- Remeasurement of national plot design
- 3
- Replacement plot Remeasurement regional fixed-radius plot
- Remeasurement prism plot
- PLOT IN CORRECT COUNTY?
- 0 No 1 Yes

QA STATUS

- Standard production plot
- Cold check
- Reference plot
- Training / practice plot
- Botched plot file
- Blind check
- Hot check

CREW TYPE

- Standard field crew 2 QA crew

WATER ON PLOT

(excluding census & noncensus water. must occur on the subplot, in forest cond.)

- 0 None
- Permanent streams or ponds
- Deep swamps, bogs or marshes
- Ditch / canal
- Temporary streams
- Flood zones
- Other temporary water (specify in notes)

HORIZONTAL DISTANCE TO ROAD / URBAN / AG.

- 100 ft or less 101 ft to 300 ft
- 301 ft to 500 ft
- 501 ft to 1000 ft 1001 ft to 1/2 mile
- >1/2 mile to 1 mile
- >1 mile to 3 miles
- >3 miles to 5 miles
- >5 miles
- **GPS UNIT**

- GPS coordinates not collected
- Rockwell PLGR
- Other brand capable of field averaging Trimble GeoExplorer or Pathfinder Pro Recreational GPS (Garmin, Magellan, etc)
- Previous coordinates correct (in NaTally)

PLOT ACCESSIBILITY

- Typical plot for the area Plot suitable for a one-person crew
- Plot affected by seasonal high water
- Plot affected by permanent water Plot is accessed by boat
- Plot access requires long hike
- Plot has significant permanent thick brush
- Plot has significant temporary thick brush Plot has significant deadfall/windthrow
- Other (describe in plot notes)

PRESENT LAND USE

- Accessible timber land
- Accessible other forest land (unproductive)
 Other agricultural land 10
- Cropland
- 11 12
- Pasture (improved) Idle farmland 13
- Orchard
- 14 15 Christmas tree plantation
- Maintained wildlife openings
- 20
- Rangeland Other developed 30

- Cultural (business, residential, etc.) Rights-of-way (road, railroad, utility line) Recreation area 32
- 34 Mining 40 Other non-forest (barren land, rock)
- 42 Beaches
- Census water Noncensus water
- Nonsampled

CONDITION CLASS STATUS

- Accessible forest land
- Nonforest land Noncensus water
- Nonsampled

CONDITION NONSAMPLED REASON

- 01 Outside U.S. boundary
- Denied access area
- 03 Hazardous situation
- 10 Other

RESERVED STATUS

- Not reserved
- Reserved

OWNER CLASS

- National Forest
- National Grassland
- Other Forest Service National Park Service
- Bureau of Land Management
- Fish & Wildlife Service Department of Defense / Energy
- State
- 32 Local (County, Municipality, etc.)
- 33 Other Non-Federal Public
- 41 Corporate
- Non-Govt. Conservation / Natural Res. Organiz.
- (Nature Conservancy, Boy Scouts of Am.)
 Unincorporated Partnerships / Associations /
- Clubs (4H, Hunt Clubs that own, not lease)
- Native American (Indian) within reservation
- 45 Individual

OWNER GROUP

- 10 US Forest Service20 Other Federal
- State & Local Government

PRIVATE OWNER INDUSTRIAL STATUS (owned

- by industry w/ wood processing plant) Land is not owned by industrial owner with
- a wood processing plant Land <u>is</u> owned by industrial owner with a wood processing plant

STAND SIZE CLASS

- Nonstocked
- Up to 4.9" (seedlings / saplings)
- 5.0" to (8.9" softwoods) or (10.9" hardwoods) (9.0" softwoods) or (11.0" hardwoods) to 19.9"
- 40.0" plus

- REGENERATION STATUS
- Natural

1 Artificial

- TREE DENSITY
- Initial density class
- Density class 2 density different than 1
 Density class 3 density different than 1 & 2

- STAND STRUCTURE
- Nonstocked Single-storied
- Two-storied Multi-storied

DISTURBANCE (one acre in size & 25% of condition)

- None
- Insect damage to both
 Insect damage to understory veg
- Insect damage to trees (incl. seed/sap)
- Disease damage to both
- Disease damage to understory veg. Disease damage to trees (incl. seed/sap)
- Fire (crown & ground, prescribed or natural)
- Ground fire
- 32 Crown fire Animal (other than the following:) 40
- Beaver (including flooding caused by beaver) 42 Porcupine
- Deer / ungulate (hoofed mammal) Bear
- 45 Rabbit
- Domestic animal / livestock (includes grazing) Weather (other than the following:)
- Wind (includes hurricane, tornado) Flooding (weather-induced) Drought 53
- Earth movement/avalanche 60
- Vegetation (suppression, competition, vines)
 Unknown / not sure / other (include in notes)
- 80 Human (any significant threshold human caused damage not described in the disturbance codes above, or in the treatment codes below)

TREATMENT

None

PLOT, CONDITION & SUBPLOT LEVEL SUMMARY

- (one acre in size & 25% of condition)
- - Clearcut harvest (residual stand stocking <50%) Partial harvest (high grading or selection
- harvest) Seed-tree / shelterwood harvest
- Commercial thinning
- 15 Timber stand improvement (stands less than 5" DBH)
- Site preparation 30
- Artificial regeneration (50% stocked)
 Natural regeneration (50% stocked) 40
- Other silvicultural treatment

PHYSIOGRAPHIC CLASS

- 11 Dry tops 12 Dry slope
- Dry slopes Deep sands
- 19 Other xeric
- 21 Flatwoods 22 Rolling uplands
- 23 24 Moist slopes & coves Narrow floodplains / bottomlands
- Broad floodplains / bottomlands Other mesic
- 25 29
- 31 Swamps / bogs
- 32 33 Small drains Bays & wet pocosins
- 34 35 Beaver ponds
- Cypress ponds Other hydric
- **OPERABILITY** No problems Seasonal access due to water conditions in wet
- Mixed wet & dry areas Broken terrain, cliffs, gullies, etc
- Year-round water problems
- 5 Slopes of 20 - 40%

Slopes more than 40%

FIRE / GRAZING (by domestic animals; must occur on the subplot in

- forest) No evidence of fire / grazing
- Evidence of fire / grazing
- SUBPLOT STATUS Sampled - at least one accessible forest land cond.
- Sampled no accessible forest land condition Nonsampled
- Replacement subplot (SK 2 & 8 only)
- SUBPLOT NONSAMPLED REASON Outside U.S. boundary

02 Denied access Hazardous situation

- NONNATIVE INVASIVE PLANTS
- 0000 None 0341 Tree of heaven
- 0345
- Mimosa (Silktree) Royal Paulownia (princesstree) 0712 0993 Chinaberry
- Popcorn tree (tallowtree) Russian olive 0994
- 0997 Silverthorn
- 2038 Autumn olive
- 2042 Winged euonymus, burning bush 2103
- Chinese / European privet Japanese/glossy privet 2104 Bush honeysuckle
- 2113 Nandina (heavenly or sacred bamboo) 2160 Exotic roses
- 3026 Oriental / Asian bittersweet Exotic climbing yams - Air yam (air potato) or chinese yam 3030
- 3042
- Wintercreeper
 English ivy
 Japanese honeysuckle 3071 3101
- 3123 Kudzu 3211 Periwinkle
- Chinese / Japanese wisteria Giant reed 3251
- 4008 4051
- Cogongrass (japgrass) Nepalese browntop 4055 4080
- Chinese silvergrass 4085 4130 Exotic bamboos
- Japanese climbing fern 6002 Garlic mustard

Shrubby lespedeza

Chinese lespedeza 6095 Tropical soda apple

6052

FL06

- FLORIDA ONLY FL02
- Australian-pine Camphor tree FL04 Carrotwood Melaleuca
- FL08 Schefflera FL09 Java plum
- Coral ardisia Lantana

- FL22 Surinam cherry
- Common guava
- FI 27
- Downy rose myrtle Brazilian pepper, Florida Holly FL28
- Wetland nightshade FL29
- FL31 Rosary pea FL35 Cat's-claw vine
- FI 37 Skunk vine
- FL46 Napier grass FL54 Old World climbing fern
- FI 56 Sword fern
- FL64 Hairy indigo

NONNATIVE INVASIVE PERCENT COVERAGE

- 01 10% 11 50%
- 4 51 90% 5 91 - 100%
- PLOT TYPE

2 Microplot

3

DISTAN	CE &	AZIMUTHS	TO / FROM
SUBF	LOT	S OTHER T	HAN PC
From	To	Azimuth	Distance
2	3	150	207.8
2	4	210	207.8

10% 9	stocking	j, by abn	ciass
DBH CLASS	1 ACRE	½ ACRE	1/6 ACRE
DBH CLASS	NI	JMBER OF TR	REES
SEEDLING	60	30	10
2	56	28	9
4	46	23	8
6	34	17	6
8	24	12	4
10	16	8	3
12	11	5	2
14	9	4	2
16	7	2	- 1

		Р	HO.	ТО	NO	TATIO	ONS	;				
PLOT TYPE	NOTATION	Location on Photo	Plot #	Reference Angle	Course Line	Interior Angle (angle of intersection)	Starting Point Circled	Way Point Circled	Land Use	Date (mm/dd/yyyy)	Cruiser(s) Initial & #	Note Pin Prick Moved
For	oct	Front	Χ	Χ	Х	Х	Χ					Х
FOI	CSI	Back	×									×
Par	tial	Front	X	X	×	Χ	X					×
Fai	uai	Back	Χ						Х	Χ	Χ	Х
Nonfe	oraet	Front	Х	X	X	Χ		X				Χ
.40111	J. 551	Back	Χ						Х	Χ	Χ	Χ
Nonsa	mplod	Front	Χ	Χ	Χ	Χ						Χ
INOIISA	mpied	Rack	Y			1 -			Y	Y	Y	Y

SLOPE CORRECTION FORMULA

i.e. 45% as .45 & follow formula:

- .45 INV (or 2nd) TAN COS x distance = Horizontal distance
- If you are trying to go a certain distance i.e. 70 feet, measure slope & slope distance. Answer is horizontal distance. Subtract from distance you want to go. Answer gives number of feet you need to add to reach goal distance.

- **BOUNDARY CHANGE**
- Cruiser error Procedural change

3 270 207.8

,.		,,,	0.000
DBH CLASS	1 ACRE	½ ACRE	1/6 ACRE
DBH CLASS	NI	JMBER OF TR	REES
SEEDLING	60	30	10
2	56	28	9
4	46	23	8
6	34	17	6
8	24	12	4
10	16	8	3
12	11	5	2
14	9	4	2
16	7	3	1

45 INV TAN COS x 70 = horizontal distance 70 - horizontal distance = slope correction

- Subplot
- **BOUNDARY STATUS** Delete boundary
- New boundary Remeasured boundary (with or without change)

DBH CLASS	1 ACRE	½ ACRE	1/6 ACRE		
DBH CLASS	NI	REES			
SEEDLING	60	30	10		
2	56	28	9		
4	46	23	8		
6	34	17	6		
8	24	12	4		
10	16	8	3		
12	11	5	2		
14	9	4	2		
16	7	3	1		
18	6	3	1		
20	5	2	1		

WHITE PINE GROUP

WHITE PINE GROUP
Forests in which eastern white pine, red pine, or jack pine, singly or in combination, comprise a plurality of the stocking. (Common associates include hemlock, aspen, birch, and manle.)

103 Eastern white pine: Associates - pitch pine, gray birch, aspen, red maple, pin cherry, white oak, paper birch sweet birch, yellow birch, black cherry, white ash, northerr red oak, sugar maple, basswood, hemlock, northern white cedar, yellow-poplar, white oak, chestnut oak, scarlet oak, and shortleaf pine. Sites – wide variety, but best development on well drained sands and sandy loams

104 Eastern white pine / Eastern hemlock: Associates -104 Eastern white pine / Eastern hemlock: Associates — beech, sugar maple, basswood, red maple, yellow birch, black cherry, white ash, paper birch, sweet birch, northern red oak, white oak, chestnut oak, yellow-poplar, and cucumbertree. Sites — wide variety but favors cool locations, moist ravines, and north slopes.

105 Eastern hemlock: Associates - beech, sugar maple, yellow birch, basswood, red maple, black cherry, white ash, white pine, paper birch, sweet birch, northern red oak, and white oak. Sites – cool locations, moist ravines, and north

SPRUCE / FIR GROUP

Forests in which spruce, or true firs, singly or in combination, comprise the plurality of the stocking. (Common associates include white cedar, tamarack, maple, birch, and hemlock,)

121 Balsam fir: Associates - black, white, or red spruce paper or yellow birch, quaking or bigtooth aspen, beech, red maple, hemlock, tamarack, black ash, or northern white Sites – upland sites on low lying moist flats and in

123 Red Spruce: Associates – vary widely and may include red maple, yellow birch, eastern hemlock, eastern white pine, white spruce, northern white-cedar, paper birch, pin cherry, gray birch, mountain ash, beech, striped maple, sugar maple, northern red oak, red pine, and aspen. Sites include moderately well drained to poorly drained flats and thin-slopes and on varying acidic soils in abandoned fields and pastures. This code should be used where red spruce and pastiles. This code should be used where the spruce comprises a plurality or majority of the stand's stocking but where balsam fir is either nonexistent or has very little stocking. Otherwise the plot would be coded 124, red spruce / balsam fir.

124 Red spruce / balsam fir: Associates – red maple, paper birch, white pine, hemlock white spruce, and northern white-cedar. Sites - moderately drained to poorly drained flats or on thin-soiled upper slopes.

LONGLEAF / SLASH PINE GROUP

Forests in which longleaf or slash pine, singly or in combination, comprises a plurality of the stocking. (Common associates include other southern pines, oak, and aum.)

141 Longleaf pine: Longleaf pine occurs as a pure type or comprises a majority of the trees in the overstory.

Associates – slash, loblolly and shortleaf pine, southern red Associated = stast, journing and instrueta plants, southern the oak, blackjack oak, water oak, persimmon, and sweetgum. Sites = those areas that can and do burn on a periodic basis – usually occurs on middle and upper slopes with a low severity of hardwood and brush competition.

142 Slash pine: Slash pine is pure or provides a majority of the stocking. Associates – on moist sites; a wide variety of moist-site hardwoods, pond pine, and pondcypress. On dry sites; a wide variety of dry-site hardwoods, longleaf, loblolly, and sand pine. Sites – both moist and well-drained flatwords and bays. flatwoods, and bays.

LOBLOLLY / SHORTLEAF PINE GROUP Forests in which loblolly pine, shortleaf pine, or other southern yellow pines (except slash and longleaf), singly or in combination, comprise a plurality of the stocking. (Common associates include other southern yellow pines, oak, blackgum, and sweetgum.)

161 Loblolly pine: Associates – sweetgum, southern red oak, post oak, blackjack oak, blackgum, yellow-poplar, and pond pine. Sites – upland soils with abundant moisture but good drainage and on poorly drained depressions.

162 Shortleaf pine: Associates – white oak, southern red oak, scarlet oak, black oak, hickory, post oak, blackjack oak, blackgum, red maple, pitch pine, and Virginia pine. Sites – low, well drained ridges to rocky, dry, south slopes and the better drained spur ridges on north slopes and also on old

163 Virginia pine: Associates – shortleaf pine, white oak chestnut oak, southern red oak, black oak, sweetgum, red maple, blackgum, and pitch pine. Sites – dry sites, often abandoned fields

164 Sand pine: Sand pine occurs in pure sands or provides a majority of the stocking. Associates – dwarf live oak, dwarf post oak, turkey oak, persimmon, and longleaf pine. Sites – dry, acidic, infertile sands.

165 Table-mountain pine: Associates - chestnut oak scarlet oak, pitch pine, and black oak. Sites – poor, dry, often rocky slopes.

166 Pond pine: Associates – slash and loblolly pine, sweetgum, sweetbay, loblolly bay, red bay, pond and baldcypress, swamp tupelo red maple and Atlantic whitecedar. Sites – low, poorly drained areas, swamps, and marshes.

167 Pitch pine: Associates - chestnut oak, scarlet oak table-mountain pine, black oak, and blackgum. Sites relatively infertile ridges, dry flats, and slopes.

168 Spruce pine: Spruce pine comprises a majority of the stocking. Associates – any of the moist site softwood or hardwood species. Sites – moist or poorly drained areas.

PINYON/JUNIPER GROUP

181 Eastern redcedar: Associates - gray birch, red maple, sweet birch, Virginia pine, shortleaf pine, oak. Sites – usually dry uplands and abandoned fields on limestone outcrops and other shallow soils but can grow well on good

182 Rocky Mountain juniper 184 Juniper woodland

FOREST TYPES

185 Pinyon juniper woodland

PONDEROSA PINE GROUP

221 Ponderosa nine

OTHER WESTERN SOFTWOOD GROUP

362 Southwestern white pine

366 Limber pine

368 Miscellaneous western softwoods

EXOTIC SOFTWOODS GROUP

381 Scotch pine: plantation type, not naturally occurring.

382 Australian-pine

383 Other exotic softwoods

384 Norway spruce: plantation type, not naturally occurring.

OAK / PINE GROUP Forests in which hardwoods (usually upland oaks) comprise a plurality of the stocking, but in which pines comprise 25 to 50 percent of the stocking. (Common associates include gum, hickory, and yellow-poplar.)

401 Fastern white nine / northern red oak / white ash-401 Eastern white pine / northern red oak / white asn: Associates – red maple, basswood, yellow birch, bigtooth aspen, sugar maple, beech, paper birch, black cherry, hemlock, and sweet birch. Sites – deep, fertile, well-drained soil.

402 Eastern redcedar / hardwood: Associates - oak hickory, walnut, ash, locust, dogwood, blackgum hackberry winged elm, shortleaf pine, and Virginia pine. Sites – usua dry uplands and abandoned fields. Sites – usually

403 Longleaf pine / oak: Longleaf pine and scrub oaks – primarily turkey, bluejack, and dwarf post oak, comprise the type. Associates – southern scrub oaks in the understory. Sites - common on sandhills where soils are dry, infertile and coarse textured.

404 Shortleaf pine / oak: Associates - (oaks generally include white, scarlet, blackjack, black, post, and southern red) hickory, blackgum, sweetgum, Virginia pine, and pitch pine. Sites – generally in dry, low ridges, flats, and south slopes.

405 Virginia pine / southern red oak: Associates – black oak, scarlet oak, white oak, post oak, blackjack oak, shortleaf pine, blackgum, hickory, pitch pine, table-mountain pine, chestnut oak. Sites - dry slopes and ridges

406 Loblolly pine / hardwood: Associates - wide variety of moist and wet site hardwoods including blackgum, sweetgum, yellow-poplar, red maple, white and green ash, and American elm; on drier sites associates include southern and northern red oak, white oak, post oak, scarlet oak, persimmon, and hickory. Sites – usually moist to very moist though not wet all year but also on drier sites.

407 Slash pine / hardwood: Slash pine and a variable mixture of hardwoods comprise the type. Associates – codominant with the slash pine component are sweetbay, blackgum, lobolly-bay, pondcypress, pond pine, Atlantic white-cedar, red maple, ash, and water oak. Sites – undrained or poorly drained depressions such as bays or pocosins and along pond margins.

409 Other pine / hardwood

OAK / HICKORY GROUP

Combination, comprise a plurality of the stocking. The exception in these types where pine comprise 25 to 50 percent of the stocking, in which case the stand would be classified oak-pine. (Common associates include yellow-poplar, elm, maple, and black walnut.)

501 Post oak / blackjack oak: Associates - blackjack oak. hickory, southern red oak, white oak, scarlet oak, shingle oak, live oak, shortleaf pine, Virginia pine, blackgum, sourwood, red maple, winged elm, hackberry, chinkapin oak, Shumard oak, dogwood, and eastern redcedar. Sites - dry uplands and ridges

502 Chestnut oak: Associates - scarlet oak white oak black oak, post oak, pitch pine, blackgum, sweetgum, red maple, red oak, shortleaf pine, and Virginia pine. Sites – rocky outcrops with thin soil, ridge tops.

503 White oak / red oak / hickory: Associates oak, bur oak, pin oak, white ash, sugar maple, red maple, walnut, basswood, locust, beech, sweetgum, blackgum, yellow-poplar, and dogwood. Sites – wide variety of well

504 White oak: Associates - black oak northern red oak bur oak, hickory, white ash, and yellow-poplar. Sites – scattered patches on upland loamy soils but on drier sites than type 503.

505 Northern red oak: Associates - black oak, scarlet oak, chestnut oak, and yellow-poplar. Sites - spotty distribution on ridge crests and north slopes in mountains but also found on rolling land, slopes and benches on loamy soil.

506 Yellow-poplar / white oak / northern red oak ciates – black oak, hemlock, blackgum, and hickory – northern slopes, coves, and moist flats.

507 Sassafras / persimmon: Associates – elm, eastern redcedar, hickory, ash, sugar maple, yellow-poplar, and oaks. Sites – abandoned farmlands and old fields.

508 Sweetgum / yellow-poplar: Associates – red maple white ash, green ash, and other moist site hardwoods. Sites generally occupies moist, lower slopes.

509 Bur oak: Associates – northern pin oak, black oak, chinkapin oak, and eastern redcedar in northern and dry upland sites; shagbark hickory, black walnut, eastern cottonwood, white ash, American elm, swamp white oak, honey locust, and American basswood in southern and lowland sites. Sites – drier uplands to moist bottomlands with the drier uplands more common in the northern part of the range and the moist bottomlands more common in the northern part of southern part of the range.

510 Scarlet oak: Associates - black oak, southern red oak, 51U Scarlet Oak: Associates — Diack Oak, southern red or chestnut oak, white oak, post oak, hickory, pitch pine, blackgum, sweetgum, black locust, sourwood, dogwood, shortleaf pine, and Virginia pine. Sites — dry ridges, south-or west-facing slopes and flats but often moister situations probably as a result of logging or fire.

511 Yellow-poplar: Associates - black locust, red maple, sweet birch, cucumbertree, and other moist-site hardwoods (except sweetgum, see type 508) and white oak and northern red oak (see type 503). Sites – lower slopes, northerly slopes, moist covers, flats, and old fields.

512 Black walnut: Associates – yellow-poplar, white ash, black cherry, basswood, beech, sugar maple, oaks, and hickory. Sites – coves and well-drained bottoms.

513 Black locust: Associates - many species of hardwoods and pines may occur with it in mixture, either having been planted or from natural seeding. Sites – may occur on any well-drained soil but bust on dry sites, often in

514 Southern scrub oak: This forest cover type consists of a mixture of scrub oaks that may include several of the following species: turkey oak, bluejack oak, blackjack oak, dwarf post oak, and dwarf live oak. Sites – dry sandy ridges, the type frequently develops on areas formerly occupied by

515 Chestnut oak / black oak / scarlet oak: Associates -515 Chestnut oak / black oak / scarlet oak: Associates – northern and southern red oaks, post oak, white oak, sourwood, shagbark hickory, pignut hickory, yellow-poplar, blackgum, sweetgum, red maple, eastern white pine, pitch pine, Table Mountain pine, shortleaf pine, and Virginia pine. Sites – dry upland sites on thin-soiled rocky outcrops on dry ridges and slopes.

519 Red maple / oak: Associates - the type is dominated by red maple and some of the wide variety of hardwood associates include upland oak, hickory, yellow-poplar, black locust, sassafras as well as softwoods like Virginia and shortleaf pine. Sites – wide variety of upland sites.

520 Mixed upland hardwoods: Associates - Any mixture of hardwoods of species typical of the upland central hardwood region, should include at least some oak. Sites wide variety of upland sites.

OAK / GUM / CYPRESS GROUP

Dottomland forests in which tupelo, blackgum, sweetgum, oaks, or cypress, singly or in combination, comprise a plurality of the stocking except where pines comprise 25 to 50 percent in which case the stand would be classified oak

601 Swamp chestnut oak / cherrybark oak: Associates white ash, hickory, white oak, Shumard oak, blackgum, sweetgum, southern red oak, post oak, American elm, winged elm, yellow-poplar, and beech. Sites – within alluvial flood plains of major rivers on all ridges in the terraces and on the best fine sandy loam soils on the highest first bottom ridaes.

602 Sweetgum / Nuttall oak / willow oak: Associates sugarberry, green ash, American elm, pecan, cottonwood, red maple, honeylocust and persimmon. Sites – first bottom ridges and terrace flats, except in deep sloughs, swamps and the lowest flats.

605 Overcup oak / water hickory: Associates – willow oak, American elm, green ash, hackberry, persimmon, and red maple. Sites – in South within alluvial flood plains in low, poorly drained flats with clay soils; also in sloughs and lowest backwater basins and low ridges with heavy soils that are subject to late spring inundation.

606 Atlantic white-cedar: Associates - North include gray birch, pitch pine, hemlock, blackgum, and red ma South includes pond pine, baldcypress, and red maple Sites – usually confined to sandy-bottomed, peaty, interior, and river swamps, wet depressions, and stream banks.

607 Baldcypress / water tupelo: Associates - willow, red maple, American elm, persimmon, overcup oak, and sweetgum. Sites – very low, poorly drained flats, deep sloughs, and swamps wet most all the year.

608 Sweetbay / swamp tupelo / red maple: Associates – blackgum, loblolly and pond pines, American elm, and other moist-site hardwoods. Sites – very moist but seldom wet all year-shallow ponds, muck swamps, along smaller creeks in Coastal Plain.

609 Cypress: >50% stocking of Baldcypress and/or Pondcypress. Associates – Blackgum, willow, red maple, American elm, persimmon, overcup oak, and sweetgum. Sites- very low, poorly drained flats, deep sloughs, and swamps wet most all the year. Also, floodplains and stream

ELM / ASH / COTTONWOOD GROUP

Dottomland forests in which elm, ash, or cottonwood, singly or in combination, comprise a plurality of the stocking. (Common associates include willow, sycamore, American beech, and maple.)

701 Black ash / American elm / red maple: Associates silver maple, swamp white oak, sycamore, pin oak, blackgum, white ash, and cottonwood. Sites – mois areas, swamps, gullies, and poorly drained flats. - moist to wet

702 River birch / sycamore: Associates – red maple, black willow, and other moist-site hardwoods. Sites – n soils at edges of creeks and rivers.

703 Cottonwood: Associates - willow, white ash, green ash, and sycamore. Sites - stream banks where bare, moist soil is available.

704 Willow: Associates - cottonwood, green ash, sycamore, pecan, American elm, red maple, and boxelder. Sites - stream banks where bare, moist soil is available

705 Sycamore / pecan / American elm: Associates – boxelder, green ash, hackberry, silver maple, cottonwood, willow, sweetgum, and river birch. Sites – bottomlands, alluvial flood plains of major rivers.

706 Sugarberry / hackberry / elm / green ash: Associates - pecan, blackgum, persimmon, honeylocust, red maple, hackberry, and boxelder. Sites - low ridges and flats

707 Silver maple / American elm: Silver maple and American elm are the majority species in this type. Associates – sweetgum, pin oak, swamp white oak, eastern cottonwood, sycamore, green ash, and other moist-site chardwoods, sycamore, green asin, and other missersine hardwoods, according to the region. Sites – primarily on well-drained moist sites along river bottoms and floodplains and beside lakes and larger streams.

708 Red maple / lowland: Red maple comprises a majority of the stocking. Because this type grows on a wide variety of sites over an extensive range, associates are diverse. Associates include yellow-poplar, blackgum, sweetgum, and loblolly pine. Site – generally restricted to very moist to wet sites with poorly drained soils, and on swamp borders.

709 Cottonwood / willow: Associates – white ash, green ash, sycamore, American elm, red maple, and boxelder. Sites – stream banks where bare, moist soil is available.

MAPLE / BEECH / BIRCH GROUP

Forests in which maple, American beech, or yellow birch, singly or in combination, comprise a plurality of the stocking. (Common associates include hemlock, elm, basswood, and

801 Sugar maple / beech / yellow birch: Associates — basswood, red maple, hemlock, northern red oak, white pine, black cherry, sweet birch, American elm, rock elm, and eastern hophornbeam. Sites - fertile, moist, well-drained

802 Black Cherry: Associates – sugar maple, northern red oak, red maple, white ash, basswood, sweet birch, butternut, American elm, and hemlock. Sites – fertile, moist, well-

803 Cherry / ash / yellow-poplar: Associates – sugar maple, American beech, northern red oak, white oak, blackgum, hickory, cucumbertree, and yellow birch. Sites – fertile, moist, well-drained sites.

805 Hard maple / basswood: Associates - white ash northern red oak, eastern hophornbeam, American elm, red maple, eastern white pine eastern hemlock. Sugar maple and basswood occur in different proportions but together comprise the majority of the stocking. Sites – fertile, moist, well-drained sites.

807 Elm / ash / locust: Associates - Locust, silver maple, boxelder, elm, red maple, green ash predominate. Sites upland.

809 Red maple / upland: Associates - the type is sus xec maple / upland: Associates – the type is dominated by red maple and some of the wide variety of northern hardwood associates include sugar maple, beech, birch, aspen, as well as some northern softwoods like white pine, red pine, and hemlock; this type is often man-made and may be the result of repeated cuttings. Sites – uplands. (See type 519 under oak / hickory group).

ASPEN/BIRCH GROUP

902 Paper birch

WESTERN OAK GROUP

925 Deciduous oak woodland: Primarily a shrub type, it often occurs in small colonies or mottes. This type is made up of Mohrs oak (also called shin oak) forms mixed stands up of Monrs ank (also called shin oak) forms mixed stands with other oaks of this cover type. Much variation exists in the shin oak complex as there may be as many as five phonological variants. Different leaf-out dates are often evident in the same stand, and acorn size is highly variable within the hybrids. Sites – Because of Mohrs oak's preference for calcareous soils, it is most common where caliche fragments are on or near the soil surface.

952 Mesquite woodland: Honey mesquite and screwbean mesquite wouldand. Honey inesquite and sciewbear mesquite comprise the majority of the stocking of this cover type. Honey mesquite associates, which are many, vary with climate and soils. Sites – occurs on a wide array of sites and soils, which largely regulate the rate and extent of growth and development.

955 Miscellaneous western hardwood woodlands

TROPICAL HARDWOODS GROUP

981 Sabal palm: Through most of its range sabal palm 991 Sabal palm: Inrough most or its range sabal palm (cabbage palmetto) comprises a plurality of the stocking. Associates – Sand live oak, slash pine, live oak, laurel oak, water oak, baldcypress, southern magnolia, red maple, redbay, swamp tupelo, sweetgum, southern redcedar, and loblolly pine. In south central Florida, sabal palm grows in pure stands in wet prairie areas; in extreme southern Florida, tropical hardwoods replace temperate hardwoods as associates. Sites – can tolerate a broad range of soil pH, salinity, and drainage.

982 Mangrove: Forests in which mangrove comprises a majority of the stocking. Associates – cabbage palm (sabal palm) on some of the higher sites in the area. Sites – predominantly salt marshes; mangrove frequently develops its own island or shoreline made up of a dense mat of root

989 Other tropical: This type consists of dense forests of hardwood trees and palms. Associates – gumbo-limbo, wild-tamarind, poisonwood (Florida poisonwood), pigeon-plum, black ironwood (leadwood), torchwood, lancewood, lancewood, mastic, and willow bustic, as well as more temperate live oak and red bay. Sites - Occurs on land slightly higher than surrounding fresh and saltwater marshes or on pineland.

EXOTIC HARDWOODS GROUP

991 Paulownia

992 Melaleuca

993 Eucalyptus

995 Other exotic hardwoods

CHARTS AND TABLES

	HARD\	WOOD TREE	GRADES	FOR FACTORY LUMBER
GRADE FACTOR	1	2	3	TIE & TIMBER LOGS (GRADE 4)
LENGTH OF GRADING ZONE (FEET)	Butt 16	Butt 16	Butt 16	BUTT OR UPPER
LENGTH OF GRADING SECTION A(FT)	BEST 12	BEST 12	BEST 12	8" + DIB AT TOP OF GRADING SECTION
DBH, MINIMUM (INCHES)	16 ^B	13	11	NO REQUIREMENTS. NOT GRADED ON CUTTING BASIS.
DIAMETER, MINIMUM INSIDE BARK AT TOP OF GRADING SECTION (IN)	13 ^B 16 20	11 ^c 12	8	SOUND SURFACE DEFECTS PERMITTED: SINGLE KNOTS – ANY NUMBER, IF NONE HAS AN AVERAGE DIAMETER EXCEEDING 1/3 LOG DIAMETER AT POINT OF OCCURANCE. WHORLED KNOTS – ANY NUMBER, IF SUM OF COLLAR DIAMETERS DOES NOT EXCEED 1/3 DIAMETER AT POINT OF OCCUPANCE.
CLEAR CUTTINGS (ON THE 3 RD BEST FACE): D LENGTH, MINIMUM (FEET)	7 5 3	3 3	2	HOLES – ANY NUMBER NOT EXCEEDING KNOT SPECIFICATIONS, IF DO NOT EXTEND OVER 3" INTO CONTAINED TIE OR TIMBER.
NUMBER ON FACE (MAXIMUM)	2	2 3	(E)	UNSOUND DEFECTS PERMITTED: SURFACE - ANY NUMBER & SIZE IF DO NOT
* YIELD IN FACE LENGTH (MINIMUM)	5/6 (10')	4/6 (8')	3/6 (6')	EXTENDINTO CONTAINED TIE OR TIMBER, OR IF DO, EXTENT SHALL NOT EXCEED SOUND KNOT LIMITATIONS. INTERIOR – NONE EXCEPT 1 SHAKE NOT MORE THAN 1/3 WIDTH OF CONTAINED TIE OR TIMBER, & SPLIT NOT OVER 5" LONG.
CULL DEDUCTION, INCLUDING CROOK & SWEEP BUT EXCLUDING SHAKE, MAXIMUM WITHIN GRADING SECTION (%)	9	9 ^F	50	SWEEP SHALL NOT EXCEED ½ SMALL END DIAMETER OR 16' LOG OR ¼ SMALL DIAMETER OF HALF LOG.

NUMBER IN () ARE ON 12' GRADING ZONE.

WHENEVER A 14 OR 16 FOOT SECTION OF THE BUTT 16-FOOT LOG IS BETTER THAN THE BEST 12-FOOT SECTION, THE GRADE OF THE LARGER SECTION WILL BECOME THE GRADE OF THE TREE. THIS LONGER SECTION, WHEN USED, IS THE BASIS FOR DETERMINING THE GRADING FACTORS SUCH AS DIAMETER & CULL DEDUCTION.

IN BASSWOOD & ASH, DIB AT TOP OF GRADING SECTION MUST BE 12" & DBH MUST BE 15"

GRADE 2 TREES CAN BE 10" DIB AT TOP OF GRADING SECTION IF OTHERWISE MEETING SURFACE REQUIREMENTS FOR SMALL GRADE 1'S.

A CLEAR CUTTING IS A PORTION OF A FACE FREE FROM DEFECTS, EXTENDING THE WIDTH OF THE FACE. A FACE IS ¼ THE SURFACE OF THE GRADING

SECTION AS DIVIDED LENGHTWISE.

UNLIMITED

FIFTEEN % CROOK & SWEEP OR 40% TOTAL CULL DEDUCTION IS PERMITTED IN GRADE 2 IF SIZE & SURFACE OF GRADING SECTION QUALIFY AS GRADE 1. IF ROT SHORTENS THE REQUIRED CLEAR CUTTING TO THE EXTENT OF DROPPING THE BUTT LOG TO GRADE 2, DO NOT DROP THE TREE'S GRADE TO 3 UNLESS CULL DEDUCTION FOR ROT IS GREATER THAN 40%.

	EASTE	RN WHITE PINE TREE GRA	ADES	
GRADING FACTORS	GRADE 1	GRADE 2	GRADE 3	GRADE 4
Minimum DBH (in.)	9	9	9	9
Maximum weevil injury in butt 16-ft. section (number)	None	None	2 injuries	No limit
Minimum face requirements on butt 16-ft section	Two full length or four 50% length good faces.¹ (In addition, knots on balance of faces shall not exceed size limitations for Grade 2 sections.)	NO GOOD FACES REQUIRED. Maximum diameter of knots on 3 best faces: SOUND RED KNOTS not to exceed 1/6 of scaling diameter or 3-in maximum. ² DEAD OR BLACK KNOTS, including overgrown knots, not to exceed 1/12 scaling diameter and 1- 1/2 in maximum. ²	NO GOOD FACES REQUIRED. Maximum diameter of knots on 3 best faces: SOUND RED KNOTS not to exceed 1/3 of scaling diameter or 5-in maximum: DEAD OR BLACK KNOTS, including overgrown knots, not to exceed 1/6 scaling diameter and 2-1/2 in maximum.	Includes all trees not qualifying for Grade 3 or better and judged to have at least 1/3 of their gross volume in sound wood suitable for manufacture into standard lumber
Maximum sweep or crook in butt 16-ft section	20%	30%	40%	No limit
Maximum total scaling	50%	50%	50%	No limit

After the tentative grade of the section is established from face examination, the section will be **reduced one grade** whenever the following defects are evident:

CONKS, PUNK KNOTS AND PINE BORER DAMAGE ON THE SURFACE OF THE SECTION

Degrade one grade if present on one face Degrade two grades if present on two faces

Degrade three grades if present on three to four faces

Degrade three grades if present on three to four faces

If the final grade of the grading section is 1, 2, or 3, examine the tree for weevil injuries in the merchantable stem above 16-ft, If the total apparent weevil damage exceed 3, degrade the tree grade one below the section grade. Otherwise, the tree grade is the same as the final section grade.

- Trees under 16-in DBH require four full length good faces.
 Scaling diameter is estimated at the top of the 16-ft grading section.
 No tree will be designated below Grade 4 unless net tree scale is less than one-third of gross tree scale.

SOUTHERN PINE TREE GRADES												
(All pines except eastern white pine; includes redcedar and cypress)												
Face length	Grade 1	Grade 2	Grade 3									
16 ft. grading section (min. 12 ft)	3 or 4 clear faces*	1 or 2 clear faces*	No clear faces*									

After the tentative grade is established, the tree will be reduced one grade for each of the following:

Sweep – Degrade any tentative grade 1 or 2 tree one grade if sweep in the grading section amounts to 3 or more inches & equals or exceeds one-fourth the log diameter

Heart Rot – Degrade any tentative grade 1 or 2 tree one grade if conks, punk knots or other evidence of advanced heart rot is found anywhere on the tree stem

Note - No tree can be degraded below grade 3 provided the total scaling deductions for sweep and/or rot do not exceed two-thirds the gross scale of the tree. Trees with total scaling deductions in excess of two-thirds are classified as rough cull and are not graded

* A face is ¼ the circumference of the 16-ft grading section and extends the full length of the grading section. Clear faces are those free from knots measuring more than ½ inch in diameter, overgrown knots of any size and holes more than ¼ inch in diameter. Faces may be rotated, if necessary, to obtain the maximum number of clear faces on the grading section.

WHITE PINE	COLLAR DIAMET	ER LIMITS FO	R RED AND BLAC	K KNOTS
	GRADE 1	AND 2	GRAD	E 3
SCALING DIAMETER	BLACK KNOTS	RED KNOTS	BLACK KNOTS	RED KNOTS
(D.I.B inches)	(1/12 scaling diameter)	(1/6 scaling diameter)	(1/6 scaling diameter)	(1/3 scaling diameter)
7	7/12"	1-1/16"	1-1/16"	2-1/3"
8	2/3"	1-1/3"	1-1/3"	2-2/3"
9	3/4"	1-1/2"	1-1/2"	3"
10	5/6"	1-2/3"	1-2/3"	3-1/3"
11	1-1/12"	1-5/6"	1-5/6"	3-2/3"
12	1"	2"	2"	4"
13	1-1/12"	2-1/6"	2-1/6"	4-1/3"
14	1-1/6"	2-1/3"	2-1/3"	4-2/3"
15	1-1/4"	2-1/2"	2-1/2" MAX	5" MAX
16	1-1/3"	2-2/3"		
17	1-5/12"	2-5/6"		
18	1-1/2" MAX	3" MAX		

Red knots – visible branches, stubs or sockets that are from living branches or branches that have recently died. They are intergrown with the surrounding wood and contain no rot.

Black knots - Visible branches, stubs or sockets that do not conform to the definition of sound red knots

Overgrown knots - Identified by a distinctive circular/elliptical pattern in the bark

and are treated the same as dead knots

Average diameter or red and black knots - Measured at the point where the limb would normally be trimmed from the main stem.

	PERCENT BOARD-FOOT CULL OF <u>HARDWOOD SAWTIMBER</u> BY 4-FT. SECTION & LOCATION IN THE TREE																
LOG	(FT)	1 st	2 ^{ed}	3 ^{ed}	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th
1	(16)	29	26	24	21												
1 1/2	(24)	19	18	16	16	16	15										
2	(32)	15	14	13	13	12	12	11	10								
2 ½	(40)	12	12	11	11	10	10	9	9	8	8						
3	(48)	12	10	10	9	9	9	8	7	7	7	6	5				
3 1/2	(56)	10	10	9	9	9	8	8	7	7	6	5	5	4	3		
4	(64)	9	9	9	8	8	7	7	7	6	6	5	5	4	4	3	3

	PERCENT BOARD-FOOT CULL OF <u>SOFTWOOD SAWTIMBER</u> BY 4-FT. SECTION & LOCATION IN THE TREE																
LOG	(FT)	1 st	2 ^{ed}	3 ^{ed}	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th
1	(16)	33	27	21	19												
1 ½	(24)	26	20	16	15	12	11										
2	(32)	21	17	14	12	10	9	9	8								
2 ½	(40)	19	15	12	10	9	8	7	7	7	6						
3	(48)	16	13	11	10	8	7	7	6	6	6	5	5				
3 1/2	(56)	13	12	10	9	7	7	6	6	6	5	5	5	5	4		
4	(64)	10	9	9	8	7	7	6	6	6	5	5	5	5	4	4	4

PER	PERCENT OF CUBIC-FOOT CULL VOLUME FOR <u>ALL TREES</u> BY 4-FT. SECTION & LOCATION IN THE TREE																	
HEIGHT (FT)	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th	17 th	18 th
8	57	43																
12	42	32	26															
16	30	26	23	21														
20	26	23	21	19	11													
24	24	21	18	17	10	10												
28	21	19	17	16	10	9	8											
32	20	18	16	14	10	8	7	7										
36	19	16	14	13	9	8	8	7	6									
40	17	15	13	12	9	8	7	7	6	6								
44	16	14	12	11	9	7	7	7	6	6	15							
48	15	13	12	10	8	7	7	6	6	6	5	5						
52	14	12	11	9	8	7	6	6	6	6	5	5	5					
56	13	11	10	9	8	6	6	6	6	6	5	5	5	4				
60	12	11	10	9	7	6	6	6	6	5	5	5	5	4	4			
64	11	10	9	9	7	6	6	6	5	5	5	5	5	4	4	4		
68	10	10	9	8	6	6	6	5	5	5	5	5	4	4	4	4	4	
72	10	9	9	8	6	6	6	5	5	5	4	4	4	4	4	4	4	4

		BOA	RD FO	от vo	LUME	OF SH	ORT L	ogs		
D.I.B. Sm.			LENG	STH OF	LOG	OR SE	CTION	(FT.)		
End	1	2	3	4	6	8	10	12	14	16
6	1	2	2	3	5	8	10	13	16	19
7	1	3	4	5	8	12	15	19	24	28
8	2	4	6	8	12	17	22	27	33	39
9		5	8	10	16	22	29	36	43	51
10	3	7	10	13	21	29	37	46	55	65
11	4	9	13	17	26	36	46	57	68	80
12	5	10	16	21	32	44	57	69	83	97
13	6	13	19	25	39	53	68	83	99	115
14	8	15	23	30	46	63	80	98	117	136
16	10	20	31	41	62	84	108	131	158	181
18	13	26	40	53	81	109	139	169	200	232
20	17	33	50	67	102	137	174	212	251	290
22	21	41	62	82	125	169	214	259	306	354
24	25	50	74	99	151	203	257	311	368	424
26	29	59	88	118	179	241	304	368	435	501
28	35	69	104	138	210	281	356	430	507	584
30	40	80	120	160	243	325	411	497	585	674
32	46	92	137	183	278	373	470	568	669	770
34	52	104	156	208	316	423	534	644	758	872
36	59	117	176	235	356	477	601	725	853	981
38	66	132	197	263	398	533	672	811	954	1096
40	73	146	220	293	443	593	747	902	1060	1218

TREES	IZE			V	OLUN	IE DIS	STRIE	BUTIC	N		
DO: T	LOG				Е	OLT N	UMBE	R			
BOLT 8'	16'	1	2	3	4	5	6	7	8	9	10
o	10			PER	CENT	OF TH	E TRE	E VOL	UME		
2	1	56	44								
3	1 1/2	41	33	26							
4	2	33	28	22	17						
5	2 1/2	27	23	19	17	14					
6	3	24	21	18	15	12	10				
7	3 1/2	22	19	17	14	12	9	7			
8	4	20	18	15	13	11	9	8	6		
_	5	18	15	13	12	10	9	8	6	5	3

		CUBIC	C F00	T VOL	UME	OF SH	IORT	LOGS		
D.I.B. Mid-			LENG ⁻	TH OF	LOG	OR SE	CTIO	N (FT.))	
point	1	2	3	4	6	8	10	12	14	16
4	0.1	0.2	0.3	0.3	0.5	-	-	-	-	-
5	0.1	0.3	0.4	0.5	0.8	1.1	1.4	1.6	1.9	2.2
6	0.2	0.4	0.6	8.0	1.2	1.6	2.0	2.4	2.7	3.1
7	0.3	0.5	8.0	1.1	1.6	2.1	2.7	3.2	3.7	4.3
8	0.3	0.7	1.0	1.4	2.1	2.8	3.5	4.2	4.9	5.6
9	0.4	0.9	1.3	1.8	2.7	3.5	4.4	5.3	6.2	7.1
10	0.5	1.1	1.6	2.2	3.3	4.4	5.5	6.5	7.6	8.7
12	0.8	1.6	2.1	3.1	4.7	6.3	7.9	9.4	11	13
14	1.1	2.1	3.2	4.3	6.4	8.6	11	13	15	17
16	1.4	2.8	4.2	5.6	8.4	11	14	17	20	22
18	1.8	3.5	5.3	7.1	11	14	18	21	25	28
20	2.2	4.4	6.5	8.7	13	18	22	26	30	35
22	2.6	5.3	7.9	11	16	21	26	32	37	42
24	3.1	6.3	9.4	13	19	25	31	38	44	50
26	3.7	7.4	11	15	22	30	37	44	52	59
28	4.3	8.6	13	17	26	34	43	51	60	68
30	4.9	9.8	15	20	30	39	49	59	69	78
32	5.6	11	17	22	34	45	56	67	78	89
34	6.3	13	19	25	38	50	63	76	88	101
36	7.1	14	21	28	42	56	71	85	99	113
38	7.9	16	24	32	47	63	79	94	110	126
40	8.7	18	26	35	52	70	87	105	122	140

											Р	LO	ΤL	ΕV	EL	DA [·]	TA											
PLOT TYPE	STATE	CYCLE	PANEL	COUNTY	PLOT NUMBER	PHASE	PLOT STATUS	PLOT NONSAMPLED REASON	SAMPLE KIND	FIELD GUIDE VERSION	PLOT IN CORRECT COUNTY?	CORRECT COUNTY	CURRENT DATE	PAST DATE	QA STATUS	CREW TYPE	CRUISER/ASST NUMBERS	NUMBER OF ACCESSIBLE FOREST LAND CONDITIONS	NUMBER OF TREE ENTRIES	NUMBER OF PRISM POINTS REMEASURED	NUMBER OF SUBPLOT CENTERS REVERTED		URBAN OR BUILT-UP TAIN TAIN TAIN TAIN TAIN TAIN TAIN TAIN		PLOT ACCESSIBILITY	PRESENT LAND USE @ PC	CONDITION CLASS STATUS @ PC	PLOT LEVEL NOTES
ITEM NUMBER	1.1	1.19	1.20	1.2	1.3	1.21	1.4	1.5	1.7	1.9	1.22	1.23	1.10	1.24	1.14	1.15	1.25/26	1.27	1.28	1.29	1.30	1.12	1.31	1.32	1.33	2.5.25	2.4.2	1.18
Forest	Х	Х	Х	Х	Х	Х	1		Х	Х	Х	Х	Х	@	Х	Х	Х	Х	Х	\$	\$	Х	Х	Х	Х			Х
Landclearing	Χ	Χ	Χ	Χ	Χ	Х	4		Χ	Х	Х	Х	Х	@	Χ	Χ	Х		Χ	\$					Х			Х
Nonforest	Χ	Χ	Χ	Χ	Χ	Х	2		Χ	Х	Х	Х	Х	@	Χ	Χ	Х								Χ	Х	Х	Х
Nonsampled	Χ	Х	Χ	Х	Х	Х	3	Х	Х	Х	Х	Х	Х	@	Χ	Х	Х									Х	Х	Х
Intensification	Χ	Х	Χ	Χ	Х		5			Х	Х	Х	Х		Χ	Х	Х									Х	Х	Х

@ Sample Kind = 2, 8, or 9 \$ Sample Kind = 9 only

 \Rightarrow GPS must be completed for all plot types except intensifications \Leftarrow

								C		OITI																
CONDITION STATUS	CONDITION CLASS NUMBER	PRESENT LAND USE	CONDITION CLASS STATUS	CONDITION NONSAMPLED REASON	RESERVED STATUS	OWNER CLASS	OWNER GROUP	PRIVATE OWNER INDUSTRIAL STATUS	TRACT SIZE (TOTAL ACRES)	TRACT SIZE (PERCENT FOREST)	FOREST TYPE	STAND SIZE CLASS	REGENERATION STATUS	ARTIFICIAL REGENERATION SPECIES	TREE DENSITY	STAND AGE	STAND STRUCTURE	DISTURBANCE	DISTURBANCE YEAR	TREATMENT	TREATMENT 1 YEAR	PHYSIOGRAPHIC CLASS	OPERABILITY	SITE CLASS	FIRE	GRAZING
ITEM NUMBER	2.4.1	2.5.25	2.4.2	2.4.3	2.5.1	2.5.7	2.5.2	2.5.8	2.5.26	2.5.27	2.5.3	2.5.4	2.5.5	2.5.9	2.5.6	2.5.10	2.5.28	2.5.11	2.5.12	2.5.17	2.5.18	2.5.23	2.5.29	2.5.30	2.5.31	2.5.32
Forest	Х	Х	1		Х	Χ	Χ	Χ	#	#	Χ	Х	Χ	Χ	Х	Х	Χ	Χ	Х	Х	Х	Χ	Χ	Х	Х	Х
Nonforest	Х	Х	2																							
Noncensus water	X	Х	3																							
Census water	Х	Х	4																							
Nonsampled	Х	Х	5	Х																						
# When Private Owner	r Indus	strial S	tatus =	= 0																						

SU	_	_OT				1					
MANUAL SECTION AND SUBPLOT STATUS	SUBPLOT NUMBER	SUBPLOT STATUS	SUBPLOT NONSAMPLED REASON	SUBPLOT CENTER CONDITION	MICROPLOT CENTER CONDITION	SUBPLOT CONDITION CLASS LIST	SUBPLOT SLOPE	SUBPLOT ASPECT	SNOW/WATER DEPTH	NONNAVTIVE INVASIVE PLANTS	NONNATIVE INVASIVE PERCENT COVERAGE
ITEM NUMBER	3.1	3.2	3.3	3.4	3.5	3.9	3.6	3.7	3.8	3.10	3.11
Sampled w/ accessible forest condition	Х	1		Х	Х	Х	Х	Х	Х	Х	Х
Sample w/o accessible forest condition	Х	2		Х	Х						
Nonsampled	Х	3	Х	Х	Х						
Replacement w/ accessible forest condition	Х	9		Х	Х	Х	Х	Х	Х	Х	Х

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fir spp.	balsam fir	Fraser fir	Atlantic white-cedar	Arizona cypress	redcedar / juniper spp.	redberry juniper (w)	Ashe juniper	alligator juniper (w)	Rocky Mount. juniper (v	southern redcedar	eastern redcedar
0010	0012	0016	+0043	0051	0057	0029	0061	0063	9900	2900	0068

0099 oneseed jumper (w)
0091 Norway spruce
0094 white spruce
0095 black spruce
0095 black spruce
0096 blue spruce
0097 red spruce
0097 red spruce
0107 sand pine spp.
0106 common pinyon (w)
+0107 sand pine
0111 slash pine
0113 limber pine
0113 limber pine
0114 slash pine
0115 spruce pine
0115 spruce pine
0125 pruce pine
0125 red pine
0126 spruce pine
0129 castem white pine
0129 castem white pine
0129 varian-pine
0130 Virginia pine
0132 Virginia pine
0132 Virginia pine
0132 Virginia pine
0134 Austrian-pine
0144 Caribbean pine er (w)

411. red hickory
423 couthern shagbark hickory
420 cheshutt spp.
421 American cheshutt
422 Allegheny chinkapin
423 Ozark chinkapin
424 Chinese chestnut
426 chalge spp.
426 southern catalpa
426 northern catalpa
426 northern catalpa
427 northern catalpa
428 northern catalpa
428 northern catalpa
429 northern catalpa
420 northern catalpa
420 northern catalpa
421 southern catalpa
422 northern catalpa
423 sackberry
424 southern catalpa
425 northern catalpa
426 southern catalpa
427 leackberry
428 northern catalpa
428 northern catalpa
428 savemp mahagany
429 northern spp.
429 persimmon spp.
429 persimmon spp.
420 northern spp.
421 common persimmon
422 Texas persimmon
423 lanck ash
4245 bumpkin ash
4245 bumpkin ash
4245 bumpkin ash
4245 bumpkin ash
4246 cucust spp.
4251 valvat ash
4246 surant-cucust
4252 northern sash
4246 surant-cucust
4254 surant-cucust
4256 libit ash
4256 surant-cucust
4256 libit ash
4256 surant-cucust
4257 surant-cucus

northern white-cedar 0220 cypress sp. 0221 baldcypress 0222 pondcypress 0232 Florida yew 0241 northern white pondcypress

0252 Florida torraya 0260 hemlock spp. 0261 eastern hemlock 0262 Carolina hemlock 0299 unknown dead conifer

0303 sweet acacia (w) 0310 maple spp. maple spp. Florida maple

0313 boxelder 0314 black maple 0315 striped maple 0316 red maple 0317 silver maple

two-wing silverbell American holly

0582 1

walnut spp.

Carolina silverbell

0580 silverbell 0581 Carolina si

mountain maple 320 Norway maple 0318 sugar maple 0319 mountain ma

chalk maple

0605 Texas walnut yellow-poplar magnolia spp. cucumbertree

black walnut

butternut

Ohio buckeye

yellow buckeye

buckeye/horsechestnut spp

Fexas buckeye

mimosa, silktree ailanthus

serviceberry spp. European alder

southern magnolia

Osage-orange

+0611 sweetgum +0621 yellow-poplar 0641 Osage-orang 0650 magnolia spp 0651 cucumbertree

mountain magnolia

0657

sweetbay

vawpaw

apple spp. southern crabapple

0663 sweet crabapple 0664 prairie crabapple

mulberry spp. white mulberry

umbrella magnolia pyramid magnolia

yellow birch sweet birch water birch paper bich river birch)323)330)331)332)334)341)345)356)367)372)373)374)375)375

chittamwood/gum bumelia American hornbeam, blue Virginia roundleaf birch gray birch

TREE LEVEL SUMMARY

3694 lowland blackgum

0711 sourwood ironwood

mockernut hickory

black hickory

0409 mockernut hicko 0410 sand hickory 0411 scrub hickory

shagbark hickory

nutmeg hickory

shellbark hickory

bitternut hickory

pignut hickory

3863 pigeon plum, tietongue 0712 paulownia, empress-tree 0720 bay spp. 0721 redbay (swamp tupelo) 0701 eastern hophornbeam,

0865 geiger tree 0866 carrotwood 0873 red stopper 0874 inkwood, butterbough 0876 strangler fig 0877 shortleaf fig, wild banyan

0729 sycamore spp.
0731 sycamore conformation of the conformation

0722 water-elm, planertree

0743 bigtooth aspen 0744 swamp cottonwood 0745 planis cottonwood 0746 quaking aspen 0748 Rio Grande cottonwood,

0885 mango 0886 poisonwood 0887 fishpoison tree, 0888 schefflera, octopus tree 0890 false mastic 0891 white bully, willow bustic 0882 blolly, beeftree 0883 manchineel 3884 false tamarind

0895 paradise tree 0896 java plum 0897 tamarind 0901 black locust

0749 narrowleaf poplar

Fremont poplar

0906 paurotis palm 0907 silver palm 0908 coconut palm

0909 royal paim 0901 sable palmetto 0913 key thatch palm 0914 Florida thatch palm 0915 other palms 0920 willow 0921 pachlef willow 0922 black willow 0922 black willow 0923 Bebb willow 0924 red willow 0925 coastal plain willow 0925 coastal plain willow

0931 sassafras 0934 mountain ash spp. 0935 American mountain-ash 0936 European mountain-ash 0940 Mahogany 3929 weeping willow

0950 basswood spp.
0951 American basswood
0952 white basswood
0953 Carolina basswood
0970 elm spp.
0971 winged elm 0752. silver popper.
0753. silver popper.
0756. honey mesquite (w)
0757. evivet mesquite (w)
0758. honey mesquite (w)
0769. cherry and plum spp.
0761. pan cherry, if cherry
0762. black cherry
0763. chokecherry
0763. chokecherry
0764. Canada plum
0765. American plum
0766. American plum
0766. American plum
0771. sweet cherry, domesticated
0761. canada plum
0771. sweet cherry, domesticated
0780. pear spp.
0781. canada plum
0771. sweet cherry, domesticated
0780. callery pear
0781. callery pear
0780. callery pear
0800. art spp.
0800. cart spp.
0800. cart spp.
0800. cart coak
0801. cherrybark coak
0809. burthem pri oak
0819. turkey cak
0819. turkey cak
0820. burn cak
0821. shungle oak
0822. swamp chestnut oak
0823. bur cak
0823. bur cak
0824. blackjack cak
0825. chestnut oak
0826. chirkapin oak
0829. murand oak
0831. willow oak
0832. chestnut oak
0833. northern red cak
0833. northern red cak
0833. northern red cak
0834. oak spp.
0835. post cak
0835. post cak
0836. Delta post cak
0838. ive oak
0841. dwarf (sand) post cak
0843. silverleaf oak (w)
0844. Cyalrhapin cak
0845. dwarf (sand) post cak
0846. dwarf (sand) post cak
0847. silverleaf oak (w)
0848. dwarf (sand) post cak
0849. dwarf (sand) post cak
0840. cak spp.—evergreen (w)
0844. dwarf (sand) post cak
0845. dwarf chinkapin cak
0855. pond apple

0973 cadar elm
0974 Siberian elm
0975 Sippery elm
0976 September elm
0977 rock elm
0987 black mangrove
0987 buttonwood mangrove

0989 red mangrove 9092 melaleuca 0993 chinaberry 0994 Chinese tallowtree 0995 turq-oil-tree 0996 smoketree 0997 Russian oilve

 eligible site tree species
 indicates measure @ root collar. 0998 unknown dead hardwood 0999 other/unknown

TREE STATUS

No status Live tree Dead tree Utilized

0855 sheoak spp. 0856 gray sheoak 0857 Austrailian pine 0858 camphor tree

Ogeechee tupelo blackgum (upland)

beech, musclewood

0400 hickory spp.

gum, tupelo spp.

water tupelo

black mulberry

red mulberry

gumbo limbo sheoak spp.

RECONCILE (remeasurement only)

New offset micropid sapling only (SK = 8)

Ingrowth (tree has grown onto the plot)

Through growth (>5" on micropid only;

not tallied last survey)

Shrank (live trees only) Missed dead Missed live Missing

Procedural change Cruiser error

STANDING DEAD

Nonsampled

No – not standing dead Yes – standing dead

Variable Variable Less than 20% % bark remaining Variable Limb stubs only Broken Few or no stubs Broken None Broken Few limbs, no fine May be braches broken Top Decay Limbs & branches stage All present DECAY CLASS

DIAMETER CHECK

Diameter measured accurately Diameter estimated

Diameter measured @ different location than previous survey (remeasure trees only)

TREE CLASS

Growing stock Rough cull Rotten cull

LENGTH METHOD

Total & actual lengths field measured Total length est., actual length measured

Total length is generated in office, actual length measured (Standing dead with broken tops Total & actual lengths estimated

RUST & HARDWOOD DIEBACK INCIDENCE FUSIFORM / COMANDRA

Fusiform / Comandra rust (spp. 111 & Dieback (hardwoods only) 131 only)

7

DIEBACK SEVERITY

50-59 60-69 70-79 80-89 90-99

Disease damage Fire damage Weather damage CAUSE OF DEATH
10 Insect damage
20 Disease damage
30 Fire damage Animal damage

Unknown / not sure/ other Live landcleared tree Silvicultural activity

Nonsampled condition - status not known Utilized landcleared tree Dead landcleared tree

UTILIZATION CLASS

1 Commercial utilization
2 Non-commercial utilization

TABLE OF VARIABLE PLOT LIMITING DISTANCE RADII / SLOPE = 0
USE TABLE WITH PRISM TO DETERMINE IF TREE WAS ON PRISM PLOT 17.18 1212

2	100									
70		Horizo	Horizontal Distance	stance			Horizo	Horizontal Distance	stance	
o' O'S	20	09	99	20	100	20	09	99	20	100
200	Feet	to add i	n horizoi	-eet to add in horizontal distance	ance	ŭ	eet to ad	Feet to add in slope distance	e distanc	е
2	1.0	0.1	1.0	0.1	0.1	0.1	1.0	1.0	0.1	0.1
10	0.2	0.3	6.0	0.4	0.5	0.2	6.0	0.3	0.4	9.0
15	9.0	0.7	2.0	8.0	1.1	9.0	2.0	2.0	8.0	1.1
20	1.0	1.2	1.3	1.4	2.0	1.0	1.2	1.3	1.4	2.0
25	1.5	1.8	2.0	2.1	3.0	1.5	1.9	2.0	2.2	3.1
30	2.1	2.5	2.8	2.9	4.2	2.2	9.2	5.9	3.0	4.4
35	2.8	3.4	3.7	3.9	9.6	3.0	9.6	3.9	4.1	5.9
40	3.6	4.3	4.7	5.0	7.2	3.9	4.6	5.1	5.4	7.7
45	4.4	5.3	5.8	6.2	8.8	4.8	5.8	6.4	6.8	9.6
20	5.3	6.3	0.7	7.4	10.6	6.3	0.7	8.7	8.3	11.8
22	6.2	7.4	8.2	8.7	12.4	7.0	8.4	6.3	6.6	14.1
09	1.7	8.6	9.4	6.6	14.2	8.3	10.0	11.0	11.5	16.6
65	8.1	9.7	10.7	11.3	16.2	9.6	11.6	12.7	13.5	19.3
20	0.6	10.8	11.9	12.7	18.1	11.0	13.2	14.6	15.5	22.1
75	10.0	12.0	13.2	14.0	20.0	12.5	15.0	16.5	17.5	25.0
80	11.0	13.1	14.5	15.3	21.9	14.0	16.8	18.5	19.6	28.1
85	11.9	14.3	15.7	16.7	23.8	15.6	18.8	20.6	21.9	31.2
06	12.8	15.4	16.9	17.9	25.6	17.3	20.7	22.8	24.1	34.5
100	14.6	17.6	19.3	20.5	29.3	20.7	24.9	27.3	29.0	41.4
105	15.5	18.6	20.5	21.7	31.0	22.5	27.0	29.7	31.5	45.0
110	16.4	19.6	21.6	23.0	32.8	24.3	29.1	32.1	34.2	48.7
115	17.2	20.6	22.7	24.1	34.4	26.2	31.4	34.6	36.7	52.4
120	18.0	21.6	23.7	25.2	36.0	28.1	23.7	1.78	39.4	56.2

Sample Kinds 1, 3 and 2

			Sai	mple Ki	ind 1 ar	nd 3			s	ample k	(ind 2 R	emeasu	red tree	s			Sam	ple Kind	d 2 new	trees
tr	ns required for ALL ees located on the ed-radius subplot.	Item Number	Live sapling	Live pole	Live sawtimber	Standing dead	No status	Remeasured tree in a landclearing	Remeasured live sapling	Remeasured live pole	Remeasured live sawtimber	Remeasured standing standing	Remeasured standing dead/down	Mortality down (includes all mortality saplings)	Mortality pole/saw standing	Utilized	New live sapling	New live pole	New live sawtimber	New standing dead
Subp	lot Number	5.1	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Tree	Record Number	5.2	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Cond	ition Class Number	5.3	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Azim	uth	5.4	Х	Х	х	Х			Х	Х	Х	Х			Х		Х	Х	Х	Х
Horiz	ontal Distance	5.5	Х	Х	х	Х			Х	Х	Х	Х			Х		Х	Х	Х	Х
	Present	5.7	1	1	1	2	0	1 - 3	1	1	1	2	2	2	2	3	1	1	1	2
tatus	Previous	5.6					1 or 2	1 or 2	1	1	1	2	2	1	1	1 or 2				
Tree Status	Reconcile	5.7.1					&										1 or 3	1 - 3	1 - 3	1 - 4
1	Standing Dead	5.7.2				1						1	0	0	1					1
Spec	ies	5.8	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
	Present Diameter	5.9.2	Х	х	Х	Х			Х	Х	Х	Х			Х		Х	Х	Х	Х
eter	Previous	5.9.1					Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				
Diameter	Diameter Check	5.12	0 or 1	0 or 1	0 or 1	0 or 1			Х	Х	Х	Х			Х		0 or 1	0 or 1	0 or 1	0 or 1
	Length to Diameter Point	5.24	Х	Х	Х	Х			Х	Х	Х	Х			Х		Х	Х	Х	х
Tree	Class	5.34	Х	Х	х				Х	Х	Х						Х	Х	Х	@
Crow	n Class	5.17	Х	Х	х				Х	Х	Х						Х	Х	Х	
Com	pacted Crown Ratio	5.19	Х	Х	Х				Х	Х	Х						Х	Х	Х	
Tree	Grade	5.35			\$						\$								\$	
"	Board Foot	5.36			\$						\$								\$	
Cull	% Rotten/Missing	5.13		х	х					Х	Х			•	•			Х	Х	@
4	Total	5.14	Х	Х	х	Х			Х	Х	Х	Х			Х		Х	Х	Х	Х
ength	Actual	5.15	Х	Х	Х	Х			Х	Х	Х	Х			Х		Х	Х	Х	Х
97	Length Method	5.16	Х	Х	Х	Х			Х	Х	Х	Х			Х		Х	Х	Х	х
Fusif	orm/Rust/Dieback	5.37		х	Х					Х	Х							Х	Х	
Dieba	ack Severity	5.38		Х	Х					Х	Х							Х	Х	
Caus	e of Death	5.21						81-83*						Х	Х	80				@
Morta	ality Year	5.22						х						х	Х	Х				@
Deca	y class	5.23				Х						Х			Х					х
Utiliz	ation Class	5.39						%								Х				
—																				

^{\$} Record if TREE CLASS = 2

[•] Record if PREVIOUS DIAMETER \geq 5.0 in and length \geq 5 ft (Valid codes: 00 - 49, record 99 if \geq 50%)

[%] Record if CAUSE OF DEATH = 83

[&]amp; Record codes 5 - 8 for forested conditions, codes 7 - 8 for landcleared conditions where the tree should not have been tallied due to cruiser error or procedural change or code 9 for trees in a nonsampled condition

[@] Record if Reconcile = 1 - 3

^{*} Codes 10 - 70 also valid when TREE STATUS = 2

Sample Kinds 1, 3 and 8

											٠٠٠٠٢٠	•		1, 0	•															
			Sa	ımple ki	nd 1 an	d 3		s		Kind 8 R				es			nple Kii subplot				Sample nicroplo		g only		Old mid & n	oplot		n old m w onto subplo	new	New microplot sapling only
trees	required for ALL located on the -radius subplot.	Item Number	Live sapling	Live pole	Live sawtimber	Standing dead	No status	Remeasured tree in landclearing	Remeasured live pole	Remeasured live sawtimber	Remeasured standing dead/still standing	Remeasured standing dead/down	Mortality down	Mortality pole/saw standing	Utilized	New live pole	New live sawtimber	New standing dead	No status	Remeasured sapling in landclearing	Remeasured live sapling only	Missed live sapling	Mortality sapling/down	Utilized sapling	Remeasure live sapling in overlap	Missed live sapling in overlap	Remeasured live pole	Live sawtimber	Mortality pole/saw standing	Live sapling only
Subple	ot Number	5.1	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Tree F	Record Number	5.2	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Condi	ion Class Number	5.3	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Azimu	th	5.4	Х	Х	Х	Х			Х	Х	Х			Х		Х	Х	Х							▼	▼	Х	Х	Х	•
Horizo	ntal Distance	5.5	Х	Х	Х	Х			Х	Х	Х			Х		Х	Х	Х							▼	▼	Х	Х	Х	•
	Present	5.7	1	1	1	2	0	0	1	1	2	2	2	2	3	1	1	2							1	1	1	1	2	1
sm	Old Microplot	5.32																	0	1 - 3	1	1	2	3	1	1	1	1	2	
Status	Previous	5.6					1 or 2	1 or 2	1	1	2	2	1	1	1 or 2				1	1	1		1	1	1		1	1	1	
Tree	Reconcile	5.7.1					&									1 - 3	1 - 3	1 - 4	5 - 9			3				3				0
	Standing Dead	5.7.2				1					1	0	0	1				1					0						1	
Specie	es	5.8	Х	Х	Х	Х	Х	Х	Х	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
	Present Diameter	5.9.2.	Х	Х	Х	Х			Х	Х	Х			Х		Х	Х	Х			Х	Х			Х	Х	Х	Х	Х	Х
ter	Previous	5.9.3					Х	Х	Х	Х	Х	Х	Х	Х	Х				Х	Х	Х		Х	Х	Х		Х	Х	Х	
Diameter	Diameter Check	5.12	0 or 1	0 or 1	0 or 1	0 or 1			Х	Х	Х			Х		0 or 1	0 or 1	0 or 1			Х	Х			Х	Х	Х	Х	Х	0 or 1
ā	Length to Diameter	5.24	Х	Х	Х	Х			Х	х	Х			х		Х	Х	Х			х	Х			х	Х	х	х	Х	Х
Tree C	Point					,,					,																			
		5.34	X	X	X				X	X						X	X	@			X	Х			X	X	X	X		X
	Class acted Crown Ratio	5.17	X	X	X				X	X						X	X								X	X	X	X		X
Tree C		5.19	Х	Х	\$ \$				Х	X \$						^	\$ \$									Х	Х	x \$		^
Tiee C					\$					\$							\$											\$		
Cull	Board Foot	5.36		V						-																	_	-		
<u> </u>	% Rotten/Missing	5.13	V	X	X	V			X	X	V		•	•		X	X	@			V	V				V	X	X	V	
ath	Total	5.14	X	X	X	X			X	X	X			X		X	X	X			X	X			X	X	X	X	X	X
Length	Actual	5.15	X	X	X	X			X	X	X			X		X	X	X			X	X			X	X	X	X	X	X
	Length Method	5.16	Х	X	X	X			X	X	X			X		X	X	Х			Х	X			Х	X	X	X	X	X
	rm/Rust/Dieback	5.37		Х	X				X	X						X	X										Х	X		
	ck Severity	5.38		Х	Х				Х	Х						Х	Х										Х	Х		
	of Death	5.21						81-83*					Х	Х	80			@		81-83			Х	80					Х	
	ity Year	5.22						Х					Х	Х	Х			@		Х			Х	Х					Х	
Decay		5.23				Х					Х			Х				Х											Х	
Utiliza	tion Class	5.39						%							Х					%				Х						

^{\$} Record if TREE CLASS = 2

[●] Record 99 if length < 5 ft or cull ≥ 50%; otherwise, record % rotten/missing cull. Valid codes: 00 - 49

[%] Record if CAUSE OF DEATH = 83

[&]amp; Record codes 5 - 8 for forested conditions, codes 7 - 8 for landcleared conditions where the tree should not have been tallied due to cruiser error or procedural change or code 9 for trees in a nonsampled condition.

[@] Record if RECONCILE = 1 - 3

[▼] Azimuth and distance is from the new offset microplot

^{*} Codes 10 - 70 also valid when TREE STATUS = 2